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A few typographical errors have been corrected. They appear in the text [like this](#), and the explanation will appear when the mouse pointer is moved over the marked passage. Sections in Greek will yield a transliteration when the pointer is moved over them, and words using diacritic characters in the Latin Extended Additional block, which may not display in some fonts or browsers, will display an unaccented version.

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THE ENCYCLOPÆDIA BRITANNICA A DICTIONARY OF ARTS, SCIENCES, LITERATURE AND GENERAL INFORMATION ELEVENTH EDITION

VOLUME XV SLICE V

Joints to Justinian I.

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JOINTS, in anatomy. The study of joints, or articulations, is known as Arthrology (Gr. ἄρθρον), and naturally begins with the definition of a joint. Anatomically the term is used for any connexion between two or more adjacent parts of the skeleton, whether they be bone or cartilage. Joints may be immovable, like those of the skull, or movable, like the knee.

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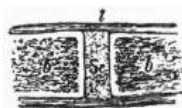


FIG. 1.—Vertical section through a synchondrosis. *b, b*, the two bones; *Sc*, the interposed cartilage; *l*, the fibrous membrane which plays the part of a ligament.



FIG. 2.—Vertical section through a cranial suture, *b, b*, the two bones; *s*, opposite the suture; *l*, the fibrous membrane, or periosteum, passing between the two bones, which plays the part of a ligament, and which is continuous with the interposed fibrous membrane.

Immovable joints, or *synarthroses*, are usually adaptations to growth rather than mobility, and are always between bones. When growth ceases the bones often unite, and the joint is then obliterated by a process known as *synostosis*, though whether the union of the bones is the cause or the effect of the stoppage of growth is obscure. Immovable joints never have a cavity between the two bones; there is simply a layer of the substance in which the bone has been laid down, and this remains unaltered. If the bone is being deposited in cartilage a layer of cartilage intervenes, and the joint is called *synchondrosis* (fig. 1), but if in membrane a thin layer of fibrous tissue persists, and the joint is then known as a *suture* (fig. 2). Good examples of synchondroses are the epiphysial lines which separate

the epiphyses from the shafts of developing long bones, or the occipito-sphenoid synchondrosis in the base of the skull. Examples of sutures are plentiful in the vault of the skull, and are given special names, such as *sutura dentata*, *s. serrata*, *s. squamosa*, according to the plan of their outline. There are two kinds of fibrous synarthroses, which differ from sutures in that they do not synostose. One of these is a *schindylesis*, in which a thin plate of one bone is received into a slot in another, as in the joint between the sphenoid and vomer. The other is a peg and socket joint, or *gomphosis*, found where the fangs of the teeth fit into the alveoli or tooth sockets in the jaws.

Movable joints, or *diarthroses*, are divided into those in which there is much and little movement. When there is little movement the term half-joint or *amphiarthrosis* is used. The simplest kind of amphiarthrosis is that in which two bones are connected by bundles of fibrous tissue which pass at right angles from the one to the other; such a joint only differs from a suture in the fact that the intervening fibrous tissue is more plentiful and is organized into definite bundles, to which the name of *interosseous ligaments* is given, and also that it does not synostose when growth stops. A joint of this kind is called a *syndesmosis*, though probably the distinction is a very arbitrary one, and depends upon the amount of movement which is brought about by the muscles on the two bones. As an instance of this the inferior tibio-fibular joint of mammals may be cited. In man this is an excellent example of a syndesmosis, and there is only a slight play between the two bones. In the mouse there is no movement, and the two bones form a synchondrosis between them which speedily becomes a synostosis, while in many Marsupials there is free mobility between the tibia and fibula, and a definite synovial cavity is established. The other variety of amphiarthrosis or half-joint is the *symphysis*, which differs from the syndesmosis in having both bony surfaces lined with cartilage and between the two cartilages a layer of fibro-cartilage, the centre of which often softens and forms a small synovial cavity. Examples of this are the symphysis pubis, the mesosternal joint, and the joints between the bodies of the vertebrae (fig. 3).

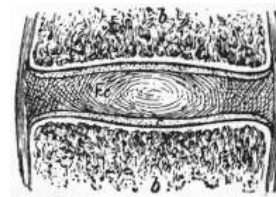


FIG. 3.—Vertical section through an amphiarthrodial joint. *b, b*, the two bones; *c, c*, the plate of cartilage on the articular surface of each bone; *Fc*, the intermediate fibro-cartilage; *l, l*, the external ligaments.

The *true diarthroses* are joints in which there is either fairly free or very free movement. The opposing surfaces of the bones are lined with articular cartilage, which is the unossified remnant of the cartilaginous model in which they are formed and is called the *cartilage of encrustment* (fig. 4, *c*). Between the two cartilages is the *joint cavity*, while surrounding the joint is the *capsule* (fig. 4, *l*), which is formed chiefly by the superficial layers of the original periosteum or perichondrium, but it may be strengthened externally by surrounding fibrous structures, such as the tendons of muscles, which become modified and acquire fresh attachments for the purpose. It may be said generally that the greater the intermittent strain on any part of the capsule the more it responds by increasing in thickness. Lining the interior of the capsule, and all other parts of the joint cavity except where the articular cartilage is present, is the *synovial membrane* (fig. 4, dotted line); this is a layer of endothelial cells which secrete the synovial fluid to lubricate the interior of the joint by means of a small percentage of mucin, albumin and fatty matter which it contains.

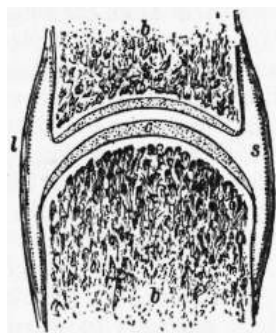


FIG. 4.—Vertical section through a diarthrodial joint. *b, b*, the two bones; *c, c*, the plate of cartilage on the articular surface of each bone; *l, l*, the investing ligament, the dotted line within which represents the synovial membrane. The letter *s* is placed in the cavity of the joint.

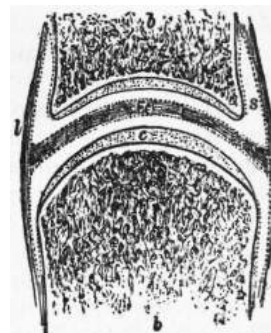


FIG. 5.—Vertical section through a diarthrodial joint, in which the cavity is subdivided into two by an interposed fibro-cartilage or meniscus, *Fc*. The other letters as in fig. 4.

A *compound diarthrodial joint* is one in which the joint cavity is divided partly or wholly into two by a *meniscus* or *interarticular fibro-cartilage* (fig. 5, *Fc*).

The shape of the joint cavity varies greatly, and the different divisions of movable joints depend upon it. It is often assumed that the structure of a joint determines its movement, but there is something to be said for the view that the movements to which a joint is subject determine its shape. As an example of this it has been found that the mobility of the metacarpo-phalangeal joint of the thumb in a large number of working men is less than it is in a large number of women who use needles and thread, or in a large number of medical students who use pens and scalpels, and that the slightly movable thumb has quite a differently shaped articular surface from the freely movable one

(see *J. Anat. and Phys.* xxix. 446). R. Fick, too, has demonstrated that the concavity or convexity of the joint surface depends on the position of the chief muscles which move the joint, and has enunciated the law that when the chief muscle or muscles are attached close to the articular end of the skeletal element that end becomes concave, while, when they are attached far off or are not attached at all, as in the case of the phalanges, the articular end is convex. His mechanical explanation is ingenious and to the present writer convincing (see *Handbuch der Gelenke*, by R. Fick, Jena, 1904). Bernays, however, pointed out that the articular ends were moulded before the muscular tissue was differentiated (*Morph. Jahrb.* iv. 403), but to this Fick replies by pointing out that muscular movements begin before the muscle fibres are formed, and may be seen in the chick as early as the second day of incubation.

The freely movable joints (true diarthrosis) are classified as follows:—

(1) *Gliding joints (Arthrodia)*, in which the articular surfaces are flat, as in the carpal and tarsal bones.

(2) *Hinge joints (Ginglymus)*, such as the elbow and interphalangeal joints.

(3) *Condylloid joints (Condylarthrosis)*, allowing flexion and extension as well as lateral movement, but no rotation. The metacarpo-phalangeal and wrist joints are examples of this.

(4) *Saddle-shaped joints (Articulus sellaris)*, allowing the same movements as the last with greater strength. The carpo-metacarpal joint of the thumb is an example.

(5) *Ball and socket joints (Enarthrosis)*, allowing free movement in any direction, as in the shoulder and hip.

(6) *Pivot-joint (Trochoides)*, allowing only rotation round a longitudinal axis, as in the radio-ulnar joints.

Embryology.

Joints are developed in the mesenchyme, or that part of the mesoderm which is not concerned in the formation of the serous cavities. The synarthroses may be looked upon merely as a delay in development, because, as the embryonic tissue of the mesenchyme passes from a fibrous to a bony state, the fibrous tissue may remain along a certain line and so form a suture, or, when chondrification has preceded ossification, the cartilage may remain at a certain place and so form a synchondrosis. The diarthroses represent an arrest of development at an earlier stage, for a part of the original embryonic tissue remains as a plate of round cells, while the neighbouring two rods chondrify and ossify. This plate may become converted into fibro-cartilage, in which case an amphiarthrodial joint results, or it may become absorbed in the centre to form a joint cavity, or, if this absorption occurs in two places, two joint cavities with an intervening meniscus may result. Although, ontogenetically, there is little doubt that menisci arise in the way just mentioned, the teaching of comparative anatomy suggests that, phylogenetically, they originate as an ingrowth from the capsule pushing the synovial membrane in front of them. The subject will be returned to when the comparative anatomy of the individual joints is reviewed. In the human foetus the joint cavities are all formed by the tenth week of intra-uterine life.

ANATOMY

Joints of the Axial Skeleton.

The bodies of the vertebrae except those of the sacrum and coccyx are separated, and at the same time connected, by the *intervertebral disks*. These are formed of alternating concentric rings of fibrous tissue and fibro-cartilage, with an elastic mass in the centre known as the *nucleus pulposus*. The bodies are also bound together by *anterior* and *posterior common ligaments*. The odontoid process of the axis fits into a pivot joint formed by the anterior arch of the atlas in front and the *transverse ligament* behind; it is attached to the basioccipital bone by two strong *lateral check ligaments*, and, in the mid line, by a feebler *middle check ligament* which is regarded morphologically as containing the remains of the notochord. This *atlanto-axial joint* is the one which allows the head to be shaken from side to side. Nodding the head occurs at the *occipito-atlantal joint*, which consists of the two occipital condyles received into the cup-shaped articular facets on the atlas and surrounded by capsular ligaments. The neural arches of the vertebrae articulate one with another by the *articular facets*, each of which has a capsular ligament. In addition to these the laminae are connected by the very elastic *ligamenta subflava*. The spinous processes are joined by *interspinous ligaments*, and their tips by a *supraspinous ligament*, which in the neck is continued from the spine of the seventh cervical vertebra to the external occipital crest and protuberance as the *ligamentum nuchae*, a thin, fibrous, median septum between the muscles of the back of the neck.

The combined effect of all these joints and ligaments is to allow the spinal column to be bent in any direction or to be rotated, though only a small amount of movement occurs between any two vertebrae.

The heads of the ribs articulate with the bodies of two contiguous thoracic vertebrae and the disk between. The ligaments which connect them are called *costo-central*, and are two in number. The

anterior of these is the *stellate ligament*, which has three bands radiating from the head of the rib to the two vertebrae and the intervening disk. The other one is the *interarticular ligament*, which connects the ridge, dividing the two articular cavities on the head of the rib, to the disk; it is absent in the first and three lowest ribs.

The *costo-transverse ligaments* bind the ribs to the transverse processes of the thoracic vertebrae. The *superior costo-transverse ligament* binds the neck of the rib to the transverse process of the vertebra above; the *middle* or *interosseous* connects the back of the neck to the front of its own transverse process; while the *posterior* runs from the tip of the transverse process to the outer part of the tubercle of the rib. The inner and lower part of each tubercle forms a diarthrodial joint with the upper and fore part of its own transverse process, except in the eleventh and twelfth ribs. At the junction of the ribs with their cartilages no diarthrodial joint is formed; the periosteum simply becomes perichondrium and binds the two structures together. Where the cartilages, however, join the sternum, or where they join one another, diarthrodial joints with synovial cavities are established. In the case of the second rib this is double, and in that of the first usually wanting. The *mesosternal joint*, between the pre- and mesosternum, has already been given as an example of a symphysis.

Comparative Anatomy.—For the convexity or concavity of the vertebral centra in different classes of vertebrates, see **SKELETON**: *axial*. The intervertebral disks first appear in the Crocodilia, the highest existing order of reptilia. In many Mammals the middle fasciculus of the stellate ligament is continued right across the ventral surface of the disk into the ligament of the opposite side, and is probably serially homologous with the ventral arch of the atlas. A similar ligament joins the heads of the ribs dorsal to the disk. To these bands the names of anterior (ventral) and posterior (dorsal) *conjugal ligaments* have been given, and they may be demonstrated in a seven months' human foetus (see B. Sutton, *Ligaments*, London, 1902). The *ligamentum nuchae* is a strong elastic band in the Ungulata which supports the weight of the head. In the Carnivora it only reaches as far forward as the spine of the axis.

The **JAW JOINT**, or *temporo-mandibular articulation*, occurs between the sigmoid cavity of the temporal bone and the condyle of the jaw. Between the two there is an interarticular fibro-cartilage or meniscus, and the joint is surrounded by a capsule of which the outer part is the thickest. On first opening the mouth, the joint acts as a hinge, but very soon the condyle begins to glide forward on to the eminentia articularis (see **SKULL**) and takes the meniscus with it. This gliding movement between the meniscus and temporal bone may be separately brought about by protruding the lower teeth in front of the upper, or, on one side only, by moving the jaw across to the opposite side.

Comparative Anatomy.—The joint between the temporal and mandibular bones is only found in Mammals; in the lower vertebrates the jaw opens between the quadrate and articular bones. In the Carnivora it is a perfect hinge; in many Rodents only the antero-posterior gliding movement is present; while in the Ruminants the lateralizing movement is the chief one. Sometimes, as in the Ornithorhynchus, the meniscus is absent.

Joints of the Upper Extremity.

The *sterno-clavicular articulation*, between the presternum and clavicle, is a gliding joint, and allows slight upward and downward and forward and backward movements. The two bony surfaces are separated by a meniscus, the vertical movements taking place outside and the antero-posterior inside this. There is a well-marked capsule, of which the anterior part is strongest. The two clavicles are joined across the top of the presternum by an *interclavicular ligament*.

The *acromio-clavicular articulation* is also a gliding joint, but allows a swinging or pendulum movement of the scapula on the clavicle. The upper part of the capsule is strongest, and from it hangs down a partial meniscus into the cavity.

Comparative Anatomy.—Bland Sutton regards the interclavicular ligament as a vestige of the interclavicle of Reptiles and Monotremes. The menisci are only found in the Primates, but it must be borne in mind that many Mammals have no clavicle, or a very rudimentary one. By some the meniscus of the sterno-clavicular joint is regarded as the homologue of the lateral part of the interclavicle, but the fact that it only occurs in the Primates where movements in different planes are fairly free is suggestive of a physiological rather than a morphological origin for it.

The **SHOULDER JOINT** is a good example of the ball and socket or enarthrodial variety. Its most striking characteristic is mobility at the expense of strength. The small size of the glenoid cavity in comparison with the head of the humerus, and the great laxity of the capsule, favour this, although the glenoid cavity is slightly deepened by a fibrous lip, called the *glenoid ligament*, round its margin. The presence of the coracoid and acromial processes of the scapula, with the *coraco-acromial ligament* between them, serves as an overhanging protection to the joint, while the biceps tendon runs over the head of the humerus, inside the capsule, though surrounded by a sheath of synovial membrane. Were it not for these two extra safeguards the shoulder would be even more liable to dislocation than it is. The upper part of the capsule, which is attached to the base of the coracoid process, is thickened, and known as the *coracohumeral ligament*, while inside the front of the capsule are three folds of synovial membrane, called *gleno-humeral folds*.

Comparative Anatomy.—In the lower Vertebrates the shoulder is adapted to support rather than prehension and is not so freely movable as in the Primates. The tendon of the biceps has evidently

sunk through the capsule into the joint, and even when it is intra-capsular there is usually a double fold connecting its sheath of synovial membrane with that lining the capsule. In Man this has been broken through, but remains of it persist in the *superior gleno-humeral fold*. The *middle gleno-humeral fold* is the vestige of a strong ligament which steadies and limits the range of movement of the joint in many lower Mammals.

The ELBOW JOINT is an excellent example of the ginglymus or hinge, though its transverse axis of movement is not quite at right angles to the central axis of the limb, but is lower internally than externally. This tends to bring the forearm towards the body when the elbow is bent. The elbow is a great contrast to the shoulder, as the trochlea and capitellum of the humerus are closely adapted to the sigmoid cavity of the ulna and head of the radius (see [SKELETON: appendicular](#)); consequently movement in one plane only is allowed, and the joint is a strong one. The capsule is divided into anterior, posterior, and two lateral ligaments, though these are all really continuous. The joint cavity communicates freely with that of the superior radio-ulnar articulation.

The *radio-ulnar joints* are three: the upper one is an example of a pivot joint, and in it the disk-shaped head of the radius rotates in a circle formed by the lesser sigmoid cavity of the ulna internally and the *orbicular ligament* in the other three quarters.

The *middle radio-ulnar articulation* is simply an interosseous membrane, the fibres of which run downward and inward from the radius to the ulna.

The *inferior radio-ulnar joint* is formed by the disk-shaped lower end of the ulna fitting into the slightly concave sigmoid cavity of the radius. Below, the cavity of this joint is shut off from that of the wrist by a *triangular fibro-cartilage*. The movements allowed at these three articulations are called pronation and supination of the radius. The head of that bone twists, in the orbicular ligament, round its central vertical axis for about half a circle. Below, however, the whole lower end of the radius circles round the lower end of the ulna, the centre of rotation being close to the styloid process of the ulna. The radius, therefore, in its pronation, describes half a cone, the base of which is below, and the hand follows the radius.

Comparative Anatomy.—In pronograde Mammals the forearm is usually permanently pronated, and the head of the radius, instead of being circular and at the side of the upper end of the ulna, is transversely oval and in front of that bone, occupying the same place that the coronoid process of the ulna does in Man. This type of elbow, which is adapted simply to support and progression, is best seen in the Ungulata; in them both lateral ligaments are attached to the head of the radius, and there is no orbicular ligament, since the shape of the head of the radius does not allow of any supination. The olecranon process of the ulna forms merely a posterior guide or guard to the joint, but transmits no weight. No better example of the maximum changes which the uses of support and prehension bring about can be found than in contrasting the elbow of the Sheep or other Ungulate with that of Man. Towards one or other of these types the elbows of all Mammals tend. It may be roughly stated that, when pronation and supination to the extent of a quarter of a circle are possible, an orbicular ligament appears.

The WRIST JOINT, or *radio-carpal articulation*, lies between the radius and triangular fibro-cartilage above, and the scaphoid, semilunar, and cuneiform bones below. It is a condyloid joint allowing flexion and extension round one axis, and slight lateral movement (abduction and adduction) round the other. There is a well-marked capsule, divided into anterior, posterior, and lateral ligaments. The joint cavity is shut off from the inferior radio-ulnar joint above, and the intercarpal joints below.

The *intercarpal joints* are gliding articulations, the various bones being connected by palmar, dorsal, and a few interosseous ligaments, but only those connecting the first row of bones are complete, and so isolate one joint cavity from another. That part of the intercarpal joints which lies between the first and second rows of carpal bones is called the *transverse carpal joint*, and at this a good deal of the movement which seems to take place at the wrist really occurs.

The *carpo-metacarpal articulations* are, with the exception of that of the thumb, gliding joints, and continuous with the great intercarpal joint cavity. The carpo-metacarpal joint of the thumb is the best example of a saddle-shaped joint in Man. It allows forward and backward and lateral movement, and is very strong.

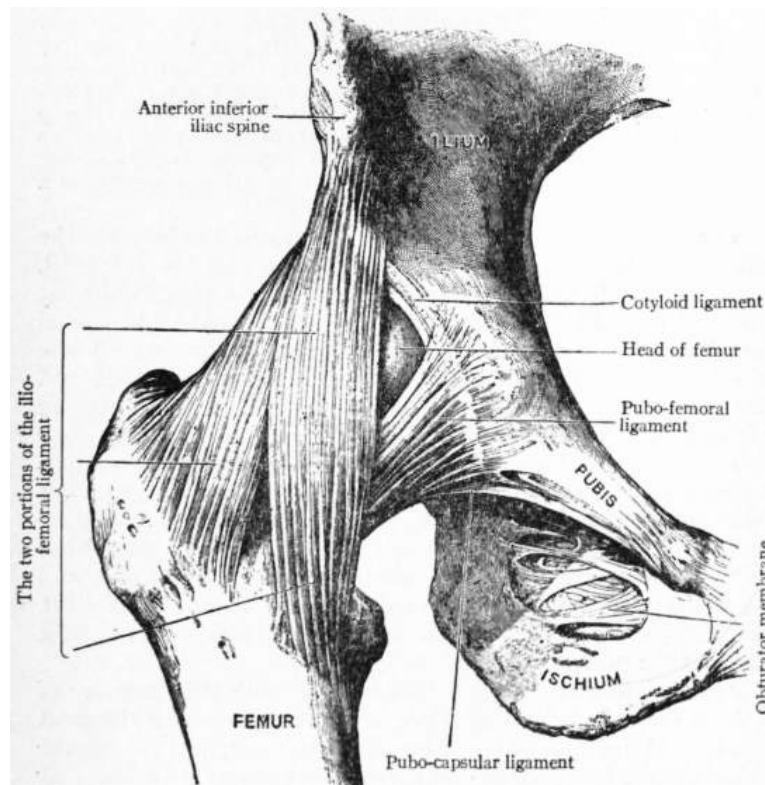
The *metacarpo-phalangeal joints* are condyloid joints like the wrist, and are remarkable for the great thickness of the palmar ligaments of their capsules. In the four inner fingers these *glenoid ligaments*, as they are called, are joined together by the *transverse metacarpal ligament*.

The *interphalangeal articulations* are simple hinges surrounded by a capsule, of which the dorsal part is very thin.

Comparative Anatomy.—The wrist joint of the lower Mammals allows less lateral movement than does that of Man, while the lower end of the ulna is better developed and is received into a cup-shaped socket formed by the cuneiform and pisiform bones. At the same time, unless there is pretty free pronation and supination, the triangular fibro-cartilage is only represented by an interosseous ligament, which may be continuous above with the interosseous membrane between the radius and ulna, and suggests the possibility that the fibro-cartilage is largely a derivative of this membrane. In most Mammals the wrist is divided into two lateral parts, as it is in the human foetus, but free pronation and supination seem to cause the disappearance of the septum.

The *sacro-innominate articulation* consists of the *sacro-iliac joint* and the *sacro-sciatic ligaments*. The former is one of the amphiarthroses or half-joints by which the sacrum is bound to the ilium. The mechanism of the human sacrum is that of a suspension bridge slung between the two pillars or ilia by the very strong *posterior sacro-iliac ligaments* which represent the chains. The axis of the joint passes through the second sacral vertebra, but the sacrum is so nearly horizontal that the weight of the body, which is transmitted to the first sacral vertebra, tends to tilt that part down. This tendency is corrected by the great and small *sacro-sciatic ligaments*, which fasten the lower part of the sacrum to the tuberosity and spine of the ischium respectively, so that, although the sacrum is a suspension bridge when looked at from behind, it is a lever of the first kind when seen from the side or in sagittal section.

The *pubic symphysis* is the union between the two pubic bones. It has all the characteristics of a symphysis, already described, and may have a small median cavity.



(From David Hepburn, Cunningham's *Text-book of Anatomy*.)

FIG. 6.—Dissection of the Hip Joint from the front.

The HIP JOINT, like the shoulder, is a ball and socket, but does not allow such free movement; this is due to the fact that the socket or acetabulum is deeper than the glenoid cavity and that the capsule is not so lax. At the same time the loss of mobility is made up for by increased strength. The capsule has three thickened bands, of which the most important is the *ilio-femoral* or *Y-shaped ligament of Bigelow*. The stalk of the Y is attached to the anterior inferior spine of the ilium, while the two limbs are fastened to the upper and lower parts of the spiral line of the femur. The ligament is so strong that it hardly ever ruptures in a dislocation of the hip. As a plumb-line, dropped from the centre of gravity of the body, passes behind the centre of the hip joint, this ligament, lying as it does in front of the joint, takes the strain in Man's erect position. The other two thickened parts of the capsule are known as *pubo-femoral* and *ischio-femoral*, from their attachments. Inside the capsule, and deepening the margin of the acetabulum, is a fibrous rim known as the *cotyloid ligament*, which grips the spherical head of the femur and is continued across the cotyloid notch as the *transverse ligament*. The floor of the acetabulum has a horseshoe-shaped surface of articular cartilage, concave downward, and, occupying the "frog" of the horse's hoof, is a mass of fat called the *Haversian pad*. Attached to the inner margin of the horseshoe, and to the transverse ligament where that is deficient, is a reflexion of synovial membrane which forms a covering for the pad and is continued as a tube to the depression on the head of the femur called the *fossa capitis*. This reflexion carries blood-vessels and nerves to the femur, and also contains fibrous tissue from outside the joint. It is known as the *ligamentum teres*.

Comparative Anatomy.—Bland Sutton regards the *ilio-femoral ligament* as an altered muscle, the scansorius, though against this is the fact that, in those cases in which a scansorius is present in Man, the ligament is as strong as usual, and indeed, if it were not there in these cases, the erect position would be difficult to maintain. He also looks upon the *ligamentum teres* as the divorced tendon of the pectineus muscle. The subject requires much more investigation, but there is every reason to believe that it is a tendon which has sunk into the joint, though whether that of the pectineus is doubtful,

since the intra-capsular tendon comes from the ischium in Reptiles. In many Mammals, and among them the Orang, there is no ligamentum teres. In others, such as the Armadillo, the structure has not sunk right into the joint, but is connected with the pubo-femoral part of the capsule.

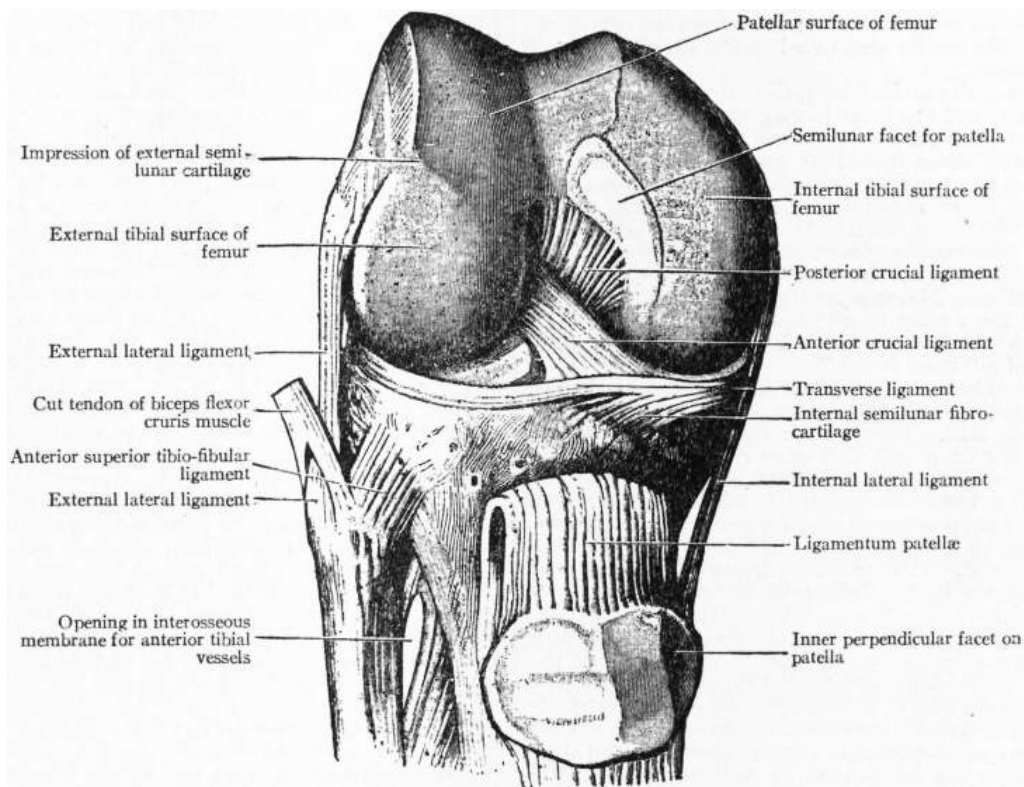
The KNEE JOINT is a hinge formed by the condyles and trochlea of the femur, the patella, and the head of the tibia. The capsule is formed in front by the ligamentum patellae, and on each side special bands form the lateral ligaments. On the outer side there are two of these: the anterior or *long external lateral ligament* is a round cord running from the external condyle to the head of the fibula, while the posterior is slighter and passes from the same place to the styloid process of the fibula. The *internal lateral ligament* is a flat band which runs from the inner condyle of the femur to the internal surface of the tibia some two inches below the level of the knee joint. The posterior part of the capsule is strengthened by an oblique bundle of fibres running upward and outward from the semimembranosus tendon, and called the *posterior ligament of Winslow*.

The intra-articular structures are numerous and interesting. Passing from the head of the tibia, in front and behind the spine, are the *anterior* and *posterior crucial ligaments*; the former is attached to the outer side of the intercondylar notch above, and the latter to the inner side. These two ligaments cross like an X. The *semilunar fibro-cartilages*—external and internal—are partial menisci, each of which has an anterior and a posterior cornu by which they are attached to the head of the tibia in front and behind the spine. They are also attached round the margin of the tibial head by a *coronary ligament*, but the external one is more movable than the internal, and this perhaps accounts for its coronary ligament being less often ruptured and the cartilage displaced than the inner one is. In addition to these the external cartilage has a fibrous band, called the *ligament of Wrisberg*, which runs up to the femur just behind the posterior crucial ligament. The external cartilage is broader, and forms more of a circle than the internal. The synovial cavity of the knee runs up, deep to the extensor muscles of the thigh, for about two inches above the top of the patella, forming the *bursa suprapatellaris*. At the lower part of the patella it covers a pad of fat, which lies between the ligamentum patellae and the front of the head of the tibia, and is carried up as a narrow tube to the lower margin of the trochlear surface of the femur. This prolongation is known as the *ligamentum mucosum*, and from the sides of its base spring two lateral folds called the *ligamenta alaria*. The tendon of the popliteus muscle is an intra-capsular structure, and is therefore covered with a synovial sheath. There are a large number of bursae near the knee joint, one of which, common to the inner head of the gastrocnemius and the semimembranosus, often communicates with the joint. The hinge movement of the knee is accompanied by a small amount of external rotation at the end of extension, and a compensatory internal rotation during flexion. This slight twist is enough to tighten up almost all the ligaments so that they may take a share in resisting over-extension, because, in the erect position, a vertical line from the centre of gravity of the body passes in front of the knee.

Comparative Anatomy.—In some Mammals, *e.g.* Bradypus and Ornithorhynchus, the knee is divided into three parts, two condylo-tibial and one trochleo-patellar, by synovial folds which in Man are represented by the ligamentum mucosum. In a typical Mammal the external *semilunar cartilage* is attached by its posterior horn to the internal condyle of the femur only, and this explains the *ligament of Wrisberg* already mentioned. In the Monkeys and anthropoid Apes this cartilage is circular. The *semilunar cartilages* first appear in the Amphibia, and, according to B. Sutton, are derived from muscles which are drawn into the joint. When only one kind of movement (hinge) is allowed, as in the fruit bat, the cartilages are not found. In most Mammals the superior tibio-fibular joint communicates with the knee.

The *tibio-fibular articulations* resemble the radio-ulnar in position but are much less movable. The superior in Man is usually cut off from the knee and is a gliding joint; the middle is the interosseous membrane, while the lower has been already used as an example of a syndesmosis or fibrous half joint.

The ANKLE JOINT is a hinge, the astragalus being received into a lateral arch formed by the lower ends of the tibia and fibula. Backward dislocation is prevented by the articular surface of the astragalus being broader in front than behind. The anterior and posterior parts of the capsule are feeble, but the lateral ligaments are very strong, the external consisting of three separate fasciculi which bind the fibula to the astragalus and calcaneum. To avoid confusion it is best to speak of the movements of the ankle as dorsal and plantar flexion.



(From D. Hepburn, *Cunningham's Text-book of Anatomy*.)

FIG. 7.—Dissection of the Knee-joint from the front: Patella thrown down.

The *tarsal joints* resemble the carpal in being gliding articulations. There are two between the astragalus and calcaneum, and at these inversion and eversion of the foot largely occur. The inner arch of the foot is maintained by a very important ligament called the *calcaneo-navicular* or *spring ligament*; it connects the sustentaculum tali of the calcaneum with the navicular, and upon it the head of the astragalus rests. When it becomes stretched, flat-foot results. The tarsal bones are connected by dorsal, plantar and interosseous ligaments. The *long* and *short calcaneocuboid* are plantar ligaments of special importance, and maintain the outer arch of the foot.

The *tarso-metatarsal*, *metatarso-phalangeal* and *interphalangeal joints* closely resemble those of the hand, except that the tarso-metatarsal joint of the great toe is not saddle-shaped.

Comparative Anatomy.—The anterior fasciculus of the external lateral ligament of the ankle is only found in Man, and is probably an adaptation to the erect position. In animals with a long foot, such as the Ungulates and the Kangaroo, the lateral ligaments of the ankle are in the form of an X, to give greater protection against lateral movement. In certain marsupials a fibro-cartilage is developed between the external malleolus and the astragalus, and its origin from the deeper fibres of the external lateral ligament of the ankle can be traced. These animals have a rotatory movement of the fibula on its long axis, in addition to the hinge movement of the ankle.

For further details of joints see R. Fick, *Handbuch der Gelenke* (Jena, 1904); H. Morris, *Anatomy of the Joints* (London, 1879); Quain's, Gray's and Cunningham's *Text-books of Anatomy*; J. Bland Sutton, *Ligaments, their Nature and Morphology* (London, 1902); F. G. Parsons, "Hunterian Lectures on the Joints of Mammals," *Journ. Anat. & Phys.*, xxxiv. 41 and 301.

(F. G. P.)

DISEASES AND INJURIES OF JOINTS

The affection of the joints of the human body by specific diseases is dealt with under various headings (*RHEUMATISM*, &c.); in the present article the more direct forms of ailment are discussed. In most joint-diseases the trouble starts either in the synovial lining or in the bone—rarely in the articular cartilage or ligaments. As a rule, the disease begins after an injury. There are three principal types of injury: (1) sprain or strain, in which the ligamentous and tendinous structures are stretched or lacerated; (2) contusion, in which the opposing bones are driven forcibly together; (3) dislocation, in which the articular surfaces are separated from one another.

A *sprain* or *strain* of a joint means that as the result of violence the ligaments holding the bones together have been suddenly stretched or even torn. On the inner aspect the ligaments are lined by a synovial membrane, so when the ligaments are stretched the synovial membrane is necessarily damaged. Small blood-vessels are also torn, and bleeding occurs into the joint, which may become full and distended. If, however, bleeding does not take place, the swelling is not immediate, but synovitis having been set up, serous effusion comes on sooner or later. There is often a good deal of heat of the surrounding skin and of pain accompanying the synovitis. In the case of a healthy individual the effects of a sprain may quickly pass off, but in a rheumatic or gouty person chronic synovitis may obstinately remain. In a person with a tuberculous history, or of tuberculous descent, a sprain is apt to be the beginning of serious disease of the joint, and it should, therefore, be treated with continuous

rest and prolonged supervision. In a person of health and vigour, a sprained joint should be at once bandaged. This may be the only treatment needed. It gives support and comfort, and the even pressure around the joint checks effusion into it. Wide pieces of adhesive strapping, layer on layer, form a still more useful support, and with the joint so treated the person may be able at once to use the limb. If strapping is not employed, the bandage may be taken off from time to time in order that the limb and the joint may be massaged. If the sprain is followed by much synovitis a plaster of Paris or leather splint may be applied, complete rest being secured for the limb. Later on, blistering or even "firing" may be found advisable.

Synovitis.—When a joint has been injured, inflammation occurs in the damaged tissue; that is inevitable. But sometimes the attack of inflammation is so slight and transitory as to be scarcely noticeable. This is specially likely to occur if the joint-tissues were in a state of perfect nutrition at the time of the hurt. But if the individual or the joint were at that time in a state of imperfect nutrition, the effects are likely to be more serious. As a rule, it is the synovial membrane lining the fibrous capsule of the joint which first and chiefly suffers; the condition is termed *synovitis*. Synovitis may, however, be due to other causes than mechanical injury, as when the interior of the joint is attacked by the micro-organisms of pyæmia (blood-poisoning), typhoid fever, pneumonia, rheumatism, gonorrhœa or syphilis. Under judicious treatment the synovitis generally clears up, but it may linger on and cause the formation of adhesions which may temporarily stiffen the joint; or it may, especially in tuberculous, septic or pyæmic infections, involve the cartilages, ligaments and bones in such serious changes as to destroy the joint, and possibly call for resection or amputation.

The symptoms of synovitis include stiffness and tenderness in the joint. The patient notices that movements cause pain. Effusion of fluid takes place, and there is marked fullness in the neighbourhood. If the inflammation is advancing, the skin over the joint may be flushed, and if the hand is placed on the skin it feels hot. Especially is this the case if the joint is near the surface, as at the knee, wrist or ankle.

The treatment of an inflamed joint demands rest. This may be conveniently obtained by the use of a light wooden splint, padding and bandages. Slight compression of the joint by a bandage is useful in promoting absorption of the fluid. If the inflamed joint is in the lower extremity, the patient had best remain in bed, or on the sofa; if in the upper extremity, he should wear his arm in a sling. The muscles acting on the joint must be kept in complete control. If the inflammation is extremely acute a few leeches, followed by a fomentation, will give relief; or an icebag or an evaporating lotion may, by causing constriction of the blood-vessels, lessen the congestion of the part and the associated pain. As the inflammation is passing off, massage of the limb and of the joint will prove useful. If the inflammation is long continued, the limb must still be kept at rest. By this time it may be found that some other material for the retentive apparatus is more convenient and comfortable, as, for instance, undressed leather which has been moulded on wet and allowed to dry and harden; poro-plastic felt, which has been softened by heat and applied limp, or house-flannel which has been dipped in a creamy mixture of plaster-of-Paris and water, and secured by a bandage.

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Chronic Disease of a Joint may be the tailing off of an acute affection, and under the influence of alternate douchings of hot and cold water, of counter-irritation by blistering or "firing," and of massage, it may eventually clear up, especially if the general health of the individual is looked after. But if chronic disease lingers in the joint of a child or young person, the probability of its being under the influence of tuberculous infection must be considered. In such a case prolonged and absolute rest is the one thing necessary. If the disease be in the hip, knee, ankle or foot, the patient may be fitted with an appropriate Thomas's splint and allowed to walk about, for it is highly important to have these patients out in the fresh air. If the disease be in the shoulder, elbow, wrist or hand, a leather or poro-plastic splint should be moulded on, and the arm worn in a sling. There must be no hurry; convalescence will need be slow. And if the child can be sent to a bracing sea-side place it will be much in his favour.

As the disease clears up, the surface heat, the pains and the tenderness having disappeared, and the joint having so diminished in size as to be scarcely larger than its fellow—though the wasting of the muscles of the limb may cause it still to appear considerably enlarged—the splint may be gradually left off. This remission may be for an hour or two every other day; then every other night; then every other day, and so on, the freedom being gained little by little, and the surgeon watching the case carefully. On the slightest indication of return of trouble, the former restrictive measures must be again resorted to. Massage and gentle exercises may be given day by day, but there must be no thought of "breaking down the stiffness." Many a joint has in such circumstances been wrecked by the manipulations of a "bone-setter."

Permanent Stiffness.—During the treatment of a case of chronic disease of a joint, the question naturally arises as to whether the joint will be left permanently stiff. People have the idea that if an inflamed joint is kept long on a splint, it may eventually be found permanently stiff. And this is quite correct. But it should be clearly understood that it is not the *rest* of the inflamed joint which causes the stiffness. The matter should be put thus: in tuberculous and other forms of chronic disease stiffness may ensue in spite of long-continued rest. It is the destructive disease, not the enforced rest which causes it; for inflammation of a joint rest is absolutely necessary.

The *Causes of permanent Stiffness* are the destructive changes wrought by the inflammation. In one case it may be that the synovial membrane is so far destroyed by the tuberculous or septic invasion that its future usefulness is lost, and the joint ever afterwards creaks at its work and easily becomes tired and painful. Thus the joint is crippled but not destroyed. In another case the ligaments and the cartilages are implicated as well as the synovial membrane, and when the disease clears up,

the bones are more or less locked, only a small range of motion being left, which forcible flexion and other methods of vigorous treatment are unable materially to improve. In another set of cases the inflammatory germs quickly destroy the soft tissues of the joint, and then invade the bones, and, the disease having at last come to an end, the softened ends of the bones solidly join together like the broken fragments in simple fracture. As a result, osseous solidification of the joint (*synostosis*) ensues without, of course, the possibility of any movement. And, inasmuch as the surgeon cannot tell in any case whether the disease may not advance in this direction, he is careful to place the limb in that position in which it will be most useful if the bony union should occur. Thus, the leg is kept straight, and the elbow bent.

In the course of a tuberculous or other chronic disease of a joint, the germs of septic disease may find access to the inflamed area, through a wound or ulceration into the joint, or by the germs being carried thither by the blood-stream. A *joint-abscess* results, which has to be treated by incision and fomentations. If chronic suppuration continues, it may become necessary to scrape out or to excise the joint, or even to amputate the limb. And if tuberculous disease of the joint is steadily progressing in spite of treatment, vigorous measures may be needed to prevent the fluid from quietly ulcerating its way out and thus inviting the entrance of septic germs. The fluid may need to be drawn off by aspiration, and direct treatment of the diseased synovial membrane may be undertaken by injections of chloride of zinc or some other reagent. Or the joint may need scraping out with a sharp spoon with the view of getting rid of the tuberculous material. Later, excision may be deemed necessary, or in extreme cases, amputation. But before these measures are considered, A. C. G. Bier's method of treatment by passive congestion, and the treatment by serum injection, will probably have been tried. If a joint is left permanently stiff in an awkward and useless position, the limb may be greatly improved by excision of the joint. Thus, if the knee is left bent and the joint is excised a useful, straight limb may be obtained, somewhat shortened, and, of course, permanently stiff. If after disease of the hip-joint the thigh remains fixed in a faulty position, it may be brought down straight by dividing the bone near the upper end. A stiff shoulder or elbow may be converted into a useful, movable joint by excision of the articular ends of the bones.

A *stiff joint* may remain as the result of long continued inflammation; the unused muscles are wasted and the joint in consequence looks large. Careful measurement, however, may show that it is not materially larger than its fellow. And though all tenderness may have passed away, and though the neighbouring skin is no longer hot, still the joint remains stiff and useless. No progress being made under the influence of massage, or of gentle exercises, the surgeon may advise that the lingering adhesion be broken down under an anaesthetic, after which the function of the joint may quickly return.

There are the cases over which the "bone-setter" secures his greatest triumphs. A qualified practitioner may have been for months judiciously treating an inflamed joint by rest, and then feels a hesitation with regard to suddenly flexing the stiffened limb. The "bone-setter," however, has no such qualms, and when the case passes out of the hands of the perhaps over-careful surgeon, the unqualified practitioner (because he, from a scientific point of view, knows nothing) fears nothing, and, breaking down inflammatory adhesions, sets the joint free. And his manipulations prove triumphantly successful. But, knowing nothing and fearing nothing, he is apt to do grievous harm in carrying out his rough treatment in other cases. Malignant disease at the end of a bone (sarcoma), tuberculosis of a joint, and a joint stiffened by old inflammation are to him the same thing. "A small bone is out of place," or, "The bone is out of its socket; it has never been put in," and a breaking down of everything that resists his force is the result of the case being taken to him. For the "bone-setter" has only one line of treatment. Of the improvement which he often effects as if by magic the public are told much. Of the cases over which the doctor has been too long devoting skill and care, and which are set free by the "bone-setter," everybody hears—and sometimes to the discomfiture of the medical man. But of the cases in which irreparable damage follows his vigorous manipulation nothing is said—of his rough usage of a tuberculous hip, or of a sarcomatous shoulder-joint, and of the inevitable disaster and disappointment, those most concerned are least inclined to talk! A practical surgeon with common-sense has nothing to learn from the "bone-setter."

Rheumatoid Arthritis, or chronic *Osteo-arthritis*, is generally found in persons beyond middle age; but it is not rare in young people, though with them it need not be the progressive disease which it too often is in their elders. It is an obscure affection of the cartilage covering the joint surfaces of the bones, and it eventually involves the bones and the ligaments. A favourite joint for it is the knee or hip, and when one large joint is thus affected the other joints may escape. But when the hands or feet are implicated pretty nearly all the small joints are apt to suffer. Whether the joint is large or small, the cartilages wear away and new bone is developed about the ends of the bones, so that the joint is large and mis-shapen, the fingers being knotted and the hands deformed. When the spine is affected it becomes bowed and stiff. This is the disease which has crippled the old people in the workhouses and almshouses, and with them it is steadily progressive. Its early signs are stiffness and creaking or cracking in the joints, with discomfort and pain after exercise, and with a little effusion into the capsule of the joint. As regards *treatment*, medicines are of no great value. Wet, cold and damp being bad for the patient, he should be, if possible, got into a dry, bright, sunny place, and he should dress warmly. Perhaps there is no better place for him in the winter than Assuan. Cairo is not so suitable as it used to be before the dam was made, when its climate was drier. For the spring and summer certain British and Continental watering-places serve well. But if this luxury cannot be afforded, the patient must make himself as happy as he can with such hot douchings and massage as he can obtain, keeping himself warm, and his joints covered by flannel bandages and rubbed with stimulating liniments. In people advanced or advancing in years, the disease, as a rule, gets slowly worse, sometimes very slowly, but sometimes rapidly, especially when it makes its appearance in the hip,

shoulder or knee as the result of an injury. In young people, however, its course may be cut short by attention being given to the principles stated above.

Charcot's Disease resembles osteo-arthritis in that it causes destruction of a joint and greatly deforms it. The deformity, however, comes on rapidly and without pain or tenderness. It is usually associated with the symptoms of locomotor ataxy, and depends upon disease of the nerves which preside over the nutrition of the joints. It is incurable.

A Loose Cartilage, or a Displaced Cartilage in the Knee Joint is apt to become caught in the hinge between the thigh bone and the leg bone, and by causing a sudden stretching of the ligaments of the joint to give rise to intense pain. When this happens the individual is apt to be thrown down as he walks, for it comes on with great suddenness. And thus he feels himself to be in a condition of perpetual insecurity. After the joint has thus gone wrong, bleeding and serous effusion take place into it, and it becomes greatly swollen. And if the cartilage still remains in the grip of the bones he is unable to straighten or bend his knee. But the surgeon by suddenly flexing and twisting the leg may manage to unhitch the cartilage and restore comfort and usefulness to the limb. As a rule, the slipping of a cartilage first occurs as the result of a serious fall or of a sudden and violent action—often it happens when the man is “dodging” at football, the foot being firmly fixed on the ground and the body being violently twisted at the knee. After the slipping has occurred many times, the amount of swelling, distress and lameness may diminish with each subsequent slipping, and the individual may become somewhat reconciled to his condition. As regards *treatment*, a tightly fitting steel cage-like splint, which, gripping the thigh and leg, limits the movements of the knee to flexion and extension, may prove useful. But for a muscular, athletic individual the wearing of this apparatus may prove vexatious and disappointing. The only alternative is to open the joint and remove the loose cartilage. The cartilage may be found on operation to be split, torn or crumpled, and lying right across between the joint-surfaces of the bones, from which nothing but an operation could possibly have removed it. The operation is almost sure to give complete and permanent relief to the condition, the individual being able to resume his old exercises and amusements without fear of the knee playing him false. It is, however, one that should not be undertaken without due consideration and circumspection, and the details of the operation should be carried out with the utmost care and cleanliness.

An accidental *wound of a joint*, as from the blade of a knife, or a spike, entering the knee is a very serious affair, because of the risk of septic germs entering the synovial cavity either at the time of the injury or later. If the joint becomes thus infected there is great swelling of the part, with redness of the skin, and with the escape of blood-stained or purulent synovia. Absorption takes place of the poisonous substances produced by the action of the germs, and, as a result, great constitutional disturbance arises. Blood-poisoning may thus threaten life, and in many cases life is saved only by amputation. The best treatment is freely to open the joint, to wash it out with a strong antiseptic fluid, and to make arrangement for thorough drainage, the limb being fixed on a splint. Help may also be obtained by increasing the patient's power of resistance to the effect of the poisoning by injections of a serum prepared by cultivation of the septic germs in question. If the limb is saved, there is a great chance of the knee being permanently stiff.

Dislocation.—The ease with which the joint-end of a bone is dislocated varies with its form and structure, and with the position in which it happens to be placed when the violence is applied. The relative frequency of fracture of the bone and dislocation of the joint depends on the strength of the bones above and below the joint relatively to the strength of the joint itself. The strength of the various joints in the body is dependent upon either ligament or muscle, or upon the shape of the bones. In the hip, for instance, all three sources of strength are present; therefore, considering the great leverage of the long thigh bone, the hip is rarely dislocated. The shoulder, in order to allow of extensive movement, has no osseous or ligamentous strength; it is, therefore, frequently dislocated. The wrist and ankle are rarely dislocated; as the result of violence at the wrist the radius gives way, at the ankle the fibula, these bones being relatively weaker than the respective joints. The wrist owes its strength to ligaments, the elbow and the ankle to the shape of the bones. The symptoms of a dislocation are distortion and limited movement, with absence of the grating sensation felt in fracture when the broken ends of the bone are rubbed together. The treatment consists in reducing the dislocation, and the sooner this replacement is effected the better—the longer the delay the more difficult it becomes to put things right. After a variable period, depending on the nature of the joint and the age of the person, it may be impossible to replace the bones. The result will be a more or less useless joint. The administration of an anaesthetic, by relaxing the muscles, greatly assists the operation of reduction. The length of time that a joint has to be kept quiet after it has been restored to its normal shape depends on its form, but, as a rule, early movement is advisable. But when by the formation of the bones a joint is weak, as at the outer end of the collar-bone, and at the elbow-end of the radius, prolonged rest for the joint is necessary or dislocation may recur.

Congenital Dislocation at the Hip.—Possibly as a result of faulty position of the subject during intra-uterine life, the head of the thigh-bone leaves, or fails throughout to occupy, its normal situation on the haunch-bone. The defect, which is a very serious one, is probably not discovered until the child begins to walk, when its peculiar rolling gait attracts attention. The want of fixation at the joint permits of the surgeon thrusting up the thigh-bone, or drawing it down in a painless, characteristic manner.

The first thing to be done is to find out by means of the X-rays whether a socket exists into which, under an anaesthetic, the surgeon may fortunately be enabled to lodge the end of the thigh-bone. If this offers no prospect of success, there are three courses open: First, to try under an anaesthetic to manipulate the limb until the head of the thigh-bone rests as nearly as possible in its normal position,

and then to endeavour to fix it there by splints, weights and bandaging until a new joint is formed; second, to cut down upon the site of the joint, to scoop out a new socket in the haunch-bone, and thrust the end of the thigh-bone into it, keeping it fixed there as just described; and third, to allow the child to run about as it pleases, merely raising the sole of the foot of the short leg by a thick boot, so as to keep the lower part of the trunk fairly level, lest secondary curvature of the spine ensue. The first and second methods demand many months of careful treatment in bed. The ultimate result of the second is so often disappointing that the surgeon now rarely advises its adoption. But, if under an anaesthetic, as the result of skilful manipulation the head of the thigh-bone can be made to enter a more or less rudimentary socket, the case is worth all the time, care and attention bestowed upon it. Sometimes the results of prolonged treatment are so good that the child eventually is able to walk with scarce a limp. But a vigorous attempt at placing the head of the bone in its proper position should be made in every case.

(E. O.*)



JOINTS, in engineering, may be classed either (*a*) according to their material, as in stone or brick, wood or metal; or (*b*) according to their object, to prevent leakage of air, steam or water, or to transmit force, which may be thrust, pull or shear; or (*c*) according as they are stationary or moving ("working" in technical language). Many joints, like those of ship-plates and boiler-plates, have simultaneously to fulfil both objects mentioned under (*b*).

All stone joints of any consequence are stationary. It being uneconomical to dress the surfaces of the stones resting on each other smoothly and so as to be accurately flat, a layer of mortar or other cementing material is laid between them. This hardens and serves to transmit the pressure from stone to stone without its being concentrated at the "high places." If the ingredients of the cement are chosen so that when hard the cement has about the same coefficient of compressibility as the stone or brick, the pressure will be nearly uniformly distributed. The cement also adheres to the surfaces of the stone or brick, and allows a certain amount of tension to be borne by the joint. It likewise prevents the stones from slipping one on the other, *i.e.* it gives the joint very considerable shearing strength. The composition of the cement is chosen according as it has to "set" in air or water. The joints are made impervious to air or water by "pointing" their outer edges with a superior quality of cement.

Wood joints are also nearly all stationary. They are made partially fluid-tight by "grooving and tenoning," and by "caulking" with oakum or similar material. If the wood is saturated with water, it swells, the edges of the joints press closer together, and the joints become tighter the greater the water-pressure is which tends to produce leakage. Relatively to its weaker general strength, wood is a better material than iron so far as regards the transmission of a thrust past a joint. So soon as a heavy pressure comes on the joint all the small irregularities of the surfaces in contact are crushed up, and there results an approximately uniform distribution of the pressure over the whole area (*i.e.* if there be no bending forces), so that no part of the material is unduly stressed. To attain this result the abutting surfaces should be well fitted together, and the bolts binding the pieces together should be arranged so as to ensure that they will not interfere with the timber surfaces coming into this close contact. Owing to its weak shearing strength on sections parallel to the fibre, timber is peculiarly unfitted for tension joints. If the pieces exerting the pull are simply bolted together with wooden or iron bolts, the joint cannot be trusted to transmit any considerable force with safety. The stresses become intensely localized in the immediate neighborhood of the bolts. A tolerably strong timber tension-joint can, however, be made by making the two pieces abut, and connecting them by means of iron plates covering the joint and bolted to the sides of the timbers by bolts passing through the wood. These plates should have their surfaces which lie against the wood ribbed in a direction transverse to the pull. The bolts should fit their holes slackly, and should be well tightened up so as to make the ribs sink into the surface of the timber. There will then be very little localized shearing stress brought upon the interior portions of the wood.

Iron and the other commonly used metals possess in variously high degrees the qualities desirable in substances out of which joints are to be made. The joint ends of metal pieces can easily be fashioned to any advantageous form and size without waste of material. Also these metals offer peculiar facilities for the cutting of their surfaces at a comparatively small cost so smoothly and evenly as to ensure the close contact over their whole areas of surfaces placed against each other. This is of the highest importance, especially in joints designed to transmit force. Wrought iron and mild steel are above all other metals suitable for tension joints where there is not continuous rapid motion. Where such motion occurs, a layer, or, as it is technically termed, a "bush," of brass is inserted underneath the iron. The joint then possesses the high strength of a wrought-iron one and at the same time the good frictional qualities of a brass surface. Leakage past moving metal joints can be prevented by cutting the surfaces very accurately to fit each other. Steam-engine slide-valves and their seats, and piston "packing-rings" and the cylinders they work to and fro in, may be cited as examples. A subsidiary compressible "packing" is in other situations employed, an instance of which

may be seen in the "stuffing boxes" which prevent the escape of steam from steam-engine cylinders through the piston-rod hole in the cylinder cover. Fixed metal joints are made fluid tight—(a) by caulking a riveted joint, *i.e.* by hammering in the edge of the metal with a square-edged chisel (the tighter the joint requires to be against leakage the closer must be the spacing of the rivets—compare the rivet-spacing in bridge, ship and boiler-plate joints); (b) by the insertion between the surfaces of a layer of one or other of various kinds of cement, the layer being thick or thin according to circumstances; (c) by the insertion of a layer of soft solid substance called "packing" or "insertion."

Apart from cemented and glued joints, most joints are formed by cutting one or more holes in the ends of the pieces to be joined, and inserting in these holes a corresponding number of pins. The word "pin" is technically restricted to mean a cylindrical pin in a movable joint. The word "bolt" is used when the cylindrical pin is screwed up tight with a nut so as to be immovable. When the pin is not screwed, but is fastened by being beaten down on either end, it is called a "rivet." The pin is sometimes rectangular in section, and tapered or parallel lengthwise. "Gibs" and "cottars" are examples of the latter. It is very rarely the case that fixed joints have their pins subject to simple compression in the direction of their length, though they are frequently subject to simple tension in that direction. A good example is the joint between a steam cylinder and its cover, where the bolts have to resist the whole thrust of the steam, and at the same time to keep the joint steam-tight.



JOINTS, in geology. All rocks are traversed more or less completely by vertical or highly inclined divisional planes termed *joints*. Soft rocks, indeed, such as loose sand and uncompacted clay, do not show these planes; but even a soft loam after standing for some time, consolidated by its own weight, will usually be found to have acquired them. Joints vary in sharpness of definition, in the regularity of their perpendicular or horizontal course, in their lateral persistence, in number and in the directions of their intersections. As a rule, they are most sharply defined in proportion to the fineness of grain of the rock. They are often quite invisible, being merely planes of potential weakness, until revealed by the slow disintegrating effects of the weather, which induces fracture along their planes in preference to other directions in the rock; it is along the same planes that a rock breaks most readily under the blow of a hammer. In coarse-textured rocks, on the other hand, joints are apt to show themselves as irregular rents along which the rock has been shattered, so that they present an uneven sinuous course, branching off in different directions. In many rocks they descend vertically at not very unequal distances, so that the spaces between them are marked off into so many wall-like masses. But this symmetry often gives place to a more or less tortuous course with lateral joints in various apparently random directions, more especially where in stratified rocks the beds have diverse lithological characters. A single joint may be traced sometimes for many yards or even for several miles, more particularly when the rock is fine-grained and fairly rigid, as in limestone. Where the texture is coarse and unequal, the joints, though abundant, run into each other in such a way that no one in particular can be identified for so great a distance. The number of joints in a mass of rock varies within wide limits. Among rocks which have undergone little disturbance the joints may be separated from each other by intervals of several yards. In other cases where the terrestrial movement appears to have been considerable, the rocks are so jointed as to have acquired therefrom a fissile character that has almost obliterated their tendency to split along the lines of bedding.

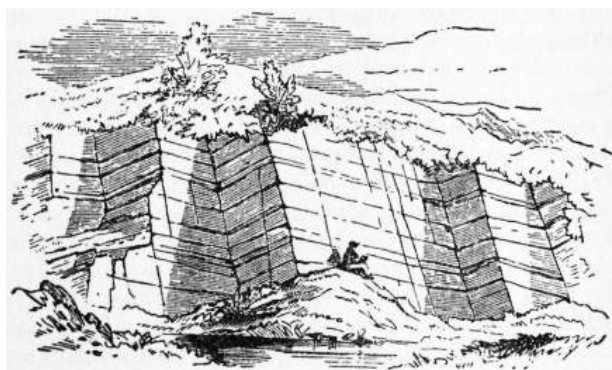
The Cause of Jointing in Rocks.—The continual state of movement in the crust of the earth is the primary cause of the majority of joints. It is to the outermost layers of the lithosphere that joints are confined; in what van Hise has described as the "zone of fracture," which he estimates may extend to a depth of 12,000 metres in the case of rigid rocks. Below the zone of fracture, joints cannot be formed, for there the rocks tend to flow rather than break. The rocky crust, as it slowly accommodates itself to the shrinking interior of the earth, is subjected unceasingly to stresses which induce jointing by tension, compression and torsion. Thus joints are produced during the slow cyclical movements of elevation and depression as well as by the more vigorous movements of earthquakes. Tension-joints are the most widely spread; they are naturally most numerous over areas of upheaval. Compression-joints are generally associated with the more intense movements which have involved shearing, minor-faulting and slaty cleavage. A minor cause of tension-jointing is shrinkage, due either to cooling or to desiccation. The most striking type of jointing is that produced by the cooling of igneous rocks, whereby a regularly columnar structure is developed, often called basaltic structure, such as is found at the Giant's Causeway. This structure is described in connexion with modern volcanic rocks, but it is met with in igneous rocks of all ages. It is as well displayed among the felsites of the Lower Old Red Sandstone, and the basalts of Carboniferous Limestone age as among the Tertiary lavas of Auvergne and Vivarais. This type of jointing may cause the rock to split up into roughly hexagonal prisms no thicker than a lead pencil; on the other hand, in many dolerites and diorites the prisms are much coarser, having a diameter of 3 ft. or more, and they are more irregular in form; they may be so long as to extend up the face of a cliff for 300 or 400 ft. A columnar jointing has often been superinduced upon stratified rocks by contact with intrusive igneous masses. Sandstones, shales and coal may be observed in this condition. The columns diverge perpendicularly from the surface of the injected altering substance, so that when the latter is vertical, the columns

are horizontal; or when it undulates the columns follow its curvatures. Beautiful examples of this character occur among the coal-seams of Ayrshire. Occasionally a prismatic form of jointing may be observed in unaltered strata; in this case it is usually among those which have been chemically formed, as in gypsum, where, as noticed by Jukes in the Paris Basin, some beds are divided from top to bottom by vertical hexagonal prisms. Desiccation, as shown by the cracks formed in mud when it dries, has probably been instrumental in causing jointing in a limited number of cases among stratified rocks.

Movement along Joint Planes.—In some conglomerates the joints may be seen traversing the enclosed pebbles as well as the surrounding matrix; large blocks of hard quartz are cut through by them as sharply as if they had been sliced by a lapidary's machine. A similar phenomenon may be observed in flints as they lie embedded in the chalk, and the same joints may be traced continuously through many yards of rock. Such facts show that the agency to which the jointing of rocks was due must have operated with considerable force. Further indication of movement is supplied by the rubbed and striated surfaces of some joints. These surfaces, termed *slickensides*, have evidently been ground against each other.

Influence of Joints on Water-flow and Scenery.—Joints form natural paths for the passage downward and upward of subterranean water and have an important bearing upon water supply. Water obtained directly from highly jointed rock is more liable to become contaminated by surface impurities than that from a more compact rock through which it has had to soak its way; for this reason many limestones are objected to as sources of potable water. On exposed surfaces joints have great influence in determining the rate and type of weathering. They furnish an effective lodgment for surface water, which, frozen by lowering of temperature, expands into ice and wedges off blocks of the rock; and the more numerous the joints the more rapidly does the action proceed. As they serve, in conjunction with bedding, to divide stratified rocks into large quadrangular blocks, their effect on cliffs and other exposed places is seen in the splintered and dislocated aspect so familiar in mountain scenery. Not infrequently, by directing the initial activity of weathering agents, joints have been responsible for the course taken by large streams as well as for the type of scenery on their banks. In limestones, which succumb readily to the solvent action of water, the joints are liable to be gradually enlarged along the course of the underground waterflow until caves are formed of great size and intricacy.

Infilled Joints.—Joints which have been so enlarged by solution are sometimes filled again completely or partially by minerals brought thither in solution by the water traversing the rock; calcite, barytes and ores of lead and copper may be so deposited. In this way many valuable mineral veins have been formed. Widened joints may also be filled in by detritus from the surface, or, in deep-seated portions of the crust, by heated igneous rock, forced from below along the planes of least resistance. Occasionally even sedimentary rocks may be forced up joints from below, as in the case of the so-called "sandstone dykes."



Joints in Limestone Quarry near Mallow, co. Cork.
(G. V. Du Noyer.)

Practical Utility of Joints.—An important feature in the joints of stratified rocks is the direction in which they intersect each other. As the result of observations we learn that they possess two dominant trends, one coincident in a general way with the direction in which the strata are inclined to the horizon, the other running transversely approximately at right angles. The former set is known as *dip-joints*, because they run with the *dip* or inclination of the rocks, the latter is termed *strike-joints*, inasmuch as they conform to the general *strike* or mean outcrop. It is owing to the existence of this double series of joints that ordinary quarrying operations can be carried on. Large quadrangular blocks can be wedged off that would be shattered if exposed to the risk of blasting. A quarry is usually worked on the dip of the rock, hence strike-joints form clean-cut faces in front of the workmen as they advance. These are known as *backs*, and the dip-joints which traverse them as *cutters*. The way in which this double set of joints occurs in a quarry may be seen in the figure, where the parallel lines which traverse the shaded and unshaded faces mark the successive strata. The broad white spaces running along the length of the quarry behind the seated figure are strike-joints or backs, traversed by some highly inclined lines which mark the position of the dip-joints or cutters. The shaded ends looking towards the spectator are cutters from which the rock has been quarried away on one side. In crystalline (igneous) rocks, bedding is absent and very often there is no horizontal jointing to take its place; the joint planes break up the mass more irregularly than in stratified rocks. Granite, for example, is usually traversed by two sets of chief or *master-joints* cutting each other

somewhat obliquely. Their effect is to divide the rock into long quadrangular, rhomboidal, or even polygonal columns. But a third set may often be noticed cutting across the columns, though less continuous and dominant than the others. When these transverse joints are few in number, columns many feet in length can be quarried out entire. Such monoliths have been from early times employed in the construction of obelisks and pillars.

(J. A. H.)



JOINTURE, in law, a provision for a wife after the death of her husband. As defined by Sir E. Coke, it is “a competent livelihood of freehold for the wife, of lands or tenements, to take effect presently in possession or profit after the death of her husband, for the life of the wife at least, if she herself be not the cause of determination or forfeiture of it” (Co. Litt. 36b). A jointure is of two kinds, legal and equitable. A legal jointure was first authorized by the Statute of Uses. Before this statute a husband had no legal seisin in such lands as were vested in another to his “use,” but merely an equitable estate. Consequently it was usual to make settlements on marriage, the most general form being the settlement by deed of an estate to the use of the husband and wife for their lives in joint tenancy (or “jointure”), so that the whole would go to the survivor. Although, strictly speaking, a jointure is a joint estate limited to both husband and wife, in common acceptance the word extends also to a sole estate limited to the wife only. The requisites of a legal jointure are: (1) the jointure must take effect immediately after the husband’s death; (2) it must be for the wife’s life or for a greater estate, or be determinable by her own act; (3) it must be made before marriage—if after, it is voidable at the wife’s election, on the death of the husband; (4) it must be expressed to be in satisfaction of dower and not of part of it. In equity, any provision made for a wife before marriage and accepted by her (not being an infant) in lieu of dower was a bar to such. If the provision was made after marriage, the wife was not barred by such provision, though expressly stated to be in lieu of dower; she was put to her election between jointure and dower (see [DOWER](#)).



JOINVILLE, the name of a French noble family of Champagne, which traced its descent from Étienne de Vaux, who lived at the beginning of the 11th century. Geoffroi III. (d. 1184), sire de Joinville, who accompanied Henry the Liberal, count of Champagne, to the Holy Land in 1147, received from him the office of seneschal, and this office became hereditary in the house of Joinville. In 1203 Geoffroi V., sire de Joinville, died while on a crusade, leaving no children. He was succeeded by his brother Simon, who married Beatrice of Burgundy, daughter of the count of Auxonne, and had as his son Jean (*q.v.*), the historian and friend of St Louis. Henri (d. 1374), sire de Joinville, the grandson of Jean, became count of Vaudémont, through his mother, Marguerite de Vaudémont. His daughter, Marguerite de Joinville, married in 1393 Ferry of Lorraine (d. 1415), to whom she brought the lands of Joinville. In 1552, Joinville was made into a principality for the house of Lorraine. Mlle de Montpensier, the heiress of Mlle de Guise, bequeathed the principality of Joinville to Philip, duke of Orleans (1693). The castle, which overhung the Marne, was sold in 1791 to be demolished. The title of prince de Joinville (*q.v.*) was given later to the third son of King Louis Philippe. Two branches of the house of Joinville have settled in other countries: one in England, descended from Geoffroi de Joinville, sire de Vaucouleurs, and brother of the historian, who served under Henry III. and Edward I.; the other, descended from Geoffroi de Joinville, sire de Briquenay, and son of Jean, settled in the kingdom of Naples.

See J. Simonnet, *Essai sur l’histoire et la généalogie des seigneurs de Joinville* (1875); H. F. Delaborde, *Jean de Joinville et les seigneurs de Joinville* (1894).

(M. P.*)



JOINVILLE, FRANÇOIS FERDINAND PHILIPPE LOUIS MARIE, PRINCE DE (1818-1900), third son of Louis Phllippe, duc d’Orléans, afterwards king of the French, was born at Neuilly on the 14th of August 1818. He was educated for the navy, and became lieutenant in 1836. His first conspicuous service was at the bombardment of San Juan de Ulloa, in November 1838, when

he headed a landing party and took the Mexican general Arista prisoner with his own hand at Vera Cruz. He was promoted captain, and in 1840 was entrusted with the charge of bringing the remains of Napoleon from St Helena to France. In 1844 he conducted naval operations on the coast of Morocco, bombarding Tangier and occupying Mogador, and was recompensed with the grade of vice-admiral. In the following year he published in the *Revue des deux mondes* an article on the deficiencies of the French navy which attracted considerable attention, and by his hostility to the Guizot ministry, as well as by an affectation of ill-will towards Great Britain, he gained considerable popularity. The revolution of 1848 nevertheless swept him away with the other Orleans princes. He hastened to quit Algeria, where he was then serving, and took refuge at Claremont, in Surrey, with the rest of his family. In 1861, upon the breaking out of the American Civil War, he proceeded to Washington, and placed the services of his son and two of his nephews at the disposal of the United States government. Otherwise, he was little heard of until the overthrow of the Empire in 1870, when he re-entered France, only to be promptly expelled by the government of national defence. Returning incognito, he joined the army of General d'Aurelle de Paladines, under the assumed name of Colonel Lutherod, fought bravely before Orleans, and afterwards, divulging his identity, formally sought permission to serve. Gambretta, however, arrested him and sent him back to England. In the National Assembly, elected in February 1871, the prince was returned by two departments and elected to sit for the Haute Marne, but, by an arrangement with Thiers, did not take his seat until the latter had been chosen president of the provincial republic. His deafness prevented him from making any figure in the assembly, and he resigned his seat in 1876. In 1886 the provisions of the law against pretenders to the throne deprived him of his rank as vice-admiral, but he continued to live in France, and died in Paris on the 16th of June 1900. He had married in 1843 the princess Francisca, sister of Pedro II., emperor of Brazil, and had a son, the duc de Penthièvre (born in 1845), also brought up to the navy, and a daughter Françoise (1844-) who married the duc de Chartres in 1863.

The prince de Joinville was the author of several essays and pamphlets on naval affairs and other matters of public interest, which were originally published for the most part either unsigned or pseudonymously, and subsequently republished under his own name after the fall of the Empire. They include *Essais sur la marine française* (1853); *Études sur la marine* (1859 and 1870); *La Guerre d'Amérique, campagne du Potomac* (1862 and 1872); *Encore un mot sur Sadowa* (Brussels, 1868); and *Vieux souvenirs* (1894).



JOINVILLE, JEAN, SIRE DE (1224-1319), was the second great writer of history in Old French, and in a manner occupies the interval between Villehardouin and Froissart. Numerous minor chroniclers fill up the gaps, but no one of them has the idiosyncrasy which distinguishes these three writers, who illustrate the three periods of the middle ages—adolescence, complete manhood, and decadence. Joinville was the head of a noble family of the province of Champagne (see [JOINVILLE](#), above). The provincial court of the counts of Champagne had long been a distinguished one, and the action of Thibaut the poet, together with the proximity of the district to Paris, made the province less rebellious than most of the great feudal divisions of France to the royal authority. Joinville's first appearance at the king's court was in 1241, on the occasion of the knighting of Louis IX.'s younger brother Alphonse. Seven years afterwards he took the cross, thereby giving St Louis a valuable follower, and supplying himself with the occasion of an eternal memory. The crusade, in which he distinguished himself equally by wisdom and prowess, taught his practical spirit several lessons. He returned with the king in 1254. But, though his reverence for the personal character of his prince seems to have known no bounds, he had probably gauged the strategic faculties of the saintly king, and he certainly had imbibed the spirit of the dictum that a man's first duties are those to his own house. He was in the intervals of residence on his own fief a constant attendant on the court, but he declined to accompany the king on his last and fatal expedition. In 1282 he was one of the witnesses whose testimony was formally given at St Denis in the matter of the canonization of Louis, and in 1298 he was present at the exhumation of the saint's body. It was not till even later that he began his literary work, the occasion being a request from Jeanne of Navarre, the wife of Philippe le Bel and the mother of Louis le Hutin. The great interval between his experiences and the period of the composition of his history is important for the due comprehension of the latter. Some years passed before the task was completed, on its own showing, in October 1309. Jeanne was by this time dead, and Joinville presented his book to her son Louis the Quarreller. This original manuscript is now lost, whereby hangs a tale. Great as was his age, Joinville had not ceased to be actively loyal, and in 1315 he complied with the royal summons to bear arms against the Flemings. He was at Joinville again in 1317, and on the 11th of July 1319 he died at the age of ninety-five, leaving his possessions and his position as seneschal of Champagne to his second son Anselm. He was buried in the neighbouring church of St Laurent, where during the Revolution his bones underwent profanation. Besides his *Histoire de Saint Louis* and his *Credo* or "Confession of Faith" written much earlier, a considerable number, relatively speaking, of letters and business documents concerning the fief of Joinville and so

forth are extant. These have an importance which we shall consider further on; but Joinville owes his place in general estimation only to his history of his crusading experiences and of the subsequent fate of St Louis.

Of the famous French history books of the middle ages Joinville's bears the most vivid impress of the personal characteristics of its composer. It does not, like Villehardouin, give us a picture of the temper and habits of a whole order or cast of men during a heroic period of human history; it falls far short of Froissart in vivid portraying of the picturesque and external aspects of social life; but it is a more personal book than either. The age and circumstances of the writer must not be forgotten in reading it. He is a very old man telling of circumstances which occurred in his youth. He evidently thinks that the times have not changed for the better—what with the frequency with which the devil is invoked in modern France, and the sinful expenditure common in the matter of embroidered silk coats. But this laudation of times past concentrates itself almost wholly on the person of the sainted king whom, while with feudal independence he had declined to swear fealty to him, "because I was not his man," he evidently regarded with an unlimited reverence. His age, too, while garrulous to a degree, seems to have been free from the slightest taint of boasting. No one perhaps ever took less trouble to make himself out a hero than Joinville. He is constantly admitting that on such and such an occasion he was terribly afraid; he confesses without the least shame that, when one of his followers suggested defiance of the Saracens and voluntary death, he (Joinville) paid not the least attention to him; nor does he attempt to gloss in any way his refusal to accompany St Louis on his unlucky second crusade, or his invincible conviction that it was better to be in mortal sin than to have the leprosy, or his decided preference for wine as little watered as might be, or any other weakness. Yet he was a sincerely religious man, as the curious *Credo*, written at Acre and forming a kind of anticipatory appendix to the history, sufficiently shows. He presents himself as an altogether human person, brave enough in the field, and, at least when young, capable of extravagant devotion to an ideal, provided the ideal was fashionable, but having at bottom a sufficient respect for his own skin and a full consciousness of the side on which his bread is buttered. Nor can he be said to be in all respects an intelligent traveller. There were in him what may be called glimmerings of deliberate literature, but they were hardly more than glimmerings. His famous description of Greek fire has a most provoking mixture of circumstantial detail with absence of verifying particulars. It is as matter-of-fact and comparative as Dante, without a touch of Dante's genius. "The fashion of Greek fire was such that it came to us as great as a tun of verjuice, and the fiery tail of it was as big as a mighty lance; it made such noise in the coming that it seemed like the thunder from heaven, and looked like a dragon flying through the air; so great a light did it throw that throughout the host men saw as though it were day for the light it threw." Certainly the excellent seneschal has not stinted himself of comparisons here, yet they can hardly be said to be luminous. That the thing made a great flame, a great noise, and struck terror into the beholder is about the sum of it all. Every now and then indeed a striking circumstance, strikingly told, occurs in Joinville, such as the famous incident of the woman who carried in one hand a chafing dish of fire, in the other a phial of water, that she might burn heaven and quench hell, lest in future any man should serve God merely for hope of the one or fear of the other. But in these cases the author only repeats what he has heard from others. On his own account he is much more interested in small personal details than in greater things. How the Saracens, when they took him prisoner, he being half dead with a complication of diseases, kindly left him "un mien couverture d'écarlate" which his mother had given him, and which he put over him, having made a hole therein and bound it round him with a cord; how when he came to Acre in a pitiable condition an old servant of his house presented himself, and "brought me clean white hoods and combed my hair most comfortably", how he bought a hundred tuns of wine and served it—the best first, according to high authority—well-watered to his private soldiers, somewhat less watered to the squires, and to the knights neat, but with a suggestive phial of the weaker liquid to mix "si comme ils vouloient"—these are the details in which he seems to take greatest pleasure, and for readers six hundred years after date perhaps they are not the least interesting details.

It would, however, be a mistake to imagine that Joinville's book is exclusively or even mainly a chronicle of small beer. If he is not a Villehardouin or a Carlyle, his battlepieces are vivid and truthful, and he has occasional passages of no small episodic importance, such as that dealing with the Old Man of the Mountain. But, above all, the central figure of his book redeems it from the possibility of the charge of being commonplace or ignoble. To St Louis Joinville is a nobler Boswell; and hero-worshipper, hero, and heroic ideal all have something of the sublime about them. The very pettiness of the details in which the good seneschal indulges as to his own weakness only serves to enhance the sublime unworldliness of the king. Joinville is a better warrior than Louis, but, while the former frankly prays for his own safety, the latter only thinks of his army's when they have escaped from the hands of the aliens. One of the king's knights boasts that ten thousand pieces have been "forcontés" (counted short) to the Saracens; and it is with the utmost trouble that Joinville and the rest can persuade the king that this is a joke, and that the Saracens are much more likely to have got the advantage. He warns Joinville against wine-bibbing, against bad language, against all manner of foibles small and great; and the pupil acknowledges that this physician at any rate had healed himself in these respects. It is true that he is severe towards infidels; and his approval of the knight who, finding a Jew likely to get the better of a theological argument, resorted to the baculine variety of logic, does not meet the views of the 20th century. But Louis was not of the 20th century but of the 13th, and after his kind he certainly deserved Joinville's admiration. Side by side with his indignation at the idea of cheating his Saracen enemies may be mentioned his answer to those who after

Taillebourg complained that he had let off Henry III. too easily. "He is my man now, and he was not before," said the king, a most unpractical person certainly, and in some ways a sore saint for France. But it is easy to understand the half-despairing adoration with which a shrewd and somewhat prosaic person like Joinville must have regarded this flower of chivalry born out of due time. He has had his reward, for assuredly the portrait of St Louis, from the early collection of anecdotes to the last hearsay sketch of the woeful end at Tunis, with the famous *enseignement* which is still the best summary of the theoretical duties of a Christian king in medieval times, is such as to take away all charge of vulgarity or mere *comméragé* from Joinville, a charge to which otherwise he might perhaps have been exposed.

The arrangement of the book is, considering its circumstances and the date of its composition, sufficiently methodical. According to its own account it is divided into three parts—the first dealing generally with the character and conduct of the hero; the second with his acts and deeds in Egypt, Palestine, &c., as Joinville knew them; the third with his subsequent life and death. Of these the last is very brief, the first not long; the middle constitutes the bulk of the work. The contents of the first part are, as might be expected, miscellaneous enough, and consist chiefly of stories chosen to show the valour of Louis, his piety, his justice, his personal temperance, and so forth. The second part enters upon the history of the crusade itself, and tells how Joinville pledged all his land save so much as would bring in a thousand livres a year, and started with a brave retinue of nine knights (two of whom besides himself wore bannerets), and shared a ship with the sire d'Aspremont, leaving Joinville without raising his eyes, "pour ce que le cuer ne me attendrisist du biau chastel que je lessioie et de mes deux enfans"; how they could not get out of sight of a high mountainous island (Lampedusa or Pantellaria) till they had made a procession round the masts in honour of the Virgin; how they reached first Cyprus and then Egypt; how they took Damietta, and then entangled themselves in the Delta. Bad generalship, which is sufficiently obvious, unwholesome food—it was Lent, and they ate the Nile fish which had been feasting on the carcasses of the slain—and Greek fire did the rest, and personal valour was of little avail, not merely against superior numbers and better generals, but against dysentery and a certain "mal de l'ost" which attacked the mouth and the legs, a curious human version of a well-known bestial malady. After ransom Acre was the chief scene of Louis's stay in the East, and here Joinville lived in some state, and saw not a few interesting things, hearing besides much gossip as to the inferior affairs of Asia from ambassadors, merchants and others. At last they journeyed back again to France, not without considerable experiences of the perils of the deep, which Joinville tells with a good deal of spirit. The remainder of the book is very brief. Some anecdotes of the king's "justice," his favourite and distinguishing attribute during the sixteen years which intervened between the two crusades, are given; then comes the story of Joinville's own refusal to join the second expedition, a refusal which bluntly alleged the harm done by the king's men who stayed at home to the vassals of those who went abroad as the reason of Joinville's resolution to remain behind. The death of the king at Tunis, his *enseignement* to his son, and the story of his canonization complete the work.

The book in which this interesting story is told has had a literary history which less affects its matter than the vicissitudes to which Froissart has been subjected, but which is hardly less curious in its way. There is no reason for supposing that Joinville indulged in various editions, such as those which have given Kervyn de Lettenhove and Siméon Luce so much trouble, and which make so vast a difference between the first and the last redaction of the chronicler of the Hundred Years' War. Indeed the great age of the seneschal of Champagne, and his intimate first-hand acquaintance with his subject, made such variations extremely improbable. But, whereas there is no great difficulty (though much labour) in ascertaining the original and all subsequent texts of Froissart, the original text of Joinville was until recently unknown, and even now may be said to be in the state of a conjectural restoration. It has been said that the book was presented to Louis le Hutin. Now we have a catalogue of Louis le Hutin's library, and, strange to say, Joinville does not figure in it. His book seems to have undergone very much the same fate as that which befell the originals of the first two volumes of the *Paston Letters* which Sir John Fenn presented to George the Third. Several royal library catalogues of the 14th century are known, but in none of these does the *Histoire de St Louis* appear. It does appear in that of Charles V. (1411), but apparently no copy even of this survives. As everybody knows, however, books could be and were multiplied by the process of copying tolerably freely, and a copy at first or second hand which belonged to the fiddler king René of Provence in the 15th century was used for the first printed edition in 1547. Other editions were printed from other versions, all evidently posterior to the original. But in 1741 the well-known medievalist La Curne de St Palaye found at Lucca a manuscript of the 16th century, evidently representing an older text than any yet printed. Three years later a 14th-century copy was found at Brussels, and this is the standard manuscript authority for the text of Joinville. Those who prefer to rest on MS. authority will probably hold to this text, which appears in the well-known collection of Michaud and Poujoulat as well as that of Buchon, and in a careful and useful separate edition by Francisque Michel. The modern science of critical editing, however, which applies to medieval texts the principles long recognized in editing the classics, has discovered in the 16th-century manuscript, and still more in the original miscellaneous works of Joinville, the letters, deeds, &c., already alluded to, the materials for what we have already called a conjectural restoration, which is not without its interest, though perhaps it is possible for that interest to be exaggerated.

For merely general readers Buchon's or Michaud's editions of Joinville will amply suffice. Both include translations into modern French, which, however, are hardly necessary, for the language is very easy. Natalis de Wailly's editions of 1868 and particularly 1874 are critical editions, embodying

the modern research connected with the text, the value of which is considerable, but contestable. They are accompanied by ample annotations and appendices, with illustrations of great merit and value. Much valuable information appeared for the first time in the edition of F. Michel (1859). To these may be added A. F. Didot's *Études sur Joinville* (1870) and H. F. Delaborde's *Jean de Joinville* (1894). A good sketch of the whole subject will be found in Aubertin's *Histoire de la langue et de la littérature françaises au moyen âge*, ii. 196-211; see also Gaston Paris, *Litt. française au moyen âge* (1893), and A. Debidour, *Les Chroniqueurs* (1888). There are English translations by T. Johnes (1807), J. Hutton (1868), Ethel Wedgwood (1906), and (more literally) Sir F. T. Marzials ("Everyman's Library," 1908).

(G. SA.)



JOIST, in building, one of a row or tier of beams set edgewise from one wall or partition to another and carrying the flooring boards on the upper edge and the laths of the ceiling on the lower. In double flooring there are three series of joists, *binding*, *bridging*, and *ceiling* joists. The binding joists are the real support of the floor, running from wall to wall, and carrying the bridging joists above and the ceiling joists below (see **CARPENTRY**). The Mid. Eng. form of the word was *giste* or *gyste*, and was adapted from O. Fr. *giste*, modern *gîte*, a beam supporting the platform of a gun. By origin the word meant that on which anything lies or rests (*gésir*, to lie; Lat. *jacere*).

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The English word "gist," in such phrases as "the gist of the matter," the main or central point in an argument, is a doublet of joist. According to Skeat, the origin of this meaning is an O. Fr. proverbial expression, *Je sçay bien où gist le lièvre*, I know well where the hare lies, *i.e.* I know the real point of the matter.



JÓKAI, MAURUS (1825-1904), Hungarian novelist, was born at Rév-Komárom on the 19th of February 1825. His father, Joseph, was a member of the Asva branch of the ancient Jókay family; his mother was a scion of the noble Pulays. The lad was timid and delicate, and therefore educated at home till his tenth year, when he was sent to Pressburg, subsequently completing his education at the Calvinist college at Pápá, where he first met Petöfi, Alexander Kozma, and several other brilliant young men who subsequently became famous. His family had meant him to follow the law, his father's profession, and accordingly the youth, always singularly assiduous, plodded conscientiously through the usual curriculum at Kecskemet and Pest, and as a full-blown advocate actually succeeded in winning his first case. But the drudgery of a lawyer's office was uncongenial to the ardently poetical youth, and, encouraged by the encomiums pronounced by the Hungarian Academy upon his first play, *Zsidó fiu* ("The Jew Boy"), he flitted, when barely twenty, to Pest in 1845 with a MS. romance in his pocket; he was introduced by Petöfi to the literary notabilities of the Hungarian capital, and the same year his first notable romance *Hétköznapiok* ("Working Days"), appeared, first in the columns of the *Pesti Dievatlap*, and subsequently, in 1846, in book form. *Hétköznapiok*, despite its manifest crudities and extravagances, was instantly recognized by all the leading critics as a work of original genius, and in the following year Jókai was appointed the editor of *Életképek*, the leading Hungarian literary journal, and gathered round him all the rising talent of the country. On the outbreak of the revolution of 1848 the young editor enthusiastically adopted the national cause, and served it with both pen and sword. Now, as ever, he was a moderate Liberal, setting his face steadily against all excesses; but, carried away by the Hungarian triumphs of April and May 1849, he supported Kossuth's fatal blunder of deposing the Hapsburg dynasty, and though, after the war was over, his life was saved by an ingenious stratagem of his wife, the great tragic actress, Roza Benke Laborfalvi, whom he had married on the 29th of August 1848, he lived for the next fourteen years the life of a political suspect. Yet this was perhaps the most glorious period of his existence, for during it he devoted himself to the rehabilitation of the proscribed and humiliated Magyar language, composing in it no fewer than thirty great romances, besides innumerable volumes of tales, essays, criticisms and facetiæ. This was the period of such masterpieces as *Erdély Arany Kord* ("The Golden Age of Transylvania"), with its sequel *Törökvilág Magyarországon* ("The Turks in Hungary"), *Egy Magyar Nábob* ("A Hungarian Nabob"), *Karpáthy Zoltán, Janicsárok végnapjai* ("The Last Days of the Janissaries"), *Szomorú napok* ("Sad Days"). On the re-establishment of the Hungarian constitution by the Composition of 1867, Jókai took an active part in politics. As a constant supporter of the Tisza administration, not only in parliament, where he sat continuously for more than twenty years, but also as the editor of the government organ, *Hon*, founded by him in 1863, he became a power in the state, and, though he never took office himself, frequently extricated the government from difficult

places. In 1897 the emperor appointed him a member of the upper house. As a suave, practical and witty debater he was particularly successful. Yet it was to literature that he continued to devote most of his time, and his productiveness after 1870 was stupendous, amounting to some hundreds of volumes. Stranger still, none of this work is slipshod, and the best of it deserves to endure. Amongst the finest of his later works may be mentioned the unique and incomparable *Az arany ember* ("A Man of Gold")—translated into English under the title of *Timar's Two Worlds*—and *A tengerzemü hölgy* ("Eyes like the Sea"), the latter of which won the Academy's prize in 1890. He died at Budapest on the 5th of May 1904; his wife having predeceased him in 1886. Jókai was an arch-romantic, with a perfervid Oriental imagination, and humour of the purest, rarest description. If one can imagine a combination, in almost equal parts, of Walter Scott, William Beckford, Dumas *père*, and Charles Dickens, together with the native originality of an ardent Magyar, one may perhaps form a fair idea of the great Hungarian romancer's indisputable genius.

See Névy László, *Jókai Mór*; Hegedűsis Sándor, *Jókai Mórról*; H. W. Temperley, "Maurus Jokai and the Historical Novel," *Contemporary Review* (July 1904).



JOKJAKARTA, or JOKJOKARTA (more correctly JOKYAKARTA; Du. *Djokjakarta*), a residency of the island of Java, Dutch East Indies, bounded N. by Kedu and Surakarta, E. by Surakarta, S. by the Indian Ocean, W. by Bagelen. Pop. (1897), 858,392. The country is mountainous with the exception of a wedge-like strip in the middle between the rivers Progo and Upak. In the north-west are the southern slopes of the volcano Merapi, and in the east the Kidul hills and the plateau of Sewu. The last-named is an arid and scantily populated chalk range, with numerous small summits, whence it is also known as the Thousand Hills. The remainder of the residency is well-watered and fertile, important irrigation works having been carried out. Sugar, rice and indigo are cultivated; salt-making is practised on the coast. The minerals include coal-beds in the Kidul hills and near Nangulan, marble and gold in the neighbourhood of Kalasan. The natives are poor, owing chiefly to maladministration, the use of opium and the usury practised by foreigners (Chinese, Arabs, &c.). The principality is divided between the sultan (vassal of the Dutch government) and the so-called independent prince Paku Alam; Ngawen and Imogiri are enclaves of Surakarta. There are good roads, and railways connect the chief town with Batavia, Samarang, Surakarta, &c. The town of Jokjakarta (see [JAVA](#)) the seat of the resident, the sultan and the Paku Alam princes; its most remarkable section is the *kraton* or citadel of the sultan. Imogiri, S.W. of the capital, the burial-place of the princes of Surakarta and Jokjakarta, is guarded by priests and officials. Sentolo, Nangulan, Brosot, Kalasan, Tempel, Wonosari are considerable villages. There are numerous remains of Hindu temples, particularly in the neighbourhood of Kalasan near the border of Surakarta and Prambanan, which is just across it. Remarkable sacred grottoes are found on the coast, namely, the so-called Nyabi Kidul and Rongkob, and at Selarong, south-east of Jokjakarta.



JOLIET, a city and the county-seat of Will county, Illinois, U.S.A., in the township of Joliet, in the N.E. part of the state, on the Des Plaines river, 40 m. S.W. of Chicago. Pop. (1890), 23,264; (1900), 29,353, of whom 8536 were foreign-born, 1889 being German, 1579 Austrian, 1206 Irish and 951 Swedish; (1910 census) 34,670. In addition there is a large population in the immediate suburbs: that of the township including the city was 27,438 in 1890, and 50,640 in 1910. Joliet is served by the Atchison, Topeka & Santa Fé, the Chicago & Alton, the Chicago, Rock Island & Pacific, the Michigan Central, the Illinois, Iowa & Minnesota, and the Elgin, Joliet & Eastern railways, by interurban electric lines, and is on the Illinois & Michigan canal and the Chicago Sanitary (ship) canal. The city is situated in a narrow valley, on both sides of the river. It is the seat of the northern Illinois penitentiary, and has a public library (in front of which is a statue, by S. Asbjornsen, of Louis Joliet), the township high school, two hospitals, two Catholic academies and a club-house, erected by the Illinois Steel Company for the use of its employees. There are two municipal parks, West Park and Highland Park; Dellwood Park is an amusement resort, owned by the Chicago & Joliet Electric Railway Company. In the vicinity are large deposits of calcareous building stone, cement and fireclay, and there are coal mines 20 m. distant. Mineral resources and water-power have facilitated the development of manufactures. The factory product in 1905 was valued at \$33,788,700 (20.3% more than in 1900), a large part of which was represented by iron and steel goods. There are large industrial establishments just outside the city limits. The first settlement on the site of Joliet (1833) was called Juliet, in honour of the daughter of James B. Campbell, one of the settlers. The present

name was adopted in 1845, in memory of Louis Joliet (1645-1700), the French Canadian explorer of the Mississippi, and in 1852 a city charter was secured.



JOLLY (from O. Fr. *jolif*; Fr. *joli*, the French word is obscure in origin; it may be from late Lat. *gaudivus*, from *gaudere*, to rejoice, the change of *d* to *l* being paralleled by *cigada* and *cigale*, or from O. Norse *jol*, Eng. "yule," the northern festival of midwinter), and adjective meaning gay, cheerful, jovial, high-spirited. The colloquial use of the term as an intensive adverb, meaning extremely, very, was in early usage quite literary; thus John Trapp (1601-1669), *Commentaries on the New Testament, Matthew* (1647), writes, "All was jolly quiet at Ephesus before St Paul came hither." In the royal navy "jolly" used as a substantive, is the slang name for a marine. To "jolly" is a slang synonym for "chaff." The word "jolly-boat," the name of a ship's small broad boat, usually clinker-built, is of doubtful etymology. It occurs in English in the 18th century, and is usually connected with Dan. or Swed. *jolle*, Dutch *jol*, a small ship's boat; these words are properly represented in English by "yawl" originally a ship's small boat, now chiefly used of a rig of sailing vessels, with a cutter-rigged foremast and a small mizzen stepped far aft, with a spanker sail (see [RIGGING](#)). A connexion has been suggested with a word of much earlier appearance in English, *jolywat*, or *gellywatte*. This occurs at the end of the 15th century and is used of a smaller type of ship's boat. This is supposed to be a corruption of the French *galiote* or Dutch *galjoot*, galliot (see [GALLEY](#)). The galliot was, however, a large vessel.



JOLY DE LOTBINIÈRE, SIR HENRI GUSTAVE (1829-1908), Canadian politician, was born at Epernay in France on the 5th of December 1829. His father, Gaspard Pierre Gustave Joly, the owner of famous vineyards at Epernay, was of Huguenot descent, and married Julie Christine, grand-daughter of Eustache Gaspard Michel Chartier de Lotbinière, marquis de Lotbinière (one of Montcalm's engineers at Quebec); he thus became seigneur de Lotbinière. Henri Gustave adopted the name of de Lotbinière in 1888, under a statute of the province of Quebec. He was educated in Paris, and called to the bar of lower Canada in 1858. On the 6th of May 1856 he married Margaretta Josepha (d. 1904), daughter of Hammond Gowen, of Quebec. At the general election of 1861 he was elected to the house of assembly of the province of Canada as Liberal member for the county of Lotbinière, and from 1867 to 1874 he represented the same county in the House of Commons, Ottawa, and in the legislative assembly, Quebec. Joly was opposed to confederation and supported Dorion in the stand which he took on this question. In 1878 he was called by Luc Letellier de St Just, lieutenant-governor of Quebec, to form an administration, which was defeated in 1879, and until 1883 he was leader of the opposition. During his brief administration he adopted a policy of retrenchment, and endeavoured to abolish the legislative council. In 1885, as a protest against the attitude of his party towards Louis Riel, who was tried and executed for high treason, he retired from public life. Early in the year 1895 he was induced again to take an active part in the campaign of his party, and at the general election of 1896 he was returned as member for the county of Portneuf. He had already in 1895 been created K.C.M.G. On the formation of Sir Wilfrid Laurier's administration he accepted the office of controller of inland revenue, and a year later he became a privy councillor, as minister of inland revenue. From 1900 to 1906 he was lieutenant-governor of the province of British Columbia. He twice declined a seat in the senate, but rendered eminent service to Canada by promoting the interest of agriculture, horticulture and of forestry. He died on the 17th of November 1908.

(A. G. D.)



JOMINI, ANTOINE HENRI, BARON (1779-1869), general in the French and afterwards in the Russian service, and one of the most celebrated writers on the art of war, was born on the 6th of March 1779 at Payerne in the canton of Vaud, Switzerland, where his father was syndic. His youthful preference for a military life was disappointed by the dissolution of the Swiss regiments of France at the Revolution. For some time he was a clerk in a Paris banking-house, until the outbreak of the

Swiss revolution. At the age of nineteen he was appointed to a post on the Swiss headquarters staff, and when scarcely twenty-one to the command of a battalion. At the peace of Lunéville in 1801 he returned to business life in Paris, but devoted himself chiefly to preparing the celebrated *Traité des grandes opérations militaires*, which was published in 1804-1805. Introduced to Marshal Ney, he served in the campaign of Austerlitz as a volunteer aide-de-camp on Ney's personal staff. In December 1805 Napoleon, being much impressed by a chapter in Jomini's treatise, made him a colonel in the French service. Ney thereupon made him his principal aide-de-camp. In 1806 Jomini published his views as to the conduct of the impending war with Prussia, and this, along with his knowledge of Frederick the Great's campaigns, which he had described in the *Traité*, led Napoleon to attach him to his own headquarters. He was present with Napoleon at the battle of Jena, and at Eylau won the cross of the Legion of Honour. After the peace of Tilsit he was made chief of the staff to Ney, and created a baron. In the Spanish campaign of 1808 his advice was often of the highest value to the marshal, but Jomini quarrelled with his chief, and was left almost at the mercy of his numerous enemies, especially Berthier, the emperor's chief of staff. Overtures had been made to him, as early as 1807, to enter the Russian service, but Napoleon, hearing of his intention to leave the French army, compelled him to remain in the service with the rank of general of brigade. For some years thereafter Jomini held both a French and a Russian commission, with the consent of both sovereigns. But when war between France and Russia broke out, he was in a difficult position, which he ended by taking a command on the line of communication. He was thus engaged when the retreat from Moscow and the uprising of Prussia transferred the seat of war to central Germany. He promptly rejoined Ney, took part in the battle of Lützen and, as chief of the staff of Ney's group of corps, rendered distinguished services before and at the battle of Bautzen, and was recommended for the rank of general of division. Berthier, however, not only erased Jomini's name from the list, but put him under arrest and censured him in army orders for failing to supply certain returns that had been called for. How far Jomini was held responsible for certain misunderstandings which prevented the attainment of all the results hoped for from Ney's attack (see [BAUTZEN](#)) there is no means of knowing. But the pretext for censure was trivial and baseless, and during the armistice Jomini did as he had intended to do in 1809-10, and went into the Russian service. As things then were, this was tantamount to deserting to the enemy, and so it was regarded by Napoleon and by the French army, and by not a few of his new comrades. It must be observed, in Jomini's defence, that he had for years held a dormant commission in the Russian army, that he had declined to take part in the invasion of Russia in 1812, and that he was a Swiss and not a Frenchman. His patriotism was indeed unquestioned, and he withdrew from the Allied Army in 1814 when he found that he could not prevent the violation of Swiss neutrality. Apart from love of his own country, the desire to study, to teach and to practise the art of war was his ruling motive. At the critical moment of the battle of Eylau he exclaimed, "If I were the Russian commander for two hours!" On joining the allies he received the rank of lieutenant-general and the appointment of aide-de-camp from the tsar, and rendered important assistance during the German campaign, though the charge that he betrayed the numbers, positions and intentions of the French to the enemy was later acknowledged by Napoleon to be without foundation. He declined as a Swiss patriot and as a French officer to take part in the passage of the Rhine at Basel and the subsequent invasion of France.

In 1815 he was with the emperor Alexander in Paris, and attempted in vain to save the life of his old commander Ney. This almost cost him his position in the Russian service, but he succeeded in making head against his enemies, and took part in the congress of Vienna. Resuming, after a period of several years of retirement and literary work, his post in the Russian army, he was about 1823 made a full general, and thenceforward until his retirement in 1829 he was principally employed in the military education of the tsarevich Nicholas (afterwards emperor) and in the organization of the Russian staff college, which was opened in 1832 and still bears its original name of the Nicholas academy. In 1828 he was employed in the field in the Russo-Turkish War, and at the siege of Varna he was given the grand cordon of the Alexander order. This was his last active service. In 1829 he settled at Brussels where he chiefly lived for the next thirty years. In 1853, after trying without success to bring about a political understanding between France and Russia, Jomini was called to St Petersburg to act as a military adviser to the tsar during the Crimean War. He returned to Brussels on the conclusion of peace in 1856 and some years afterwards settled at Passy near Paris. He was busily employed up to the end of his life in writing treatises, pamphlets and open letters on subjects of military art and history, and in 1859 he was asked by Napoleon III. to furnish a plan of campaign in the Italian War. One of his last essays dealt with the war of 1866 and the influence of the breech-loading rifle, and he died at Passy on the 24th of March 1869 only a year before the Franco-German War. Thus one of the earliest of the great military theorists lived to speculate on the tactics of the present day.

Amongst his numerous works the principal, besides the *Traité*, are: *Histoire critique et militaire des campagnes de la Révolution* (1806; new ed. 1819-1824); *Vie politique et militaire de Napoléon racontée par lui-même* (1827) and, perhaps the best known of all his publications, the theoretical *Précis de l'art de la guerre* (1836).

See Ferdinand Lecomte, *Le Général Jomini, sa vie et ses écrits* (1861; new ed. 1888); C. A. Saint-Beuve, *Le Général Jomini* (1869); A. Pascal, *Observations historiques sur la vie, &c., du général Jomini* (1842).



JOMMELLI, NICCOLA (1714-1774), Italian composer, was born at Aversa near Naples on the 10th of September 1714. He received his musical education at two of the famous music schools of that capital, being a pupil of the Conservatorio de' poveri di Gesù Cristo under Feo, and also of the Conservatorio della pietà dei Turchini under Prota, Mancini and Leo. His first opera, *L'Errore amoroso*, was successfully produced at Naples (under a pseudonym) when Jommelli was only twenty-three. Three years afterwards he went to Rome to bring out two new operas, and thence to Bologna, where he profited by the advice of Padre Martini, the greatest contrapuntist of his age. In the meantime Jommelli's fame began to spread beyond the limits of his country, and in 1748 he went for the first time to Vienna, where one of his finest operas, *Didone*, was produced. Three years later he returned to Italy, and in 1753 he obtained the post of chapel-master to the duke of Württemberg at Stuttgart, which city he made his home for a number of years. In the same year he had ten commissions to write operas for princely courts. In Stuttgart he permitted no operas but his own to be produced, and he modified his style in accordance with German taste, so much that, when after an absence of fifteen years he returned to Naples, his countrymen hissed two of his operas off the stage. He retired in consequence to his native village, and only occasionally emerged from his solitude to take part in the musical life of the capital. His death took place on the 25th of August 1774, his last composition being the celebrated *Miserere*, a setting for two female voices of Saverio Mattei's Italian paraphrase of Psalm li. Jommelli is the most representative composer of the generation following Leo and Durante. He approaches very closely to Mozart in his style, and is important as one of the composers who, by welding together German and Italian characteristics, helped to form the musical language of the great composers of the classical period of Vienna.



JONAH, in the Bible, a prophet born at Gath-hepher in Zebulun, perhaps under Jeroboam (2) (781-741 B.C.?), who foretold the deliverance of Israel from the Aramaeans (2 Kings xiv. 25). This prophet may also be the hero of the much later book of Jonah, but how different a man is he! It is, however, the later Jonah who chiefly interests us. New problems have arisen out of the book which relates to him, but here we can only attempt to consider what, in a certain sense, may be called the surface meaning of the text.

This, then is what we appear to be told. The prophet Jonah is summoned to go to Nineveh, a great and wicked city (cf. 4 Esdras ii. 8, 9), and prophesy against it. Jonah, however, is afraid (iv. 2) that the Ninevites may repent, so, instead of going to Nineveh, he proceeds to Joppa, and takes his passage in a ship bound for Tarshish. But soon a storm arises, and, supplication to the gods failing, the sailors cast lots to discover the guilty man who has brought this great trouble. The lot falls on Jonah, who has been roughly awakened by the captain, and when questioned frankly owns that he is a Hebrew and a worshipper of the divine creator Yahweh, from whom he has sought to flee (as if He were only the god of Canaan). Jonah advises the sailors to throw him into the sea. This, after praying to Yahweh, they actually do; at once the sea becomes calm and they sacrifice to Yahweh. Meantime God has "appointed a great fish" which swallows up Jonah. Three days and three nights he is in the fish's belly, till, at a word from Yahweh, it vomits Jonah on to the dry ground. Again Jonah receives the divine call. This time he obeys. After delivering his message to Nineveh he makes himself a booth outside the walls and waits in vain for the destruction of the city (probably iv. 5 is misplaced and should stand after iii. 4). Thereupon Jonah beseeches Yahweh to take away his worthless life. As an answer Yahweh "appoints" a small quickly-growing tree with large leaves (the castor-oil plant) to come up over the angry prophet and shelter him from the sun. But the next day the beneficent tree perishes by God's "appointment" from a worm-bite. Once more God "appoints" something; it is the east wind, which, together with the fierce heat, brings Jonah again to desperation. The close is fine, and reminds us of Job. God himself gives short-sighted man a lesson. Jonah has pitied the tree, and should not God have pity on so great a city?

Two results of criticism are widely accepted. One relates to the psalm in ch. ii., which has been transferred from some other place; it is in fact an anticipatory thanksgiving for the deliverance of Israel, mostly composed of phrases from other psalms. The other is that the narrative before us is not historical but an imaginative story (such as was called a Midrash) based upon Biblical data and tending to edification. It is, however, a story of high type. The narrator considered that Israel had to be a prophet to the "nations" at large, that Israel had, like Jonah, neglected its duty and for its punishment was "swallowed up" in foreign lands. God had watched over His people and prepared its

choicer members to fulfil His purpose. This company of faithful but not always sufficiently charitable men represented their people, so that it might be said that Israel itself (the second Isaiah's "Servant of Yahweh"—see [ISAIAH](#)) had taken up its duty, but in an ungenial spirit which grieved the All-merciful One. The book, which is post-exilic, may therefore be grouped with another Midrash, the Book of Ruth, which also appears to represent a current of thought opposed to the exclusive spirit of Jewish legalism.

Some critics, however, think that the key of symbolism needs to be supplemented by that of mythology. The "great fish" especially has a very mythological appearance. The Babylonian dragon myth (see [COSMOGONY](#)) is often alluded to in the Old Testament, *e.g.* in Jer. li. 44, which, as the present writer long since pointed out, may supply the missing link between Jonah i. 17 and the original myth. For the "great fish" is ultimately Tīamat, the dragon of chaos, represented historically by Nebuchadrezzar, by whom for a time God permitted or "appointed" Israel to be swallowed up.

For further details see T. K. Cheyne, *Ency. Bib.*, "Jonah"; and his article "Jonah, a Study in Jewish Folklore and Religion," *Theological Review* (1877), pp. 211-219. König, Hastings's *Dict. Bible*, "Jonah," is full but not lucid; C. H. H. Wright, *Biblical Studies* (1886) argues ably for the symbolic theory. Against Cheyne, see Marti's work on the *Minor Prophets* (1894); the "great fish" and the "three days and three nights" remain unexplained by this writer. On these points see Zimmern, *K.A.T.* (3), pp. 366, 389, 508. The difficulties of the mission of a Hebrew prophet to Asshur are diminished by Cheyne's later theory, *Critica Biblica* (1904), pp. 150-152.

(T. K. C.)



JONAH, RABBI (ABULWALID MERWAN IBN JANAH, also R. MARINUS) (c. 990-c. 1050), the greatest Hebrew grammarian and lexicographer of the middle ages. He was born before the year 990, in Cordova, studied in Lucena, left his native city in 1012, and, after somewhat protracted wanderings, settled in Saragossa, where he died before 1050. He was a physician, and Ibn Abi Uṣaibia, in his treatise on Arabian doctors, mentions him as the author of a medical work. But Rabbi Jonah saw the true vocation of his life in the scientific investigation of the Hebrew language and in a rational biblical exegesis based upon sound linguistic knowledge. It is true, he wrote no actual commentary on the Bible, but his philological works exercised the greatest influence on Judaic exegesis. His first work—composed, like all the rest, in Arabic—bears the title *Almustalḥa*, and forms, as is indicated by the word, a criticism and at the same time a supplement to the two works of Yehuda Ḥayyuj on the verbs with weak-sounding and double-sounding roots. These two tractates, with which Ḥayyuj had laid the foundations of scientific Hebrew grammar, were recognized by Abulwalid as the basis of his own grammatical investigations, and Abraham Ibn Daud, when enumerating the great Spanish Jews in his history, sums up the significance of R. Jonah in the words: "He completed what Ḥayyuj had begun." The principal work of R. Jonah is the *Kitab al Tanqih* ("Book of Exact Investigation"), which consists of two parts, regarded as two distinct books—the *Kitab al-Luma* ("Book of Many-coloured Flower-beds") and the *Kitab al-uṣul* ("Book of Roots"). The former (ed. J. Derenbourg, Paris, 1886) contains the grammar, the latter (ed. Ad. Neubauer, Oxford, 1875) the lexicon of the Hebrew language. Both works are also published in the Hebrew translation of Yehuda Ibn Tibbon (*Sefer Ha-Rikmah*, ed. B. Goldberg, Frankfurt am Main, 1855; *Sefer Ha-Schoraschim*, ed. W. Bacher, Berlin, 1897). The other writings of Rabbi Jonah, so far as extant, have appeared in an edition of the Arabic original accompanied by a French translation (*Opuscules et traités d'Abou'l Walid*, ed. Joseph and Hartwig Derenbourg, Paris 1880). A few fragments and numerous quotations in his principal book form our only knowledge of the *Kitab al-Tashwir* ("Book of Refutation") a controversial work in four parts, in which Rabbi Jonah successfully repelled the attacks of the opponents of his first treatise. At the head of this opposition stood the famous Samuel Ibn Nagdela (S. Ha-Nagid) a disciple of Ḥayyuj. The grammatical work of Rabbi Jonah extended, moreover, to the domain of rhetoric and biblical hermeneutics, and his lexicon contains many exegetical excursuses. This lexicon is of especial importance by reason of its ample contribution to the comparative philology of the Semitic languages—Hebrew and Arabic, in particular. Abulwalid's works mark the culminating point of Hebrew scholarship during the middle ages, and he attained a level which was not surpassed till the modern development of philological science in the 19th century.

See S. Munk, *Notice sur Abou'l Walid* (Paris, 1851); W. Bacher, *Leben und Werke des Abulwalid und die Quellen seiner Schrifterklärung* (Leipzig, 1885); id., *Aus der Schrifterklärung des Abulwalid* (Leipzig, 1889); id., *Die hebr.-arabische Sprachvergleichung des Abulwalid* (Vienna, 1884); id., *Die hebräisch-neuhebräische und hebr.-aramäische Sprachvergleichung des Abulwalid* (Vienna, 1885).

(W. BA.)



JONAS, JUSTUS (1493-1555), German Protestant reformer, was born at Nordhausen in Thuringia, on the 5th of June 1493. His real name was Jodokus (Jobst) Koch, which he changed according to the common custom of German scholars in the 16th century, when at the university of Erfurt. He entered that university in 1506, studied law and the humanities, and became Master of Arts in 1510. In 1511 he went to Wittenberg, where he took his bachelor's degree in law. He returned to Erfurt in 1514 or 1515, was ordained priest, and in 1518 was promoted doctor in both faculties and appointed to a well-endowed canonry in the church of St Severus, to which a professorship of law was attached. His great admiration for Erasmus first led him to Greek and biblical studies, and his election in May 1519 as rector of the university was regarded as a triumph for the partisans of the New Learning. It was not, however, until after the Leipzig disputation with Eck that Luther won his allegiance. He accompanied Luther to Worms in 1521, and there was appointed by the elector of Saxony professor of canon law at Wittenberg. During Luther's stay in the Wartburg Jonas was one of the most active of the Wittenberg reformers. Giving himself up to preaching and polemics, he aided the Reformation by his gift as a translator, turning Luther's and Melanchthon's works into German or Latin as the case might be, thus becoming a sort of double of both. He was busied in conferences and visitations during the next twenty years, and in diplomatic work with the princes. In 1541 he began a successful preaching crusade in Halle; he became superintendent of its churches in 1542. In 1546 he was present at Luther's deathbed at Eisleben, and preached the funeral sermon; but in the same year was banished from the duchy by Maurice, duke (later elector) of Saxony. From that time until his death, Jonas was unable to secure a satisfactory living. He wandered from place to place preaching, and finally went to Eisleben (1553), where he died. He had been married three times.

See *Briefswechsel des Justus Jonas, gesammelt und bearbeitet von G. Kawerau* (2 vols., Halle, 1884-1885); Kawerau's article in Herzog-Hauck, *Realencyklopädie*, ed. 3, with bibliography.



JONATHAN (Heb. "Yah [weh] gives"). Of the many Jewish bearers of this name, three are well known: (1) the grandson of Moses, who was priest at Dan (Judg. xviii. 30). The reading Manasseh (see R.V. mg.; obtained by inserting *n* above the consonantal text in the Hebrew) is apparently intended to suggest that he was the son of that idolatrous king. (2) The eldest son of Saul, who, together with his father, freed Israel from the crushing oppression of the Philistines (1 Sam. xiii. seq.). Both are lauded in an elegy quoted from the Book of Jashar (2 Sam. i.) for their warm mutual love, their heroism, and their labours on behalf of the people. Jonathan's name is most familiar for the firm friendship which subsisted between him and David (1 Sam. xviii. 1-4; xix. 1-7; xx., xxii. 8; xxiii. 16-18), and when he fell at the battle of Gilboa and left behind him a young child (1 Sam. xxxi.; 2 Sam. iv. 4), David took charge of the youth and gave him a place at his court (2 Sam. ix.). See further [DAVID](#), [SAUL](#). (3) The Maccabee (see [JEWS](#); [MACCABEES](#)).



JONCIÈRES, VICTORIN (1839-1903), French composer, was born in Paris on the 12th of April 1839. He first devoted his attention to painting, but afterwards took up the serious study of music. He entered the Paris Conservatoire, but did not remain there long, because he had espoused too warmly the cause of Wagner against his professor. He composed the following operas: *Sardanapale* (1867), *Le Dernier jour de Pompéi* (1869), *Dimitri* (1876), *La Reine Berthe* (1878), *Le Chevalier Jean* (1885), *Lancelot* (1900). He also wrote incidental music to *Hamlet*, a symphony, and other works. Joncières' admiration for Wagner asserted itself rather in a musical than a dramatic sense. The influence of the German master's earlier style can be traced in his operas. Joncières, however, adhered to the recognized forms of the French opera and did not model his works according to the later developments of the Wagnerian "music drama." He may indeed be said to have been at least as much influenced by Gounod as by Wagner. From 1871 he was musical critic for *La Liberté*. He died on the 26th of October 1903.



JONES, ALFRED GILPIN (1824-1906), Canadian politician, was born at Weymouth, Nova Scotia, in September 1824, the son of Guy C. Jones of Yarmouth, and grandson of a United Empire Loyalist. In 1865 he opposed the federation of the British American provinces, and, in his anger at the refusal of the British government to repeal such portions of the British North America Act as referred to Nova Scotia, made a speech which won for him the name of Haul-down-the-flag Jones. He was for many years a member of the Federal Parliament, and for a few months in 1878 was minister of militia under the Liberal government. Largely owing to his influence the Liberal party refused in 1878 to abandon its Free Trade policy, an obstinacy which led to its defeat in that year. In 1900 he was appointed lieutenant-governor of his native province, and held this position till his death on the 15th of March 1906.



JONES, SIR ALFRED LEWIS (1845-1909), British shipowner, was born in Carmarthenshire, in 1845. At the age of twelve he was apprenticed to the managers of the African Steamship Company at Liverpool, making several voyages to the west coast of Africa. By the time he was twenty-six he had risen to be manager of the business. Not finding sufficient scope in this post, he borrowed money to purchase two or three small sailing vessels, and started in the shipping business on his own account. The venture succeeded, and he made additions to his fleet, but after a few years' successful trading, realizing that sailing ships were about to be superseded by steamers, he sold his vessels. About this time (1891) Messrs. Elder, Dempster & Co., who purchased the business of the old African Steamship Company, offered him a managerial post. This offer he accepted, subject to Messrs. Elder, Dempster selling him a number of their shares, and he thus acquired an interest in the business, and subsequently, by further share purchases, its control. See further [STEAMSHIP LINES](#). In 1901 he was knighted. Sir Alfred Jones took a keen interest in imperial affairs, and was instrumental in founding the Liverpool school of tropical medicine. He acquired considerable territorial interests in West Africa, and financial interests in many of the companies engaged in opening up and developing that part of the world. He also took the leading part in opening up a new line of communication with the West Indies, and stimulating the Jamaica fruit trade and tourist traffic. He died on the 13th of December 1909, leaving large charitable bequests.



JONES, EBENEZER (1820-1860), British poet, was born in Islington, London, on the 20th of January 1820. His father, who was of Welsh extraction, was a strict Calvinist, and Ebenezer was educated at a dull, middle-class school. The death of his father obliged him to become a clerk in the office of a tea merchant. Shelley and Carlyle were his spiritual masters, and he spent all his spare time in reading and writing; but he developed an exaggerated style of thought and expression, due partly to a defective education. The unkind reception of his *Studies of Sensation and Event* (1843) seemed to be the last drop in his bitter cup of life. Baffled and disheartened, he destroyed his manuscripts. He earned his living as an accountant and by literary hack work, and it was not until he was rapidly dying of consumption that he wrote his three remarkable poems, "Winter Hymn to the Snow," "When the World is Burning" and "To Death." The fame that these and some of the pieces in the early volume brought to their author came too late. He died on the 14th of September 1860.

It was not till 1870 that Dante Gabriel Rossetti praised his work in *Notes and Queries*. Rossetti's example was followed by W. B. Scott, Theodore Watts-Dunton, who contributed some papers on the subject to the *Athenaeum* (September and October 1878), and R. H. Sheppard, who edited *Studies of Sensation and Event* in 1879.



JONES, ERNEST CHARLES (1819-1869), English Chartist, was born at Berlin on the 25th of January 1819, and educated in Germany. His father, an officer in the British army, was then equerry to the duke of Cumberland—afterwards king of Hanover. In 1838 Jones came to England, and in 1841 published anonymously *The Wood Spirit*, a romantic novel. This was followed by some

songs and poems. In 1844 he was called to the bar at the Middle Temple. In 1845 he joined the Chartist agitation, quickly becoming its most prominent figure, and vigorously carrying on the party's campaign on the platform and in the press. His speeches, in which he openly advocated physical force, led to his prosecution, and he was sentenced in 1848 to two years' imprisonment for sedition. While in prison he wrote, it is said in his own blood on leaves torn from a prayer-book, *The Revolt of Hindostan*, an epic poem. On his release he again became the leader of what remained of the Chartist party and editor of its organ. But he was almost its only public speaker; he was out of sympathy with the other leading Chartists, and soon joined the advanced Radical party. Thenceforward he devoted himself to law and literature, writing novels, tales and political songs. He made several unsuccessful attempts to enter parliament, and was about to contest Manchester, with the certainty of being returned, when he died there on the 26th of January 1869. He is believed to have sacrificed a considerable fortune rather than abandon his Chartist principles. His wife was Jane Atherley; and his son, Llewellyn Atherley-Jones, K.C. (b. 1851), became a well-known barrister and Liberal member of parliament.



JONES, HENRY (1831-1899), English author, well known as a writer on whist under his *nom de guerre* "Cavendish," was born in London on the 2nd of November 1831, being the eldest son of Henry D. Jones, a medical practitioner. He adopted his father's profession, established himself in 1852 and continued for sixteen years in practice in London. The father was a keen devotee of whist, and under his eye the son became early in life a good player. He was a member of several whist clubs, among them the "Cavendish," and in 1862 appeared his *Principles of Whist, stated and explained by "Cavendish,"* which was destined to become the leading authority as to the practice of the game. This work was followed by treatises on the laws of piquet and écarté. "Cavendish" also wrote on billiards, lawn tennis and croquet, and contributed articles on whist and other games to the ninth edition of the *Encyclopaedia Britannica*. "'Cavendish' was not a law-maker, but he codified and commented upon the laws which had been made during many generations of card-playing." One of the most noteworthy points in his character was the manner in which he kept himself abreast of improvements in his favourite game. He died on the 10th of February 1899.



JONES, HENRY ARTHUR (1851-), English dramatist, was born at Grandborough, Buckinghamshire, on the 28th of September 1851 the son of Silvanus Jones, a farmer. He began to earn his living early, his spare time being given to literary pursuits. He was twenty-seven before his first piece, *Only Round the Corner*, was produced at the Exeter Theatre, but within four years of his début as a dramatist he scored a great success by *The Silver King* (November 1882), written with Henry Herman, a melodrama produced by Wilson Barrett at the Princess's Theatre. Its financial success enabled the author to write a play "to please himself." *Saints and Sinners* (1884), which ran for two hundred nights, placed on the stage a picture of middle-class life and religion in a country town, and the introduction of the religious element raised considerable outcry. The author defended himself in an article published in the *Nineteenth Century* (January 1885), taking for his starting-point a quotation from the preface to Molière's *Tartuffe*. His next serious piece was *The Middleman* (1889), followed by *Judah* (1890), both powerful plays, which established his reputation. Later plays were *The Dancing Girl* (1891), *The Crusaders* (1891), *The Bauble Shop* (1893), *The Tempter* (1893), *The Masqueraders* (1894), *The Case of Rebellious Susan* (1894), *The Triumph of the Philistines* (1895), *Michael and his Lost Angel* (1896), *The Rogue's Comedy* (1896), *The Physician* (1897), *The Liars* (1897), *Carnac Sahib* (1899), *The Manœuvres of Jane* (1899), *The Lackeys' Carnival* (1900), *Mrs Dane's Defence* (1900), *The Princess's Nose* (1902), *Chance the Idol* (1902), *Whitewashing Julia* (1903), *Joseph Entangled* (1904), *The Chevalier* (1904), &c. A uniform edition of his plays began to be issued in 1891; and his own views of dramatic art have been expressed from time to time in lectures and essays, collected in 1895 as *The Renaissance of the English Drama*.



JONES, INIGO (1573-1651), English architect, sometimes called the “English Palladio,” the son of a cloth-worker, was born in London on the 15th of July 1573. It is stated that he was apprenticed to a joiner, but at any rate his talent for drawing attracted the attention of Thomas Howard, earl of Arundel (some say William, 3rd earl of Pembroke), through whose help he went to study landscape-painting in Italy. His preference soon transferred itself to architecture, and, following chiefly the style of Palladio, he acquired at Venice such a reputation that in 1604 he was invited by Christian IV. to Denmark, where he is said to have designed the two great royal palaces of Rosenborg and Frederiksborg. In the following year he accompanied Anne of Denmark to the court of James I. of England, where, besides being appointed architect to the queen and Prince Henry, he was employed in supplying the designs and decorations of the court masques. After a second visit to Italy in 1612, Jones was appointed surveyor-general of royal buildings by James I., and was engaged to prepare designs for a new palace at Whitehall. In 1620 he was employed by the king to investigate the origin of Stonehenge, when he came to the absurd conclusion that it had been a Roman temple. Shortly afterwards he was appointed one of the commissioners for the repair of St Paul’s, but the work was not begun till 1633. Under Charles I. he enjoyed the same offices as under his predecessor, and in the capacity of designer of the masques he came into collision with Ben Jonson, who frequently made him the butt of his satire. After the Civil War Jones was forced to pay heavy fines as a courtier and malignant. He died in poverty on the 5th of July 1651.

A list of the principal buildings designed by Jones is given in Dallaway’s edition of Walpole’s *Anecdotes of Painting*, and for an estimate of him as an architect see Fergusson’s *History of Modern Architecture*. *The Architecture of Palladio*, in 4 books, by Inigo Jones, appeared in 1715; *The Most Notable Antiquity of Great Britain, called Stonehenge, restored by Inigo Jones*, in 1655 (ed. with memoir, 1725); the *Designs of Inigo Jones*, by W. Kent, in 1727; and *The Designs of Inigo Jones*, by J. Ware, in 1757. See also G. H. Birch, *London Churches of the XVIIth and XVIIIth Centuries* (1896); W. J. Loftie, *Inigo Jones and Wren, or the Rise and Decline of Modern Architecture in England* (1893).



JONES, JOHN (c. 1800-1882), English art collector, was born about 1800 in or near London. He was apprenticed to a tailor, and about 1825 opened a shop of his own in the west-end of London. In 1850 he was able to retire from active management with a large fortune. When quite a young man he had begun to collect articles of *vertu*. The rooms over his shop in which he at first lived were soon crowded, and even the bedrooms of his new house in Piccadilly were filled with art treasures. His collection was valued at approximately £250,000. Jones died in London on the 7th of January 1882, leaving his pictures, furniture and objects of art to the South Kensington Museum.

A *Catalogue of the Jones Bequest* was published by the Museum in 1882, and a *Handbook*, with memoir, in 1883.



JONES, JOHN PAUL (1747-1792), American naval officer, was born on the 6th of July 1747, on the estate of Arbigland, in the parish of Kirkbean and the stewartry of Kirkcudbright, Scotland. His father, John Paul, was gardener to Robert Craik, a member of parliament; and his mother, Jean Macduff, was the daughter of a Highlander. Young John Paul, at the age of twelve, became shipmaster’s apprentice to a merchant of Whitehaven, named Younger. At seventeen he shipped as second mate and in the next year as first mate in one of his master’s vessels; on being released from his indentures, he acquired an interest in a ship, and as first mate made two voyages between Jamaica and the Guinea coast, trading in slaves. Becoming dissatisfied with this kind of employment, he sold his share in the ship and embarked for England. During the voyage both the captain and the mate died of fever, and John Paul took command and brought the ship safely to port. The owners gave him and the crew 10% of the cargo; after 1768, as captain of one of their merchantmen, John Paul made several voyages to America; but for unknown reasons he suddenly gave up his command to live in America in poverty and obscurity until 1775. During this period he assumed the name of Jones, apparently out of regard for Willie Jones, a wealthy planter and prominent political leader of North Carolina, who had befriended John Paul in his days of poverty.

When war broke out between England and her American colonies, John Paul Jones was commissioned as a first lieutenant by the Continental Congress, on the 22nd of December 1775. In 1776 he participated in the unsuccessful attack on the island of New Providence, and as commander first of the “Providence” and then of the “Alfred” he cruised between Bermuda and Nova Scotia,

inflicting much damage on British shipping and fisheries. On the 10th of October 1776 he was promoted captain. On the 1st of November 1777 he sailed in the sloop-of-war "Ranger" for France with despatches for the American commissioners, announcing the surrender of Burgoyne and asking that Jones should be supplied with a swift frigate for harassing the coasts of England. Failing to secure a frigate, Jones sailed from Brest in the "Ranger" on the 10th of April 1778. A few days later he surprised the garrisons of the two forts commanding the harbour of Whitehaven, a port with which he was familiar from boyhood, spiked the guns and made an unsuccessful attempt to fire the shipping. Four days thereafter he encountered the British sloop-of-war "Drake," a vessel slightly superior to his in fighting capacity, and after an hour's engagement the British ship struck her colours and was taken to Brest. By this exploit Jones became a great hero in the eyes of the French, just beginning a war with Great Britain. With the rank of commodore he was now put at the head of a squadron of five ships. His flagship, the "Duras," a re-fitted East Indiaman, was re-named by him the "Bonhomme Richard," as a compliment to Benjamin Franklin, whose *Poor Richard's Almanac* was then popular in France. On the 14th of August the five ships sailed from L'Orient, accompanied by two French privateers. Several of the French commanders under Jones proved insubordinate, and the privateers and three of the men-of-war soon deserted him. With the others, however, he continued to take prizes, and even planned to attack the port of Leith, but was prevented by unfavourable winds. On the evening of the 23rd of September the three men-of-war sighted two British men-of-war, the "Serapis" and the "Countess of Scarborough," off Flamborough Head. The "Alliance," commanded by Captain Landais, made off, leaving the "Bonhomme Richard" and the "Pallas" to engage the Englishmen. Jones engaged the greatly superior "Serapis," and after a desperate battle of three and a half hours compelled the English ship to surrender. The "Countess of Scarborough" had meanwhile struck to the more formidable "Pallas." Jones transferred his men and supplies to the "Serapis," and the next day the "Bonhomme Richard" sank.

During the following year Jones spent much of his time in Paris. Louis XVI. gave him a gold-hilted sword and the royal order of military merit, and made him chevalier of France. Early in 1781 Jones returned to America to secure a new command. Congress offered him the command of the "America," a frigate then building, but the vessel was shortly afterwards given to France. In November 1783 he was sent to Paris as agent for the prizes captured in European waters under his own command, and although he gave much attention to social affairs and engaged in several private business enterprises, he was very successful in collecting the prize money. Early in 1787 he returned to America and received a gold medal from Congress in recognition of his services.

In 1788 Jones entered the service of the empress Catherine of Russia, avowing his intention, however, "to preserve the condition of an American citizen and officer." As a rear-admiral he took part in the naval campaign in the Liman (an arm of the Black Sea, into which flow the Bug and Dnieper rivers) against the Turks, but the jealous intrigues of Russian officers caused him to be recalled to St Petersburg for the pretended purpose of being transferred to a command in the North Sea. Here he was compelled to remain in idleness, while rival officers plotted against him and even maliciously assailed his private character. In August 1789 he left St Petersburg a bitterly disappointed man. In May 1790 he arrived in Paris, where he remained in retirement during the rest of his life, although he made several efforts to re-enter the Russian service.

Undue exertion and exposure had wasted his strength before he reached the prime of life, and after an illness, in which he was attended by the queen's physician, he died on the 18th of July 1792. His body was interred in the St Louis cemetery for foreign Protestants, the funeral expenses being paid from the private purse of Pierrot François Simmoneau, the king's commissary. In the confusion during the following years the burial place of Paul Jones was forgotten; but in June 1899 General Horace Porter, American ambassador to France, began a systematic search for the body, and after excavations on the site of the old Protestant cemetery, now covered with houses, a leaden coffin was discovered, which contained the body in a remarkable state of preservation. In July 1905 a fleet of American war-ships carried the body to Annapolis, where it now rests in one of the buildings of the naval academy.

Jones was a seaman of great bravery and technical ability, but over-jealous of his reputation and inclined to be querulous and boastful. The charges by the English that he was a pirate were particularly galling to him. Although of unprepossessing appearance, 5 ft. 7 in. in height and slightly round-shouldered, he was noted for his pleasant manners and was welcomed into the most brilliant courts of Europe.

Romance has played with the memory of Paul Jones to such an extent that few accounts of his life are correct. Of the early biographies the best are Sherburne's (London, 1825), chiefly a collection of Jones's correspondence; the *Janette-Taylor Collection* (New York, 1830), containing numerous extracts from his letters and journals; and the life by A. S. MacKenzie (2 vols., New York, 1846). In recent years a number of new biographies have appeared, including A. C. Buell's (2 vols., 1900), the trustworthiness of which has been discredited, and Hutchins Hapgood's in the Riverside Biographical Series (1901). The life by Cyrus Townsend Brady in the "Great Commanders Series" (1900) is perhaps the best.



JONES, MICHAEL (d. 1649), British soldier. His father was bishop of Killaloe in Ireland. At the outbreak of the English Civil War he was studying law, but he soon took service in the army of the king in Ireland. He was present with Ormonde's army in many of the expeditions and combats of the devastating Irish War, but upon the conclusion of the "Irish Cessation" (see **ORMONDE, JAMES BUTLER, DUKE OF**) he resolved to leave the king's service for that of the parliament, in which he soon distinguished himself by his activity and skill. In the Welsh War, and especially at the last great victory at Rowton Heath, Jones's cavalry was always far superior to that of the Royalists, and in reward for his services he was made governor of Chester when that city fell into the hands of the parliament. Soon afterwards Jones was sent again to the Irish War, in the capacity of commander-in-chief. He began his work by reorganizing the army in the neighbourhood of Dublin, and for some time he carried on a desultory war of posts, necessarily more concerned for his supplies than for a victory. But at Dungan Hill he obtained a complete success over the army of General Preston, and though the war was by no means ended, Jones was able to hold a large tract of country for the parliament. But on the execution of Charles I., the war entered upon a new phase, and garrison after garrison fell to Ormonde's Royalists. Soon Jones was shut up in Dublin, and then followed a siege which was regarded both in England and Ireland with the most intense interest. On the 2nd of August 1649 the Dublin garrison relieved itself by the brilliant action of Rathmines, in which the royal army was practically destroyed. A fortnight later Cromwell landed with heavy reinforcements from England. Jones, his lieutenant-general, took the field; but on the 19th of December 1649 he died, worn out by the fatigues of the campaign.



JONES, OWEN (1741-1814), Welsh antiquary, was born on the 3rd of September 1741 at Llanvihangel Glyn y Myvyr in Denbighshire. In 1760 he entered the service of a London firm of furriers, to whose business he ultimately succeeded. He had from boyhood studied Welsh literature, and later devoted time and money to its collection. Assisted by Edward William of Glamorgan (Iolo Morganwg) and Dr. Owen Pughe, he published, at a cost of more than £1000, the well-known *Myvyrian Archaiology of Wales* (1801-1807), a collection of pieces dating from the 6th to the 14th century. The manuscripts which he had brought together are deposited in the British Museum; the material not utilized in the *Myvyrian Archaiology* amounts to 100 volumes, containing 16,000 pages of verse and 15,300 pages of prose. Jones was the founder of the Gwyneddigion Society (1772) in London for the encouragement of Welsh studies and literature; and he began in 1805 a miscellany—the *Greal*—of which only one volume appeared. An edition of the poems of *Davydd ab Gwilym* was also issued at his expense. He died on the 26th of December 1814 at his business premises in Upper Thames Street, London.



JONES, OWEN (1809-1874), British architect and art decorator, son of Owen Jones, a Welsh antiquary, was born in London. After an apprenticeship of six years in an architect's office, he travelled for four years in Italy, Greece, Turkey, Egypt and Spain, making a special study of the Alhambra. On his return to England in 1836 he busied himself in his professional work. His forte was interior decoration, for which his formula was: "Form without colour is like a body without a soul." He was one of the superintendents of works for the Exhibition of 1851 and was responsible for the general decoration of the Crystal Palace at Sydenham. Along with Digby Wyatt, Jones collected the casts of works of art with which the palace was filled. He died in London on the 19th of April 1874.

Owen Jones was described in the *Builder* for 1874 as "the most potent apostle of colour that architectural England has had in these days." His range of activity is to be traced in his works: *Plans, Elevations and Details of the Alhambra* (1835-1845), in which he was assisted by MM. Goury and Gayangos; *Designs for Mosaic and Tesselated Pavements* (1842); *Polychromatic Ornament of Italy* (1845); *An Attempt to Define the Principles which regulate the Employment of Colour in Decorative Arts* (1852); *Handbook to the Alhambra Court* (1854); *Grammar of Ornament* (1856), a very important work; *One Thousand and One Initial Letters* (1864); *Seven Hundred and Two Monograms* (1864); and *Examples of Chinese Ornament* (1867).



JONES, RICHARD (1790-1855), English economist, was born at Tunbridge Wells. The son of a solicitor, he was intended for the legal profession, and was educated at Caius College, Cambridge. Owing to ill-health, he abandoned the idea of the law and took orders soon after leaving Cambridge. For several years he held curacies in Sussex and Kent. In 1833 he was appointed professor of political economy at King's College, London, resigning this post in 1835 to succeed T. R. Malthus in the chair of political economy and history at the East India College at Haileybury. He took an active part in the commutation of tithes in 1836 and showed great ability as a tithe commissioner, an office which he filled till 1851. He was for some time, also, a charity commissioner. He died at Haileybury, shortly after he had resigned his professorship, on the 26th of January 1855. In 1831 Jones published his *Essay on the Distribution of Wealth and on the Sources of Taxation*, his most important work. In it he showed himself a thorough-going critic of the Ricardian system.

Jones's method is inductive; his conclusions are founded on a wide observation of contemporary facts, aided by the study of history. The world he professed to study was not an imaginary world, inhabited by abstract "economic men," but the real world with the different forms which the ownership and cultivation of land, and, in general, the conditions of production and distribution, assume at different times and places. His recognition of such different systems of life in communities occupying different stages in the progress of civilization led to his proposal of what he called a "political economy of nations." This was a protest against the practice of taking the exceptional state of facts which exists, and is indeed only partially realized, in a small corner of our planet as representing the uniform type of human societies, and ignoring the effects of the early history and special development of each community as influencing its economic phenomena. Jones is remarkable for his freedom from exaggeration and one-sided statement; thus, whilst holding Malthus in, perhaps, undue esteem, he declines to accept the proposition that an increase of the means of subsistence is necessarily followed by an increase of population; and he maintains what is undoubtedly true, that with the growth of population, in all well-governed and prosperous states, the command over food, instead of diminishing, increases.

A collected edition of Jones's works, with a preface by W. Whewell, was published in 1859.



JONES, THOMAS RUPERT (1819-), English geologist and palaeontologist, was born in London on the 1st of October 1819. While at a private school at Ilminster, his attention was attracted to geology by the fossils that are so abundant in the Lias quarries. In 1835 he was apprenticed to a surgeon at Taunton, and he completed his apprenticeship in 1842 at Newbury in Berkshire. He was then engaged in practice mainly in London, till in 1849 he was appointed assistant secretary to the Geological Society of London. In 1862 he was made professor of geology at the Royal Military College, Sandhurst. Having devoted his especial attention to fossil microzoa, he now became the highest authority in England on the Foraminifera and Entomostraca. He edited the 2nd edition of Mantell's *Medals of Creation* (1854), the 3rd edition of Mantell's *Geological Excursions round the Isle of Wight* (1854), and the 7th edition of Mantell's *Wonders of Geology* (1857); he also edited the 2nd edition of Dixon's *Geology of Sussex* (1878). He was elected F.R.S. in 1872 and was awarded the Lyell medal by the Geological Society in 1890. For many years he was specially interested in the geology of South Africa.

His publications include *A Monograph of the Entomostraca of the Cretaceous Formation of England* (Palaeontograph. Soc., 1849); *A Monograph of the Tertiary Entomostraca of England* (ibid. 1857); *A Monograph of the Fossil Estheriae* (ibid. 1862); *A Monograph of the Foraminifera of the Crag* (ibid. 1866, &c., with H. B. Brady); and numerous articles in the *Annals and Magazine of Natural History*, the *Geological Magazine*, the *Proceedings of the Geologists' Association*, and other journals.



JONES, WILLIAM (1726-1800), English divine, was born at Lowick, in Northamptonshire on the 30th of July 1726. He was descended from an old Welsh family and one of his progenitors was

Colonel John Jones, brother-in-law of Cromwell. He was educated at Charterhouse School, and at University College, Oxford. There a kindred taste for music, as well as a similarity in regard to other points of character, led to his close intimacy with George Horne (*q.v.*), afterwards bishop of Norwich, whom he induced to study Hutchinsonian doctrines. After obtaining his bachelor's degree in 1749, Jones held various preferments. In 1777 he obtained the perpetual curacy of Nayland, Suffolk, and on Horne's appointment to Norwich became his chaplain, afterwards writing his life. His vicarage became the centre of a High Church coterie, and Jones himself was a link between the non-jurors and the Oxford movement. He could write intelligibly on abstruse topics. He died on the 6th of January 1800.

In 1756 Jones published his tractate *On the Catholic Doctrine of the Trinity*, a statement of the doctrine from the Hutchinsonian point of view, with a succinct and able summary of biblical proofs. This was followed in 1762 by an *Essay on the First Principles of Natural Philosophy*, in which he maintained the theories of Hutcheson in opposition to those of Sir Isaac Newton, and in 1781 he dealt with the same subject in *Physiological Disquisitions*. Jones was also the originator of the *British Critic* (May 1793). His collected works, with a life by William Stevens, appeared in 1801, in 12 vols., and were condensed into 6 vols. in 1810. A life of Jones, forming pt. 5 of the *Biography of English Divines*, was published in 1849.



JONES, SIR WILLIAM (1746-1794), British Orientalist and jurist, was born in London on the 28th of September 1746. He distinguished himself at Harrow, and during his last three years there applied himself to the study of Oriental languages, teaching himself the rudiments of Arabic, and reading Hebrew with tolerable ease. In his vacations he improved his acquaintance with French and Italian. In 1764 Jones entered University College, Oxford, where he continued to study Oriental literature, and perfected himself in Persian and Arabic by the aid of a Syrian Mirza, whom he had discovered and brought from London. He added to his knowledge of Hebrew and made considerable progress in Italian, Spanish and Portuguese. He began the study of Chinese, and made himself master of the radical characters of that language. During five years he partly supported himself by acting as tutor to Lord Althorpe, afterwards the second Earl Spencer, and in 1766 he obtained a fellowship. Though but twenty-two years of age, he was already becoming famous as an Orientalist, and when Christian VII. of Denmark visited England in 1768, bringing with him a life of Nadir Shah in Persian, Jones was requested to translate the MS. into French. The translation appeared in 1770, with an introduction containing a description of Asia and a short history of Persia. This was followed in the same year by a *Traité sur la poésie orientale*, and by a French metrical translation of the odes of Hafiz. In 1771 he published a *Dissertation sur la littérature orientale*, defending Oxford scholars against the criticisms made by Anquetil Du Perron in the introduction to his translation of the *Zend-Avesta*. In the same year appeared his *Grammar of the Persian Language*. In 1772 Jones published a volume of *Poems, Chiefly Translations from Asiatick Languages, together with Two Essays on the Poetry of Eastern Nations and on the Arts commonly called Imitative*, and in 1774 a treatise entitled *Poeseos Asiaticæ commentatorium libri sex*, which definitely confirmed his authority as an Oriental scholar.

Finding that some more financially profitable occupation was necessary, Jones devoted himself with his customary energy to the study of the law, and was called to the bar at the Middle Temple in 1774. He studied not merely the technicalities, but the philosophy, of law, and within two years had acquired so considerable a reputation that he was in 1776 appointed commissioner in bankruptcy. Besides writing an *Essay on the Law of Bailments*, which enjoyed a high reputation both in England and America, Jones translated, in 1778, the speeches of Isaeus on the Athenian right of inheritance. In 1780 he was a parliamentary candidate for the university of Oxford, but withdrew from the contest before the day of election, as he found he had no chance of success owing to his Liberal opinions, especially on the questions of the American War and of the slave trade.

In 1783 was published his translation of the seven ancient Arabic poems called *Moallakât*. In the same year he was appointed judge of the supreme court of judicature at Calcutta, then "Fort William," and was knighted. Shortly after his arrival in India he founded, in January 1784, the Bengal Asiatic Society, of which he remained president till his death. Convinced as he was of the great importance of consulting the Hindu legal authorities in the original, he at once began the study of Sanskrit, and undertook, in 1788, the colossal task of compiling a digest of Hindu and Mahomedan law. This he did not live to complete, but he published the admirable beginnings of it in his *Institutes of Hindu Law, or the Ordinances of Manu* (1794); his *Mohammedan Law of Succession to Property of Intestates*; and his *Mohammedan Law of Inheritance* (1792). In 1789 Jones had completed his translation of Kālidāsa's most famous drama, *Sakuntalā*. He also translated the collection of fables entitled the *Hitopadesa*, the *Gītagovinda*, and considerable portions of the Vedas, besides editing the text of Kālidāsa's poem *Ritusamhara*. He was a large contributor also to his society's volumes of *Asiatic Researches*.

His unremitting literary labours, together with his heavy judicial work, told on his health after a ten years' residence in Bengal; and he died at Calcutta on the 27th of April 1794. An extraordinary linguist, knowing thirteen languages well, and having a moderate acquaintance with twenty-eight others, his range of knowledge was enormous. As a pioneer in Sanskrit learning and as founder of the Asiatic Society he rendered the language and literature of the ancient Hindus accessible to European scholars, and thus became the indirect cause of later achievements in the field of Sanskrit and comparative philology. A monument to his memory was erected by the East India Company in St Paul's, London, and a statue in Calcutta.

See the *Memoir* (1804) by Lord Teignmouth, published in the collected edition of Sir W. Jones's works.



JÖNKÖPING, a town of Sweden, capital of the district (*län*) of Jönköping, 230 m. S.W. of Stockholm by rail. Pop. (1900), 23,143. It occupies a beautiful but somewhat unhealthy position between the southern end of Lake Vetter and two small lakes, Roksjö and Munksjö. Two quarters of the town, Svenska Mad and Tyska Mad, recall the time when the site was a marsh (*mad*), and buildings were constructed on piles. The residential suburbs among the hills, especially Dunkehällar, are attractive and healthier than the town. The church of St Kristine (c. 1650), the court-houses, town-hall, government buildings, and high school, are noteworthy. The town is one of the leading industrial centres in Sweden. The match manufacture, for which it is principally famous, was founded by Johan Edvard Lundström in 1844. The well-known brand of *säkerhets-tändstickor* (safety-matches) was introduced later. There are also textile manufactures, paper-factories (on Munksjö), and mechanical works. There is a large fire-arms factory at Huskvarna, 5 m. E. Water-power is supplied here by a fine series of falls. The hill Taberg, 8 m. S., is a mass of magnetic iron ore, rising 410 ft. above the surrounding country, 2950 ft. long and 1475 ft. broad, but the percentage of iron is low as compared with the rich ores of other parts, and the deposit is little worked. Jönköping is the seat of one of the three courts of appeal in Sweden.

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Jönköping received the earliest extant Swedish charter in 1284 from Magnus I. The castle is mentioned in 1263, when Waldemar Birgersson married the Danish princess Sophia. Jönköping was afterwards the scene of many events of moment in Scandinavian history—of parliaments in 1357, 1439, and 1599; of the meeting of the Danish and Swedish plenipotentiaries in 1448; and of the death of Sten Sture, the elder, in 1503. In 1612 Gustavus Adolphus caused the inhabitants to destroy their town lest it should fall into the hands of the Danes; but it was rebuilt soon after, and in 1620 received special privileges from the king. At this period a textile industry was started here, the first of any importance in Sweden. It was from the Dutch and German workmen, introduced at this time, that the quarter Tyska Mad received its name. On the 10th of December 1809 the plenipotentiaries of Sweden and Denmark concluded peace in the town.



JONSON, BEN¹ (1573-1637), English dramatist, was born, probably in Westminster, in the beginning of the year 1573 (or possibly, if he reckoned by the unadopted modern calendar, 1572; see Castelain, p. 4, note 1). By the poet's account his grandfather had been a gentleman who "came from" Carlisle, and originally, the grandson thought, from Annandale. His arms, "three spindles or rhombi," are the family device of the Johnstones of Annandale, a fact which confirms his assertion of Border descent. Ben Jonson further related that he was born a month after the death of his father, who, after suffering in estate and person under Queen Mary, had in the end "turned minister." Two years after the birth of her son the widow married again; she may be supposed to have loved him in a passionate way peculiar to herself, since on one occasion we find her revealing an almost ferocious determination to save his honour at the cost of both his life and her own. Jonson's stepfather was a master bricklayer, living in Hartshorn Lane, near Charing Cross, who provided his stepson with the foundations of a good education. After attending a private school in St Martin's Lane, the boy was sent to Westminster School at the expense, it is said, of William Camden. Jonson's gratitude for an education to which in truth he owed an almost inestimable debt concentrated itself upon the "most reverend head" of his benefactor, then second and afterwards head master of the famous school, and the firm friend of his pupil in later life.

After reaching the highest form at Westminster, Jonson is stated, but on unsatisfactory evidence, to have proceeded to Cambridge—according to Fuller, to St John's College. (For reasons in support of

the tradition that he was a member of St John's College, see J. B. Mullinger, the *Eagle*, No. xxv.) He says, however, himself that he studied at neither university, but was put to a trade immediately on leaving school. He soon had enough of the trade, which was no doubt his father's bricklaying, for Henslowe in writing to Edward Alleyne of his affair with Gabriel Spenser calls him "bergemen [*sic*] Jonson, bricklayer." Either before or after his marriage—more probably before, as Sir Francis Vere's three English regiments were not removed from the Low Countries till 1592—he spent some time in that country soldiering, much to his own subsequent satisfaction when the days of self-conscious retrospect arrived, but to no further purpose beyond that of seeing something of the world.

Ben Jonson married not later than 1592. The registers of St Martin's Church state that his eldest daughter Maria died in November 1593 when she was, Jonson tells us (epigram 22), only six months old. His eldest son Benjamin died of the plague ten years later (epigram 45). (A younger Benjamin died in 1635.) His wife Jonson characterized to Drummond as "a shrew, but honest"; and for a period (undated) of five years he preferred to live without her, enjoying the hospitality of Lord Aubigny (afterwards duke of Lennox). Long burnings of oil among his books, and long spells of recreation at the tavern, such as Jonson loved, are not the most favoured accompaniments of family life. But Jonson was no stranger to the tenderest of affections: two at least of the several children whom his wife bore to him he commemorated in touching little tributes of verse; nor in speaking of his lost eldest daughter did he forget "her mother's tears." By the middle of 1597 we come across further documentary evidence of him at home in London in the shape of an entry in Philip Henslowe's diary (July 28) of 3s. 6d. "received of Bengemenes Johnsones share." He was therefore by this time—when Shakespeare, his senior by nearly nine years, was already in prosperous circumstances and good esteem—at least a regular member of the acting profession, with a fixed engagement in the lord admiral's company, then performing under Henslowe's management at the Rose. Perhaps he had previously acted at the Curtain (a former house of the lord admiral's men), and "taken mad Jeronimo's part" on a play-wagon in the highway. This latter appearance, if it ever took place, would, as was pointed out by Gifford, probably have been in Thomas Kyd's *Spanish Tragedy*, since in *The First Part of Jeronimo* Jonson would have had, most inappropriately, to dwell on the "smallness" of his "bulk." He was at a subsequent date (1601) employed by Henslowe to write up *The Spanish Tragedy*, and this fact may have given rise to Wood's story of his performance as a stroller (see, however, Fleay, *The English Drama*, ii. 29, 30). Jonson's additions, which were not the first changes made in the play, are usually supposed to be those printed with *The Spanish Tragedy* in the edition of 1602; Charles Lamb's doubts on the subject, which were shared by Coleridge, seem an instance of that subjective kind of criticism which it is unsafe to follow when the external evidence to the contrary is so strong.

According to Aubrey, whose statement must be taken for what it is worth, "Jonson was never a good actor, but an excellent instructor." His physique was certainly not well adapted to the histrionic conditions of his—perhaps of any—day; but, in any case, it was not long before he found his place in the organism of his company. In 1597, as we know from Henslowe, Jonson undertook to write a play for the lord admiral's men; and in the following year he was mentioned by Merès in his *Palladis Tamia* as one of "the best for tragedy," without any reference to a connexion on his part with the other branch of the drama. Whether this was a criticism based on material evidence or an unconscious slip, Ben Jonson in the same year 1598 produced one of the most famous of English comedies, *Every Man in his Humour*, which was first acted—probably in the earlier part of September—by the lord chamberlain's company at the Curtain. Shakespeare was one of the actors in Jonson's comedy, and it is in the character of Old Knowell in this very play that, according to a bold but ingenious guess, he is represented in the half-length portrait of him in the folio of 1623, beneath which were printed Jonson's lines concerning the picture. *Every Man in his Humour* was published in 1601; the critical prologue first appears in the folio of 1616, and there are other divergences (see Castelain, appendix A). After the Restoration the play was revived in 1751 by Garrick (who acted Kitley) with alterations, and long continued to be known on the stage. It was followed in the same year by *The Case is Altered*, acted by the children of the queen's revels, which contains a satirical attack upon the pageant poet, Anthony Munday. This comedy, which was not included in the folio editions, is one of intrigue rather than of character; it contains obvious reminiscences of Shylock and his daughter. The earlier of these two comedies was indisputably successful.

Before the year 1598 was out, however, Jonson found himself in prison and in danger of the gallows. In a duel, fought on the 22nd of September in Hogsden Fields, he had killed an actor of Henslowe's company named Gabriel Spenser. The quarrel with Henslowe consequent on this event may account for the production of *Every Man in his Humour* by the rival company. In prison Jonson was visited by a Roman Catholic priest, and the result (certainly strange, if Jonson's parentage is considered) was his conversion to the Church of Rome, to which he adhered for twelve years. Jonson was afterwards a diligent student of divinity; but, though his mind was religious, it is not probable that its natural bias much inclined it to dwell upon creeds and their controversies. He pleaded guilty to the charge brought against him, as the rolls of Middlesex sessions show; but, after a short imprisonment, he was released by benefit of clergy, forfeiting his "goods and chattels," and being branded on his left thumb. The affair does not seem to have affected his reputation; in 1599 he is found back again at work for Henslowe, receiving together with Dekker, Chettle and "another gentleman," earnest-money for a tragedy (undiscovered) called *Robert II., King of Scots*. In the same year he brought out through the lord chamberlain's company (possibly already at the Globe, then newly built or building) the elaborate comedy of *Every Man out of his Humour* (quarto 1600; fol.

1616)—a play subsequently presented before Queen Elizabeth. The sunshine of court favour, rarely diffused during her reign in rays otherwise than figuratively golden, was not to bring any material comfort to the most learned of her dramatists, before there was laid upon her the inevitable hand of which his courtly epilogue had besought death to forget the use. Indeed, of his *Cynthia's Revels*, performed by the chapel children in 1600 and printed with the first title of *The Fountain of Self-Love* in 1601, though it was no doubt primarily designed as a compliment to the queen, the most marked result had been to offend two playwrights of note—Dekker, with whom he had formerly worked in company, and who had a healthy if rough grip of his own; and Marston, who was perhaps less dangerous by his strength than by his versatility. According to Jonson, his quarrel with Marston had begun by the latter attacking his morals, and in the course of it they came to blows, and might have come to worse. In *Cynthia's Revels*, Dekker is generally held to be satirized as Hedon, and Marston as Anaides (Fleay, however, thinks Anaides is Dekker, and Hedon Daniel), while the character of Crites most assuredly has some features of Jonson himself. Learning the intention of the two writers whom he had satirized, or at all events of Dekker, to wreak literary vengeance upon him, he anticipated them in *The Poetaster* (1601), again played by the children of the queen's chapel at the Blackfriars and printed in 1602; Marston and Dekker are here ridiculed respectively as the aristocratic Crispinus and the vulgar Demetrius. The play was completed fifteen weeks after its plot was first conceived. It is not certain to what the proceedings against author and play before the lord chief justice, referred to in the dedication of the edition of 1616, had reference, or when they were instituted. Fleay's supposition that the "purge," said in the *Returne from Parnassus* (Pt. II. act iv. sc. iii.) to have been administered by Shakespeare to Jonson in return for Horace's "pill to the poets" in this piece, consisted of *Troilus and Cressida* is supremely ingenious, but cannot be examined here. As for Dekker, he retaliated on *The Poetaster* by the *Satiromastix, or The Untrussing of the Humorous Poet* (1602). Some more last words were indeed attempted on Jonson's part, but in the *Apologetic Dialogue* added to *The Poetaster* in the edition of 1616, though excluded from that of 1602, he says he intends to turn his attention to tragedy. This intention he apparently carried out immediately, for in 1602 he received £10 from Henslowe for a play, entitled *Richard Crookbacke*, now lost—unfortunately so, for purposes of comparison in particular, even if it was only, as Fleay conjectures, "an alteration of Marlowe's play." According to a statement by Overbury, early in 1603, "Ben Johnson, the poet, now lives upon one Townesend," supposed to have been the poet and masquer-writer Aurelian Townshend, at one time steward to the 1st earl of Salisbury, "and scornes the world." To his other early patron, Lord Aubigny, Jonson dedicated the first of his two extant tragedies, *Sejanus*, produced by the king's servants at the Globe late in 1603, Shakespeare once more taking a part in the performance. Either on its performance or on its appearing in print in 1605, Jonson was called before the privy council by the Earl of Northampton. But it is open to question whether this was the occasion on which, according to Jonson's statement to Drummond, Northampton "accused him both of popery and treason" (see Castelain, Appendix C). Though, for one reason or another, unsuccessful at first, the endurance of its reputation is attested by its performance, in a German version by an Englishman, John Michael Girish, at the court of the grandson of James I. at Heidelberg.

When the reign of James I. opened in England and an adulatory loyalty seemed intent on showing that it had not exhausted itself at the feet of Gloriana, Jonson's well-stored brain and ready pen had their share in devising and executing ingenious variations on the theme "Welcome—since we cannot do without thee!" With extraordinary promptitude his genius, which, far from being "ponderous" in its operations, was singularly swift and flexible in adapting itself to the demands made upon it, met the new taste for masques and entertainments—new of course in degree rather than in kind—introduced with the new reign and fostered by both the king and his consort. The pageant which on the 7th of May 1603 bade the king welcome to a capital dissolved in joy was partly of Jonson's, partly of Dekker's, devising; and he was able to deepen and diversify the impression by the composition of masques presented to James I. when entertained at houses of the nobility. *The Satyr* (1603) was produced on one of these occasions, Queen Anne's sojourn at Althorpe, the seat of Sir Robert Spencer, afterwards Lord Althorpe, who seems to have previously bestowed some patronage upon him. *The Penates* followed on May-day 1604 at the house of Sir William Cornwallis at Highgate, and the queen herself with her ladies played his *Masque of Blackness* at Whitehall in 1605. He was soon occasionally employed by the court itself—already in 1606 in conjunction with Inigo Jones, as responsible for the "painting and carpentry"—and thus speedily showed himself master in a species of composition for which, more than any other English poet before Milton, he secured an enduring place in the national poetic literature. Personally, no doubt, he derived considerable material benefit from the new fashion—more especially if his statement to Drummond was anything like correct, that out of his plays (which may be presumed to mean his original plays) he had never gained a couple of hundred pounds.

Good humour seems to have come back with good fortune. Joint employment in *The King's Entertainment* (1604) had reconciled him with Dekker; and with Marston also, who in 1604 dedicated to him his *Malcontent*, he was again on pleasant terms. When, therefore, in 1604 Marston and Chapman (who, Jonson told Drummond, was loved of him, and whom he had probably honoured as "Virgil" in *The Poetaster*, and who has, though on doubtful grounds, been supposed to have collaborated in the original *Sejanus*) produced the excellent comedy of *Eastward Ho*, it appears to have contained some contributions by Jonson. At all events, when the authors were arrested on account of one or more passages in the play which were deemed insulting to the Scots, he

“voluntarily imprisoned himself” with them. They were soon released, and a banquet at his expense, attended by Camden and Selden, terminated the incident. If Jonson is to be believed, there had been a report that the prisoners were to have their ears and noses cut, and, with reference apparently to this peril, “at the midst of the feast his old mother drank to him, and showed him a paper which she had intended (if the sentence had taken execution) to have mixed in the prison among his drink, which was full of lusty strong poison; and that she was no churl, she told him, she minded first to have drunk of it herself.” Strange to say, in 1605 Jonson and Chapman, though the former, as he averred, had so “attempered” his style as to have “given no cause to any good man of grief,” were again in prison on account of “a play”; but they appear to have been once more speedily set free, in consequence of a very manly and dignified letter addressed by Jonson to the Earl of Salisbury. As to the relations between Chapman and Jonson, illustrated by newly discovered letters, see Bertram Dobell in the *Athenaeum* No. 3831 (March 30, 1901), and the comments of Castelain. He thinks that the play in question, in which both Chapman and Jonson took part, was *Sir Gyles Goosecappe*, and that the last imprisonment of the two poets was shortly after the discovery of the Gunpowder Plot. In the mysterious history of the Gunpowder Plot Jonson certainly had some obscure part. On the 7th of November, very soon after the discovery of the conspiracy, the council appears to have sent for him and to have asked him, as a loyal Roman Catholic, to use his good offices in inducing the priests to do something required by the council—one hardly likes to conjecture it to have been some tampering with the secrets of confession. In any case, the negotiations fell through, because the priests declined to come forth out of their hiding-places to be negotiated with—greatly to the wrath of Ben Jonson, who declares in a letter to Lord Salisbury that “they are all so enweaved in it that it will make 500 gentlemen less of the religion within this week, if they carry their understanding about them.” Jonson himself, however, did not declare his separation from the Church of Rome for five years longer, however much it might have been to his advantage to do so.

His powers as a dramatist were at their height during the earlier half of the reign of James I.; and by the year 1616 he had produced nearly all the plays which are worthy of his genius. They include the tragedy of *Catiline* (acted and printed 1611), which achieved only a doubtful success, and the comedies of *Volpone, or the Fox* (acted 1605 and printed in 1607 with a dedication “from my house in the Blackfriars”), *Epicoene, or the Silent Woman* (1609; entered in the Stationers’ Register 1610), the *Alchemist* (1610; printed in 1610), *Bartholomew Fair* and *The Devil is an Ass* (acted respectively in 1614 and 1616). During the same period he produced several masques, usually in connexion with Inigo Jones, with whom, however, he seems to have quarrelled already in this reign, though it is very doubtful whether the architect is really intended to be ridiculed in *Bartholomew Fair* under the character of Lanthorn Leatherhead. Littlewit, according to Fleay, is Daniel. Among the most attractive of his masques may be mentioned the *Masque of Blackness* (1606), the *Masque of Beauty* (1608), and the *Masque of Queens* (1609), described by Swinburne as “the most splendid of all masques” and as “one of the typically splendid monuments or trophies of English literature.” In 1616 a modest pension of 100 marks a year was conferred upon him; and possibly this sign of royal favour may have encouraged him to the publication of the first volume of the folio collected edition of his works (1616), though there are indications that he had contemplated its production, an exceptional task for a playwright of his times to take in hand, as early as 1612.

He had other patrons more bountiful than the Crown, and for a brief space of time (in 1613) had travelled to France as governor (without apparently much moral authority) to the eldest son of Sir Walter Raleigh, then a state prisoner in the Tower, for whose society Jonson may have gained a liking at the Mermaid Tavern in Cheapside, but for whose personal character he, like so many of his contemporaries, seems to have had but small esteem. By the year 1616 Jonson seems to have made up his mind to cease writing for the stage, where neither his success nor his profits had equalled his merits and expectations. He continued to produce masques and entertainments when called upon; but he was attracted by many other literary pursuits, and had already accomplished enough to furnish plentiful materials for retrospective discourse over pipe or cup. He was already entitled to lord it at the Mermaid, where his quick antagonist in earlier wit-combats (if Fuller’s famous description be authentic) no longer appeared even on a visit from his comfortable retreat at Stratford. That on the other hand Ben carried his wicked town habits into Warwickshire, and there, together with Drayton, made Shakespeare drink so hard with them as to bring upon himself the fatal fever which ended his days, is a scandal with which we may fairly refuse to load Jonson’s memory. That he had a share in the preparing for the press of the first folio of Shakespeare, or in the composition of its preface, is of course a mere conjecture.

It was in the year 1618 that, like Dr Samuel Johnson a century and a half afterwards, Ben resolved to have a real holiday for once, and about midsummer started for his ancestral country, Scotland. He had (very heroically for a man of his habits) determined to make the journey on foot; and he was speedily followed by John Taylor, the water-poet, who still further handicapped himself by the condition that he would accomplish the pilgrimage without a penny in his pocket. Jonson, who put money in his good friend’s purse when he came up with him at Leith, spent more than a year and a half in the hospitable Lowlands, being solemnly elected a burgess of Edinburgh, and on another occasion entertained at a public banquet there. But the best-remembered hospitality which he enjoyed was that of the learned Scottish poet, William Drummond of Hawthornden, to which we owe the so-called *Conversations*. In these famous jottings, the work of no extenuating hand, Jonson lives for us to this day, delivering his censures, terse as they are, in an expansive mood whether of praise or of blame; nor is he at all generously described in the postscript added by his fatigued and at times

irritated host as “a great lover and praiser of himself, a contemner and scorner of others.” A poetical account of this journey, “with all the adventures,” was burnt with Jonson’s library.

After his return to England Jonson appears to have resumed his former course of life. Among his noble patrons and patronesses were the countess of Rutland (Sidney’s daughter) and her cousin Lady Wroth; and in 1619 his visits to the country seats of the nobility were varied by a sojourn at Oxford with Richard Corbet, the poet, at Christ Church, on which occasion he took up the master’s degree granted to him by the university; whether he actually proceeded to the same degree granted to him at Cambridge seems unknown. He confessed about this time that he was or seemed growing “restive,” *i.e.* lazy, though it was not long before he returned to the occasional composition of masques. The extremely spirited *Gipsies Metamorphosed* (1621) was thrice presented before the king, who was so pleased with it as to grant to the poet the reversion of the office of master of the revels, besides proposing to confer upon him the honour of knighthood. This honour Jonson (hardly in deference to the memory of Sir Petronel Flash) declined; but there was no reason why he should not gratefully accept the increase of his pension in the same year (1621) to £200—a temporary increase only, inasmuch as it still stood at 100 marks when afterwards augmented by Charles I.

The close of King James I.’s reign found the foremost of its poets in anything but a prosperous condition. It would be unjust to hold the Sun, the Dog, the Triple Tun, or the Old Devil with its Apollo club-room, where Ben’s supremacy must by this time have become established, responsible for this result; taverns were the clubs of that day, and a man of letters is not considered lost in our own because he haunts a smoking-room in Pall Mall. Disease had weakened the poet’s strength, and the burning of his library, as his *Execration upon Vulcan* sufficiently shows, must have been no mere transitory trouble to a poor poet and scholar. Moreover he cannot but have felt, from the time of the accession of Charles I. early in 1625 onwards, that the royal patronage would no longer be due in part to anything like intellectual sympathy. He thus thought it best to recur to the surer way of writing for the stage, and in 1625 produced, with no faint heart, but with a very clear anticipation of the comments which would be made upon the reappearance of the “huge, overgrown play-maker,” *The Staple of News*, a comedy excellent in some respects, but little calculated to become popular. It was not printed till 1631. Jonson, whose habit of body was not more conducive than were his ways of life to a healthy old age, had a paralytic stroke in 1626, and a second in 1628. In the latter year, on the death of Middleton, the appointment of city chronologer, with a salary of 100 nobles a year, was bestowed upon him. He appears to have considered the duties of this office as purely ornamental; but in 1631 his salary was suspended until he should have presented some fruits of his labours in his place, or—as he more succinctly phrased it—“yesterday the barbarous court of aldermen have withdrawn their chandlerly pension for verjuice and mustard, £33, 6s. 8d.” After being in 1628 arrested by mistake on the utterly false charge of having written certain verses in approval of the assassination of Buckingham, he was soon allowed to return to Westminster, where it would appear from a letter of his “son and contiguous neighbour,” James Howell, he was living in 1629, and about this time narrowly escaped another conflagration. In the same year (1629) he once more essayed the stage with the comedy of *The New Inn*, which was actually, and on its own merits not unjustly, damned on the first performance. It was printed in 1631, “as it was never acted but most negligently played”; and Jonson defended himself against his critics in his spirited *Ode to Himself*. The epilogue to *The New Inn* having dwelt not without dignity upon the neglect which the poet had experienced at the hands of “king and queen,” King Charles immediately sent the unlucky author a gift of £100, and in response to a further appeal increased his standing salary to the same sum, with the addition of an annual tierce of canary—the poet-laureate’s customary royal gift, though this designation of an office, of which Jonson discharged some of what became the ordinary functions, is not mentioned in the warrant dated the 26th of March 1630. In 1634, by the king’s desire, Jonson’s salary as chronologer to the city was again paid. To his later years belong the comedies, *The Magnetic Lady* (1632) and *The Tale of a Tub* (1633), both printed in 1640, and some masques, none of which met with great success. The patronage of liberal-minded men, such as the earl, afterwards duke, of Newcastle—by whom he must have been commissioned to write his last two masques *Love’s Welcome at Welbeck* (1633) and *Love’s Welcome at Bolsover* (1634)—and Viscount Falkland, was not wanting, and his was hardly an instance in which the fickleness of time and taste could have allowed a literary veteran to end his career in neglect. He was the acknowledged chief of the English world of letters, both at the festive meetings where he ruled the roast among the younger authors whose pride it was to be “sealed of the tribe of Ben,” and by the avowal of grave writers, old or young, not one of whom would have ventured to dispute his titular pre-eminence. Nor was he to the last unconscious of the claims upon him which his position brought with it. When, nearly two years after he had lost his surviving son, death came upon the sick old man on the 6th of August 1637, he left behind him an unfinished work of great beauty, the pastoral drama of *The Sad Shepherd* (printed in 1641). For forty years, he said in the prologue, he had feasted the public; at first he could scarce hit its taste, but patience had at last enabled it to identify itself with the working of his pen.

We are so accustomed to think of Ben Jonson presiding, attentive to his own applause, over a circle of younger followers and admirers that we are apt to forget the hard struggle which he had passed through before gaining the crown now universally acknowledged to be his. Howell records, in the year before Ben’s death, that a solemn supper at the poet’s own house, where the host had almost spoiled the relish of the feast by vilifying others and magnifying himself, “T. Ca.” (Thomas Carew) buzzed in the writer’s ear “that, though Ben had barrellled up a great deal of knowledge, yet it seemed he had not read the *Ethics*, which, among other precepts of morality, forbid self-

commendation." Self-reliance is but too frequently coupled with self-consciousness, and for good and for evil self-confidence was no doubt the most prominent feature in the character of Ben Jonson. Hence the combativeness which involved him in so many quarrels in his earlier days, and which jarred so harshly upon the less militant and in some respects more pedantic nature of Drummond. But his quarrels do not appear to have entered deeply into his soul, or indeed usually to have lasted long.² He was too exuberant in his vituperations to be bitter, and too outspoken to be malicious. He loved of all things to be called "honest," and there is every reason to suppose that he deserved the epithet. The old superstition that Jonson was filled with malignant envy of the greatest of his fellow-dramatists, and lost no opportunity of giving expression to it, hardly needs notice. Those who consider that Shakespeare was beyond criticism may find blasphemy in the saying of Jonson that Shakespeare "wanted art." Occasional jesting allusions to particular plays of Shakespeare may be found in Jonson, among which should hardly be included the sneer at "mouldy" Pericles in his *Ode to Himself*. But these amount to nothing collectively, and to very little individually; and against them have to be set, not only the many pleasant traditions concerning the long intimacy between the pair, but also the lines, prefixed to the first Shakespeare folio, as noble as they are judicious, dedicated by the survivor to "the star of poets," and the adaptation, clearly sympathetic notwithstanding all its butts, *de Shakespeare nostrat.* in the *Discoveries*. But if Gifford had rendered no other service to Jonson's fame he must be allowed to have once for all vindicated it from the cruellest aspersion which has ever been cast upon it. That in general Ben Jonson was a man of strong likes and dislikes, and was wont to manifest the latter as vehemently as the former, it would be idle to deny. He was at least impartial in his censures, dealing them out freely to Puritan poets like Wither and (supposing him not to have exaggerated his free-spokenness) to princes of his church like Cardinal du Perron. And, if sensitive to attack, he seems to have been impervious to flattery—to judge from the candour with which he condemned the foibles even of so enthusiastic an admirer as Beaumont. The personage that he disliked the most, and openly abused in the roundest terms, was unfortunately one with many heads and a tongue to hiss in each—no other than that "general public" which it was the fundamental mistake of his life to fancy he could "rail into approbation" before he had effectively secured its goodwill. And upon the whole it may be said that the admiration of the few, rather than the favour of the many, has kept green the fame of the most independent among all the masters of an art which, in more senses than one, must please to live.

Jonson's learning and industry, which were alike exceptional, by no means exhausted themselves in furnishing and elaborating the materials of his dramatic works. His enemies sneered at him as a translator—a title which the preceding generation was inclined to esteem the most honourable in literature. But his classical scholarship shows itself in other directions besides his translations from the Latin poets (the *Ars poetica* in particular), in addition to which he appears to have written a version of Barclay's *Argenis*; it was likewise the basis of his *English Grammar*, of which nothing but the rough draft remains (the MS. itself having perished in the fire in his library), and in connexion with the subject of which he appears to have pursued other linguistic studies (Howell in 1629 was trying to procure him a Welsh grammar). And its effects are very visible in some of the most pleasing of his non-dramatic poems, which often display that combination of polish and simplicity hardly to be reached—or even to be appreciated—without some measure of classical training.

Exclusively of the few lyrics in Jonson's dramas (which, with the exception of the stately choruses in *Catiline*, charm, and perhaps may surprise, by their lightness of touch), his non-dramatic works are comprised in the following collections. The book of *Epigrams* (published in the first folio of 1616) contained, in the poet's own words, the "ripest of his studies." His notion of an epigram was the ancient, not the restricted modern one—still less that of the critic (R. C., the author of *The Times' Whistle*) in whose language, according to Jonson, "witty" was "obscene." On the whole, these epigrams excel more in encomiastic than in satiric touches, while the pathos of one or two epitaphs in the collection is of the truest kind. In the lyrics and epistles contained in the *Forest* (also in the first folio), Jonson shows greater variety in the poetic styles adopted by him; but the subject of love, which Dryden considered conspicuous by its absence in the author's dramas, is similarly eschewed here. The *Underwoods* (not published collectively till the second and surreptitious folio) are a miscellaneous series, comprising, together with a few religious and a few amatory poems, a large number of epigrams, epitaphs, elegies and "odes," including both the tributes to Shakespeare and several to royal and other patrons and friends, besides the *Execration upon Vulcan*, and the characteristic ode addressed by the poet to himself. To these pieces in verse should be added the *Discoveries—Timber, or Discoveries made upon Men and Matters*, avowedly a commonplace book of aphorisms noted by the poet in his dally readings—thoughts adopted and adapted in more tranquil and perhaps more sober moods than those which gave rise to the outpourings of the *Conversations at Hawthornden*. As to the critical value of these *Conversations* it is far from being only negative; he knew how to admire as well as how to disdain. For these thoughts, though abounding with biographical as well as general interest, Jonson was almost entirely indebted to ancient writers, or (as has been shown by Professor Spingarn and by Percy Simpson) indebted to the humanists of the Renaissance (see *Modern Language Review*, ii. 3, April 1907).

The extant dramatic works of Ben Jonson fall into three or, if his fragmentary pastoral drama be considered to stand by itself, into four distinct divisions. The tragedies are only two in number—*Sejanus his Fall* and *Catiline his Conspiracy*.³ Of these the earlier, as is worth noting, was produced at Shakespeare's theatre, in all probability before the first of Shakespeare's Roman dramas, and still contains a considerable admixture of rhyme in the dialogue. Though perhaps less carefully

elaborated in diction than its successor, *Sejanus* is at least equally impressive as a highly wrought dramatic treatment of a complex historic theme. The character of Tiberius adds an element of curious psychological interest on which speculation has never quite exhausted itself and which, in Jonson's day at least, was wanting to the figures of *Catiline* and his associates. But in both plays the action is powerfully conducted, and the care bestowed by the dramatist upon the great variety of characters introduced cannot, as in some of his comedies, be said to distract the interest of the reader. Both these tragedies are noble works, though the relative popularity of the subject (for conspiracies are in the long run more interesting than *comarillas*) has perhaps secured the preference to *Catiline*. Yet this play and its predecessor were alike too manifestly intended by their author to court the goodwill of what he calls the "extraordinary" reader. It is difficult to imagine that (with the aid of judicious shortenings) either could altogether miss its effect on the stage; but, while Shakespeare causes us to forget, Jonson seems to wish us to remember, his authorities. The half is often greater than the whole; and Jonson, like all dramatists and, it might be added, all novelists in similar cases, has had to pay the penalty incurred by too obvious a desire to underline the learning of the author.

Perversity—or would-be originality—alone could declare Jonson's tragedy preferable to his comedy. Even if the revolution which he created in the comic branch of the drama had been mistaken in its principles or unsatisfactory in its results, it would be clear that the strength of his dramatic genius lay in the power of depicting a great variety of characters, and that in comedy alone he succeeded in finding a wide field for the exercise of this power. There may have been no very original or very profound discovery in the idea which he illustrated in *Every Man in his Humour*, and, as it were, technically elaborated in *Every Man out of his Humour*—that in many men one quality is observable which so possesses them as to draw the whole of their individualities one way, and that this phenomenon "may be truly said to be a humour." The idea of the master quality or tendency was, as has been well observed, a very considerable one for dramatist or novelist. Nor did Jonson (happily) attempt to work out this idea with any excessive scientific consistency as a comic dramatist. But, by refusing to apply the term "humour" (*q.v.*) to a mere peculiarity or affectation of manners, and restricting its use to actual or implied differences or distinctions of character, he broadened the whole basis of English comedy after his fashion, as Molière at a later date, keeping in closer touch with the common experience of human life, with a lighter hand broadened the basis of French and of modern Western comedy at large. It does not of course follow that Jonson's disciples, the Bromes and the Cartwrights, always adequately reproduced the master's conception of "humorous" comedy. Jonson's wide and various reading helped him to diversify the application of his theory, while perhaps at times it led him into too remote illustrations of it. Still, Captain Bobadil and Captain Tucca, Macilente and Fungoso, Volpone and Mosca, and a goodly number of other characters impress themselves permanently upon the memory of those whose attention they have as a matter of course commanded. It is a very futile criticism to condemn Jonson's characters as a mere series of types of general ideas; on the other hand, it is a very sound criticism to object, with Barry Cornwall, to the "multitude of characters who throw no light upon the story, and lend no interest to it, occupying space that had better have been bestowed upon the principal agents of the plot."

In the construction of plots, as in most other respects, Jonson's at once conscientious and vigorous mind led him in the direction of originality; he depended to a far less degree than the greater part of his contemporaries (Shakespeare with the rest) upon borrowed plots. But either his inventive character was occasionally at fault in this respect, or his devotion to his characters often diverted his attention from a brisk conduct of his plot. Barry Cornwall has directed attention to the essential likeness in the plot of two of Jonson's best comedies, *Volpone* and *The Alchemist*; and another critic, W. Bodham Donne, has dwelt on the difficulty which, in *The Poetaster* and elsewhere, Ben Jonson seems to experience in sustaining the promise of his actions. *The Poetaster* is, however, a play *sui generis*, in which the real business can hardly be said to begin till the last act.

Dryden, when criticizing Ben Jonson's comedies, thought fit, while allowing the old master humour and incontestable "pleasantness," to deny him wit and those ornaments thereof which Quintilian reckons up under the terms *urbana*, *salsa*, *faceta* and so forth. Such wit as Dryden has in view is the mere outward fashion or style of the day, the euphuism or "sheerwit" or *chic* which is the creed of Fastidious Brisks and of their astute purveyors at any given moment. In this Ben Jonson was no doubt defective; but it would be an error to suppose him, as a comic dramatist, to have maintained towards the world around him the attitude of a philosopher, careless of mere transient externalisms. It is said that the scene of his *Every Man in his Humour* was originally laid near Florence; and his *Volpone*, which is perhaps the darkest social picture ever drawn by him, plays at Venice. Neither locality was ill-chosen, but the real atmosphere of his comedies is that of the native surroundings amidst which they were produced; and Ben Jonson's times live for us in his men and women, his country gulls and town gulls, his alchemists and exorcists, his "skeldring" captains and whining Puritans, and the whole ragamuffin rout of his *Bartholomew Fair*, the comedy *par excellence* of Elizabethan low life. After he had described the pastimes, fashionable and unfashionable, of his age, its feeble superstitions and its flaunting naughtinesses, its vapouring affectations and its lying effronteries, with an odour as of "divine tobacco" pervading the whole, little might seem to be left to describe for his "sons" and successors. Enough, however, remained; only that his followers speedily again threw manners and "humours" into an undistinguishable medley.

The gift which both in his art and in his life Jonson lacked was that of exercising the influence or creating the effects which he wished to exercise or create without the appearance of consciousness.

Concealment never crept over his efforts, and he scorned insinuation. Instead of this, influenced no doubt by the example of the free relations between author and public permitted by Attic comedy, he resorted again and again, from *Every Man out of his Humour* to *The Magnetic Lady*, to inductions and commentary intermezzos and appendices, which, though occasionally effective by the excellence of their execution, are to be regretted as introducing into his dramas an exotic and often vexatious element. A man of letters to the very core, he never quite understood that there is and ought to be a wide difference of methods between the world of letters and the world of the theatre.

The richness and versatility of Jonson's genius will never be fully appreciated by those who fail to acquaint themselves with what is preserved to us of his "masques" and cognate entertainments. He was conscious enough of his success in this direction—"next himself," he said, "only Fletcher and Chapman could write a masque." He introduced, or at least established, the ingenious innovation of the anti-masque, which Schlegel has described, as a species of "parody added by the poet to his device, and usually prefixed to the serious entry," and which accordingly supplies a grotesque antidote to the often extravagantly imaginative main conception. Jonson's learning, creative power and humorous ingenuity—combined, it should not be forgotten, with a genuine lyrical gift—all found abundant opportunities for displaying themselves in these productions. Though a growth of foreign origin, the masque was by him thoroughly domesticated in the high places of English literature. He lived long enough to see the species produce its poetic masterpiece in *Comus*.

The Sad Shepherd, of which Jonson left behind him three acts and a prologue, is distinguished among English pastoral dramas by its freshness of tone; it breathes something of the spirit of the greenwood, and is not unnatural even in its supernatural element. While this piece, with its charming love-scenes between Robin Hood and Maid Marion, remains a fragment, another pastoral by Jonson, the *May Lord* (which F. G. Fleay and J. A. Symonds sought to identify with *The Sad Shepherd*; see, however, W. W. Greg in introduction to the Louvain reprint), has been lost, and a third, of which Loch Lomond was intended to be the scene, probably remained unwritten.

Though Ben Jonson never altogether recognized the truth of the maxim that the dramatic art has properly speaking no didactic purpose, his long and laborious life was not wasted upon a barren endeavour. In tragedy he added two works of uncommon merit to our dramatic literature. In comedy his aim was higher, his effort more sustained, and his success more solid than were those of any of his fellows. In the subsidiary and hybrid species of the masque, he helped to open a new and attractive though undoubtedly devious path in the field of dramatic literature. His intellectual endowments surpassed those of most of the great English dramatists in richness and breadth; and in energy of application he probably left them all behind. Inferior to more than one of his fellow-dramatists in the power of imaginative sympathy, he was first among the Elizabethans in the power of observation; and there is point in Barrett Wendell's paradox, that as a dramatist he was not really a poet but a painter. Yet it is less by these gifts, or even by his unexcelled capacity for hard work, than by the true ring of manliness that he will always remain distinguished among his peers.

Jonson was buried on the north side of the nave in Westminster Abbey, and the inscription, "O Rare Ben Jonson," was cut in the slab over his grave. In the beginning of the 18th century a portrait bust was put up to his memory in the Poets' Corner by Harley, earl of Oxford. Of Honthorst's portrait of Jonson at Knole Park there is a copy in the National Portrait Gallery; another was engraved by W. Marshall for the 1640 edition of his Poems.

BIBLIOGRAPHY.—The date of the first folio volume of Jonson's *Works* (of which title his novel but characteristic use in applying it to plays was at the time much ridiculed) has already been mentioned as 1616; the second, professedly published in 1640, is described by Gifford as "a wretched continuation of the first, printed from MSS. surreptitiously obtained during his life, or ignorantly hurried through the press after his death, and bearing a variety of dates from 1631 to 1641 inclusive." The works were reprinted in a single folio volume in 1692, in which *The New Inn* and *The Case is Altered* were included for the first time, and again in 6 vols. 8vo in 1715. Peter Whalley's edition in 7 vols., with a life, appeared in 1756, but was superseded in 1816 by William Gifford's, in 9 vols. (of which the first includes a biographical memoir, and the famous essay on the "Proofs of Ben Jonson's Malignity, from the Commentators on Shakespeare"). A new edition of Gifford's was published in 9 vols. in 1875 by Colonel F. Cunningham, as well as a cheap reprint in 3 vols. in 1870. Both contain the *Conversations* with Drummond, which were first printed in full by David Laing in the *Shakespeare Society's Publications* (1842) and the *Jonsonus Virbius*, a collection (unparalleled in number and variety of authors) of poetical tributes, published about six months after Jonson's death by his friends and admirers. There is also a single-volume edition, with a very readable memoir, by Barry Cornwall (1838). An edition of Ben Jonson's works from the original texts was recently undertaken by C. H. Herford and Percy Simpson. A selection from his plays, edited for the "Mermaid" series in 1893-1895 by B. Nicholson, with an introduction by C. H. Herford, was reissued in 1904. W. Bang in his *Materialien zur Kunde des alten englischen Dramas* has reprinted from the folio of 1616 those of Ben Jonson's plays which are contained in it (Louvain, 1905-1906). *Every Man in his Humour* and *Every Man out of his Humour* have been edited for the same series (16 and 17, 1905 and 1907) by W. W. Bang and W. W. Greg. *Every Man in his Humour* has also been edited, with a brief biographical as well as special introduction, to which the present sketch owes some details, by H. B. Wheatley (1877). Some valuable editions of plays by Ben Jonson have been recently published by American scholars in the *Yale Studies in English*, edited by A. S. Cook—*The Poetaster*, ed. H. S. Mallory (1905); *The Alchemist*, ed. C. M. Hathaway (1903); *The Devil is an Ass*, ed. W. S. Johnson (1905); *The Staple of News*, ed. De Winter (1905); *The New Inn*, ed. by G. Bremner (1908); *The Sad*

Shepherd (with Waldron's continuation) has been edited by W. W. Greg for Bang's *Materialien zur Kunde des alten englischen Dramas* (Louvain, 1905).

The criticisms of Ben Jonson are too numerous for cataloguing here; among those by eminent Englishmen should be specially mentioned John Dryden's, particularly those in his *Essay on Dramatic Poësy* (1667-1668; revised 1684), and in the preface to *An Evening's Love, or the Mock Astrologer* (1668), and A. C. Swinburne's *Study of Ben Jonson* (1889), in which, however, the significance of the *Discoveries* is misapprehended. See also F. G. Fleay, *Biographical Chronicle of the English Drama* (1891), i. 311-387, ii. 1-18; C. H. Herford, "Ben Jonson" (art. in *Dict. Nat. Biog.*, vol. xxx., 1802); A. W. Ward, *History of English Dramatic Literature*, 2nd ed. (1899), ii. 296-407; and for a list of early impressions, W. W. Greg, *List of English Plays written before 1643 and printed before 1700* (Bibliographical Society, 1900), pp. 55-58 and supplement 11-15. An important French work on Ben Jonson, both biographical and critical, and containing, besides many translations of scenes and passages, some valuable appendices, to more than one of which reference has been made above, is Maurice Castelain's *Ben Jonson, l'homme et l'œuvre* (1907). Among treatises or essays on particular aspects of his literary work may be mentioned Emil Koeppel's *Quellenstudien zu den Dramen Ben Jonson's, &c.* (1895); the same writer's "Ben Jonson's Wirkung auf zeitgenössische Dramatiker," &c., in *Anglicistische Forschungen*, 20 (1906); F. E. Schelling's *Ben Jonson and the Classical School* (1898); and as to his masques, A. Soergel, *Die englischen Maskenspiele* (1882) and J. Schmidt, "Über Ben Jonson's Maskenspiele," in *Herrig's Archiv, &c.*, xxvii. 51-91. See also H. Reinsch, "Ben Jonson's Poetik und seine Beziehungen zu Horaz," in *Münchener Beiträge*, 16 (1899).

(A. W. W.)

- 1 His Christian name of Benjamin was usually abbreviated by himself and his contemporaries; and thus, in accordance with his famous epitaph, it will always continue to be abbreviated.
- 2 With Inigo Jones, however, in quarrelling with whom, as Howell reminds Jonson, the poet was virtually quarrelling with his bread and butter, he seems to have found it impossible to live permanently at peace; his satirical *Expostulation* against the architect was published as late as 1635. Chapman's satire against his old associate, perhaps due to this quarrel, was left unfinished and unpublished.
- 3 Of *The Fall of Mortimer* Jonson left only a few lines behind him; but, as he also left the argument of the play, factious ingenuity contrived to furbish up the relic into a libel against Queen Caroline and Sir Robert Walpole in 1731, and to revive the contrivance by way of an insult to the princess dowager of Wales and Lord Bute in 1762.



JOPLIN, a city of Jasper county, Missouri, U.S.A., on Joplin creek, about 140 m. S. of Kansas City. Pop. (1890), 9943; (1900), 26,023, of whom 893 were foreign-born and 773 were negroes; (1910 census) 32,073. It is served by the Missouri Pacific, the St Louis & San Francisco, the Missouri, Kansas & Texas, and the Kansas City Southern railways, and by interurban electric lines. The city has a fine court-house, a United States government building, a Carnegie library and a large auditorium. Joplin is the trade centre of a rich agricultural and fruit-growing district, but its growth has been chiefly due to its situation in one of the most productive zinc and lead regions in the country, for which it is the commercial centre. In 1906 the value of zinc-ore shipments from this Missouri-Kansas (or Joplin) district was \$12,074,105, and of shipments of lead ore, \$3,048,558. The value of Joplin's factory product in 1905 was \$3,006,203, an increase of 29.3% since 1900. Natural gas, piped from the Kansas fields, is used for light and power, and electricity for commercial lighting and power is derived from plants on Spring River, near Vark, Kansas, and on Shoal creek. The municipality owns its electric-lighting plant; the water-works are under private ownership. The first settlement in the neighbourhood was made in 1838. In 1871 Joplin was laid out and incorporated as a town; in 1872 it and a rival town on the other side of Joplin creek were united under the name Union City; in 1873 Union City was chartered as a city under the name Joplin; and in 1888 Joplin was chartered as a city of the third class. The city derives its name from the creek, which was named in honour of the Rev. Harris G. Joplin (c. 1810-1847), a native of Tennessee.

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JOPPA, less correctly **JAFFA** (Arab. *Yāfā*), a seaport on the coast of Palestine. It is of great antiquity, being mentioned in the tribute lists of Tethmosis (Thothmes) III.; but as it never was in the territory of the pre-exilic Israelites it was to them a place of no importance. Its ascription to the tribe of Dan (Josh. xix. 46) is purely theoretical. According to the authors of Chronicles (2 Chron. ii. 16), Ezra (iii. 7) and Jonah (i. 3) it was a seaport for importation of the Lebanon timber floated down the

coasts or for ships plying even to distant Tarshish. About 148 B.C. it was captured from the Syrians by Jonathan Maccabaeus (1 Macc. x. 75) and later it was retaken and garrisoned by Simon his brother (xii. 33, xiii. 11). It was restored to the Syrians by Pompey (Jos., *Ant.* xiv. 4, 4) but again given back to the Jews (ib. xiv. 10, 6) with an exemption from tax. St Peter for a while lodged at Joppa, where he restored the benevolent widow Tabitha to life, and had the vision which taught him the universality of the plan of Christianity.

According to Strabo (xvi. ii.), who makes the strange mistake of saying that Jerusalem is visible from Joppa, the place was a resort of pirates. It was destroyed by Vespasian in the Jewish War (68). Tradition connects the story of Andromeda and the sea-monster with the sea-coast of Joppa, and in early times her chains were shown as well as the skeleton of the monster itself (Jos. *Wars*, iii. 9, 3). The site seems to have been shown even to some medieval pilgrims, and curious traces of it have been detected in modern Moslem legends.

In the 5th and 11th centuries we hear from time to time of bishops of Joppa, under the metropolitan of Jerusalem. In 1126 the district was captured by the knights of St John, but lost to Saladin in 1187. Richard Cœur de Lion retook it in 1191, but it was finally retaken by Malek el 'Adil in 1196. It languished for a time; in the 16th century it was an almost uninhabited ruin; but towards the end of the 17th century it began anew to develop as a seaport. In 1799 it was stormed by Napoleon; the fortifications were repaired and strengthened by the British.

The modern town of Joppa derives its importance, first, as a seaport for Jerusalem and the whole of southern Palestine, and secondly as a centre of the fruit-growing industry. During the latter part of the 19th century it greatly increased in size. The old city walls have been entirely removed. Its population is about 35,000 (Moslems 23,000, Christians 5000, Jews 7000; with the Christians are included the "Templars," a semi-religious, semi-agricultural German colony of about 320 souls). The town, which rises over a rounded hillock on the coast, about 100 ft. high, has a very picturesque appearance from the sea. The harbour (so-called) is one of the worst existing, being simply a natural breakwater formed by a ledge of reefs, safe enough for small Oriental craft, but very dangerous for large vessels, which can only make use of the seaport in calm weather; these never come nearer than about a mile from the shore. A railway and a bad carriage-road connect Joppa with Jerusalem. The water of the town is derived from wells, many of which have a brackish taste. The export trade of the town consists of soap of olive oil, sesame, barley, water melons, wine and especially oranges (commonly known as Jaffa oranges), grown in the famous and ever-increasing gardens that lie north and east of the town. The chief imports are timber, cotton and other textile goods, tiles, iron, rice, coffee, sugar and petroleum. The value of the exports in 1900 was estimated at £264,950, the imports £382,405. Over 10,000 pilgrims, chiefly Russians, and some three or four thousand tourists land annually at Joppa. The town is the seat of a kaimakam or lieutenant-governor, subordinate to the governor of Jerusalem, and contains vice-consulates of Great Britain, France, Germany, America and other powers. There are Latin, Greek, Armenian and Coptic monasteries; and hospitals and schools under British, French and German auspices.

(R. A. S. M.)



JORDAENS, JACOB (1593-1678), Flemish painter, was born and died at Antwerp. He studied, like Rubens, under Adam van Noort, and his marriage with his master's daughter in 1616, the year after his admission to the guild of painters, prevented him from visiting Rome. He was forced to content himself with studying such examples of the Italian masters as he found at home; but a far more potent influence was exerted upon his style by Rubens, who employed him sometimes to reproduce small sketches in large. Jordaens is second to Rubens alone in their special department of the Flemish school. In both there is the same warmth of colour, truth to nature, mastery of chiaroscuro and energy of expression; but Jordaens is wanting in dignity of conception, and is inferior in choice of forms, in the character of his heads, and in correctness of drawing. Not seldom he sins against good taste, and in some of his humorous pieces the coarseness is only atoned for by the animation. Of these last he seems in some cases to have painted several replicas. He employed his pencil also in biblical, mythological, historical and allegorical subjects, and is well-known as a portrait painter. He also etched some plates.

See the elaborate work on the painter, by Max Rooses (1908).



JORDAN, CAMILLE (1771-1821), French politician, was born in Lyons on the 11th of January 1771 of a well-to-do mercantile family. He was educated in Lyons, and from an early age was imbued with royalist principles. He actively supported by voice, pen and musket his native town in its resistance to the Convention; and when Lyons fell, in October 1793, Jordan fled. From Switzerland he passed in six months to England, where he formed acquaintances with other French exiles and with prominent British statesmen, and imbibed a lasting admiration for the English Constitution. In 1796 he returned to France, and next year he was sent by Lyons as a deputy to the Council of Five Hundred. There his eloquence won him consideration. He earnestly supported what he felt to be true freedom, especially in matters of religious worship, though the energetic appeal on behalf of church bells in his *Rapport sur la liberté des cultes* procured him the sobriquet of Jordan-Cloche. Proscribed at the *coup d'état* of the 18th Fructidor (4th of September 1797) he escaped to Basel. Thence he went to Germany, where he met Goethe. Back again in France by 1800, he boldly published in 1802 his *Vrai sens du vote national pour le consulat à vie*, in which he exposed the ambitious schemes of Bonaparte. He was unmolested, however, and during the First Empire lived in literary retirement at Lyons with his wife and family, producing for the Lyons academy occasional papers on the *Influence réciproque de l'éloquence sur la Révolution et de la Révolution sur l'éloquence*; *Études sur Klopstock*, &c. At the restoration in 1814 he again emerged into public life. By Louis XVIII. he was ennobled and named a councillor of state; and from 1816 he sat in the chamber of deputies as representative of Ain. At first he supported the ministry, but when they began to show signs of reaction he separated from them, and gradually came to be at the head of the constitutional opposition. His speeches in the chamber were always eloquent and powerful. Though warned by failing health to resign, Camille Jordan remained at his post till his death at Paris, on the 19th of May 1821.

To his pen we owe *Lettre à M. Lamourette* (1791); *Histoire de la conversion d'une dame Parisienne* (1792); *La Loi et la religion vengées* (1792); *Adresse à ses commettants sur la révolution du 4 Septembre 1797* (1797); *Sur les troubles de Lyon* (1818); *La Session de 1817* (1818). His *Discours* were collected in 1818. The "Fragments choisis," and translations from the German, were published in *L'Abeille française*. Besides the various histories of the time, see further details vol. x. of the *Revue encyclopédique*; a paper on Jordan and Madame de Staël, by C. A. Sainte-Beuve, in the *Revue des deux mondes* for March 1868 and R. Boubée, "Camille Jordan à Weimar," in the *Correspondant* (1901), ccv. 718-738 and 948-970.



JORDAN, DOROTHEA (1762-1816), Irish actress, was born near Waterford, Ireland, in 1762. Her mother, Grace Phillips, at one time known as Mrs Frances, was a Dublin actress. Her father, whose name was Bland, was according to one account an army captain, but more probably a stage hand. Dorothy Jordan made her first appearance on the stage in 1777 in Dublin as Phoebe in *As You Like It*. After acting elsewhere in Ireland she appeared in 1782 at Leeds, and subsequently at other Yorkshire towns, in a variety of parts, including Lady Teazle. It was at this time that she began calling herself Mrs Jordan. In 1785 she made her first London appearance at Drury Lane as Peggy in *A Country Girl*. Before the end of her first season she had become an established public favourite, her acting in comedy being declared second only to that of Kitty Clive. Her engagement at Drury Lane lasted till 1809, and she played a large variety of parts. But gradually it came to be recognized that her special talent lay in comedy, her Lady Teazle, Rosalind and Imogen being specially liked, and such "breeches" parts as William in *Rosina*. During the rebuilding of Drury Lane she played at the Haymarket; she transferred her services in 1811 to Covent Garden. Here, in 1814, she made her last appearance on the London stage, and the following year, at Margate, retired altogether. Mrs Jordan's private life was one of the scandals of the period. She had a daughter by her first manager, in Ireland, and four children by Sir Richard Ford, whose name she bore for some years. In 1790 she became the mistress of the duke of Clarence (afterwards William IV.), and bore him ten children, who were ennobled under the name of Fitz Clarence, the eldest being created earl of Munster. In 1811 they separated by mutual consent, Mrs Jordan being granted a liberal allowance. In 1815 she went abroad. According to one story she was in danger of imprisonment for debt. If so, the debt must have been incurred on behalf of others—probably her relations, who appear to have been continually borrowing from her—for her own personal debts were very much more than covered by her savings. She is generally understood to have died at St Cloud, near Paris, on the 3rd of July 1816, but the story that under an assumed name she lived for seven years after that date in England finds some credence.

See James Boaden, *Life of Mrs Jordan* (1831); *The Great Illegitimates* (1830); John Genest, *Account of the Stage*; Tate Wilkinson, *The Wandering Patentee*; *Memoirs and Amorous Adventures by Sea and Land of King William IV.* (1830); *The Georgian Era* (1838).



JORDAN, THOMAS (1612?-1685), English poet and pamphleteer, was born in London and started life as an actor at the Red Bull theatre in Clerkenwell. He published in 1637 his first volume of poems, entitled *Poeticall Varieties*, and in the same year appeared *A Pill to Purge Melancholy*. In 1639 he recited one of his poems before King Charles I., and from this time forward Jordan's output in verse and prose was continuous and prolific. He freely borrowed from other authors, and frequently re-issued his own writings under new names. During the troubles between the king and the parliament he wrote a number of Royalist pamphlets, the first of which, *A Medicine for the Times, or an Antidote against Faction*, appeared in 1641. Dedications, occasional verses, prologues and epilogues to plays poured from his pen. Many volumes of his poems bear no date, and they were probably written during the Commonwealth. At the Restoration he eulogized Monk, produced a masque at the entertainment of the general in the city of London and wrote pamphlets in his support. He then for some years devoted his chief attention to writing plays, in at least one of which, *Money is an Ass*, he himself played a part when it was produced in 1668. In 1671 he was appointed laureate to the city of London; from this date till his death in 1685 he annually composed a panegyric on the lord mayor, and arranged the pageantry of the lord mayor's shows, which he celebrated in verse under such titles as *London Triumphant, or the City in Jollity and Splendour* (1672), or *London in Luster, Projecting many Bright Beams of Triumph* (1679). Many volumes of these curious productions are preserved in the British Museum.

In addition to his numerous printed works, of which perhaps *A Royal Arbour of Loyall Poesie* (1664) and *A Nursery of Novelties in Variety of Poetry* are most deserving of mention, several volumes of his poems exist in manuscript. W. C. Hazlitt and other 19th-century critics found more merit in Jordan's writings than was allowed by his contemporaries, who for the most part scornfully referred to his voluminous productions as commonplace and dull.

See Gerard Langbaine, *Account of the English Dramatic Poets* (1691); David Erskine Baker, *Biographia Dramatica* (4 vols., 1812); W. C. Hazlitt, *Handbook to the Popular, Poetical and Dramatic Literature of Great Britain* (1867); F. W. Fairholt, *Lord Mayors Pageants* (Percy Society, 1843), containing a memoir of Thomas Jordan; John Gough Nichols, *London Pageants* (1831).



JORDAN, WILHELM (1819-1904), German poet and novelist, was born at Insterburg in East Prussia on the 8th of February 1819. He studied, first theology and then philosophy and natural science, at the universities of Königsberg and Berlin. He settled in Leipzig as a journalist; but the democratic views expressed in some essays and the volumes of poems *Glocke und Kanone* (1841) and *Irdische Phantasien* (1842) led to his expulsion from Saxony in 1846. He next engaged in literary and tutorial work in Bremen, and on the outbreak of the revolution, in February 1848, was sent to Paris, as correspondent of the *Bremer Zeitung*. He almost immediately, however, returned to Germany and, throwing himself into the political fray in Berlin, was elected member for Freienwalde, in the first German parliament at Frankfort-on-Main. For a short while he sided with the Left, but soon joined the party of von Gagern. On a vote having been passed for the establishment of a German navy, he was appointed secretary of the committee to deal with the whole question, and was subsequently made ministerial councillor (*Ministerialrat*) in the naval department of the government. The naval project was abandoned, Jordan was pensioned and afterwards resided at Frankfort-on-Main until his death on the 25th of June 1904, devoting himself to literary work, acting as his own publisher, and producing numerous poems, novels, dramas and translations.

Among his best known works are: *Demiurgos* (3 vols., 1852-1854), a "Mysterium," in which he attempted to deal with the problems of human existence, but the work found little favour; *Nibelunge*, an epic poem in alliterative verse, in two parts, (1) *Sigfnedsage* (1867-1868; 13th ed. 1889) and (2) *Hildebrants Heimkehr* (1874; 10th ed. 1892)—in the first part he is regarded as having been remarkably successful; a tragedy, *Die Wittwe des Agis* (1858); the comedies, *Die Liebesleugner* (1855) and *Durchs Ohr* (1870; 6th ed. 1885); and the novels *Die Sebalds* (1885) and *Zwei Wiegen* (1887). Jordan also published numerous translations, notably *Homers Odyssee* (1876; 2nd ed. 1889) and *Homers Ilias* (1881; 2nd ed. 1894); *Die Edda* (1889). He was also distinguished as a reciter, and on a visit to the United States in 1871 read extracts from his works before large audiences.



JORDAN (the down-comer; Arab. *esh-Sheri'a*, the watering-place), the only river of Palestine and one of the most remarkable in the world. It flows from north to south in a deep trough-like valley, the Aulon of the Greeks and Ghôr of the Arabs, which is usually believed to follow the line of a fault or fracture of the earth's crust. Most geologists hold that the valley is part of an old sea-bed, traces of which remain in numerous shingle-banks and beach-levels. This, they say, once extended to the Red Sea and even over N.E. Africa. Shrinkage caused the pelagic limestone bottom to be upheaved in two ridges, between which occurred a long fracture, which can now be traced from Coelesyria down the Wadi Araba to the Gulf of Akaba. The Jordan valley in its lower part keeps about the old level of the sea-bottom and is therefore a remnant of the Miocene world. This theory, however, is not universally accepted, some authorities preferring to assume a succession of more strictly local elevations and depressions, connected with the recent volcanic activity of the Jaulan and Lija districts on the east bank, which brought the contours finally to their actual form. In any case the number of distinct sea-beaches seems to imply a succession of convulsive changes, more recent than the great Miocene upheaval, which are responsible for the shrinkage of the water into the three isolated pans now found. For more than two-thirds of its course the Jordan lies below the level of the sea. It has never been navigable, no important town has ever been built on its banks, and it runs into an inland sea which has no port and is destitute of aquatic life. Throughout history it has exerted a separatist influence, roughly dividing the settled from the nomadic populations; and the crossing of Jordan, one way or the other, was always an event in the history of Israel. In Hebrew times its valley was regarded as a "wilderness" and, except in the Roman era, seems always to have been as sparsely inhabited as now. From its sources to the Dead Sea it rushes down a continuous inclined plane, broken here and there by rapids and small falls; between the Sea of Galilee and the Dead Sea its sinuosity is so great that in a direct distance of 65 m. it traverses at least 200 m. The mean fall is about 9 ft. in the mile. The Jordan has two great sources, one in Tell el-Kadi (Dan) whence springs the Nahr Leddan, a stream 12 ft. broad at its birth; the other at Banias (anc. Paneas, Caesarea-Philippi), some 4 m. N., where the Nahr Banias issues from a cave, about 30 ft. broad. But two longer streams with less water contest their claim, the Nahr Barrighit from Coelesyria, which rises near the springs of the Litany, and the Nahr Hasbany from Hermon. The four streams unite below the fortress of Banias, which once held the gate of the valley, and flow into a marshy tract now called Huleh (Semechonitis, and perhaps Merom of Joshua). There the Jordan begins to fall below sea-level, rushing down 680 ft. in 9 m. to a delta, which opens into the Sea of Galilee. Thereafter it follows a valley which is usually not above 4 m. broad, but opens out twice into the small plains of Bethshan and Jericho. The river actually flows in a depression, the Zor, from a quarter to 2 m. wide, which it has hollowed out for itself in the bed of the Ghor. During the rainy season (January and February), when the Jordan overflows its banks, the Zor is flooded, but when the water falls it produces rich crops. The floor of the Ghor falls gently to the Zor, and is intersected by deep channels, which have been cut by the small streams and winter torrents that traverse it on their way to the Jordan. As far south as Kurn Surtabeh most of the valley is fertile, and even between that point and the Dead Sea there are several well-watered oases. In summer the heat in the Ghor is intense, 110° F. in the shade, but in winter the temperature falls to 40°, and sometimes to 32° at night. During the seasons of rain and melting snow the river is very full, and liable to freshets. After twelve hours' rain it has been known to rise from 4 to 5 ft., and to fall as rapidly. In 1257 the Jordan was dammed up for several hours by a landslip, probably due to heavy rain. On leaving the Sea of Galilee the water is quite clear, but it soon assumes a tawny colour from the soft marl which it washes away from its banks and deposits in the Dead Sea. On the whole it is an unpleasant foul stream running between poisonous banks, and as such it seems to have been regarded by the Jews and other Syrians. The Hebrew poets did not sing its praises, and others compared it unfavourably with the clear rivers of Damascus. The clay of the valley was used for brickmaking, and Solomon established brass foundries there. From crusading times to this day it has grown sugar-cane. In Roman times it had extensive palm-groves and some small towns (*e.g.* Livias or Julius opposite Jericho) and villages. The Jordan is crossed by two stone bridges—one north of Lake Huleh, the other between that lake and the Sea of Galilee—and by a wooden bridge on the road from Jerusalem to Gilead and Moab. During the Roman period, and almost to the end of the Arab supremacy, there were bridges on all the great lines of communication between eastern and western Palestine, and ferries at other places. The depth of water varies greatly with the season. When not in flood the river is often fordable, and between the Sea of Galilee and the Dead Sea there are then more than fifty fords—some of them of historic interest. The only difficulty is occasioned by the erratic zigzag current. The natural products of the Jordan valley—a tropical oasis sunk in the temperate zone, and overhung by Alpine Hermon—are unique. Papyrus grows in Lake Huleh, and rice and cereals thrive on its shores, whilst below the Sea of Galilee the vegetation is almost tropical. The flora and fauna present a large infusion of Ethiopian types; and the fish, with which the river is abundantly stocked, have a great affinity with those of the rivers and lakes of east Africa. Ere the Jordan enters the Dead Sea, its valley has become very barren and forbidding. It reaches the lake at a minus level of 1290 ft., the depression continuing downwards to twice that depth in the bed of the Dead Sea. It receives two affluents, with perennial waters, on the left, the Yarmuk (Hieromax) which flows in from the volcanic Jaulan a little south of the Sea of Galilee, and the Zerka (Jabbok) which comes from the Belka district to a point more than half-way down the lower course. On the right the Jalud descends from the plain of Esdraelon to near Beisan, and the Far'a from near Nablus. Various salt springs rise in the lower valley. The rest of the tributaries are wadis, dry except after rains.

Such human life as may be found in the valley now is mainly migratory. The Samaritan villagers use

it in winter as pasture-ground, and, with the Circassians and Arabs of the east bank, cultivate plots here and there. They retire on the approach of summer. Jericho is the only considerable settlement in the lower valley, and it lies some distance west of the stream on the lower slopes of the Judean heights.

See W. F. Lynch, *Narrative of the U.S. Expedition, &c.* (1849); H. B. Tristram, *Land of Israel* (1865); J. Macgregor, *Rob Roy on the Jordan* (1870); A. Neubauer, *La Géographie du Talmud* (1868); E. Robinson, *Physical Geography of the Holy Land* (1865); E. Hull, *Mount Seir, &c.* (1885), and *Memoir on the Geology of Arabia Petraea, &c.* (1886); G. A. Smith, *Hist. Geography of the Holy Land* (1894); W. Libbey and F. E. Hoskins, *The Jordan Valley, &c.* (1905). See also [PALESTINE](#).

(C. W. W.; D. G. H.)



JORDANES,¹ the historian of the Gothic nation, flourished about the middle of the 6th century. All that we certainly know about his life is contained in three sentences of his history of the Goths (cap. 50), from which, among other particulars as to the history of his family, we learn that his grandfather Paria was notary to Candac, the chief of a confederation of Alans and other tribes settled during the latter half of the 5th century on the south of the Danube in the provinces which are now Bulgaria and the Dobrudscha. Jordanes himself was the notary of Candac's nephew, the Gothic chief Gunthigis, until he took the vows of a monk. This, according to the manner of speaking of that day, is the meaning of his words *ante conversionem meam*, though it is quite possible that he may at the same time have renounced the Arian creed of his forefathers, which it is clear that he no longer held when he wrote his Gothic history. The *Getica* of Jordanes shows Gothic sympathies; but these are probably due to an imitation of the tone of Cassiodorus, from whom he draws practically all his material. He was not himself a Goth, belonging to a confederation of Germanic tribes, embracing Alans and Scyrians, which had come under the influence of the Ostrogoths settled on the lower Danube; and his own sympathies are those of a member of this confederation. He is accordingly friendly to the Goths, even apart from the influence of Cassiodorus; but he is also prepossessed in favour of the eastern emperors in whose territories this confederation lived and whose subject he himself was. This makes him an impartial authority on the last days of the Ostrogoths. At the same time, living in Moesia, he is restricted in his outlook to Danubian affairs. He has little to say of the inner history and policy of the kingdom of Theodoric: his interests lie, as Mommsen says, within a triangle of which the three points are Sirmium, Larissa and Constantinople. Finally, connected as he was with the Alans, he shows himself friendly to them, whenever they enter into his narrative.

We pass from the extremely shadowy personality of Jordanes to the more interesting question of his works.

1. The *Romana*, or, as he himself calls it, *De summa temporum vel origine actibusque gentis Romanorum*, was composed in 551. It was begun before, but published after, the *Getica*. It is a sketch of the history of the world from the creation, based on Jerome, the epitome of Florus, Orosius and the ecclesiastical history of Socrates. There is a curious reference to Iamblichus, apparently the neoplatonist philosopher, whose name Jordanes, being, as he says himself, *agrammatus*, inserts by way of a flourish. The work is only of any value for the century 450-550, when Jordanes is dealing with recent history. It is merely a hasty compilation intended to stand side by side with the *Getica*.²

2. The other work of Jordanes commonly called *De rebus Geticis* or *Getica*, was styled by himself *De origine actibusque Getarum*, and was also written in 551. He informs us that while he was engaged upon the *Romana* a friend named Castalius invited him to compress into one small treatise the twelve books—now lost—of the senator Cassiodorus, on *The Origin and Actions of the Goths*. Jordanes professes to have had the work of Cassiodorus in his hands for but three days, and to reproduce the sense not the words; but his book, short as it is, evidently contains long verbatim extracts from the earlier author, and it may be suspected that the story of the *tridua lectio* and the apology *quamvis verba non recolo*, possibly even the friendly invitation of Castalius, are mere blinds to cover his own entire want of originality. This suspicion is strengthened by the fact (discovered by von Sybel) that even the very preface to his book is taken almost word for word from Rufinus's translation of Origen's commentary on the epistle to the Romans. There is no doubt, even on Jordanes' own statements, that his work is based upon that of Cassiodorus, and that any historical worth which it possesses is due to that fact. Cassiodorus was one of the very few men who, Roman by birth and sympathies, could yet appreciate the greatness of the barbarians by whom the empire was overthrown. The chief adviser of Theodoric, the East Gothic king in Italy, he accepted with ardour that monarch's great scheme, if indeed, he did not himself originally suggest it, of welding Roman and Goth together into one harmonious state which should preserve the social refinement and the intellectual culture of the Latin-speaking races without losing the hardy virtues of their Teutonic conquerors. To this aim everything in the political life of Cassiodorus was subservient, and this aim he evidently kept before him in his Gothic history. But in writing that history Cassiodorus was himself indebted to the work of a certain Ablabius. It was Ablabius, apparently, who had first used the Gothic

sagas (*prisca carmina*); it was he who had constructed the stem of the Amals. Whether he was a Greek, a Roman or a Goth we do not know; nor can we say when he wrote, though his work may be dated conjecturally in the early part of the reign of Theodoric the Great. We can only say that he wrote on the origin and history of the Goths, using both Gothic saga and Greek sources; and that if Jordanes used Cassiodorus, Cassiodorus used, if to a less extent, the work of Ablabius.

Cassiodorus began his work, at the request of Theodoric, and therefore before 526: it was finished by 533. At the root of the work lies a theory, whencesoever derived, which identified the Goths with the Scythians, whose country Darius Hystaspes invaded, and with the Getae of Dacia, whom Trajan conquered. This double identification enabled Cassiodorus to bring the favoured race into line with the peoples of classical antiquity, to interweave with their history stories about Hercules and the Amazons, to make them invade Egypt, to claim for them a share in the wisdom of the semi-mythical Scythian philosopher Zamolxis. He was thus able with some show of plausibility to represent the Goths as "wiser than all the other barbarians and almost like the Greeks" (Jord., *De reb. Get.*, cap. v.), and to send a son of the Gothic king Telephus to fight at the siege of Troy, with the ancestors of the Romans. All this we can now perceive to have no relation to history, but at the time it may have made the subjugation of the Roman less bitter to feel that he was not after all bowing down before a race of barbarian upstarts, but that his Amal sovereign was as firmly rooted in classical antiquity as any Julius or Claudius who ever wore the purple. In the eighteen years which elapsed between 533 and the composition of the *Getica* of Jordanes, great events, most disastrous for the Romano-Gothic monarchy of Theodoric, had taken place. It was no longer possible to write as if the whole civilization of the Western world would sit down contentedly under the shadow of East Gothic dominion and Amal sovereignty. And, moreover, the instincts of Jordanes, as a subject of the Eastern Empire, predisposed him to flatter the sacred majesty of Justinian, by whose victorious arms the overthrow of the barbarian kingdom in Italy had been effected. Hence we perceive two currents of tendency in the *Getica*. On the one hand, as a transcriber of the philo-Goth Cassiodorus, he magnifies the race of Alaric and Theodoric, and claims for them their full share, perhaps more than their full share, of glory in the past. On the other hand he speaks of the great anti-Teuton emperor Justinian, and of his reversal of the German conquests of the 5th century, in language which would certainly have grated on the ears of Totila and his heroes. When Ravenna is taken, and Vitigis carried into captivity, Jordanes almost exults in the fact that "the nobility of the Amals and the illustrious offspring of so many mighty men have surrendered to a yet more illustrious prince and a yet mightier general, whose fame shall not grow dim through all the centuries." (*Getica*, lx. § 315).

This laudation, both of the Goths and of their Byzantine conquerors, may perhaps help us to understand the motive with which the *Getica* was written. In the year 551 Germanus, nephew of Justinian, accompanied by his bride, Matasuntha, grand-daughter of Theodoric, set forth to reconquer Italy for the empire. His early death prevented any schemes for a revived Romano-Gothic kingdom which may have been based on his personality. His widow, however, bore a posthumous child, also named Germanus, of whom Jordanes speaks (cap. 60) as "blending the blood of the Anicii and the Amals, and furnishing a hope under the divine blessing of one day uniting their glories." This younger Germanus did nothing in after life to realize these anticipations; but the somewhat pointed way in which his name and his mother's name are mentioned by Jordanes lends some probability to the view that he hoped for the child's succession to the Eastern Empire, and the final reconciliation of the Goths and Romans in the person of a Gotho-Roman emperor.

The *De rebus Geticis* falls naturally into four parts. The first (chs. i.-xiii.) commences with a geographical description of the three quarters of the world, and in more detail of Britain and Scanzia (Sweden), from which the Goths under their king Berig migrated to the southern coast of the Baltic. Their migration across what has since been called Lithuania to the shores of the Euxine, and their differentiation into Visigoths and Ostrogoths, are next described. Chs. v.-xiii. contain an account of the intrusive Geto-Scythian element before alluded to.

The second section (chs. xiv.-xxiv.) returns to the true history of the Gothic nation, sets forth the genealogy of the Amal kings, and describes the inroads of the Goths into the Roman Empire in the 3rd century, with the foundation and the overthrow of the great but somewhat shadowy kingdom of Hermanric.

The third section (chs. xxv.-xlvii.) traces the history of the West Goths from the Hunnish invasion to the downfall of the Gothic kingdom in Gaul under Alaric II. (376-507). The best part of this section, and indeed of the whole book, is the seven chapters devoted to Attila's invasion of Gaul and the battle of the Mauriac plains. Here we have in all probability a verbatim extract from Cassiodorus, who (possibly resting on Ablabius) interwove with his narrative large portions of the Gothic sagas. The celebrated expression *certaminis gaudia* assuredly came at first neither from the suave minister Cassiodorus nor from the small-souled notary Jordanes, but is the translation of some thought which first found utterance through the lips of a Gothic minstrel.

The fourth section (chs. xlviii.-lx.) traces the history of the East Goths from the same Hunnish invasion to the first overthrow of the Gothic monarchy in Italy (376-539). In this fourth section are inserted, somewhat out of their proper place, some valuable details as to the *Gothi Minores*, "an immense people dwelling in the region of Nicopolis, with their high priest and primate Vulfilas, who is said also to have taught them letters." The book closes with the allusion to Germanus and the panegyric on Justinian as the conqueror of the Goths referred to above.

Jordanes refers in the *Getica* to a number of authors besides Cassiodorus; but he owes his

knowledge of them to Cassiodorus. It is perhaps only when he is using Orosius that we can hold Jordanes to have borrowed directly. Otherwise, as Mommsen says, the *Getica is a mera epitome, laxata ea et perversa, historiae Gothicae Cassiodorianae*.

As to the style and literary character of Jordanes, every author who has used him speaks in terms of severe censure. When he is left to himself and not merely transcribing, he is sometimes scarcely grammatical. There are awkward gaps in his narrative and statements inconsistent with each other. He quotes, as if he were familiarly acquainted with their writings, a number of Greek and Roman writers, of whom it is almost certain that he had not read more than one or two. At the same time he does not quote the chronicler Marcellinus, from whom he has copied verbatim the history of the deposition of Augustulus. All these faults make him a peculiarly unsatisfactory authority where we cannot check his statements by those of other authors. It may, however, be pleaded in extenuation that he is professedly a transcriber, and, if his story be correct, a transcriber in peculiarly unfavourable circumstances. He has also himself suffered much from the inaccuracy of copyists. But nothing has really been more unfortunate for the reputation of Jordanes as a writer than the extreme preciousness of the information which he has preserved to us. The Teutonic tribes whose dim origins he records have in the course of centuries attained to world-wide dominion. The battle in the Mauriac plains of which he is really the sole historian, is now seen to have had important bearings on the destinies of the world. And thus the hasty pamphlet of a half-educated Gothic monk has been forced into prominence, almost into rivalry with the finished productions of the great writers of classical antiquity. No wonder that it stands the comparison badly; but with all its faults the *Getica* of Jordanes will probably ever retain its place side by side with the *De moribus Germanorum* of Tacitus as a chief source of information respecting the history, institutions and modes of thought of our Teutonic forefathers.

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EDITIONS.—The classical edition is that of Mommsen (in *Mon. Germ. hist. auct. antiq.*, v., ii.), which supersedes the older editions, such as that in the first volume of Muratori's *Scriptt. rer. Ital.* The best MS. is the Heidelberg MS., written in Germany, probably in the 8th century; but this perished in the fire at Mommsen's house. The next of the MSS. in value are the Vaticanus Palatinus of the 10th century, and the Valenciennes MS. of the 9th.

AUTHORITIES.—Von Sybel's essay, *De fontibus Jordanis* (1838); Schirren's *De ratione quae inter Jordanem et Cassiodorum intercedat Commentatio* (Dorpat, 1858); Kopke's *Die Anfänge des Königthums beiden Gothen* (Berlin, 1859); Dahn's *Die Könige der Germanen*, vol. ii. (Munich, 1861); Ebert's *Geschichte der Christlich-Lateinischen Literatur* (Leipsic, 1874); Wattenbach's *Deutschlands Geschichtsquellen im Mittelalter* (Berlin, 1877); and the introduction of Mommsen to his edition.

(T. H.; E. BR.)

- 1 The evidence of MSS. is overwhelming against the form Jorandes. The MSS. exhibit Jordanis or Jordannis; but these are only Vulgar-Latin spellings of Jordanes.
- 2 The terms of the dedication of this book to a certain Vigilius make it impossible that the pope (538-555) of that name is meant.



JORDANUS (JORDAN CATALANI) (*fl.* 1321-1330), French Dominican missionary and explorer in Asia, was perhaps born at Séverac in Aveyron, north-east of Toulouse. In 1302 he may have accompanied the famous Thomas of Tolentino, via Negropont, to the East; but it is only in 1321 that we definitely discover him in western India, in the company of the same Thomas and certain other Franciscan missionaries on their way to China. Ill-luck detained them at Tana in Salsette island, near Bombay; and here Jordanus' companions ("the four martyrs of Tana") fell victims to Moslem fanaticism (April 7, 1321). Jordanus, escaping, worked some time at Baruch in Gujarat, near the Nerbudda estuary, and at Suali (?) near Surat; to his fellow-Dominicans in north Persia he wrote two letters—the first from Gogo in Gujarat (October 12, 1321), the second from Tana (January 24, 1323/4)—describing the progress of this new mission. From these letters we learn that Roman attention had already been directed, not only to the Bombay region, but also to the extreme south of the Indian peninsula, especially to "Columbum," Quilon, or Kulam in Travancore; Jordanus' words may imply that he had already started a mission there before October 1321. From Catholic traders he had learnt that Ethiopia (*i.e.* Abyssinia and Nubia) was accessible to Western Europeans; at this very time, as we know from other sources, the earliest Latin missionaries penetrated thither. Finally, the *Epistles* of Jordanus, like the contemporary *Secreta* of Marino Sanuto (1306-1321), urge the pope to establish a Christian fleet upon the Indian seas. Jordanus, between 1324 and 1328 (if not earlier), probably visited Kulam and selected it as the best centre for his future work; it would also appear that he revisited Europe about 1328, passing through Persia, and perhaps touching at the great Crimean port of Soldaia or Sudak. He was appointed a bishop in 1328 and nominated by Pope John XXII. to the see of Columbum in 1330. Together with the new bishop of Samarkand, Thomas of Mancasola, Jordanus was commissioned to take the pall to John de Cora, archbishop of Sultaniyah in Persia, within whose province Kulam was reckoned; he was also commended to the Christians of south India, both east and west of Cape Comorin, by Pope John. Either before going out to Malabar as bishop, or

during a later visit to the west, Jordanus probably wrote his *Mirabilia*, which from internal evidence can only be fixed within the period 1329-1338; in this work he furnished the best account of Indian regions, products, climate, manners, customs, fauna and flora given by any European in the Middle Ages—superior even to Marco Polo's. In his triple division of the Indies, India Major comprises the shorelands from Malabar to Cochin China; while India Minor stretches from Sind (or perhaps from Baluchistan) to Malabar; and India Tertia (evidently dominated by African conceptions in his mind) includes a vast undefined coast-region west of Baluchistan, reaching into the neighbourhood of, but not including, Ethiopia and Prester John's domain. Jordanus' *Mirabilia* contains the earliest clear African identification of Prester John, and what is perhaps the first notice of the Black Sea under that name; it refers to the author's residence in India Major and especially at Kulam, as well as to his travels in Armenia, north-west Persia, the Lake Van region, and Chaldaeae; and it supplies excellent descriptions of Parsee doctrines and burial customs, of Hindu ox-worship, idol-ritual, and suttee, and of Indian fruits, birds, animals and insects. After the 8th of April 1330 we have no more knowledge of Bishop Jordanus.

Of Jordanus' *Epistles* there is only one MS., viz. Paris, National Library, 5006 Lat., fol. 182, r. and v.; of the *Mirabilia* also one MS. only, viz. London, British Museum, *Additional MSS.*, 19,513, fols. 3, r.-12 r. The text of the *Epistles* is in Quétif and Echart, *Scriptores ordinis praedicatorum*, i. 549-550 (Epistle I.); and in Wadding, *Annales minorum*, vi. 359-361 (Epistle II.); the text of the *Mirabilia* in the Paris Geog. Soc.'s *Recueil de voyages*, iv. 1-68 (1839). The Papal letters referring to Jordanus are in Raynaldus, *Annales ecclesiastici*, 1330, §§ lv. and lvii. (April 8; Feb. 14). See also Sir H. Yule's *Jordanus*, a version of the *Mirabilia* with a commentary (Hakluyt Soc., 1863) and the same editor's *Cathay*, giving a version of the *Epistles*, with a commentary, &c. (Hak. Soc., 1866) pp. 184-185, 192-196, 225-230; F. Kunstmann, "Die Mission in Meliapour und Tana" and "Die Mission in Columbo" in the *Historisch-politische Blätter* of Phillips and Görres, xxxvii. 25-38, 135-152 (Munich, 1856), &c.; C. R. Beazley, *Dawn of Modern Geography*, iii. 215-235.

(C. R. B.)



JORIS, DAVID, the common name of JAN JORISZ or JORISZON (c. 1501-1556), Anabaptist heresiarch who called himself later JAN VAN BRUGGE; was born in 1501 or 1502, probably in Flanders, at Ghent or Bruges. His father, Georgius Joris de Koman, otherwise Joris van Amersfoort, probably a native of Bruges, was a shopkeeper and amateur actor at Delft; from the circumstance that he played the part of King David, his son received the name of David, but probably not in baptism. His mother was Marytje, daughter of Jan de Gorter, of a good family in Delft. As a child he was clever and delicate. He seems then or later to have acquired some tincture of learning. His first known occupation was that of a glass-painter; in 1522 he painted windows for the church at Enkhuizen, North Holland (the birthplace of Paul Potter). In pursuit of his art he travelled, and is said to have reached England; ill-health drove him homewards in 1524, in which year he married Dirckgen Willems at Delft. In the same year the Lutheran reformation took hold of him, and he began to issue appeals in prose and verse against the Mass and against the pope as antichrist. On Ascension Day 1528 he committed an outrage on the sacrament carried in procession; he was placed in the pillory, had his tongue bored, and was banished from Delft for three years. He turned to the Anabaptists, was rebaptized in 1533, and for some years led a wandering life. He came into relations with John à Lasco, and with Menno Simons. Much influenced by Melchior Hofman, he had no sympathy with the fanatic violence of the Münster faction. At the Buckholdt conference in August 1536 he played a mediating part. His mother, in 1537, suffered martyrdom as an Anabaptist. Soon after he took up a rôle of his own, having visions and a gift of prophecy. He adapted in his own interest the theory (constantly recurrent among mystics and innovators, from the time of Abbot Joachim to the present day) of three dispensations, the old, with its revelation of the Father, the newer with its revelation of the Son, and the final or era of the Spirit. Of this newest revelation Christus David was the mouthpiece, supervening on Christus Jesus. From the 1st of April 1544, bringing with him some of his followers, he took up his abode in Basel, which was to be the New Jerusalem. Here he styled himself Jan van Brugge. His identity was unknown to the authorities of Basel, who had no suspicion of his heresies. By his writings he maintained his hold on his numerous followers in Holland and Friesland. These monotonous writings, all in Dutch, flowed in a continual stream from 1524 (though none is extant before 1529) and amounted to over 200 in number. His *magnum opus* was *T Wonder Boeck* (n.d. 1542, divided into two parts; 1551, handsomely reprinted, divided into four parts; both editions anonymous). Its chief claim to recognition is its use, in the latter part, of the phrase *Restitutio Christi*, which apparently suggested to Servetus his title *Christianismi Restitutio* (1553). In the 1st edition is a figure of the "new man," signed with the author's monogram, and probably drawn as a likeness of himself; it fairly corresponds with the alleged portrait, engraved in 1607, reproduced in the appendix to A. Ross's *Pansebeia* (1655), and idealized by P. Burckhardt in 1900. Another work, *Verklarunge der Scheppenissen* (1553) treats mystically the book of Genesis, a favourite theme with Boehme, Swedenborg and others. His remaining writings exhibit all that easy dribble of triumphant muddiness which disciples take as depth. His wife died on the 22nd of August, and his own death

followed on the 25th of August 1556. He was buried, with all religious honours, in the church of St Leonard, Basel. Three years later, Nicolas Blesdijk, who had married his eldest daughter Jannecke (Susanna), but had lost confidence in Jorisz some time before his death, denounced the dead man to the authorities of Basel. An investigation was begun in March 1559, and as the result of a conviction for heresy the exhumed body of Jorisz was burned, together with his portrait, on the 13th of May 1559. Blesdijk's *Historia* (not printed till 1642) accuses Jorisz of having *plures uxores*. Of this there is no confirmation. Theoretically Jorisz regarded polygamy as lawful; there is no proof that his theory affected his own practice.

The first attempt at a true account of Jorisz was by Gottfried Arnold, in his anonymous *Historia* (1713), pursued with much fuller material in his *Kirchen und Ketzer Historie* (best ed. 1740-1742). See also F. Nippold, in *Zeitschrift für die historische Theologie* (1863, 1864, 1868); A. van der Linde, in *Allgemeine Deutsche Biographie* (1881); P. Burckhardt, *Basler Biographien* (1900); Hegler, in Hauck's *Realencyklopädie* (1901), and the bibliography by A. van der Linde, 1867, supplemented by E. Weller, 1869.

(A. Go.*)



JORTIN, JOHN (1698-1770), English theologian, the son of a Protestant refugee from Brittany, was born in London on the 23rd of October 1698. He went to Charterhouse School, and in 1715 became a pensioner of Jesus College, Cambridge, where his reputation as a Greek scholar led to his being selected to translate certain passages from Eustathius for the notes to Pope's *Homer*. In 1722 he published a small volume of Latin verse entitled *Lusus poetici*. Having taken orders in 1724, he was in 1726 presented by his college to the vicarage of Swavesey in Cambridgeshire, which he resigned in 1730 to become preacher at a chapel-of-ease in New Street, London. In 1731, along with some friends, he began a publication entitled *Miscellaneous Observations on Authors Ancient and Modern*, which appeared at intervals during two years. He was Boyle lecturer in 1749. Shortly after becoming chaplain to the bishop of London in 1762 he was appointed to a prebendal stall of St Paul's and to the vicarage of Kensington, and in 1764 he was made archdeacon of London. He died at Kensington on the 5th of September 1770.

The principal works of Jortin are: *Discussions Concerning the Truth of the Christian Religion* (1746); *Remarks on Ecclesiastical History* (3 vols. 1751-2-4); *Life of Erasmus* (2 vols. 1750, 1760) founded on the Life by Jean Le Clerc; and *Tracts Philological Critical and Miscellaneous* (1790). A collection of his *Various Works* appeared in 1805-1810. All his writings display wide learning and acuteness. He writes on theological subjects with the detachment of a thoughtful layman, and is witty without being flippant. See John Disney's *Life of Jortin* (1792).



JOSEPH, in the Old Testament, the son of the patriarch Jacob by Rachel; the name of a tribe of Israel. Two explanations of the name are given by the Biblical narrator (Gen. xxx. 23 [E], 24 [J]); a third, "He (God) increases," seems preferable. Unlike the other "sons" of Jacob, Joseph is usually reckoned as two tribes (viz. his "sons" Ephraim and Manasseh), and closely associated with it is the small tribe of Benjamin (*q.v.*), which lay immediately to the south. These three constituted the "sons" of Rachel (the ewe), and with the "sons" of Leah (the antelope?) are thus on a higher level than the "sons" of Jacob's concubines. The "house of Joseph" and its offshoots occupied the centre of Palestine from the plain of Esdraelon to the mountain country of Benjamin, with dependencies in Bashan and northern Gilead (see **MANASSEH**). Practically it comprised the northern kingdom, and the name is used in this sense in 2 Sam. xix. 20; Amos v. 6; vi. 6 (note the prominence of Joseph in the blessings of Jacob and Moses, Gen. xlix., Deut. xxxiii.). Originally, however, "Joseph" was more restricted, possibly to the immediate neighbourhood of Shechem, its later extension being parallel to the development of the name Jacob. The dramatic story of the tribal ancestor is recounted in Gen. xxxvii.-l. (see **GENESIS**). Joseph, the younger and envied son, is seized by his brothers at Dothan north of Shechem, and is sold to a party of Ishmaelites or Midianites, who carry him down to Egypt. After various vicissitudes he gains the favour of the king of Egypt by the interpretation of a dream, and obtains a high place in the kingdom.¹ Forced by a famine his brothers come to buy food, and in the incidents that follow Joseph shows his preference for his young brother Benjamin (cf. the tribal data above). His father Jacob is invited to come to Goshen, where a settlement is provided for the family and their flocks. This is followed many years later by the exodus, the conquest of Palestine, and the burial of Joseph's body in the grave at Shechem which his father had bought.

The history of Joseph in Egypt displays some familiarity with the circumstances and usages of that

country; see Driver (Hastings's *D.B.*) and Cheyne (*Ency. Bib.*, col. 2589 seq.); although Abrech (xli. 43), possibly the Egyptian *ib rk* (Crum, in Hastings's *D.B.*, i. 665), has been otherwise connected with the Assyrian *abarakku* (a high officer). An interesting parallel to the story of Joseph in Gen. xxxix. is found in the Egyptian tale of *The Two Brothers* (Petrie, *Eg. Tales*, 2nd series, p. 36 seq., 1895), which dates from about 1500 B.C., but the differences are not inconsiderable compared with the points of resemblance, and the tale has features which are almost universal (Frazer, *Golden Bough*, 2nd ed., vol. iii. 351 seq.). On the theory that the historical elements of Joseph's history refer to an official (Yanhamu) of the time of Amenophis III. and IV., see Cheyne, *op. cit.*, and *Hibbert Journal*, October 1903. That the present form of the narrative has been influenced by current mythological lore is not improbable; on this question see (with caution) Winckler, *Gesch. Israels*, ii. 67-77 (1900); A. Jeremias, *Alte Test.*, pp. 383 sqq. (1906). It may be added that the Egyptian names in the story of Joseph are characteristic of the XXII. and subsequent dynasties. See, also Meyer and Luther, *Die Israeliten* (1906), Index, *s.v.*

(S. A. C.)

- 1 Joseph's marriage with the daughter of the priest of On might show that the tribes of Ephraim and Manasseh were believed to be half-Egyptian by descent, but it is notoriously difficult to determine how much is of ethnological value and how much belongs to romance (*viz.* that of the individual Joseph).



JOSEPH, in the New Testament, the husband of Mary, the mother of Jesus. He is represented as a descendant of the house of David, and his genealogy appears in two divergent forms in Matt. i. 1-17 and Luke iii. 23-38. The latter is probably much more complete and accurate in details. The former, obviously artificial in structure (notice 3 × 14 generations), traces the Davidic descent through kings, and is governed by an apologetic purpose. Of Joseph's personal history practically nothing is recorded in the Bible. The facts concerning him common to the two birth-narratives (Matt. i.-ii.; Luke i.-ii.) are: (*a*) that he was a descendant of David, (*b*) that Mary was already betrothed to him when she was found with child of the Holy Ghost, and (*c*) that he lived at Nazareth after the birth of Christ; but these facts are handled differently in each case. It is noticeable that, in Matthew, Joseph is prominent (*e.g.* he receives an annunciation from an angel), while in Luke's narrative he is completely subordinated. Bp Gore (*The Incarnation*, Bampton lecture for 1891, p. 78) points out that Matthew narrates everything from Joseph's side, Luke from Mary's, and infers that the narrative of the former may ultimately be based on Joseph's account, that of the latter on Mary's. The narratives seem to have been current (in a poetical form) among the early Jewish-Christian community of Palestine. At Nazareth Joseph followed the trade of a carpenter (Matt. xiii. 55). It is probable that he had died before the public ministry of Christ; for no mention is made of him in passages relating to this period where the mother and brethren of Jesus are introduced; and from John xix. 26 it is clear that he was not alive at the time of the Crucifixion.

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Joseph was the father of several children (Matt. xiii. 55), but according to ecclesiastical tradition by a former marriage. The reading of Matt. i. 16, in the Sinaitic Palimpsest (*Joseph ... begat Jesus, who is called the Christ*) also makes him the natural father of Jesus, and this was the view of certain early heretical sects, but it seems never to have been held in orthodox Christian circles. According to various apocryphal gospels (conveniently collected in B. H. Cowper's *The Apocryphal Gospels*, 1881), when married to Mary he was a widower already 80 years of age, and the father of four sons and two daughters; his first wife's name was Salome and she was a connexion of the family of John the Baptist.

In the Roman Catholic Church the 19th of March has since 1642 been a feast in Joseph's honour. Two other festivals in his honour have also been established (the Patronage of St Joseph, 3rd Sunday after Easter, and the Betrothal of Mary and Joseph, 23rd of January). In December 1870 St Joseph was proclaimed Patron of the whole Church.

(G. H. Bo.)



JOSEPH OF ARIMATHAEA,¹ in the New Testament, a wealthy Jew who had been converted by Jesus Christ. He is mentioned by the Four Evangelists, who are in substantial agreement concerning him: after the Crucifixion he went to Pilate and asked for the body of Jesus, subsequently prepared it for burial and laid it in a tomb. There are, however, minor differences in the accounts, which have given rise to controversy. Matthew (xxvii. 60) says that the tomb was Joseph's own; Mark (xv. 43 seq.), Luke (xxiii. 50 seq.) say nothing of this, while John (xix. 41) simply says that

the body was laid in a sepulchre “nigh at hand.” Both Mark and Luke say that Joseph was a “councillor” (εὐσχήμων βουλευτής, Mark xv. 43), and the Gospel of Peter describes him as a “friend of Pilate and of the Lord.” This last statement is probably a late invention, and there is considerable difficulty as to “councillor.” That Joseph was a member of the Sanhedrin is improbable. Luke indeed, regarding him as such, says that he “had not consented to their counsel and deed,” but Mark (xiv. 64) says that *all* the Sanhedrin “condemned him to be worthy of death.” Perhaps the phrase “noble councillor” is intended to imply merely a man of wealth and position. Again Matthew says that Joseph was a disciple, while Mark implies that he was not yet among the definite adherents of Christ, and John describes him as an adherent “secretly for fear of the Jews.” Most likely he was a disciple, but belonged only to the wider circle of adherents. The account given in the Fourth Gospel suggests that the writer, faced with these various difficulties, assumed a double tradition: (1) that Joseph of Arimathaea, a wealthy disciple, buried the body of Christ; (2) that the person in question was Joseph of Arimathaea a “councillor,” and solved the problem by substituting Nicodemus as the councillor; hence he describes both Joseph and Nicodemus (xix. 39) as co-operating in the burial. Some critics (*e.g.* Strauss, *New Life of Jesus*, ch. 96) have thrown doubt upon the story, regarding some of the details as invented to suit the prophecy in Isa. liii. 9, “they made his grave with the wicked, and with the rich in his death” (for various translations, see Hastings’s *Dict. Bible*, ii. 778). But in the absence of any reference to this prophecy in the Gospels, this view is unconvincing, though the correspondence is remarkable.

The striking character of this single appearance of Joseph of Arimathaea led to the rise of numerous legends. Thus William of Malmesbury says that he was sent to Britain by St Philip, and, having received a small island in Somersetshire, there constructed “with twisted twigs” the first Christian church in Britain—afterwards to become the Abbey of Glastonbury. The legend says that his staff, planted in the ground, became a thorn flowering twice a year (see [GLASTONBURY](#)). This tradition—which is given only as such by Malmesbury himself—is not confirmed, and there is no mention of it in either Gildas or Bede. Joseph also plays a large part in the various versions of the Legend of the Holy Grail (see [GRAIL](#), [THE HOLY](#)).

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- 1 Generally identified with Ramathaim-Zophim, the city of Elkanah in the hilly district of Ephraim (1 Sam. i. 1), near Diospolis (Lydda). See Euseb., *Onomasticon*, 225. 12.



JOSEPH I. (1678-1711), Roman emperor, was the elder son of the emperor Leopold I. and his third wife, Eleanora, countess palatine, daughter of Philip William of Neuburg. Born in Vienna on the 26th of July 1678, he was educated strictly by Prince Dietrich Otto von Salm, and became a good linguist. In 1687 he received the crown of Hungary, and he was elected king of the Romans in 1690. In 1699 he married Wilhelmina Amalia, daughter of Duke Frederick of Brunswick-Lüneburg, by whom he had two daughters. In 1702, on the outbreak of the War of the Spanish Succession, he saw his only military service. He joined the imperial general Louis of Baden in the siege of Landau. It is said that when he was advised not to go into a place of danger he replied that those who were afraid might retire. He succeeded his father as emperor in 1705, and it was his good fortune to govern the Austrian dominions, and to be head of the Empire during the years in which his trusted general Prince Eugène, either acting alone in Italy or with the duke of Marlborough in Germany and Flanders, was beating the armies of Louis XIV. During the whole of his reign Hungary was disturbed by the conflict with Francis Rákóczy II., who eventually took refuge in France. The emperor did not himself take the field against the rebels, but he is entitled to a large share of the credit for the restoration of his authority. He reversed many of the pedantically authoritative measures of his father, thus placating all opponents who could be pacified, and he fought stoutly for what he believed to be his rights. Joseph showed himself very independent towards the pope, and hostile to the Jesuits, by whom his father had been much influenced. He had the tastes for art and music which were almost hereditary in his family, and was an active hunter. He began the attempts to settle the question of the Austrian inheritance by a pragmatic sanction, which were continued by his brother Charles VI. Joseph died in Vienna on the 17th of April 1711, of small-pox.

See F. Krones von Marchland, *Grundriss der Oesterreichischen Geschichte* (1882); F. Wagner, *Historia Josephi Caesaris* (1746); J. C. Herchenhahn, *Geschichte der Regierung Kaiser Josephs I.* (1786-1789); C. van Noorden, *Europäische Geschichte im 18. Jahrhundert* (1870-1882).



JOSEPH II. (1741-1790), Roman emperor, eldest son of the empress Maria Theresa and her husband Francis I., was born on the 13th of March 1741, in the first stress of the War of the Austrian Succession. Maria Theresa gave orders that he was only to be taught as if he were amusing himself; the result was that he acquired a habit of crude and superficial study. His real education was given him by the writings of Voltaire and the encyclopaedists, and by the example of Frederick the Great. His useful training was conferred by government officials, who were directed to instruct him in the mechanical details of the administration of the numerous states composing the Austrian dominions and the Empire. In 1761 he was made a member of the newly constituted council of state (*Staatsrath*) and began to draw up minutes, to which he gave the name of "reveries," for his mother to read. These papers contain the germs of his later policy, and of all the disasters which finally overtook him. He was a friend to religious toleration, anxious to reduce the power of the church, to relieve the peasantry of feudal burdens, and to remove restrictions on trade and on knowledge. So far he did not differ from Frederick, Catherine of Russia or his own brother and successor Leopold II., all enlightened rulers of the 18th-century stamp. Where Joseph differed from great contemporary rulers, and where he was very close akin to the Jacobins, was in the fanatical intensity of his belief in the power of the state when directed by reason, of his right to speak for the state uncontrolled by laws, and of the reasonableness of his own reasons. Also he had inherited from his mother all the belief of the house of Austria in its "august" quality, and its claim to acquire whatever it found desirable for its power or its profit. He was unable to understand that his philosophical plans for the moulding of mankind could meet with pardonable opposition. The overweening character of the man was obvious to Frederick, who, after their first interview in 1769, described him as ambitious, and as capable of setting the world on fire. The French minister Vergennes, who met Joseph when he was travelling incognito in 1777, judged him to be "ambitious and despotic."

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Until the death of his mother in 1780 Joseph was never quite free to follow his own instincts. After the death of his father in 1765 he became emperor and was made co-regent by his mother in the Austrian dominions. As emperor he had no real power, and his mother was resolved that neither husband nor son should ever deprive her of sovereign control in her hereditary dominions. Joseph, by threatening to resign his place as co-regent, could induce his mother to abate her dislike to religious toleration. He could, and he did, place a great strain on her patience and temper, as in the case of the first partition of Poland and the Bavarian War of 1778, but in the last resort the empress spoke the final word. During these wars Joseph travelled much. He met Frederick the Great privately at Neisse in 1769, and again at Mährisch-Neustadt in 1770. On the second occasion he was accompanied by Prince Kaunitz, whose conversation with Frederick may be said to mark the starting-point of the first partition of Poland. To this and to every other measure which promised to extend the dominions of his house Joseph gave hearty approval. Thus he was eager to enforce its claim on Bavaria upon the death of the elector Maximilian Joseph in 1777. In April of that year he paid a visit to his sister the queen of France (see [MARIE ANTOINETTE](#)), travelling under the name of Count Falkenstein. He was well received, and much flattered by the encyclopaedists, but his observations led him to predict the approaching downfall of the French monarchy, and he was not impressed favourably by the army or navy. In 1778 he commanded the troops collected to oppose Frederick, who supported the rival claimant to Bavaria. Real fighting was averted by the unwillingness of Frederick to embark on a new war and by Maria Theresa's determination to maintain peace. In April 1780 he paid a visit to Catherine of Russia, against the wish of his mother.

The death of Maria Theresa on the 27th of November 1780 left Joseph free. He immediately directed his government on a new course, full speed ahead. He proceeded to attempt to realize his ideal of a wise despotism acting on a definite system for the good of all. The measures of emancipation of the peasantry which his mother had begun were carried on by him with feverish activity. The spread of education, the secularization of church lands, the reduction of the religious orders and the clergy in general to complete submission to the lay state, the promotion of unity by the compulsory use of the German language, everything which from the point of view of 18th-century philosophy appeared "reasonable" was undertaken at once. He strove for administrative unity with characteristic haste to reach results without preparation. His anti-clerical innovations induced Pope Pius VI. to pay him a visit in July 1782. Joseph received the pope politely, and showed himself a good Catholic, but refused to be influenced. So many interferences with old customs began to produce unrest in all parts of his dominions. Meanwhile he threw himself into a succession of foreign policies all aimed at aggrandisement, and all equally calculated to offend his neighbours—all taken up with zeal, and dropped in discouragement. He endeavoured to get rid of the Barrier Treaty, which debarred his Flemish subjects from the navigation of the Scheldt; when he was opposed by France he turned to other schemes of alliance with Russia for the partition of Turkey and Venice. They also had to be given up in the face of the opposition of neighbours, and in particular of France. Then he resumed his attempts to obtain Bavaria—this time by exchanging it for Belgium—and only provoked the formation of the *Fürstenbund* organized by the king of Prussia. Finally he joined Russia in an attempt to pillage Turkey. It began on his part by an unsuccessful and discreditable attempt to surprise Belgrade in time of peace, and was followed by the ill-managed campaign of 1788. He accompanied his army, but showed no capacity for war. In November he returned to Vienna with ruined health, and during 1789 was a dying man. The concentration of his troops in the east gave the malcontents of Belgium an opportunity to revolt. In Hungary the nobles were all but in open rebellion, and in his other states there were peasant risings, and a revival of particularist sentiments. Joseph was left entirely alone. His minister Kaunitz refused to visit his sick-room, and did not see him

for two years. His brother Leopold remained at Florence. At last Joseph, worn out and broken-hearted, recognized that his servants could not, or would not, carry out his plans. On the 30th of January 1790 he formally withdrew all his reforms, and he died on the 20th of February.

Joseph II. was twice married, first to Isabella, daughter of Philip, duke of Parma, to whom he was attached. After her death on the 27th of November 1763, a political marriage was arranged with Josepha (d. 1767), daughter of Charles Albert, elector of Bavaria (the emperor Charles VII.). It proved extremely unhappy. Joseph left no children, and was succeeded by his brother Leopold II.

Many volumes of the emperor's correspondence have been published. Among them are *Maria Theresia und Joseph II. Ihre Korrespondenz samt Briefen Josephs an seinen Bruder Leopold* (1867-1868); *Joseph II. und Leopold von Toskana. Ihr Briefwechsel 1781-1790* (1872); *Joseph II. und Katharina von Russland. Ihr Briefwechsel* (1869); and *Maria Antoinette, Joseph II. und Leopold II. Ihr Briefwechsel* (1866); all edited by A. Ritter von Arneth. Other collections are: *Joseph II., Leopold II. und Kaunitz. Ihr Briefwechsel*, edited by A. Beer (1873); *Correspondances intimes de l'empereur Joseph II. avec son ami, le comte de Cobenzl et son premier ministre, le prince de Kaunitz*, edited by S. Brunner (1871); *Joseph II. und Graf Ludwig Cobenzl. Ihr Briefwechsel*, edited by A. Beer and J. von Fiedler (1901); and the *Geheime Korrespondenz Josephs II. mit seinem Minister in den Oesterreichischen Niederlanden, Ferdinand Graf Trauttmansdorff 1787-1789*, edited by H. Schlitter (1902). Among the lives of Joseph may be mentioned: A. J. Gross-Hoffinger, *Geschichte Josephs II.* (1847); C. Paganel, *Histoire de Joseph II.* (1843; German translation by F. Köhler, 1844); H. Meynert, *Kaiser Joseph II.* (1862); A. Beer, *Joseph II.* (1882); A. Jäger, *Kaiser Joseph II. und Leopold II.* (1867); A. Fournier, *Joseph II.* (1885); and J. Wendrinski, *Kaiser Joseph II.* (1880). There is a useful small volume on the emperor by J. Franck Bright (1897). Other books which may be consulted are: G. Wolf, *Das Unterrichtswesen in Oesterreich unter Joseph II.* (1880), and *Oesterreich und Preussen 1780-1790* (1880), A. Wolf and H. von Zwiedeneck-Südenhorst, *Oesterreich unter Maria Theresia, Joseph II. und Leopold II.* (1882-1884); H. Schlitter, *Die Regierung Josephs II. in den Oesterreichischen Niederlanden* (1900); and *Pius VI. und Joseph II. 1782-1784* (1894); O. Lorenz, *Joseph II. und die Belgische Revolution* (1862); and L. Delplace, *Joseph II. et la révolution brabançonne* (1890).



JOSEPH, FATHER (FRANÇOIS LECLERC DU TREMBLAY) (1577-1638), French Capuchin monk, the confidant of Richelieu, was the eldest son of Jean Leclerc du Tremblay, president of the chamber of requests of the parlement of Paris, and of Marie Motier de Lafayette. As a boy he received a careful classical training, and in 1595 made an extended journey through Italy, returning to take up the career of arms. He served at the siege of Amiens in 1597, and then accompanied a special embassy to London. In 1599 Baron de Mafflier, by which name he was known at court, renounced the world and entered the Capuchin monastery of Orleans. He embraced the religious life with great ardour, and became a notable preacher and reformer. In 1606 he aided Antoinette d'Orléans, a nun of Fontevrault, to found the reformed order of the Filles du Calvaire, and wrote a manual of devotion for the nuns. His proselytizing zeal led him to send missionaries throughout the Huguenot centres—he had become provincial of Touraine in 1613. He entered politics at the conferences of Loudun, when, as the confidant of the queen and the papal envoy, he opposed the Gallican claims advanced by the parlement, which the princes were upholding, and succeeded in convincing them of the schismatic tendency of Gallicanism. In 1612 he began those personal relations with Richelieu which have indissolubly joined in history and legend the cardinal and the "Eminence grise," relations which research has not altogether made clear. In 1627 the monk assisted at the siege of La Rochelle. A purely religious reason also made him Richelieu's ally against the Habsburgs. He had a dream of arousing Europe to another crusade against the Turks, and believed that the house of Austria was the obstacle to that universal European peace which would make this possible. As Richelieu's agent, therefore, this modern Peter the Hermit manoeuvred at the diet of Regensburg (1630) to thwart the aggression of the emperor, and then advised the intervention of Gustavus Adolphus, reconciling himself to the use of Protestant armies by the theory that one poison would counteract another. Thus the monk became a war minister, and, though maintaining a personal austerity of life, gave himself up to diplomacy and politics. He died in 1638, just as the cardinalate was to be conferred upon him. The story that Richelieu visited him when on his deathbed and roused the dying man by the words, "Courage, Father Joseph, we have won Breisach," is apocryphal.

See Fagniez, *Le Père Joseph et Richelieu* (1894), a work based largely on original and unpublished sources. Father Joseph, according to this biography, would seem not to have lectured Richelieu in the fashion of the legends, whatever his moral influence may have been in strengthening Richelieu's hands.



JOSEPHINE (MARIE ROSE JOSEPHINE TASCHER DE LA PAGERIE) (1763-1814), empress of the French, was born in the island of Martinique on the 23rd of June 1763, being the eldest of three daughters of Joseph Tascher de la Pagerie, lieutenant of artillery. Her beauty and grace, though of a languid Creole style, won the affections of the young officer the vicomte de Beauharnais, and, after some family complications, she was married to him. Their married life was not wholly happy, the frivolity of Josephine occasioning her husband anxiety and jealousy. Two children, Eugène and Hortense, were the fruit of the union. During Josephine's second residence in Martinique, whither she proceeded to tend her mother, occurred the first troubles with the slaves, which resulted from the precipitate action of the constituent assembly in emancipating them. She returned to her husband, who at that time entered into political life at Paris. Her beauty and vivacity won her many admirers in the salons of the capital. As the Revolution ran its course her husband, as an ex-noble, incurred the suspicion and hostility of the Jacobins; and his ill-success at the head of a French army on the Rhine led to his arrest and execution. Thereafter Josephine was in a position of much perplexity and some hardship, but the friendship of Barras and of Madame Tallien, to both of whom she was then much attached, brought her into notice, and she was one of the queens of Parisian society in the year 1795, when Napoleon Bonaparte's services to the French convention in scattering the malcontents of the capital (13 Vendémiaire, or October 5, 1795) brought him to the front. There is a story that she became known to Napoleon through a visit paid to him by her son Eugène in order to beg his help in procuring the restoration of his father's sword, but it rests on slender foundations. In any case, it is certain that Bonaparte, however he came to know her, was speedily captivated by her charms. She, on her side, felt very little affection for the thin, impecunious and irrepressible suitor; but by degrees she came to acquiesce in the thought of marriage, her hesitations, it is said, being removed by the influence of Barras and by the nomination of Bonaparte to the command of the army of Italy. The civil marriage took place on the 9th of March 1796, two days before the bridegroom set out for his command. He failed to induce her to go with him to Nice and Italy.

Bonaparte's letters to Josephine during the campaign reveal the ardour of his love, while she rarely answered them. As he came to realize her shallowness and frivolity his passion cooled; but at the time when he resided at Montebello (near Milan) in 1797 he still showed great regard for her. During his absence in Egypt in 1798-1799, her relations to an officer, M. Charles, were most compromising; and Bonaparte on his return thought of divorcing her. Her tears and the entreaties of Eugène and Hortense availed to bring about a reconciliation; and during the period of the consulate (1799-1804) their relations were on the whole happy, though Napoleon's conduct now gave his consort grave cause for concern. His brothers and sisters more than once begged him to divorce Josephine, and it is known that, from the time when he became first consul for life (August 1802) with large powers over the choice of a successor, he kept open the alternative of a divorce. Josephine's anxieties increased on the proclamation of the Empire (May 18, 1804); and on the 1st of December 1804, the eve of the coronation at Notre Dame, she gained her wish that she should be married anew to Napoleon with religious rites. Despite her care, the emperor procured the omission of one formality, the presence of the parish priest; but at the coronation scene Josephine appeared radiant with triumph over her envious relatives. The august marriages contracted by her children Eugène and Hortense seemed to establish her position; but her ceaseless extravagance and, above all, the impossibility that she should bear a son strained the relations between Napoleon and Josephine. She complained of his infidelities and growing callousness. The end came in sight after the campaign of 1809, when Napoleon caused the announcement to be made to her that reasons of state compelled him to divorce her. Despite all her pleadings he held to his resolve. The most was made of the slight technical irregularity at the marriage ceremony of the 1st of December 1804; and the marriage was declared null and void.

At her private retreat, La Malmaison, near Paris, which she had beautified with curios and rare plants and flowers, Josephine closed her life in dignified retirement. Napoleon more than once came to consult her upon matters in which he valued her tact and good sense. Her health declined early in 1814, and after his first abdication (April 11, 1814) it was clear that her end was not far off. The emperor Alexander of Russia and Frederick William III. of Prussia, then in Paris, requested an interview with her. She died on the 24th of May 1814. Her friends, Mme de Rémusat and others, pointed out that Napoleon's good fortune deserted him after the divorce; and it is certain that the Austrian marriage clogged him in several ways. Josephine's influence was used on behalf of peace and moderation both in internal and in foreign affairs. Thus she begged Napoleon not to execute the duc d'Enghien and not to embroil himself in Spanish affairs in 1808.

See M. A. Le Normand, *Mémoires historiques et secrets de Joséphine* (2 vols., 1820); *Lettres de Napoléon à Joséphine* (1833); J. A. Aubenas, *Hist. de l'impératrice Joséphine* (2 vols., 1858-1859); J. Turquan, *L'Impératrice Joséphine* (2 vols., 1895-1896); F. Masson, *Joséphine* (3 vols., 1899-1902); *Napoleon's Letters to Josephine* (1796-1812), translated and edited by H. F. Hall (1903). Also the *Memoirs of Mme. de Rémusat* and of Bausset, and P. W. Sergeant, *The Empress Josephine* (1908).

(J. H. L. R.)



JOSEPHUS, FLAVIUS (c. 37-c. 95?), Jewish historian and military commander, was born in the first year of Caligula (37-38). His father belonged to one of the noblest priestly families, and through his mother he claimed descent from the Asmonaeon high priest Jonathan. A precocious student of the Law, he made trial of the three sects of Judaism—Pharisees, Sadducees and Essenes—before he reached the age of nineteen. Then, having spent three years in the desert with the hermit Banus, who was presumably an Essene, he became a Pharisee. In 64 he went to Rome to intercede on behalf of some priests, his friends, whom the procurator Felix had sent to render account to Caesar for some insignificant offence. Making friends with Alityrus, a Jewish actor, who was a favourite of Nero, Josephus obtained an introduction to the empress Poppaea and effected his purpose by her help. His visit to Rome enabled him to speak from personal experience of the power of the Empire, when he expostulated with the revolutionary Jews on his return to Palestine. But they refused to listen; and he, with all the Jews who did not fly the country, was dragged into the great rebellion of 66. In company with two other priests, Josephus was sent to Galilee under orders (he says) to persuade the ill-affected to lay down their arms and return to the Roman allegiance, which the Jewish aristocracy had not yet renounced. Having sent his two companions back to Jerusalem, he organized the forces at his disposal, and made arrangements for the government of his province. His obvious desire to preserve law and order excited the hostility of John of Giscala, who endeavoured vainly to remove him as a traitor to the national cause by inciting the Galileans to kill him and by persuading the Sanhedrin at Jerusalem to recall him.

In the spring of 67 the Jewish troops, whom Josephus had drilled so sedulously, fled before the Roman forces of Vespasian and Titus. He sent to Jerusalem for reinforcements, but none came. With the stragglers who remained, he held a stronghold against the Romans by dint of his native cunning, and finally, when the place was taken, persuaded forty men, who shared his hiding-place, to kill one another in turn rather than commit suicide. They agreed to cast lots, on the understanding that the second should kill the first and so on. Josephus providentially drew the last lot and prevailed upon his destined victim to live. Their companions were all dead in accordance with the compact; but Josephus at any rate survived and surrendered. Being led before Vespasian, he was inspired to prophesy that Vespasian would become emperor. In consequence of the prophecy his life was spared, but he was kept close prisoner for two years. When his prophecy was fulfilled he was liberated, assumed the name of Flavius, the family name of Vespasian, and accompanied his patron to Alexandria. There he took another wife, as the Jewess allotted him by Vespasian after the fall of Caesarea had forsaken him, and returned to attend Titus and to act as intermediary between him and the Jews who still held Jerusalem. His efforts in this capacity failed; but when the city was stormed (70) Titus granted him whatever boon he might ask. So he secured the lives of some free men who had been taken and (by the gift of Titus) certain sacred books. After this he repaired to Rome and received one of the pensions, which Vespasian (according to Suetonius) was the first to bestow upon Latin and Greek writers. He was also made a Roman citizen and received an estate in Judaea. Thenceforward he devoted himself to literary work under the patronage of Vespasian, Titus and Domitian. As he mentions the death of Agrippa II. it is probable that he lived into the 2nd century; but the date of Agrippa's death has been challenged and, if his patron Epaphroditus may be identified with Nero's freedman, it is possible that Josephus may have been involved in his fall and perished under Domitian in 95.

WORKS.—1. *The Jewish War* (Περὶ τοῦ Ἰουδαϊκοῦ πολέμου), the oldest of Josephus' extant writings, was written towards the end of Vespasian's reign (69-79). The Aramaic original has not been preserved; but the Greek version was prepared by Josephus himself in conjunction with competent Greek scholars. Its purpose in all probability was, in the first instance, to exhibit to the Babylonian Jews the overwhelming power of Rome and so to deter them from repeating the futile revolt of the Jews of Palestine. Of its seven books, the first two survey the history of the Jews from the capture of Jerusalem by Antiochus Epiphanes to the outbreak of war in 67, and here Josephus relies upon some such general history as that of Nicolaus of Damascus. The rest deals with the events of the war (67-73) which fell more or less within his own knowledge. Vespasian, Titus and Agrippa II. testified (he tells us) to his accuracy. Representatives of the Zealots would probably have protested against his pro-Roman prejudices.

2. *The Jewish Antiquities* (Ἰουδαϊκὴ Ἀρχαιολογία) covers in twenty books the history of the Jews from the creation of the world to the outbreak of the war with Rome. It was finished in the thirteenth year of Domitian (93). Its purpose was to glorify the Jewish nation in the eyes of the Roman world. In the part covered by the books of the Bible Josephus follows them, and that mainly, if not entirely as they are translated into Greek by the Seventy (the Septuagint version). Being a Pharisee, he sometimes introduces traditions of the Elders, which are either inferences from, or embroideries of, the biblical narrative. Sometimes, also, he gives proof of some knowledge of Hebrew and supplements his scriptural authorities, which include 1 Esdras, from general Greek histories. For the later period he uses the Greek Esther, with its additions, 1 Maccabees, Polybius, Strabo and Nicolaus of Damascus. But towards the end he confesses that he has grown weary of his task, and his history becomes meagre. The work contains accounts of John the Baptist and Jesus, which may account for the fact that Josephus' writings were rescued from oblivion by the Christians. But the description of Jesus as "a wise man, if indeed one should call him a man," can hardly be genuine, and the assertion "this was the Christ" is equally doubtful, unless it be assumed that the Greek word *Christos* had

become technical in the sense of false-Christ or false-prophet among non-Christian Jews.

3. Josephus wrote a narrative of his own *Life* in order to defend himself against the accusation brought by his enemy Justus of Tiberias to the effect that he had really been the cause of the Jewish rebellion. In his defence Josephus departs from the facts as narrated in the *Jewish War* and represents himself as a partisan of Rome and, therefore, as a traitor to his own people from the beginning.

4. The two books *Against Apion* are a defence or apology directed against current misrepresentations of the Jews. Earlier titles are *Concerning the Antiquity of the Jews* or *Against the Greeks*. Apion was the leader of the Alexandrine embassy which opposed Philo and his companions when they appeared in behalf of the Alexandrine Jews before Caligula. The defence which Josephus puts forward has a permanent value and shows him at his best.

The Greek text of Josephus' works has been edited with full collection of different readings by B. Niese (Berlin, 1887-1895). The Teubner text by Naber is based on this. The translation into English of W. Whiston has been (superficially) revised by A. R. Shilleto (1889-1890). Schürer (*History of the Jewish People*) gives a full bibliography.

(J. H. A. H.)



JOSHEKAN, a small province of Persia covering about 1000 sq. m. Pop. about 5000. It has a yearly revenue of about £1200, and is held in fief by the family of Bahram Mirza, Muizz ed Dowleh (d. 1882). Its chief town and the residence of the governor used to be Joshekan-Kali, a large village with fine gardens, formerly famous for its carpets (*kali*), but now the chief place is Maimeh, a little city with a population of 2500, situated at an elevation of 6670 ft., about 63 m. from Isfahan in a north-westerly direction and 13 m. south-west of Joshekan-Kali.



JOSHUA, BOOK OF, the sixth book of the Old Testament, and the first of the group known as the "Former Prophets." It takes its name from Joshua¹ the son of Nūn, an Ephraimite who, on the death of Moses, assumed the leadership to which he had previously been designated by his chief (Deut. xxxi. 14 seq., 23), and proceeded to the conquest of the land of Canaan. The book differs from the Pentateuch or Torah in the absence of legal matter, and in its intimate connexion with the narrative in the books which follow. It is, however, the proper sequel to the origins of the people as related in Genesis, to the exodus of the Israelite tribes from Egypt, and their journeyings in the wilderness. On these and also on literary grounds it is often convenient to class the first six books of the Bible as a unit under the term "Hexateuch." For an exhaustive detailed study has revealed many signs of diversity of authorship which combine to show that the book is due to the incorporation of older material in two main redactions; one deeply imbued with the language and thought of Deuteronomy itself (D), the other of the post-exilic priestly circle (P) which gave the Pentateuch its present form. That the older sources (which often prove to be composite) are actually identical with the Yahwist or Judaeen (J) and the Elohist or Ephraimite (E) narratives (on which see [GENESIS](#)) is not improbable, though, especially as regards the former, still very uncertain. In general the literary problems are exceedingly intricate, and no attempt can be made here to deal with them as fully as they deserve.

The Invasion.—The book falls naturally into two main parts, of which the first, the crossing of the Jordan and the conquest of Palestine (i.-xii.) is mainly due to Deuteronomic compilers. It opens with the preparations for the crossing of the Jordan and the capture of the powerful city Jericho. Ai, near Bethel, is taken after a temporary repulse, and Joshua proceeds to erect an altar upon Mt Ebal (north of Shechem). For the fullness with which the events are recorded the writers were probably indebted to local stories.

The Israelites are at Abel-Shittim (already reached in Num. xxv. 1). Moses is dead, and Joshua enters upon his task with the help of the Transjordanic tribes who have already received their territory (i). The narrative is of the later prophetic stamp (D; cf. Deut. iii. 18-22, xi. 24, where Moses is the speaker; xxxi. 1-8), but may be based upon an earlier and shorter record (E; vv. 1 seq., 10, 11a). Of the mission of the spies to Jericho, two versions were current (duplicates ii. 3, 12, 18; v. 15 seq. breaks the connexion between vv. 13 and 18, but is resumed in vv. 22-24); D's addition is to be recognized in ii. 9b-11. The incident occupies at least four days, but the main narrative reckons three days between i. 11 and iii. 2. Next follow the passage of the Jordan (commemorated by the erection of twelve stones), the encampment at Gilgal, and the observance of the rite of circumcision and of the

passover (iii.-v.). The complicated narrative in iii.-iv. is of composite origin (contrast iii. 17 with iv. 10 seq., 19; iv. 3, 8 with vv. 9, 20; and cf. iii. 12 with the superfluous iv. 2, &c.). As in ii., D has amplified (iii. 4*b*, 7, 10*b*, iv. 9-10*a*, 12, 14; more prominently in iv. 21-v. 1, v. 4-8), and subsequently P (or a hand akin to P) has worked over the whole (iii. 4, note the number and the prohibition, cf. Num. i. 51; iii. 8, 15 seq.; iv. 13, 19; v. 10-12). Circumcision, already familiar from Exod. iv. 26, Deut. x. 16, is here regarded as a new rite (v. 2, 9, supplemented by vv. 1, 4-8), but the conflicting views have been harmonized by the words "the second time" (v. 2). Gilgal is thus named from the "rolling away" of the "reproach of Egypt" (v. 9), but iv. 20 suggests a different origin, viz. the sacred stone-circle (cf. Judges iii. 19, R.V. marg.). An older account of the divine commission to Joshua appears in the archaic passage v. 13-15 (cf. Moses in Exod. iii.). Fusion of sources is obvious in the story of the fall of Jericho (contrast vi. 5 and v. 10, vv. 21 and 24, vv. 22 and 25); according to one (E?) the people march seven times round the city on one day, the ark and the priests occupying a prominent position (vi. 4-6, 7*b*-9, 12 seq., 16*a*, 20 [part], 22-24); but in the other they march every day for seven days. Both here and in the preceding chapters the Septuagint has several variations and omissions, due either to an (unsuccessful) attempt to simplify the present difficulties, or to the use of another recension. The curse pronounced by Joshua upon the destroyed city of Jericho (vi. 26) should be associated with an incident in the reign of Ahab which is acquainted with the story (1 Kings xvi. 34); the city, however, reappears in Joshua xviii. 21; 2 Sam. x. 5. Achan's sacrilege, the cause of the repulse at Ai and of the naming of the valley of Achor (vii.), is introduced by vi. 18 seq., 24*b*, and, as its spirit shows, is of relatively later date. It contains some probable traces of D (in vii. 5, 7, 11 seq., 15, 25) and P (in vv. 1, 18, 24 seq.). The capture of Ai has marks of the same dual origin as the preceding chapters (cf. viii. 3*a* with 10, and contrast viii. 3-9 with v. 12; vv. 5-7 with 18, 26; v. 19 with 28). The general resemblance between chs. vii.-viii. and the war with Benjamin (Judges xx.) should be noticed.

Conquests in Palestine.—The erection of the altar, not at the scene of battle (cf. 1 Sam. xiv. 35) but on Mt Ebal (viii. 30-35, D), presupposes the conquest of central Palestine and the removal of the ark from Gilgal. These, however, are not narrated, and, unless some account of them has been replaced by the present passage, this portion of the conquest was ignored. Possibly the passage is not in its original position: in the Septuagint it appears after ix. 2, while Josephus (*Ant.* v. 1, 19) and the Samaritan book of Joshua read it before ch. xiii.; Dillmann, however, would place it after xi. 23. The capture of Jericho and Ai is followed by the successful stratagem of the Gibeonites to make peace with Israel (ix.). This involves them in a war with the southern Canaanites; Joshua intervenes and obtains a crowning victory (x.). The camp is still at Gilgal. A similar conquest of the northern Canaanites follows (xi.), and the first part of the book concludes with a summary of the results of the Israelite invasion (xii.).

No satisfactory explanation of viii. 30-35 has been found, yet ix. 1 seq. seems to show that it was the prelude to the Canaanite wars. In contrast to the absence of any reference to the occupation of central Palestine, the conquest of the south was current in several divergent traditions. Two records are blended in ix.; one narrates the covenant with the Gibeonites, the other that with the Hivites (properly Hivvites); and in the latter Joshua has no place (vv. 4 seq., 6*b*, 7, 11-14, &c.). The former has additions by D (vv. 9*b*, 10, 24 seq.) and by P (v. 15 last clause, 17-21); the latter, in accordance with the legislation of its day (posterior to Ezek. xliv. 6 sqq.), does not allow the Gibeonites to minister to the temple or altar, but merely to the "congregation," a characteristic post-exilic term (contrast vv. 21 and 23; and on 27 see Sept. and commentaries). The story of the covenant conflicts with the notice that Gibeon was still an independent Canaanite city in David's time (2 Sam. xxi. 2). The defeat of the southern coalition is based, as the doublets show, upon two sources; the war arises from two causes (vengeance upon the Gibeonites, and the attempt to overthrow Israel), and concludes with a twofold victory: in x. 16-24 the kings are pursued to Makkedah and slain, in v. 11 they are smitten by a great hailstorm in their flight to Azekah (cf. 1 Sam. vii. 10, xiv. 15, in the same district). Redactional links have been added, apparently by D, to whom is possibly due the stanza quoted from the book of Jashar (v. 12 seq.), a poetical address to the sun and moon, of the nature of a prayer or spell for their aid (cf. Judges v. 20, and see Eccles. xlvi. 4). The literal interpretation of this picturesque quotation has been influenced by the prosaic comments at the end of v. 13 and beginning of v. 14. Verse 15, which closes the account, anticipates v. 43; the Septuagint omits both. The generalizing narrative (x. 28-43), which is due to D in its present form, is partly based upon old matter (*e.g.* the capture of Makkedah), but is inconsistent with what precedes (v. 37, see v. 23 sqq.) and follows (capture of Debir, v. 38 seq., see xv. 15; Judges i. 11). The description of the conquest of the northern Canaanites is very similar to that of the south. The main part is from an older source (xi. 1, 4-9; see [DEBORAH](#)), the amplifications (v. 2 seq.) are due to D, as also are the summary (vv. 10-23, cf. style of x. 28-43), and the enumeration of the total results of the invasion (xii.), which includes names not previously mentioned.

Division of the Land.—The result of the events narrated in the first part of the book is to ascribe the entire subjugation of Canaan to Joshua, whose centre was at Gilgal (x. 15, 43). He is now "old and advanced in years," and although much outlying land remained to be possessed, he is instructed to divide the conquered districts among the western tribes (xiii. 1 sqq.). This is detailed at length in the second part of the book. With the completion of the division his mission is accomplished. The main body of this part (xiii. 15-xiv. 5; xv.-xvii.; xviii. 11-xxi. 42; xxii. 7-34) is in its present form almost entirely due to P.

In regard to details, xiii. 2-6 (now D) expresses the view that the conquest was incomplete, and numbers districts chiefly in the south-west and in the Lebanon. Two sources deal with the inheritance of the east Jordan tribes in terms which are—(a) general (xiii. 8-12, D), and (b) precise (vv. 15-32, P). The latter stands between the duplicate passages xiii. 14 and 32 seq. (see the Sept.). With the interest

taken in these tribes, cf. for (a) i. 12-18; Deut. iii. 12-22, and the sequel in Joshua xxii. 1-6; and for (b) xxii. 9 seq.; Num. xxxii. P's account of the division opens with an introductory notice of the manner in which Eleazar the priest and Joshua (note the order) prepare to complete the work which Moses had begun (xiv. 1-5). It opens with Judah, its borders (xv. 1-12) and cities (vv. 20-62), and continues with the two Joseph tribes, Ephraim (xvi. 4-9, contrast details in vv. 1-3) and Manasseh (xvii. 1-10, cf. Num. xxvi. 30-32, xxvii. 1-11; P). There is now a break in the narrative (xviii. 2-10, source uncertain); seven tribes have not yet received an inheritance, and Joshua (alone) encourages them to send three men from each tribe to walk through the land—excluding the territory of Judah and Joseph—and to bring a description of it to him, after which he divides it among them by lot. P² now resumes with an account of the borders and cities of Benjamin (xviii. 11-28), Simeon, Zebulun, Issachar, Asher, Naphtali and Dan (xix.; on v. 47, see below); and, after the subscription (xix. 51), concludes with the institution of the cities of refuge (xx., cf. Num. xxxv.), and of the Levitical cities (xxi., contrast the earlier brief notice, xiii. 14, 33). Chapter xx., belonging to the Predaction, has certain points of contact with Deut. xix. which, it is very important to observe, are wanting in the Septuagint; and xxi. 43-45 closes D's account of the division, and in the Septuagint contains matter most of which is now given by P in xix. 49 seq. Two narratives describe the dismissal of the trans-Jordanic tribes after their co-operation in the conquest, viz. xxii. 1-6 (D), and xxii. 9 seq. (P); cf. above, on xiii. 8 seq. P, with the description of the erection of the altar (v. 34, Gilead?; cf. Gen. xxxi. 47 seq.), is apparently a late re-writing of some now obscure incident to emphasize the unity of worship. P's account of the distribution of land among the *nine and a half* tribes by Eleazar and Joshua (from xiv. 1-5 to xix. 51) appears to have been on the lines laid down in Num. xxxiv. (P). The scene, according to xviii. 1, is Shiloh, and this verse, which does not belong to the context, should apparently precede P's narrative in xiv. 1. But of the occupation of *Shiloh*, the famous Ephraimite sanctuary and the seat of the ark, we have no information. The older source, however, presupposes that Judah and the two Joseph tribes have acquired their territory; the remaining seven are blamed for their indifference (xviii. 2-10, see above), and receive their lot conjointly at the camp at Shiloh. But if the location is an attempt to harmonize with xviii. 1, *Gilgal* should probably be restored. The section xviii. 2-10 is followed by xxi. 43 seq. (above), and may have been preceded originally by xiii. 1, 7 (where read: inheritance for the *seven* tribes); in its present form it appears to be due to D. Another account of the exploits of Judah and Joseph can be traced here and there; e.g. in xiv. 6-15 (where Caleb receives Hebron as his inheritance and the "land had rest from war"), and xvii. 14-18 (where Joseph receives an additional lot); but where these traditions have not been worked into later narratives, they exist only in fragmentary form and are chiefly recognizable by their standpoint. They are characterized by the view that the conquest was only a partial one, and one which was neither the work of a single man nor at his instigation, but due entirely to individual or tribal achievements. This view can be traced in xiii. 13, xv. 63 (cf. the parallel Judges i. 21 in contrast to v. 8), xvi. 10 (Judges i. 29), xvii. 11-13 (Judges i. 27 seq.), and in the references to separate tribal or family exploits: xv. 13-19, xix. 47 (cf. Judges i. 34 seq., xviii.).

Two closing addresses are ascribed to Joshua, one an exhortation similar to the homilies in secondary portions of Deuteronomy (xxiii.; cf. Moses in Deut. xxviii. seq., and Samuel's last address in 1 Sam. xii.), which virtually excludes the other (xxiv.), where Joshua assembles the tribes at Shechem (Shiloh, in the Septuagint) and passes under review the history of Israel from the days of heathenism (before Abraham was brought into Canaan) down through the oppression in Egypt, the exodus, the conquest in East Jordan and the occupation of Canaan. A few otherwise unknown details are to be found (xxiv. 2, 11 seq. 14). The address (which is extremely important for its representation of the religious conditions) is made the occasion for a solemn covenant whereby the people agree to cleave to Yahweh alone. This is commemorated by the erection of a stone under the oak by the sanctuary of Yahweh (for the tree with its sacred pillar, see Gen. xxxv. 4; Judges ix. 6). The people are then dismissed, and the book closes in ordinary narrative style with the death of Joshua and his burial in his inheritance at Timnath-serah in Mt Ephraim (cf. xix. 49 seq.); the burial of Joseph in Shechem; and the death and burial of Eleazar the son of Aaron in the "hill of Phinehas."

Chapter xxiv. presupposes the complete subjection of the Canaanites and is of a late prophetic stamp. Some signs of amplification (e.g. vv. 11*b*, 13, 31) suggest that it was inserted by a Deuteronomic hand, evidently distinct from the author of xxiii. But elsewhere there are traces of secondary Deuteronomic expansion and of internal incongruities in Deuteronomic narratives; contrast xiv. 6-15 with Joshua's extermination of the "Anakim" in xi. 21 seq.; the use of this name with the "Philistines" of xiii. 2 (see [PHILISTINES](#)), or the conquests in xi. 16-22 with the names in x. 36-43. All these passages are now due to D; but not only is Deuteronomy itself composite, a twofold redaction can be traced in Judges, Samuel and Kings, thus involving the deeper literary problems of Joshua with the historical books generally.³ Both Joshua xxiii. and xxiv. are closely connected with the very complicated introduction to the era of the "judges" in Judges ii. 6 sqq., and ii. 6-9 actually resume Joshua xxiv. 28 sqq., while the Septuagint appends to the close of Joshua the beginning of the story of Ehud (Judges iii. 12 seq.). Both Judges i.-ii. 5 and chap. xvii.-xxi. are of post-Deuteronomic insertion, and they represent conditions analogous to the older notices imbedded in the later work of P (Judges i. 21, xix. 10-12, cf. Joshua xv. 63; see [JUDGES ad fin.](#)). Moreover, P in its turn shows elsewhere definite indications of different periods and standpoints, and the fluid state of the book at a late age is shown by the presence of Deuteronomic elements in Joshua xx., not found in the Septuagint, and by the numerous and often striking readings which the latter recension presents.

Value of the Book.—The value of the book of Joshua is primarily religious; its fervency, its conviction of the destiny of Israel and its inculcation of the unity and greatness of the God of Israel give expression to the philosophy of Israelite historians. As an historical record its value must depend

upon a careful criticism of its contents in the light of biblical history and external information. Its description of the conquest of Canaan comes from an age when the event was a shadow of the past. It is an ideal view of the manner in which a divinely appointed leader guided a united people into the promised land of their ancestors, and, after a few brief wars of extermination (x.-xii.), died leaving the people in quiet possession of their new inheritance (xi. 23; xxi. 44 seq.; xxiii. 1).⁴ On the other hand, the earlier inhabitants were not finally subjugated until Solomon's reign (1 Kings ix. 20); Jerusalem was taken by David from the Jebusites (2 Sam. v.); and several sites in its neighbourhood, together with important fortresses like Gezer, Megiddo and Taanach, were not held by Israel at the first. There are traces of other conflicting traditions representing independent tribal efforts which were not successful, and the Israelites are even said to live in the midst of Canaanites, intermarrying with them and adopting their cult (Judges i.-iii. 6). From a careful consideration of all the evidence, both internal and external, biblical scholars are now almost unanimous that the more finished picture of the Israelite invasion and settlement cannot be accepted as a historical record for the age. It accords with this that the elaborate tribal-lists and boundaries prove to be of greater value for the geography than for the history of Palestine, and the attempts to use them as evidence for the early history of Israel have involved numerous additional difficulties and confusion.⁵

The book of Joshua has ascribed to one man conquests which are not confirmed by subsequent history. The capture of Bethel, implied rather than described in Joshua viii., is elsewhere the work of the Joseph tribes (Judges i. 22 sqq., cf. features in the conquest of Jericho, Joshua vi. 25). Joshua's victory in north Palestine has its parallel in Judges iv. at another period (see *DEBORAH*), and Adonizedek of Jerusalem (Joshua x.) can scarcely be severed from the Adoni-bezek taken by the tribes of Judah and Simeon (Judges i. 5-7). The prominence of Joshua as military and religious leader, and especially his connexion with Shechem and Shiloh, have suggested that he was a hero of the Joseph tribes of central Palestine (viz. Ephraim and Manasseh). Moreover, the traditions in Joshua viii. 30-ix. 2, and Deut. xxvii. 1-8 seem to place the arrival at Mt Ebal immediately after the crossing of the Jordan. This implies that Israel (like Jacob in Gen. xxxii.) crossed by the Jabbok, and in fact the Wadi Fari'ā provides an easy road to Shechem, to the south-east of which lies Julejil; and while this is the Gilgal of Deut. xi. 30, the battles at Jericho and Ai (Joshua ii. seq.) occur naturally after the encampment at the southern Gilgal (near Jericho). The alternative view (see especially Stade, *Gesch. Isr.* 1. 133 sqq.) connects itself partly with the ancestor of all the tribes (Jacob, *i.e.* Israel), and partly with the eponym of the Joseph tribes whose early days were spent around Shechem, the removal of whose bones from Egypt must have found a prominent place in the traditions of the tribes concerned (Gen. i. 25; Exod. xiii. 19; Joshua xxiv. 32). According to one view (Stade, Wellhausen, Guthe, &c.) only the Joseph tribes were in Egypt, and separate tribal movements (see *JUDAH*) have been incorporated in the growth of the tradition; the probability that the specific traditions of the Joseph tribes have been excised or subordinated finds support in the manner in which the Judæan P has abridged and confused the tribal lists of Ephraim and Manasseh.

The serious character of the problems of early Israelite history can be perceived from the renewed endeavours to present an adequate outline of the course of events; for a criticism of the most prominent hypotheses see Cheyne, *Ency. Bib.* art. "Tribes" (col. 5209 seq.); a new theory has been more recently advanced by E. Meyer (*Die Israeliten u. ihre Nachbarstämme*, 1906). But Joshua as a tribal hero does not belong to the earliest phase in the surviving traditions. He has no place in the oldest surviving narratives of the exodus (Wellhausen, *Steuernagel*); and only later sources add him to Caleb (Num. xiv. 30; the reference in Deut. i. 38 is part of an insertion), or regard him as the leader of all the tribes (Deut. iii. 21, 28). As an attendant of Moses at the tent of meeting he appears in quite secondary passages (Exod. xxxiii. 7-11; Num. xi. 28). His defeat of the Amalekites is in a narrative (Exod. xvii. 8-16) which belongs more naturally to the wilderness of Shur, and it associates him with traditions of a movement direct into south Palestine which finds its counterpart when the clan Caleb (*q.v.*) is artificially treated as possessing its seats with Joshua's permission. But points of resemblance between Joshua the invader and Saul the founder of the (north) Israelite monarchy gain in weight when the traditions of both recognize the inclusion or possession of Judah, and thus stand upon quite another plane as compared with those of David the founder of the Judæan dynasty. Instead of rejecting the older stories of Joshua's conquests it may be preferable to infer that there were radical divergences in the historical views of the past. Consequently, the parallels between Joshua and Jacob (see *Steuernagel's Commentary*, p. 150) are more significant when the occupation of central Palestine, already implied in the book of Joshua, is viewed in the light of Gen. xlviii. 22, where Jacob as conqueror (cf. the very late form of the tradition in Jubilees xxxiv.) agrees with features in the patriarchal narratives which, in implying a settlement in Palestine, are entirely distinct from those which belong to the descent into Egypt (see especially, Meyer, *op. cit.* pp. 227 seq., 414 seq., 433; Luther, *ib.* 108 seq.). The elaborate account of the exodus gives the prevailing views which supersede other traditions of the origin both of the Israelites and of the worship of Yahweh (Gen. iv. 26). Several motives have influenced its growth,⁶ and the kernel—the revelation of Yahweh to Moses—has been developed until all the tribes of Israel are included and their history as a people now begins. The old traditions of conquest in central Palestine have similarly been extended, and have been adapted to the now familiar view of Israelite origins. It is this subordination of earlier tradition to other and more predominating representations which probably explains the intricacy of a book whose present text may not have been finally fixed until, as Dillmann held, as late as about 200 B.C.

edition by H. W. Robinson in the *Century Bible*; also articles on "Joshua" by G. A. Smith, Hastings's *D. B.*, and G. F. Moore, *Ency. Bib.*; Kittel in *Hist. of the Hebrews*, i. 262 sqq.; W. H. Bennett, in Haupt's *Sacred Books of the Old Testament*; Carpenter and Harford-Battersby, *Comp. of Hexateuch*, ch. xvii; S. R. Driver, *Lit. of the O. T.* (8th ed., 1909). These give further bibliographical information, for which see also the articles on the books of the Pentateuch.

(S. A. C.)

- 1 Heb. *Jēhōshūā*; later *Jēshūā*; Gr. Ἰησοῦς, whence "Jesus" in the A.V. of Heb. iv. 8; another form of the name is Hoshea (Num. xiii. 8, 16). The name may mean "Yah(weh) is wealth, or is (our) war-cry, or saves." The only extra-biblical notice of Joshua is the inscription of more than doubtful genuineness given by Procopius (*Vand.* ii. 20), and mentioned also by Moses of Chorene (*Hist. Arm.* i. 18). It is said to have stood at Tingis in Mauretania, and to have borne that those who erected it had fled before Ἰησοῦς ὁ ληστής. For the medieval Samaritan Book of Joshua, see T. Juynboll, *Chronicum Samaritanum* (1846); J. A. Montgomery, *The Samaritans* (1907), pp. 301 sqq.
- 2 Traces of composite material may be recognized—(a) where, in place of boundaries, P has given lists of cities which appear to be taken from other sources (cf. the instructions in xviii. 9), and (b) in the double headings (see Addis, *The Hexateuch*, i. 230, note 1, and the commentaries).
- 3 The close relation between what may be called the Deuteronomic history (Joshua-Kings) and its introduction (the legal book of Deuteronomy) independently show the difficulty of supporting the traditional date ascribed to the latter.
- 4 G. F. Moore (*Ency. Bib.*, col. 2608, note 2) draws attention to the instructive parallel furnished by the Greek legends of the Dorian invasion of the Peloponnesus (the "return" of the Heracleidae, the partition of the land by lot, &c.).
- 5 The historical problems are noticed in all biblical histories, and in the commentaries on Joshua and Judges. Against the ordinary critical view, see J. Orr, *Problem of the O.T.* (1905) pp. 240 seq. This writer (on whom see A. S. Peake, *The Interpreter*, 1908, pp. 252 seq.) takes the book as a whole, allowance being made for "the generalizing tendency peculiar to all summaries." His argument that "the circumstantiality, local knowledge and evidently full recollection of the narratives (in Joshua) give confidence in the truth of their statements" is one which historical criticism in no field would regard as conclusive, and his contention that a redactor would hardly incorporate conflicting traditions in his narrative "if he believed they contradicted it" begs the question and ignores Oriental literature.
- 6 *E.g.* the vicissitudes of Levitical families, other migrations into Palestine, &c. The story of Joseph has probably been used as a link (see Luther, *op. cit.* pp. 142 seq.).



JOSHUA THE STYLITE, the reputed author of a chronicle which narrates the history of the war between the Greeks and Persians in 502-506, and which is one of the earliest and best historical documents preserved to us in Syriac. The work owes its preservation to having been incorporated in the third part of the history of pseudo-Dionysius of Tell-Maḥrē, and may probably have had a place in the second part of the *Ecclesiastical History* of John of Asia, from whom (as Nau has shown) pseudo-Dionysius copied all or most of the matter contained in his third part. The chronicle in question is anonymous, and Nau has shown that the note of a copyist, which was thought to assign it to the monk Joshua of Zuḳnīn near Āmid, more probably refers to the compiler of the whole work in which it was incorporated. Anyhow the author was an eye-witness of many of the events which he describes, and must have been living at Edessa during the years when it suffered so severely from the Persian War. His view of events is everywhere characterized by his belief in overruling Providence; and as he eulogizes Flavian II., the Chalcedonian patriarch of Antioch, in warmer terms than those in which he praises his great Monophysite contemporaries, Jacob of Sērūgh and Philoxenus of Mabbōg, he was probably an orthodox Catholic.

The chronicle was first made known by Assemani's abridged Latin version (*B. O.* i. 260-283) and was edited in 1876 by the abbé Martin and (with an English translation) by W. Wright in 1882. After an elaborate dedication to a friend—the "priest and abbot" Sergius—a brief recapitulation of events from the death of Julian in 363 and a fuller account of the reigns of the Persian kings Pērōz (457-484) and Balāsh (484-488), the writer enters upon his main theme—the history of the disturbed relations between the Persian and Greek Empires from the beginning of the reign of Kawād I. (489-531), which culminated in the great war of 502-506. From October 494 to the conclusion of peace near the end of 506, the author gives an annalistic account, with careful specification of dates, of the main events in Mesopotamia, the theatre of conflict—such as the siege and capture of Āmid by the Persians (502-503), their unsuccessful siege of Edessa (503), and the abortive attempt of the Greeks to recover Āmid (504-505). The work was probably written a few years after the conclusion of the war. The style is graphic and straightforward, and the author was evidently a man of good education and of a simple, honest mind.

(N. M.)



JOSIAH (Heb. *yō' shiyyāhū*, perhaps "Yah[weh] supports"), in the Bible, the grandson of Manasseh, and king of Judah. He came to the throne at the age of eight, after the murder of his predecessor Amon. The circumstances of his minority are not recorded, nor is anything related of the Scythian inroads which occurred in the latter half of the 7th century B.C., although some passages in the books of Jeremiah and Zephaniah are supposed to refer to the events. The storm which shook the external states was favourable to the peace of Judah; the Assyrian power was practically broken, and that of the Chaldeans had scarcely developed into an aggressive form. Samaria thus lay within the grasp of Josiah, who may have entertained hopes of forming an independent power of his own. Otherwise, it is not clear why we find him opposing himself to the Egyptian king Necho, since the assumption that he fought as an Assyrian vassal scarcely agrees with the profound reforming policy ascribed to him. At all events, at the battle of Megiddo¹ he lost both his kingdom and his life (608 B.C.), and for a few years Judah was in the hands of Egypt (2 Kings xxiii. 29 seq.). The chronicler gives a rather different account of the battle, and his allusion to the dirge uttered by Jeremiah over his death (2 Chron. xxxv. 20-25; 1 Esd. i. 32) represents the tradition which makes this prophet the author of the book of Lamentations.

The reign of Josiah is important for the biblical account of the great religious reforms which began in his eighteenth year, when he manifested interest in the repair of the Temple at Jerusalem. In the course of this work the high priest Hilkiah discovered a "law-book" which gave rise to the liveliest concern. The reasons for believing that this roll was substantially identical with the book of Deuteronomy were already appreciated by Jerome, Chrysostom, Theodoret and others,² and a careful examination shows that the character of the reformation which followed agrees in all its essential features with the prescriptions and exhortations of that book. (See [DEUTERONOMY](#).) But the detailed records in 2 Kings xxii. seq. are evidently written under the influence of the reforms themselves, and are not contemporary (see [KINGS, BOOK OF](#)). They are further expanded, to agree with still later ideals, in 2 Chron. xxxiv. seq. The original roll was short enough to be read at least twice in a day (xxii. 8, 10), and hence only some portions of Deuteronomy (or of an allied production) may be intended. Although the character of the reforms throws remarkable light upon the condition of religion in Judah in the time of Josiah, it is to be observed that the writings of the contemporary prophets (Jeremiah, Ezekiel) make it very questionable whether the narratives are thoroughly trustworthy for the history of the king's measures. (See further [JEWS](#), § 16.)

(S. A. C.)

¹ Or "Magdolos" (Herod, ii. 159), *i.e.* some "Migdal" (tower) of Judaea, not the Migdol of Exod. xiv. 2; Jer. xlv. 1.

² See *Zeit. f. Alttest. Wissenschaft* (1902), pp. 170 seq., 312 seq.; *Journ Bib. Lit.* (1903), p. 50.



JÓSIKA, MIKLOS [NICHOLAS], BARON (1794-1865), Hungarian novelist, was born on the 28th of April 1794 at Torda in Transylvania, of aristocratic and wealthy parents. After finishing the usual course of legal studies at Kolozsvár (Klausenburg), he in 1811 entered the army, joining a cavalry regiment, with which he subsequently took part in the Italian campaign. On the battlefield of Mincio (February 8, 1814) he was promoted to the grade of lieutenant. He served in the campaign against Napoleon, and was present at the entry of the Allied Troops into Paris (March 31, 1814). In 1818 Jósika resigned his commission, returned to Hungary, and married his first wife Elizabeth Kallai. The union proving an unhappy one, Jósika parted from his wife, settled on his estate at Szurdok in Transylvania, and devoted himself to agricultural and literary pursuits. Drawn into the sphere of politics, he took part in the memorable Transylvanian diet of 1834. About this time Jósika first began to attract attention as a writer of fiction. In 1836 his *Abafi* laid the foundation of his literary reputation. This novel gives a vivid picture of Transylvania in the time of Sigismund Bátori. Jósika was soon afterwards elected member of the Hungarian Academy of Sciences and of the Kisfaludy Society; of the latter he became, in 1841, director, and in 1842 vice-president. In 1847 he appeared at the Transylvanian diet as second deputy for the county of Szolnok, and zealously supported the movement for the union of Transylvania with Hungary proper. In the same year he was converted to Protestantism, was formally divorced from his wife, and married Baroness Julia Podmaniczky, herself a writer of considerable merit, with whom he lived happily until his death. So great was Jósika's literary activity that by the time of the revolution (1848) he had already produced

about sixty volumes of romances and novels, besides numerous contributions to periodicals. Both as magnate of the upper house of the Hungarian diet and by his writings Jósika aided the revolutionary movement, with which he was soon personally identified, being chosen one of the members of the committee of national defence. Consequently, after the capitulation at Világos (Aug. 13, 1849) he found it necessary to flee the country, and settled first at Dresden and then, in 1850, at Brussels, where he resumed his literary pursuits anonymously. In 1864 he removed to Dresden, in which city he died on the 27th of February 1865. The romances of Jósika, written somewhat after the style of Sir Walter Scott, are chiefly of an historical and social-political character, his materials being drawn almost entirely from the annals of his own country. Among his more important works may be specially mentioned, besides *Abafi—The Poet Zrinyi* (1843); *The Last of the Bátoris* (1837); *The Bohemians in Hungary* (1839); *Esther* (1853); *Francis Rákóczy II.* (1861); and *A Végváriak*, a tale of the time of the Transylvanian prince Bethlen Gábor, 1864. Many of Jósika's novels have been translated into German.

See K. Moenich and S. Vutkovich, *Magyar Irók Névtára* (1876); M. Jókai, "Jósika Miklós Emlékezete," *A Kisfaludy-Társaság Evtlapjai, Új folyam*, vol. iii. (1869); G. W. Steinacker, *Ungarische Lyriker* (1874). Cf. also Jósika's autobiography—*Emlékirat*, vol. iv. (1865).



JOSIPPON, the name usually given to a popular chronicle of Jewish history from Adam to the age of Titus, attributed to an author Josippon or Joseph ben Gorion.¹ The name, though at one time identified with that of the historian Josephus, is perhaps a corruption of Hegesippus, from whom (according to Trieber) the author derived much of his material. The chronicle was probably compiled in Hebrew early in the 10th century, by a Jewish native of south Italy. The first edition was printed in Mantua in 1476. *Josippon* subsequently appeared in many forms, one of the most popular being in Yiddish (Judaeo-German), with quaint illustrations. Though the chronicle is more legendary than historical, it is not unlikely that some good and even ancient sources were used by the first compiler, the *Josippon* known to us having passed through the hands of many interpolators. The book enjoyed much vogue in England. Peter Morvyn in 1558 translated an abbreviated version into English, and edition after edition was called for. Lucien Wolf has shown that the English translations of the Bible aroused so much interest in the Jews that there was a widespread desire to know more about them. This led to the circulation of many editions of *Josippon*, which thus formed a link in the chain of events which culminated in the readmission of the Jews to England by Cromwell.

(I. A.)

¹ A prefect of Jerusalem of this name is mentioned by Josephus, *Bell. Jud.* ii. 20.



JOSS, in the pidgin-English of the Chinese seaports, the name given to idols and deities. It is used adjectivally in regard to many things connected with religious rites, such as "joss-house," a temple; "joss-stick," a stick which when burned gives forth a fragrant odour and is used as incense; "joss-paper," paper cut to resemble money (and sometimes with prayers written upon it) burned in funeral and other ceremonies. "Joss" is not a Chinese word, and is probably a corruption of Port. *deos*, god, applied by Portuguese navigators in the 16th century to the idols worshipped in the East Indies. The Dutch form is *joosge* (diminutive of *joos*), whence the Javanese *dejos*, and the English *yos*, later *joss*. The word seems to have been carried to China by English seamen from Batavia.



JOST, ISAAK MARKUS (1793-1860), Jewish historical writer, was born on the 22nd of February 1793 at Bernburg, and studied at the universities of Göttingen and Berlin. In Berlin he began to teach, and in 1835 received the appointment of upper master in the Jewish commercial school (called the Philanthropin) at Frankfort-on-the-Main. Here he remained until his death, on the 22nd of November 1860. The work by which he is chiefly known is *Geschichte der Israeliten seit der Zeit der Maccabäer*, in 9 vols. (1820-1829), which was afterwards supplemented by *Neuere*

Geschichte der Israeliten von 1815-1845 (1846-1847), and *Geschichte des Judenthums und seiner Sekten* (1857-1859). He also published an abridgment under the title *Allgemeine Geschichte des israelitischen Volkes* (1831-1832), and an edition of the Mishna with a German translation and notes (6 vols., 1832-1834). The *Israelitische Annalen* were edited by him from 1839 to 1841, and he contributed extensively to periodicals.

See Zirndorf, *Isaak Markus Jost und seine Freunde* (Cincinnati, 1886).



JOTUNHEIM, or JOTUN FJELDE, a mountainous region of southern Norway, lying between Gudbrandsdal on the east and Jostedalbrae and the head of the Sogne fjord on the west. Within an area of about 950 sq. m. it contains the highest mountain in the Scandinavian Peninsula—Galdhøpiggen (8399 ft.)—and several others but little inferior. Such are Glittertind or Glitretind (8380), and Memurutind (7966), which face Galdhøpiggen across the northward-sloping Visdal; Knutshulstind (7812) and several other peaks exceeding 7000 ft., to the south, between lakes Gjende and Bygdin, and Skagastølstind (7723) in the west of the region, above the Utladal, the chief summit of the magnificent Horunger. The upper parts of the main valleys are of characteristic form, not ending in lofty mountain-walls but comparatively low and level, and bearing lakes. The name Jotunheim (giants' home) is a modern memorial of the mountain-dwelling giants of Norse fable; the alternative name Jotun Fjelde was the first bestowed on the region, when it was explored in 1820 by the geologist Balthasar Matthias Keilhau (1797-1858). In modern times the region has attracted mountaineers and many visitors accustomed to rough lodging and difficult travelling.



JOUBERT, BARTHÉLEMY CATHERINE (1769-1799), French general, the son of an advocate, was born at Pont de Vaux (Ain) on the 14th of April 1769. In 1784 he ran away from school to enlist in the artillery, but was brought back and sent to study law at Lyons and Dijon. In 1791 he joined the volunteers of the Ain, and was elected by his comrades successively corporal and sergeant. In January 1792 he became sub-lieutenant, and in November lieutenant, having in the meantime made his first campaign with the army of Italy. In 1793 he distinguished himself by the brilliant defence of a redoubt at the Col di Tenda, with only thirty men against a battalion of the enemy. Wounded and made prisoner in this affair, Joubert was released on parole by the Austrian commander-in-chief, Devins, soon afterwards. In 1794 he was again actively engaged, and in 1795 he rendered such conspicuous service as to be made general of brigade. In the campaign of 1796 the young general commanded a brigade under Augereau, and soon attracted the special attention of Bonaparte, who caused him to be made a general of division in December, and repeatedly selected him for the command of important detachments. Thus he was in charge of the retaining force at the battle of Rivoli, and in the campaign of 1799 (invasion of Austria) he commanded the detached left wing of Bonaparte's army in Tirol, and fought his way through the mountains to rejoin his chief in Styria. He subsequently held various commands in Holland, on the Rhine and in Italy, where up to January 1799 he commanded in chief. Resigning the post in consequence of a dispute with the civil authorities, Joubert returned to France and married (June) Mlle de Montholon. But he was almost immediately summoned to the field again. He took over the command in Italy from Moreau about the middle of July, but he persuaded his predecessor to remain at the front and was largely guided by his advice. The odds against the French troops in the disastrous campaign of 1799 (see [FRENCH REVOLUTIONARY WARS](#)) were too heavy. Joubert and Moreau were quickly compelled to give battle by their great antagonist Suvorov. The battle of Novi was disastrous to the French arms, not merely because it was a defeat, but above all because Joubert himself was amongst the first to fall (Aug. 15, 1799). Joubert died before it could be shown whether his genius was of the first rank, but he was at any rate marked out as a future great captain by the greatest captain of all ages, and his countrymen intuitively associated him with Hoche and Marceau as a great leader whose early death disappointed their highest hopes. After the battle his remains were brought to Toulon and buried in Fort La Malgue, and the revolutionary government paid tribute to his memory by a ceremony of public mourning (Sept. 16). A monument to Joubert at Bourg was razed by order of Louis XVIII., but another memorial was afterwards erected at Pont de Vaux.

See Guilbert, *Notice sur la vie de B. C. Joubert*; Chevrier, *Le Général Joubert d'après sa correspondance* (2nd ed. 1884).



JOUBERT, JOSEPH (1754-1824), French moralist, was born at Montignac (Corrèze) on the 6th of May 1754. After completing his studies at Toulouse he spent some years there as a teacher. His delicate health proved unequal to the task, and after two years spent at home in study Joubert went to Paris at the beginning of 1778. He allied himself with the chiefs of the philosophic party, especially with Diderot, of whom he was in some sort a disciple, but his closest friendship was with the abbé de Fontanes. In 1790 he was recalled to his native place to act as *jugé de paix*, and carried out the duties of his office with great fidelity. He had made the acquaintance of Mme de Beaumont in a Burgundian cottage where she had taken refuge from the Terror, and it was under her inspiration that Joubert's genius was at its best. The atmosphere of serenity and affection with which she surrounded him seemed necessary to the development of what Sainte-Beuve calls his "esprit ailé, ami du ciel et des hauteurs." Her death in 1803 was a great blow to him, and his literary activity, never great, declined from that time. In 1809, at the solicitation of Joseph de Bonald, he was made an inspector-general of education, and his professional duties practically absorbed his interests during the rest of his life. He died on the 3rd of May 1824. His manuscripts were entrusted by his widow to Chateaubriand, who published a selection of *Pensées* from them in 1838 for private circulation. A more complete edition was published by Joubert's nephew, Paul de Raynal, under the title *Pensées, essais, maximes et correspondance* (2 vols. 1842). A selection of letters addressed to Joubert was published in 1883. Joubert constantly strove after perfection, and the small quantity of his work was partly due to his desire to find adequate and luminous expression for his discriminating criticism of literature and morals.

If Joubert's readers in England are not numerous, he is well known at second hand through the sympathetic essay devoted to him in Matthew Arnold's *Essays in Criticism* (1st series). See Sainte-Beuve, *Causeries du lundi*, vol. i.; *Portraits littéraires*, vol. ii.; and a notice by Paul de Raynal, prefixed to the edition of 1842.



JOUBERT, PETRUS JACOBUS (1834-1900), commandant-general of the South African Republic from 1880 to 1900, was born at Congo, in the district of Oudtshoorn, Cape Colony, on the 20th of January 1834, a descendant of a French Huguenot who fled to South Africa soon after the revocation of the Edict of Nantes by Louis XIV. Left an orphan at an early age, Joubert migrated to the Transvaal, where he settled in the Wakkerstroom district near Laing's Nek and the north-east angle of Natal. There he not only farmed with great success, but turned his attention to the study of the law. The esteem in which his shrewdness in both farming and legal affairs was held led to his election to the Volksraad as member for Wakkerstroom early in the sixties, Marthinus Pretorius being then in his second term of office as president. In 1870 Joubert was again elected, and the use to which he put his slender stock of legal knowledge secured him the appointment of attorney-general of the republic, while in 1875 he acted as president during the absence of T. F. Burgers in Europe. During the first British annexation of the Transvaal, Joubert earned for himself the reputation of a consistent irreconcilable by refusing to hold office under the government, as Paul Kruger and other prominent Boers were doing. Instead of accepting the lucrative post offered him, he took a leading part in creating and directing the agitation which led to the war of 1880-1881, eventually becoming, as commandant-general of the Boer forces, a member of the triumvirate that administered the provisional Boer government set up in December 1880 at Heidelberg. He was in command of the Boer forces at Laing's Nek, Ingogo, and Majuba Hill, subsequently conducting the earlier peace negotiations that led to the conclusion of the Pretoria Convention. In 1883 he was a candidate for the presidency of the Transvaal, but received only 1171 votes as against 3431 cast for Kruger. In 1893 he again opposed Kruger in the contest for the presidency, standing as the representative of the comparatively progressive section of the Boers, who wished in some measure to redress the grievances of the Uitlander population which had grown up on the Rand. The poll (though there is good reason for believing that the voting lists had been manipulated by Kruger's agents) was declared to have resulted in 7911 votes being cast for Kruger and 7246 for Joubert. After a protest Joubert acquiesced in Kruger's continued presidency. He stood again in 1898, but the Jameson raid had occurred meantime and the voting was 12,858 for Kruger and 2001 for Joubert. Joubert's position had then become much weakened by accusations of treachery and of sympathy with the Uitlander agitation. He took little part in the negotiations that culminated in the ultimatum sent to Great Britain by Kruger in 1899, and though he immediately assumed nominal command of the operations on the outbreak of hostilities, he gave up to others the chief share in the direction of the

war, through his inability or neglect to impose upon them his own will. His cautious nature, which had in early life gained him the sobriquet of "Slim Piet," joined to a lack of determination and assertiveness that characterized his whole career, led him to act mainly on the defensive; and the strategically offensive movements of the Boer forces, such as Elandslaagte and Willow Grange, appear to have been neither planned nor executed by him. As the war went on, physical weakness led to Joubert's virtual retirement, and, though two days earlier he was still reported as being in supreme command, he died at Pretoria from peritonitis on the 28th of March 1900. Sir George White, the defender of Ladysmith, summed up Joubert's character when he called him "a soldier and a gentleman, and a brave and honourable opponent."



JOUFFROY, JEAN (c. 1412-1473), French prelate and diplomatist, was born at Luxeuil (Haute-Saône). After entering the Benedictine order and teaching at the university of Paris from 1435 to 1438, he became almoner to Philip the Good, duke of Burgundy, who entrusted him with diplomatic missions in France, Italy, Portugal and Castile. Jouffroy was appointed abbot of Luxeuil (1451?) bishop of Arras (1453), and papal legate (1459). At the French court his diplomatic duties brought him to the notice of the dauphin (afterwards Louis XI.). Jouffroy entered Louis's service, and obtained a cardinal's hat (1461), the bishopric of Albi (1462), and the abbacy of St Denis (1464). On several occasions he was sent to Rome to negotiate the abolition of the Pragmatic Sanction and to defend the interests of the Angevins at Naples. Attached by King Louis to the sieur de Beaujeu in the expedition against John V., count of Armagnac, Jouffroy was accused of taking the town of Lectoure by treachery, and of being a party to the murder of the count of Armagnac (1473). He died at Reuilly the same year.

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See C. Fierrille, *Le Cardinal Jean Jouffroy et son temps* (1412-1473) (Coutances, Paris, 1874).



JOUFFROY, THÉODORE SIMON (1706-1842), French philosopher, was born at Pontets, near Mouthe, department of Doubs. In his tenth year, his father, a tax-gatherer, sent him to an uncle at Pontarlier, under whom he commenced his classical studies. At Dijon his compositions attracted the attention of an inspector, who had him placed (1814) in the normal school, Paris. He there came under the influence of Victor Cousin, and in 1817 he was appointed assistant professor of philosophy at the normal and Bourbon schools. Three years later, being thrown upon his own resources, he began a course of lectures in his own house, and formed literary connexions with *Le Courrier français*, *Le Globe*, *L'Encyclopédie moderne*, and *La Revue européenne*. The variety of his pursuits at this time carried him over the whole field of ancient and modern literature. But he was chiefly attracted to the philosophical system represented by Reid and Stewart. The application of "common sense" to the problem of substance supplied a more satisfactory analytic for him than the scepticism of Hume which reached him through a study of Kant. He thus threw in his lot with the Scottish philosophy, and his first dissertations are, in their leading position, adaptations from Reid's *Inquiry*. In 1826 he wrote a preface to a translation of the *Moral Philosophy* of Stewart, demonstrating the possibility of a scientific statement of the laws of consciousness; in 1828 he began a translation of the works of Reid, and in his preface estimated the influence of Scottish criticism upon philosophy, giving a biographical account of the movement from Hutcheson onwards. Next year he was returned to parlement by the *arrondissement* of Pontarlier; but the work of legislation was ill-suited to him. Yet he attended to his duties conscientiously, and ultimately broke his health in their discharge. In 1833 he was appointed professor of Greek and Roman philosophy at the college of France and a member of the Academy of Sciences; he then published the *Mélanges philosophiques* (4th ed. 1866; Eng. trans. G. Ripley, Boston, 1835 and 1838), a collection of fugitive papers in criticism and philosophy and history. In them is foreshadowed all that he afterwards worked out in metaphysics, psychology, ethics and aesthetics. He had already demonstrated in his prefaces the possibility of a psychology apart from physiology, of the science of the phenomena of consciousness distinct from the perceptions of sense. He now classified the mental faculties, premising that they must not be confounded with capacities or properties of mind. They were, according to his analysis, personal will, primitive instincts, voluntary movement, natural and artificial signs, sensibility and the faculties of intellect; on this analytic he founded his scheme of the universe. In 1835 he published a *Cours de droit naturel* (4th ed. 1866), which, for precision of statement and logical coherence, is the most important of his works. From the conception of a universal order in the universe he reasons to a Supreme Being, who has created it and who has conferred upon every man in harmony with it the

aim of his existence, leading to his highest good. Good, he says, is the fulfilment of man's destiny, evil the thwarting of it. Every man being organized in a particular way has, of necessity, an aim, the fulfilment of which is good; and he has faculties for accomplishing it, directed by reason. The aim is good, however, only when reason guides it for the benefit of the majority, but that is not absolute good. When reason rises to the conception of universal order, when actions are submitted, by the exercise of a sympathy working necessarily and intuitively to the idea of the universal order, the good has been reached, the true good, good in itself, absolute good. But he does not follow his idea into the details of human duty, though he passes in review fatalism, mysticism, pantheism, scepticism, egotism, sentimentalism and rationalism. In 1835 Jouffroy's health failed and he went to Italy, where he continued to translate the Scottish philosophers. On his return he became librarian to the university, and took the chair of recent philosophy at the faculty of letters. He died in Paris on the 4th of February 1842. After his death were published *Nouveaux mélanges philosophiques* (3rd ed. 1872) and *Cours d'esthétique* (3rd ed. 1875). The former contributed nothing new to the system except a more emphatic statement of the distinction between psychology and physiology. The latter formulated his theory of beauty.

Jouffroy's claim to distinction rests upon his ability as an expositor of other men's ideas. He founded no system; he contributed nothing of importance to philosophical science; he initiated nothing which has survived him. But his enthusiasm for mental science, and his command over the language of popular exposition, made him a great international medium for the transfusion of ideas. He stood between Scotland and France and Germany and France; and, though his expositions are vitiated by loose reading of the philosophers he interpreted, he did serviceable, even memorable work.

See L. Lévy Bruhl, *History of Modern Philos. in France* (1899), pp. 349-357; C. J. Tissot, *Th. Jouffroy: sa vie et ses écrits* (1876); J. P. Damiron, *Essai sur l'histoire de la philos. en France au dix^e siècle* (1846).



JOUGS, JUGGS, or JOGGS (O. Fr. *joug*, from Lat. *jugum*, a yoke), an instrument of punishment formerly in use in Scotland, Holland and possibly other countries. It was an iron collar fastened by a short chain to a wall, often of the parish church, or to a tree. The collar was placed round the offender's neck and fastened by a padlock. The joughs was practically a pillory. It was used for ecclesiastical as well as civil offences. Examples may still be seen in Scotland.



JOULE, JAMES PRESCOTT (1818-1889), English physicist, was born on the 24th of December 1818, at Salford, near Manchester. Although he received some instruction from John Dalton in chemistry, most of his scientific knowledge was self-taught, and this was especially the case with regard to electricity and electro-magnetism, the subjects in which his earliest researches were carried out. From the first he appreciated the importance of accurate measurement, and all through his life the attainment of exact quantitative data was one of his chief considerations. At the age of nineteen he invented an electro-magnetic engine, and in the course of examining its performance dissatisfaction with vague and arbitrary methods of specifying electrical quantities caused him to adopt a convenient and scientific unit, which he took to be the amount of electricity required to decompose nine grains of water in one hour. In 1840 he was thus enabled to give a quantitative statement of the law according to which heat is produced in a conductor by the passage of an electric current, and in succeeding years he published a series of valuable researches on the agency of electricity in transformations of energy. One of these contained the first intimation of the achievement with which his name is most widely associated, for it was in a paper read before the British Association at Cork in 1843, and entitled "The Calorific Effects of Magneto-electricity and the Mechanical Value of Heat," that he expressed the conviction that whenever mechanical force is expended an exact equivalent of heat is always obtained. By rotating a small electro-magnet in water, between the poles of another magnet, and then measuring the heat developed in the water and other parts of the machine, the current induced in the coils, and the energy required to maintain rotation, he calculated that the quantity of heat capable of warming one pound of water one degree F. was equivalent to the mechanical force which could raise 838 lb. through the distance of one foot. At the same time he brought forward another determination based on the heating effects observable when water is forced through capillary tubes; the number obtained in this way was 770. A third method, depending on the observation of the heat evolved by the mechanical compression of air, was

employed a year or two later, and yielded the number 798; and a fourth—the well-known frictional one of stirring water with a sort of paddle-wheel—yielded the result 890 (see *Brit. Assoc. Report*, 1845), though 781.5 was obtained by subsequent repetitions of the experiment. In 1849 he presented to the Royal Society a memoir which, together with a history of the subject, contained details of a long series of determinations, the result of which was 772. A good many years later he was entrusted by the committee of the British Association on standards of electric resistance with the task of deducing the mechanical equivalent of heat from the thermal effects of electric currents. This inquiry yielded (in 1867) the result 783, and this Joule himself was inclined to regard as more accurate than his old determination by the frictional method; the latter, however, was repeated with every precaution, and again indicated 772.55 foot-pounds as the quantity of work that must be expended at sea-level in the latitude of Greenwich in order to raise the temperature of one pound of water, weighed *in vacuo*, from 60° to 61° F. Ultimately the discrepancy was traced to an error which, not by Joule's fault, vitiated the determination by the electrical method, for it was found that the standard ohm, as actually defined by the British Association committee and as used by him, was slightly smaller than was intended; when the necessary corrections were made the results of the two methods were almost precisely congruent, and thus the figure 772.55 was vindicated. In addition, numerous other researches stand to Joule's credit—the work done in compressing gases and the thermal changes they undergo when forced under pressure through small apertures (with Lord Kelvin), the change of volume on solution, the change of temperature produced by the longitudinal extension and compression of solids, &c. It was during the experiments involved by the first of these inquiries that Joule was incidentally led to appreciate the value of surface condensation in increasing the efficiency of the steam engine. A new form of condenser was tested on the small engine employed, and the results it yielded formed the starting-point of a series of investigations which were aided by a special grant from the Royal Society, and were described in an elaborate memoir presented to it on the 13th of December 1860. His results, according to Kelvin, led directly and speedily to the present practical method of surface-condensation, one of the most important improvements of the steam engine, especially for marine use, since the days of James Watt. Joule died at Sale on the 11th of October 1889.

His scientific papers were collected and published by the Physical Society of London: the first volume, which appeared in 1884, contained the researches for which he was alone responsible, and the second, dated 1887, those which he carried out in association with other workers.



JOURDAN, JEAN BAPTISTE, COUNT (1762-1833), marshal of France, was born at Limoges on the 29th of April 1762, and in his boyhood was apprenticed to a silk merchant of Lyons. In 1776 he enlisted in a French regiment to serve in the American War of Independence, and after being invalided in 1784 he married and set up in business at Limoges. At the outbreak of the revolutionary wars he volunteered, and as a subaltern took part in the first campaigns in the north of France. His rise was even more rapid than that of Hoche and Marceau. By 1793 he had become a general of division, and was selected by Carnot to succeed Houchard as commander-in-chief of the Army of the North; and on the 15th-16th of October 1793 he won the brilliant and important victory of Wattignies (see [FRENCH REVOLUTIONARY WARS](#)). Soon afterwards he became a "suspect," the moderation of his political opinions and his misgivings as to the future conduct of the war being equally distasteful to the truculent and enthusiastic Committee of Public Safety. Warned in time by his friend Carnot and by Barère, he avoided arrest and resumed his business as a silk-mercator in Limoges. He was soon reinstated, and early in 1794 was appointed commander-in-chief of the Army of Sambre-et-Meuse. After repeated attempts to force the passage of the Sambre had failed and several severe general actions had been fought without result, Jourdan and his army were discouraged, but Carnot and the civil commissioners urged the general, even with threats, to a last effort, and this time he was successful not only in crossing the Sambre but in winning a brilliant victory at Fleurus (June 26, 1794), the consequence of which was the extension of the French sphere of influence to the Rhine, on which river he waged an indecisive campaign in 1795.

In 1796 his army formed the left wing of the advance into Bavaria. The whole of the French forces were ordered to advance on Vienna, Jourdan on the extreme left and Moreau in the centre by the Danube valley, Bonaparte on the right by Italy and Styria. The campaign began brilliantly, the Austrians under the Archduke Charles being driven back by Moreau and Jourdan almost to the Austrian frontier. But the archduke, slipping away from Moreau, threw his whole weight on Jourdan, who was defeated at Amberg and Würzburg, and forced over the Rhine after a severe rearguard action, which cost the life of Marceau. Moreau had to fall back in turn, and, apart from Bonaparte's marvellous campaign in Italy, the operations of the year were disastrous. The chief cause of failure was the vicious plan of campaign imposed upon the generals by their government. Jourdan was nevertheless made the scapegoat of the government's mistakes and was not employed for two years. In those years he became prominent as a politician and above all as the framer of the famous conscription law of 1798. When the war was renewed in 1799 Jourdan was placed at the head of the

army on the Rhine, but again underwent defeat at the hands of the archduke Charles at Stockach (March 25), and, disappointed and broken in health, handed over the command to Masséna. He at once resumed his political duties, and was a prominent opponent of the *coup d'état* of 18 Brumaire, after which he was expelled from the Council of the Five Hundred. Soon, however, he became formally reconciled to the new régime, and accepted from Napoleon fresh military and civil employment. In 1800 he became inspector-general of cavalry and infantry and representative of French interests in the Cisalpine Republic, and in 1804 he was made a marshal of France. He remained in the new kingdom of Italy until 1806, when Joseph Bonaparte, whom his brother made king of Naples in that year, selected Jourdan as his military adviser. He followed Joseph into Spain in the same capacity in 1808. But Joseph's throne had to be maintained by the French army, and throughout the Peninsular War the other marshals, who depended directly upon Napoleon, paid little heed either to Joseph or to Jourdan. After the battle of Vitoria he held no important command up to the fall of the Empire. Jourdan gave in his adhesion to the restoration government of 1814, and though he rejoined Napoleon in the Hundred Days and commanded a minor army, he submitted to the Bourbons again after Waterloo. He refused, however, to be a member of the court which tried Marshal Ney. He was made a count, a peer of France (1819), and governor of Grenoble (1816). In politics he was a prominent opponent of the royalist reactionaries and supported the revolution of 1830. After this event he held the portfolio of foreign affairs for a few days, and then became governor of the Invalides, where his last years were spent. Marshal Jourdan died on the 23rd of November 1833, and was buried in the Invalides.

He wrote *Opérations de l'armée du Danube* (1799); *Mémoires pour servir à l'histoire sur la campagne de 1796* (1819); and unpublished personal memoirs.



JOURNAL (through Fr. from late Lat. *diurnalis*, daily), a daily record of events or business. A private journal is usually an elaborated diary. When applied to a newspaper or other periodical the word is strictly used of one published each day; but any publication issued at stated intervals, such as a magazine or the record of the transactions of a learned society, is commonly called a journal. The word "journalist" for one whose business is writing for the public press (see [NEWSPAPERS](#)) seems to be as old as the end of the 17th century.

"Journal" is particularly applied to the record, day by day, of the business and proceedings of a public body. The journals of the British houses of parliament contain an official record of the business transacted day by day in either house. The record does not take note of speeches, though some of the earlier volumes contain references to them. The journals are a lengthened account written from the "votes and proceedings" (in the House of Lords called "minutes of the proceedings"), made day by day by the assistant clerks, and printed on the responsibility of the clerk to the house, after submission to the "subcommittee on the journals." In the Commons the journal is passed by the Speaker before publication. The journals of the House of Commons begin in the first year of the reign of Edward VI. (1547), and are complete, except for a short interval under Elizabeth. Those of the House of Lords date from the first year of Henry VIII. (1509). Before that date the proceedings in parliament were entered in the rolls of parliament, which extend from 1278 to 1503. The journals of the Lords are "records" in the judicial sense, those of the Commons are not (see Erskine May, *Parliamentary Practice*, 1906, pp. 201-202).

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The term "journal" is used, in business, for a book in which an account of transactions is kept previous to a transfer to the ledger (see [BOOK-KEEPING](#)), and also as an equivalent to a ship's log, as a record of the daily run, observations, weather changes, &c. In mining, a journal is a record describing the various strata passed through in sinking a shaft. A particular use of the word is that, in machinery, for the parts of a shaft which are in contact with the bearings; the origin of this meaning, which is firmly established, has not been explained.



JOURNEY (through O. Fr. *jornee* or *journee*, mod. Fr. *ournée*, from med. Lat. *diurnata*, Lat. *diurnus*, of or belonging to *dies*, day), properly that which occupies a day in its performance, and so a day's work, particularly a day's travel, and the distance covered by such, usually reckoned in the middle ages as twenty miles. The word is now used of travel covering a certain amount of distance or lasting a certain amount of time, frequently defined by qualifying words. "Journey" is usually applied to travel by land, as opposed to "voyage," travel by sea. The early use of "journey" for a day's work,

or the amount produced by a day's work, is still found in glassmaking, and also at the British Mint, where a "journey" is taken as equivalent to the coinage of 15 £ of standard gold, 701 sovereigns, and of 60 £ of silver. The term "journeyman" also preserves the original significance of the word. It distinguishes a qualified workman or mechanic from an "apprentice" on the one hand and a "master" on the other, and is applied to one who is employed by another person to work at his trade or occupation at a day's wage.



JOUVENET, JEAN (1647-1717), French painter, born at Rouen, came of a family of artists, one of whom had taught Poussin. He early showed remarkable aptitude for his profession, and, on arriving in Paris, attracted the attention of Le Brun, by whom he was employed at Versailles, and under whose auspices, in 1675, he became a member of the Académie Royale, of which he was elected professor in 1681, and one of the four perpetual rectors in 1707. The great mass of works that he executed, chiefly in Paris, many of which, including his celebrated Miraculous Draught of Fishes (engraved by Audran; also Landon, *Annales*, i. 42), are now in the Louvre, show his fertility in invention and execution, and also that he possessed in a high degree that general dignity of arrangement and style which distinguished the school of Le Brun. Jouvenet died on the 5th of April 1717, having been forced by paralysis during the last four years of his life to work with his left hand.

See *Mém. inéd. acad. roy. de p. et de sc.*, 1854, and D'Argenville, *Vies des peintres*.



JOUY, VICTOR JOSEPH ÉTIENNE DE (1764-1846), French dramatist, was born at Jouy, near Versailles, on the 12th of September 1764. At the age of eighteen he received a commission in the army, and sailed for South America in the company of the governor of Guiana. He returned almost immediately to France to complete his studies, and re-entered the service two years later. He was sent to India, where he met with many romantic adventures which were afterwards turned to literary account. On the outbreak of the Revolution he returned to France and served with distinction in the early campaigns, attaining the rank of adjutant-general. He drew suspicion on himself, however, by refusing to honour the toast of Marat, and had to fly for his life. At the fall of the Terror he resumed his commission but again fell under suspicion, being accused of treasonable correspondence with the English envoy, James Harris, 1st earl of Malmesbury who had been sent to France to negotiate terms of peace. He was acquitted of this charge, but, weary of repeated attacks, resigned his position on the pretext of his numerous wounds. Jouy now turned his attention to literature, and produced in 1807 with immense success his opera *La vestale* (music by Spontini). The piece ran for a hundred nights, and was characterized by the Institute of France as the best lyric drama of the day. Other operas followed, but none obtained so great a success. He published in the *Gazette de France* a series of satirical sketches of Parisian life, collected under the title of *L'Ermite de la Chaussée d'Antin, ou observations sur les mœurs et les usages français au commencement du dix^e siècle* (1812-1814, 5 vols.), which was warmly received. In 1821 his tragedy of *Sylla* gained a triumph due in part to the genius of Talma, who had studied the title-rôle from Napoleon. Under the Restoration Jouy consistently fought for the cause of freedom, and if his work was overrated by his contemporaries, they were probably influenced by their respect for the author himself. He died in rooms set apart for his use in the palace of St Germain-en-Laye on the 4th of September 1846.

Out of the long list of his operas, tragedies and miscellaneous writings may be mentioned, *Fernand Cortez* (1809), opera, in collaboration with J. E. Esménard, music by Spontini; *Tippo Saïb*, tragedy (1813); *Bélisaire*, tragedy (1818); *Les Hermites en prison* (1823), written in collaboration with Antoine Jay, like himself a political prisoner; *Guillaume Tell* (1829), with Hippolyte Bis, for the music of Rossini. Jouy was also one of the founders of the *Biographie nouvelle des contemporains*.



JOVELLANOS (or JOVE LLANOS), **GASPAR MELCHOR DE** (1744-1811), Spanish statesman and author, was born at Gijón in Asturias, Spain, on the 5th of January 1744. Selecting law

as his profession, he studied at Oviedo, Avila, and Alcalá, and in 1767 became criminal judge at Seville. His integrity and ability were rewarded in 1778 by a judgeship in Madrid, and in 1780 by appointment to the council of military orders. In the capital Jovellanos took a good place in the literary and scientific societies; for the society of friends of the country he wrote in 1787 his most valuable work, *Informe sobre un proyecto de ley agraria*. Involved in the disgrace of his friend, François Cabarrus, Jovellanos spent the years 1790 to 1797 in a sort of banishment at Gijon, engaged in literary work and in founding the Asturian institution for agricultural, industrial, social and educational reform throughout his native province. This institution continued his darling project up to the latest hours of his life. Summoned again to public life in 1797, Jovellanos refused the post of ambassador to Russia, but accepted that of minister of grace and justice, under “the prince of the peace,” whose attention had been directed to him by Cabarrus, then a favourite of Godoy. Displeased with Godoy’s policy and conduct Jovellanos combined with his colleague Saavedra to procure his dismissal. Godoy returned to power in 1798; Jovellanos was again sent to Gijon, but in 1801 was thrown into prison in Majorca. The revolution of 1808, and the advance of the French into Spain, set him once more at liberty. Joseph Bonaparte, on mounting the Spanish throne, made Jovellanos the most brilliant offers; but the latter, sternly refusing them all, joined the patriotic party, became a member of the central junta, and contributed to reorganize the cortes. This accomplished, the junta at once fell under suspicion, and Jovellanos was involved in its fall. To expose the conduct of the cortes, and to defend the junta and himself were the last labours of his pen. In 1811 he was enthusiastically welcomed to Gijon; but the approach of the French drove him forth again. The vessel in which he sailed was compelled by stress of weather to put in at Vega in Asturias, and there he died on the 27th of November 1811.

The poetical works of Jovellanos comprise a tragedy *El pelayo*, the comedy *El delincuente honrado*, satires, and miscellaneous pieces, including a translation of the first book of *Paradise Lost*. His prose works, especially those on political and legislative economy, constitute his real title to literary fame. In them depth of thought and clear-sighted sagacity are couched in a certain Ciceronian elegance and classical purity of style. Besides the *Ley agraria* he wrote *Elogios*; various political and other essays; and *Memorias politicas* (1801), suppressed in Spain, and translated into French, 1825. An edition of his complete works was published at Madrid (1831-1832) in 7 vols., and another at Barcelona (1839).

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See *Noticias historicas de Don G. M. de Jovellanos* (1812), and *Memorias para la vida del Señor ... Jovellanos*, by J. A. C. Bermudez (1814).



JOVELLAR Y SOLER, JOAQUIN (1819-1892), captain-general of Spain, was born at Palma de Mallorca, on the 28th of December 1819. At the close of his studies at the military academy he was appointed sub-lieutenant, went to Cuba as captain in 1842, returned to the War Office in 1851, was promoted major in 1853, and went to Morocco as private secretary to Marshal O’Donnell, who made him colonel in 1860 after Jovellar had been wounded at the battle of Wad el Ras. In 1863 Jovellar became a brigadier-general, in 1864 under-secretary for war; he was severely wounded in fighting the insurgents in the streets of Madrid, and rose to the rank of general of division in 1866. Jovellar adhered to the revolution, and King Amadeus made him a lieutenant-general in 1872. He absented himself from Spain when the federal republic was proclaimed, and returned in the autumn of 1873, when Castelár sent him to Cuba as governor-general. In 1874 Jovellar came back to the Peninsula, and was in command of the Army of the Centre against the Carlists when Marshal Campos went to Sagunto to proclaim Alfonso XII. General Jovellar became war minister in the first cabinet of the restoration under Canovas, who sent him to Cuba again as governor-general, where he remained until the 18th of June 1878, when the ten years’ insurrection closed with the peace of Zaujon. Alfonso XII. made him a captain-general, president of the council, life-senator, and governor-general of the Philippines. Jovellar died in Madrid on the 17th of April 1892.



JOVIAN (FLAVIUS JOVIANUS) (c. 332-364), Roman emperor from June 363 to February 364, was born at Singidunum in Moesia about 332. As captain of the imperial bodyguard he accompanied Julian in his Persian expedition; and on the day after that emperor’s death, when the aged Sallust, prefect of the East, declined the purple, the choice of the army fell upon Jovian. His election caused considerable surprise, and it is suggested by Ammianus Marcellinus that he was wrongly identified with another Jovian, chief notary, whose name also had been put forward, or that, during the acclamations, the soldiers mistook the name Jovianus for Julianus, and imagined that the latter had

recovered from his illness. Jovian at once continued the retreat begun by Julian, and, continually harassed by the Persians, succeeded in reaching the banks of the Tigris, where a humiliating treaty was concluded with the Persian king, Shapur II. (*q.v.*). Five provinces which had been conquered by Galerius in 298 were surrendered, together with Nisibis and other cities. The Romans also gave up all their interests in the kingdom of Armenia, and abandoned its Christian prince Arsaces to the Persians. During his return to Constantinople Jovian was found dead in his bed at Dadastana, halfway between Ancyra and Nicaea. A surfeit of mushrooms or the fumes of a charcoal fire have been assigned as the cause of death. Under Jovian, Christianity was established as the state religion, and the Labarum of Constantine again became the standard of the army. The statement that he issued an edict of toleration, to the effect that, while the exercise of magical rites would be severely punished, his subjects should enjoy full liberty of conscience, rests on insufficient evidence. Jovian entertained a great regard for Athanasius, whom he reinstated on the archiepiscopal throne, desiring him to draw up a statement of the Catholic faith. In Syriac literature Jovian became the hero of a Christian romance (G. Hoffmann, *Julianus der Abtrünnige*, 1880).

See Ammianus Marcellinus, xxv. 5-10; J. P. de la Blérierie, *Histoire de Jovien* (1740); Gibbon, *Decline and Fall*, chs. xxiv., xxv.; J. Wordsworth in Smith and Wace's *Dictionary of Christian Biography*; H. Schiller, *Geschichte der römischen Kaiserzeit*, vol. ii. (1887); A. de Broglie, *L'Église et l'empire romain au iv^e siècle* (4th ed. 1882). For the relations of Rome and Persia see [PERSIA: Ancient History](#).



JOVINIANUS, or JOVIANUS, a Roman monk of heterodox views, who flourished during the latter half of the 4th century. All our knowledge of him is derived from a passionately hostile polemic of Jerome (*Adv. Jovinianum, Libri II.*), written at Bethlehem in 393, and without any personal acquaintance with the man assailed. According to this authority Jovinian in 388 was living at Rome the celibate life of an ascetic monk, possessed a good acquaintance with the Bible, and was the author of several minor works, but, undergoing an heretical change of view, afterwards became a self-indulgent Epicurean and unrefined sensualist. The views which excited this denunciation were mainly these: (1) Jovinian held that in point of merit, so far as their domestic state was concerned, virgins, widows and married persons who had been baptized into Christ were on a precisely equal footing; (2) those who with full faith have been regenerated in baptism cannot be overthrown (or, according to another reading, tempted) of the devil; (3) to abstain from meats is not more praiseworthy than thankfully to enjoy them; (4) all who have preserved their baptismal grace shall receive the same reward in the kingdom of heaven.¹ Jovinian thus indicates a natural and vigorous reaction against the exaggerated asceticism of the 4th century, a protest shared by Helvidius and Vigilantius. He was condemned by a Roman synod under Bishop Siricius in 390, and afterwards excommunicated by another at Milan under the presidency of Ambrose. The year of his death is unknown, but he is referred to as no longer alive in Jerome's *Contra Vigilantium* (406).

¹ See, more fully, Harnack, *Hist. of Dogma*, v. 57.



JOVIUS, PAULUS, or PAOLO GIOVIO (1483-1552), Italian historian and biographer, was born of an ancient and noble family at Como on the 19th of April 1483. His father died when he was a child, and Giovio owed his education to his brother Benedetto. After studying the humanities, he applied himself to medicine and philosophy at his brother's request. He was Pomponazzi's pupil at Padua; and afterwards he took a medical degree in the university of Pavia. He exercised the medical profession in Rome, but the attraction of literature proved irresistible for Giovio, and he was bent upon becoming the historian of his age. He presented a portion of his history to Leo X., who read the MS., and pronounced it superior in elegance to anything since Livy. Thus encouraged, Giovio took up his residence in Rome, and attached himself to Cardinal Giulio de' Medici, the pope's nephew. The next pope, Adrian VI., gave him a canonry in Como, on the condition, it is said, that Giovio should mention him with honour in his history. This patronage from a pontiff who was averse from the current tone of Italian humanism proves that Giovio at this period passed for a man of sound learning and sober manners. After Adrian's death, Giulio de' Medici became pope as Clement VII. and assigned him chambers in the Vatican, with maintenance for servants befitting a courtier of rank. In addition to other benefices, he finally, in 1528, bestowed on him the bishopric of Nocera. Giovio had now become in a special sense dependent on the Medici. He was employed by that family on several missions—as when he accompanied Ippolito to Bologna on the occasion of Charles V.'s coronation,

and Caterina to Marseilles before her marriage to the duke of Orleans. During the siege of Rome in 1527 he attended Clement in his flight from the Vatican. While crossing the bridge which connected the palace with the castle of S. Angelo, Giovio threw his mantle over the pope's shoulders in order to disguise his master.

In the sack he suffered a serious pecuniary and literary loss, if we may credit his own statement. The story runs that he deposited the MS. of his history, together with some silver, in a box at S. Maria Sopra Minerva for safety. This box was discovered by two Spaniards, one of whom secured the silver, while the other, named Herrera, knowing who Giovio was, preferred to hold the MSS. for ransom. Herrera was so careless, however, as to throw away the sheets he found in paper, reserving only that portion of the work which was transcribed on parchment. This he subsequently sold to Giovo in exchange for a benefice at Cordova, which Clement VII. conceded to the Spaniard. Six books of the history were lost in this transaction. Giovo contented himself with indicating their substance in a summary. Perhaps he was not unwilling that his work should resemble that of Livy, even in its imperfection. But doubt rests upon the whole of this story. Apostolo Zeno affirms that in the middle of the last century three of the missing books turned up among family papers in the possession of Count Giov. Batt. Giovio, who wrote a panegyric on his ancestor. It is therefore not improbable that Giovio possessed his history intact, but preferred to withhold from publication those portions which might have involved him in difficulties with living persons of importance. The omissions were afterwards made good by Curtio Marinello in the Italian edition, published at Venice in 1581. But whether Marinello was the author of these additions is not known.

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After Clement's death Giovio found himself out of favour with the next pope, Paul III. The failure of his career is usually ascribed to the irregularity of the life he led in the literary society of Rome. We may also remember that Paul had special causes for animosity against the Medici, whose servant Giovio had been. Despairing of a cardinal's hat, Giovio retired to his villa on the lake of Como, where he spent the wealth he had acquired from donations and benefices in adorning his villa with curiosities, antiquities and pictures, including a very important collection of portraits of famous soldiers and men of letters, now almost entirely dispersed. He died upon a visit to Florence in 1552.

Giovio's principal work was the *History of His Own Times*, from the invasion of Charles VIII. to the year 1547. It was divided into two parts, containing altogether forty-five books. Of these, books v.-xi. of part i. were said by him to have been lost in the sack of Rome, while books xix.-xxiv. of part ii., which should have embraced the period from the death of Leo to the sack, were never written. Giovio supplied the want of the latter six books by his lives of Leo, Adrian, Alphonso I. of Ferrara, and several other personages of importance. But he alleged that the history of that period was too painful to be written in full. His first published work, printed in 1524 at Rome, was a treatise *De piscibus romanis*. After his retirement to Como he produced a valuable series of biographies, entitled *Elogia virorum illustrium*. They commemorate men distinguished for letters and arms, selected from all periods, and are said to have been written in illustration of portraits collected by him for the museum of his villa at Como. Besides these books, we may mention a biographical history of the Visconti, lords of Milan; an essay on mottoes and badges; a dissertation on the state of Turkey; a large collection of familiar epistles; together with descriptions of Britain, Muscovy, the Lake of Como and Giovio's own villa. The titles of these miscellanies will be found in the bibliographical note appended to this article.

Giovio preferred Latin in the composition of his more important works. Though contemporary with Machiavelli, Guicciardini and Varchi, he adhered to humanistic usages, and cared more for the Latinity than for the matter of his histories. His style is fluent and sonorous rather than pointed or grave. Partly owing to the rhetorical defects inherent in this choice of Latin, when Italian had gained the day, but more to his own untrustworthy and shallow character, Giovio takes a lower rank as historian than the bulk and prestige of his writings would seem to warrant. He professed himself a flatterer and a lampooner, writing fulsome eulogies on the princes who paid him well, while he ignored or criticized those who proved less generous. The old story that he said he kept a golden and an iron pen, to use according as people paid him, condenses the truth in epigram. His private morals were of a dubious character, and as a writer he had the faults of the elder humanists, in combination with that literary cynicism which reached its height in Aretino; and therefore his histories and biographical essays are not to be used as authorities, without corroboration. Yet Giovio's works, taken in their entirety and with proper reservation, have real value. To the student of Italy they yield a lively picture of the manners and the feeling of the times in which he lived, and in which he played no obscure part. They abound in vivid sketches, telling anecdotes, fugitive comments, which unite a certain charm of autobiographical romance with the worldly wisdom of an experienced courtier. A flavour of personality makes them not unpleasant reading. While we learn to despise and mistrust the man in Giovio, we appreciate the author. It would not be too far-fetched to describe him as a sort of 16th-century Horace Walpole.

BIBLIOGRAPHY.—The sources of Giovio's biography are: his own works; Tiraboschi's *History of Italian Literature*; Litta's *Genealogy of Illustrious Italian Families*; and Giov. Batt. Giovio's *Uomini illustri della diocesi Comasca*, Modena (1784). Cicogna, in his *Delle iscrizioni Veneziane raccolta* (Venice, 1830), gives a list of Giovio's works, from which the following notices are extracted: 1. Works in Latin: (1) *Pauli Jovii historiarum sui temporis, ab anno 1494 ad an. 1547* (Florence 1550-1552), the same translated into Italian by L. Domenichi, and first published at Florence (1551), afterwards at Venice; (2) *Leonis X., Hadriani VI., Pompeii Columnae Card., vitae* (Florence, 1548), translated by Domenichi (Florence, 1549); (3) *Vitae XII. vicecomitum Mediolani principum* (Paris, 1549), translated by Domenichi (Venice, 1549); (4) *Vita Sfortiae clariss. ducis* (Rome, 1549), translated by Domenichi (Florence, 1549); (5) *Vita Fr. Ferd. Davali* (Florence, 1549), translated by Domenichi (ibid. 1551); (6)

Vita magni Consalvi (ibid. 1549), translated by Domenichi (ibid. 1550); (7) *Alfonsi Atestensi*, &c. (ibid. 1550), Italian translation by Giov. Batt. Gelli (Florence, 1553); (8) *Elogia virorum bellica virtute illustrium* (ibid. 1551), translated by Domenichi (ibid. 1554); (9) *Elogia clarorum virorum*, &c. (Venice, 1546) (these are biographies of men of letters), translated by Hippolito Orio of Ferrara (Florence, 1552); (10) *Libellus de legatione Basilii Magni principis Moscoviae* (Rome, 1525); (11) *Descriptio Larii Lacus* (Venice, 1559); (12) *Descriptio Britanniae*, &c. (Venice, 1548); (13) *De piscibus romanis* (Rome, 1524); (14) *Descriptiones quotquot extant regionum atque locorum* (Basel, 1571). 2. Works in Italian: (1) *Dialogo delle imprese militari et amoroze* (Rome, 1555); (2) *Commentari delle cose dei Turchi* (Venice, 1541); (3) *Lettere volgari* (Venice, 1560). Some minor works and numerous reprints of those cited have been omitted from this list; and it should also be mentioned that some of the lives with additional matter, are included in the *Vitae illustrium virorum* (Basel, 1576).

(J. A. S.)

The best and most complete edition of Giovio's works is that of Basel (1678). For his life see Giuseppe Sanesi, "Alcuni osservazioni e notizie intorno a tre storici minori del cinquecento—Giovio; Nerli, Segni" (in *Archivio Storico Italiano*, 5th series, vol. xxiii.); Eug. Müntz, *Sul museo di ritratti composto da Paolo Giovio* (ibid., vol. xix.).



JOWETT, BENJAMIN (1817-1893), English scholar and theologian, master of Balliol College, Oxford, was born in Camberwell on the 15th of April 1817. His father was one of a Yorkshire family who, for three generations, had been supporters of the Evangelical movement in the Church of England. His mother was a Langhorne, in some way related to the poet and translator of Plutarch. At twelve the boy was placed on the foundation of St Paul's School (then in St Paul's Churchyard), and in his nineteenth year he obtained an open scholarship at Balliol. In 1838 he gained a fellowship, and graduated with first-class honours in 1839. Brought up amongst pious Evangelicals, he came to Oxford at the height of the Tractarian movement, and through the friendship of W. G. Ward was drawn for a time in the direction of High Anglicanism; but a stronger and more lasting influence was that of the Arnold school, represented by A. P. Stanley. Jowett was thus led to concentrate his attention on theology, and in the summers of 1845 and 1846, spent in Germany with Stanley, he became an eager student of German criticism and speculation. Amongst the writings of that period he was most impressed by those of F. C. Baur. But he never ceased to exercise an independent judgment, and his work on St Paul, which appeared in 1855, was the result of much original reflection and inquiry. He was appointed to the Greek professorship in the autumn of that year. He had been a tutor of Balliol and a clergyman since 1842, and had devoted himself to the work of tuition with unexampled zeal. His pupils became his friends for life. He discerned their capabilities, studied their characters, and sought to remedy their defects by frank and searching criticism. Like another Socrates, he taught them to know themselves, repressing vanity, encouraging the despondent, and attaching all alike by his unobtrusive sympathy. This work gradually made a strong impression, and those who cared for Oxford began to speak of him as "the great tutor." As early as 1839 Stanley had joined with Tait, the future archbishop, in advocating certain university reforms. From 1846 onwards Jowett threw himself into this movement, which in 1848 became general amongst the younger and more thoughtful fellows, until it took effect in the commission of 1850 and the act of 1854. Another educational reform, the opening of the Indian civil service to competition, took place at the same time, and Jowett was one of the commission. He had two brothers who served and died in India, and he never ceased to take a deep and practical interest in Indian affairs. A great disappointment, his repulse for the mastership of Balliol, also in 1854, appears to have roused him into the completion of his book on *The Epistles of St Paul*. This work, described by one of his friends as "a miracle of boldness," is full of originality and suggestiveness, but its publication awakened against him a storm of theological prejudice, which followed him more or less through life. Instead of yielding to this, he joined with Henry Bristowe Wilson and Rowland Williams, who had been similarly attacked, in the production of the volume known as *Essays and Reviews*. This appeared in 1860 and gave rise to a strange outbreak of fanaticism. Jowett's loyalty to those who were prosecuted on this account was no less characteristic than his persistent silence while the augmentation of his salary as Greek professor was withheld. This petty persecution was continued until 1865, when E. A. Freeman and Charles Elton discovered by historical research that a breach of the conditions of the professorship had occurred, and Christ Church raised the endowment from £40 a year to £500. Meanwhile Jowett's influence at Oxford had steadily increased. It culminated in 1864, when the country clergy, provoked by the final acquittal of the essayists, had voted in convocation against the endowment of the Greek chair. Jowett's pupils, who were now drawn from the university at large, supported him with the enthusiasm which young men feel for the victim of injustice. In the midst of other labours Jowett had been quietly exerting his influence so as to conciliate all shades of liberal opinion, and bring them to bear upon the abolition of the theological test, which was still required for the M.A. and other degrees, and for university and college offices. He spoke at an important meeting upon this question in London on the 10th of June 1864, which laid the ground for the University Tests Act of 1871. In connexion with the Greek professorship Jowett had undertaken a work on Plato which

grew into a complete translation of the *Dialogues*, with introductory essays. At this he laboured in vacation time for at least ten years. But his interest in theology had not abated, and his thoughts found an outlet in occasional preaching. The university pulpit, indeed, was closed to him, but several congregations in London delighted in his sermons, and from 1866 until the year of his death he preached annually in Westminster Abbey, where Stanley had become dean in 1863. Three volumes of selected sermons have been published since his death. The years 1865-1870 were occupied with assiduous labour. Amongst his pupils at Balliol were men destined to high positions in the state, whose parents had thus shown their confidence in the supposed heretic, and gratitude on this account was added to other motives for his unsparing efforts in tuition. In 1870, by an arrangement which he attributed to his friend Robert Lowe, afterwards Lord Sherbrooke (at that time a member of Gladstone's ministry), Scott was promoted to the deanery of Rochester and Jowett was elected to the vacant mastership by the fellows of Balliol. From the vantage-ground of this long-coveted position the *Plato* was published in 1871. It had a great and well-deserved success. While scholars criticized particular renderings (and there were many small errors to be removed in subsequent editions), it was generally agreed that he had succeeded in making Plato an English classic.

If ever there was a beneficent despotism, it was Jowett's rule as master. Since 1866 his authority in Balliol had been really paramount, and various reforms in college had been due to his initiative. The opposing minority were now powerless, and the younger fellows who had been his pupils were more inclined to follow him than others would have been. There was no obstacle to the continued exercise of his firm and reasonable will. He still knew the undergraduates individually, and watched their progress with a vigilant eye. His influence in the university was less assured. The pulpit of St Mary's was no longer closed to him, but the success of Balliol in the schools gave rise to jealousy in other colleges, and old prejudices did not suddenly give way; while a new movement in favour of "the endowment of research" ran counter to his immediate purposes. Meanwhile, the tutorships in other colleges, and some of the headships also, were being filled with Balliol men, and Jowett's former pupils were prominent in both houses of parliament and at the bar. He continued the practice, which he had commenced in 1848, of taking with him a small party of undergraduates in vacation time, and working with them in one of his favourite haunts, at Askrigg in Wensleydale, or Tummel Bridge, or later at West Malvern. The new hall (1876), the organ there, entirely his gift (1885), and the cricket ground (1889), remain as external monuments of the master's activity. Neither business nor the many claims of friendship interrupted literary work. The six or seven weeks of the long vacation, during which he had pupils with him, were mainly employed in writing. The translation of Aristotle's *Politics*, the revision of *Plato*, and, above all, the translation of Thucydides many times revised, occupied several years. The edition of the *Republic*, undertaken in 1856, remained unfinished, but was continued with the help of Professor Lewis Campbell. Other literary schemes of larger scope and deeper interest were long in contemplation, but were not destined to take effect—an *Essay on the Religions of the World*, a *Commentary on the Gospels*, a *Life of Christ*, a volume on *Moral Ideas*. Such plans were frustrated, not only by his practical avocations, but by his determination to finish what he had begun, and the fastidious self-criticism which it took so long to satisfy. The book on *Morals* might, however, have been written but for the heavy burden of the vice-chancellorship, which he was induced to accept in 1882, by the hope, only partially fulfilled, of securing many improvements for the university. The vice-chancellor was *ex officio* a delegate of the press, where he hoped to effect much; and a plan for draining the Thames Valley, which he had now the power of initiating, was one on which his mind had dwelt for many years. The exhausting labours of the vice-chancellorship were followed by an illness (1887); and after this he relinquished the hope of producing any great original writing. His literary industry was thenceforth confined to his commentary on the *Republic* of Plato, and some essays on Aristotle which were to have formed a companion volume to the translation of the *Politics*. The essays which should have accompanied the translation of Thucydides were never written. Jowett, who never married, died on the 1st of October 1893. The funeral was one of the most impressive ever seen in Oxford. The pall-bearers were seven heads of colleges and the provost of Eton, all old pupils.

Theologian, tutor, university reformer, a great master of a college, Jowett's best claim to the remembrance of succeeding generations was his greatness as a moral teacher. Many of the most prominent Englishmen of the day were his pupils and owed much of what they were to his precept and example, his penetrative sympathy, his insistent criticism, and his unwearied friendship. Seldom have ideal aims been so steadily pursued with so clear a recognition of practical limitations. Jowett's theological work was transitional, and yet has an element of permanence. As has been said of another thinker, he was "one of those deeply religious men who, when crude theological notions are being revised and called in question seek to put new life into theology by wider and more humane ideas." In earlier life he had been a zealous student of Kant and Hegel, and to the end he never ceased to cultivate the philosophic spirit; but he had little confidence in metaphysical systems, and sought rather to translate philosophy into the wisdom of life. As a classical scholar, his scorn of littlenesses sometimes led him into the neglect of *minutiae*, but he had the higher merit of interpreting ideas. His place in literature rests really on the essays in his *Plato*. When their merits are fully recognized, it will be found that his worth, as a teacher of his countrymen, extends far beyond his own generation.

See *The Life and Letters of Benjamin Jowett*, by E. A. Abbott and Lewis Campbell (1897); *Benjamin Jowett*, by Lionel Tollemache (1895).

(L. C.)



JOYEUSE, a small town in the department of Ardèche, France, situated on the Baume, a tributary of the Ardèche, is historically important as having been the seat of a noble French family which derived its name from it. The lordship of Joyeuse came, in the 13th century, into the possession of the house of Châteauneuf-Randon, and was made into a viscountship in 1432. Guillaume, viscount of Joyeuse, was bishop of Alet, but afterwards left the church, and became a marshal of France; he died in 1592. His eldest son Anne de Joyeuse (1561-1587), was one of the favourites of Henry III. of France, who created him duke and peer (1581), admiral of France (1582), and governor of Normandy (1586), and married him to Marguerite de Lorraine-Vaudémont, younger sister of the queen. He gained several successes against the Huguenots, but was recalled by court intrigues at an inopportune moment, and when he marched a second time against Henry of Navarre he was defeated and killed at Coutras. Guillaume had three other sons: François de Joyeuse (d. 1615), cardinal and archbishop of Narbonne, Toulouse and Rouen, who brought about the reconciliation of Henry IV. with the pope; Henri, count of Bouchage, and later duke of Joyeuse, who first entered the army, then became a Capuchin under the name of Père Ange, left the church and became a marshal of France, and finally re-entered the church, dying in 1608; Antoine Scipion, grand prior of Toulouse in the order of the knights of Malta, who was one of the leaders in the League, and died in the retreat of Villemur (1592). Henriette Catherine de Joyeuse, daughter of Henri, married in 1611 Charles of Lorraine, duke of Guise, to whom she brought the duchy of Joyeuse. On the death of her great-grandson, François Joseph de Lorraine, duke of Guise, in 1675, without issue, the duchy of Joyeuse was declared extinct, but it was revived in 1714, in favour of Louis de Melun, prince of Épinoy.

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(M. P.*)



JOYEUSE ENTRÉE, a famous charter of liberty granted to Brabant by Duke John III. in 1354. John summoned the representatives of the cities of the duchy to Louvain to announce to them the marriage of his daughter and heiress Jeanne of Brabant to Wenceslaus duke of Luxemburg, and he offered them liberal concessions in order to secure their assent to the change of dynasty. John III. died in 1355, and Wenceslaus and Jeanne on the occasion of their state entry into Brussels solemnly swore to observe all the provisions of the charter, which had been drawn up. From the occasion on which it was first proclaimed this charter has since been known in history as *La Joyeuse Entrée*. By this document the dukes of Brabant undertook to maintain the integrity of the duchy, and not to wage war, make treaties, or impose taxes without the consent of their subjects, as represented by the municipalities. All members of the duke's council were to be native-born Brabanters. This charter became the model for other provinces and the bulwark of the liberties of the Netherlands. Its provisions were modified from time to time, but remained practically unchanged from the reign of Charles V. onwards. The ill-advised attempt of the emperor Joseph II. in his reforming zeal to abrogate the *Joyeuse Entrée* caused a revolt in Brabant, before which he had to yield.

See E. Pouillet, *La Joyeuse entrée, ou constitution Brabançonne* (1862).



JUAN FERNANDEZ ISLANDS, a small group in the South Pacific Ocean, between 33° and 34° S., 80° W., belonging to Chile and included in the province of Valparaiso. The main island is called *Mas-a-Tierra* (Span. "more to land") to distinguish it from a smaller island, *Mas-a-Fuera* ("more to sea"), 100 m. farther west. Off the S.W. of Mas-a-Tierra lies the islet of Santa Clara. The aspect of Mas-a-Tierra is beautiful; only 13 m. in length by 4 in width, it consists of a series of precipitous rocks rudely piled into irregular blocks and pinnacles, and strongly contrasting with a rich vegetation. The highest of these, 3225 ft., is called, from its massive form, El Yunque (the anvil). The rocks are volcanic. Cumberland Bay on the north side is the only fair anchorage, and even there, from the great depth of water, there is some risk. A wide valley collecting streams from several of the ravines on the north side of the island opens into Cumberland Bay, and is partially enclosed and cultivated. The inhabitants number only some twenty.

The flora and fauna of Juan Fernandez are in most respects Chilean. There are few trees on the

island, for most of the valuable indigenous trees have been practically exterminated, such as the sandalwood, which the earlier navigators found one of the most valuable products of the island. Ferns are prominent among the flora, about one-third of which consists of endemic species. There are no indigenous land mammals. Pigs and goats, however, with cattle, horses, asses and dogs, have been introduced, have multiplied, and in considerable numbers run wild. Sea-elephants and fur-seals were formerly plentiful. Of birds, a tyrant and a humming-bird (*Eustephanus fernandensis*) are peculiar to the group, while another humming bird (*E. galerites*), a thrush, and some birds of prey also occur in Chile. *E. fernandensis* has the peculiarity that the male is of a bright cinnamon colour, while the female is green. Both sexes are green in *E. galerites*.

Juan Fernandez was discovered by a Spanish pilot of that name in 1563. Fernandez obtained from the Spanish government a grant of the islands, where he resided for some time, stocking them with goats and pigs. He soon, however, appears to have abandoned his possessions, which were afterwards for many years only visited occasionally by fishermen from the coasts of Chile and Peru. In 1616 Jacob le Maire and Willem Cornelis Schouten called at Juan Fernandez for water and fresh provisions. Pigs and goats were then abundant on the islands. In February 1700 Dampier called at Juan Fernandez and while there Captain Straddling of the "Cinque Porte" galley quarrelled with his men, forty-two of whom deserted but were afterwards taken on board by Dampier; five seamen, however, remained on shore. Other parties had previously colonized the islands but none had remained permanently. In October 1704 the "Cinque Porte" returned and found two of these men, the others having been apparently captured by the French. On this occasion Straddling quarrelled with Alexander Selkirk (*q.v.*), who, at his own request, became the island's most famous colonist, for his adventures are commonly believed to have inspired Daniel Defoe's *Robinson Crusoe*. Among later visits, that of Commodore Anson, in the "Centurion" (June 1741) led, on his return home, to a proposal to form an English settlement on Juan Fernandez; but the Spaniards, hearing that the matter had been mooted in England, gave orders to occupy the island, and it was garrisoned accordingly in 1750. Philip Carteret first observed this settlement in May 1767, and on account of the hostility of the Spaniards preferred to put in at Masa-Fuera. After the establishment of the independence of Chile at the beginning of the 19th century, Juan Fernandez passed into the possession of that country. On more than one occasion before 1840 Mas-a-Tierra was used as a state prison by the Chilean government.



JUANGS (Patuas, literally "leaf-wearers"), a jungle tribe of Orissa, India. They are found in only two of the tributary states, Dhenkanal and Keonjhar, most of them in the latter. They are estimated to amount in all to about 10,000. Their language belongs to the Munda family. They have no traditions which connect them with any other race, and they repudiate all connexion with the Hos or the Santals, declaring themselves the aborigines. They say the headquarters of the tribe is the Gonasika. In manners they are among the most primitive people of the world, representing the Stone age in our own day. They do not till the land, but live on the game they kill or on snakes and vermin. Their huts measure about 6 ft. by 8 ft., with very low doorways. The interior is divided into two compartments. In the first of these the father and all the females of a family huddle together; the second is used as a store-room. The boys have a separate hut at the entrance to the village, which serves as a guest-house and general assembly place where the musical instruments of the village are kept. Physically they are small and weak-looking, of a reddish-brown colour, with flat faces, broad noses with wide nostrils, large mouths and thick lips, the hair coarse and frizzly. The women until recently wore nothing but girdles of leaves, the men, a diminutive bandage of cloth. The Juangs declare that the river goddess, emerging for the first time from the Gonasika rock, surprised a party of naked Juangs dancing, and ordered them to wear leaves, with the threat that they should die if they ever gave up the custom. The Juangs' weapons are the bow and arrow and a primitive sling made entirely of cord. Their religion is a vague belief in forest spirits. They offer fowls to the sun when in trouble and to the earth for a bountiful harvest. Polygamy is rare. They burn their dead and throw the ashes into any running stream. The most sacred oaths a Juang can take are those on an ant-hill or a tiger-skin.

See E. W. Dalton, *Descriptive Ethnology of Bengal* (1872).



JUAN MANUEL, DON (1282-1349), infante of Castile, son of the infante Don Manuel and Beatrix of Savoy, and grandson of St Ferdinand, was born at Escalona on the 5th of May 1282. His father died in 1284, and the young prince was educated at the court of his cousin, Sancho IV., with

whom his precocious ability made him a favourite. In 1294 he was appointed *adelantado* of Murcia and in his fourteenth year served against the Moors at Granada. In 1304 he was entrusted by the queen-mother, Doña Maria de Molina, to conduct political negotiations with James II. of Aragon on behalf of her son, Ferdinand IV., then under age. His diplomacy was successful and his marriage to James II.'s daughter, Constantina, added to his prestige. On the death of Ferdinand IV. and of the regents who governed in the name of Alphonso XI., Don Juan Manuel acted as guardian of the king who was proclaimed of age in 1325. His ambitious design of continuing to exercise the royal power was defeated by Alphonso XI., who married the ex-regent's daughter Constanza, and removed his father-in-law from the scene by nominating him *adelantado mayor de la frontera*. Alphonso XI.'s repudiation of Constanza, whom he imprisoned at Toro, drove Don Juan Manuel into opposition, and a long period of civil war followed. On the death of his wife Constantina in 1327, Don Juan Manuel strengthened his position by marrying Doña Blanca de la Cerda; he secured the support of Juan Nuñez, *alférez* of Castile, by arranging a marriage between him and Maria, daughter of Don Juan el Tuerto; he won over Portugal by promising the hand of his daughter, the ex-queen Constanza, to the infante of that kingdom, and he entered into alliance with Mahomet III. of Granada. This formidable coalition compelled Alphonso XI. to sue for terms, which he accepted in 1328 without any serious intention of complying with them; but he was compelled to release Doña Constanza. War speedily broke out anew, and lasted till 1331 when Alphonso XI. invited Juan Manuel and Juan Nuñez to a banquet at Villahumbrales with the intention, it was believed, of assassinating them; the plot failed, and Don Juan Manuel joined forces with Peter IV. of Aragon. He was besieged by Alphonso XI. at Garci-Nuñez, whence he escaped on the 30th of July 1336, fled into exile, and kept the rebellion alive till 1338, when he made his peace with the king. He proved his loyalty by serving in further expeditions against the Moors of Granada and Africa, and died a tranquil death in the first half of 1349.

Distinguished as an astute politician, Don Juan Manuel is an author of the highest eminence, and, considering the circumstances of his stormy life, his voluminousness is remarkable. The *Libro de los sabios*, a treatise called *Engeños de Guerra* and the *Libro de cantares*, a collection of verses, were composed between 1320 and 1327; but they have disappeared together with the *Libro de la caballería* (written during the winter of 1326), and the *Reglas como se debe trovar*, a metrical treatise assigned to 1328-1334. Of his surviving writings, Juan Manuel's *Crónica abreviada* was compiled between 1319 and 1325, while the *Libro de la caza* must have been written between 1320 and 1329; and during this period of nine years the *Crónica de España*, the *Crónica complida*, and the *Tratado sobre las armas* were produced. The *Libro del caballero et del escudero* was finished before the end of 1326; the first book of the *Libro de los estados* was finished on the 22nd of May 1330, while the second was begun five days later; the first book of *El Conde Lucanor* was written in 1328, the second in 1330, and the fourth is dated 12th of June 1335. We are unable to assign to any precise date the devout *Tractado* on the Virgin, dedicated to the prior of the monastery at Peñafiel, to which Don Juan Manuel bequeathed his manuscripts; but it seems probable that the *Libro de los frailes predicadores* is slightly later than the *Libro de los estados*; that the *Libro de los castigos* (left unfinished, and therefore known by the alternative title of *Libro infinido*) was written not later than 1333, and that the treatise *De las maneras de amor* was composed between 1334 and 1337.

The historical summaries, pious dissertations and miscellaneous writings are of secondary interest. The *Libro del caballero et del escudero* is on another plane; it is no doubt suggested by Lull's *Libre del orde de cavalleria*, but the points of resemblance have been exaggerated; the morbid mysticism of Lull is rejected, and the carefully finished style justifies the special pride which the author took in this performance. The influence of Lull's Blanquerna is likewise visible in the *Libro de los estados*; but there are marked divergences of substance which go to prove Don Juan Manuel's acquaintance with some version (not yet identified) of the Barlaam and Josaphat legend. Nothing is more striking than the curious and varied erudition of the turbulent prince who weaves his personal experiences with historical or legendary incidents, with reminiscences of Aesop and Phaedrus, with the *Disciplina clericalis*, with *Kalilah and Dimnah*, with countless Oriental traditions, and with all the material of anecdotic literature which he embodies in the *Libro de patronio*, best known by the title of *El Conde Lucanor* (the name Lucanor being taken from the prose *Tristan*). This work (also entitled the *Libro de enxemplos*) was first printed by Gonzalo Argote de Molina at Seville in 1575, and it revealed Don Juan Manuel as a master in the art of prose composition, and as the predecessor of Boccaccio in the province of romantic narrative. The *Cento novelle antiche* are earlier in date, but these anonymous tales, derived from popular stories diffused throughout the world, lack the personal character which Don Juan lends to all he touches. They are simple, unadorned variants of folk-lore items; *El Conde Lucanor* is essentially the production of a conscious artist, deliberative and selective in his methods. Don Juan Manuel has not Boccaccio's festive fancy nor his constructive skill; he is too persistently didactic and concerned to point a moral; but he excels in knowledge of human nature, in the faculty of ironical presentation, in tolerant wisdom and in luminous conciseness. He naturalizes the Eastern apologue in Spain, and by the laconic picturesqueness of his expression imports a new quality into Spanish prose which attains its full development in the hands of Juan de Valdés and Cervantes. Some of his themes are utilized for dramatic purposes by Lope de Vega in *La Pobreza estimada*, by Ruiz de Alarcón in *La Prueba de las promesas*, by Calderón in *La Vida es sueño*, and by Cañizares in *Don Juan de Espina en Milán*: there is an evident, though remote, relation between the tale of the *mancebo que casó con una mujer muy fuerte y muy brava* and *The Taming of the Shrew*; and a more direct connexion exists between some of Don Juan Manuel's *enxemplos* and some of Anderson's fairy tales.

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(J. F. K.)



JUAREZ, BENITO PABLO (1806-1872), president of Mexico, was born near Ixtlan, in the state of Oajaca, Mexico, on the 21st of March 1806, of full Indian blood. Early left in poverty by the death of his father, he received from a charitable friar a good general education, and afterwards the means of studying law. Beginning to practise in 1834, Juarez speedily rose to professional distinction, and in the stormy political life of his time took a prominent part as an exponent of liberal views. In 1832 he sat in the state legislature; in 1846 he was one of a legislative triumvirate for his native state and a deputy to the republican congress, and from 1847 to 1852 he was governor of Oajaca. Banished in 1853 by Santa Anna, he returned to Mexico in 1855, and joined Alvarez, who, after Santa Anna's defeat, made him minister of justice. Under Comonfort, who then succeeded Alvarez, Juarez was governor of Oajaca (1855-57), and in 1857 chief justice and secretary of the interior; and, when Comonfort was unconstitutionally replaced by Zuloaga in 1858, the chief justice, in virtue of his office, claimed to be legal president of the republic. It was not, however, till the beginning of 1861 that he succeeded in finally defeating the unconstitutional party and in being duly elected president by congress. His decree of July 1861, suspending for two years all payments on public debts of every kind, led to the landing in Mexico of English, Spanish and French troops. The first two powers were soon induced to withdraw their forces; but the French remained, declared war in 1862, placed Maximilian upon the throne as emperor, and drove Juarez and his adherents to the northern limits of the republic. Juarez maintained an obstinate resistance, which resulted in final success. In 1867 Maximilian was taken at Querétaro, and shot; and in August Juarez was once more elected president. His term of office was far from tranquil; discontented generals stirred up ceaseless revolts and insurrections; and, though he was re-elected in 1871, his popularity seemed to be on the wane. He died of apoplexy in the city of Mexico on the 18th of July 1872. He was a statesman of integrity, ability and determination, whose good qualities are too apt to be overlooked in consequence of his connexion with the unhappy fate of Maximilian.

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JUBA, the name of two kings of Numidia.

JUBA I. (1st century B.C.), son and successor of Hiempsal, king of Numidia. During the civil wars at Rome he sided with Pompey, partly from gratitude because he had reinstated his father on his throne (Appian, *B.C.*, i. 80), and partly from enmity to Caesar, who had insulted him at Rome by pulling his beard (Suet., *Caesar*, 71). Further, C. Scribonius Curio, Caesar's general in Africa, had openly proposed, 50 B.C., when tribune of the plebs, that Numidia should be sold to colonists, and the king reduced to a private station. In 49 Juba inflicted on the Caesarean army a crushing defeat, in which Curio was slain (Vell. Pat. ii. 54; *Caesar*, *B.C.* ii. 40). Juba's attention was distracted by a counter invasion of his territories by Bocchus the younger and Sittius; but, finding that his lieutenant Sabura was able to defend his interests, he rejoined the Pompeians with a large force, and shared the defeat at Thapsus. Fleeing from the field with the Roman general M. Petreius, he wandered about as a fugitive. At length, in despair, Juba killed Petreius, and sought the aid of a slave in despatching himself (46). Juba was a thorough savage; brave, treacherous, insolent and cruel. (See **NUMIDIA**.)

JUBA II., son of the above. On the death of his father in 46 B.C. he was carried to Rome to grace Caesar's triumph. He seems to have received a good education under the care of Augustus who, in 29, after Mark Antony's death, gave him the hand of Cleopatra Selene, daughter of Antony and Cleopatra, and placed him on his father's throne. In 25, however, he transferred him from Numidia to Mauretania, to which was added a part of Gaetulia (see **NUMIDIA**). Juba seems to have reigned in considerable prosperity, though in A.D. 6 the Gaetulians rose in a revolt of sufficient importance to afford the surname Gaetulicus to Cornelius Lentulus Cossus, the Roman general who helped to suppress it. The date of Juba's death is by no means certain; it has been put between A.D. 19 and 24 (Strabo, xvii. 828; Dio Cassius, li. 15; liii. 26; Plutarch, *Ant.* 87; *Caesar*, 55). Juba, according to Pliny,

who constantly refers to him, is mainly memorable for his writings. He has been called the African Varro.

He wrote many historical and geographical works, of which some seem to have been voluminous and of considerable value on account of the sources to which their author had access: (1) Ῥωμαϊκὴ ἱστορία; (2) Ἀσσυριακὰ; (3) Λιβυκὰ; (4) *De Arabia sive De expeditione arabica*; (5) *Physiologia*; (6) *De Euphorbia herba*; (7) Περὶ ὄπου; (8) Περὶ γραφικῆς (Περὶ ζωγράφων); (9) Θεατρικὴ ἱστορία; (10) Ὁμοιότητες; (11) Περὶ φθορᾶς λέξεως; (12) Ἐπίγραμμα.

Fragments and life in Müller, *Frag. Hist. Graec.*, vol. iii.; see also Sevin, *Mém. de l'Acad. des Inscriptions*, vol. iv.; Hullemann, *De vita et scriptis Jubae* (1846). For the denarii of Juba II. found in 1908 at El Ksar on the coast of Morocco see Dieudonné in *Revue Numism.* (1908), pp. 350 seq. They are interesting mainly as throwing light on the chronology of the reign.



JUBA, or JUB, a river of East Africa, exceeding 1000 m. in length, rising on the S.E. border of the Abyssinian highlands and flowing S. across the Galla and Somali countries to the sea. It is formed by the junction of three streams, all having their source in the mountain range N.E. of Lake Rudolf which is the water-parting between the Nile basin and the rivers flowing to the Indian Ocean.

Of the three headstreams, the Web, the Ganale and the Daua, the Ganale (or Ganana) is the central river and the true upper course of the Juba. It has two chief branches, the Black and the Great Ganale. The last-named, the most remote source of the river, rises in 7° 30' N., 38° E. at an altitude of about 7500 ft., the crest of the mountains reaching another 2500 ft. In its upper course it flows over a rocky bed with a swift current and many rapids. The banks are clothed with dense jungle and the hills beyond with thorn-bush. Lower down the river has formed a narrow valley, 1500 to 2000 ft. below the general level of the country. Leaving the higher mountains in about 5° 15' N., 40° E., the Ganale enters a large slightly undulating grass plain which extends south of the valley of the Daua and occupies all the country eastward to the junction of the two rivers. In this plain the Ganale makes a semicircular sweep northward before resuming its general S.-E. course. East of 42° E. in 4° 12' N. it is joined by the Web on the left or eastern bank, and about 10 m. lower down the Daua enters on the right bank.

The Web rises in the mountain chain a little S. and E. of the sources of the Ganale, and some 40 m. from its source passes, first, through a cañon 500 ft. deep, and then through a series of remarkable underground caves hollowed out of a quartz mountain and, with their arches and white columns, presenting the appearance of a pillared temple. The Daua (or Dawa) is formed by the mountain torrents which have their rise S. and W. of the Ganale and is of similar character to that river. It has few feeders and none of any size. The descent to the open country is somewhat abrupt. In its middle course the Daua has cut a deep narrow valley through the plain; lower down it bends N.E. to its junction with the Ganale. The river is not deep and can be forded in many places; the banks are fringed with thick bush and dom-palms. At the junction of the Ganale and the Web the river is swift-flowing and 85 yards across; just below the Daua confluence it is 200 yds. wide, the altitude here—300 m. in a direct line from the source of the Ganale—being only 590 ft.

Below the Daua the river, now known as the Juba, receives no tributary of importance. It first flows in a valley bounded, especially towards the west, by the escarpments of a high plateau, and containing the towns of Lugh (in 3° 50' N., the centre of active trade), Bardera, 387 m. above the mouth, and Saranli—the last two on opposite sides of the stream, in 2° 20' N., a crossing-place for caravans. Beyond 1° 45' N. the country becomes more level and the course of the river very tortuous. On the west a series of small lakes and backwaters receives water from the Juba during the rains. Just south of the equator channels from the long, branching Lake Deshekwama or Hardinge, fed by the Lakdera river, enter from the west, and in 0° 15' S. the Juba enters the sea across a dangerous bar, which has only one fathom of water at high tide.

From its mouth to 20 m. above Bardera, where at 2° 35' N. rapids occur, the Juba is navigable by shallow-draught steamers, having a general depth of from 4 to 12 ft., though shallower in places. Just above its mouth it is a fine stream 250 yds. wide, with a current of 2½ knots. Below the mountainous region of the headstreams the Juba and its tributaries flow through a country generally arid away from the banks of the streams. The soil is sandy, covered either with thorn-scrub or rank grass, which in the rainy season affords herbage for the herds of cattle, sheep and camels owned by the Boran Gallas and the Somali who inhabit the district. But by the banks of the lower river the character of the country changes. In this district, known as Gosha, are considerable tracts of forest, and the level of flood water is higher than much of the surrounding land. This low-lying fertile belt stretches along the river for about 300 m., but is not more than a mile or two wide. In the river valley maize, rice, cotton and other crops are cultivated. From Gobwen, a trading settlement about 3 m. above the mouth of the Juba, a road runs S.W. to the seaport of Kismayu, 10 m. distant.

The lower Juba was ascended in 1865 in a steamer by Baron Karl von der Decken, who was murdered by Somali at Bardera, but the river system remained otherwise almost unknown until after

1890. In 1891 a survey of its lower course was executed by Captain F. G. Dundas of the British navy, while in 1892-1893 its headstreams were explored by the Italian officers, Captains Vittorio, Bottego and Grixoni, the former of whom disproved the supposed connexion of the Omo (see [RUDOLF, LAKE](#)) with the Juba system. It has since been further explored by Prince Eugenio Ruspoli, by Bottego's second expedition (1895), by Donaldson Smith, A. E. Butter, Captain P. Maud of the British army, and others. The river, from its mouth to the confluence of the Daua and Ganale, forms the frontier between the British East Africa protectorate and Italian Somaliland; and from that point to about 4° 20' N. the Daua is the boundary between British and Abyssinian territory.



JUBBULPORE, or **JABALPUR**, a city, district, and division of British India in the Central Provinces. The city is 616 m. N.E. of Bombay by rail, and 220 m. S.W. of Allahabad. Pop. (1901), 90,316. The numerous gorges in the neighbouring rocks have been taken advantage of to surround the city with a series of lakes, which, shaded by fine trees and bordered by fantastic crags, add much beauty to the suburbs. The city itself is modern, and is laid out in wide and regular streets. A streamlet separates the civil station and cantonment from the native quarter; but, though the climate is mild, a swampy hollow beneath renders the site unhealthy for Europeans. Formerly the capital of the Saugor and Nerbudda territories, Jubbulpore is now the headquarters of a brigade in the 5th division of the southern army. It is also one of the most important railway centres in India, being the junction of the Great Indian Peninsula and the East Indian systems. It has a steam cotton-mill. The government college educates for the science course of the Allahabad University, and also contains law and engineering classes; there are three aided high schools, a law class, an engineering class and normal schools for male and female teachers. A native association, established in 1869, supports an orphanage, with help from government. A zenana mission manages 13 schools for girls. Waterworks were constructed in 1882.

The **DISTRICT OF JUBBULPORE** lies on the watershed between the Nerbudda and the Son, but mostly within the valley of the former river, which here runs through the famous gorge known as the Marble rocks, and falls 30 ft. over a rocky ledge (the *Dhuan dhar*, or "misty shoot"). Area, 3912 sq. m. It consists of a long narrow plain running north-east and south-west, and shut in on all sides by highlands. This plain, which forms an offshoot from the great valley of the Nerbudda, is covered in its western and southern portions by a rich alluvial deposit of black cotton-soil. At Jubbulpore city the soil is sandy, and water plentiful near the surface. The north and east belong to the Ganges and Jumna basins, the south and west to the Nerbudda basin. In 1901 the population was 680,585, showing a decrease of 9% since 1891, due to the results of famine. The principal crops are wheat, rice, pulse and oil-seeds. A good deal of iron-smelting with charcoal is carried on in the forests, manganese ore is found, and limestone is extensively quarried. The district is traversed by the main railway from Bombay to Calcutta, and by new branches of two other lines which meet at Katni junction. Jubbulpore suffered severely in the famine of 1896-1897, the distress being aggravated by immigration from the adjoining native states. Fortunately the famine of 1900 was less severely felt.

The early history of Jubbulpore is unknown; but inscriptions record the existence during the 11th and 12th centuries of a local line of princes of that Haihai race which is closely connected with the history of Gondwana. In the 16th century the Gond raja of Garha Mandla extended his power over fifty-two districts, including the present Jubbulpore. During the minority of his grandson, Asaf Khan, the viceroy of Kara Manikpur, conquered the Garha principality and held it at first as an independent chief. Eventually he submitted to the emperor Akbar. The Delhi power, however, enjoyed little more than a nominal supremacy; and the princes of Garha Mandla maintained a practical independence until their subjugation by the Mahratta governors of Saugor in 1781. In 1798 the peshwa granted the Nerbudda valley to the Bhonsla princes of Nagpur, who continued to hold the district until the British occupied it in 1818.

The **DIVISION OF JUBBULPORE** lies mainly among the Vindhyan and Satpura hill systems. It comprises the five following districts: Jubbulpore, Saugor, Damoh, Seoni and Mandla. Area, 18,950 sq. m.; pop. (1901), 2,081,499.



JUBÉ, the French architectural term (taken from the imperative of Lat. *jubere*, to order) for the chancel or choir screen, which in England is known as the rood-screen (see [ROOD](#)). Above the screen was a gallery or loft, from which the words "Jube Domine benedicere" were spoken by the deacon before the reading of the Gospel, and hence probably the name. One of the finest *jubés* in France is

that of the church of the Madeleine at Troyes, in rich flamboyant Gothic. A later example, of the Renaissance period, c. 1600, is in the church of St Étienne du Mont, Paris. In the Low Countries there are many fine examples in marble, of which one of the most perfect from Bois-le-Duc is now in the Victoria and Albert Museum.



JUBILEE (or **JUBILE**), **YEAR OF**, in the Bible, the name applied in the Holiness section of the Priestly Code of the Hexateuch (Lev. xxv.) to the observance of every 50th year, determined by the lapse of seven seven-year periods as a year of perfect rest, when there was to be no sowing, nor even gathering of the natural products of the field and the vine. At the beginning of the jubilee-year the liberation of all Israelitish slaves and the restoration of ancestral possessions was to be proclaimed. As regards the meaning of the name “jubilee” (Heb. *yōbēl*) modern scholars are agreed that it signifies “ram” or “ram’s horn.” “Year of jubilee” would then mean the year that is inaugurated by the blowing of the ram’s horn (Lev. xxv. 9).

According to Lev. xxv. 8-12, at the completion of seven sabbaths of years (*i.e.* $7 \times 7 = 49$ years) the trumpet of the jubilee is to be sounded “throughout the land” on the 10th day of the seventh month (Tisri 10), the great Day of Atonement. The 50th year thus announced is to be “hallowed,” *i.e.* liberty¹ is to be proclaimed everywhere to everyone, and the people are to return “every man unto his possession and unto his family.” As in the sabbatical year, there is to be no sowing, nor reaping that which grows of itself, nor gathering of grapes.

As regards *real property* (Lev. xxv. 13-34) the law is that if any Hebrew under pressure of necessity shall alienate his property he is to get for it a sum of money reckoned according to the number of harvests to be reaped between the date of alienation and the first jubilee-year: should he or any relation desire to redeem the property before the jubilee this can always be done by repaying the value of the harvests between the redemption and the jubilee.

This legal enactment, though it is not found (nor anything like it) in the earlier collections of laws, is evidently based on (or modified from) an ancient custom which conferred on a near kinsman the right of pre-emption as well as of buying back (cf. Jer. xxxii. 6 sqq.). The tendency to impose checks upon the alienation of landed property was exceptionally strong in Israel. The fundamental principle is that the land is a sacred possession belonging to Yahweh. As such it is not to be alienated from Yahweh’s people, to whom it was originally assigned. In Ezekiel’s restoration programme “crown lands presented by the ‘prince’ to any of his officials revert to the crown in the year of liberty (? jubilee year)”; only to his sons may any portion of his inheritance be alienated in perpetuity (Ezek. xlvi. 16-18; cf. Code of Hammurabi, § 38 seq.).

The same rule applies to dwelling-houses of unwallled villages; the case is different, however, as regards dwelling-houses in walled cities. These may be redeemed within a year after transfer, but if not redeemed within that period they continue permanently in possession of the purchaser, and this may well be an echo of ancient practice. An exception to this last rule is made for the houses of the Levites in the Levitical cities.

As regards *property in slaves* (Lev. xxv. 35-55) the Hebrew whom necessity has compelled to sell himself into the service of his brother Hebrew is to be treated as a hired servant and sojourner, and to be released absolutely at the jubilee; non-Hebrew bondmen, on the other hand, are to be bondmen for ever. But the Hebrew who has sold himself to a stranger or sojourner is entitled to freedom at the year of jubilee, and further is at any time redeemable by any of his kindred—the redemption price being regulated by the number of years to run between the redemption and the jubilee, according to the ordinary wage of hired servants. Such were the enactments of the Priestly Code—which, of course, represents the latest legislation of the Pentateuch (post-exilic). These enactments, in order to be understood rightly, must be viewed in relation to the earlier similar provisions in connexion with the sabbatical (seventh) year. “The foundations of Lev. xxv. are laid in the ancient provisions of the Book of the Covenant (Exod. xxi. 2 seq.; xxiii. 10 seq.) and in Deuteronomy (xv.). The Book of the Covenant enjoined that the land should lie fallow and Hebrew slaves be liberated in the seventh year; Deuteronomy required in addition the remission of debts” (Benzinger). Deuteronomy, it will be noticed, in accordance with its humanitarian tendency, not only liberates the slave but remits the debt. It is evident that these enactments proved impracticable in real life (cf. Jer. xxxiv. 8 seq.), and so it became necessary in the later legislation of P, represented in the present form of Lev. xxv., to relegate them to the 50th year, the year of jubilee. The latter, however, was a purely theoretic development of the Sabbath idea, which could never have been reduced to practice (its actual observance would have necessitated that for two consecutive years—the 49th and 50th—absolutely nothing could be reaped, while in the 51st only summer fruits could be obtained, sowing being prohibited in the 50th year). That in practice the enactments for the jubilee-year were disregarded is evidenced by the fact that, according to the unanimous testimony of the Talmudists and Rabbins, although the jubilee-years were “reckoned” they were not observed.

The conjecture of Kuenen, supported by Wellhausen, that originally Lev. xxv. 8 seq. had reference to the seventh year is a highly probable one. This may be the case also with Ezek. xlvi. 16-18 (cf. Jer. xxxiv. 14). A later Rabbinical device for evading the provisions of the law was the *prosbul* (ascribed to Hillel)—*i.e.* a condition made in the presence of the judge securing to the creditor the right of demanding repayment at any time, irrespective of the year of remission. Further enactments regarding the jubilee are found in Lev. xxvii. 17-25 and Num. xxxvi. 4.

(W. R. S.; G. H. Bo.)

- 1 Heb. *dērōr*. The same word (*durāru*) is used in the Code of Hammurabi in the similar enactment that wife, son or daughter sold into slavery for debt are to be restored to *liberty* in the fourth year (§ 117).



JUBILEES, BOOK OF, an apocryphal work of the Old Testament. The Book of Jubilees is the most advanced pre-Christian representative of the Midrashic tendency, which had already been at work in the Old Testament Chronicles. As the chronicler had rewritten the history of Israel and Judah from the standpoint of the Priests' Code, so our author re-edited from the Pharisaic standpoint of his time the history of the world from the creation to the publication of the Law on Sinai. His work constitutes the oldest commentary in the world on Genesis and part of Exodus, an enlarged Targum on these books, in which difficulties in the biblical narration are solved, gaps supplied, dogmatically offensive elements removed and the genuine spirit of later Judaism infused into the primitive history of the world.

Titles of the Book.—The book is variously entitled. First, it is known as τὰ Ἰωβηλαῖα, οἱ Ἰωβηλαῖοι, Heb. היובלים. This name is admirably adapted to our book, as it divides into jubilee periods of forty-nine years each the history of the world from the creation to the legislation on Sinai. Secondly, it is frequently designated "The Little Genesis," ἡ λεπτή Γένεσις or ἡ Μικρογένεσις, Heb. השתשקב. This title may have arisen from its dealing more fully with details and minutiae than the biblical work. For the other names by which it is referred to, such as *The Apocalypse of Moses*, *The Testament of Moses*, *The Book of Adam's Daughters* and the *Life of Adam*, the reader may consult Charles's *The Book of Jubilees*, pp. xvii.-xx.

Object.—The object of our author was the defence and exposition of Judaism from the Pharisaic standpoint of the 2nd century B.C. against the disintegrating effects of Hellenism. In his elaborate defence of Judaism our author glorifies circumcision and the sabbath, the bulwarks of Judaism, as heavenly ordinances, the sphere of which was so far extended as to embrace Israel on earth. The Law, as a whole, was to our author the realization in time of what was in a sense timeless and eternal. Though revealed in time it was superior to time. Before it had been made known in sundry portions to the fathers, it had been kept in heaven by the angels, and to its observance there was no limit in time or in eternity. Our author next defends Judaism by his glorification of Israel. Whereas the various nations of the Gentiles were subject to angels, Israel was subject to God alone. Israel was God's son, and not only did the nation stand in this relation to God, but also its individual members. Israel received circumcision as a sign that they were the Lord's, and this privilege of circumcision they enjoyed in common with the two highest orders of angels. Hence Israel was to unite with God and these two orders in the observance of the sabbath. Finally the destinies of the world were bound up with Israel. The world was renewed in the creation of the true man Jacob, and its final renewal was to synchronize with the setting-up of God's sanctuary in Zion and the establishment of the Messianic kingdom. In this kingdom the Gentiles had neither part nor lot.

Versions: Greek, Syriac, Ethiopic and Latin.—Numerous fragments of the Greek Version have come down to us in Justin Martyr, Origen, Diodorus of Antioch, Isidore of Alexandria, Epiphanius, John of Malala, Syncellus and others. This version was the parent of the Ethiopic and Latin. The Ethiopic Version is most accurate and trustworthy, and indeed, as a rule, slavishly literal. It has naturally suffered from the corruptions incident to transmission through MSS. Thus dittographies are frequent and lacunae of occasional occurrence, but the version is singularly free from the glosses and corrections of unscrupulous scribes. The Latin Version, of which about one-fourth has been preserved, is where it exists of almost equal value with the Ethiopic. It has, however, suffered more at the hands of correctors. Notwithstanding, it attests a long array of passages in which it preserves the true text over against corruptions or omissions in the Ethiopic Version. Finally, as regards the Syriac Version, the evidence for its existence is not conclusive. It is based on the fact that a British Museum MS. contains a Syriac fragment entitled "Names of the wives of the Patriarchs according to the Hebrew Book of Jubilees."

The Ethiopic and Latin Versions: Translations from the Greek.—The Ethiopic Version is translated from the Greek, for Greek words such as δρῦς, βάλανος, λψ, &c., are transliterated in the Greek. Secondly, many passages must be retranslated into Greek before we can discover the source of the various corruptions. And finally, proper names are transliterated as they appear in Greek and not in Hebrew. That the Latin is also a translation from the Greek is no less obvious. Thus in xxxix. 12 *timoris* = δειλίας, corrupt for δουλείας; in xxxviii. 13 *honorem* = τιμήν, but τιμήν should here have

been rendered by *tributum*, as the Ethiopic and the context require; in xxxii. 26, *celavit* = ἔκρουε, corrupt for ἔγραψε (so Ethiopic).

The Greek a Translation from the Hebrew.—The early date of our book—the 2nd century B.C.—and its place of composition speak for a Semitic original, and the evidence bearing on this subject is conclusive. But the question at once arises, was the original Aramaic or Hebrew? Certain proper names in the Latin Version ending in *-in* seem to bespeak an Aramaic original, as Cettin, Filistin, &c. But since in all these cases the Ethiopic transliterations end in *-m* and not in *-n*, it is not improbable that the Aramaism in the Latin Version is due to the translator, who, it has been concluded on other grounds, was a Palestinian Jew.¹ The grounds, on the other hand, for a Hebrew original are weighty and numerous. (1) A work which claims to be from the hand of Moses would naturally be in Hebrew, for Hebrew according to our author was the sacred and national language. (2) The revival of the national spirit of a nation is universally, so far as we know, accompanied by a revival of the national language. (3) The text must be retranslated into Hebrew in order to explain unintelligible expressions and restore the true text. One instance will sufficiently illustrate this statement. In xliii. 11 a certain Ethiopic expression = ἐν ἑμοί, which is a mistranslation of בּי; for בּי in this context, as we know from the parallel passage in Gen. xlv. 18, which our text reproduces almost verbally, = δέομα. We might observe here that our text attests the presence of dittographies already existing in the Hebrew text. (4) Hebraisms survive in the Ethiopic and Latin Versions. In the former nûḥa in iv. 4, is a corrupt transliteration of נּוּח. In the Latin eligere in te in xxii. 10 is a reproduction of בּוּרַר and *in qua ... in ipsa* in xix. 8 = בּוּרַר ... אֲשֶׁר. This idiom could, of course, be explained on the hypothesis of an Aramaic original. (5) Many paronomasiae discover themselves on retranslation into Hebrew.

Textual Affinities.—A minute study of the text shows that it attests an independent form of the Hebrew text of the Pentateuch. Thus it agrees at times with the Samaritan, or Septuagint, or Syriac, or Vulgate, or even with Onkelos against all the rest. To be more exact, our book represents some form of the Hebrew text of the Pentateuch midway between the forms presupposed by the Septuagint and the Syriac; for it agrees more frequently with the Septuagint, or with combinations into which the Septuagint enters, than with any other single authority, or with any combination excluding the Septuagint. Next to the Septuagint it agrees most often with the Syriac or with combinations into which the Syriac enters. On the other hand, its independence of the Septuagint is shown in a large number of passages, where it has the support of the Samaritan and Massoretic, or of these with various combinations of the Syriac Vulgate and Onkelos. From these and other considerations we may conclude that the textual evidence points to the composition of our book at some period between 250 B.C. and A.D. 100, and at a time nearer the earlier date than the later.

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Date.—The book was written between 135 B.C. and the year of Hyrcanus's breach with the Pharisees. This conclusion is drawn from the following facts:—(1) The book was written during the pontificate of the Maccabean family, and not earlier than 135 B.C. For in xxxii. 1 Levi is called a "priest of the Most High God." Now the only high priests who bore this title were the Maccabean, who appear to have assumed it as reviving the order of Melchizedek when they displaced the Zadokite order of Aaron. Jewish tradition ascribes the assumption of this title to John Hyrcanus. It was retained by his successors down to Hyrcanus II. (2) It was written before 96 B.C. or some years earlier in the reign of John Hyrcanus; for since our author is of the strictest sect a Pharisee and at the same time an upholder of the Maccabean pontificate, Jubilees cannot have been written after 96 when the Pharisees and Alexander Jannaeus came to open strife. Nay more, it cannot have been written after the open breach between Hyrcanus and the Pharisees, when the former joined the Sadducean party.

The above conclusions are confirmed by a large mass of other evidence postulating the same date. We may, however, observe that our book points to the period already past—of stress and persecution that preceded the recovery of national independence under the Maccabees, and presupposes as its historical background the most flourishing period of the Maccabean hegemony.

Author.—Our author was a Pharisee of the strictest sect. He maintained the everlasting validity of the law, he held the strictest views on circumcision, the sabbath, and the duty of shunning all intercourse with the Gentiles; he believed in angels and in a blessed immortality. In the next place he was an upholder of the Maccabean pontificate. He glorifies Levi's successors as high-priests and civil rulers, and applies to them the title assumed by the Maccabean princes, though he does not, like the author of the Testaments of the Twelve Patriarchs, expect the Messiah to come forth from among them. He may have been a priest.

The Views of the Author on the Messianic Kingdom and the Future Life.—According to our author the Messianic kingdom was to be brought about gradually by the progressive spiritual development of man and a corresponding transformation of nature. Its members were to reach the limit of 1000 years in happiness and peace. During its continuance the powers of evil were to be restrained, and the last judgment was apparently to take place at its close. As regards the doctrine of a future life, our author adopts a position novel for a Palestinian writer. He abandons the hope of a resurrection of the body. The souls of the righteous are to enjoy a blessed immortality after death. This is the earliest attested instance of this expectation in the last two centuries B.C.

LITERATURE.—*Ethiopic Text and Translations:* This text was first edited by Dillmann from two MSS. in 1859, and in 1895 by R. H. Charles from four (*The Ethiopic Version of the Hebrew Book of Jubilees ... with the Hebrew, Syriac, Greek and Latin fragments*). In the latter edition, the Greek and Latin fragments are printed together with the Ethiopic. The book was translated into German by Dillmann

from one MS. in Ewald's *Jahrbücher*, vols. ii. and iii. (1850, 1851), and by Littmann (in Kautzsch's *Apok. und Pseud.* ii. 39-119) from Charles's Ethiopic text; into English by Schodde (*Bibl. Sacr.* 1885) from Dillmann's text, and by Charles (*Jewish Quarterly Review*, vols. v., vi., vii. (1893-1895) from the text afterwards published in 1895, and finally in his commentary, *The Book of Jubilees* (1902). *Critical Inquiries*: Dillmann, "Das Buch der Jubiläen" (Ewald's *Jahrbücher d. bibl. Wissensch.* (1851), iii. 72-96); "Pseudepig. des Alten Testaments," Herzog's *Realencyk.*² xii. 364-365; "Beiträge aus dem Buche der Jubiläen zur Kritik des Pentateuch Textes" (*Sitzungsberichte der Kgl. Preussischen Akad.*, 1883); Beer, *Das Buch der Jubiläen* (1856); Rönsch, *Das Buch der Jubiläen* (1874); Singer, *Das Buch der Jubiläen* (1898); Bohn, "Die Bedeutung des Buches der Jubiläen" (*Theol. Stud. und Kritiken* (1900), pp. 167-184). A full bibliography will be found in Schürer or in R. H. Charles's commentary, *The Book of Jubilees or the Little Genesis* (1902), which deals exhaustively with all the questions treated in this article.

(R. H. C.)

- 1 In the Ethiopic Version in xxi. 12 it should be observed that in the list of the twelve trees suitable for burning on the altar several are transliterated Aramaic names of trees. But in a late Hebrew work (2nd century B.C.) the popular names of such objects would naturally be used. In certain cases the Hebrew may have been forgotten, or, where the tree was of late introduction, been non-existent.



JUBILEE YEAR, an institution in the Roman Catholic Church, observed every twenty-fifth year, from Christmas to Christmas. During its continuance plenary indulgence is obtainable by all the faithful, on condition of their penitently confessing their sins and visiting certain churches a stated number of times, or doing an equivalent amount of meritorious work. The institution dates from the time of Boniface VIII., whose bull *Antiquorum habet fidem* is dated the 22nd of February 1300. The circumstances in which it was promulgated are related by a contemporary authority, Jacobus Cajetanus, according to whose account ("Relatio de centesimo s. jubilaero anno" in the *Bibliotheca Patrum*) a rumour spread through Rome at the close of 1299 that every one visiting St Peter's on the 1st of January 1300 would receive full absolution. The result was an enormous influx of pilgrims to Rome, which stirred the pope's attention. Nothing was found in the archives, but an old peasant 107 years of age avowed that his father had been similarly benefited a century previously. The bull was then issued, and the pilgrims became even more numerous, to the profit of both clergy and citizens. Originally the churches of St Peter and St Paul in Rome were the only jubilee churches, but the privilege was afterwards extended to the Lateran Church and that of Sta Maria Maggiore, and it is now shared also for the year immediately following that of the Roman jubilee by a number of specified provincial churches. At the request of the Roman people, which was supported by St Bridget of Sweden and by Petrarch, Clement VI. in 1343 appointed, by the bull *Unigenitus Dei filius*, that the jubilee should recur every fifty years instead of every hundred years as had been originally contemplated in the constitution of Boniface; Urban VI., who was badly in need of money, by the bull *Salvator noster* in 1389 reduced the interval still further to thirty-three years (the supposed duration of the earthly life of Christ); and Paul II. by the bull *Ineffabilis* (April 19, 1470) finally fixed it at twenty-five years. Paul II. also permitted foreigners to substitute for the pilgrimage to Rome a visit to some specified church in their own country and a contribution towards the expenses of the Holy Wars. According to the special ritual prepared by Alexander VI. in 1500, the pope on the Christmas Eve with which the jubilee begins goes in solemn procession to a particular walled-up door ("Porta aurea") of St Peter's and knocks three times, using at the same time the words of Ps. cxviii. 19 (*Aperite mihi portas justitiae*). The doors are then opened and sprinkled with holy water, and the pope passes through. A similar ceremony is conducted by cardinals at the other jubilee churches of the city. At the close of the jubilee, the special doorway is again built up with appropriate solemnities.

The last ordinary jubilee was observed in 1900. "Extraordinary" jubilees are sometimes appointed on special occasions, e.g. the accession of a new pope, or that proclaimed by Pope Leo XIII. for the 12th of March 1881, "in order to obtain from the mercy of Almighty God help and succour in the weighty necessities of the Church, and comfort and strength in the battle against her numerous and mighty foes." These are not so much jubilees in the ordinary sense as special grants of plenary indulgences for particular purposes (*Indulgentiae plenariae in forma jubilaei*).



JÚCAR, a river of eastern Spain. It rises in the north of the province of Cuenca, at the foot of the

Cerro de San Felipe (5906 ft.), and flows south past Cuenca to the borders of Albacete; here it bends towards the east, and maintains this direction for the greater part of its remaining course. On the right it is connected with the city of Albacete by the Maria Cristina canal. After entering Valencia, it receives on the left its chief tributary the Cabriel, which also rises near the Cerro de San Felipe, in the Montes Universales. Near Alcira the Júcar turns south-eastward, and then sharply north, curving again to the south-east before it enters the Mediterranean Sea at Cullera, after a total course of 314 m. Its estuary forms the harbour of Cullera, and its lower waters are freely utilized for purposes of irrigation.



JUD, LEO (1482-1542), known to his contemporaries as Meister Leu, Swiss reformer, was born in Alsace and educated at Basel, where after a course in medicine he turned to the study of theology. This change was due to the influence of Zwingli whose colleague at Zürich Jud became after serving for four years (1518-1522) as pastor of Einsiedeln. His chief activity was as a translator; he was the leading spirit in the translation of the Zürich Bible and also made a Latin version of the Old Testament. He died at Zürich on the 19th of June 1542.

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See *Life* by C. Pestalozzi (1860); art. in Herzog-Hauck's *Realencyklopädie*, vol. ix. (1901).



JUDAEA, the name given to the southern part of Palestine as occupied by the Jewish community in post-exilic days under Persian, Greek and Roman overlordship. In Luke and Acts the term is sometimes used loosely to denote the whole of western Palestine. The limits of Judaea were never very precisely defined and—especially on the northern frontier—varied from time to time. After the death of Herod, Archelaus became ethnarch of Samaria, Idumea and Judaea, and when he was deposed Judaea was merged in Syria, being governed by a procurator whose headquarters were in Caesarea.

For a description of the natural features of the country see [PALESTINE](#); for its history see [JEWS](#) and [JUDAH](#). Cf. T. Mommsen, *The Provinces of the Roman Empire*, ch. xi.



JUDAH, a district of ancient Palestine, to the south of the kingdom of Israel, between the Dead Sea and the Philistine plain. It falls physically into three parts: the hill-country from Hebron northwards through Jerusalem; the lowland (Heb. *Shēphelah*) on the west; and the steppes or “dry land” (Heb. *Negeb*) on the south. The district is one of striking contrasts, with a lofty and stony tableland in the centre (which reaches a height of 3300 ft. just north of Hebron), with a strategically important valley dividing the central mountains from the lowland, and with the most desolate of tracts to the east (by the Dead Sea) and south. Some parts, especially around Hebron, are extremely fertile, but the land as a whole has the characteristics of the southern wilderness—the so-called “desert” is not a sterile Sahara—and was more fitted for pastoral occupations; see further G. A. Smith, *Hist. Geog. Holy Land*, chs. x.-xv. Life in ancient Judah is frequently depicted in the Bible, but much of the Judaeian history is obscure. In the days of the old Hebrew monarchy there were periods of conflict and rivalry between Judah and Israel—even times when the latter incorporated, or at least claimed supremacy over, the former. Later, from the 5th century B.C. there was a breach between the Jews (the name is derived from Judah) and the Samaritans (*q.v.*). The intervening years after the fall of Samaria (722 B.C.), and after the destruction of Jerusalem (586 B.C.), were probably marked by closer intercourse, similar to the period of union in the popular traditions relating to the pre-monarchical age. The course of Judaeian history was conditioned, also, by the proximity of the Philistines in the west, Moab in the east, and by Edom and other southern peoples extending from North Arabia to the delta of the Nile. Judah's stormy history, continued under Greek and Roman domination, reached its climax in the birth of Christianity, and ended with the fall of Jerusalem in A.D. 70 (see [JEWS](#), [PALESTINE](#)).

In conformity with ancient methods of genealogy (*q.v.*), Judah is traced back to a son of Jacob or Israel by Leah and along with other “tribes” (Dan, Levi, Simeon, &c.) is included under the collective term Israel. Thus it shares the general traditions of the Israelites, although Judah appears as an individual in the story of his “brother” Joseph (on ch. xxxvii. seq., see [GENESIS](#)). Its boundaries in Joshua xv. are manifestly artificial or imaginary; they include the Philistines and number places which are elsewhere ascribed to Simeon or Dan. The origin of the name (*Yēhūdah*) is quite uncertain; the interpretation “praised” is suggested in Gen. xxix. 35 (cf. xlix. 8 seq.), but some connexion with allied names, as Yehūd (Yahūdiya, E. of Jaffa), or Ēhūd (a Benjamite clan) seems more probable. That Judah, whatever its original connotation, underwent development through the incorporation of other clans appears from 1 Chron. ii., iv., where it is found to contain a large element of non-Israelite population whose names find analogies or parallels in Simeonite, Edomite and other southern lists.¹ Indeed, underlying the account of the Israelite exodus (*q.v.*) there are traces of a separate movement of certain clans—apart from the Israelite invasion of Palestine—who are ultimately found in the south of Judah; and the traditions in Chronicles themselves allow the view that the incorporation of these elements began under David, when Judah first occupies a prominent position in biblical history (cf. Cheyne, *Ency. Bib.*, col. 2618 seq., and see [CALEB](#), [JERAHMEEL](#), [KENITES](#)). But such movements were not necessarily limited to one single period, and the evidence connecting (*a*) the non-Israelite clans of Judah with Levites, and (*b*) both with the south, is found in narratives referring to several different ages and might point to an unceasing relationship with the south. On the other hand, clans, which in the traditions of David’s time were in the south of Judah, about five hundred years later (in the exile) are found near Jerusalem (*e.g.* Caleb), so that either these survived the strenuous vicissitudes of half a millennium or all perspective of their early history has been lost. In Gen. xxxviii. a curious narrative points to the separation of Judah “from his brethren” and his marriage with Shua the Canaanite; two sons Er and Onan perish and the third Shelah survives. From Judah and Er’s widow Tamar are derived Perez and Zerah, and these with Shelah appear in post-exilic times as the three representative families of Judah (Neh. xi. 4-6; 1 Chron. ix. 4-6). This story, amid a number of other motives, appears to reflect the growth of the tribe of Judah and its fluctuations, but that the reference is to any very early period is unlikely, partly because the interest of the story is in post-exilic families, and partly because the scenes (Adullam, Chezib and Timnah) overlap with David’s own fights between Hebron and Jerusalem (2 Sam. xxi. xxiii.; see [DAVID](#), *ad fin.*).² Even David’s conquest of Jerusalem (2 Sam. v.) conflicts both with the statement of its capture by Judah many years previously (Judges i. 8), and with the traditions of the Israelite heroes Joshua and Saul. Consequently, the few surviving data are too uncertain for any decisive conclusions regarding the origin of the tribe of Judah. Judah as a kingdom may have taken its name from a limited district, in which case its growth finds a parallel in the extension of the name Samaria from the city to the province. The location of Yehūd and Ēhūd in the light of 1 Kings iv. 8-19 (perhaps the subdivisions of the Israelite kingdom, see [SOLOMON](#)), would necessitate the assumption of a violent separation from the north; this, however, is quite conceivable (see [JEWS](#), §§ 11-13). On the bearing of South Judah upon the historical criticism of the Old Testament, see especially N. Schmidt, *Hibbert Journal* (1908), pp. 322-342, “The Jerahmeel Theory and the Historic Importance of the Negeb, with some account of personal exploration of the country”; also [JEWS](#), § 20.

(S. A. C.)

- 1 See especially Wellhausen, *De gentibus et familiis Judaeorum* (Göttingen, 1869), the articles on the relative proper names in the *Ency. Bib.*, and E. Meyer, *Die Israeliten u. ihre Nachbarstämme*, pp. 299-471 (much valuable matter).
- 2 For the principle of the Levirate illustrated in Gen. xxxviii., see [RUTH](#). Lagarde (*Orientalia*, ii.) ingeniously conjectured that the chapter typified the suppression of Phoenician (*viz.* Tamar, the date-palm) and the old Canaanite elements (Zerah = *indigena*) by the younger Israelite invaders (Perez = “branch”). For other discussions, apart from commentaries on Genesis, see B. Luther in Meyer, *op. cit.*, pp. 200 sqq.



JUDAS ISCARIOT (Ἰούδας Ἰσκαριώτης or Ἰσκαριώθ), in the Bible, the son of Simon Iscariot (John vi. 71, xiii. 26), and one of the twelve apostles. He is always enumerated last with the special mention of the fact that he was the betrayer of Jesus. If the generally accepted explanation of his surname (“man of Kerioth”; see Josh. xv. 25) be correct, he was the only original member of the apostolic band who was not a Galilean. The circumstances which led to his admission into the apostolic circle are not stated; while the motives by which he was actuated in enabling the Jewish authorities to arrest Jesus without tumult have been variously analysed by scholars. According to some (as De Quincey in his famous *Essay*) the sole object of Judas was to place Jesus in a position in which He should be compelled to make what had seemed to His followers the too tardy display of His Messianic power: according to others (and this view seems more in harmony with the Gospel narratives) Judas was an avaricious and dishonest man, who had already abused the confidence placed in him (John xii. 6), and who was now concerned only with furthering his own ends.

As regards the effects of his subsequent remorse and the use to which his ill-gotten gains were put, the strikingly apparent discrepancies between the narratives of Matt. xxvii. 3, 10 and Acts i. 18, 19

have attracted the attention of biblical scholars, ever since Papias, in his fourth book, of which a fragment has been preserved, discussed the subject. The simplest explanation is that they represent different traditions, the Gospel narrative being composed with more special reference to prophetic fulfilments, and being probably nearer the truth than the short explanatory note inserted by the author of the Acts (see Bernard, *Expositor*, June 1904, p. 422 seq.). In ecclesiastical legend and in sacred art Judas Iscariot is generally treated as the very incarnation of treachery, ingratitude and impiety. The Middle Ages, after their fashion, supplied the lacunae in what they deemed his too meagre biography. According to the common form of their story, he belonged to the tribe of Reuben.¹ Before he was born his mother Cyborea had a dream that he was destined to murder his father, commit incest with his mother, and sell his God. The attempts made by her and her husband to avert this curse simply led to its accomplishment. At his birth Judas was enclosed in a chest and flung into the sea; picked up on a foreign shore, he was educated at the court until a murder committed in a moment of passion compelled his flight. Coming to Judaea, he entered the service of Pontius Pilate as page, and during this period committed the first two of the crimes which had been expressly foretold. Learning the secret of his birth, he, full of remorse, sought the prophet who, he had heard, had power on earth to forgive sins. He was accepted as a disciple and promoted to a position of trust, where avarice, the only vice in which he had hitherto been unpractised, gradually took possession of his soul, and led to the complete fulfilment of his evil destiny. This Judas legend, as given by Jacobus de Voragine, obtained no small popularity; and it is to be found in various shapes in every important literature of Europe.

For the history of its genesis and its diffusion the reader may consult D'Ancona, *La leggenda di Vergogna e la leggenda di Giuda* (1869), and papers by W. Creizenach in Paul and Braune's *Beitr. zur Gesch. der deutschen Sprache und Litteratur*, vol. ii. (1875), and Victor Diederich in *Russische Revue* (1880). Cholevius, in his *Geschichte der deutschen Poesie nach ihren antiken Elementen* (1854), pointed out the connexion of the legend with the Oedipus story. According to Daub (*Judas Iscariot, oder Betrachtungen über das Böse im Verhältniss zum Guten*, 1816, 1818) Judas was "an incarnation of the devil," to whom "mercy and blessedness are alike impossible."

The popular hatred of Judas has found strange symbolical expression in various parts of Christendom. In Corfu, for instance, the people at a given signal on Easter Eve throw vast quantities of crockery from their windows and roofs into the streets, and thus execute an imaginary stoning of Judas (see Kirkwall, *Ionian Islands*, ii. 47). At one time (according to Mustoxidi, *Delle cose corciresi*) the tradition prevailed that the traitor's house and country villa existed in the island, and that his descendants were to be found among the local Jews.

Details in regard to some Judas legends and superstitions are given in *Notes and Queries*, 2nd series, v., vi. and vii.; 3rd series, vii.; 4th series, i.; 5th series, vi. See also a paper by Professor Rendel Harris entitled "Did Judas really commit suicide?" in the *American Journal of Philology* (July 1900). Matthew Arnold's poem "St Brandan" gives fine expression to the old story that, on account of an act of charity done to a leper at Joppa, Judas was allowed an hour's respite from hell once a year.

(G. Mi.)

¹ Other forms make him a Danite, and consider the passage in Genesis (xlix. 17) a prophecy of the traitor.



JUDAS-TREE, the *Cercis siliquastrum* of botanists, belonging to the section *Caesalpineae* of the natural order Leguminosae. It is a native of the south of France, Spain, Portugal, Italy, Greece and Asia Minor, and forms a handsome low tree with a flat spreading head. In Spring it is covered with a profusion of purplish-pink flowers, which appear before the leaves. The flowers have an agreeable acid taste, and are eaten mixed with salad or made into fritters. The tree was frequently figured by the older herbalists. One woodcut by Castor Durante has the figure of Judas Iscariot suspended from one of the branches, illustrating the popular tradition regarding this tree. A second species, *C. canadensis*, is common in North America from Canada to Alabama and eastern Texas, and differs from the European species in its smaller size and pointed leaves. The flowers are also used in salads and for making pickles, while the branches are used to dye wool a nankeen colour.



JUDD, SYLVESTER (1813-1853) American Unitarian clergyman and author, was born in Westhampton, Massachusetts, on the 23rd of July 1813. He bore the same name as his father and grandfather; the former (1789-1860) made an especial study of local history of the towns of the

Connecticut valley, and wrote a *History of Hadley* (1863). The son lived in Northampton after his tenth year, was converted in a revival there in 1826, graduated from Yale in 1836, and taught in 1836 at Templeton, Mass., where he first met Unitarians and soon found the solution of his theological difficulties in their views. He entered the Harvard divinity school, from which he graduated in 1840. In the same year he was ordained pastor of the Unitarian church of Augusta, Maine, where he died on the 26th of January 1853. His widest reputation was as the author of *Margaret, a Tale of the Real and the Ideal, including Sketches of a place not before described, called Mons Christi* (1845; revised 1851), written to exhibit the errors of Calvinistic and all trinitarian theology, and the evils of war, intemperance, capital punishment, the prison system of the time, and the national treatment of the Indians. This story, published anonymously, attracted much attention by its true descriptions of New England life and scenery as well as by its author's earnest purpose. *Richard Edney and the Governor's Family* (1850) is in much the same vein as *Margaret*. A poem entitled *Philo, an Evangeliad* (1850) is a versified defence of Unitarianism. He published, besides, *The Church, in a Series of Discourses* (1854). As a preacher and pastor he urged the desirability of infant baptism. He lectured frequently on international peace and opposed slavery.

See Arethusa Hall, *Life and Character of the Rev. Sylvester Judd* (Boston, 1857) published anonymously.



JUDE, THE GENERAL EPISTLE OF, a book of the New Testament. As with the epistle of James, the problems of the writing centre upon the superscription, which addresses in Pauline phraseology (1 Thess. i. 4; 2 Thess. ii. 13; Rom. i. 7; 1 Cor. 1. 2) the Christian world in general in the name of "Jude, the brother of James" (Matt. xiii. 55; Mark vi. 3). The historical situation depicted must then fall within the lifetime of this Judas, whose two grandchildren Zoker and James (Hegesippus *ap. Phil. Sidetes*) by their testimony before the authorities brought to an end the (Palestinian) persecution of Domitian (Hegesippus *ap. Eus. H. E. iii. 20, 7*). These two grandsons of Judas thereafter "lived until the time of Trajan," ruling the churches "because they had (thus) been witnesses (martyrs) and were also relatives of the Lord." But in that case we must either reject the testimony of the same Hegesippus that up to their death, and that of Symeon son of Clopas, successor in the Jerusalem see of James the Lord's brother, "who suffered martyrdom at the age of one hundred and twenty years while Trajan was emperor and Atticus governor," "the church (universal) had remained a pure and uncorrupted virgin" free from "the folly of heretical teachers"; or else we must reject the superscription, which presents the grandfather in vehement conflict with the very heresies in question. For the testimony of Hegesippus is explicit that at the time of the arrest of Zoker and James they were all who survived of the kindred of the Lord. True, there is confusion in the narrative of Hegesippus, and even a probability that the martyrdom of Symeon dated under Trajan really took place in the persecution of Domitian, before the arrest of the grandsons of Jude, for apart from the alleged age of Symeon (the traditional Jewish limit of human life, Gen. vi. 3, Deut. xxxiv. 7), the cause of his apprehension "on the ground that he was a descendant of David and a Christian" (Hegesippus *ap. Eus. H. E. iii. 32, 3*) is inconsistent with both the previous statements regarding the "martyrdom" of Zoker and James, that they were cited as the only surviving Christian Davididae, and that the persecution on this ground collapsed through the manifest absurdity of the accusation. But even if we date the rise of heresies in the reign of Domitian instead of Trajan,¹ the attributing of this epistle against corrupting heresy to "Jude the brother of James" will still be incompatible with the statements of Hegesippus, our only informant regarding his later history.

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The Greek of Jude is also such as to exclude the idea of authorship in Palestine by an unschooled Galilean, at an early date in church history. As F. H. Chase has pointed out: (1) the terms κλητοί, σωτηρία, πίστις, have attained their later technical sense; (2) "the writer is steeped in the language of the LXX.," employing its phraseology independently of other N.T. writers, and not that of the canonical books alone, but of the broader non-Palestinian canon; (3) "he has at his command a large stock of stately, sonorous, sometimes poetical words," proving him a "man of some culture, and, as it would seem, not without acquaintance with Greek writers."

If the superscription be not from the hand of the actual brother of Jesus, the question may well be asked why some apostolic name was not chosen which might convey greater authority? The answer is to be found in the direction toward which the principal defenders of orthodoxy in 100-150 turned for "the deposit of the faith" (Jude 3) in its purity. The Pastoral Epistles point to "the pattern of sound words, even the sayings of our Lord Jesus Christ." (1 Tim. vi. 3, &c.), as the arsenal of orthodoxy against the same foe (with 1 Tim. vi. 3-10; cf. Jude 4, 11, 16, 18 seq.). Ignatius's motto is to "be inseparable from Jesus Christ and from your bishop" (*ad Trall. vii.*), Polycarp's, to "turn unto the word delivered unto us from the beginning" (cf. Jude 3; 1 John ii. 7, iii. 23, iv. 21), "the oracles of the Lord," which the false teachers "pervert to their own lusts." Papias, his ἑταῖρος (Irenaeus), turns in fact from "the vain talk of the many," and from the "alien commandments" to such as were "delivered by the Lord to the faith," offering to the Christian world his *Interpretation of the Lord's Oracles*

based upon personal inquiry from those who "came his way," who could testify as to apostolic tradition. Hegesippus, after a journey to all the principal seats of Christian tradition, testifies that all are holding to the true doctrine as transmitted at the original seat, where it was witnessed first by the apostles and afterwards by the kindred of the Lord and "witnesses" of the first generation. All these writers in one form or other revert to the historic tradition against the licence of innovators. Hegesippus indicates plainly the seat of its authority. For the period before the adoption of a written standard the resort was not so much to "apostles" as to "disciples" and "witnesses." The appeal was to "those who from the beginning had been eyewitnesses and ministers of the word" (Luke i. 2); and these were to be found primarily (until the complete destruction of that church during the revolt of Barcochebas and its suppression by Hadrian) in the mother community in Jerusalem (cf. Acts xv. 2). Its life is the measure of the period of oral tradition, whose requiem is sung by Papias. Hegesippus (*ap. Eus. H. E. iii. 32, 7 seq.*) looks back to it as the safe guardian of the deposit "of the faith" against all the depredations of heresy which "when the sacred college of apostles had suffered death in various forms, and the generation of those that had been deemed worthy to hear the inspired wisdom with their own ears had passed away ... attempted thenceforth with a bold face, to proclaim, in opposition to the preaching of the truth, 'the knowledge which is falsely so-called (ψευδώνυμος γνῶσις).'" For an appeal like that of our epistle to the authority of the past against the moral laxity and antinomian teaching of degenerate Pauline churches in the Greek world, the natural resort after Paul himself (Pastoral Epp.) would be the "kindred of the Lord" who were the "leaders and witnesses in every church" in Palestine. Doubtless the framer of Jude 1 would have preferred the aegis of "James the Lord's brother," if this, like that of Paul, had not been already appropriated. Failing this, the next most imposing was "Judas, the brother of James."

The superscription in the case of Jude, unlike that of James, takes hold of the substance of the book. Verse 3 and the farewell (v. 24 seq.) show that Jude was composed from the start as an "epistle." If this appearance be not fallacious, the obvious relation between the two superscriptions will be best explained by the supposition that the author of Jude gave currency to the existing homily (James) before composing under the pseudonym of Jude. On the interconnexion of the two see Sieffert, *s.v. "Judasbrief"* in Hauck, *Realencykl.* vol. ix.

Judas is conceived as cherishing the intention of discussing for the benefit of the Christian world (for no mere local church is addressed) the subject of "our common salvation" (the much desiderated authoritative definition of the orthodox faith), but diverted from this purpose by the growth of heresy.

Few writings of this compass afford more copious evidence of date in their literary affinities. The references to Enoch (principally ver. 14 seq. = *Eth. En. i. 9*, but cf. F. H. Chase, *s.v. "Jude"* in Hastings's *Dict. Bible*) and the *Assumption of Moses* (v. 9) have more a geographical than a chronological bearing, the stricter canon of Palestine excluding these apocryphal books of 90 B.C. to A.D. 40; but the Pauline writings are freely employed, especially 1 Cor. x. 1-13, Rom. xvi. 25 seq., and probably Eph. and Col. Moreover, the author explicitly refers to the apostolic age as already past, and to the fulfilment of the Pauline prediction (1 Tim. iv. 1 sqq.) of the advent of heresy (v. 17 seq.). The Pauline doctrine of "grace" has been perverted to lasciviousness, as by the heretics whom Polycarp opposes (*Ep. Polyc. vii.*), and this doctrine is taught for "hire" (vv. 11, 12, 16; cf. 1 Tim. vi. 5). The unworthy "shepherds" (v. 12; cf. Ezek. xxxiv. 8; John x. 12 seq.) live at the expense of their flocks, polluting the "love-feasts," corrupting the true disciples. According to Clement of Alexandria this was written prophetically to apply to the Carpocratians, an antinomian Gnostic sect of c. 150; but hyper-Paulinists had given occasion to similar complaints already in Rev. ii. 14, 20 (95). Thus Paulinism and its perversion alike are in the past. As regards the undeniable contact of *Didache* ii. 7 with Jude 22 seq. (cf. *Didache*, iv. 1, Jude 8) priority cannot be determined; and the use of 1 John iii. 12 in Jude 11 is doubtful.

On the other hand, practically the whole of Jude is taken up into 2 Pet., the author merely avoiding, so far as he discovers them, the quotations from apocryphal writings, and prefixing and affixing sections of his own to refute the heretical eschatology. On the priority of Jude see especially against Spitta *Zur Gesch. u. Litt. d. Urchristenthums*, ii. 409-411, F. H. Chase, *loc. cit.* p. 803. (On 2 Pet. see [PETER EPISTLES OF](#).) Unfortunately, the date of 2 Pet. cannot be determined as earlier than late in the second century, so that we are thrown back upon internal evidence for the inferior limit.

The treatment of the heresy as the anti-Christ who precedes "the last hour" (v. 18), reminds us of 1 John ii. 18, but it is indicative of conditions somewhat less advanced than the heretics have not yet "gone out from" the church. The treatment of the apostolic age as past, and the deposit of the faith as a *regula fidei* (cf. Ign. *ad Trall.* ix.), the presence of antinomian Gnosticism, denying the doctrine of lordship and "glories" (v. 8), with "discriminations" between "psychic" and "pneumatic" (v. 19), strongly oppose a date earlier than 100.

Sieffert, on account of the superscription, would date as early as 70-80, but acknowledges the hyper-Pauline affinity of the heresy, its propagation as a doctrine, and close relation to the Nicolaitan of Rev. ii. 14. To these phenomena he gives accordingly a correspondingly early date. The nature of the heresy, opposed, however, and the resort to the authority of Jude "the brother of James" against it, favour rather the period of Polycarp and Papias (117-150).

The history of the reception of the epistle into church canons is similar to that of James, beginning with a quotation of it as the work of Jude by Clement of Alexandria (*Paed.* iii. 8), a reference by Tertullian (*De cult. fem.* i. 3), and a more or less hesitant endorsement by Origen ("if one might

adduce the epistle of Jude," *In Matt.* tom. xvii. 30) and by the *Muratorianum* (c. 200), which excepts Jude and 2 and 3 John from its condemnation of apocryphal literature, placing it on a par with the Wisdom of Solomon "which was written by friends of his in his honour." The use of apocryphal literature in Jude itself may account for much of the critical disposition toward it of many subsequent writers. Eusebius classed it among the "disputed" books, declaring that as with James "not many of the ancients have mentioned it" (*H. E.* ii. 23, 25).

The *Introd. to the New Test.* by Holtzmann, Jülicher, Weiss, Zahn, Davidson, Salmon, Bacon and the standard *Commentaries* of Meyer and Holtzmann, the *International* (Bigg) and other series, contain discussions of authorship and date. The articles s.v. in *Hastings's Dict. Bible* (Chase) and the *Ency. Bib.* (Cone) are full and scholarly. In addition the *Histories of the Apostolic Age*, by Hausrath, Weizsäcker, McGiffert, Bartlet, Ropes and others, and the kindred works of Baur, Schwegler and Pfeleiderer should be consulted. Moffat's *Historical New Testament*, 2nd ed., p. 589, contains a convenient summary of the evidence with copious bibliography. One of the most thorough of conservative treatments is the *Commentary on Jude and Second Peter* by J. B. Mayor (1907). (B. W. B.)

- 1 On this point (date of the outbreak of heresy) there is some inconsistency in the reported fragments of Hegesippus. In that quoted below from Eus. *H. E.* iii. 32. 7 seq., it is expressly dated after the martyrdom of Symeon and death of the grandsons of Jude under Trajan. In iii. 19 the "ancient tradition" attributing the denunciation of these to "some of the heretics" is perhaps not from Hegesippus; but in iv. 22 the beginning of heresy is traced to a certain Thebuthis, a candidate for the bishopric after the death of James, as rival to Symeon. The same figure of the church as a pure virgin is also used as in iii. 32. But as it is only the envious feeling of Thebuthis which is traced to this early date, Hegesippus doubtless means to place the outbreak later.



JUDGE (Lat. *judex*, Fr. *juge*), in the widest legal sense an officer appointed by the sovereign power in a state to administer the law; in English practice, however, justices of the peace and magistrates are not usually regarded as "judges" in the titular sense. The duties of the judge, whether in a civil or a criminal matter, are to hear the statements on both sides in open court, to arrive at a conclusion as to the truth of the facts submitted to him or, when a jury is engaged, to direct the jury to find such a conclusion, to apply to the facts so found the appropriate rules of law, and to certify by his judgment the relief to which the parties are entitled or the obligations or penalties which they have incurred. With the judgment the office of the judge is at an end, but the judgment sets in motion the executive forces of the state, whose duty it is to carry it into execution.

Such is the type of a judicial officer recognized by mature systems of law, but it is not to be accepted as the universal type, and the following qualifying circumstances should be noticed: (1) in primitive systems of law the judicial is not separated from the legislative and other governing functions; (2) although the judge is assumed to take the law from the legislative authority, yet, as the existing law never at any time contains provision for all cases, the judge may be obliged to invent or create principles applicable to the case—this is called by Bentham and the English jurists judge-made and judiciary law; (3) the separation of the function of judge and jury, and the exclusive charge of questions of law given to the judge, are more particularly characteristic of the English judicial system. During a considerable period in the history of Roman law an entirely different distribution of parts was observed. The adjudication of a case was divided between the *magistratus* and the *judex*, neither of whom corresponds to the English judge. The former was a public officer charged with the execution of the law; the latter was an arbitrator whom the magistrates commissioned to hear and report upon a particular case.

The following are points more specially characteristic of the English system and its kindred judicial systems: (1) Judges are absolutely protected from action for anything that they may do in the discharge of their judicial duties. This is true in the fullest sense of judges of the supreme courts. "It is a principle of English law that no action will lie against a judge of one of the superior courts for a judicial act, though it be alleged to have been done maliciously and corruptly." Other judicial officers are also protected, though not to the same extent, against actions. (2) The highest class of judges are irremovable except by what is in effect a special act of parliament, viz. a resolution passed by both houses and assented to by the sovereign. The inferior judges and magistrates are removable for misconduct by the lord chancellor. (3) The judiciary in England is not a separate profession. The judges are chosen from the class of advocates, and almost entirely according to their eminence at the bar. (4) Judges are in England appointed for the most part by the crown. In a few cases municipal corporations may appoint their own judicial officer.

See also [LORD HIGH CHANCELLOR](#); [LORD CHIEF JUSTICE](#); [MASTER OF THE ROLLS](#), &c., &c., and the accounts of judicial systems under country headings.



JUDGE-ADVOCATE-GENERAL, an officer appointed in England to assist the Crown with advice in matters relating to military law, and more particularly as to courts-martial. In the army the administration of justice as pertaining to discipline is carried out in accordance with the provisions of military law, and it is the function of the judge-advocate-general to ensure that these disciplinary powers are exercised in strict conformity with that law. Down to 1793 the judge-advocate-general acted as secretary and legal adviser to the board of general officers, but on the reconstitution of the office of commander-in-chief in that year he ceased to perform secretarial duties, but remained chief legal adviser. He retained his seat in parliament and in 1806 he was made a member of the government and a privy councillor. The office ceased to be political in 1892, on the recommendation of the select committee of 1888 on army estimates, and was conferred on Sir F. Jeune (afterwards Lord St Helier). There was no salary attached to the office when held by Lord St Helier, and the duties were for the most part performed by deputy. On his death in 1905, Thomas Milvain, K.C., was appointed, and the terms and conditions of the post were rearranged as follows: (1) A salary of £2000 a year; (2) the holder to devote his whole time to the duties of the post; (3) the retention of the post until the age of seventy, subject to continued efficiency—but with claim to gratuity or pension on retirement. The holder was to be subordinate to the secretary of state for war, without direct access to the sovereign. The appointment is conferred by letters-patent, which define the exact functions attaching to the office, which practically are the reviewing of the proceedings of all field-general, general and district courts-martial held in the United Kingdom, and advising the sovereign as to the confirmation of the finding and sentence. The deputy judge-advocate is a salaried official in the department of the judge-advocate-general and acts under his letters-patent. A separate judge-advocate-general's department is maintained in India, where at one time deputy judge-advocates were attached to every important command. All general courts-martial held in the United Kingdom are sent to the judge-advocate-general, to be by him submitted to the sovereign for confirmation; and all district courts-martial, after having been confirmed and promulgated, are sent to his office for examination and custody. The judge-advocate-general and his deputy, being judges in the last resort of the validity of the proceedings of courts-martial, take no part in their conduct; but the deputy judge-advocates frame and revise charges and attend at courts-martial, swear the court, advise both sides on law, look after the interests of the prisoner and record the proceedings. In the English navy there is an official whose functions are somewhat similar to those of the judge-advocate-general. He is called counsel and judge-advocate of the fleet.

In the United States there is also a judge-advocate-general's department. In addition to being a bureau of military justice, and keeping the records of courts-martial, courts of inquiry and military commissions, it has the custody of all papers relating to the title of lands under the control of the war department. The officers of the department, in addition to acting as prosecutors in all military trials, sometimes represent the government when cases affecting the army come up in civil courts.

See further [MILITARY LAW](#), and consult C. M. Clode, *Administration of Justice under Military and Martial Law* (1872); *Military Forces of the Crown* (2 vols., 1869).



JUDGES, THE BOOK OF, in the Bible. This book of the Old Testament, which, as we now read it, constitutes a sequel to the book of Joshua, covering the period of history between the death of this conqueror and the birth of Samuel, is so called because it contains the history of the Israelites before the establishment of the monarchy, when the government was in the hands of certain leaders who appear to have formed a continuous succession, although the office was not hereditary. The only other biblical source ascribed to this period is Ruth, whose present position as an appendix to Judges is not original (see [BIBLE](#) and [RUTH](#)).

Structure.—It is now generally agreed that the present adjustment of the older historical books of the Old Testament to form a continuous record of events from the creation to the Babylonian exile is due to an editor, or rather to successive redactors, who pieced together and reduced to a certain unity older memoirs of very different dates; and closer examination shows that the continuity of many parts of the narrative is more apparent than real. This is very clearly the case in the book of Judges. It consists of three main portions: (1) an introduction, presenting one view of the occupation of Palestine by the Israelites (i. 1-ii. 5); (2) the history of the several judges (ii. 6-xvi.); and (3) an appendix containing two narratives of the period.

1. The first section relates events which are said to have taken place after the death of Joshua, but in reality it covers the same ground with the book of Joshua, giving a brief account of the occupation of Canaan, which in some particulars repeats the statements of the previous book, while in others it is quite independent (see [JOSHUA](#)). It is impossible to regard the warlike expeditions described in this section as supplementary campaigns undertaken after Joshua's death; they are plainly represented as the first efforts of the Israelites to gain a firm footing in the land (at Hebron, Debir, Bethel), in the very cities which Joshua is related to have subdued (Josh. x. 39).¹ Here then we have an account of the settlement of Israel west of the Jordan which is parallel to the book of Joshua, but makes no mention of Joshua himself, and places the tribe of Judah in the front. The author of the chapter cannot have had Joshua or his history in his eye at all, and the words "and it came to pass after the death of Joshua" in Judg. i. 1 are from the hand of the last editor, who desired to make the whole book of Judges, including ch. i., read continuously with that which now precedes it in the canon of the earlier prophets.²

2. The second and main section (ii. 6-xvi.) stands on quite another footing. According to Josh. xxiv. 31 the people "served Yahweh" during the lifetime of the great conqueror and his contemporaries. In Judg. ii. 7 this statement is repeated, and the writer proceeds to explain that subsequent generations fell away from the faith, and served the gods of the nations among which they dwelt (ii. 6-iii. 6). The worship of other gods is represented, not as something which went on side by side with Yahweh-worship (cf. x. 6), but as a revolt against Yahweh, periodically repeated and regularly chastised by foreign invasion. The history, therefore, falls into recurring cycles, each of which begins with religious corruption, followed by chastisement, which continues until Yahweh, in answer to the groans of his oppressed people, raises up a "judge" to deliver Israel, and recall them to the true faith. On the death of the "judge," if not sooner, the corruption spreads anew and the same vicissitudes follow. This religious explanation of the course of the history, formally expounded at the outset and repeated in more or less detail from chapter to chapter (especially vi. 1-10, x. 6-18), determines the form of the whole narrative. It is in general agreement with the spirit as also with the language of Deuteronomy, and on this account this section may be conveniently called "the Deuteronomic Book of Judges." But the main religious ideas are not so late and are rather akin to those of Josh. xxiv; in particular the worship of the high places is not condemned, nor is it excused as in 1 Kings iii. 2. The sources of the narrative are obviously older than the theological exposition of its lessons, and herein lies the value and interest of Judges. The importance of such documents for the scientific historian lies not so much in the events they record as in the unconscious witness they bear to the state of society in which the narrator or poet lived. From this point of view the parts of the book are by no means all of equal value; critical analysis shows that often parallel or distinct narratives have been fused together, and that, whilst the older stories gave more prominence to ordinary human motives and combinations, the later are coloured by religious reflection and show the characteristic tendency of the Old Testament to re-tell the fortunes of Israel in a form that lays ever-increasing weight on the work of Yahweh for his people. That the pre-Deuteronomic sources are to be identified with the Judaeen (J, or Yahwist) and Ephraimite (E, or Elohist) strands of the Hexateuch is, however, not certain.

To the unity of religious pragmatism in the main stock of the book of Judges corresponds a unity of chronological scheme. The "judges," in spite of the fact that most of them had clearly no more than a local influence, are all represented as successive rulers in Israel, and the history is dated by the years of each judgeship and those of the intervening periods of oppression. But it is impossible to reconcile the numbers with the statement elsewhere that the fourth year of Solomon was the 480th from the exodus (1 Kings vi. 1). See [BIBLE: Chronology](#).

The general introduction (ii. 6-iii. 6) is a blend of Deuteronomic and other sources. The intimate relation between it and the separate narratives (Josh. xxiv. 1-27, a late [Ephraimite] record inserted by a second Deuteronomic hand, and xxiii., D) appears both from their contents and from the fact that Judg. ii. 6-10 is almost identical with the narrative appended to Joshua's address (Joshua xxiv. 28-31). Judg. i. ii. 5, however, is not touched by D, and hence was probably inserted in its present position at a later date. According to the highly intricate introduction the Hebrews were oppressed: (a) to familiarize them with warfare—it is assumed that they had intermarried with the Canaanites and worshipped their gods (iii. 2, 6); (b) to test their loyalty to Yahweh (ii. 22; iii. 1); or (c) to punish them for their marriage with the heathen and their apostasy (D in ii. 12; cf. Josh. xxiii., and *ibid.* v. 12).

To this succeeds a noteworthy example of the Deuteronomic treatment of tradition in the achievement of Othniel (*q.v.*) the only Judaeen "judge." The bareness of detail, not to speak of the improbability of the situation, renders its genuineness doubtful, and the passage is one of the indications of a secondary Deuteronomic redaction. The case, however, is exceptional; the stories of the other great "judges" were not rewritten or to any great extent revised by the Deuteronomic redactor, and his hand appears chiefly in the framework.³ Thus, in the story of Ehud and the defeat of Moab only iii. 12-15, 29-30 are Deuteronomic. But the rest is not homogeneous, *vv.* 19 and 20 appear to be variants, and the mention of Israel (*v.* 27*b*) is characteristic of the tendency to treat local troubles as national oppressions, whereas other records represent little national unity at this period (*i., v.*). See further [EHUD](#).

According to the Septuagint addition to Josh. xxiv. 33, Moab was the first of Israel's oppressors. The brief notice of Shamgar, who delivered Israel from the Philistines (iii. 31), is one of the later insertions, and in some MSS. of the LXX. it stands after *xvi.* 31. The story of the defeat of Sisera appears in two distinct forms, an earlier, in poetical form (*v.*), and a later, in prose (*iv.*). D's

framework is to be recognized in iv. 1-4, 23 seq., v. 1 (probably), 31 (last clause); see further [DEBORAH](#). The Midianite oppression (vi.-viii.) is contained in the usual frame (vi. 1-6; viii. 27 seq.), but is not homogeneous, since viii. 4, the pursuit of the kings, cannot be the sequel of viii. 3 (where they have been slain), and viii. 33-35 ignores ix. The structure of vi. 1-viii. 3 is particularly intricate: vi. 25-32 does not continue vi. 11-24 (there are two accounts of Gideon's introduction and divergent representations of Yahweh-worship); vi. 34 forms the sequel of the latter, and vi. 36-40 (with "God") is strange after the description of the miracle in vv. 21 seq. (with "Yahweh"). Further, there are difficulties in vi. 34, vii. 23 seq., viii. 1, when compared with vii. 2-8, and in vii. 16-22 two stratagems are combined. There are two sequels: vii. 23 seq. and viii. 4; with the former contrast vi. 35; with viii. 1-3 cf. xii. 1-6, and see below. Chapter viii. 22 seq. comes unexpectedly, and the refusal of the offer of the kingship reflects later ideas (cf. 1 Sam. viii. 7; x. 19; xii. 12, 17). The conclusion, however, shows that Jerubbaal had only a local reputation. Finally, the condemnation of the ephod as part of the worship of Yahweh (viii. 27) agrees with the thought in vi. 25-32 as against that in vi. 11-24. (See [EPHOD](#); [GIDEON](#).) Chapter ix. (see [ABIMELECH](#)) appears to have been wanting in the Deuteronomic book of Judges, but inserted later perhaps by means of the introduction, viii. 30-32 (post-exilic). It has two accounts of the attack upon Shechem (lx. 26-41 and 42-49).

After a brief notice of two "minor judges" (see below), follows the story of Jephthah. It concludes with the usual Deuteronomic formula (xii. 7), but is prefaced by a detailed introduction to the oppression of Israel (x. 6 sqq.). By the inclusion of the Philistines among the oppressors, and of Judah, Benjamin and Ephraim among the oppressed (x. 7, 9), it appears to have in view not merely the story of Samson, a hero of local interest, but the early chapters in 1 Samuel. This introduction is of composite origin (as also ii. 6-21; Josh. xxiii.-xxiv. 25), but a satisfactory analysis seems impossible. As it stands, it has literary connexions with the late narrative in 1 Sam. (vii. seq., xii.), and appears to form the preface to that period of history which ended with Samuel's great victory and the institution of the monarchy. But this belongs to a later scheme (see [SAMUEL](#)), and the introduction in its earlier form must have been the prelude to earlier narratives.⁴ The story of Jephthah's fight with Ammon is linked to the preceding introduction by x. 17 seq.; for the framework see x. 6 (above), xii. 7. Chapter xi. 12-28 (cf. Num. xx. seq.) is applicable only to Moab, vv. 29 and 32 are variants, and Jephthah's home is placed variously in Tob. (xi. 3) and Mizpeh (v. 34). In xi. 1-10 the outlaw stipulates that he shall be chief of Gilead if successful, but in vv. 12-28 a ruler speaks on behalf of Israel. Both Moab and Ammon had good reason to be hostile to Gilead (Num. xxi.), but the scene of the victory points rather to the former (v. 33, possibly conflate). There is a general resemblance between the victories of Gideon and Jephthah, which is emphasized by the close relation between viii. 1-3 and xii. 1-6, the explanation of which in its present context is difficult. See further [JEPHTHAH](#).

The old stories of Samson the Danite have been scarcely touched by the redaction (xiii. 1; xv. 20; xvi. 31*b*, where he is a "judge"); only xiii. appears to be rather later (v. 5 represents him as a forerunner of Samuel and Saul), and gives a rather different impression of the hero of the folk-tales. The cycle illustrates some interesting customs and is in every way valuable as a specimen of popular narrative. See [SAMSON](#).

Grouped among these narratives are the five so-called "minor judges" (x. 1-5; xii. 8-15). By the addition of Shamgar (iii. 31) the number is made to agree with the six more important names. They are not represented as having any immediate religious importance; they really lie outside of the chronological scheme, and their history is plainly not related from such lively and detailed reminiscence as gives charm to the longer episodes of the book. The notices are drawn up in set phraseology, and some of the names, in harmony with a characteristic feature of early Hebrew history, are those of personified families of communities rather than of families.⁵

3. The third and last section of the book embraces chapters xvii.-xxi., and consists of two narratives independent of one another and of the main stock of the book, with which they are not brought into any chronological connexion. They appear to owe their position to the latest redactor (akin to the latest stratum in the Hexateuch) who has heavily worked over xix-xxi., and put the book into its present form by the addition of i.-ii. 5, ix. and possibly of v.⁶

The first narrative, that of Micah and the Danites, is of the highest interest both as a record of the state of religion and for the picture it gives of the way in which one clan passed from the condition of an invading band into settled possession of land and city. Its interest (xvii. seq.) lies in the foundation of the Ephraimite sanctuary by Micah as also in that of Dan. There are some repetitions in the account, but there is not enough evidence to restore two complete stories. The history of the Levite and the Benjamites is of quite another character, and presupposes a degree of unity of feeling and action among the tribes of Israel which it is not easy to reconcile with the rest of the book. In its present form this episode appears to be not very ancient; it resembles Ruth in giving a good deal of curious archaeological detail (the feast at Shiloh) in a form which suggests that the usages referred to were already obsolete when the narrative was composed. It appears to consist of an old story which has been heavily revised to form an edifying piece of exposition. The older parts are preserved in xix.: the account of the Levite of Mt Ephraim whose concubine from Bethlehem in Judah was outraged, not by the non-Israelite Jebusites of Jerusalem, but by the Benjamites of Gibeah; there are traces of another source in vv. 6-8, 10, 13, 15. The older portions of xx. seq. include: the vengeance taken by Israel (*e.g.* xx. 3-8, 14, 19, 29, 36-41, 47), and the reconstruction of the tribe by intermarriage with the women of Shiloh (xxi. 1, 15, 17-19, 21-23). The post-exilic expansions (found chiefly in xx., xxi. 2-14, 16, 24 seq.) describe the punishment of Benjamin by the religious assembly and the massacre of Jabesh-Gilead for its refusal to join Israel, four hundred virgins of the Gileadites being saved for Benjamin. How much old tradition underlies these stories is questionable. It is very doubtful whether Hosea's allusion to the depravity of Gibeah (ix. 9; x. 9) is to be referred hither, but it

is noteworthy that whilst Gibeah and Jabesh-Gilead, which appear here in a bad light, are known to be associated with Saul, the sufferer is a Levite of Bethlehem, the traditional home of David. The account of the great fight in xx. is reminiscent of Joshua's battle at Ai (Josh. vii.-viii.).

Historical Value.—The book of Judges consists of a number of narratives collected by Deuteronomic editors; to the same circles are due accounts of the invasions of Palestine and settlement in Joshua, and of the foundation of the monarchy in 1 Samuel. The connexion has been broken by the later insertion of matter (not necessarily of late date itself), and the whole was finally formed into a distinct book by a post-exilic hand. The dates of the older stories preserved in ii. 6-xvi. 6 are quite unknown. If they are trustworthy for the period to which they are relegated (approximately 14th-12th cent. B.C.) they are presumably of very great antiquity, but if they belong to the sources J and E of the Hexateuch (at least some four or five centuries later) their value is seriously weakened. On the other hand, the belief that the monarchy had been preceded by national "judges" may have led to the formation of the collection. It is evident that there was more than one period in Israelite history in which one or other of these stories of local heroes would be equally suitable. They reflect tribal rivalry and jealousy (cf. Isa. ix. 21, and the successors of Jeroboam 2), attacks by nomads and wars with Ammon and Moab; conflicts between newly settled Israelites and indigenous Canaanites have been suspected in the story of Abimelech, and it is not impossible that the post-Deuteronomic writer who inserted ch. ix. so understood the record. A striking exception to the lack of unity among the tribes is afforded by the account of the defeat of Sisera, and here the old poem represents a combined effort to throw off the yoke of a foreign oppressor, while the later prose version approximates the standpoint of Josh. xi. 1-15, with its defeat of the Canaanites. The general standpoint of the stories (esp. Judg. v.) is that of central Palestine; the exceptions are Othniel and Samson—the latter interrupting the introduction in x., and its sequel, the former now entirely due to the Deuteronomic editor. Of the narratives which precede and follow, ch. i. represents central Palestine separated by Canaanite cities from tribes to the south and north; it is the situation recognized in Judg. xix. 10-12, as well as in passages imbedded in the latest portions of the book of Joshua, though it is in contradiction to the older traditions of Joshua himself. Chapters xvii. seq. (like the preceding story of Samson) deal with Danites, but the migration can hardly be earlier than David's time; and xix.-xxi., by describing the extermination of Benjamin, form a link between the presence of the tribe in the late narratives of the exodus and its new prominence in the traditions of Saul (*q.v.*). As an historical source, therefore, the value of Judges will depend largely upon the question whether the Deuteronomic editor (about 600 B.C. at the earliest) would have access to trustworthy documents relating to a period some six or seven centuries previously. See further [JEWS](#), §§ 6, 8; and [SAMUEL](#), [BOOKS OF](#).

LITERATURE.—Biblical scholars are in agreement regarding the preliminary literary questions of the book, but there is divergence of opinion on points of detail, and on the precise growth of the book (*e.g.* the twofold Deuteronomic redaction). See further W. R. Smith, *Ency. Brit.* 9th ed. (upon which the present article is based); G. F. Moore, *International Critical Comm.* (1895); *Ency. Bib.*, art. "Judges"; K. Budde, *Kurzer Handcommentar* (1897); Lagrange, *Livres des juges* (1903); G. W. Thatcher (*Century Bible*); also S. R. Driver, *Lit. of Old Testament* (1909); Moore, in the *Sacred Books of Old Testament* (1898); C. F. Kent, *The Student's Old Testament*, vol. i. (1904).

(S. A. C.)

- 1 This is confirmed by the circumstance that in Judg. ii. 1 the "angel of Yahweh," who, according to Exod. xiv. 24, xxxiii. 20, xxxiii. 34, xxxiii. 2, 7 seq., must be viewed as having his local manifestation at the headquarters of the host of Israel, is still found at Gilgal and not at Shiloh.
- 2 The chapter was written after Israel had become strong enough to make the Canaanite cities tributary (v. 28), that is, after the establishment of the monarchy (see 1 Kings ix. 20-21).
- 3 Hence, it is to be inferred that the reviser had older *written* records before him. Had these been in the oral stage he would scarcely incorporate traditions which did not agree with his views; at all events they would hardly have been written down by him in the form in which they have survived. The narratives of the monarchy which are preserved only in Chronicles, on the other hand, illustrate the manner in which tradition was reshaped and rewritten under the influence of a later religious standpoint.
- 4 It may be conjectured that the introduction originally formed the prelude to the rise of Saul: the intervening narratives, though not necessarily of late origin themselves, having been subsequently inserted. See S. A. Cook, *Crit. Notes O. T. Hist.*, p. 127 seq.
- 5 Tola and Puah (x. 1) are clans of Issachar (Gen. xlvi. 13), for Jair (v. 3), see Num. xxxii. 41, and for Elon (xii. 11), see Gen. xlvi. 14. See [GENEALOGY: Biblical](#).
- 6 To the same post-exilic hand may also be ascribed the introduction of the "minor judges" (so several critics), and smaller additions here and there (ch. i. 1 opening words, vv. 4, 8 seq. [contrast 21] 18; viii. 30-32: xi. 2, &c.).



JUDGMENT, in law, a term used to describe (1) the adjudication by a court of justice upon a controversy submitted to it *inter partes* (*post litem contestatam*) and determining the rights of the parties and the relief to be awarded by the court as between them; (2) the formal document issuing from the court in which that adjudication is expressed; (3) the opinions of the judges expressed in a review of the facts and law applicable to the controversy leading up to the adjudication expressed in the formal document. When the judgment has been passed and entered and recorded it binds the parties: the controversy comes to an end (*transit in rem judicatam*), and the person in whose favour the judgment is entered is entitled to enforce it by the appropriate method of "execution." There has been much controversy among lawyers as to the meaning of the expressions "final" and "interlocutory" as applied to judgments, and as to the distinction between a "judgment," a "decree," and an "order." These disputes arise upon the wording of statutes or rules of court and with reference to the appropriate times or modes of appeal or of execution.

The judgments of one country are not as a rule directly enforceable in another country. In Europe, by treaty or arrangement, foreign judgments are in certain cases and on compliance with certain formalities made executory in various states. A similar provision is made as between England, Scotland and Ireland, for the registry and execution in each country of certain classes of judgments given in the others. But as regards the rest of the king's dominions and foreign states, a "foreign" judgment is in England recognized only as constituting a cause of action which may be sued upon in England. If given by a court of competent jurisdiction it is treated as creating a legal obligation to pay the sum adjudged to be due. Summary judgment may be entered in an English action based on a foreign judgment unless the defendant can show that the foreign court had not jurisdiction over the parties or the subject matter of the action, or that there was fraud on the part of the foreign court or the successful party, or that the foreign proceedings were contrary to natural justice, *e.g.* concluded without due notice to the parties affected. English courts will not enforce foreign judgments as to foreign criminal or penal or revenue laws.



JUDGMENT DEBTOR, in English law, a person against whom a judgment ordering him to pay a sum of money has been obtained and remains unsatisfied. Such a person may be examined as to whether any and what debts are owing to him, and if the judgment debt is of the necessary amount he may be made bankrupt if he fails to comply with a bankruptcy notice served on him by the judgment creditors, or he may be committed to prison or have a receiving order made against him in a judgment summons under the Debtors Act 1869.



JUDGMENT SUMMONS, in English law, a summons issued under the Debtors Act 1869, on the application of a creditor who has obtained a judgment for the payment of a sum of money by instalments or otherwise, where the order for payment has not been complied with. The judgment summons cites the defendant to appear personally in court, and be examined on oath as to the means he has, or has had, since the date of the order or judgment made against him, to pay the same, and to show cause why he should not be committed to prison for his default. An order of commitment obtained in a judgment summons remains in force for a year only, and the extreme term of imprisonment is six weeks, dating from the time of lodging in prison. When a debtor has once been imprisoned, although for a period of less than six weeks, no second order of commitment can be made against him in respect of the same debt. But if the judgment be for payment by instalments a power of committal arises on default of payment for each instalment. If an order of commitment has never been executed, or becomes inoperative through lapse of time, a fresh commitment may be made. Imprisonment does not operate as a satisfaction or extinguishment of a debt, or deprive a person of a right of execution against the land or goods of the person imprisoned in the same manner as if there had been no imprisonment.



JUDICATURE ACTS, an important series of English statutes having for their object the simplification of the system of judicature in its higher branches. They are the Supreme Court of Judicature Act 1873 (36 & 37 Vict. c. 66) and the Supreme Court of Judicature Act 1875 (38 & 39 Vict. c. 77), with various amending acts, the twelfth of these being in 1899. By the act of 1873 the court of chancery, the court of queen's (king's) bench, the court of common pleas, the court of exchequer, the high court of admiralty, the court of probate and the court of divorce and matrimonial causes were consolidated into one Supreme¹ Court of Judicature (sec. 3), divided into two permanent divisions, called "the high court," with (speaking broadly) original jurisdiction, and "the court of appeal" (sec. 4). The objects of the act were threefold—first, to reduce the historically independent courts of common law and equity into one supreme court; secondly, to establish for all divisions of the court a uniform system of pleading and procedure; and thirdly, to provide for the enforcement of the same rule of law in those cases where chancery and common law recognized different rules. It can be seen at once how bold and revolutionary was this new enactment. By one section the august king's bench, the common pleas, in which serjeants only had formerly the right of audience, and the exchequer, which had its origin in the reign of Henry I., and all their jurisdiction, criminal, legal and equitable, were vested in the new court. It must be understood, however, that law and equity were not fused in the sense in which that phrase has generally been employed. The chancery division still remains distinct from the common law division, having a certain range of legal questions under its exclusive control, and possessing to a certain extent a peculiar machinery of its own for carrying its decrees into execution. But all actions may now be brought in the high court of justice, and, subject to such special assignments of business as that alluded to, may be tried in any division thereof.

There were originally three common law divisions of the High Court corresponding with the three former courts of common law. But after the death of Lord Chief Baron Kelly on the 17th of September 1880, and of Lord Chief Justice Cockburn on the 20th of November 1880, the common pleas and exchequer divisions were (by order in council, 10th December 1880) consolidated with the king's bench division into one division under the presidency of the lord chief justice of England, to whom, by the 25th section of the Judicature Act 1881, all the statutory jurisdiction of the chief baron and the chief justice of the common pleas was transferred. The high court, therefore, now consists of the chancery division, the common law division, under the name of the king's bench division; and the probate, divorce and admiralty division. To the king's bench division is also attached, by order of the lord chancellor (Jan. 1, 1884), the business of the London court of bankruptcy.

For a more detailed account of the composition of the various courts, see [CHANCERY](#); [KING'S BENCH](#); and [PROBATE, DIVORCE AND ADMIRALTY COURT](#).

The keystone of the structure created by the Judicature Acts was a strong court of appeal. The House of Lords remained the last court of appeal, as before the acts, but its judicial functions were virtually transferred to an appeal committee, consisting of the lord chancellor and other peers who have held high judicial office, and certain lords of appeal in ordinary created by the act of 1873 (see [APPEAL](#)).

The practice and procedure of the Supreme Court are regulated by rules made by a committee of judges, to which have been added the president of the incorporated law society and a practising barrister and one other person nominated by the lord chancellor. The rules now in force are those of 1883, with some subsequent amendments. With the appendices they fill a moderate-sized volume. Complaints are made that they go into too much detail, and place a burden on the time and temper of the busy practitioner which he can ill afford to bear. It is possible that the authors of the rules attempted too much, and it might have been better to provide a simpler and more elastic code of procedure. Rules have sometimes been made to meet individual cases of hardship, and rules of procedure have been piled up from time to time, sometimes embodying a new experiment, and not always consistent with former rules.

The most important matter dealt with by the rules is the mode of pleading. The authors of the Judicature Act had before them two systems of pleading, both of which were open to criticism. The common law pleadings (it was said) did not state the facts on which the pleader relied, but only the legal aspect of the facts or the inferences from them, while the chancery pleadings were lengthy, tedious and to a large extent irrelevant and useless. There was some exaggeration in both statements. In pursuing the fusion of law and equity which was the dominant legal idea of law reformers of that period, the framers of the first set of rules devised a system which they thought would meet the defects of both systems, and be appropriate for both the common-law and the chancery divisions. In a normal case, the plaintiff delivered his statement of claim, in which he was to set forth concisely the facts on which he relied, and the relief which he asked. The defendant then delivered his statement of defence, in which he was to say whether he admitted or denied the plaintiff's facts (every averment not traversed being taken to be admitted), and any additional facts and legal defences on which he relied. The plaintiff might then reply, and the defendant rejoin, and so on until the pleaders had exhausted themselves. This system of pleading was not a bad one if accompanied by the right of either party to demur to his opponent's pleading, *i.e.* to say, "admitting all your averments of fact to be true, you still have no cause of action," or "defence" (as the case may be). It may be, however, that the authors of the new system were too intent on uniformity when they abolished the common-law pleading, which, shorn of its abuses (as it had been by the Common Law Procedure Acts), was an admirable instrument for defining the issue between the parties though unsuited for the more complicated cases which are tried in chancery, and it might possibly have been better to try the new system in the first instance in the chancery division only. It should be added that

the rules contain provisions for actions being tried without pleadings if the defendant does not require a statement of claim, and for the plaintiff in an action of debt obtaining immediate judgment unless the defendant gets leave to defend. In the chancery division there are of course no pleadings in those matters which by the rules can be disposed of by summons in chambers instead of by ordinary suit as formerly.

The judges seem to have been dissatisfied with the effect of their former rules, for in 1883 they issued a fresh set of consolidated rules, which, with subsequent amendments, are those now in force. By these rules a further attempt was made to prune the exuberance of pleading. Concise forms of statement of claim and defence were given in the appendix for adoption by the pleader. It is true that these forms do not display a high standard of excellence in draftsmanship, and it was said that many of them were undoubtedly demurrable, but that was not of much importance. Demurrers were abolished, and instead thereof it was provided that any point of law raised by the pleadings should be disposed of at or after the trial, provided that by consent or order of the court the same might be set down and disposed of before the trial (Order xxv. rules 1, 2). This, in the opinion of Lord Davey in 1902 (*Ency. Brit.*, 10th ed., xxx. 146), was a disastrous change. The right of either party to challenge his opponent *in limine*, either where the question between them was purely one of law, or where even the view of the facts taken and alleged by his opponent did not constitute a cause of action or defence, was a most valuable one, and tended to the curtailment of both the delay and the expense of litigation. Any possibility of abuse by frivolous or technical demurrers (as undoubtedly was formerly the case) had been met by powers of amendment and the infliction of costs. Many of the most important questions of law had been decided on demurrer both in common law and chancery. Lord Davey considered that demurrer was a useful and satisfactory mode of trying questions in chancery (on bill and demurrer), and it was frequently adopted in preference to a special case, which requires the statement of facts to be agreed to by both parties and was consequently more difficult and expensive. It is obvious that a rule which makes the normal time for decision of questions at law the trial or subsequently, and a preliminary decision the exception, and such exception dependent on the consent of both parties or an order of the court, is a poor substitute for a demurrer as of right, and it has proved so in practice. The editors of the *Yearly Practice* for 1901 (Muir Mackenzie, Lushington and Fox) said (p. 272): "Points of law raised by the pleadings are usually disposed of at the trial or on further consideration after the trial of the issues of fact," that is to say, after the delay, worry and expense of a trial of disputed questions of fact which after all may turn out to be unnecessary. The abolition of demurrers has also (it is believed) had a prejudicial effect on the standard of legal accuracy and knowledge required in practitioners. Formerly the pleader had the fear of a demurrer before him. Nowadays he need not stop to think whether his cause of action or defence will hold water or not, and anything which is not obviously frivolous or vexatious will do by way of pleading for the purpose of the trial and for getting the opposite party into the box.

Another change was made by the rules of 1883, which was regarded by some common law lawyers as revolutionary. Formerly every issue of fact in a common law action, including the amount of damage, had to be decided by the verdict of a jury. "The effect of the rules of 1883," said Lord Lindley, who was a member of the rule committee, "was to make trial without a jury the normal mode of trial, except where trial with a jury is ordered under rules 6 or 7a, or may be had without an order under rule 2" (*Timson v. Wilson*, 38 Ch. D. 72, at p. 76). The effect of the rules may be thus summarized: (1) In the chancery division no trial by jury unless ordered by the judge. (2) Generally the judge may order trial without a jury of any cause or issue, which before the Judicature Act might have been so tried without consent of parties, or which involves prolonged investigation of documents or accounts, or scientific or local investigation. (3) Either party has a right to a jury in actions of slander, libel, false imprisonment, malicious prosecution, seduction or breach of promise of marriage, upon notice without order; (4) or in any other action, by order. (5) Subject as above, actions are to be tried without a jury unless the judge, of his own motion, otherwise orders.

Further steps have been taken with a view to simplification of procedure. By Order xxx. rule 1 (as amended in 1897), a summons, called a summons for directions, has to be taken out by a plaintiff immediately after the appearance of the defendant, and upon such summons an order is to be made respecting pleadings, and a number of interlocutory proceedings. To make such an order at that early stage would seem to demand a prescience and intelligent anticipation of future events which can hardly be expected of a master, or even a judge in chambers, except in simple cases, involving a single issue of law or fact which the parties are agreed in presenting to the court. The effect of the rule is that the plaintiff cannot deliver his statement of claim, or take any step in the action without the leave of the judge. In chancery cases the order usually made is that the plaintiff deliver his statement of claim, and the rest of the summons stand over, and the practical effect is merely to add a few pounds to the costs. It may be doubted whether, as applied to the majority of actions, the rule does not proceed on wrong lines, and whether it would not be better to leave the parties, who know the exigencies of their case better even than a judge in chambers, to proceed in their own way, subject to stringent provisions for immediate payment of the costs occasioned by unnecessary, vexatious, or dilatory proceedings. The order does not apply to admiralty cases or to proceedings under the order next mentioned.

The Supreme Court of Judicature Act (Ireland) 1877 follows the same lines as the English acts. The pre-existing courts were consolidated into a supreme court of judicature, consisting of a high court of justice and a court of appeal. The judicature acts did not affect Scottish judicature, but the Appellate Jurisdiction Act included the court of session among the courts from which an appeal lies to the House of Lords.

- 1 The comte de Franqueville in his interesting work, *Le Système judiciaire de la Grande Bretagne*, criticizes the use of the word "supreme" as a designation of this court, inasmuch as its judgments are subject to appeal to the House of Lords, but in the act of 1873 the appeal to the House of Lords was abolished. He is also severe on the illogical use of the words "division" and "court" in many different senses (i. 180-181).



JUDITH, THE BOOK OF, one of the apocryphal books of the Old Testament. It takes its name from the heroine Judith (Ἰουδίθ, Ἰουδρήθ, *i.e.* יהודית, Jewess), to whom the last nine of its sixteen chapters relate. In the Septuagint and Vulgate it immediately precedes Esther, and along with Tobit comes after Nehemiah; in the English Apocrypha it is placed between Tobit and the apocryphal additions to Esther.

Argument.—In the twelfth year of his reign Nebuchadrezzar, who is described as king of Assyria, having his capital in Nineveh, makes war against Arphaxad, king of Media, and overcomes him in his seventeenth year. He then despatches his chief general Holofernes to take vengeance on the nations of the west who had withheld their assistance. This expedition has already succeeded in its main objects when Holofernes proceeds to attack Judaea. The children of Israel, who are described as having newly returned from captivity, are apprehensive of a desecration of their sanctuary, and resolve on resistance to the uttermost. The inhabitants of Bethulia (Betylūa) and Betomestham in particular (neither place can be identified), directed by Joachim the high priest, guard the mountain passes near Dothaim, and place themselves under God's protection. Holofernes now inquires of the chiefs who are with him about the Israelites, and is answered by Achior the leader of the Ammonites, who enters upon a long historical narrative showing the Israelites to be invincible except when they have offended God. For this Achior is punished by being handed over to the Israelites, who lead him to the governor of Bethulia. Next day the siege begins, and after forty days the famished inhabitants urge the governor Ozias to surrender, which he consents to do unless relieved in five days. Judith, a beautiful and pious widow of the tribe of Simeon, now appears on the scene with a plan of deliverance. Wearing her rich attire, and accompanied by her maid, who carries a bag of provisions, she goes over to the hostile camp, where she is at once conducted to the general, whose suspicions are disarmed by the tales she invents. After four days Holofernes, smitten with her charms, at the close of a sumptuous entertainment invites her to remain within his tent over night. No sooner is he overcome with sleep than Judith, seizing his sword, strikes off his head and gives it to her maid; both now leave the camp (as they had previously been accustomed to do, ostensibly for prayer) and return to Bethulia, where the trophy is displayed amid great rejoicings and thanksgivings. Achior now publicly professes Judaism, and at the instance of Judith the Israelites make a sudden victorious onslaught on the enemy. Judith now sings a song of praise, and all go up to Jerusalem to worship with sacrifice and rejoicing. The book concludes with a brief notice of the closing years of the heroine.

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Versions.—Judith was written originally in Hebrew. This is shown not only by the numerous Hebraisms, but also by mistranslations of the Greek translation, as in ii. 2, iii. 9, and other passages (see Fritzsche and Ball *in loc.*), despite the statement of Origen (*Ep. ad Afric.* 13) that the book was not received by the Jews among their apocryphal writings. In his preface to Judith, Jerome says that he based his Latin version on the Chaldee, which the Jews reckoned among their Hagiographa. Ball (*Speaker's Apocrypha*, i. 243) holds that the Chaldee text used by Jerome was a free translation or adaptation of the Hebrew. The book exists in two forms: the shorter, which is preserved only in Hebrew (see under *Hebrew Midrashim* below), is, according to Scholz, Lipsius, Ball and Gaster, the older; the longer form is that contained in the versions.

Greek Version.—This is found in three recensions: (1) in A B, 2) ;κ) in codices 19, 108 (Lucian's text); (3) in codex 58, the source of the old Latin and Syriac.

Syriac and Latin Versions.—Two Syriac versions were made from the Greek—the first, that of the Peshito; and the second, that of Paul of Tella, the so-called Hexaplaric. The Old Latin was derived from the Greek, as we have remarked above, and Jerome's from the Old Latin, under the control of a Chaldee version.

Later Hebrew Midrashim.—These are printed in Jellinek's *Bet ha-Midrash*, i. 130-131; ii. 12-22; and by Gaster in *Proceedings of the Society of Biblical Archæology* (1894), pp. 156-163.

Date.—The book in its fuller form was most probably written in the 2nd century B.C. The writer places his romance two centuries earlier, in the time of Ochus, as we may reasonably infer from the attack made by Holofernes and Bagoas on Judaea; for Artaxerxes Ochus made an expedition against Phoenicia and Egypt in 350 B.C., in which his chief generals were Holofernes and Bagoas.

RECENT LITERATURE.—Ball, *Speaker's Apocrypha* (1888), an excellent piece of work; Scholz, *Das Buch Judith* (1896); Löhr, *Apok. und Pseud.* (1900), ii. 147-164; Porter in Hastings's *Dict. Bible*, ii. 822-824; Gaster, *Ency. Bib.*, ii. 2642-2646. See Ball, pp. 260-261, and Schürer *in loc.*, for a full bibliography.
(R. H. C.)



JUDSON, ADONIRAM (1788-1850), American missionary, was born at Malden, Massachusetts, on the 9th of August 1788, the son of a Congregational minister. He graduated at Brown University in 1807, was successively a school teacher and an actor, completed a course at the Andover Theological Seminary in September 1810, and was at once licensed to preach as a Congregational clergyman. In the summer of 1810 he with several of his fellows students at Andover had petitioned the general association of ministers to be sent to Asiatic missionary fields. This application resulted in the establishment of the American board of commissioners for foreign missions, which sent Judson to England to secure, if possible, the co-operation of the London Missionary Society. His ship fell into the hands of a French privateer and he was for some time a prisoner in France, but finally proceeded to London, where his proposal was considered without anything being decided. He then returned to America, where he found the board ready to act independently. His appointment to Burma followed, and in 1812, accompanied by his wife, Ann Hasseltine Judson (1789-1826), he went to Calcutta. On the voyage both became advocates of baptism by immersion, and being thus cut off from Congregationalism, they began independent work. In 1814 they began to receive support from the American Baptist missionary union, which had been founded with the primary object of keeping them in the field. After a few months at Madras, they settled at Rangoon. There Judson mastered Burmese, into which he translated part of the Gospels with his wife's help. In 1824 he removed to Ava, where during the war between the East India Company and Burma he was imprisoned for almost two years. After peace had been brought about (largely, it is said, through his exertions) Mrs Judson died. In 1827 Judson removed his headquarters to Maulmain, where school buildings and a church were erected, and where in 1834 he married Sarah Hall Boardman (1803-1845). In 1833 he completed his translation of the Bible; in succeeding years he compiled a Burmese grammar, a Burmese dictionary, and a Pali dictionary. In 1845 his wife's failing health decided Judson to return to America, but she died during the voyage, and was buried at St Helena. In the United States Judson married Emily Chubbuck (1817-1854), well-known as a poet and novelist under the name of "Fanny Forrester," who was one of the earliest advocates in America of the higher education of women. She returned with him in 1846 to Burma, where the rest of his life was devoted largely to the rewriting of his Burmese dictionary. He died at sea on the 12th of April 1850, while on his way to Martinique, in search of health. Judson was perhaps the greatest, as he was practically the first, of the many missionaries sent from the United States into foreign fields; his fervour, his devotion to duty, and his fortitude in the face of danger mark him as the prototype of the American missionary.

The Judson Memorial, an institutional church, was erected on Washington Square South, New York City, largely through the exertions of his son, Rev. Edward Judson (b. 1844), who became its pastor and director, and who prepared a life of Dr Judson (1883; new ed. 1898). Another biography is by Francis Wayland (2 vols., 1854). See also Robert T. Middleditch's *Life of Adoniram Judson, Burmah's Great Missionary* (New York, 1859). For the three Mrs. Judsons, see Knowles, *Life of Ann Hasseltine Judson* (1829); Emily C. Judson, *Life of Sarah Hall Boardman Judson* (1849); Asahel C. Kendrick, *Life and Letters of Emily Chubbuck Judson* (1861).



JUEL, JENS (1631-1700), Danish statesman, born on the 15th of July 1631, began his diplomatic career in the suite of Count Christian Rantzau, whom he accompanied to Vienna and Regensburg in 1652. In August 1657 Juel was accredited to the court of Poland, and though he failed to prevent King John Casimir from negotiating separately with Sweden he was made a privy councillor on his return home. But it was the reconciliation of Juel's uncle Hannibal Sehested with King Frederick III. which secured Juel's future. As Sehested's representative, he concluded the peace of Copenhagen with Charles X., and after the Danish revolution of 1660 was appointed Danish minister at Stockholm, where he remained for eight years. Subsequently the chancellor Griffenfeldt, who had become warmly attached to him, sent him in 1672, and again in 1674, as ambassador extraordinary to Sweden, ostensibly to bring about a closer union between the two northern kingdoms, but really to give time to consolidate Griffenfeldt's far-reaching system of alliances. Juel completely sympathized with Griffenfeldt's Scandinavian policy, which aimed at weakening Sweden sufficiently to re-establish something like an equilibrium between the two states. Like Griffenfeldt, Juel also feared, above all things, a Swedo-Danish war. After the unlucky Seaman War of 1675-79, Juel was one of the Danish plenipotentiaries who negotiated the peace of Lund. Even then he was for an alliance with Sweden "till we can do better." This policy he consistently followed, and was largely

instrumental in bringing about the marriage of Charles XI. with Christian V.'s daughter Ulrica Leonora. But for the death of the like-minded Swedish statesman Johan Gyllenstjerna in June 1680, Juel's "Scandinavian" policy might have succeeded, to the infinite advantage of both kingdoms. He represented Denmark at the coronation of Charles XII. (December 1697), when he concluded a new treaty of alliance with Sweden. He died in 1700.

Juel, a man of very few words and a sworn enemy of phrase-making, was perhaps the shrewdest and most cynical diplomatist of his day. His motto was: "We should wish for what we can get." Throughout life he regarded the political situation of Denmark with absolute pessimism. She was, he often said, the cat's-paw of the Great Powers. While Griffenfeldt would have obviated this danger by an elastic political system, adaptable to all circumstances, Juel preferred seizing whatever he could get in favourable conjunctures. In domestic affairs Juel was an adherent of the mercantile system, and laboured vigorously for the industrial development of Denmark and Norway. For an aristocrat of the old school he was liberally inclined, but only favoured petty reforms, especially in agriculture, while he regarded emancipation of the serfs as quite impracticable. Juel made no secret of his preference for absolutism, and was one of the few patricians who accepted the title of baron. He saw some military service during the Scanian War, distinguishing himself at the siege of Venersborg, and by his swift decision at the critical moment materially contributing to his brother Niels's naval victory in the Bay of Kjöge. To his great honour he remained faithful to Griffenfeldt after his fall, enabled his daughter to marry handsomely, and did his utmost, though in vain, to obtain the ex-chancellor's release from his dungeon.

See Carl Frederik Bricka, *Dansk biografisk lex.*, art. "Juel" (1887, &c.); Adolf Ditlev Jørgensen, *P. Schumacher Griffenfeldt* (1893-1894).

(R. N. B.)



JUEL, NIELS (1629-1697), Danish admiral, brother of the preceding, was born on the 8th of May 1629, at Christiania. He served his naval apprenticeship under Van Tromp and De Ruyter, taking part in all the chief engagements of the war of 1652-54 between England and Holland. During a long indisposition at Amsterdam in 1655-1656 he acquired a thorough knowledge of ship-building, and returned to Denmark in 1656 a thoroughly equipped seaman. He served with distinction during the Swedo-Danish wars of 1658-60 and took a prominent part in the defence of Copenhagen against Charles X. During fifteen years of peace, Juel, as admiral of the fleet, laboured assiduously to develop and improve the Danish navy, though he bitterly resented the setting over his head in 1663 of Cort Adelaar on his return from the Turkish wars. In 1661 Juel married Margrethe Ulfeldt. On the outbreak of the Scanian War he served at first under Adelaar, but on the death of the latter in November 1675 he was appointed to the supreme command. He then won a European reputation, and raised Danish sea-power to unprecedented eminence, by the system of naval tactics, afterwards perfected by Nelson, which consists in cutting off a part of the enemy's force and concentrating the whole attack on it. He first employed this manœuvre at the battle of Jasmund off Rügen (May 25, 1676) when he broke through the enemy's line in close column and cut off five of their ships, which, however, nightfall prevented him from pursuing. Juel's operations were considerably hampered at this period by the overbearing conduct of his Dutch auxiliary, Philip Almonde, who falsely accused the Danish admiral of cowardice. A few days after the battle of Jasmund, Cornelius Van Tromp the younger, with 17 fresh Danish and Dutch ships of the line, superseded Juel in the supreme command. Juel took a leading part in Van Tromp's great victory off Öland (June 1, 1676), which enabled the Danes to invade Scania unopposed. On the 1st of June 1677 Juel defeated the Swedish admiral Sjöblad off Möen; on the 30th of June 1677 he won his greatest victory, in the Bay of Kjöge, where, with 25 ships of the line and 1267 guns, he routed the Swedish admiral Evert Horn with 36 ships of the line and 1800 guns. For this great triumph, the just reward of superior seamanship and strategy—at an early stage of the engagement Juel's experienced eye told him that the wind in the course of the day would shift from S.W. to W. and he took extraordinary risks accordingly—he was made lieutenant admiral general and a privy councillor. This victory, besides permanently crippling the Swedish navy, gave the Danes a self-confidence which enabled them to keep their Dutch allies in their proper place. In the following year Van Tromp, whose high-handedness had become unbearable, was discharged by Christian V., who gave the supreme command to Juel. In the spring of 1678 Juel put to sea with 84 ships carrying 2400 cannon, but as the Swedes were no longer strong enough to encounter such a formidable armament on the open sea, his operations were limited to blockading the Swedish ports and transporting troops to Rügen. After the peace of Lund Juel showed himself an administrator and reformer of the first order, and under his energetic supervision the Danish navy ultimately reached imposing dimensions, especially after Juel became chief of the admiralty in 1683. Personally Juel was the noblest and most amiable of men, equally beloved and respected by his sailors, simple, straightforward and unpretentious in all his ways. During his latter years he was popularly known in Copenhagen as "the good old knight." He died on the 8th of April 1697.

See Garde, *Niels Juel* (1842), and *Den dansk. norske Sømagts Historie, 1535-1700* (1861).



JUG, a vessel for holding liquid, usually with one handle and a lip, made of earthenware, glass or metal. The origin of the word in this sense is uncertain, but it is probably identical with a shortened form of the feminine name Joan or Joanna; cf. the similar use of Jack and Jill or Gill for a drinking-vessel or a liquor measure. It has also been used as a common expression for a homely woman, a servant-girl, a sweetheart, sometimes in a sense of disparagement. In slang, “jug” or “stone-jug” is used to denote a prison; this may possibly be an adaptation of Fr. *joug*, yoke, Lat. *jugum*. The word “jug” is probably onomatopoeic when used to represent a particular note of the nightingale’s song, or applied locally to various small birds, as the hedge-jug, &c.

The British Museum contains a remarkable bronze jug which was found at Kumasi during the Ashanti Expedition of 1896. It dates from the reign of Richard II., and is decorated in relief with the arms of England and the badge of the king. It has a lid, spout and handle, which ends in a quatrefoil. An inscription, on three raised bands round the body of the vessel, modernized runs:—“He that will not spare when he may shall not spend when he would. Deem the best in every doubt till the truth be tried out.” The *British Museum Guide to the Medieval Room* contains an illustration of this vessel.

A particular form of jug is the “ewer,” the precursor of the ordinary bedroom jug (an adaptation of O. Fr. *ewaire*, med. Lat. *aquaria*, water-pitcher, from *aqua*, water). The ewer was a jug with a wide spout, and was principally used at table for pouring water over the hands after eating, a matter of some necessity before the introduction of forks. Early ewers are sometimes mounted on three feet, and bear inscriptions such as *Venez laver*. A basin of similar material and design accompanied the ewer. In the 13th and 14th centuries a special type of metal ewer takes the form of animals, men on horseback, &c.; these are generally known as *aquamaniles*, from med. Lat. *aqua manile* or *aqua manale* (*aqua*, water, and *manare*, to trickle, pour, drip). The British Museum contains several examples.

In the 18th and early 19th centuries were made the drinking-vessels of pottery known as “Toby jugs,” properly Toby Fillpots or Philpots. These take the form of a stout old man, sometimes seated, with a three-cornered hat, the corners of which act as spouts. Similar drinking-vessels were also made representing characters popular at the time, such as “Nelson jugs,” &c.



JUGE, BOFFILLE DE (d. 1502), French-Italian adventurer and statesman, belonged to the family of del Giudice, which came from Amalfi, and followed the fortunes of the Angevin dynasty. When John of Anjou, duke of Calabria, was conquered in Italy (1461) and fled to Provence, Boffille followed him. He was given by Duke John and his father, King René, the charge of upholding by force of arms their claims on Catalonia. Louis XI., who had joined his troops to those of the princes of Anjou, attached Boffille to his own person, made him his chamberlain and conferred on him the vice-royalty of Roussillon and Cerdagne (1471), together with certain important lordships, among others the countship of Castres, confiscated from James of Armagnac, duke of Nemours (1476), and the temporalities of the bishopric of Castres, confiscated from John of Armagnac. He also entrusted him with diplomatic negotiations with Flanders and England. In 1480 Boffille married Marie d’Albret, sister of Alain the Great, thus confirming the feudal position which the king had given him in the south. He was appointed as one of the judges in the trial of René of Alençon, and showed such zeal in the discharge of his functions that Louis XI. rewarded him by fresh gifts. However, the bishop of Castres recovered his diocese (1483), and the heirs of the duke of Nemours took legal proceedings for the recovery of the countship of Castres. Boffille, with the object of escaping from his enemies, applied for the command of the armies of the republic of Venice. His application was refused, and he further lost the vice-royalty of Roussillon (1491). His daughter Louise married against his will a gentleman of no rank, and this led to terrible family dissensions. In order to disinherit his own family, Boffille de Juge gave up the countship of Castres to his brother-in-law, Alain d’Albret (1494). He died in 1502.

See P. M. Perret, *Boffille de Juge, comte de Castres, et la république de Venise* (1891); F. Pasquier, *Inventory des documents concernant Boffille de Juge* (1905).

(M. P.*)



JUGGERNAUT, a corruption of Sans. JAGANNĀTHA, “Lord of the World,” the name under which the Hindu god Vishnu is worshipped at Puri in Orissa. The legend runs that the sacred blue-stone image of Jagannātha was worshipped in the solitude of the jungle by an outcast, a Savara mountaineer, called Basu. The king of Malwa, Indradyumna, had despatched Brahmans to all quarters of the peninsula, and at last discovered Basu. Thereafter the image was taken to Puri, and a temple, begun in 1174, was completed fourteen years later at a cost of upwards of half a million sterling. The site had been associated for centuries before and after the Christian era with Buddhism, and the famous Car festival is probably based on the Tooth festival of the Buddhists, of which the Chinese pilgrim Fa-Hien gives an account. The present temple is a pyramidal building, 192 ft. high, crowned with the mystic wheel and flag of Vishnu. Its inner enclosure, nearly 400 ft. by 300 ft., contains a number of small temples and shrines. The main temple has four main rooms—the hall of offerings, the dancing hall, the audience chamber, and the shrine itself—the two latter being each 80 ft. square. The three principal images are those of Vishnu, his brother and his sister, grotesque wooden figures roughly hewn. Elaborate services are daily celebrated all the year round, the images are dressed and redressed, and four meals a day are served to them. The attendants on the god are divided into 36 orders and 97 classes. Special servants are assigned the tasks of putting the god to bed, of dressing and bathing him. The annual rent-roll of the temple was put at £68,000 by Sir W. W. Hunter; but the pilgrims’ offerings, which form the bulk of the income, are quite unknown and have been said to reach as much as £100,000 in one year. Ranjit Singh bequeathed the Koh-i-nor to Jagannath. There are four chief festivals, of which the famous Car festival is the most important.

The terrible stories of pilgrims crushed to death in the god’s honour have made the phrase “Car of Juggernaut” synonymous with the merciless sacrifice of human lives, but these have been shown to be baseless calumnies. The worship of Vishnu is innocent of all bloody rites, and a drop of blood even accidentally spilt in the god’s presence is held to pollute the officiating priests, the people, and the consecrated food. The Car festival takes place in June or July, and the feature of its celebration is the drawing of the god from the temple to his “country-house,” a distance of less than a mile. The car is 45 ft. in height and 35 ft. square, and is supported on 16 wheels of 7 ft. in diameter. Vishnu’s brother and sister have separate cars, slightly smaller. To these cars ropes are attached, and thousands of eager pilgrims vie with each other to have the honour of dragging the god. Though the distance is so short the journey lasts several days, owing to the deep sand in which the wheels sink. During the festival serious accidents have often happened. Sir W. W. Hunter in the *Gazetteer of India* writes: “In a closely packed, eager throng of a hundred thousand men and women under the blazing tropical sun, deaths must occasionally occur. There have doubtless been instances of pilgrims throwing themselves under the wheels in a frenzy of religious excitement, but such instances have always been rare, and are now unknown. The few suicides that did occur were, for the most part, cases of diseased and miserable objects who took this means to put themselves out of pain. The official returns now place this beyond doubt. Nothing could be more opposed to the spirit of Vishnu-worship than self-immolation. Accidental death within the temple renders the whole place unclean. According to Chaitanya, the apostle of Jagannath, the destruction of the least of God’s creatures is a sin against the Creator.”

See also Sir W. W. Hunter’s *Orissa* (1872); and *District Gazetteer of Puri* (1908).



JUGGLER (Lat. *joculator*, jester), in the modern sense a performer of sleight-of-hand tricks and dexterous feats of skill in tossing balls, plates, knives, &c. The term is practically synonymous with conjurer (see [CONJURING](#)). The *joculatores* were the mimes of the middle ages (see [DRAMA](#)); the French use of the word *jongleurs* (an erroneous form of *jougleur*) included the singers known as *trouvères*; and the humbler English minstrels of the same type gradually passed into the strolling jugglers, from whose exhibitions the term came to cover loosely any acrobatic, pantomimic and sleight-of-hand performances. In ancient Rome various names were given to what we call jugglers, e.g. *ventilatores* (knife-throwers), and *pilarii* (ball-players).



JUGURTHA (Gr. Ἰογόρθας), king of Numidia, an illegitimate son of Mastanabal, and grandson

of Massinissa. After his father's death he was brought up by his uncle Micipsa together with his cousins Adherbal and Hiempsal. Jugurtha grew up strong, handsome and intelligent, a skilful rider, and an adept in warlike exercises. He inherited much of Massinissa's political ability. Micipsa, naturally afraid of him, sent him to Spain (134 B.C.) in command of a Numidian force, to serve under P. Cornelius Scipio Africanus Minor. He became a favourite with Scipio and the Roman nobles, some of whom put into his head the idea of making himself sole king of Numidia, with the help of Roman money.

In 118 B.C. Micipsa died. By his will, Jugurtha was associated with Adherbal and Hiempsal in the government of Numidia. Scipio had written to Micipsa a strong letter of recommendation in favour of Jugurtha; and to Scipio, accordingly, Micipsa entrusted the execution of his will. None the less, his testamentary arrangements utterly failed. The princes soon quarrelled, and Jugurtha claimed the entire kingdom. Hiempsal he contrived to have assassinated; Adherbal he quickly drove out of Numidia. He then sent envoys to Rome to defend his usurpation on the ground that he was the injured party. The senate decided that Numidia was to be divided, and gave the western, the richer and more populous half, to Jugurtha, while the sands and deserts of the eastern half were left to Adherbal. Jugurtha's envoys appear to have found several of the Roman nobles and senators accessible to bribery. Having secured the best of the bargain, Jugurtha at once began to provoke Adherbal to a war of self-defence. He completely defeated him near the modern Philippeville, and Adherbal sought safety in the fortress of Cirta (Constantine). Here he was besieged by Jugurtha, who, notwithstanding the interposition of a Roman embassy, forced the place to capitulate, and treacherously massacred all the inhabitants, among them his cousin Adherbal and a number of Italian merchants resident in the town. There was great wrath at Rome and throughout Italy; and the senate, a majority of which still clung to Jugurtha, were persuaded in the same year (111) to declare war. An army was despatched to Africa under the consul L. Calpurnius Bestia, several of the Numidian towns voluntarily surrendered, and Bocchus, the king of Mauretania, and Jugurtha's father-in-law, offered the Romans his alliance. Jugurtha was alarmed, but having at his command the accumulated treasures of Massinissa, he was successful in arranging with the Roman general a peace which left him in possession of the whole of Numidia. When the facts were known at Rome, the tribune Memmius insisted that Jugurtha should appear in person and be questioned as to the negotiations. Jugurtha appeared under a safe conduct, but he had partisans, such as the tribune C. Baebius, who took care that his mouth should be closed. Soon afterwards he caused his cousin Massiva, then resident at Rome and a claimant to the throne of Numidia, to be assassinated. The treaty was thereupon set aside, and Jugurtha was ordered to quit Rome. On this occasion he uttered the well-known words, "A city for sale, and doomed to perish as soon as it finds a purchaser!" (Livy, *Epit.* 64). The war was renewed, and the consul Spurius Albinus entrusted with the command. The Roman army in Africa was thoroughly demoralized. An unsuccessful attempt was made on a fortified town, Suthul, in which the royal treasures were deposited. The army was surprised by the enemy in a night attack, and the camp was taken and plundered. Every Roman was driven out of Numidia, and a disgraceful peace was concluded (109).

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By this time the feeling at Rome and in Italy against the corruption and incapacity of the nobles had become so strong that a number of senators were prosecuted and Bestia and Albinus sentenced to exile. The war was now entrusted to Quintus Metellus, an able soldier and stern disciplinarian, and from the year 109 to its close in 106 the contest was carried on with credit to the Roman arms. Jugurtha was defeated on the river Muthul, after an obstinate and skilful resistance. Once again, however, he succeeded in surprising the Roman camp and forcing Metellus into winter quarters. There were fresh negotiations, but Metellus insisted on the surrender of the king's person, and this Jugurtha refused. Numidia on the whole seemed disposed to assert its independence, and Rome had before her the prospect of a troublesome guerrilla war. Negotiations, reflecting little credit on the Romans, were set on foot with Bocchus (*q.v.*) who for a time played fast and loose with both parties. In 106, Marius was called on by the vote of the Roman people to supersede Metellus, but it was through the perfidy of Bocchus and the diplomacy of L. Cornelius Sulla, Marius's quaestor, that the war was ended. Jugurtha fell into an ambush, and was conveyed a prisoner to Rome. Two years afterwards, in 104, he figured with his two sons in Marius's triumph, and in the subterranean prison beneath the Capitol—"the bath of ice," as he called it—he was either strangled or starved to death.

Though doubtless for a time regarded by his countrymen as their deliverer from the yoke of Rome, Jugurtha mainly owes his historical importance to the full and minute account of him which we have from the hand of Sallust, himself afterwards governor of Numidia.

See A. H. J. Greenidge, *Hist. of Rome* (1904); T. Mommsen, *Hist. of Rome*, book iv. ch. v.; the chief ancient authorities (besides Sallust) are Livy, *Epit.*, lxii.-lxvii.; Plutarch, *Marius and Sulla*; Velleius Paterculus, ii.; Diod. Sic., *Excerpta*, xxxiv.; Florus, iii. 1. See also [MARIUS](#), [SULLA](#), [NUMIDIA](#).



charm. It is more generally believed to have been adapted by the Mandingos directly from Fr. *joujou*, a toy or plaything. The word, as used by Europeans on the Guinea coast, was originally applied to the objects which it was supposed the negroes worshipped, and was transferred from the objects themselves to the spirits or gods who dwelt in them, and finally to the whole religious beliefs of the West Africans. It is currently used in each of these senses, and more loosely to indicate all the manners and customs of the negroes of the Guinea coast, particularly the power of interdiction exercised in the name of spirits (see [FETISHISM](#) and [TABOO](#)).



JUJUBE. Under this name the fruits of at least two species of *Zizyphus* are usually described, namely, *Z. vulgaris* and *Z. Jujuba*.¹ The genus is a member of the natural order Anacardiaceae. The species are small trees or shrubs, armed with sharp, straight, or hooked spines, having alternate leaves, and fruits which are in most of the species edible, and have an agreeable acid taste; this is especially the case with those of the two species mentioned above.

Z. vulgaris is a tree about 20 feet high, extensively cultivated in many parts of Southern Europe, also in Western Asia, China and Japan. In India it extends from the Punjab to the north-western frontier, ascending in the Punjab Himalaya to a height of 6500 feet, and is found both in the wild and cultivated state. The plant is grown almost exclusively for the sake of its fruit, which both in size and shape resembles a moderate-sized plum; at first the fruits are green, but as they ripen they become of a reddish-brown colour on the outside and yellow within. They ripen in September, when they are gathered and preserved by storing in a dry place; after a time the pulp becomes much softer and sweeter than when fresh. Jujube fruits when carefully dried will keep for a long time, and retain their refreshing acid flavour, on account of which they are much valued in the countries of the Mediterranean region as a winter dessert fruit; and, besides, they are nutritive and demulcent. At one time a decoction was prepared from them and recommended in pectoral complaints. A kind of thick paste, known as jujube paste, was also made of a composition of gum arabic and sugar dissolved in a decoction of jujube fruit evaporated to the proper consistency.

Z. Jujuba is a tree averaging from 30 to 50 ft. high, found both wild and cultivated in China, the Malay Archipelago, Ceylon, India, tropical Africa and Australia. Many varieties are cultivated by the Chinese, who distinguish them by the shape and size of their fruits, which are not only much valued as dessert fruit in China, but are also occasionally exported to England.

As seen in commerce jujube fruits are about the size of a small filbert, having a reddish-brown, shining, somewhat wrinkled exterior, and a yellow or gingerbread coloured pulp enclosing a hard elongated stone.

The fruits of *Zizyphus* do not enter into the composition of the lozenges now known as jujubes which are usually made of gum-arabic, gelatin, &c., and variously flavoured.

1 The med. Lat. *jujuba* is a much altered form of the Gr. ζιζυφον



JU-JUTSU or **JIU-JITSU** (a Chino-Japanese term, meaning muscle-science), the Japanese method of offence and defence without weapons in personal encounter, upon which is founded the system of physical culture universal in Japan. Some historians assert that it was founded by a Japanese physician who learned its rudiments while studying in China, but most writers maintain that ju-jutsu was in common use in Japan centuries earlier, and that it was known in the 7th century B.C. Originally it was an art practised solely by the nobility, and particularly by the samurai who, possessing the right, denied to commoners, of carrying swords, were thus enabled to show their superiority over common people even when without weapons. It was a secret art, jealously guarded from those not privileged to use it, until the feudal system was abandoned in Japan, and now ju-jutsu is taught in the schools, as well as in public and private gymnasia. In the army, navy and police it receives particular attention. About the beginning of the 20th century, masters of the art began to attract attention in Europe and America, and schools were established in Great Britain and the United States, as well as on the continent of Europe.

Ju-jutsu may be briefly defined as "an application of anatomical knowledge to the purpose of offence and defence. It differs from wrestling in that it does not depend upon muscular strength. It differs from the other forms of attack in that it uses no weapon. Its feat consists in clutching or

striking such part of an enemy's body as will make him numb and incapable of resistance. Its object is not to kill, but to incapacitate one for action for the time being" (Inazo Nitobe, *Bushido: the Soul of Japan*).

Many writers translate the term ju-jutsu "to conquer by yielding" (Jap. *ju*, pliant), and this phrase well expresses a salient characteristic of the art, since the weight and strength of the opponent are employed to his own undoing. When, for example, a big man rushes at a smaller opponent, the smaller man, instead of seeking to oppose strength to strength, falls backwards or sidewise, pulling his heavy adversary after him and taking advantage of his loss of balance to gain some lock or hold known to the science. This element of yielding in order to conquer is thus referred to in Lafcadio Hearn's *Out of the East*: "In jiu-jitsu there is a sort of counter for every twist, wrench, pull, push or bend: only the jiu-jitsu expert does not oppose such movements. No; he yields to them. But he does much more than that. He aids them with a wicked sleight that causes the assailant to put out his own shoulder, to fracture his own arm, or, in a desperate case, even to break his own neck or back."

The knowledge of anatomy mentioned by Nitobe is acquired in order that the combatant may know the weak parts of his adversary's body and attack them. Several of these sensitive places, for instance the partially exposed nerve in the elbow popularly known as the "funny-bone" and the complex of nerves over the stomach called the solar plexus, are familiar to the European, but the ju-jutsu expert is acquainted with many others which, when compressed, struck, or pinched, cause temporary paralysis of a more or less complete nature. Such places are the arm-pit, the ankle and wrist bones, the tendon running downward from the ear, the "Adam's apple," and the nerves of the upper arm. In serious fighting almost any hold or attack is resorted to, and a broken or badly sprained limb is the least that can befall the victim; but in the practice of the art as a means of physical culture the knowledge of the different grips is assumed on both sides, as well as the danger of resisting too long. For this reason the combatant, when he feels himself on the point of being disabled, is instructed to signal his acknowledgment of defeat by striking the floor with hand or foot. The bout then ends and both combatants rise and begin afresh. It will be seen that a victory in ju-jutsu does not mean that the opponent shall be placed in some particular position, as in wrestling, but in any position in which his judgment or knowledge tells him that, unless he yields, he will suffer a disabling injury. This difference existed between the wrestling and the *pancratium* of the Olympic games. In the *pancratium* the fight went on until one combatant acknowledged defeat, but, although many a man allowed himself to be beaten into insensibility rather than suffer this humiliation, it was nevertheless held to be a disgrace to kill an opponent.

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A modern bout at ju-jutsu usually begins by the combatants taking hold with both hands upon the collars of each other's jackets or kimonos, after which, upon the word to start being given, the manœuvring for an advantageous grip begins by pushes, pulls, jerks, falls, grips or other movements. Once the wrist, ankle, neck, arm or leg of an assailant is firmly grasped so that added force will dislocate it, there is nothing for the seized man to do, in case he is still on his feet, but go to the floor, often being thrown clean over his opponent's head. A fall of this kind does not necessarily mean defeat, for the struggle proceeds upon the floor, where indeed most of the combat takes place, and the ju-jutsu expert receives a long training in the art of falling without injury. Blows are delivered, not with the fist, but with the open hand, the exterior edge of which is hardened by exercises.

The physical training necessary to produce expertness is the most valuable feature of ju-jutsu. The system includes a light and nourishing diet, plenty of sleep, deep-breathing exercises, an abundance of fresh air and general moderation in habits, in addition to the actual gymnastic exercises for the purpose of muscle-building and the cultivation of agility of eye and mind as well as of body. It is practised by both sexes in Japan.

Many attempts have been made in England and America to match ju-jutsu experts against wrestlers, mostly of the "catch-as-catch can" school, but these trials have, almost without exception, proved unsatisfactory, since many of the most efficacious tricks of ju-jutsu, such as the strangle holds and twists of wrists and ankles, are accounted foul in wrestling. Nevertheless the Japanese athletes, even when obliged to forgo these, have usually proved more than a match for European wrestlers of their own weight.

See H. Irving Hancock's *Japanese Physical Training* (1904); *Physical Training for Women by Japanese Methods* (1904); *The Complete Kano Jiu-jitsu (Judo)* (1905); M. Ohashi, *Japanese Physical Culture* (1904); K. Saito, *Jiu-jitsu Tricks* (1905).



JUJUY, a northern province of the Argentine Republic, bounded N. and N.W. by Bolivia, N.E., E., S. and S.W. by Salta, and W. by the Los Andes territory. Pop. (1895), 49,713; (1905, estimate), 55,450, including many mestizos. Area, 18,977 sq. m., the greater part being mountainous. The province is traversed from N. to S. by three distinct ranges belonging to the great central Andean

plateau: the Sierra de Santa Catalina, the Sierra de Humahuaca, and the Sierras de Zenta and Santa Victoria. In the S.E. angle of the province are the low, isolated ranges of Alumbre and Santa Barbara. Between the more eastern of these ranges are valleys of surpassing fertility, watered by the Rio Grande de Jujuy, a large tributary of the Bermejo. The western part, however, is a high plateau (parts of which are 11,500 ft. above sea-level), whose general characteristics are those of the *puna* regions farther west. The surface of this high plateau is broken, semi-arid and desolate, having a very scanty population and no important industry beyond the breeding of a few goats and the fur-bearing chinchilla. There are two large saline lagoons: Toro, or Pozuelos, in the N., and Casabindo, or Guayatayoc, in the S. The climate is cool, dry and healthy, with violent tempests in the summer season. (For a vivid description of this interesting region, see F. O'Driscoll, "A Journey to the North of the Argentine Republic," *Geogr. Jour.* xxiv. 1904.) The agricultural productions of Jujuy include sugar cane, wheat, Indian corn, alfalfa and grapes. The breeding of cattle and mules for the Bolivian and Chilean markets is an old industry. Coffee has been grown in the department of Ledesma, but only to a limited extent. There are also valuable forest areas and undeveloped mineral deposits. Large borax deposits are worked in the northern part of the province, the output in 1901 having been 8000 tons. The province is traversed from S. to N. by the Central Northern railway, a national government line, which has been extended to the Bolivian frontier. It passes through the capital and up the picturesque Humahuaca valley, and promises, under capable management, to be an important international line, affording an outlet for southern Bolivia. The climate of the lower agricultural districts is tropical, and irrigation is employed in some places in the long dry season.

The capital, Jujuy (estimated pop. 1905, 5000), is situated on the Rio Grande at the lower end of the Humahuaca valley, 942 m. from Buenos Aires by rail. It was founded in 1593 and is 4035 ft. above sea-level. It has a mild, temperate climate and picturesque natural surroundings, and is situated on the old route between Bolivia and Tucuman, but its growth has been slow.



JUKES, JOSEPH BEETE (1811-1869), English geologist, was born at Summer Hill, near Birmingham, on the 10th of October 1811. He took his degree at Cambridge in 1836. He began the study of geology under Sedgwick, and in 1839 was appointed geological surveyor of Newfoundland. He returned to England at the end of 1840, and in 1842 sailed as naturalist on board H.M.S. "Fly," despatched to survey Torres Strait, New Guinea, and the east coast of Australia. Jukes landed in England again in June 1846, and in August received an appointment on the geological survey of Great Britain. The district to which he was first sent was North Wales. In 1847 he commenced the survey of the South Staffordshire coal-field and continued this work during successive years after the close of field-work in Wales. The results were published in his *Geology of the South Staffordshire Coal-field* (1853; 2nd ed. 1859), a work remarkable for its accuracy and philosophic treatment. In 1850 he accepted the post of local director of the geological survey of Ireland. The exhausting nature of this work slowly but surely wore out even his robust constitution and on the 29th of July 1869 he died. For many years he lectured as professor of geology, first at the Royal Dublin Society's Museum of Irish Industry, and afterwards at the Royal College of Science in Dublin. He was an admirable teacher, and his *Student's Manual* was the favoured textbook of British students for many years. During his residence in Ireland he wrote an article "On the Mode of Formation of some of the River-valleys in the South of Ireland" (*Quarterly Journ. Geol. Soc.* 1862), and in this now classic essay he first clearly sketched the origin and development of rivers. In later years he devoted much attention to the relations between the Devonian system and the Carboniferous rocks and Old Red Sandstone.

Jukes wrote many papers that were printed in the London and Dublin geological journals and other periodicals. He edited, and in great measure wrote, forty-two memoirs explanatory of the maps of the south, east and west of Ireland, and prepared a geological map of Ireland on a scale of 8 m. to an inch. He was also the author of *Excursions in and about Newfoundland* (2 vols., 1842); *Narrative of the Surveying Voyage of H. M. S. "Fly"* (2 vols., 1847); *A Sketch of the Physical Structure of Australia* (1850); *Popular Physical Geology* (1853); *Student's Manual of Geology* (1857; 2nd ed. 1862; a later edition was revised by A. Geikie, 1872); the article "Geology" in the *Ency. Brit.* 8th ed. (1858) and *School Manual of Geology* (1863). See *Letters, &c., of J. Beete Jukes, edited, with Connecting Memorial Notes, by his Sister* (C. A. Browne) (1871), to which is added a chronological list of Jukes's writings.



JULIAN (FLAVIUS CLAUDIUS JULIANUS) (331-363), commonly called JULIAN THE APOSTATE, Roman

emperor, was born in Constantinople in 331,¹ the son of Julius Constantius and his wife Basilina, and nephew of Constantine the Great. He was thus a member of the dynasty under whose auspices Christianity became the established religion of Rome. The name Flavius he inherited from his paternal grandfather Constantius Chlorus; Julianus came from his maternal grandfather; Claudius had been assumed by Constantine's family in order to assert a connexion with Claudius Gothicus.

Julian lost his mother not many months after he was born. He was only six when his imperial uncle died; and one of his earliest memories must have been the fearful massacre of his father and kinsfolk, in the interest and more or less at the instigation of the sons of Constantine. Only Julian and his elder half-brother Gallus were spared, Gallus being too ill and Julian too young to excite the fear or justify the cruelty of the murderers. Gallus was banished, but Julian was allowed to remain in Constantinople, where he was carefully educated under the supervision of the family eunuch Mardonius, and of Eusebius, bishop of Nicomedia. About 344 Gallus was recalled, and the two brothers were removed to Macellum, a remote and lonely castle in Cappadocia. Julian was trained to the profession of the Christian religion; but he became early attracted to the old faith, or rather to the idealized amalgam of paganism and philosophy which was current among his teachers, the rhetoricians. Cut off from all sympathy with the reigning belief by the terrible fate of his family, and with no prospect of a public career, he turned with all the eagerness of an enthusiastic temperament to the literary and philosophic studies of the time. The old Hellenic world had an irresistible attraction for him. Love for its culture was in Julian's mind intimately associated with loyalty to its religion.

In the meantime the course of events had left as sole autocrat of the Roman Empire his cousin Constantius, who, feeling himself unequal to the enormous task, called Julian's brother Gallus to a share of power, and in March 351 appointed him Caesar. At the same time Julian was permitted to return to Constantinople, where he studied grammar under Nicocles and rhetoric under the Christian sophist Hecebolius. After a short stay in the capital Julian was ordered to remove to Nicomedia, where he made the acquaintance of some of the most eminent rhetoricians of the time, and became confirmed in his secret devotion to the pagan faith. He promised not to attend the lectures of Libanius, but bought and read them. But his definite conversion to paganism was attributed to the neo-platonist Maximus of Ephesus, who may have visited him at Nicomedia. The downfall of Gallus (354), who had been appointed governor of the East, again exposed Julian to the greatest danger. By his rash and headstrong conduct Gallus had incurred the enmity of Constantius and the eunuchs, his confidential ministers, and was put to death. Julian fell under a like suspicion, and narrowly escaped the same fate. For some months he was confined at Milan (*Mediolanum*) till at the intercession of the empress Eusebia, who always felt kindly towards him, permission was given him to retire to a small property in Bithynia. While he was on his way, Constantius recalled him, but allowed—or rather ordered—him to take up his residence at Athens. The few months he spent there (July-October 355) were probably the happiest of his life.

The emperor Constantius and Julian were now the sole surviving male members of the family of Constantine; and, as the emperor again felt himself oppressed by the cares of government, there was no alternative but to call Julian to his assistance. At the instance of the empress he was summoned to Milan, where Constantius bestowed upon him the hand of his sister Helena, together with the title of Caesar and the government of Gaul.

A task of extreme difficulty awaited him beyond the Alps. During recent troubles the Alamanni and other German tribes had crossed the Rhine; they had burned many flourishing cities, and extended their ravages far into the interior of Gaul. The internal government of the province had also fallen into great confusion. In spite of his inexperience, Julian quickly brought affairs into order. He completely overthrew the Alamanni in the great battle of Strassburg (August 357). The Frankish tribes which had settled on the western bank of the lower Rhine were reduced to submission. In Gaul he rebuilt the cities which had been laid waste, re-established the administration on a just and secure footing, and as far as possible lightened the taxes, which weighed so heavily on the poor provincials. Paris was the usual residence of Julian during his government of Gaul, and his name has become inseparably associated with the early history of the city.

Julian's reputation was now established. He was general of a victorious army enthusiastically attached to him and governor of a province which he had saved from ruin; but he had also become an object of fear and jealousy at the imperial court. Constantius accordingly resolved to weaken his power. A threatened invasion of the Persians was made an excuse for withdrawing some of the best legions from the Gallic army. Julian recognized the covert purpose of this, yet proceeded to fulfil the commands of the emperor. A sudden movement of the legions themselves decided otherwise. At Paris, on the night of the parting banquet, they forced their way into Julian's tent, and, proclaiming him emperor, offered him the alternative either of accepting the lofty title or of an instant death. Julian accepted the empire, and sent an embassy with a deferential message to Constantius. The message being contemptuously disregarded, both sides prepared for a decisive struggle. After a march of unexampled rapidity through the Black Forest and down the Danube, Julian reached Sirmium, and was on the way to Constantinople, when he received news of the death of Constantius, who had set out from Syria to meet him, at Mopsucrene in Cilicia (Nov. 3, 361). Without further trouble Julian found himself everywhere acknowledged the sole ruler of the Roman Empire; it is even asserted that Constantius himself on his death-bed had designated him his successor. Julian entered Constantinople on the 11th of December 361.

Julian had already made a public avowal of paganism, of which he had been a secret adherent from the age of twenty. It was no ordinary profession, but the expression of a strong and even enthusiastic conviction; the restoration of the pagan worship was to be the great aim and controlling principle of his government. His reign was too short to show what precise form the pagan revival might ultimately have taken, how far his feelings might have become embittered by his conflict with the Christian faith, whether persecution, violence and civil war might not have taken the place of the moral suasion which was the method he originally affected. He issued an edict of universal toleration; but in many respects he used his imperial influence unfairly to advance the work of restoration. In order to deprive the Christians of the advantages of culture, and discredit them as an ignorant sect, he forbade them to teach rhetoric. The symbols of paganism and of the imperial dignity were so artfully interwoven on the standards of the legions that they could not pay the usual homage to the emperor without seeming to offer worship to the gods; and, when the soldiers came forward to receive the customary donative, they were required to throw a handful of incense on the altar. Without directly excluding Christians from the high offices of state, he held that the worshippers of the gods ought to have the preference. In short, though there was no direct persecution, he exerted much more than a moral pressure to restore the power and prestige of the old faith.

Having spent the winter of 361-362 at Constantinople, Julian proceeded to Antioch to prepare for his great expedition against Persia. His stay there was a curious episode in his life. It is doubtful whether his pagan convictions or his ascetic life, after the fashion of an antique philosopher, gave most offence to the so-called Christians of the dissolute city. They soon grew heartily tired of each other, and Julian took up his winter quarters at Tarsus, from which in early spring he marched against Persia. At the head of a powerful and well-appointed army he advanced through Mesopotamia and Assyria as far as Ctesiphon, near which he crossed the Tigris, in face of a Persian army which he defeated. Misled by the treacherous advice of a Persian nobleman, he desisted from the siege, and set out to seek the main army of the enemy under Shapur II. (*q.v.*). After a long, useless march he was forced to retreat, and found himself enveloped by the whole Persian army, in a waterless and desolate country, at the hottest season of the year. The Romans repulsed the enemy in many an obstinate battle, but on the 26th of June 363 Julian, who was ever in the front, was mortally wounded. The same night he died in his tent. In the most authentic historian of his reign, Ammianus Marcellinus, we find a noble speech, which he is said to have addressed to his afflicted officers. Soon after his death the rumour spread that the fatal wound had been inflicted by a Christian in the Roman army. The well-known statement, first found in Theodoret (fl. 5th century), that Julian threw his blood towards heaven, exclaiming, "Thou hast conquered, O Galilean!" is probably a development of the account of his death in the poems of Ephraem Syrus.

From Julian's unique position as the last champion of a dying polytheism, his character has always excited interest. Authors such as Gregory of Nazianzus have heaped the fiercest anathemas upon him; but a just and sympathetic criticism finds many noble qualities in his character. In childhood and youth he had learned to regard Christianity as a persecuting force. The only sympathetic friends he met were among the pagan rhetoricians and philosophers; and he found a suitable outlet for his restless and inquiring mind only in the studies of ancient Greece. In this way he was attracted to the old paganism; but it was a paganism idealized by the philosophy of the time.

In other respects Julian was no unworthy successor of the Antonines. Though brought up in a studious and pedantic solitude, he was no sooner called to the government of Gaul than he displayed all the energy, the hardihood and the practical sagacity of an old Roman. In temperance, self-control and zeal for the public good, as he understood it, he was unsurpassed. To these Roman qualities he added the culture, literary instincts and speculative curiosity of a Greek. One of the most remarkable features of his public life was the perfect ease and mastery with which he associated the cares of war and statesmanship with the assiduous cultivation of literature and philosophy. Yet even his devotion to culture was not free from pedantry and dilettantism. His contemporaries observed in him a want of naturalness. He had not the moral health or the composed and reticent manhood of a Roman, or the spontaneity of a Greek. He was never at rest; in the rapid torrent of his conversation he was apt to run himself out of breath; his manner was jerky and spasmodic. He showed quite a deferential regard for the sophists and rhetoricians of the time, and advanced them to high offices of state; there was real cause for fear that he would introduce the government of pedants in the Roman empire. Last of all, his love for the old philosophy was sadly disfigured by his devotion to the old superstitions. He was greatly given to divination; he was noted for the number of his sacrificial victims. Wits applied to him the joke that had been passed on Marcus Aurelius: "The white cattle to Marcus Caesar, greeting. If you conquer, there is an end of us."

BIBLIOGRAPHY.—The works of Julian, of which there are complete editions by E. Spanheim (Leipzig, 1696) and F. C. Hertlein (Teubner series, 1875-1876), consist of the following: (1) *Letters*, of which more than eighty have been preserved under his name, although the genuineness of several has been disputed. For his views on religious toleration and his attitude towards Christians and Jews the most important are 25-27, 51, 52, and the fragment in Hertlein, i. 371. The letter of Gallus to Julian, warning him against reverting to heathenism, is probably a Christian forgery. Six new letters were discovered in 1884 by A. Papadopoulos Kerameus in a monastery on the island of Chalcis near Constantinople (see *Rheinisches Museum*, xlii., 1887). Separate edition of the letters by L. H. Heyler (1828); see also J. Bidez and F. Cumont, "Recherches sur la tradition MS. des lettres de l'empereur Julian" in *Mémoires couronnés ... publiés par l'Acad. royale de Belgique*, lvii. (1898) and F. Cumont, *Sur l'authenticité de quelques lettres de Julien* (1889). (2) *Orationes*, eight in number—two panegyrics

on Constantius, one on the empress Eusebia, two theosophical declamations on King Helios and the Mother of the Gods, two essays on true and false cynicism, and a consolatory address to himself on the departure of his friend Salustius to the East. (3) *Caesares or Symposium*, a satirical composition after the manner of Seneca's *Apocolocyntosis*, in which the deified Caesars appear in succession at a banquet given in Olympus, to be censured for their vices and crimes by old Silenus. (4) *Misopogon* (the beard-hater), written at Antioch, a satire on the licentiousness of its inhabitants; while at the same time his own person and manner of life are treated in a whimsical spirit. It also contains a charming description of Lutetia (Paris). It owes its name to the ridicule heaped upon his beard by the Antiocheans, who were in the habit of shaving. (5) Five epigrams, two of which (*Anth. Pal.*, ix. 365, 368) are of some interest. (6) *Κατὰ Χριστιανῶν* (*Adversus Christianos*) in three books, an attack on Christianity written during the Persian campaign, is lost. Theodosius II. ordered all copies of it to be destroyed, and our knowledge of its contents is derived almost entirely from the *Contra Julianum* of Cyril, bishop of Alexandria, written sixty years later (see *Juliani librorum contra Christianos quae supersunt*, ed. C. J. Neumann 1880). *English Translations*: Select works by J. Duncombe (1784) containing all except the first seven orations (viii. and the fable from vii. are included): the theosophical addresses to King Helios and the Mother of the Gods by Thomas Taylor (1793) and C. W. King in Bohn's *Classical Library* (1888); the public letters, by E. J. Chinnock (1901).

AUTHORITIES.—1. *Ancient*. (a) Pagan writers. Of these the most trustworthy and impartial is the historian Ammianus Marcellinus (xv. 8-xxv.), a contemporary and in part an eye-witness of the events he describes (other historians are Zosimus and Eutropius); the sophist Libanius, who in speaking of his imperial friend shows himself creditably free from exaggeration and servility; Eunapius (in his lives of Maximus, Oribasius, the physician and friend of Julian, and Prohaeresius) and Claudius Mamertinus, the panegyrist, are less trustworthy. (b) Christian writers. Gregory of Nazianzus, the author of two violent invectives against Julian; Rufinus; Socrates; Sozomen; Theodoret; Philostorgius; the poems of Ephraem Syrus written in 363; Zonaras; Cedrenus; and later Byzantine chroniclers. The impression which Julian produced on the Christians of the East is reflected in two Syriac romances published by J. G. E. Hoffmann, *Julianos der Abtrünnige* (1880; see also Th. Nöldeke in *Zeitschrift der deutschen morgenländischen Gesellschaft* [1874], xxviii. 263).

2. *Modern*. For works before 1878 see R. Engelmann, *Scriptores Graeci* (8th ed., by E. Preuss, 1880). Of later works the most important are G. H. Rendall, *The Emperor Julian, Paganism and Christianity* (1879); Alice Gardner, *Julian, Philosopher and Emperor* (1895); G. Negri, *Julian the Apostate* (Eng. trans., 1905); E. Müller, *Kaiser Flavius Claudius Julianus* (1901); P. Allard, *Julien l'apostat* (1900-1903); G. Mau, *Die Religionsphilosophie Kaiser Julians in seinen Reden auf König Helios und die Göttermutter* (1907); J. E. Sandys, *Hist. of Classical Scholarship* (1906), p. 356; W. Christ, *Geschichte der griechischen Litteratur* (1898), § 603; J. Geffcken, "Kaiser Julianus und die Streitschriften seiner Gegner," in *Neue Jahrb. f. das klassische Altertum* (1908), pp. 161-195. The sketch by Gibbon (*Decline and Fall*, chs. xix., xxii.-xxiv.) and the articles by J. Wordsworth in Smith's *Dictionary of Christian Biography* and A. Harnack in Herzog-Hauck's *Realencyklopädie für protestantische Theologie* ix. (1901) are valuable, the last especially for the bibliography.

(T. K.; J. H. F.)

- 1 For the date of Julian's birth see Gibbon's *Decline and Fall* (ed. Bury), ii. 247, note 11. The choice seems to lie between May 331 and May 332. If the former be adopted, Julian must have died in the thirty-third, not the thirty-second, year of his age (as stated in Ammianus Marcellinus, xxv. 3, 23).



JÜLICH (Fr. *Juliers*), a town of Germany, in the Prussian Rhine province, on the right bank of the Roer, 16 m. N.E. of Aix-la-Chapelle. Pop. (1900), 5459. It contains an Evangelical and two Roman Catholic churches, a gymnasium, a school for non-commissioned officers, which occupies the former ducal palace, and a museum of local antiquities. Its manufactures include sugar, leather and paper. Jülich (formerly also Gülch, Guliche) the capital of the former duchy of that name, is the Juliacum of the *Antonini Itinerarium*; some have attributed its origin to Julius Caesar. It became a fortress in the 17th century, and was captured by the archduke Leopold in 1609, by the Dutch under Maurice of Orange in 1610, and by the Spaniards in 1622. In 1794 it was taken by the French, who held it until the peace of Paris in 1814. Till 1860, when its works were demolished, Jülich ranked as a fortress of the second class.

JÜLICH, OR JULIERS, DUCHY OF. In the 9th century a certain Matfried was count of Jülich (pagus Juliacensis), and towards the end of the 11th century one Gerhard held this dignity. This Gerhard founded a family of hereditary counts, who held Jülich as immediate vassals of the emperor, and in 1356 the county was raised to the rank of a duchy. The older and reigning branch of the family died in 1423, when Jülich passed to Adolph, duke of Berg (d. 1437), who belonged to a younger branch, and who had obtained Berg by virtue of the marriage of one of his ancestors. Nearly a century later Mary (d. 1543) the heiress of these two duchies, married John, the heir of the duchy of Cleves, and in 1521 the three duchies, Jülich, Berg and Cleves, together with the counties of Ravensberg and La Marck, were united under John's sway. John died in 1539 and was succeeded by his son William who

reigned until 1592.

At the beginning of the 17th century the duchies became very prominent in European politics. The reigning duke, John William, was childless and insane, and several princes were only waiting for his demise in order to seize his lands. The most prominent of these princes were two Protestant princes, Philip Louis, count palatine of Neuburg, who was married to the duke's sister Anna, and John Sigismund, elector of Brandenburg, whose wife was the daughter of another sister. Two other sisters were married to princes of minor importance. Moreover, by virtue of an imperial promise made in 1485 and renewed in 1495, the elector of Saxony claimed the duchies of Jülich and Berg, while the proximity of the coveted lands to the Netherlands made their fate a matter of great moment to the Dutch. When it is remembered that at this time there was a great deal of tension between the Roman Catholics and the Protestants, who were fairly evenly matched in the duchies, and that the rivalry between France and the Empire was very keen, it will be seen that the situation lacked no element of discord. In March 1609 Duke John William died. Having assured themselves of the support of Henry IV. of France and of the Evangelical Union, Brandenburg and Neuburg at once occupied the duchies. To counter this stroke and to support the Saxon claim, the emperor Rudolph II. ordered some imperialist and Spanish troops to seize the disputed lands, and it was probably only the murder of Henry IV. in May 1610 and the death of the head of the Evangelical Union, the elector palatine, Frederick IV., in the following September, which prevented, or rather delayed, a great European war. About this time the emperor adjudged the duchies to Saxony, while the Dutch captured the fortress of Jülich; but for all practical purposes victory remained with the "possessing princes," as Brandenburg and Neuburg were called, who continued to occupy and to administer the lands. These two princes had made a compact at Dortmund in 1609 to act together in defence of their rights, but proposals for a marriage alliance between the two houses broke down and differences soon arose between them. The next important step was the timely conversion of the count palatine's heir, Wolfgang William of Neuburg, to Roman Catholicism, and his marriage with a daughter of the powerful Roman Catholic prince, Duke Maximilian of Bavaria. The rupture between the possessing princes was now complete. Each invited foreign aid. Dutch troops marched to assist the elector of Brandenburg and Spanish ones came to aid the count palatine, but through the intervention of England and France peace was made and the treaty of Xanten was signed in November 1614. By this arrangement Brandenburg obtained Jülich and Berg, the rest of the lands falling to the count palatine. In 1666 the great elector, Frederick William of Brandenburg, made with William, count palatine of Neuburg, a treaty of mutual succession to the duchies, providing that in case the male line of either house became extinct the other should inherit its lands.

The succession to the duchy of Jülich was again a matter of interest in the earlier part of the 18th century. The family of the counts palatine of Neuburg was threatened with extinction and the emperor Charles VI. promised the succession to Jülich to the Prussian king, Frederick William I., in return for a guarantee of the pragmatic sanction. A little later, however, he promised the same duchy to the count palatine of Sulzbach, a kinsman of the count palatine of Neuburg. Then Frederick the Great, having secured Silesia, abandoned his claim to Jülich, which thus passed to Sulzbach when, in 1742, the family of Neuburg became extinct. From Sulzbach the duchy came to the electors palatine of the Rhine, and, when this family died out in 1799, to the elector of Bavaria, the head of the other branch of the house of Wittelsbach. In 1801 Jülich was seized by France, and by the settlement of 1815 it came into the hands of Prussia. Its area was just over 1600 sq. m. and its population about 400,000.

See Kuhl, *Geschichte der Stadt Jülich*; M. Ritter, *Sachsen und der Jülicher Erbfolgestreit* (1873), and *Der Jülicher Erbfolgekrieg, 1610 und 1611* (1877); A. Müller, *Der Jülich-Klevesche Erbfolgestreit im Jahre 1614* (1900) and H. H. Koch, *Die Reformation im Herzogtum Jülich* (1883-1888).



JULIEN, STANISLAS (1797?-1873), French orientalist, was born at Orleans, probably on the 13th of April 1797. Stanislas Julien, a mechanic of Orleans, had two sons, Noël, born on the 13th of April 1797, and Stanislas, born on the 20th of September 1799. It appears that the younger son died in America, and that Noël then adopted his brother's name. He studied classics at the collège de France, and in 1821 was appointed assistant professor of Greek. In the same year he published an edition of the Ἑλένης ἀρπαγή of Coluthus, with versions in French, Latin, English, German, Italian and Spanish. He attended the lectures of Abel Rémusat on Chinese, and his progress was as rapid as it had been in other languages. From the first, as if by intuition, he mastered the genius of the language; and in 1824 he published a Latin translation of a part of the works of Mencius (Mang-tse), one of the nine classical books of the Chinese. Soon afterwards he translated the modern Greek odes of Kalvos under the title of *La Lyre patriotique de la Grèce*. But such works were not profitable in a commercial sense, and, being without any patrimony, Julien was glad to accept the assistance of Sir William Drummond and others, until in 1827 he was appointed sublibrarian to the French institute. In 1832 he succeeded Rémusat as professor of Chinese at the collège de France. In 1833 he was elected

a member of the Académie des Inscriptions in the place of the orientalist, Antoine Jean Saint-Martin. For some years his studies had been directed towards the dramatic and lighter literature of the Chinese, and in rapid succession he now brought out translations of the *Hoei-lan-ki* (*L'Histoire du cercle de craie*), a drama in which occurs a scene curiously analogous to the judgment of Solomon; the *Pih shay tsing ki*; and the *Tchao-chi kou eul*, upon which Voltaire had founded his *Orphelin de la Chine* (1755). With the versatility which belonged to his genius, he next turned, apparently without difficulty, to the very different style common to Taoist writings, and translated in 1835 *Le Livre des récompenses et des peines* of Lao-tsze. About this time the cultivation of silkworms was beginning to attract attention in France, and by order of the minister of agriculture Julien compiled, in 1837, a *Résumé des principaux traités chinois sur la culture des mûriers, et l'éducation des vers-à-soie*, which was speedily translated into English, German, Italian and Russian.

Nothing was more characteristic of his method of studying Chinese than his habit of collecting every peculiarity of idiom and expression which he met with in his reading; and, in order that others might reap the benefit of his experiences, he published in 1841 *Discussions grammaticales sur certaines règles de position qui, en chinois, jouent le même rôle que les inflexions dans les autres langues*, which he followed in 1842 by *Exercices pratiques d'analyse, de syntaxe, et de lexigraphie chinoise*. Meanwhile in 1839, he had been appointed joint keeper of the Bibliothèque royale, with the especial superintendence of the Chinese books, and shortly afterwards he was made administrator of the collège de France.

The facility with which he had learned Chinese, and the success which his proficiency commanded, naturally inclined less gifted scholars to resent the impatience with which he regarded their mistakes, and at different times bitter controversies arose between Julien and his fellow sinologues on the one subject which they had in common. In 1842 appeared from his busy pen a translation of the *Tao te King*, the celebrated work in which Lao-tsze attempted to explain his idea of the relation existing between the universe and something which he called *Tao*, and on which the religion of Taoism is based. From Taoism to Buddhism was a natural transition, and about this time Julien turned his attention to the Buddhist literature of China, and more especially to the travels of Buddhist pilgrims to India. In order that he might better understand the references to Indian institutions, and the transcriptions in Chinese of Sanskrit words and proper names, he began the study of Sanskrit, and in 1853 brought out his *Voyages du pèlerin Hiouen-tsang*, which is regarded by some critics as his most valuable work. Six years later he published *Les Avadânas, contes et apologues Indiens inconnus jusqu'à ce jour, suivis de poésies et de nouvelles chinoises*. For the benefit of future students he disclosed his system of deciphering Sanskrit words occurring in Chinese books in his *Méthode pour déchiffrer et transcrire les noms sanscrits qui se rencontrent dans les livres chinois* (1861). This work, which contains much of interest and importance, falls short of the value which its author was accustomed to attach to it. It had escaped his observation that, since the translations of Sanskrit works into Chinese were undertaken in different parts of the empire, the same Sanskrit words were of necessity differently represented in Chinese characters in accordance with the dialectical variations. No hard and fast rule can therefore possibly be laid down for the decipherment of Chinese transcriptions of Sanskrit words, and the effect of this impossibility was felt though not recognized by Julien, who in order to make good his rule was occasionally obliged to suppose that wrong characters had by mistake been introduced into the texts. His Indian studies led to a controversy with Joseph Toussaint Reinaud, which was certainly not free from the gall of bitterness. Among the many subjects to which he turned his attention were the native industries of China, and his work on the *Histoire et fabrication de la porcelaine chinoise* is likely to remain a standard work on the subject. In another volume he also published an account of the *Industries anciennes et modernes de l'empire chinois* (1869), translated from native authorities. In the intervals of more serious undertakings he translated the *San tseu King* (*Le Livre des trois mots*); *Thsien tseu wen* (*Le Livre de mille mots*); *Les Deux cousines*; *Nouvelles chinoises*; the *Ping chan ling yen* (*Les Deux jeunes filles lettrées*); and the *Dialoghi Cinesi, Ji-tch'ang k' eou-t' eou-koa*. His last work of importance was *Syntaxe nouvelle de la langue chinoise* (1869), in which he gave the result of his study of the language, and collected a vast array of facts and of idiomatic expressions. A more scientific arrangement and treatment of his subject would have added much to the value of this work, which, however, contains a mine of material which amply repays exploration. One great secret by which Julien acquired his grasp of Chinese, was, as we have said, his methodical collection of phrases and idiomatic expressions. Whenever in the course of his reading he met with a new phrase or expression, he entered it on a card which took its place in regular order in a long series of boxes. At his death, which took place on the 14th of February 1873, he left, it is said, 250,000 of such cards, about the fate of which, however, little seems to be known. In politics Julien was imperialist, and in 1863 he was made a commander of the legion of honour in recognition of the services he had rendered to literature during the second empire.

See notice and bibliography by Wallon, *Mém. de l'Acad. des Inscr.* (1884), xxxi. 409-458.

(R. K. D.)



JULIUS, the name of three popes.

JULIUS I., pope from 337 to 352, was chosen as successor of Marcus after the Roman see had been vacant four months. He is chiefly known by the part which he took in the Arian controversy. After the Eusebians had, at a synod held in Antioch, renewed their deposition of Athanasius they resolved to send delegates to Constans, emperor of the West, and also to Julius, setting forth the grounds on which they had proceeded. The latter, after expressing an opinion favourable to Athanasius, adroitly invited both parties to lay the case before a synod to be presided over by himself. This proposal, however, the Eastern bishops declined to accept. On his second banishment from Alexandria, Athanasius came to Rome, and was recognized as a regular bishop by the synod held in 340. It was through the influence of Julius that, at a later date, the council of Sardica in Illyria was held, which was attended only by seventy-six Eastern bishops, who speedily withdrew to Philippopolis and deposed Julius, along with Athanasius and others. The Western bishops who remained confirmed the previous decisions of the Roman synod; and by its 3rd, 4th and 5th decrees relating to the rights of revision, the council of Sardica endeavoured to settle the procedure of ecclesiastical appeals. Julius on his death in April 352 was succeeded by Liberius.

(L. D.*)

JULIUS II. (Giuliano della Rovere), pope from the 1st of November 1503 to the 21st of February 1513, was born at Savona in 1443. He was at first intended for a commercial career, but later was sent by his uncle, subsequently Sixtus IV., to be educated among the Franciscans, although he does not appear to have joined that order. He was loaded with favours during his uncle's pontificate, being made bishop of Carpentras, bishop of Bologna, bishop of Vercelli, archbishop of Avignon, cardinal-priest of S. Pietro in Vincoli and of Sti Dodici Apostoli, and cardinal-bishop of Sabina, of Frascati, and finally of Ostia and Velletri. In 1480 he was made legate to France, mainly to settle the question of the Burgundian inheritance, and acquitted himself with such ability during his two years' stay that he acquired an influence in the college of cardinals which became paramount during the pontificate of Innocent VIII. A rivalry, however, growing up between him and Roderigo Borgia, he took refuge at Ostia after the latter's election as Alexander VI., and in 1494 went to France, where he incited Charles VIII. to undertake the conquest of Naples. He accompanied the young king on his campaign, and sought to convoke a council to inquire into the conduct of the pope with a view to his deposition, but was defeated in this through Alexander's machinations. During the remainder of that pontificate Della Rovere remained in France, nominally in support of the pope, for whom he negotiated the treaty of 1498 with Louis XII., but in reality bitterly hostile to him. On the death of Alexander (1503) he returned to Italy and supported the election of Pius III., who was then suffering from an incurable malady, of which he died shortly afterwards. Della Rovere then won the support of Cesare Borgia and was unanimously elected pope. Julius II. from the beginning repudiated the system of nepotism which had flourished under Sixtus IV., Innocent VIII. and Alexander VI., and set himself with courage and determination to restore, consolidate and extend the temporal possessions of the Church. By dexterous diplomacy he first succeeded (1504) in rendering it impossible for Cesare Borgia to remain in Italy. He then pacified Rome and the surrounding country by reconciling the powerful houses of Orsini and Colonna and by winning the other nobles to his own cause. In 1504 he arbitrated on the differences between France and Germany, and concluded an alliance with them in order to oust the Venetians from Faenza, Rimini and other towns which they occupied. The alliance at first resulted only in compelling the surrender of a few unimportant fortresses in the Romagna; but Julius freed Perugia and Bologna in the brilliant campaign of 1506. In 1508 he concluded against Venice the famous league of Cambray with the emperor Maximilian, Louis XII. of France and Ferdinand of Aragon, and in the following year placed the city of Venice under an interdict. By the single battle of Agnadello the Italian dominion of Venice was practically lost; but as the allies were not satisfied with merely effecting his purposes, the pope entered into a combination with the Venetians against those who immediately before had been engaged in his behalf. He absolved the Venetians in the beginning of 1510, and shortly afterwards placed the ban on France. At a synod convened by Louis XII. at Tours in September, the French bishops announced their withdrawal from the papal obedience and resolved, with Maximilian's co-operation, to seek the deposition of Julius. In November 1511 a council actually met at Pisa for this object, but its efforts were fruitless. Julius forthwith formed the Holy league with Ferdinand of Aragon and with Venice against France, in which both Henry VIII. and the emperor ultimately joined. The French were driven out of Italy in 1512 and papal authority was once more securely established in the states immediately around Rome. Julius had already issued, on the 18th of July 1511, the summons for a general council to deal with France, with the reform of the Church, and with a war against the Turks. This council, which is known as the Fifth Lateran, assembled on the 3rd of May 1512, condemned the celebrated pragmatic sanction of the French church, and was still in session when Julius died. In the midst of his combats, Julius never neglected his ecclesiastical duties. His bull of the 14th of January 1505 against simony in papal elections was re-enacted by the Lateran council (February 16, 1513). He condemned duelling by bull of the 24th of February 1509. He effected some reforms in the monastic orders; urged the conversion of the sectaries in Bohemia; and sent missionaries to America, India, Abyssinia and the Congo. His government of the Papal States was excellent. Julius is deserving of particular honour for his patronage of art and literature. He did much to improve and beautify Rome; he laid the foundation-stone of St Peter's (April 18, 1506); he founded the Vatican museum; and he was a friend and patron of Bramante, Raphael and Michelangelo. While moderate in personal expenditure, Julius resorted to objectionable means of replenishing the papal treasury, which had been exhausted by Alexander VI., and of providing funds for his numerous enterprises; simony and traffic in indulgences were

increasingly prevalent. Julius was undoubtedly in energy and genius one of the greatest popes since Innocent III., and it is a misfortune of the Church that his temporal policy eclipsed his spiritual office. Though not despising the Machiavellian arts of statecraft so universally practised in his day, he was nevertheless by nature plain-spoken and sincere, and in his last years grew violent and crabbed. He died of a fever on the 21st of February 1513, and was succeeded by Leo X.

See L. Pastor, *History of the Popes*, vol. vi., trans. by F. I. Antrobus (1898); M. Creighton, *History of the Papacy*, vol. v. (1901); F. Gregorovius, *Rome in the Middle Ages*, vol. viii., trans. by Mrs G. W. Hamilton (1900-1902); Hefele-Hergenröther, *Conciliengeschichte*, vol. viii., 2nd ed.; J. Klaczko, *Rome et la renaissance ... Jules II.* (1898), trans. into English by J. Dennie (New York, 1903); M. Brosch, *Papst Julius II. u. die Gründung des Kirchenstaates* (1878); A. J. Dumesnil, *Histoire de Jules II.* (1873); J. J. I. von Döllinger, *Beiträge zur polit., kirchl., u. Cultur-Geschichte der sechs letzten Jahrhunderte*, vol. iii. (1882); A. Schulte, *Die Fugger in Rom 1495-1523, mit Studien zur Gesch. des kirchlichen Finanzwesens jener Zeit* (1904).

(C. H. HA.)

JULIUS III. (Giovanni Maria del Monte), pope from 1550 to 1555, was born on the 10th of September 1487. He was created cardinal by Paul III. in 1536, filled several important legations, and was elected pope on the 7th of February 1550, despite the opposition of Charles V., whose enmity he had incurred as president of the council of Trent. Love of ease and desire for peace moved him, however, to adopt a conciliatory attitude, and to yield to the emperor's desire for the reassembling of the council (September 1551), suspended since 1549. But deeming Charles's further demands inconvenient, he soon found occasion in the renewal of hostilities to suspend the council once more (April 1552). As an adherent of the emperor he suffered in consequence of imperial reverses, and was forced to confirm Parma to Ottavio Farnese, the ally of France (1552). Weary of politics, and obeying a natural inclination to pleasure, Julius then virtually abdicated the management of affairs, and gave himself up to enjoyment, amusing himself with the adornment of his villa, near the Porta del Popolo, and often so far forgetting the proprieties of his office as to participate in entertainments of a questionable character. His nepotism was of a less ambitious order than that of Paul III.; but he provided for his family out of the offices and revenues of the Church, and advanced unworthy favourites to the cardinalate. What progress reform made during his pontificate was due to its acquired momentum, rather than to the zeal of the pope. Yet under Julius steps were taken to abolish plurality of benefices and to restore monastic discipline; the Collegium Germanicum, for the conversion of Germans, was established in Rome, 1552; and England was absolved by the cardinal-legate Pole, and received again into the Roman communion (1554). Julius died on the 23rd of March 1555, and was succeeded by Marcellus II.

See Panvinio, continuator of Platina, *De Vitis Pontiff. Rom.*; Ciaconius, *Vitae et res gestae summorum Pontiff. Rom.* (Rome, 1601-1602) (both contemporaries of Julius III.); Ranke, *Popes* (Eng. trans., Austin), i. 276 seq.; v. Reumont, *Gesch. der Stadt Rom.*, iii. 2, 503 seq.; Brosch, *Gesch. des Kirchenstaates* (1880), i. 189 seq.; and extended bibliography in Herzog-Hauck, *Realencyklopädie*, s.v. "Julius III."

(T. F. C.)



JULLIEN, LOUIS ANTOINE (1812-1860), musical conductor, was born at Sisteron, Basses Alpes, France, on the 23rd of April 1812, and studied at the Paris conservatoire. His fondness for the lightest forms of music cost him his position in the school, and after conducting the band of the Jardin Turc he was compelled to leave Paris to escape his creditors, and came to London, where he formed a good orchestra and established promenade concerts. Subsequently he travelled to Scotland, Ireland and America with his orchestra. For many years he was a familiar figure in the world of popular music in England, and his portly form with its gorgeous waistcoats occurs very often in the early volumes of *Punch*. He brought out an opera, *Pietro il Grande*, at Covent Garden (1852) on a scale of magnificence that ruined him, for the piece was a complete failure. He was in America until 1854, when he returned to London for a short time; ultimately he went back to Paris, where, in 1859, he was arrested for debt and put into prison. He lost his reason soon afterwards, and died on the 14th of March 1860.



JULLUNDUR, or JALANDHAR, a city of British India, giving its name to a district and a division in the Punjab. The city is 260 m. by rail N.W. of Delhi. Pop. (1901), 67,735. It is the headquarters of a brigade in the 3rd division of the northern army. There are an American Presbyterian mission, a

government normal school, and high schools supported by Hindu bodies.

The DISTRICT OF JULLUNDUR occupies the lower part of the tract known as the Jullundur Doab, between the rivers Sutlej and Beas, except that it is separated from the Beas by the state of Kapurthala. Area, 1431 sq. m. Pop. (1901), 917,587, showing an increase of 1% in the decade; the average density is 641 persons per square mile, being the highest in the province. Cotton-weaving and sugar manufacture are the principal industries for export trade, and silk goods and wheat are also exported. The district is crossed by the main line of the North-Western railway from Phillaur towards Amritsar.

The Jullundur Doab in early times formed the Hindu kingdom of Katoch, ruled by a family of Rajputs whose descendants still exist in the petty princes of the Kangra hills. Under Mahomedan rule the Doab was generally attached to the province of Lahore, in which it is included as a *circar* or governorship in the great revenue survey of Akbar. Its governors seem to have held an autonomous position, subject to the payment of a fixed tribute into the imperial treasury. The Sikh revival extended to Jullundur at an early period, and a number of petty chieftains made themselves independent throughout the Doab. In 1766 the town of Jullundur fell into the hands of the Sikh confederacy of Faiz-ulla-puria, then presided over by Khushal Singh. His son and successor built a masonry fort in the town, while several other leaders similarly fortified themselves in the suburbs. Meanwhile, Ranjit Singh was consolidating his power in the south, and in 1811 he annexed the Faiz-ulla-puria dominions. Thenceforth Jullundur became the capital of the Lahore possessions in the Doab until the British annexation at the close of the first Sikh war (1846).

The DIVISION OF JULLUNDUR comprises the five districts of Kangra, Hoshiarpur, Jullundur, Ludhiana and Ferozepore, all lying along the river Sutlej. Area, 19,410 sq. m. Pop. (1901), 4,306,662.

See *Jullundur District Gazetteer* (Lahore, 1908).



JULY, the seventh month in the Christian calendar, consisting of thirty-one days. It was originally the fifth month of the year, and as such was called by the Romans *Quintilis*. The later name of Julius was given in honour of Julius Caesar (who was born in the month); it came into use in the year of his death. The Anglo-Saxons called July *Hegmônath*, "hay-month," or *Maed-mônath*, "mead-month," the meadows being then in bloom. Another name was *aftera líða*, "the latter mild month," in contradistinction to June, which was named "the former mild month." Chief dates of the month: 3rd July, Dog Days begin; 15th July, St Swithin; 25th July, St James.



JUMALA, the supreme god of the ancient Finns and Lapps. Among some tribes he is called Num or Jilibembaertje, as protector of the flocks. Jumala indicates rather godhead than a divine being. In the runes Ukko, the grandfather, the sender of the thunder, takes the place of Jumala.



JUMIÈGES, a village of north-western France, in the department of Seine-Inférieure, 17 m. W. of Rouen by road, on a peninsula formed by a bend of the Seine. Pop. (1906), 244. Jumièges is famous for the imposing ruins of its abbey, one of the great establishments of the Benedictine order. The principal remains are those of the abbey-church, built from 1040 to 1067; these comprise the façade with two towers, the walls of the nave, a wall and sustaining arch of the great central tower and débris of the choir (restored in the 13th century). Among the minor relics, preserved in a small museum in a building of the 14th century, are the stone which once covered the grave of Agnes Sorel, and two recumbent figures of the 13th century, commonly known as the *Énergés*, and representing, according to one legend, two sons of Clovis II., who, as a punishment for revolt against their father, had the tendons of their arms and legs cut, and were set adrift in a boat on the Seine. Another tradition states that the statues represent Thassilo, duke of Bavaria, and Theodo his son, relegated to Jumièges by Charlemagne. The church of St Pierre, which adjoins the south side of the

abbey-church, was built in the 14th century as a continuation of a previous church of the time of Charlemagne, of which a fragment still survives. Among the other ruins, those of the chapter-house (13th century) and refectory (12th and 15th centuries) also survive.

The abbey of Jumièges was founded about the middle of the 7th century by St Philibert, whose name is still to be read on gold and silver coins obtained from the site. The abbey was destroyed by the Normans, but was rebuilt in 928 by William Longsword, duke of Normandy, and continued to exist till 1790. Charles VII. often resided there with Agnes Sorel, who had a manor at Mesnil-sous-Jumièges in the neighbourhood, and died in the monastery in 1450.



JUMILLA, a town of eastern Spain, in the province of Murcia, 40 m. N. by W. of Murcia by road, on the right bank of the Arroyo del Jua, a left-bank tributary of the Segura. Pop. (1900), 16,446. Jumilla occupies part of a narrow valley, enclosed by mountains. An ancient citadel, several churches, a Franciscan convent, and a hospital are the principal buildings. The church of Santiago is noteworthy for its fine paintings and frescoes, some of which have been attributed, though on doubtful authority, to Peter Paul Rubens and other illustrious artists. The local trade is chiefly in coarse cloth, esparto fabrics, wine and farm produce.



JUMNA, or **JAMUNA**, a river of northern India. Rising in the Himalayas in Tehri state, about 5 m. N. of the Jamnatri hot springs, in 31° 3' N. and 78° 30' E., the stream first flows S. for 7 m., then S.W. for 32 m., and afterwards due S. for 26 m., receiving several small tributaries in its course. It afterwards turns sharply to the W. for 14 m., when it is joined by the large river Tons from the north. The Jumna here emerges from the Himalayas into the valley of the Dun, and flows in a S.W. direction for 22 m., dividing the Kiarda Dun on the W. from the Dehra Dun on the E. It then, at the 95th mile of its course, forces its way through the Siwalik hills, and debouches upon the plains of India at Fyzabad in Saharanpur district. By this time a large river, it gives off, near Fyzabad, the eastern and western Jumna canals. From Fyzabad the river flows for 65 m. in a S.S.W. direction, receiving the Maskarra stream from the east. Near Bidhaulti, in Muzaffarnagar district, it turns due S. for 80 m. to Delhi city, thence S.E. for 27 m. to near Dankaur, receiving the waters of the Hindan river on the east. From Dankaur it resumes its southerly course for 100 m. to Mahaban near Muttra, where it turns E. for nearly 200 m., passing the towns of Agra, Ferozabad and Etawah, receiving on its left bank the Karwan-nadi, and on its right the Banganga (Utanghan). From Etawah it flows 140 m. S.E. to Hamirpur, being joined by the Sengar on its north bank, and on the south by the great river Chambal from the west, and by the Sind. From Hamirpur, the Jumna flows nearly due E., until it enters Allahabad district and passes Allahabad city, below which it falls into the Ganges in 25° 25' N. and 81° 55' E. In this last part of its course it receives the waters of the Betwa and the Ken. Where the Jumna and the Ganges unite is the *prayag*, or place of pilgrimage, where devout Hindus resort in thousands to wash and be sanctified.

The Jumna, after issuing from the hills, has a longer course through the United Provinces than the Ganges, but is not so large nor so important a river; and above Agra in the hot season it dwindles to a small stream. This is no doubt partly caused by the eastern and western Jumna canals, of which the former, constructed in 1823-1830, irrigates 300,000 acres in the districts of Saharanpur, Muzaffarnagar and Meerut, in the United Provinces; while the latter, consisting of the reopened channels of two canals dating from about 1350 and 1628 respectively, extends through the districts of Umballa, Karnal, Hissar, Rohtak and Delhi, and the native states of Patiala and Jind in the Punjab, irrigating 600,000 acres. The headworks of the two canals are situated near the point where the river issues from the Siwāliks.

The traffic on the Jumna is not very considerable; in its upper portion timber, and in the lower stone, grain and cotton are the chief articles of commerce, carried in the clumsy barges which navigate its stream. Its waters are clear and blue, while those of the Ganges are yellow and muddy; the difference between the streams can be discerned for some distance below the point at which they unite. Its banks are high and rugged, often attaining the proportions of cliffs, and the ravines which run into it are deeper and larger than those of the Ganges. It traverses the extreme edge of the alluvial plain of Hindustan, and in the latter part of its course it almost touches the Bundelkhand offshoots of the Vindhya range of mountains. Its passage is therefore more tortuous, and the scenery along its banks more varied and pleasing, than is the case with the Ganges.

The Jumna at its source near Jamnotri is 10,849 ft. above the sea-level; at Kotnur, 16 m. lower, it is only 5036 ft.; so that, between these two places, it falls at the rate of 314 ft. in a mile. At its junction with the Tons it is 1686 ft. above the sea; at its junction with the Asan, 1470 ft.; and at the point where it issues from the Siwālik hills into the plains, 1276 ft. The catchment area of the river is 118,000 sq. m.; its flood discharge at Allahabad is estimated at 1,333,000 cub. ft. per second. The Jumna is crossed by railway bridges at Delhi, Muttra, Agra and Allahabad, while bridges of boats are stationed at many places.



JUMPING,¹ a branch of athletics which has been cultivated from the earliest times (see [ATHLETIC SPORTS](#)). Leaping competitions formed a part of the *pentathlon*, or quintuple games, of the Olympian festivals, and Greek chronicles record that the athlete Phayllus jumped a distance of 55 Olympian, or more than 30 English, feet. Such a leap could not have been made without weights carried in the hands and thrown backwards at the moment of springing. These were in fact employed by Greek jumpers and were called *haltēres*. They were masses of stone or metal, nearly semicircular, according to Pausanias, and the fingers grasped them like the handles of a shield. Halteres were also used for general exercise, like modern dumb-bells. The Olympian jumping took place to the music of lutes.

Jumping has always been popular with British athletes, and tradition has handed down the record of certain leaps that border on the incredible. Two forms of jumping are included in modern athletic contests, the running long jump and the running high jump; but the same jumps, made from a standing position, are also common forms of competition, as well as the hop step and jump, two hops and jump, two jumps, three jumps, five jumps and ten jumps, either with a run or from a standing position. These events are again divided into two categories by the use of weights, which are not allowed in championship contests.

In the running long jump anything over 18 ft. was once considered good, while Peter O'Connor's world's record (1901) is 24 ft. 11¾ in. The jump is made, after a short fast run on a cinder path, from a joist sunk into the ground flush with the path, the jumper landing in a pit filled with loose earth, its level a few inches below that of the path. The joist, called the "take-off," is painted white, and all jumps are measured from its edge to the nearest mark made by any part of the jumper's person in landing.

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In the standing long jump, well spiked shoes should be worn, for it is in reality nothing but a push against the ground, and a perfect purchase is of the greatest importance. Weights held in the hands of course greatly aid the jumper. Without weights J. Darby (professional) jumped 12 ft. 1½ in. and R. C. Ewry (American amateur) 11 ft. 4⅞ in. With weights J. Darby covered 14 ft. 9 in. at Liverpool in 1890, while the amateur record is 12 ft. 9½ in., made by J. Chandler and G. L. Hellwig (U.S.A.). The standing two, three, five and ten jumps are merely repetitions of the single jump, care being taken to land with the proper balance to begin the next leap. The record for two jumps without weights is 22 ft. 2½ in., made by H. M. Johnson (U.S.A.); for three jumps without weights, R. C. Ewry, 35 ft. 7¼ in.; with weights J. Darby, 41 ft. 7 in.

The hop step and jump is popular in Ireland and often included in the programmes of minor meetings, and so is the two hops and a jump. The record for the first, made by W. McManus, is 49 ft. 2½ in. with a run and without weights; for the latter, also with a run and without weights, 49 ft. ½ in., made by J. B. Conolly.

In the running high jump also the standard has improved. In 1864 a jump of 5 ft. 6 in. was considered excellent. The Scotch professional Donald Dinnie, on hearing that M. J. Brooks of Oxford had jumped 6 ft. 2½ in. in 1876, wrote to the newspapers to show that upon *a priori* grounds such an achievement was impossible. Since then many jumpers who can clear over 6 ft. have appeared. In 1895 M. F. Sweeney of New York accomplished a jump of 6 ft. 5⅞ in. Ireland has produced many first-class high jumpers, nearly all tall men, P. Leahy winning the British amateur record in Dublin in 1898 with a jump of 6 ft. 4¾ in. The American A. Bird Page, however, although only 5 ft. 6¾ in. in height, jumped 6 ft. 4 in. High jumping is done over a light staff or lath resting upon pins fixed in two uprights upon which a scale is marked. The "take-off," or ground immediately in front of the uprights from which the spring is made, is usually grass in Great Britain and cinders in America. Some jumpers run straight at the bar and clear it with body facing forward, the knees being drawn up almost to the chin as the body clears the bar; others run and spring sideways, the feet being thrown upwards and over the bar first, to act as a kind of lever in getting the body over. There should be a shallow pit of loose earth or a mattress to break the fall.

The standing high jump is rarely seen in regular athletic meetings. The jumper stands sideways to the bar with his arms extended upwards. He then swings his arms down slowly, bending his knees at the same time, and, giving his arms a violent upward swing, springs from the ground. As the body

rises the arms are brought down, one leg is thrown over the bar, and the other pulled, almost jerked, after it. The record for the standing high jump without weights is 6 ft., by J. Darby in 1892.

By the use of a spring-board many extraordinary jumps have been made, but this kind of leaping is done only by circus gymnasts and is not recognized by athletic authorities.

For pole-jumping see [POLE-VAULTING](#).

See *Encyclopaedia of Sport*; M. W. Ford, "Running High Jump," *Outing*, vol. xviii.; "Running Broad Jump," *Outing*, vol. xix.; "Standing Jumping," *Outing*, vol. xix.; "Miscellaneous Jumping," *Outing*, vol. xx. Also *Sporting and Athletic Register* (annual).

- 1 The verb "to jump" only dates from the beginning of the 16th century. The *New English Dictionary* takes it to be of onomatopoeic origin and does not consider a connexion with Dan. *gumpe*, Icel. *goppa*, &c., possible. The earlier English word is "leap" (O.E. *hléapan*, to run, jump, cf. Ger. *laufen*).



JUMPING-HARE, the English equivalent of springhaas, the Boer name of a large leaping south and east African rodent mammal, *Pedetes caffer*, typifying a family by itself, the *Pedetidae*. Originally classed with the jerboas, to which it has no affinity, this remarkable rodent approximates in the structure of its skull to the porcupine-group, near which it is placed by some naturalists, although others consider that its true position is with the African scaly-tailed flying squirrels (*Anomaluridae*). The colour of the creature is bright rufous fawn; the eyes are large; and the bristles round the muzzle very long, the former having a fringe of long hairs. The front limbs are short, and the hind ones very long; and although the fore-feet have five toes, those of the hind-feet are reduced to four. The bones of the lower part of the hind leg (tibia and fibula) are united for a great part of their length. There are four pairs of cheek-teeth in each jaw, which do not develop roots. The jumping-hare is found in open or mountainous districts, and has habits very like a jerboa. It is nocturnal, and dwells in composite burrows excavated and tenanted by several families. When feeding it progresses on all four legs, but if frightened takes gigantic leaps on the hind-pair alone; the length of such leaps frequently reaches twenty feet, or even more. The young are generally three or four in number, and are born in the summer. A second smaller species has been named. (See [RODENTIA](#).)



JUMPING-MOUSE, the name of a North American mouse-like rodent, *Zapus hudsonius*, belonging to the family *Jaculidae* (*Dipodidae*), and the other members of the same genus. Although mouse-like in general appearance, these rodents are distinguished by their elongated hind limbs, and, typically, by the presence of four pairs of cheek-teeth in each jaw. There are five toes to all the feet, but the first in the fore-feet is rudimentary, and furnished with a flat nail. The cheeks are provided with pouches. Jumping-mice were long supposed to be confined to North America, but a species is now known from N.W. China. It is noteworthy that whereas E. Coues in 1877 recognized but a single representative of this genus, ranging over a large area in North America, A. Preble distinguishes no fewer than twenty North American species and sub-species, in addition to the one from Szechuen. Among these, it may be noted that *Z. insignis* differs from the typical *Z. hudsonius* by the loss of the premolar, and has accordingly been referred to a sub-genus apart. Moreover, the Szechuen jumping-mouse differs from the typical *Zapus* by the closer enamel-folds of the molars, the shorter ears, and the white tail-tip, and is therefore made the type of another sub-genus. In America these rodents inhabit forest, pasture, cultivated fields or swamps, but are nowhere numerous. When disturbed, they start off with enormous bounds of eight or ten feet in length, which soon diminish to three or four; and in leaping the feet scarcely seem to touch the ground. The nest is placed in clefts of rocks, among timber or in hollow trees, and there are generally three litters in a season. (See [RODENTIA](#).)



JUMPING-SHREW, a popular name for any of the terrestrial insectivora of the African family *Macroscelididae*, of which there are a number of species ranging over the African continent, representing the tree-shrews of Asia. They are small long-snouted gerbil-like animals, mainly nocturnal, feeding on insects, and characterized by the great length of the metatarsal bones, which have been modified in accordance with their leaping mode of progression. In some (constituting the genus *Rhyncocyon*) the muzzle is so much prolonged as to resemble a proboscis, whence the name elephant-shrews is sometimes applied to the members of the family.



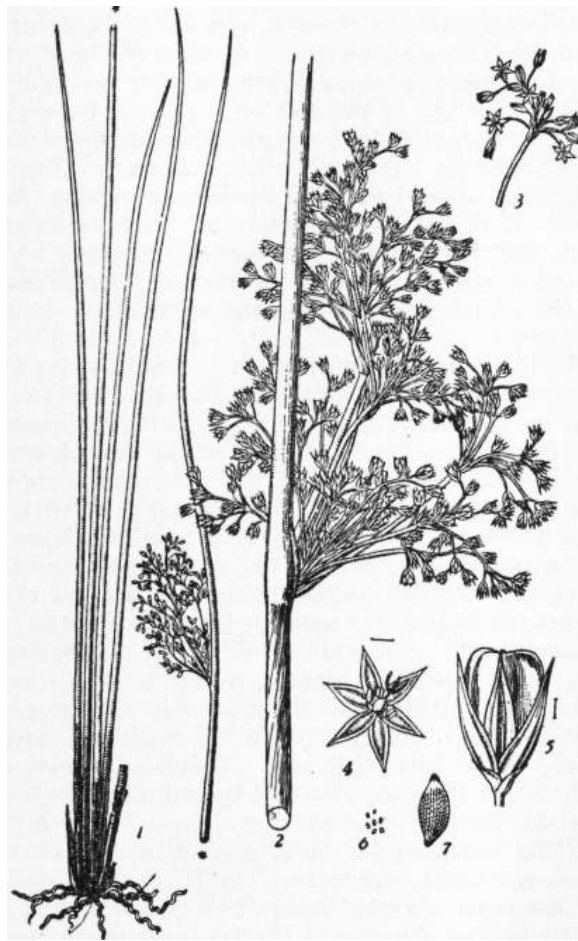
JUNAGARH, or JUNAGADH, a native state of India, within the Gujarat division of Bombay, extending inland from the southern coast of the peninsula of Kathiawar. Area, 3284 sq. m.; pop. (1901), 395,428, showing a decrease of 19% in the decade, owing to famine; estimated gross revenue, £174,000; tribute to the British government and the gaekwar of Baroda, £4200; a considerable sum is also received as tribute from minor states in Kathiawar. The state is traversed by a railway from Rajkot, to the seaport of Verawal. It includes the sacred mountain of Girnar and the ruined temple of Somnath, and also the forest of Gir, the only place in India where the lion survives. Junagarh ranks as a first-class state among the many chiefships of Kathiawar, and its ruler first entered into engagements with the British in 1807. Nawab Sir Rasul Khanji, K.C.S.I., was born in 1858 and succeeded his brother in 1892.

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The modern town of JUNAGARH (34,251), 60 m. by rail S. of Rajkot, is handsomely built and laid out. In November 1897 the foundation-stones of a hospital, library and museum were laid, and an arts college has recently been opened.



JUNCACEAE (rush family), in botany, a natural order of flowering plants belonging to the series Liliiflorae of the class Monocotyledons, containing about two hundred species in seven genera, widely distributed in temperate and cold regions. It is well represented in Britain by the two genera which comprise nearly the whole order—*Juncus*, rush, and *Luzula*, woodrush. They are generally perennial herbs with a creeping underground stem and erect, unbranched, aerial stems, bearing slender leaves which are grass-like or cylindrical or reduced to membranous sheaths. The small inconspicuous flowers are generally more or less crowded in terminal or lateral clusters, the form of the inflorescence varying widely according to the manner of branching and the length of the pedicels. The flowers are hermaphrodite and regular, with the same number and arrangement of parts as in the order Liliaceae, from which they differ in the inconspicuous membranous character of the perianth, the absence of honey or smell, and the brushlike stigmas with long papillae—adaptations to wind-pollination as contrasted with the methods of pollination by insect agency, which characterize the Liliaceae. Juncaceae are, in fact, a less elaborated group of the same series as Liliaceae, but adapted to a simpler and more uniform environment than that larger and much more highly developed family.



Juncus effusus, common rush.

- | | |
|---|-------------------------|
| 1. Plant. | 4. Flower, enlarged. |
| 2. Inflorescence. | 5. Fruit, enlarged. |
| 3. End of branch of
inflorescence, slightly
enlarged. | 6. Seed. |
| | 7. Seed, much enlarged. |



JUNCTION CITY, a city and the county-seat of Geary county, Kansas, U.S.A., between Smoky Hill and Republican rivers, about 3 m. above their confluence to form the Kansas, and 72 m. by rail W. of Topeka. Pop. (1900), 4695, of whom 545 were foreign-born and 292 were negroes; (1905), 5494; (1910), 5598. Junction City is served by the Union Pacific and the Missouri, Kansas & Texas railways. It is the commercial centre of a region in whose fertile valleys great quantities of wheat, Indian corn, oats and hay are grown and live stock is raised, and whose uplands contain extensive beds of limestone, which is quarried for building purposes. Excellent water-power is available and is partly utilized by flour mills. The municipality owns and operates the water-works. At the confluence of Smoky Hill and Republican rivers and connected with the city by an electric railway is Fort Riley, a U.S. military post, which was established in 1853 as Camp Centre but was renamed in the same year in honour of General Bennett Riley (1787-1853); in 1887 the mounted service school of the U.S. army was established here. Northward from the post is a rugged country over which extends a military reservation of about 19,000 acres. Adjoining the reservation and about 5 m. N.E. of Junction City is the site of the short-lived settlement of Pawnee, where from the 2nd to the 6th of July 1855 the first Kansas legislature met, in a building the ruins of which still remain; the establishment of Pawnee (in December 1854) was a speculative pro-slavery enterprise conducted by the commandant of Fort Riley, other army officers and certain territorial officials, and when a government survey showed that the site lay within the Fort Riley reservation, the settlers were ordered (August 1855) to leave, and the commandant of Fort Riley was dismissed from the army; one of the charges brought against Governor A. H. Reeder was that he had favoured the enterprise. Junction City was founded in 1857 and was chartered as a city in 1859.



JUNE, the sixth month in the Christian calendar, consisting of thirty days. Ovid (*Fasti*, vi. 25) makes Juno assert that the name was expressly given in her honour. Elsewhere (*Fasti*, vi. 87) he gives the derivation *a junioribus*, as May had been derived from *majores*, which may be explained as in allusion either to the two months being dedicated respectively to youth and age in general, or to the seniors and juniors of the government of Rome, the senate and the *comitia curiata* in particular. Others connect the term with the gentile name Junius, or with the consulate of Junius Brutus. Probably, however, it originally denoted the month in which crops grow to ripeness. In the old Latin calendar June was the fourth month, and in the so-called year of Romulus it is said to have had thirty days; but at the time of the Julian reform of the calendar its days were only twenty-nine. To these Caesar added the thirtieth. The Anglo-Saxons called June "the dry month," "midsummer month," and, in contradistinction to July, "the earlier mild month." The summer solstice occurs in June. Principal festival days in this month: 11th June, St Barnabas; 24th June, Midsummer Day (Nativity of St John the Baptist); 29th June, St Peter.



JUNEAU, formerly HARRISBURG, a mining and trading town picturesquely situated at the mouth of Gold Creek on the continental shore of Gastineau channel, south-east Alaska, and the capital of Alaska. Pop. (1900), 1864 (450 Indians); (1910), 1644. It has a United States custom-house and court-house. The city has fishing, manufacturing and trading interests, but its prosperity is chiefly due to the gold mines in the adjacent Silver Bow basin, the source of Gold Creek, and the site of the great Perseverance mine, and to those on the Treadwell lode on Douglas Island, 2 m. from Juneau. Placer gold was found at the mouth of the creek in 1879, and the city was settled in 1880 by two prospectors named Joseph Juneau and Richard Harris. The district was called Juneau and the camp Harrisburg by the first settlers; exploring naval officers named the camp Rockwell, in honour of Commander Charles Henry Rockwell, U.S.N. (b. 1840). A town meeting then adopted the name of Juneau. The town was incorporated in 1900. In October 1906 the seat of government of Alaska was removed from Sitka to Juneau.



JUNG, JOHANN HEINRICH (1740-1817), best known by his assumed name of HEINRICH STILLING, German author, was born in the village of Grund near Hilchenbach in Westphalia on the 12th of September 1740. His father, Wilhelm Jung, schoolmaster and tailor, was the son of Eberhard Jung, charcoal-burner, and his mother was Dortchen Moritz, daughter of a poor clergyman. Jung became, by his father's desire, schoolmaster and tailor, but found both pursuits equally wearisome. After various teaching appointments he went in 1768 with "half a French dollar" to study medicine at the university of Strassburg. There he met Goethe, who introduced him to Herder. The acquaintance with Goethe ripened into friendship; and it was by his influence that Jung's first and best work, *Heinrich Stillings Jugend* was written. In 1772 he settled at Elberfeld as physician and oculist, and soon became celebrated for operations in cases of cataract. Surgery, however, was not much more to his taste than tailoring or teaching; and in 1778 he was glad to accept the appointment of lecturer on "agriculture, technology, commerce and the veterinary art" in the newly established Kameralsschule at Kaiserslautern, a post which he continued to hold when the school was absorbed in the university of Heidelberg. In 1787 he was appointed professor of economical, financial and statistical science in the university of Marburg. In 1803 he resigned his professorship and returned to Heidelberg, where he remained until 1806, when he received a pension from the grand-duke Charles Frederick of Baden, and removed to Karlsruhe, where he remained until his death on the 2nd of April 1817. He was married three times, and left a numerous family. Of his works his autobiography *Heinrich Stillings Leben*, from which he came to be known as Stilling, is the only one now of any interest, and is the chief authority for his life. His early novels reflect the piety of his early surroundings.

A complete edition of his numerous works, in 14 vols. 8vo, was published at Stuttgart in 1835-1838. There are English translations by Sam. Jackson of the *Leben* (1835) and of the *Theorie der Geisterkunde* (London, 1834, and New York, 1851); and of *Theobald, or the Fanatic*, a religious romance, by the Rev. Sam. Schaeffer (1846). See biographies by F. W. Bodemann (1868), J. v. Ewald (1817), Peterson (1890).



JUNG BAHADUR, SIR, MAHARAJAH (1816-1877), prime minister of Nepal, was a grand-nephew of Bhim sena Thapa (Bhim sen Thappa), the famous military minister of Nepal, who from 1804 to 1839 was *de facto* ruler of the state under the rani Tripuri and her successor. Bhimsena's supremacy was threatened by the Kala Pandry, and many of his relations, including Jung Bahadur, went into exile in 1838, thus escaping the cruel fate which overtook Bhimsena in the following year. The Pandry leaders, who then reverted to power, were in turn assassinated in 1843, and Matabar Singh, uncle of Jung Bahadur, was created prime minister. He appointed his nephew general and chief judge, but shortly afterwards he was himself put to death. Fateh Jung thereon formed a ministry, of which Jung Bahadur was made military member. In the following year, 1846, a quarrel was fomented, in which Fateh Jung and thirty-two other chiefs were assassinated, and the rani appointed Jung Bahadur sole minister. The rani quickly changed her mind, and planned the death of her new minister, who at once appealed to the maharaja. But the plot failed. The raja and the rani wisely sought safety in India, and Jung Bahadur firmly established his own position by the removal of all dangerous rivals. He succeeded so well that in January 1850 he was able to leave for a visit to England, from which he did not return to Nepal until the 6th of February 1851. On his return, and frequently on subsequent dates, he frustrated conspiracies for his assassination. The reform of the penal code, and a desultory war with Tibet, occupied his attention until news of the Indian Mutiny reached Nepal. Jung Bahadur resisted all overtures from the rebels, and sent a column to Gorakpur in July 1857. In December he furnished a force of 8000 Gurkhas, which reached Lucknow on the 11th of March 1858, and took part in the siege. The moral support of the Nepalese was more valuable even than the military services rendered by them. Jung Bahadur was made a G.C.B., and a tract of country annexed in 1815 was restored to Nepal. Various frontier disputes were settled, and in 1875 Sir Jung Bahadur was on his way to England when he had a fall from his horse in Bombay and returned home. He received a visit from the Prince of Wales in 1876. On the 25th of February 1877 he died, having reached the age of sixty-one. Three of his widows immolated themselves on his funeral pyre.

(W. L.-W.)



JUNG-BUNZLAU (Czech, *Mladá Boleslav*), a town of Bohemia, 44 m. N.N.E. of Prague by rail. Pop. (1900), 13,479, mostly Czech. The town contains several old buildings of historical interest, notably the castle, built towards the end of the 10th century, and now used as barracks. There are several old churches. In that of St Maria the celebrated bishop of the Bohemian brethren, Johann August, was buried in 1595; but his tomb was destroyed in 1621. The church of St Bonaventura with the convent, originally belonging to the friars minor and later to the Bohemian brethren, is now a Piaristic college. The church of St Wenceslaus, once a convent of the brotherhood, is now used for military stores. Jung-Bunzlau was built in 995, under Boleslaus II., as the seat of a *gaugraf* or royal count. Early in the 13th century it was given the privileges of a town and pledged to the lords of Michalovic. In the Hussite wars Jung-Bunzlau adhered to the Taborites and became later the metropolis of the Bohemian Brethren. In 1595 Bohuslav of Lobkovic sold his rights as over-lord to the town, which was made a royal city by Rudolf II. During the Thirty Years' War it was twice burned, in 1631 by the imperialists, and in 1640 by the Swedes.



JUNGFRAU, a well-known Swiss mountain (13,669 ft.), admirably seen from Interlaken. It rises on the frontier between the cantons of Bern and of the Valais, and is reckoned among the peaks of the Bernese Oberland, two of which (the Finsteraarhorn, 14,026 ft., and the Aletschhorn, 13,721 ft.) surpass it in height. It was first ascended in 1811 by the brothers Meyer, and again in 1812 by Gottlieb Meyer (son of J. R. Meyer), in both cases by the eastern or Valais side, the foot of which (the final ascent being made by the 1811-1812 route) was reached in 1828 over the Mönchjoch by six peasants from Grindelwald. In 1841 Principal J. D. Forbes, with Agassiz, Desor and Du Châtelier, made the fourth ascent by the 1812 route. It was not till 1865 that Sir George Young and the Rev. H.

B. George succeeded in making the first ascent from the west or Interlaken side. This is a far more difficult route than that from the east, the latter being now frequently taken in the course of the summer.

(W. A. B. C.)



JUNGLE (Sans. *jangala*), an Anglo-Indian term for a forest, a thicket, a tangled wilderness. The Hindustani word means strictly waste, uncultivated ground; then such ground covered with trees or long grass; and thence again the Anglo-Indian application is to forest or other wild growth, rather than to the fact that it is not cultivated.



JUNIN, an interior department of central Peru, bounded N. by Huanuco, E. by Loreto and Cuzco, S. by Huancavelica, and W. by Lima and Ancachs. Pop. (1906 estimate), 305,700. It lies wholly within the Andean zone and has an area of 23,353 sq. m. It is rich in minerals, including silver, copper, mercury, bismuth, molybdenum, lead and coal. The Huallaga and Mantaro rivers have their sources in this department, the latter in Lake Junin, or Chanchaycocha, 13,230 ft. above sea-level. The capital of Junin is Cerro de Pasco, and its two principal towns are Jauja and Tarma (pop., 1906, about 12,000 and 5000 respectively).



JUNIPER. The junipers, of which there are twenty-five or more species, are evergreen bushy shrubs or low columnar trees, with a more or less aromatic odour, inhabiting the whole of the cold and temperate northern hemisphere, but attaining their maximum development in the Mediterranean region, the North Atlantic islands, and the eastern United States. The leaves are usually articulated at the base, spreading, sharp-pointed and needle-like in form, destitute of oil-glands, and arranged in alternating whorls of three; but in some the leaves are minute and scale-like, closely adhering to the branches, the apex only being free, and furnished with an oil-gland on the back. Sometimes the same plant produces both kinds of leaves on different branches, or the young plants produce acicular leaves, while those of the older plants are squamiform. The male and female flowers are usually produced on separate plants. The male flowers are developed at the ends of short lateral branches, are rounded or oblong in form, and consist of several antheriferous scales in two or three rows, each scale bearing three or six almost spherical pollen-sacs on its under side. The female flower is a small bud-like cone situated at the apex of a small branch, and consists of two or three whorls of two or three scales. The scales of the upper or middle series each bear one or two erect ovules. The mature cone is fleshy, with the succulent scales fused together and forming the fruit-like structure known to the older botanists as the *galbulus*, or berry of the juniper. The berries are red or purple in colour, varying in size from that of a pea to a nut. They thus differ considerably from the cones of other members of the order Coniferae, of *Gymnosperms* (*q.v.*), to which the junipers belong. The seeds are usually three in number, sometimes fewer (1), rarely more (8), and have the surface near the middle or base marked with large glands containing oil. The genus occurs in a fossil state, four species having been described from rocks of Tertiary age.

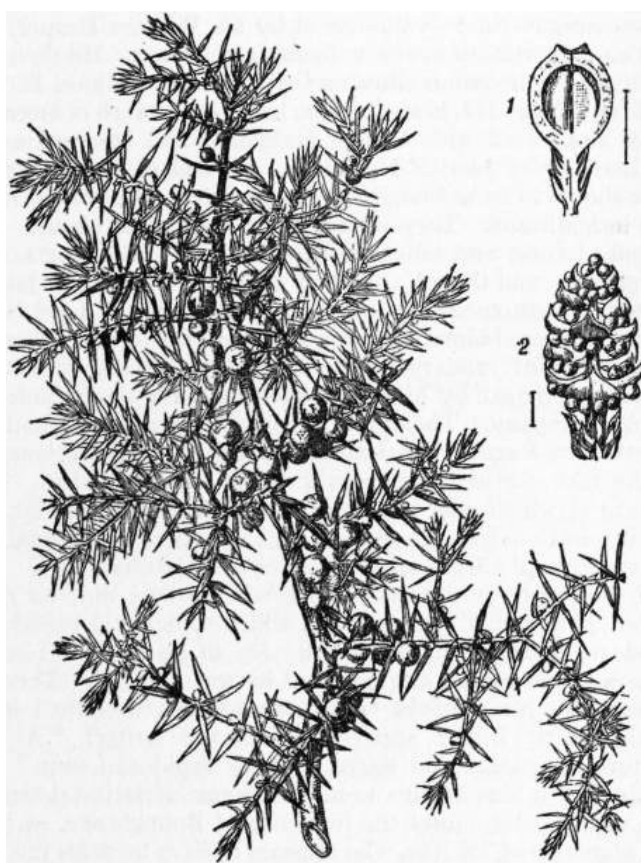
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The genus is divided into three sections, *Sabina*, *Oxycedrus* and *Caryocedrus*. *Juniperus Sabina* is the savin, abundant on the mountains of central Europe, an irregularly spreading much-branched shrub with scale-like glandular leaves, and emitting a disagreeable odour when bruised. The plant is poisonous, acting as a powerful local and general stimulant, diaphoretic, emmenagogue and anthelmintic; it was formerly employed both internally and externally. The oil of savin is now occasionally used criminally as an abortifacient. *J. bermudiana*, a tree about 40 or 50 ft. in height, yields a fragrant red wood, which was used for the manufacture of "cedar" pencils. The tree is now very scarce in Bermuda, and the "red cedar," *J. virginiana*, of North America is employed instead for pencils and cigar-boxes. The red cedar is abundant in some parts of the United States and in Virginia is a tree 50 ft. in height. It is very widely distributed from the Great Lakes to Florida and round the Gulf of Mexico, and extends as far west as the Rocky Mountains and beyond to Vancouver Island. The

wood is applied to many uses in the United States. The fine red fragrant heart-wood takes a high polish, and is much used in cabinet-work and inlaying, but the small size of the planks prevents its more extended use. The galls produced at the ends of the branches have been used in medicine, and the wood yields cedar-camphor and oil of cedar-wood. *J. thurifera* is the incense juniper of Spain and Portugal, and *J. phoenicea* (*J. lycia*) from the Mediterranean district is stated by Loudon to be burned as incense.

J. communis, the common juniper (see fig.), and several other species, belong to the section *Oxycedrus*. The common juniper is a very widely distributed plant, occurring in the whole of northern Europe, central and northern Asia to Kamchatka, and east and west North America. It grows at considerable elevations in southern Europe, in the Alps, Apennines, Pyrenees and Sierra Nevada (4000 to 8000 ft.). It also grows in Asia Minor, Persia, and at great elevations on the Himalayas. In Great Britain it is usually a shrub with spreading branches, less frequently a low tree. In former times the juniper seems to have been a very well-known plant, the name occurring almost unaltered in many languages. The Lat. *juniperus*, probably formed from *juni*—crude form of *juvenis*, fresh, young, and *parere*, to produce, is represented by Fr. *genièvre*, Sp. *enebro*, Ital. *ginepito*, &c. The dialectical names, chiefly in European languages, were collected by Prince L. L. Bonaparte, and published in the *Academy* (July 17, 1880, No. 428, p. 45). The common juniper is official in the British pharmacopoeia and in that of the United States, yielding the oil of juniper, a powerful diuretic, distilled from the unripe fruits. This oil is closely allied in composition to oil of turpentine and is given in doses of a half to three minims. The *Spiritus juniperi* of the British pharmacopoeia is given in doses up to one drachm. Much safer and more powerful diuretics are now in use. The wood is very aromatic and is used for ornamental purposes. In Lapland the bark is made into ropes. The fruits are used for flavouring gin (a name derived from *juniper*, through Fr. *genièvre*); and in some parts of France a kind of beer called *genévrette* was made from them by the peasants. *J. Oxycedrus*, from the Mediterranean district and Madeira, yields cedar-oil which is official in most of the European pharmacopoeias, but not in that of Britain. This oil is largely used by microscopists in what is known as the "oil-immersion lens."

The third section, *Caryocedrus*, consists of a single species, *J. drupacea* of Asia Minor. The fruits are large and edible: they are known in the East by the name *habhel*.



(From Bentley and Trimen's *Medicinal Plants*, by permission of J. & A. Churchill.)

Juniper (*Juniperus communis*).

1. Vertical section of fruit.
2. Male catkin.



JUNIUS, the pseudonym of a writer who contributed a series of letters to the London *Public Advertiser*, from the 21st of January 1769 to the 21st of January 1772. The signature had been already used by him in a letter of the 21st of November 1768, which he did not include in his collection of the *Letters of Junius* published in 1772. The name was chosen in all probability because he had already signed "Lucius" and "Brutus," and wished to exhaust the name of Lucius Junius Brutus the Roman patriot. Whoever the writer was, he wrote under other pseudonyms before, during and after the period between January 1769 and January 1772. He acknowledged that he had written as "Philo-Junius," and there is evidence that he was identical with "Veteran," "Nemesis" and other anonymous correspondents of the *Public Advertiser*. There is a marked distinction between the "letters of Junius" and his so-called miscellaneous letters. The second deal with a variety of subjects, some of a purely personal character, as for instance the alleged injustice of Viscount Barrington the secretary at war to the officials of his department. But the "letters of Junius" had a definite object—to discredit the ministry of the duke of Grafton. This administration had been formed in October 1768, when the earl of Chatham was compelled by ill health to retire from office, and was a reconstruction of his cabinet of July 1766. Junius fought for the return to power of Chatham, who had recovered and was not on good terms with his successors. He communicated with Chatham, with George Grenville, with Wilkes, all enemies of the duke of Grafton, and also with Henry Sampson Woodfall, printer and part owner of the *Public Advertiser*. This private correspondence has been preserved. It is written in the disguised hand used by Junius.

The letters are of interest on three grounds—their political significance, their style, and the mystery which long surrounded their authorship. As political writings they possess no intrinsic value. Junius was wholly destitute of insight, and of the power to disentangle, define and advocate principles. The matter of his letters is always invective. He began by a general attack on the ministry for their personal immorality or meanness. An ill-judged defence of one of the body—the marquess of Granby, commander-in-chief—volunteered by Sir William Draper, gave him an easy victory over a vulnerable opponent. He then went on to pour acrimonious abuse on Grafton, on the duke of Bedford, on King George III. himself in the letter of the 19th of December 1769, and ended with a most malignant and ignorant assault on Lord Chief Justice Mansfield. Several of his accusations were shown to be unfounded. The practical effect of the letters was insignificant. They were noticed and talked about. They provoked anger and retorts. But the letter to the king aroused indignation, and though Grafton's administration fell in January 1770, it was succeeded by the long-lived cabinet of Lord North. Junius confessed himself beaten, in his private letter to Woodfall of the 19th of January 1773. He had materially contributed to his own defeat by his brutal violence. He sinned indeed in a large company. The employment of personal abuse had been habitual in English political controversy for generations, and in the 18th century there was a strong taste for satire. Latin literature, which was not only studied but imitated, supplied the inspiration and the models, in the satires of Juvenal, and the speeches of Cicero against Verres and Catiline.

If, however, Junius was doing what others did, he did it better than anybody else—a fact which sufficiently explains his rapid popularity. His superiority lay in his style. Here also he was by no means original, and he was unequal. There are passages in his writings which can be best described in the words which Burke applied to another writer: "A mere mixture of vinegar and water, at once vapid and sour." But at his best Junius attains to a high degree of artificial elegance and vigour. He shows the influence of Bolingbroke, of Swift, and above all of Tacitus, who appears to have been his favourite author. The imitation is never slavish. Junius adapts, and does not only repeat. The white heat of his malignity animates the whole. No single sentence will show the quality of a style which produces its effect by persistence and repetition, but such a typical passage as follows displays at once the method and the spirit. It is taken from Letter XLIX. to the duke of Grafton, June 22, 1771:—

"The profound respect I bear to the gracious prince who governs this country with no less honour to himself than satisfaction to his subjects, and who restores you to your rank under his standard, will save you from a multitude of reproaches. The attention I should have paid to your failings is involuntarily attracted to the hand which rewards them; and though I am not so partial to the royal judgment as to affirm that the favour of a king can remove mountains of infamy, it serves to lessen at least, for undoubtedly it divides, the burden. While I remember how much is due to his sacred character, I cannot, with any decent appearance of propriety, call you the meanest and the basest fellow in the kingdom. I protest, my Lord, I do not think you so. You will have a dangerous rival in that kind of fame to which you have hitherto so happily directed your ambition, as long as there is one man living who thinks you worthy of his confidence, and fit to be trusted with any share in his government.... With any other prince, the shameful desertion of him in the midst of that distress, which you alone had created, in the very crisis of danger, when he fancied he saw the throne already surrounded by men of virtue and abilities, would have outweighed the memory of your former services. But his majesty is full of justice, and understands the doctrine of compensations; he remembers with gratitude how soon you had accommodated your morals to the necessities of his service, how cheerfully you had abandoned the engagements of private friendship, and renounced the most solemn professions to the public. The sacrifice of Lord Chatham was not lost on him. Even the cowardice and perfidy of deserting him may have done you no disservice in his esteem. The instance was painful, but the principle might please."

What is artificial and stilted in this style did not offend the would-be classic taste of the 18th

century, and does not now conceal the fact that the laboriously arranged words, and artfully counterbalanced clauses, convey a venomous hate and scorn.

The pre-established harmony between Junius and his readers accounts for the rapidity of his success, and for the importance attributed to him by Burke and Johnson, far better writers than himself. Before 1772 there appeared at least twelve unauthorized republications of his letters, made by speculative printers. In that year he revised the collection named "*Junius: Stat nominis umbra*," with a dedication to the English people and a preface. Other independent editions followed in quick succession. In 1801 one was published with annotations by Robert Heron. In 1806 another appeared with notes by John Almon. The first new edition of real importance was issued by the Woodfall family in 1812. It contained the correspondence of Junius with H. S. Woodfall, a selection of the miscellaneous letters attributed to Junius, facsimiles of his handwriting, and notes by Dr Mason Good. Curiosity as to the mystery of the authorship began to replace political and literary interest in the writings. Junius himself had been early aware of the advantage he secured by concealment. "The mystery of Junius increases his importance" is his confession in a letter to Wilkes dated the 18th of September 1771. The calculation was a sound one. For two generations after the appearance of the letter of the 21st of January 1769, speculations as to the authorship of Junius were rife, and discussion had hardly ceased in 1910. Joseph Parkes, author with Herman Merivale of the *Memoirs of Sir Philip Francis* (1867), gives a list of more than forty persons who had been supposed to be Junius. They are: Edmund Burke, Lord George Sackville, Lord Chatham, Colonel Barré, Hugh Macaulay Boyd, Dr Butler, John Wilkes, Lord Chesterfield, Henry Flood, William Burke, Gibbon, W. E. Hamilton, Charles Lloyd, Charles Lee (general in the American War of Independence), John Roberts, George Grenville, James Grenville, Lord Temple, Duke of Portland, William Greatrakes, Richard Glover, Sir William Jones, James Hollis, Laughlin Maclean, Philip Rosenhagen, Horne Tooke, John Kent, Henry Grattan, Daniel Wray, Horace Walpole, Alexander Wedderburn (Lord Loughborough), Dunning (Lord Ashburton), Lieut.-General Sir R. Rich, Dr Philip Francis, a "junto" or committee of writers who used a common name, De Lolme, Mrs Catherine Macaulay (1733-91), Sir Philip Francis, Lord Littleton, Wolfram Cornwall and Gov. Thomas Pownall. In the great majority of cases the attribution is based on nothing more than a vague guess. Edmund Burke denied that he could have written the letters of Junius if he would, or would have written them if he could. Grattan pointed out that he was young when they appeared. More plausible claims, such as those made for Lord Temple and Lord George Sackville, could not stand the test of examination. Indeed after 1816 the question was not so much "Who wrote Junius?" as "Was Junius Sir Philip Francis, or some undiscoverable man?" In that year John Taylor was led by a careful study of Woodfall's edition of 1812 to publish *The identity of Junius with a distinguished living character established*, in which he claimed the letters for Sir Philip Francis. He had at first been inclined to attribute them to Sir Philip's father, Dr Francis, the author of translations of Horace and Demosthenes. Taylor applied to Sir Philip, who did not die till 1818, for leave to publish, and received from him answers which to an unwary person might appear to constitute denials of the authorship, but were in fact evasions.

The reasons for believing that Sir Philip Francis (*q.v.*) was Junius are very strong. His evasions were only to be expected. Several of the men he attacked lived nearly as long as himself, the sons of others were conspicuous in society, and King George III. survived him. Sir Philip, who had held office, who had been decorated, and who in his later years was ambitious to obtain the governor-generalship of India, dared not confess that he was Junius. The similarity of his handwriting to the disguised hand used by the writer of the letters is very close. If Sir Philip Francis did, as his family maintain, address a copy of verses to a Miss Giles in the handwriting of Junius (and the evidence that he did is weighty) there can be no further question as to the identity of the two. The similarity of Junius and Francis in regard to their opinions, their likes and dislikes, their knowledge and their known movements, amount, apart from the handwriting, almost to proof. It is certain that many felons have been condemned on circumstantial evidence less complete. The opposition to his claim is based on such assertions as that his known handwriting was inferior to the feigned hand of Junius, and that no man can make a disguised hand better than his own. But the first assertion is unfounded, and the second is a mere expression of opinion. It is also said that Francis must have been guilty of baseness if he wrote Junius, but if that explains why he did not avow the authorship it can be shown to constitute a moral impossibility only by an examination of his life.

AUTHORITIES.—The best edition of the *Letters of Junius*, properly so called, with the *Miscellaneous Letters*, is that of J. Ward (1854). The most valuable contributions to the controversy as to the authorship are: *The Handwriting of Junius investigated by Charles Chabot, expert, with preface and collateral evidence by the Hon. E. Twisleton* (1871); *Memoirs of Sir Philip Francis, K.C.B.*, by Parkes and Merivale (1867); *Junius Revealed by his Surviving Grandson*, by H. R. Francis (1894); *The Francis Letters*, edited by Beata Francis and Eliza Keary, with a note on the Junius controversy by C. F. Keary (1901); and "Francis, Sir Philip," by Sir Leslie Stephen, in *Dict. of Nat. Biog.* The case for those who decline to accept the claim of Sir Philip Francis is stated by C. W. Dilke, *Papers of a Critic* (1875), and Abraham Hayward, *More about Junius, Franciscan Theory Unsound* (1868).

(D. H.)



JUNIUS, FRANZ (in French, François du Jon), the name of two Huguenot scholars.

(1) FRANZ JUNIUS (1545-1602) was born at Bourges in France on the 1st of May 1545. He had studied law for two years under Hugo Donellus (1527-1591) when he was given a place in the retinue of the French ambassador to Constantinople, but before he reached Lyons the ambassador had departed. Junius found ample consolation in the opportunities for study at the gymnasium at Lyons. A religious tumult warned him back to Bourges, where he was cured of certain rationalistic principles that he had imbibed at Lyons, and he determined to enter the reformed church. He went in 1562 to study at Geneva, where he was reduced to the direst poverty by the failure of remittances from home, owing to civil war in France. He would accept only the barest sustenance from a humble friend who had himself been a protégé of Junius's family at Bourges, and his health was permanently injured. The long-expected remittance from home was closely followed by the news of the brutal murder of his father by a Catholic fanatic at Issoudun; and Junius resolved to remain at Geneva, where his reputation enabled him to live by teaching. In 1565, however, he was appointed minister of the Walloon church at Antwerp. His foreign birth excluded him from the privileges of the native reformed pastors, and exposed him to persecution. Several times he barely escaped arrest, and finally, after spending six months in preaching at Limburg, he was forced to retire to Heidelberg in 1567. There he was welcomed by the elector Frederick II., and temporarily settled in charge of the Walloon church at Schönau; but in 1568 his patron sent him as chaplain with Prince William of Orange in his unfortunate expedition to the Netherlands. Junius escaped as soon as he could from that post, and returning to his church remained there till 1573. From 1573 till 1578 he was at Heidelberg, assisting Emmanuel Tremellius (1510-1580), whose daughter he married, in his Latin version of the Old Testament (Frankfort, 1579); in 1581 he was appointed to the chair of divinity at Heidelberg. Thence he was taken to France by the duke of Bouillon, and after an interview with Henry IV. was sent again to Germany on a mission. As he was returning to France he was named professor of theology at Leiden, where he died on the 13th of October 1602.

He was a voluminous writer on theological subjects, and translated and composed many exegetical works. He is best known from his own edition of the Latin Old Testament, slightly altered from the former joint edition, and with a version of the New Testament added (Geneva, 1590; Hanover, 1624). The *Opera Theologica Francisci Junii Biturigis* were published at Geneva (2 vols., 1613), to which is prefixed his autobiography, written about 1592 (new ed., edited by Abraham Kuypers, 1882 seq.). The autobiography had been published at Leiden (1595), and is reprinted in the *Miscellanea Groningana*, vol. i., along with a list of the author's other writings.

(2) FRANZ JUNIUS (1589-1677), son of the above, was born at Heidelberg, and brought up at Leiden. His attention was diverted from military to theological studies by the peace of 1609 between Spain and the Netherlands. In 1617 he became pastor at Hillegondsberg, but in 1620 went to England, where he became librarian to Thomas Howard, earl of Arundel, and tutor to his son. He remained in England thirty years, devoting himself to the study of Anglo-Saxon, and afterwards of the cognate old Teutonic languages. His work, intrinsically valuable, is important as having aroused interest in a frequently neglected subject. In 1651 he returned to Holland; and for two years lived in Friesland in order to study the old dialect. In 1675 he returned to England, and during the next year resided in Oxford; in 1677 he went to live at Windsor with his nephew, Isaac Vossius, in whose house he died on the 19th of November 1677. He was buried at Windsor in St George's Chapel.

He was pre-eminently a student. He published *De pictura veterum* (1637) (in English by the author, 1638; enlarged and improved edition, edited by J. G. Graevius, who prefixed a life of Junius, with a catalogue of architects, painters, &c., and their works, Rotterdam, 1694); *Observationes in Willerami Abbatis francicam paraphrasin cantici canticorum* (Amsterdam, 1655); *Annotationes in harmoniam latino-francicam quatuor evangelistarum, latine a Tatiano confectam* (Amsterdam, 1655); *Caedmonis monachi paraphrasis poetica geneseos* (Amsterdam, 1655) (see criticism under CAEDMON); *Quatuor D.N.I.C. evangeliorum versiones perantiquae duae, gothica scilicet et anglo-saxonica* (Dort, 2 vols., 1665) (the Gothic version in this book Junius transcribed from the Silver Codex of Ulfilas; the Anglo-Saxon version is from an edition by Thomas Marshall, whose notes to both versions are given, and a Gothic glossary by Junius); *Etymologicum anglicanum*, edited by Edward Lye, and preceded by a life of Junius and George Hicke's Anglo-Saxon grammar (Oxford, 1743) (its results require careful verification in the light of modern research). His rich collection of ancient MSS., edited and annotated by him, Junius bequeathed to the university of Oxford. Graevius gives a list of them; the most important are a version of the *Ormulum*, the version of Caedmon, and 9 volumes containing *Glossarium v. linguarum septentrionalium*.



JUNK. (1) (Through Port. *junco*, adapted from Javanese *djong*, or Malayan *adjong*, ship), the name of the native sailing vessel, common to the far eastern seas, and especially used by the Chinese and Javanese. It is a flat-bottomed, high-sterned vessel with square bows and masts carrying lug-

sails, often made of matting. (2) A nautical term for small pieces of disused rope or cable, cut up to make fenders, oakum, &c., hence applied colloquially by sailors to the salt beef and pork used on board ship. The word is of doubtful origin, but may be connected with "junk" (Lat. *juncus*), a reed, or rush. This word is now obsolete except as applied to a form of surgical appliance, used as a support in cases of fracture where immediate setting is impossible, and consisting of a shaped pillow or cushion stuffed with straw or horsehair, formerly with rushes or reeds.



JUNKER, WILHELM (1840-1892), German explorer of Africa, was born at Moscow on the 6th of April 1840. He studied medicine at Dorpat, Göttingen, Berlin and Prague, but did not practise for long. After a series of short journeys to Iceland, Tunis and Lower Egypt, he remained almost continuously in eastern Equatorial Africa from 1875 to 1886, making first Khartum and afterwards Lado the base of his expeditions, Junker was a leisurely traveller and a careful observer; his main object was to study the peoples with whom he came into contact, and to collect specimens of plants and animals, and the result of his investigations in these particulars is given in his *Reisen in Afrika* (3 vols., Vienna, 1889-1891), a work of high merit. An English translation by A. H. Keane was published in 1890-1892. Perhaps the greatest service he rendered to geographical science was his investigation of the Nile-Congo watershed, when he successfully combated Georg Schweinfurth's hydrographical theories and established the identity of the Welle and Ubangi. The Mahdist rising prevented his return to Europe through the Sudan, as he had planned to do, in 1884, and an expedition, fitted out in 1885 by his brother in St Petersburg, failed to reach him. Junker then determined to go south. Leaving Wadelai on the 2nd of January 1886 he travelled by way of Uganda and Tabora and reached Zanzibar in December 1886. In 1887 he received the gold medal of the Royal Geographical Society. As an explorer Junker is entitled to high rank, his ethnographical observations in the Niam-Niam (Azandeh) country being especially valuable. He died at St Petersburg on the 13th of February 1892.

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See the biographical notice by E. G. Ravenstein in *Proceedings of the Royal Geographical Society* (1892), pp. 185-187.



JUNKET, a dish of milk curdled by rennet, served with clotted cream and flavoured with nutmeg, which is particularly associated in England with Devonshire and Cornwall. The word is of somewhat obscure history. It appears to come through O. Fr. *jonquette*, a rush-basket, from Lat. *juncus*, rush. In Norman dialect this word is used of a cream cheese. The commonly accepted origin is that it refers to the rush-basket on which such cream cheeses or curds were served. *Juncade* appears in Rabelais, and is explained by Cotgrave as "spoon-meat, rose-water and sugar." Nicholas Udall (in his translation of Erasmus's *Apophthegms*, 1542) speaks of "marchepaines or wafers with other like junkerie." The word "junket" is also used for a festivity or picnic.



JUNO, the chief Roman and Latin goddess, and the special object of worship by women at all the critical moments of life. The etymology of the name is not certain, but it is usually taken as a shortened form of *Jovino*, answering to *Jovis*, from a root *div*, shining. Under Greek influence Juno was early identified with the Greek Hera, with whose cult and characteristics she has much in common; thus the Juno with whom we are familiar in Latin literature is not the true Roman deity. In the *Aeneid*, for example, her policy is antagonistic to the plans of Jupiter for the conquest of Latium and the future greatness of Rome; though in the fourth *Eclogue*, as Lucina, she appears in her proper rôle as assisting at childbirth. It was under Greek influence again that she became the wife of Jupiter, the mother of Mars; the true Roman had no such personal interest in his deities as to invent family relations for them.

That Juno was especially a deity of women, and represents in a sense the female principle of life, is seen in the fact that as every man had his *genius*, so every woman had her Juno; and the goddess herself may have been a development of this conception. The various forms of her cult all show her in

close connexion with women. As Juno Lucina she was invoked in childbirth, and on the 1st of March, the old Roman New Year's day, the matrons met and made offerings at her temple in a grove on the Esquiline; hence the day was known as the *Matronalia*. As *Caprotina* she was especially worshipped by female slaves on the 7th of July (*Nonae Caprotinae*); as *Sospita* she was invoked all over Latium as the saviour of women in their perils, and later as the saviour of the state; and under a number of other titles, *Cinxia*, *Unxia*, *Pronuba*, &c., we find her taking a leading part in the ritual of marriage. Her real or supposed connexion with the moon is explained by the alleged influence of the moon on the lives of women; thus she became the deity of the Kalends, or day of the new moon, when the *regina sacrorum* offered a lamb to her in the *regia*, and her husband the *rex* made known to the people the day on which the Nones would fall. Thus she is brought into close relation with Janus, who also was worshipped on the Kalends by the *rex sacrorum*, and it may be that in the oldest Roman religion these two were more closely connected than Juno and Jupiter. But in historical times she was associated with Jupiter in the great temple on the Capitoline hill as Juno *Regina*, the queen of all Junones or queen of heaven, as Jupiter there was *Optimus Maximus* (see [JUPITER](#)), and under the same title she was enticed from Veii after its capture in 392 B.C., and settled in a temple on the Aventine. Thus exalted above all other female deities, she was prepared for that identification with Hera which was alluded to above. That she was in some sense a deity of light seems certain; as Lucina, *e.g.*, she introduced new-born infants "in luminis oras."

See Roscher's article "Juno" in his *Lexicon of Mythology*, and his earlier treatise on Juno and Hera; Wissowa, *Religion und Kultus der Römer*, 113 foll.; also a fresh discussion by Walter Otto in *Philologus* for 1905 (p. 161 foll.).

(W. W. F.*)



JUNOT, ANDOCHE, DUKE OF ABRABANTES (1771-1813), French general, was born at Bussy-le-Grand (Côte d'Or), on the 23rd of October 1771. He went to school at Chatillon, and was known among his comrades as a blustering but lovable creature, with a pugnacious disposition. He was studying law in Paris at the outbreak of the Revolution and joined a volunteer battalion. He distinguished himself by his valour in the first year of the Revolutionary wars, and came under the special notice of Napoleon Bonaparte during the siege of Toulon, while serving as his secretary. It is related that as he was taking down a despatch, a shell burst hard by and covered the paper with sand, whereupon he exclaimed, "Bien! nous n'avons pas de sable pour sécher l'encre! en voici!" He remained the faithful companion of his chief during the latter's temporary disgrace, and went with him to Italy as aide-de-camp. He distinguished himself so much at the battle of Millesimo that he was selected to carry back the captured colours to Paris; returning to Italy he went through the campaign with honour, but was badly wounded in the head at Lonato. Many rash incidents in his career may be traced to this wound, from which he never completely recovered. During the expedition to Egypt he became a general of brigade. His devotion to Bonaparte involved him in a duel with General Lanusse, in which he was again wounded. He had to be left in Egypt to recover, and in crossing to France was captured by English cruisers. On his return to France he was made commandant of Paris, and afterwards promoted general of division. It was at this time that he married Laure Permon (see [JUNOT, LAURE](#)). He next served at Arras in command of the grenadiers of the army destined for the invasion of England, and made some alterations in the equipment of the troops which received the praise of the emperor. It was, however, a bitter mortification that he was not appointed a marshal of France when he received the grand cross of the legion of honour. He was made colonel-general of hussars instead and sent as ambassador to Lisbon, his entry into which city resembled a royal progress. But he was so restless and dissatisfied in the Portuguese capital that he set out, without leave, for the army of Napoleon, with which he took part in the battle of Austerlitz, behaving with his usual courage and zeal. But he soon gave fresh offence. Although his early devotion was never forgotten by the emperor, his uncertain temper and want of self-control made it dangerous to employ him at court or headquarters, and he was sent to Parma to put down an insurrection and to be out of the way. In 1806 he was recalled and became governor of Paris. His extravagance and prodigality shocked the government, and some rumours of an intrigue with a lady of the imperial family—it is said Pauline Bonaparte—made it desirable again to send him away. He was therefore appointed to lead an invading force into Portugal. For the first time Junot had a great task to perform, and only his own resources to fall back upon for its achievement. Early in November 1807 he set out from Salamanca, crossed the mountains of Beira, rallied his wearied forces at Abrantes, and, with 1500 men, dashed upon Lisbon, in order, if possible, to seize the Portuguese fleet, which had, however, just sailed away with the regent and court to Brazil. The whole movement only took a month; it was undoubtedly bold and well-conducted, and Junot was made duke of Abrantes and invested with the governorship of Portugal. But administration was his weak point. He was not a civil governor, but a *sabreur*, brave, truculent, and also dissipated and rapacious, though in the last respect he was far from being the worst offender amongst the French generals in Spain. His hold on Portugal was never supported by a really adequate force, and his own conduct, which resembled that of an eastern monarch, did nothing to consolidate his conquest. After Wellesley encountered him at Vimiera (see *Peninsular War*) he was

obliged to conclude the so-called convention of Cintra, and to withdraw from Portugal with all his forces. Napoleon was furious, but, as he said, was spared the necessity of sending his old friend before a court martial by the fact that the English put their own generals on their trial. Junot was sent back to Spain, where, in 1810-1811, acting under Masséna, he was once more seriously wounded. His last campaign was made in Russia, and he received more than a just share of discredit for it. Napoleon next appointed him to govern Illyria. But Junot's mind had become deranged under the weight of his misfortunes, and on the 29th of July 1813, at Montbard, he threw himself from a window in a fit of insanity.



JUNOT, LAURE, DUCHESS OF ABRANTES (1783-1834), wife of the preceding, was born at Montpellier. She was the daughter of Mme. Permon, to whom during her widowhood the young Bonaparte made an offer of marriage—such at least is the version presented by the daughter in her celebrated *Memoirs*. The Permon family, after various vicissitudes, settled at Paris, and Bonaparte certainly frequented their house a good deal after the downfall of the Jacobin party in Thermidor 1794. Mlle. Permon was married to Junot early in the consulate, and at once entered eagerly into all the gaieties of Paris, and became noted for her beauty, her caustic wit, and her extravagance. The first consul nicknamed her *petite peste*, but treated her and Junot with the utmost generosity, a fact which did not restrain her sarcasms and slanders in her portrayal of him in her *Memoirs*. During Junot's diplomatic mission to Lisbon, his wife displayed her prodigality so that on his return to Paris in 1806 he was burdened with debts, which his own intrigues did not lessen. She joined him again at Lisbon after he had entered that city as conqueror at the close of 1807; but even the presents and spoils won at Lisbon did not satisfy her demands; she accompanied Junot through part of the Peninsular War. On her return to France she displeased the emperor by her vivacious remarks and by receiving guests whom he disliked. The mental malady of Junot thereafter threatened her with ruin; this perhaps explains why she took some part in the intrigues for bringing back the Bourbons in 1814. She did not side with Napoleon during the Hundred Days. After 1815 she spent most of her time at Rome amidst artistic society, which she enlivened with her sprightly converse. She also compiled her spirited but somewhat spiteful *Memoirs*, which were published at Paris in 1831-1834 in 18 volumes. Many editions have since appeared.

Of her other books the most noteworthy are *Histoires contemporaines* (2 vols., 1835); *Scènes de la vie espagnole* (2 vols., 1836); *Histoire des salons de Paris* (6 vols., 1837-1838); *Souvenirs d'une ambassade et d'un séjour en Espagne et en Portugal, de 1808 à 1811* (2 vols., 1837).

(J. H. L. R.)



JUNTA (from *juntar*, to join), a Spanish word meaning (1) any meeting for a common purpose; (2) a committee; (3) an administrative council or board. The original meaning is now rather lost in the two derivative significations. The Spaniards have even begun to make use of the barbarism *métin*, corrupted from the English "meeting." The word *junta* has always been and still is used in the other senses. Some of the boards by which the Spanish administration was conducted under the Habsburg and the earlier Bourbon kings were styled *juntas*. The superior governing body of the Inquisition was the *junta suprema*. The provincial committees formed to organize resistance to Napoleon's invasion in 1808 were so called, and so was the general committee chosen from among them to represent the nation. In the War of Independence (1808-1814), and in all subsequent civil wars or revolutionary disturbances in Spain or Spanish America, the local executive bodies, elected, or in some cases self-chosen, to appoint officers, raise money and soldiers, look after the wounded, and discharge the functions of an administration, have been known as *juntas*.

The form "Junto," a corruption due to other Spanish words ending in *-o*, came into use in English in the 17th century, often in a disparaging sense, of a party united for a political purpose, a faction or cabal; it was particularly applied to the advisers of Charles I., to the Rump under Cromwell, and to the leading members of the great Whig houses who controlled the government in the reigns of William III. and Anne.



JUPITER, the chief deity of the Roman state. The great and constantly growing influence exerted from a very early period on Rome by the superior civilization of Greece not only caused a modification of the Roman god on the analogy of Zeus, the supreme deity of the Greeks, but led the Latin writers to identify the one with the other, and to attribute to Jupiter myths and family relations which were purely Greek and never belonged to the real Roman religion. The Jupiter of actual worship was a Roman god; the Jupiter of Latin literature was more than half Greek. This identification was facilitated by the community of character which really belonged to Jupiter and Zeus as the Roman and Greek developments of a common original conception of the god of the light and the heaven.

That this was the original idea of Jupiter, not only in Rome, but among all Italian peoples, admits of no doubt. The earliest form of his name was *Diouis pater*, or *Diespiter*, and his special priest was the flamen dialis; all these words point to a root *div*, shining, and the connexion with *dies*, day, is obvious (cf. **JUNO**). One of his most ancient epithets is *Lucetius*, the light-bringer; and later literature has preserved the same idea in such phrases as *sub Jove*, under the open sky. All days of the full moon (*idus*) were sacred to him; all emanations from the sky were due to him and in the oldest form of religious thought were probably believed to be manifestations of the god himself. As Jupiter *Elicius* he was propitiated, with a peculiar ritual, to send rain in time of drought; as Jupiter *Fulgur* he had an altar in the Campus Martius, and all places struck by lightning were made his property and guarded from the profane by a circular wall. The vintage, which needs especially the light and heat of the sun, was under his particular care, and in the festivals connected with it (*Vinalia urbana*) and *Meditrinalia*, he was the deity invoked, and his flamen the priest employed. Throughout Italy we find him worshipped on the summits of hills, where nothing intervened between earth and heaven, and where all the phenomena of the sky could be conveniently observed. Thus on the Alban hill south of Rome was an ancient seat of his worship as Jupiter *Latialis*, which was the centre of the league of thirty Latin cities of which Rome was originally an ordinary member. At Rome itself it is on the Capitoline hill that we find his oldest temple, described by Livy (i. 10); here we have a tradition of his sacred tree, the oak, common to the worship both of Zeus and Jupiter, and here too was kept the *lapis silix*, perhaps a celt, believed to have been a thunderbolt, which was used symbolically by the fetiales when officially declaring war and making treaties on behalf of the Roman state. Hence the curious form of oath, *Jovem lapident jurare*, used both in public and private life at Rome.

In this oldest Jupiter of the Latins and Romans, the god of the light and the heaven, and the god invoked in taking the most solemn oaths, we may undoubtedly see not only the great protecting deity of the race, but one, and perhaps the only one, whose worship embodies a distinct moral conception. He is specially concerned with oaths, treaties and leagues, and it was in the presence of his priest that the most ancient and sacred form of marriage, *confarreatio*, took place. The lesser deities, Dius Fidius and Fides, were probably originally identical with him, and only gained a separate existence in course of time by a process familiar to students of ancient religion. This connexion with the conscience, with the sense of obligation and right dealing, was never quite lost throughout Roman history. In Virgil's great poem, though Jupiter is in many ways as much Greek as Roman, he is still the great protecting deity who keeps the hero in the path of duty (*pietas*) towards gods, state and family.

But this aspect of Jupiter gained a new force and meaning at the close of the monarchy with the building of the famous temple on the Capitol, of which the foundations are still to be seen. It was dedicated to Jupiter *Optimus Maximus*, i.e. the best and greatest of all the Jupiters, and with him were associated Juno and Minerva, in a fashion which clearly indicates a Graeco-Etruscan origin; for the combination of three deities in one temple was foreign to the ancient Roman religion, while it is found both in Greece and Etruria. This temple was built on a scale of magnificence quite unknown to primitive Rome, and was beyond doubt the work of Etruscan architects employed, we may presume, by the Tarquini. Its three *cellae* contained the statues of the three deities, with Jupiter in the middle holding his thunderbolt. Henceforward it was the centre of the religious life of the state, and symbolized its unity and strength. Its dedication festival fell on the 13th of September, on which day the consuls originally succeeded to office; accompanied by the senate and other magistrates and priests, and in fulfilment of a vow made by their predecessors, they offered to the great god a white heifer, his favourite sacrifice, and after rendering thanks for the preservation of the state during the past year, made the same vow as that by which they themselves had been bound. Then followed the *epulum Jovis* or feast of Jupiter, in which the three deities seem to have been visibly present in the form of their statues, Jupiter having a couch and each goddess a *sella*, and shared the meal with senate and magistrates. In later times this day became the central point of the great Roman games (*Judi Romani*), originally games vowed in honour of the god if he brought a war to a successful issue. When a victorious army returned home, it was to this temple that the triumphal procession passed, and the triumph of which we hear so often in Roman history may be taken as a religious ceremonial in honour of Jupiter. The general was dressed and painted to resemble the statue of Jupiter himself, and was drawn on a gilded chariot by four white horses through the Porta Triumphalis to the Capitol, where he offered a solemn sacrifice to the god, and laid on his knees the victor's laurels (see **TRIUMPH**).

Throughout the period of the Republic the great god of the Capitol in his temple looking down on the Forum continued to overshadow all other worships as the one in which the whole state was

concerned, in all its length and breadth, rather than any one gens or family. Under Augustus and the new monarchy it is sometimes said that the Capitoline worship suffered to some extent an eclipse (J. B. Carter, *The Religion of Numa*, p. 160 seq.); and it is true that as it was the policy of Augustus to identify the state with the interests of his own family, he did what was feasible to direct the attention of the people to the worships in which he and his family were specially concerned; thus his temple of Apollo on the Palatine, and that of Mars Ultor in the Forum Augusti, took over a few of the prerogatives of the cult on the Capitol. But Augustus was far too shrewd to attempt to oust Jupiter Optimus Maximus from his paramount position; and he became the protecting deity of the reigning emperor as representing the state, as he had been the protecting deity of the free republic. His worship spread over the whole empire; it is probable that every city had its temple to the three deities of the Roman Capitol, and the fact that the Romans chose the name of Jupiter in almost every case, by which to indicate the chief deity of the subject peoples, proves that they continued to regard him, so long as his worship existed at all, as the god whom they themselves looked upon as greatest.

See **ZEUS, ROMAN RELIGION**. Excellent accounts of Jupiter may be found in Roscher's *Mythological Lexicon*, and in Wissowa's *Religion und Kultus der Römer* (p. 100 seq.).

(W. M. RA.; W. W. F.*)



JUPITER, in astronomy, the largest planet of the solar system; his size is so great that it exceeds the collective mass of all the others in the proportion of 5 to 2. He travels in his orbit at a mean distance from the sun exceeding that of the earth 5.2 times, or 483,000,000 miles. The eccentricity of this orbit is considerable, amounting to 0.048, so that his maximum and minimum distances are 504,000,000 and 462,000,000 miles respectively. When in opposition and at his mean distance, he is situated 390,000,000 miles from the earth. His orbit is inclined about 1° 18' 40" to the ecliptic. His sidereal revolution is completed in 4332.585 days or 11 years 314.9 days, and his synodical period, or the mean interval separating his returns to opposition, amounts to 398.87 days. His real polar and equatorial diameters measure 84,570 and 90,190 miles respectively, so that the mean is 87,380 miles. His apparent diameter (equatorial) as seen from the earth varies from about 32", when in conjunction with the sun, to 50" in opposition to that luminary. The oblateness, or compression, of his globe amounts to about $\frac{1}{16}$; his volume exceeds that of the earth 1390 times, while his mass is about 300 times greater. These values are believed to be as accurate as the best modern determinations allow, but there are some differences amongst various observers and absolute exactness cannot be obtained.

The discovery of telescopic construction early in the 17th century and the practical use of the telescope by Galileo and others greatly enriched our knowledge of Jupiter and his system. Four of the satellites were detected in 1610, but the dark bands or belts on the globe of the planet do not appear to have been noticed until twenty years later. Though Galileo first sighted the satellites and perseveringly studied the Jovian orb, he failed to distinguish the belts, and we have to conclude either that these features were unusually faint at the period of his observations, or that his telescopes were insufficiently powerful to render them visible. The belts were first recognized by Nicolas Zucchi and Daniel Bartoli on the 17th of May 1630. They were seen also by Francesco Fontana in the same and immediately succeeding years, and by other observers of about the same period, including Zuppi, Giovanni Battista Riccioli and Francesco Maria Grimaldi. Improvements in telescopes were quickly introduced, and between 1655 and 1666 C. Huygens, R. Hooke and J. D. Cassini made more effective observations. Hooke discovered a large dark spot in the planet's southern hemisphere on the 19th of May 1664, and from this object Cassini determined the rotation period, in 1665 and later years, as 9 hours 56 minutes.

The belts, spots and irregular markings on Jupiter have now been assiduously studied during nearly three centuries. These markings are extremely variable in their tones, tints and relative velocities, and there is little reason to doubt that they are atmospheric formations floating above the surface of the planet in a series of different currents. Certain of the markings appear to be fairly durable, though their rates of motion exhibit considerable anomalies and prove that they must be quite detached from the actual sphere of Jupiter. At various times determinations of the rotation period were made as follows:—

<i>Date.</i>	<i>Observer.</i>	<i>Period.</i>	<i>Place of Spot.</i>
1672	J. D. Cassini	9 h. 55 m. 50 s.	Lat. 16° S.
1692	"	9 h. 50 m.	Equator.
1708	J. P. Maraldi	9 h. 55 m. 48 s.	S. tropical zone
1773	J. Sylvabelle	9 h. 56 m.	" "
1788	J. H. Schröter	9 h. 55 m. 33.6 s.	Lat. 12° N.
1788	"	9 h. 55 m. 17.6 s.	Lat. 20° S.
1835	J. H. Mädler	9 h. 55 m. 26.5 s.	Lat. 5° N.
1835	G. B. Airy	9 h. 55 m. 21.3 s.	N. tropical zone.

A great number of Jovian features have been traced in more recent years and their rotation periods ascertained. According to the researches of Stanley Williams the rates of motion for different latitudes of the planet are approximately as under:—

<i>Latitude.</i>	<i>Rotation Period.</i>
+85° to +28°	9 h. 55 m. 37.5 s.
+28° to +24°	9 h. 54½ m. to 9 h. 56½ m.
+24° to +20°	9 h. 48 m. to 9 h. 49½ m.
+20° to +10°	9 h. 55 m. 33.9 s.
+10° to -12°	9 h. 50 m. 20 s.
-12° to -18°	9 h. 55 m. 40 s.
-18° to -37°	9 h. 55 m. 18.1 s.
-37° to -55°	9 h. 55 m. 5 s.

W. F. Denning gives the following relative periods for the years 1898 to 1905:—

<i>Latitude.</i>	<i>Rotation Period.</i>
N.N. temperate	9 h. 55 m. 41.5 s.
N. temperate	9 h. 55 m. 53.8 s.
N. tropical	9 h. 55 m. 30 s.
Equatorial	9 h. 50 m. 27 s.
S. temperate	9 h. 55 m. 19.5 s.
S.S. temperate	9 h. 55 m. 7 s.

The above are the mean periods derived from a large number of markings. The bay or hollow in the great southern equatorial belt north of the red spot has perhaps been observed for a longer period than any other feature on Jupiter except the red spot itself. H. Schwabe saw the hollow in the belt on the 5th of September 1831 and on many subsequent dates. The rotation period of this object during the seventy years to the 5th of September 1901 was 9 h. 55 m. 36 s. from 61,813 rotations. Since 1901 the mean period has been 9 h. 55 m. 40 s., but it has fluctuated between 9 h. 55 m. 38 s. and 9 h. 55 m. 42 s. The motion of the various features is not therefore dependent upon their latitude, though at the equator the rate seems swifter as a rule than in other zones. But exceptions occur, for in 1880 some spots appeared in about 23° N. which rotated in 9 h. 48 m. though in the region immediately N. of this the spot motion is ordinarily the slowest of all and averages 9 h. 55 m. 53.8 s. (from twenty determinations). These differences of speed remind us of the sun-spots and their proper motions. The solar envelope, however, appears to show a pretty regular retardation towards the poles, for according to Gustav Spörer's formula, while the equatorial period is 25 d. 2 h. 15 m. the latitudes 46° N. and S. give a period of 28 d. 15 h. 0 m.

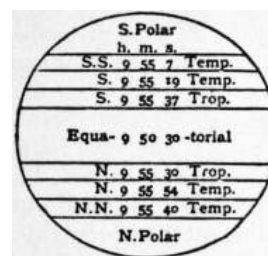


FIG. 1.—Inverted disk of Jupiter, showing the different currents and their rates of rotation.

The Jovian currents flow in a due east and west direction as though mainly influenced by the swift rotatory movement of the globe, and exhibit little sign of deviation either to N. or S. These currents do not blend and pass gradually into each other, but seem to be definitely bounded and controlled by separate, phenomena well capable of preserving their individuality. Occasionally, it is true, there have been slanting belts on Jupiter (a prominent example occurred in the spring of 1861), as though the materials were evolved with some force in a polar direction, but these oblique formations have usually spread out in longitude and ultimately formed bands parallel with the equator. The longitudinal currents do not individually present us with an equable rate of motion. In fact they display some curious irregularities, the spots carried along in them apparently oscillating to and fro without any reference to fixed periods or cyclical variations. Thus the equatorial current in 1880 moved at the rate of 9 h. 50 m. 6 s. whereas in 1905 it was 9 h. 50 m. 33 s. The red spot in the S. tropical zone gave 9 h. 55 m. 34 s. in 1879-1880, whereas during 1900-1908 it has varied a little on either side of 9 h. 55 m. 40.6 s. Clearly therefore no fixed period of rotation can be applied for any spot since it is subject to drifts E. or W. and these drifts sometimes come into operation suddenly, and may be either temporary or durable. Between 1878 and 1900 the red spot in the planet's S. hemisphere showed a continuous retardation of speed.

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It must be remembered that in speaking of the rotation of these markings, we are simply alluding to the irregularities in the vaporous envelope of Jupiter. The rotation of the planet itself is another matter and its value is not yet exactly known, though it is probably little different from that of the markings, and especially from those of the most durable character, which indicate a period of about 9 h. 56 m. We never discern the actual landscape of Jupiter or any of the individual forms really diversifying it.

Possibly the red spot which became so striking an object in 1878, and which still remains faintly visible on the planet, is the same feature as that discovered by R. Hooke in 1664 and watched by Cassini in following years. It was situated in approximately the same latitude of the planet and appears to have been hidden temporarily during several periods up to 1713. But the lack of fairly

continuous observations of this particular marking makes its identity with the present spot extremely doubtful. The latter was seen by W. R. Dawes in 1857, by Sir W. Huggins in 1858, by J. Baxendell in 1859, by Lord Rosse and R. Copeland in 1873, by H. C. Russell in 1876-1877, and in later years it has formed an object of general observation. In fact it may safely be said that no planetary marking has ever aroused such widespread interest and attracted such frequent observation as the great red spot on Jupiter.

The slight inclination of the equator of this planet to the plane of his orbit suggests that he experiences few seasonal changes. From the conditions we are, in fact, led to expect a prevailing calm in his atmosphere, the more so from the circumstance that the amount of the sun's heat poured upon each square mile of it is (on the average) less than the 27th part of that received by each square mile of the earth's surface. Moreover, the seasons of Jupiter have nearly twelve times the duration of ours, so that it would be naturally expected that changes in his atmosphere produced by solar action take place with extreme slowness. But this is very far from being the case. Telescopes reveal the indications of rapid changes and extensive disturbances in the aspect and material forming the belts. New spots covering large areas frequently appear and as frequently decay and vanish, implying an agitated condition of the Jovian atmosphere, and leading us to admit the operation of causes much more active than the heating influence of the sun.

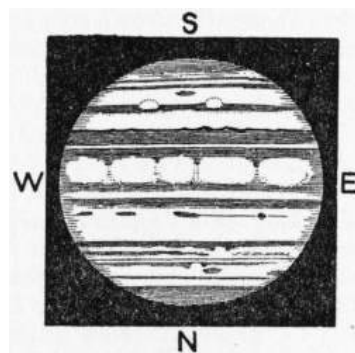


FIG. 2.—Jupiter, 1903, July 10, 2.50 a.m.

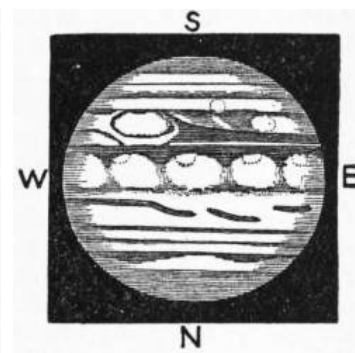


FIG. 3.—Jupiter, 1906, April 15, 5.50 p.m.

When we institute a comparison between Jupiter and the earth on the basis that the atmosphere of the former planet bears the same relation to his mass as the atmosphere of the earth bears to her mass, we find that a state of things must prevail on Jupiter very dissimilar to that affecting our own globe. The density of the Jovian atmosphere we should expect to be fully six times as great as the density of our air at sea-level, while it would be comparatively shallow. But the telescopic aspect of Jupiter apparently negatives the latter supposition. The belts and spots grow faint as they approach the limb, and disappear as they near the edge of the disk, thus indicating a dense and deep atmosphere. R. A. Proctor considered that the observed features suggested inherent heat, and adopted this conclusion as best explaining the surface phenomena of the planet. He regarded Jupiter as belonging, on account of his immense size, to a different class of bodies from the earth, and was led to believe that there existed greater analogy between Jupiter and the sun than between Jupiter and the earth. Thus the density of the sun, like that of Jupiter, is small compared with the earth's; in fact, the mean density of the sun is almost identical with that of Jupiter, and the belts of the latter planet may be much more aptly compared with the spot zones of the sun than with the trade zones of the earth.

In support of the theory of inherent heat on Jupiter it has been said that his albedo (or light reflected from his surface) is much greater than the amount would be were his surface similar to that of the moon, Mercury or Mars, and the reasoning has been applied to the large outer planets, Saturn, Uranus and Neptune, as well as to Jupiter. The average reflecting capacity of the moon and five outer planets would seem to be (on the assumption that they possess no inherent light) as follows:—

Moon	0.1736	Jupiter	0.6238	Uranus	0.6400
Mars	0.2672	Saturn	0.4981	Neptune	0.4848

These values were considered to support the view that the four larger and more distant orbs shine partly by inherent lustre, and the more so as spectroscopic analysis indicates that they are each involved in a deep vapour-laden atmosphere. But certain observations furnish a contradiction to Proctor's views. The absolute extinction of the satellites, even in the most powerful telescopes, while in the shadow of Jupiter, shows that they cannot receive sufficient light from their primary to render them visible, and the darkness of the shadows of the satellites when projected on the planet's disk proves that the latter cannot be self-luminous except in an insensible degree. It is also to be remarked that, were it only moderately self-luminous, the colour of the light which it sends to us would be red, such light being at first emitted from a heated body when its temperature is raised. Possibly, however, the great red spot, when the colouring was intense in 1878 and several following years, may have represented an opening in the Jovian atmosphere, and the ruddy belts may be extensive rifts in the same envelope. If Jupiter's actual globe emitted a good deal of heat and light we

should probably distinguish little of it, owing to the obscuring vapours floating above the surface. Venus reflects relatively more light than Jupiter, and there is little doubt that the albedo of a planet is dependent upon atmospheric characteristics, and is in no case a direct indication of inherent light and heat.

The colouring of the belts appears to be due to seasonal variations, for Stanley Williams has shown that their changes have a cycle of twelve years, and correspond as nearly as possible with a sidereal revolution of Jupiter. The variations are of such character that the two great equatorial belts are alternately affected; when the S. equatorial belt displays maximum redness the N. equatorial is at a minimum and vice versa.

The most plausible hypothesis with regard to the red spot is that it is of the nature of an island floating upon a liquid surface, though its great duration does not favour this idea. But it is an open question whether the belts of Jupiter indicate a liquid or gaseous condition of the visible surface. The difficulty in the way of the liquid hypothesis is the great difference in the times of rotation between the equatorial portions of the planet and the spots in temperate latitudes. The latter usually rotate in periods between 9 h. 55 m. and 9 h. 56 m., while the equatorial markings make a revolution in about five minutes less, 9 h. 50 m. to 9 h. 51 m. The difference amounts to 7.5° in a terrestrial day and proves that an equatorial spot will circulate right round the enormous sphere of Jupiter (circumference 283,000 m.) in 48 days. The motion is equivalent to about 6000 m. per day and 250 m. per hour.

(W. F. D.)

Satellites of Jupiter.

Jupiter is attended by eight known satellites, resolvable as regards their visibility into two widely different classes. Four satellites were discovered by Galileo and were the only ones known until 1892. In September of that year E. E. Barnard, at the Lick Observatory, discovered a fifth extremely faint satellite, performing a revolution in somewhat less than twelve hours. In 1904 two yet fainter satellites, far outside the other five, were photographically discovered by C. D. Perrine at the Lick Observatory. The eighth satellite was discovered by P. J. Melotte of Greenwich on the 28th of February 1908. It is of the 17th magnitude and appears to be very distant from Jupiter; a re-observation on the 16th of January 1909 proved it to be retrograde, and to have a very eccentric orbit. These bodies are usually numbered in the order of their discovery, the nearest to the sun being V. In apparent brightness each of the four Galilean satellites may be roughly classed as of the sixth magnitude; they would therefore be visible to a keen eye if the brilliancy of the planet did not obscure them. Some observers profess to have seen one or more of these bodies with the naked eye notwithstanding this drawback, but the evidence can scarcely be regarded as conclusive. It does not however seem unlikely that the third, which is the brightest, might be visible when in conjunction with one of the others.

Under good conditions and sufficient telescopic power the satellites are visible as disks, and not mere points of light. Measures of the apparent diameter of objects so faint are, however, difficult and uncertain. The results for the Galilean satellites range between $0''.9$ and $1''.5$, corresponding to diameters of between 3000 and 5000 kilometres. The smallest is therefore about the size of our moon. Satellite I. has been found to exhibit marked variations in its brightness and aspect, but the law governing them has not been satisfactorily worked out. It seems probable that one hemisphere of this satellite is brighter than the other, or that there is a large dark region upon it. A revolution on its axis corresponding with that of the orbital revolution around the planet has also been suspected, but is not yet established. Variations of light somewhat similar, but less in amount, have been noticed in the second and third satellites.

The most interesting and easily observed phenomena of these bodies are their eclipses and their transits across the disk of Jupiter. The four inner satellites pass through the shadow of Jupiter at every superior conjunction, and across his disk at every inferior conjunction. The outer Galilean satellite does the same when the conjunctions are not too near the line of nodes of the satellites' orbit. When most distant from the nodes, the satellites pass above or below the shadow and below or above the disk. These phenomena for the four Galilean satellites are predicted in the nautical almanacs.

When one of the four Galilean satellites is in transit across the disk of Jupiter it can generally be seen projected on the face of the planet. It is commonly brighter than Jupiter when it first enters upon the limb but sometimes darker near the centre of the disk. This is owing to the fact that the planet is much darker at the limb. During these transits the shadow of the satellites can also be seen projected on the planet as a dark point.

The theories of the motion of these bodies form one of the more interesting problems of celestial mechanics. Owing to the great ellipticity of Jupiter, growing out of his rapid rotation, the influence of this ellipticity upon the motions of the five inner satellites is much greater than that of the sun, or of the satellites on each other. The inclination of the orbits to the equator of Jupiter is quite small and almost constant, and the motion of each node is nearly uniform around the plane of the planet's equator.

The most marked feature of these bodies is a relation between the mean longitudes of Satellites I.,

II. and III. The mean longitude of I. plus twice that of III. minus three times that of II. is constantly near to 180°. It follows that the same relations subsist among the mean motions. The cause of this was pointed out by Laplace. If we put L_1 , L_2 and L_3 for the mean longitudes, and define an angle U as follows:—

$$U = L_1 - 3L_2 + 2L_3.$$

it was shown mathematically by Laplace that if the longitudes and mean motions were such that the angle U differed a little from 180°, there was a minute residual force arising from the mutual actions of the several bodies tending to bring this angle towards the value 180°. Consequently, if the mean motions were such that this angle increased only with great slowness, it would after a certain period tend back toward the value 180°, and then beyond it, exactly as a pendulum drawn out of the perpendicular oscillates towards and beyond it. Thus an oscillation would be engendered in virtue of which the angle would oscillate very slowly on each side of the central value. Computation of the mean longitude from observations has indicated that the angle does differ from 180°, but it is not certain whether this deviation is greater than the possible result of the errors of observation. However this may be, the existence of the libration, and its period if it does exist, are still unknown.

The following are the principal elements of the orbits of the five inner satellites, arranged in the order of distance from Jupiter. The mean longitudes are for 1891, 20th of October, G.M.T., and are referred to the equinox of the epoch, 1891, 2nd of October:—

Satellite	V.	I.	II.	III.	IV.
Mean Long.	264°.29	313°.7193	39°.1187	171°.2448	62°.2000
Synodic Period	11 h. 58 m.	1 d. 18 h. .48	3d. 13h. .30	7d. 3h. .99	16d. 18m. .09
Mean Distance	106,400 m.	260,000 m.	414,000 m.	661,000 m.	1,162,000 m.
Mass ÷ Mass of Jup.	(?)	.00002831	.00002324	.00008125	.00002149
Stellar Mag.	13	6.0	6.1	5.6	6.6

The following numbers relating to the planet itself have been supplied mostly by Professor Hermann Struve.

	Filar Mic.	Heliom.
Equatorial diameter of Jupiter (Dist. 5.2028)	38".50	37".50
Polar diameter of Jupiter	36".02	35".23
Ellipticity	1 ÷ 15.5	1 ÷ 16.5
Theoretical ellipticity from motion of 900" in the pericentre of Sat. V		1 ÷ 15.3
Centrifugal force ÷ gravity at equator		0.0900
Mass of Jupiter ÷ Mass of Sun, now used in tables		1 ÷ 1047.34
Inclination of planet's equator to ecliptic		2° 9'.07 + 0.006 <i>t</i>
Inclination of planet's equator to orbit		3° 4'.80
Long. of Node of equator on ecliptic		336° 21'.47 + 0'.762 <i>t</i>
Long. of Node of equator on orbit		135° 25'.81 + 0.729 <i>t</i>

The longitudes are referred to the mean terrestrial equinox, and t is the time in years from 1900.0.

For the elements of Jupiter's orbit, see [SOLAR SYSTEM](#); and for physical constants, see [PLANET](#).

(S. N.)



JUR (*DIUR*), the Dinka name for a tribe of negroes of the upper Nile valley, whose real name is Luoh, or Lwo. They appear to be immigrants, and tradition places their home in the south; they now occupy a district of the Bahr-el-Ghazal between the Bongo and Dinka tribes. Of a reddish black colour, fairer than the Dinka, they are well proportioned, with the hair short. Tattooing is not common, but when found is similar to that of the Dinka; they pierce the ears and nose, and in addition to the ornaments found among the Dinka (*q.v.*) wear a series of iron rings on the forearm covering it from wrist to elbow. They are mainly agricultural, but hunt and fish to a considerable extent; they are also skilful smiths, smelting their own iron, of which they supply quantities to the Dinka. They are a prosperous tribe and in consequence spinsters are unknown among them. Their chief currency is spears and hoe-blades, and cowrie shells are used in the purchase of wives. Their chief weapons are spears and bows.

See G. Schweinfurth, *The Heart of Africa: Travels 1868-1871*, trans. G. E. E. Frewer (2nd ed., 1874); W. Junker, *Travels in Africa* (Eng. ed., 1890-1892).



JURA, a department of France, on the eastern frontier, formed from the southern portion of the old province of Franche-Comté. It is bounded N by the department of Haute-Saône, N.E. by Doubs, E. by Switzerland, S. by Ain, and W. by Saône-et-Loire and Côte d'Or. Pop. (1906), 257,725. Area, 1951 sq. m. Jura comprises four distinct zones with a general direction from north to south. In the S.E. lie high eastern chains of the central Jura, containing the Crêt Pela (4915 ft.), the highest point in the department. More to the west there is a chain of forest-clad plateaus bordered on the E. by the river Ain. Westward of these runs a range of hills, the slopes of which are covered with vineyards. The north-west region of the department is occupied by a plain which includes the fertile Finage, the northern portion of the Bresse, and is traversed by the Doubs and its left affluent the Loue, between which lies the fine forest of Chaux, 76 sq. m. in area. Jura falls almost wholly within the basin of the Rhone. Besides those mentioned, the chief rivers are the Valouze and the Bienne, which water the south of the department. There are several lakes, the largest of which is that of Chalin, about 12 m. E. of Lons-le-Saunier. The climate is, on the whole, cold; the temperature is subject to sudden and violent changes, and among the mountains winter sometimes lingers for eight months. The rainfall is much above the average of France.

Jura is an agricultural department: wheat, oats, maize and barley are the chief cereals, the culture of potatoes and rape being also of importance. Vines are grown mainly in the cantons of Arbois, Poligny, Salins and Voiteur. Woodlands occupy about a fifth of the area: the oak, hornbeam and beech, and, in the mountains, the spruce and fir, are the principal varieties. Natural pasture is abundant on the mountains. Forests, gorges, torrents and cascades are characteristic features of the scenery. Its minerals include iron and salt and there are stone-quarries. Peat is also worked. Lons-le-Saunier and Salins have mineral springs. Industries include the manufacture of Gruyère, Septmoncel and other cheeses (made in co-operative cheese factories or *fruitières*), metal founding and forging, saw-milling, flour-milling, the cutting of precious stones (at Septmoncel and elsewhere), the manufacture of nails, tools and other iron goods, paper, leather, brier-pipes, toys and fancy woodenware and basket-work. The making of clocks, watches, spectacles and measures, which are largely exported, employs much labour in and around Morez. Imports consist of grain, cattle, wine, leaf-copper, horn, ivory, fancy-wood; exports of manufactured articles, wine, cheese, stone, timber and salt. The department is served chiefly by the Paris-Lyon-Méditerranée railway, the main line from Paris to Neuchâtel traversing its northern region. The canal from the Rhone to the Rhine, which utilizes the channel of the Doubs over portions of its course, traverses it for 25 m. Lons-le-Saunier is the chief town of Jura, which embraces four arrondissements named after the towns of Lons-le-Saunier, Dôle, Poligny and St Claude, with 32 cantons and 584 communes. The department forms the diocese of St Claude and part of the ecclesiastical province of Besançon; it comes within the region of the VIIth army corps and the educational circumscription (académie) of Besançon, where is its court of appeal. Lons-le-Saunier, Dôle, Arbois, Poligny, St Claude and Salins, the more noteworthy towns, receive separate notices. At Baume-les-Messieurs, 8 m. N.E. of Lons-le-Saunier, there is an ancient abbey with a fine church of the 12th century.



JURA ("deer island"), an island of the inner Hebrides, the fourth largest of the group, on the west coast of Argyllshire, Scotland. Pop. (1901), 560. On the N. it is separated from the island of Scarba by the whirlpool of Corrievreckan, caused by the rush of the tides, often running over 13 m. an hour, and sometimes accelerated by gales, on the E. from the mainland by the sound of Jura, and on the S. and S.W. from Islay by the sound of Islay. At Kinuachdrach there is a ferry to Aird in Lorne, in Argyllshire, and at Faolin there is a ferry to Port Askaig in Islay. Its area is about 160 sq. m., the greatest length is about 27 m., and the breadth varies from 2 m. to 8 m. The surface is mountainous and the island is the most rugged of the Hebrides. A chain of hills culminating in the Paps of Jura—Beinn-an-Oir (2571 ft.) and Beinn Chaolais (2407 ft.)—runs the whole length of the island, interrupted only by Tarbert loch, an arm of the sea, which forms an indentation nearly 6 m. deep and almost cuts the island in two. Jura derived its name from the red deer which once abounded on it. Cattle and sheep are raised; oats, barley and potatoes are cultivated along the eastern shore, and there is some fishing. Granite is quarried and silicious sand, employed in glass-making is found. The parish of Jura comprises the islands of Balnahua, Fladda, Garvelloch, Jura, Lunga, Scarba and Skervuile.



JURA, a range which may be roughly described as the block of mountains rising between the Rhine and the Rhone, and forming the frontier between France and Switzerland. The gorges by which these two rivers force their way to the plains cut off the Jura from the Swabian and Franconian ranges to the north and those of Dauphiné to the south. But in very early days, before these gorges had been carved out, there were no openings in the Jura at all, and even now its three chief rivers—the Doubs, the Loue and the Ain—flow down the western slope, which is both much longer and but half as steep as the eastern. Some geographers extend the name Jura to the Swabian and Franconian ranges between the Danube and the Neckar and the Main; but, though these are similar in point of composition and direction to the range to the south, it is most convenient to limit the name to the mountain ridges lying between France and Switzerland, and this narrower sense will be adopted here.

The Jura has been aptly described as a huge plateau about 156 m. long and 38 m. broad, hewn into an oblong shape, and raised by internal forces to an average height of from 1950 to 2600 ft. above the surrounding plains. The shock by which it was raised and the vibration caused by the elevation of the great chain of the Alps, produced many transverse gorges or “cluses,” while on the plateaus between these subaerial agencies have exercised their ordinary influence.

Geologically the Jura Mountains belong to the Alpine system; and the same forces which crumpled and tore the strata of the one produced the folds and faults in the other. Both chains owe their origin to the mass of crystalline and unyielding rock which forms the central plateau of France, the Vosges and the Black Forest, and which, between the Vosges and the central plateau, lies at no great depth beneath the surface. Against this mass the more yielding strata which lay to the south and west were crushed and folded, and the Alps and the Jura were carved from the ridges which were raised. But the folding decreases in intensity towards the north; the folding in the Alps is much more violent than the folding in the Jura, and in the Jura itself the folding is most marked along its southern flanks.

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The Jura is composed chiefly of Jurassic rocks—it is from this chain that the Jurassic system derives its name—but Triassic, Cretaceous and Tertiary beds take part in its formation. It may be divided into three zones which run parallel to the length of the chain and differ from one another in their structure. The innermost zone, which rises directly from the plain of Switzerland, is the *folded Jura* (*Jura plissé*, *Kettenjura*), formed of narrow parallel undulations which diminish in intensity towards the French border. This is followed by the *Jura plateau* (*Jura tabulaire*, *Tafeljura*), in which the beds are approximately horizontal but are broken up into blocks by fractures or faults. Finally, along its western face there is a zone of numerous dislocations, and the range descends abruptly to the plain of the Saône. This is the *Région du vignoble* and is well shown at Arbois.

Owing to the convergence of the faults which bound it, the plateau zone decreases in width towards the south, while towards the north it forms a large proportion of the chain. The folded zone is more constant. Along its inner margin the folds are frequently overthrown, leaning towards France, but elsewhere they are simple anticlinals and synclinals, parallel to the length of the chain, and as a rule there is a remarkable freedom from dislocations of any importance, except towards Neuchâtel and Bienne.

The countless blocks of gneiss, granite and other crystalline formations which are found in such numbers on the slopes of the Jura, and go by the name of “erratic blocks” (of which the best known instance—the Pierre à Bot—is 40 ft. in diameter, and rests on the side of a hill 800 ft. above the Lake of Neuchâtel), have been transported thither from the Alps by ancient glaciers, which have left their mark on the Jura range itself in the shape of striations and moraines.

The general direction of the chain is from north-east to south-west, but a careful study reveals the fact that there were in reality two main lines of upheaval, viz. north to south and east to west, the former best seen in the southern part of the range and the latter in the northern; and it was by the union of these two forces that the lines north-east to south-west (seen in the greater part of the chain), and north-west to south-east (seen in the Villebois range at the south-west extremity of the chain), were produced. This is best realized if we take Besançon as a centre; to the north the ridges run east and west, to the south, north and south, while to the east the direction is north-east to south-west.

Before considering the topography of the interior of the Jura, it may be convenient to take a brief survey of its outer slopes.

1. The *northern face* dominates on one side the famous “Trouée” (or Trench) of Belfort, one of the great geographical centres of Europe, whence routes run north down the Rhine to the North Sea, south-east to the Danube basin and Black Sea, and south-west into France, and so to the Mediterranean basin. It is now so strongly fortified that it becomes a question of great strategical importance to prevent its being turned by means of the great central plateau of the Jura, which, as we shall see, is a network of roads and railways. On the other side it overhangs the “Trouée” of the Black Forest towns on the Rhine (Rheinfelden, Säkingen, Laufenburg and Waldshut), through which the central plain of Switzerland is easily gained. On this north slope two openings offer routes into the interior of the chain—the valley of the Doubs belonging to France, and the valley of the Birse belonging to Switzerland. Belfort is the military, Mülhausen the industrial, and Basel the commercial centre of this slope.

2. The *eastern and western faces* offer many striking parallels. The plains through which flow the

Aar and the Saône have each been the bed of an ancient lake, traces of which remain in the lakes of Neuchâtel, Bienne and Morat. The west face runs mainly north and south like its great river, and for a similar reason the east face runs north-east to south-west. Again, both slopes are pierced by many transverse gorges or “cluses” (due to fracture and not to erosion), by which access is gained to the great central plateau of Pontarlier, though these are seen more plainly on the east face than on the west; thus the gorges at the exit from which Lons-le-Saunier, Poligny, Arbois and Salins are built balance those of the Suze, of the Val de Ruz, of the Val de Travers, and of the Val d’Orbe, though on the east face there is but one city which commands all these important routes—Neuchâtel. This town is thus marked out by nature as a great military and industrial centre, just as is Besançon on the west, which has besides to defend the route from Belfort down the Doubs. These easy means of communicating with the Free County of Burgundy or Franche-Comté account for the fact that the dialect of Neuchâtel is Burgundian, and that it was held generally by Burgundian nobles, though most of the country near it was in the hands of the house of Savoy until gradually annexed by Bern. The Chasseron (5286 ft.) is the central point of the eastern face, commanding the two great railways which join Neuchâtel and Pontarlier. This ridge is in a certain sense parallel to the valley of the Loue on the west face, which flows into the Doubs a little to the south of Dôle, the only important town of the central portion of the Saône basin. The Chasseron is wholly Swiss, as are the lower summits of the Chasseral (5279 ft.), the Mont Suchet (5220 ft.), the Aiguille de Baulmes (5128 ft.), the Dent de Vaultion (4879 ft.), the Weissenstein (4223 ft.), and the Chaumont (3845 ft.), the two last-named points being probably the best-known points in the Jura, as they are accessible by carriage road from Soleure and Neuchâtel respectively. South of the Orbe valley the east face becomes a rocky wall which is crowned by all the highest summits (the first and second Swiss, the rest French) of the chain—the Mont Tendre (5512 ft.), the Dôle (5505 ft.), the Reculet (5643 ft.), the Crêt de la Neige (5653 ft.) and the Grand Crédo (5328 ft.), the uniformity of level being as striking as on the west edge of the Jura, though there the absolute height is far less. The position of the Dôle is similar to that of the Chasseron, as along the sides of it run the great roads of the Col de St Cergues (3973 ft.) and the Col de la Faucille (4341 ft.), the latter leading through the Vallée des Dappes, which was divided in 1862 between France and Switzerland, after many negotiations. The height of these roads shows that they are passages across the chain, rather than through natural depressions.

3. The *southern face* is supported by two great pillars—on the east by the Grand Crédo and on the west by the ridge of Revermont (2529 ft.) above Bourg en Bresse; between these a huge bastion (the district of *Bugey*) stretches away to the south, forcing the Rhone to make a long détour. On the two sides of this bastion the plains in which Ambérieu and Culoz stand balance one another, and are the meeting points of the routes which cut through the bastion by means of deep gorges. On the eastern side this great wedge is steep and rugged, ending in the Grand Colombier (5033 ft.) above Culoz, and it sinks on the western side to the valley of the Ain, the district of Bresse, and the plateau of Dombes. The junction of the Ain and the Surand at Pont d’Ain on the west balances that of the Valserine and the Rhone at Bellegarde on the east.

The Jura thus dominates on the north one of the great highways of Europe, on the east and west divides the valleys of the Saône and the Aar, and stretches out to the south so as nearly to join hands with the great mass of the Dauphiné Alps. It therefore commands the routes from France into Germany, Switzerland and Italy, and hence its enormous historical importance.

Let us now examine the topography of the interior of the range. This naturally falls into three divisions, each traversed by one of the three great rivers of the Jura—the Doubs, the Loue and the Ain.

1. In the *northern division* it is the east and west line which prevails—the Lomont, the Mont Terrible, the defile of the Doubs from St Ursanne to St Hippolyte, and the “*Trouée*” of the Black Forest towns. It thus bars access to the central plateau from the north, and this natural wall does away with the necessity of artificial fortifications. This division falls again into two distinct portions.

(a) The first is the *part east of the deep gorge of the Doubs* after it turns south at St Hippolyte; it is thus quite cut off on this side, and is naturally Swiss territory. It includes the basin of the river Birse, and the great plateau between the Doubs and the Aar, on which, at an average height of 2600 ft., are situated a number of towns, one of the most striking features of the Jura. These include Le Locle (*q.v.*) and La Chaux de Fonds (*q.v.*), and are mainly occupied with watch-making, an industry which does not require bulky machinery, and is therefore well fitted for a mountain district.

(b) *The part west of the “cluse” of the Doubs*: of this, the district east of the river Dessoubre, isolated in the interior of the range (unlike the Le Locle plateau), is called the Haute Montagne, and is given up to cheese-making, curing of hams, saw-mills, &c. But little watch-making is carried on there, Besançon being the chief French centre of this industry, and being connected with Geneva by a chain of places similarly occupied, which fringe the west plateau of the Jura. The part west of the Dessoubre, or the Moyenne Montagne, a huge plateau north of the Loue, is more especially devoted to agriculture, while along its north edge metal-working and manufacture of hardware are carried on, particularly at Besançon and Audincourt.

2. The *central division* is remarkable for being without the deep gorges which are found so frequently in other parts of the range. It consists of the basin of which Pontarlier is the centre, through notches in the rim of which routes converge from every direction; this is the great characteristic of the middle region of the Jura. Hence its immense strategical and commercial importance. On the north-east roads run to Morteau and Le Locle, on the north-west to Besançon, on the west to Salins, on the south-west to Dôle and Lons-le-Saunier, on the east to the Swiss plain. The Pontarlier plateau is nearly horizontal, the slight indentations in it being due to erosion, *e.g.* by the

river Drugeon. The keys to this important plateau are to the east the Fort de Joux, under the walls of which meet the two lines of railway from Neuchâtel, and to the west Salins, the meeting place of the routes from the Col de la Faucille, from Besançon, and from the French plain.

The Ain rises on the south edge of this plateau, and on a lower shelf or step, which it waters, are situated two points of great military importance—Nozeroy and Champagnole. The latter is specially important, since the road leading thence to Geneva traverses one after another, not far from their head, the chief valleys which run down into the South Jura, and thus commands the southern routes as well as those by St Cergues and the Col de la Faucille from the Geneva region, and a branch route along the Orbe river from Jougne. The fort of Les Rousses, near the foot of the Dôle, serves as an advanced post to Champagnole, just as the Fort de Joux does to Pontarlier.

The above sketch will serve to show the character of the central Jura as the meeting place of routes from all sides, and the importance to France of its being strongly fortified, lest an enemy approaching from the north-east should try to turn the fortresses of the "Trouée de Belfort." It is in the western part of the central Jura that the north and south lines first appear strongly marked. There are said to be in this district no less than fifteen ridges running parallel to each other, and it is these which force the Loue to the north, and thereby occasion its very eccentric course. The cultivation of wormwood wherewith to make the tonic "absinthe" has its headquarters at Pontarlier.

3. The *southern division* is by far the most complicated and entangled part of the Jura. The lofty ridge which bounds it to the east forces all its drainage to the west, and the result is a number of valleys of erosion (of which that of the Ain is the chief instance), quite distinct from the natural "cluses" or fissures of those of the Doubs and of the Loue. Another point of interest is the number of roads which intersect it, despite its extreme irregularity. This is due to the great "cluses" of Nantua and Virieu, which traverse it from east to west. The north and south line is very clearly seen in the eastern part of this division; the north-east and south-west is entirely wanting, but in the Villebois range south of Ambérieu we have the principal example of the north-west to south-east line. The plateaus west of the Ain are cut through by the valleys of the Valouse and of the Surand, and like all the lowest terraces on the west slope do not possess any considerable towns. The Ain receives three tributaries from the east:—

(a) The Bienne, which flows from the fort of Les Rousses by St Claude, the industrial centre of the south Jura, famous for the manufacture of wooden toys, owing to the large quantity of boxwood in the neighbourhood. Septmoncel is busied with cutting of gems, and Morez with watch and spectacle making. Cut off to the east by the great chain, the industrial prosperity of this valley is of recent origin.

(b) The Oignin, which flows from south to north. It receives the drainage of the lake of Nantua, a town noted for combs and silk weaving, and which communicates by the "cluse" of the Lac de Silan with the Valserine valley, and so with the Rhone at Bellegarde, and again with the various routes which meet under the walls of the fort of Les Rousses, while by the Val Romey and the Séran Culoz is easily gained.

(c) The Albarine, connected with Culoz by the "cluse" of Virieu, and by the Furan flowing south with Belley, the capital of the district of Bugey (the old name for the South Jura).

The "cluses" of Nantua and Virieu are now both traversed by important railways; and it is even truer than of old that the keys of the south Jura are Lyons and Geneva. But of course the strategic importance of these gorges is less than appears at first sight, because they can be turned by following the Rhone in its great bend to the south.

The range is mentioned by Caesar (*Bell. Gall.* i. 2-3, 6 (1), and 8 (1)), Strabo (iv. 3, 4, and 6, 11), Pliny (iii. 31; iv. 105; xvi. 197) and Ptolemy (ii. ix. 5), its name being a word which appears under many forms (*e.g.* Joux, Jorat, Jorasse, Juriens), and is a synonym for a wood or forest. The German name is Leberberg, *Leber* being a provincial word for a hill.

Politically the Jura is French (departments of the Doubs, Jura and Ain) and Swiss (parts of the cantons of Geneva, Vaud, Neuchâtel, Bern, Soleure and Basel); but at its north extremity it takes in a small bit of Alsace (Pfirt or Ferrette). In the middle ages the southern, western and northern sides were parcelled out into a number of districts, all of which were gradually absorbed by the French crown, viz., Gex, Val Romey, Bresse and Bugey (exchanged in 1601 by Savoy for the marquise of Saluzzo), Franche-Comté, or the Free County of Burgundy, an imperial fief till annexed in 1674, the county of Montbéliard (Mômpelgard) acquired in 1793, and the county of Ferrette (French 1648-1871). The northern part of the eastern side was held till 1792 (part till 1797) by the bishop of Basel as a fief of the empire, and then belonged to France till 1814, but was given to Bern in 1815 (as a recompense for its loss of Vaud), and now forms the Bernese Jura, a French-speaking district. The centre of the eastern slope formed the principality of Neuchâtel (*q.v.*) and the county of Valangin, which were generally held by Burgundian nobles, came by succession to the kings of Prussia in 1707, and were formed into a Swiss canton in 1815, though they did not become free from formal Prussian claims until 1857. The southern part of the eastern slope originally belonged to the house of Savoy, but was conquered bit by bit by Bern, which was forced in 1815 to accept its subject district Vaud as a colleague and equal in the Swiss Confederation. It was Charles the Bold's defeats at Grandson and Morat which led to the annexation by the confederates of these portions of Savoyard territory.

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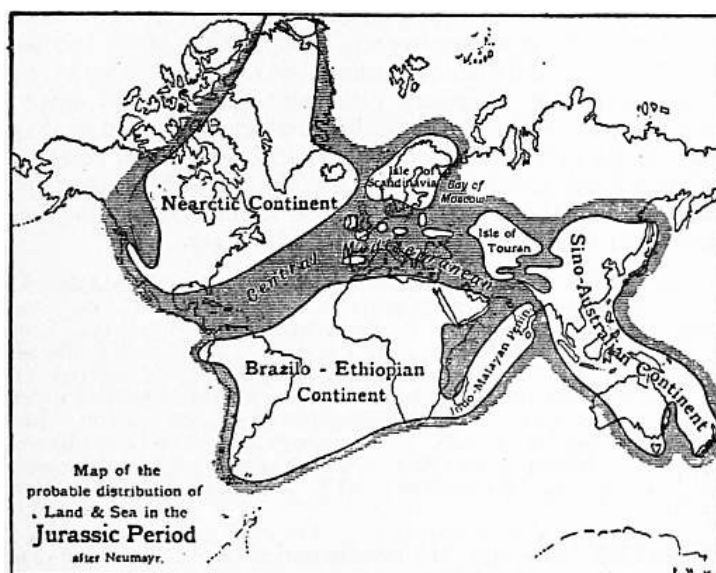
(W. A. B. C.)



JURASSIC, in geology, the middle period of the Mesozoic era, that is to say, succeeding the Triassic and preceding the Cretaceous periods. The name Jurassic (French *jurassique*; German *Juraformation* or *Jura*) was first employed by A. Brongniart and A. von Humboldt for the rocks of this age in the western Jura mountains of Switzerland, where they are well developed. It was in England, however, that they were first studied by William Smith, in whose hands they were made to lay the foundations of stratigraphical geology. The names adopted by him for the subdivisions he traced across the country have passed into universal use, and though some of them are uncouth English provincial names, they are as familiar to the geologists of France, Switzerland and Germany as to those of England. During the following three decades Smith's work was elaborated by W. D. Conybeare and W. Phillips. The Jurassic rocks of fossils of the European continent were described by d'Orbigny, 1840-1846; by L. von Buch, 1839; by F. A. Quenstedt, 1843-1888; by A. Oppel, 1856-1858; and since then by many other workers: E. Benecke, E. Hébert, W. Waagen, and others. The study of Jurassic rocks has continued to attract the attention of geologists, partly because the bedding is so well defined and regular—the strata are little disturbed anywhere outside the Swiss Jura and the Alps—and partly because the fossils are numerous and usually well-preserved. The result has been that no other system of rocks has been so carefully examined throughout its entire thickness; many "zones" have been established by means of the fossils—principally by ammonites—and these zones are not restricted to limited districts, but many of them hold good over wide areas. Oppel distinguished no fewer than thirty-three zonal horizons, and since then many more sub-zonal divisions have been noted locally.

The existence of *faunal regions* in Jurassic times was first pointed out by J. Marcou; later M. Neumayr greatly extended observations in this direction. According to Neumayr, three distinct geographical regions of deposit can be made out among the Jurassic rocks of Europe: (1) The Mediterranean province, embracing the Pyrenees, Alps and Carpathians, with all the tracts lying to the south. One of the biological characters of this area was the great abundance of ammonites belonging to the groups of *Heterophylli* (*Phylloceras*) and *Fimbriati* (*Lytoceras*). (2) The central European province, comprising the tracts lying to the north of the Alpine ridge, and marked by the comparative rarity of the ammonites just mentioned, which are replaced by others of the groups *Inflati* (*Aspidoceras*) and *Oppelia*, and by abundant reefs and masses of coral. (3) The boreal or Russian province, comprising the middle and north of Russia, Spitzbergen and Greenland. The life in this area was much less varied than in the others, showing that in Jurassic times there was a perceptible diminution of temperature towards the north. The ammonites of the more southern tracts here disappear, together with the corals.

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The cause of these faunal regions Neumayr attributed to climatic belts—such as exist to-day—and in part, at least, he was probably correct. It should be borne in mind, however, that although

Neumayr was able to trace a broad, warm belt, some 60° in width, right round the earth, with a narrower mild belt to the north and an arctic or boreal belt beyond, and certain indications of a repetition of the climatic zones on the southern side of the thermal equator, more recent discoveries of fossils seem to show that other influences must have been at work in determining their distribution; in short, the identity of the Neumayrian climatic boundaries becomes increasingly obscured by the advance of our knowledge.

The Jurassic period was marked by a great extension of the sea, which commenced after the close of the Trias and reached its maximum during the Callovian and Oxfordian stages; consequently, the Middle Jurassic rocks are much more widely spread than the Lias. In Europe and elsewhere Triassic beds pass gradually up into the Jurassic, so that there is difficulty sometimes in agreement as to the best line for the base of the latter; similarly at the top of the system there is a passage from the Jurassic to the Cretaceous rocks (Alps).

Towards the close of the period elevation began in certain regions; thus, in America, the Sierras, Cascade Mountains, Klamath Mountains, and Humboldt Range probably began to emerge. In England the estuarine Portlandian resulted partly from elevation, but in the Alps marine conditions steadily persisted (in the Tithonian stage). There appears to have been very little crustal disturbance or volcanic activity; tuffs are known in Argentina and California; volcanic rocks of this age occur also in Skye and Mull.

The rocks of the Jurassic system present great petrological diversity. In England the name "Oolites" was given to the middle and higher members of the system on account of the prevalence of oolitic structure in the limestones and ironstones; the same character is a common feature in the rocks of northern Europe and elsewhere, but it must not be overlooked that clays and sandstones together bulk more largely in the aggregate than the oolites. The thickness of Jurassic rocks in England is 4000 to 5000 ft., and in Germany 2000 to 3000 ft. Most of the rocks represent the deposits of shallow seas, but estuarine conditions and land deposits occur as in the Purbeck beds of Dorset and the coals of Yorkshire. Coal is a very important feature among Jurassic rocks, particularly in the Liassic division; it is found in Hungary, where there are twenty-five workable beds; in Persia, Turkestan, Caucasus, south Siberia, China, Japan, Further India, New Zealand and in many of the Pacific Islands.

Being shallow water formations, petrological changes come in rapidly as many of the beds are traced out; sandstones pass laterally into clays, and the latter into limestones, and so on, but a reliable guide to the classification and correlation is found in the fossil contents of the rocks. In the accompanying table a list is given of some of the zonal fossils which regularly occur in the order indicated; other forms are known that are equally useful. It will be noticed that while there is general agreement as to the order in which the zonal forms occur, the line of division between one formation and another is liable to vary according to factors in the personal equation of the authors.

The Jurassic formations stretch across England in a varying band from the mouth of the Tees to the coast of Dorsetshire. They consist of harder sandstones and limestones interstratified with softer clays and shales. Hence they give rise to a characteristic type of scenery—the more durable beds standing out as long ridges, sometimes even with low cliffs, while the clays underlie the level spaces between.

Jurassic rocks cover a vast area in Central Europe. They rise from under the Cretaceous formations in the north-east of France, whence they range southwards down the valleys of the Saône and Rhone to the Mediterranean. They appear as a broken border round the old crystalline nucleus of Auvergne. Eastwards they range through the Jura Mountains up to the high grounds of Bohemia. They appear in the outer chains of the Alps on both sides, and on the south they rise along the centre of the Apennines, and here and there over the Spanish Peninsula. Covered by more recent formations they underlie the great plain of northern Germany, whence they range eastwards and occupy large tracts in central and eastern Russia.

Lower Jurassic rocks are absent from much of northern Russia, the stages represented being the Callovian, Oxfordian and Volgian (of Professor S. Nikitin); the fauna differs considerably from that of western Europe, and the marine equivalents of the Purbeck beds are found in this region. In south Russia, the Crimea and Caucasus, Lias and Lower Jurassic rocks are present. In the Alps, the Lower Jurassic rocks are intimately associated with the underlying Triassic formations, and resemble them in consisting largely of reddish limestones and marbles; the ammonites in this region differ in certain respects from those of western and central Europe. The Oxfordian, Callovian, Corallian and Astartian stages are also present. The Upper Jurassic is mainly represented by a uniform series of limestones, with a peculiar and characteristic fauna, to which Oppel gave the name "Tithonian." This includes most of the horizons from Kimeridgian to Cretaceous; it is developed on the southern flanks of the Alps, Carpathians, Apennines, as well as in south France and other parts of the Mediterranean basin. A characteristic formation on this horizon is the "Diphyia limestone," so-called from the fossil *Terebratula diphyia* (*Pygope janitor*) seen in the well-known escarpments (*Hochgebirge Kalk*). Above the Diphyia limestone comes the Stramberg limestone (Stramberg in Moravia), with "Aptychus" beds and coral reefs. The rocks of the Mediterranean basin are on the whole more calcareous than those of corresponding age in north-west Europe; thus the Lias is represented by 1500 ft. of white crystalline limestone in Calabria and a similar rock occurs in Sicily, Bosnia, Epirus, Corfu; in Spain the Liassic strata are frequently dolomitic; in the Apennines they are variegated limestones and marls. The Higher Jurassic beds of Portugal show traces of the proximity of land in the abundant plant remains

that are found in them. In Scania the Lias succeeds the Rhaetic beds in a regular manner, and Jurassic rocks have been traced northward well within the polar circle; they are known in the Lofoten Isles, Spitzbergen, east Greenland, King Charles's Island, Cape Stewart in Scoresby Sound, Grinnell Land, Prince Patrick Land, Bathurst and Exmouth Island; in many cases the fossils denote a climate considerably milder than now obtains in these latitudes.

In the American continent Jurassic rocks are not well developed. Marine Lower and Middle Jurassic beds occur on the Pacific coast (California and Oregon), and in Wyoming, the Dakotas, Colorado, east Mexico and Texas. Above the marine beds in the interior are brackish and fresh-water deposits, the Morrison and Como beds (*Atlantosaurus* and *Baptanodon* beds of Marsh). Later Jurassic rocks are found in northern British Columbia and perhaps in Alaska, Wyoming, Utah, Montana, Colorado, the Dakotas, &c. In California some of the gold-bearing, metamorphic slates are of this age. Marine Jurassic rocks have not been clearly identified on the Atlantic side of America. The Patuxent and Arundel formations (non-marine) are doubtfully referred to this period. Lower and Middle Jurassic formations occur in Argentina and Bolivia. Jurassic rocks have been recognized in Asia, including India, Afghanistan, Persia, Kurdistan, Asia Minor, the Caspian region, Japan and Borneo. The best marine development is in Cutch, where the following groups are distinguished from above downwards: the Umia series = Portlandian and Tithonian of south Europe, passing upwards into the Neocomian; the Katrol series = Oxfordian (part) and Kimeridgian; the Chari series = Callovian and part of the Oxfordian; the Patcham series = Bathonian. In the western half of the Salt Range and the Himalayas, Spiti shales are the equivalents of the European Callovian and Kimeridgian. The upper part of the Gondwana series is not improbably Jurassic. On the African continent, Liassic strata are found in Algeria, and Bathonian formations occur in Abyssinia, Somaliland, Cape Colony and western Madagascar. In Australia the Permo-Carboniferous formations are succeeded in Queensland and Western Australia by what may be termed the Jura-Trias, which include the coal-bearing "Ipswich" and "Burrum" formations of Queensland. In New Zealand there is a thick series of marine beds with terrestrial plants, the Mataura series in the upper part of Hutton's Hokanui system. Sir J. Hector included also the Putakaka series (as Middle Jurassic) and the Flag series with the Catlin's River and Bastion series below. Jurassic rocks have been recorded from New Guinea and New Caledonia.

		Stages ¹	Ammonite Zones	Oppel	Substages of Quenstedt	Von Buch	A. de Lapparent, <i>Traité</i> , 5th ed.		Alpine			
JURASSIC SYSTEM	OOLITES	Upper Oolites	Purbeckian	Malm	Upper or White Jura	Upper or White Jura	Purbeckien or Aquilonien	Portlandien	Alpine			
			Portlandian				ζ			Bononien	Portlandien	
			Kimeridgian							ε δ γ		Virgulien
		Middle Oolites	Corallian				β	Pteroceran			Seqouanien	
			Oxfordian					α		Astartien Rauracien		Oxfordien
			Callovian							Argovien		
	Lower Oolites	Bathonian	Dogger	Middle or Brown Jura	ε	Upper Divesien	Lower Divesien	Mésojurassique				
		Bajocian (Inferior Oolite)				δ γ β				Bathonien	Bajocien	
	(passage beds)				α							
	LIAS		Upper Lias	Lias	Lower or Black Jura	ζ ε δ γ β α	Lower or Black Jura	Toarcien		Éojurassique		
Middle Lias			Charmouthien									
Lower Lias			Sinemourien									
			Hettangien (part) Hettangien (part) Rhétien									
							Infra-Lias Système Liassique					
							Grestener Beds (Coal) Adnetter Kalke Brachiopod or Hierlatz facies Algiäu Beds Fleckenmergel					
							Ammonitico rosso of Tithonien, southern Alps					
							Aptychen-Kalke and Radiolariengesteine	<i>Diphyia</i> -Kalk <i>Acanthicus</i> Beds				
								Posidonien Beds (S. Alps Klauss Bed (N. Alps) <i>Sauzei</i> -Kalk Oolite of San Vigilio				

1 *Purbeckian* from the "Isle" of Purbeck. *Aquilonien* from Aquilo (Nord). *Bononien* from Bononia (Boulogne). *Virgulien* from *Exogyra virgula*. *Pteroceran* from *Pteroceras oceani*. *Astartien* from *Astarte supracorollina*. *Rauracien* from Rauracia (Jura). *Argovien* from Argovie (Switzerland). *Neuvizien* from Neuvizy (Ardennes). *Divesien* from Dives (Calvados). *Bathonien* from Bath (England). *Bajocien* from Bayeux (Calvados). *Toarcien* from Toarcium (Tours). *Charmouthien* from Charmouth (England). *Sinemourien* from Sinemurum, Semur (Côte d'Or). *Hettangien* from Hettange (Lorraine).

Life in the Jurassic Period.—The expansion of the sea during this period, with the formation of broad sheets of shallow and probably warmish water, appears to have been favourable to many forms of marine life. Under these conditions several groups of organisms developed rapidly along new directions, so that the Jurassic period as a whole came to have a fauna differing clearly and distinctly from the preceding Palaeozoic or succeeding Tertiary faunas. In the seas, all the main groups were represented as they are to-day. Corals were abundant, and in later portions of the period covered large areas in Europe; the modern type of coral became dominant; besides reef-building forms such as *Thamnastrea*, *Isastrea*, *Thecosmilia*, there were numerous single forms like *Montivaltia*. Crinoids existed in great numbers in some of the shallow seas; compared with Palaeozoic forms there is a marked reduction in the size of the calyx with a great extension in the number of arms and pinnules; *Pentacrinus*, *Eugeniocrinus*, *Apiocrinus* are all well known; Antedon was a stalkless genus. Echinoids (urchins) were gradually developing the so-called "irregular" type, *Echinobrissus*, *Holectypus*, *Collyrites*, *Clypeus*, but the "regular" forms prevailed, *Cidaris*, *Hemicidaris*, *Acrosalenia*. Sponges were important rock-builders in Upper Jurassic times (*Spongiten Kalk*); they include lithistids such as *Cnemediastrum*, *Hyalotragus*, *Peronidella*; hexactinellids, *Tremadictyon*, *Craticularia*; and horny sponges have been found in the Lias and Middle Jurassic.

Polyzoa are found abundantly in some of the beds, *Stomatopora*, *Berenicia*, &c. Brachiopods were represented principally by terebratulids (*Terebratula*, *Waldheimia*, *Megerlea*), and by rhynchonellids; *Theca*, *Lingula* and *Crania* were also present. The Palaeozoic spiriferids and athyrids still lingered

into the Lias. More important than the brachiopods were the pelecypods; *Ostrea*, *Exogyra*, *Gryphaea* were very abundant (Gryphite limestone, Gryphite grit); the genus *Trigonia*, now restricted to Australian waters, was present in great variety; *Aucella*, *Lima*, *Pecten*, *Pseudomonotis Gervillia*, *Astarte*, *Diceras*, *Isocardia*, *Pleuromya* may be mentioned out of many others. Amongst the gasteropods the *Pleurotomariidae* and *Turbinidae* reached their maximum development; the Palaeozoic *Conularia* lived to see the beginning of this period (*Pleurotomaria*, *Nerinea*, *Pteroceras*, *Cerithium*, *Turritella*).

Cephalopods flourished everywhere; first in importance were the ammonites; the Triassic genera *Phylloceras* and *Lytoceras* were still found in the Jurassic waters, but all the other numerous genera were new, and their shells are found with every variation of size and ornamentation. Some are characteristic of the older Jurassic rocks, *Arietites*, *Aegoceras*, *Amaltheus*, *Harpoceras*, *Oxynoticeras*, *Stepheoceras*, and the two genera mentioned above; in the middle stages are found *Cosmoceras*, *Perisphinctes*, *Cardioceras*, *Kepplerites* *Aspidoceras*; in the upper stages *Olcostephanus*, *Perisphinctes*, *Reineckia*, *Oppelia*. So regularly do certain forms characterize definite horizons in the rocks that some thirty zones have been distinguished in Europe, and many of them can be traced even as far as India. Another cephalopod group, the belemnites, that had been dimly outlined in the preceding Trias, now advanced rapidly in numbers and in variety of form, and they, like the ammonites, have proved of great value as zone-indicators. The Sepioids or cuttlefish made their first appearance in this period (*Beloteuthis*, *Geoteuthis*,) and their ink-bags can still be traced in examples from the Lias and lithographic limestone. Nautiloids existed but they were somewhat rare.

A great change had come over the crustaceans; in place of the Palaeozoic trilobites we find long-tailed lobster-like forms, *Penaeus*, *Eryon*, *Magila*, and the broad crab-like type first appeared in *Prosopon*. Isopods were represented by *Archaeoniscus* and others. Insects have left fairly abundant remains in the Lias of England, Schambelen (Switzerland) and Dobbertin (Mecklenburg), and also in the English Purbeck. Neuropterous forms predominate, but hemiptera occur from the Lias upwards; the earliest known flies (Diptera) and ants (Hymenoptera) appeared; orthoptera, cockroaches, crickets, beetles, &c., are found in the Lias, Stonesfield slate and Purbeck beds.

Fishes were approaching the modern forms during this period, heterocercal ganoids becoming scarce (the *Coelacanthidae* reached their maximum development), while the homocercal forms were abundant (*Gyrodus*, *Microdon*, *Lepidosteus*, *Lepidotus*, *Dapedius*). The Chimaeridae, sea-cats, made their appearance (*Squaloraja*). The ancestors of the modern sturgeons, garpikes and selachians, *Hybodus*, *Acrodus* were numerous. Bony-fish were represented by the small *Leptolepis*.

So important a place was occupied by reptiles during this period that it has been well described as the "age of reptiles." In the seas the fish-shaped Ichthyosaurs and long-necked Plesiosaurs dwelt in great numbers and reached their maximum development; the latter ranged in size from 6 to 40 ft. in length. The Pterosaurs, with bat-like wings and pneumatic bones and keeled breast-bone, flew over the land; *Pterodactyl* with short tail and *Rhamphorhynchus* with long tail are the best known. Curiously modified crocodylians appeared late in the period (*Mystriosaurus*, *Geosaurus*, *Steneosaurus*, *Teleosaurus*). But even more striking than any of the above were the Dinosaurs; these ranged in size from a creature no larger than a rabbit up to the gigantic *Atlantosaurus*, 100 ft. long, in the Jurassic of Wyoming. Both herbivorous and carnivorous forms were present; *Brontosaurus*, *Megalosaurus*, *Stegosaurus*, *Cetiosaurus*, *Diplodocus*, *Ceratopsaurus* and *Campisognathus* are a few of the genera. By comparison with the Dinosaurs the mammals took a very subordinate position in Jurassic times; only a few jaws have been found, belonging to quite small creatures; they appear to have been marsupials and were probably insectivorous (*Plagiaulax Bolodon*, *Triconodon*, *Phascolotherium*, *Stylacodon*). Of great interest are the remains of the earliest known bird (*Archaeopteryx*) from the Solenhofen slates of Bavaria. Although this was a great advance beyond the Pterodactyls in avian characters, yet many reptilian features were retained.

Comparatively little change took place in the vegetation in the time that elapsed between the close of the Triassic and the middle of the Jurassic periods. Cycads, *Zamites*, *Podozamites*, &c., appeared to reach their maximum; Equisetums were still found growing to a great size and Ginkgos occupied a prominent place; ferns were common; so too were pines, yews, cypresses and other conifers, which while they outwardly resembled their modern representatives, were quite distinct in species. No flowering plants had yet appeared, although a primitive form of angiosperm has been reported from the Upper Jurassic of Portugal.

The economic products of the Jurassic system are of considerable importance; the valuable coals have already been noticed; the well-known iron ores of the Cleveland district in Yorkshire and those of the Northampton sands occur respectively in the Lias and Inferior Oolites. Oil shales are found in Germany, and several of the Jurassic formations in England contain some petroleum. Building stones of great value are obtained from the Great Oolite, the Portlandian and the Inferior Oolite; large quantities of hydraulic cement and lime have been made from the Lias. The celebrated lithographic stone of Solenhofen in Bavaria belongs to the upper portion of this system.

See D'Orbigny, *Paléontologie française, Terrain Jurassique* (1840, 1846); L. von Buch, "Über den Jura in Deutschland" (*Abhand. d. Berlin Akad.*, 1839); F. A. Quenstedt, *Flötzgebirge Württembergs* (1843) and other papers, also *Der Jura* (1883-1888); A. Oppel, *Die Juraformation Englands, Frankreichs und s.w. Deutschlands* (1856-1858). For a good general account of the formations with many references to original papers, see A. de Lapparent, *Traité de géologie*, vol. ii. 5th ed. (1906). The standard work for Great Britain is the series of *Memoirs of the Geological Survey* entitled *The Jurassic Rocks of Britain*, i and ii. "Yorkshire" (1892); iii. "The Lias of England and Wales" (1893); iv. "The Lower Oolite Rocks of England (Yorkshire excepted)" (1894); v. "The Middle and Upper Oolitic



JURAT (through Fr. from med. Lat. *juratus*, one sworn, Lat. *jurare*, to swear), a name given to the sworn holders of certain offices. Under the *ancien régime* in France, in several towns, of the south-west, such as Rochelle and Bordeaux, the *jurats* were members of the municipal body. The title was also borne by officials, corresponding to aldermen, in the Cinque Ports, but is now chiefly used as a title of office in the Channel Islands. There are two bodies, consisting each of twelve jurats, for Jersey and the bailiwick of Guernsey respectively. They are elected for life, in Jersey by the ratepayers, in Guernsey by the elective states. They form, with the bailiff as presiding judge, the royal court of justice, and are a constituent part of the legislative bodies. In English law, the word jurat (*juratum*) is applied to that part of an affidavit which contains the names of the parties swearing the affidavit and the person before whom it was sworn, the date, place and other necessary particulars.



JURIEN DE LA GRAVIÈRE, JEAN BAPTISTE EDMOND (1812-1892), French admiral, son of Admiral Jurien, who served through the Revolutionary and Napoleonic wars and was a peer of France under Louis Philippe, was born on the 19th of November 1812. He entered the navy in 1828, was made a commander in 1841, and captain in 1850. During the Russian War he commanded a ship in the Black Sea. He was promoted to be rear-admiral on the 1st of December 1855, and appointed to the command of a squadron in the Adriatic in 1859, when he absolutely sealed the Austrian ports with a close blockade. In October 1861 he was appointed to command the squadron in the Gulf of Mexico, and two months later the expedition against Mexico. On the 15th of January 1862 he was promoted to be vice-admiral. During the Franco-German War of 1870 he had command of the French Mediterranean fleet, and in 1871 he was appointed "director of charts." As having commanded in chief before the enemy, the age-limit was waived in his favour, and he was continued on the active list. Jurien died on the 4th of March 1892. He was a voluminous author of works on naval history and biography, most of which first appeared in the *Revue des deux mondes*. Among the most noteworthy of these are *Guerres maritimes sous la république et l'empire*, which was translated by Lord Dunsany under the title of *Sketches of the Last Naval War* (1848); *Souvenirs d'un amiral* (1860), that is, of his father, Admiral Jurien; *La Marine d'autrefois* (1865), largely autobiographical; and *La Marine d'aujourd'hui* (1872). In 1866 he was elected a member of the Academy.



JURIEU, PIERRE (1637-1713), French Protestant divine, was born at Mer, in Orléanais, where his father was a Protestant pastor. He studied at Saumur and Sedan under his grandfather, Pierre Dumoulin, and under Leblanc de Beaulieu. After completing his studies in Holland and England, Jurieu received Anglican ordination; returning to France he was ordained again and succeeded his father as pastor of the church at Mer. Soon after this he published his first work, *Examen de livre de la réunion du Christianisme* (1671). In 1674 his *Traité de la dévotion* led to his appointment as professor of theology and Hebrew at Sedan, where he soon became also pastor. A year later he published his *Apologie pour la morale des Réformés*. He obtained a high reputation, but his work was impaired by his controversial temper, which frequently developed into an irritated fanaticism, though he was always entirely sincere. He was called by his adversaries "the Goliath of the Protestants." On the suppression of the academy of Sedan in 1681, Jurieu received an invitation to a church at Rouen, but, afraid to remain in France on account of his forthcoming work, *La Politique du clergé de France*, he went to Holland and was pastor of the Walloon church of Rotterdam till his death on the 11th of January 1713. He was also professor at the école illustre. Jurieu did much to help those who suffered by the revocation of the Edict of Nantes (1685). He himself turned for consolation to the Apocalypse, and succeeded in persuading himself

(*Accomplissement des prophéties*, 1686) that the overthrow of Antichrist (*i.e.* the papal church) would take place in 1689. H. M. Baird says that "this persuasion, however fanciful the grounds on which it was based, exercised no small influence in forwarding the success of the designs of William of Orange in the invasion of England." Jurieu defended the doctrines of Protestantism with great ability against the attacks of Antoine Arnauld, Pierre Nicole and Bossuet, but was equally ready to enter into dispute with his fellow Protestant divines (with Louis Du Moulin and Claude Payon, for instance) when their opinions differed from his own even on minor matters. The bitterness and persistency of his attacks on his colleague Pierre Bayle led to the latter being deprived of his chair in 1693.

One of Jurieu's chief works is *Lettres pastorales adressées aux fidèles de France* (3 vols., Rotterdam, 1686-1687; Eng. trans., 1689), which, notwithstanding the vigilance of the police, found its way into France and produced a deep impression on the Protestant population. His last important work was the *Histoire critique des dogmes et des cultes* (1704; Eng. trans., 1715). He wrote a great number of controversial works.

See the article in Herzog-Hauck, *Realencyklopädie*; also H. M. Baird, *The Huguenots and the Revocation of the Edict of Nantes* (1895).



JURIS, a tribe of South American Indians, formerly occupying the country between the rivers Iça (lower Putumayo) and Japura, north-western Brazil. In ancient days they were the most powerful tribe of the district, but in 1820 their numbers did not exceed 2000. Owing to inter-marrying, the Juris are believed to have been extinct for half a century. They were closely related to the Passés, and were like them a fair-skinned, finely built people with quite European features.



JURISDICTION, in general, the exercise of lawful authority, especially by a court or a judge; and so the extent or limits within which such authority is exercisable. Thus each court has its appropriate jurisdiction; in the High Court of Justice in England administration actions are brought in the chancery division, salvage actions in the admiralty, &c. The jurisdiction of a particular court is often limited by statute, as that of a county court, which is local and is also limited in amount. In international law jurisdiction has a wider meaning, namely, the rights exercisable by a state within the bounds of a given space. This is frequently referred to as the territorial theory of jurisdiction. (See [INTERNATIONAL LAW](#); [INTERNATIONAL LAW, PRIVATE](#).)



JURISPRUDENCE (Lat. *jurisprudentia*, knowledge of law, from *jus*, right, and *prudētia*, from *providere*, to foresee), the general term for "the formal science of positive law" (T. E. Holland); see [LAW](#). The essential principles involved are discussed below and in [JURISPRUDENCE, COMPARATIVE](#); the details of particular laws or sorts of law ([CONTRACT](#), &c.) and of individual national systems of law ([ENGLISH LAW](#), &c.) being dealt with in separate articles.

The human race may be conceived as parcelled out into a number of distinct groups or societies, differing greatly in size and circumstances, in physical and moral characteristics of all kinds. But they all resemble each other in that they reveal on examination certain rules of conduct in accordance with which the relations of the members *inter se* are governed. Each society has its own system of laws, and all the systems, so far as they are known, constitute the appropriate subject matter of jurisprudence. The jurist may deal with it in the following ways. He may first of all examine the leading conceptions common to all the systems, or in other words define the leading terms common to them all. Such are the terms *law* itself, *right*, *duty*, *property*, *crime*, and so forth, which, or their equivalents, may, notwithstanding delicate differences of connotation, be regarded as common terms in all systems. That kind of inquiry is known in England as analytical jurisprudence. It regards the conceptions with which it deals as fixed or stationary, and aims at expressing them distinctly and exhibiting their logical relations with each other. What is really meant by a right and by a duty, and

what is the true connexion between a right and a duty, are types of the questions proper to this inquiry. Shifting our point of view, but still regarding systems of law in the mass, we may consider them, not as stationary, but as changeable and changing, we may ask what general features are exhibited by the record of the change. This, somewhat crudely put, may serve to indicate the field of historical or comparative jurisprudence. In its ideal condition it would require an accurate record of the history of all legal systems as its material. But whether the material be abundant or scanty the method is the same. It seeks the explanation of institutions and legal principles in the facts of history. Its aim is to show how a given rule came to be what it is. The legislative source—the emanation of the rule from a sovereign authority—is of no importance here; what is important is the moral source—the connexion of the rule with the ideas prevalent during contemporary periods. This method, it is evident, involves not only a comparison of successive stages in the history of the same system, but a comparison of different systems, of the Roman with the English, of the Hindu with the Irish, and so on. The historical method as applied to law may be regarded as a special example of the method of comparison. The comparative method is really employed in all generalizations about law; for, although the analysis of legal terms might be conducted with exclusive reference to one system, the advantage of testing the result by reference to other systems is obvious. But, besides the use of comparison for purposes of analysis and in tracing the phenomena of the growth of laws, it is evident that for the purposes of practical legislation the comparison of different systems may yield important results. Laws are contrivances for bringing about certain definite ends, the larger of which are identical in all systems. The comparison of these contrivances not only serves to bring their real object, often obscured as it is in details, into clearer view, but enables legislators to see where the contrivances are deficient, and how they may be improved.

The “science of law,” as the expression is generally used, means the examination of laws in general in one or other of the ways just indicated. It means an investigation of laws which exist or have existed in some given society in fact—in other words, positive laws; and it means an examination not limited to the exposition of particular systems. Analytical jurisprudence is in England associated chiefly with the name of John Austin (*q.v.*), whose *Province of Jurisprudence Determined* systematized and completed the work begun in England by Hobbes, and continued at a later date and from a different point of view by Bentham.

Austin’s first position is to distinguish between laws properly so called and laws improperly so called. In any of the older writers on law, we find the various senses in which the word is used grouped together as variations of one common meaning. Thus Blackstone advances to his proper subject, municipal laws, through (1) the laws of inanimate matter, (2) the laws of animal nutrition, digestion, &c., (3) the laws of nature, which are rules imposed by God on men and discoverable by reason alone, and (4) the revealed or divine law which is part of the law of nature directly expounded by God. All of these are connected by this common element that they are “rules of action dictated by some superior being.” And some such generalization as this is to be found at the basis of most treatises on jurisprudence which have not been composed under the influence of the analytical school. Austin disposes of it by the distinction that some of those laws are commands, while others are not commands. The so-called laws of nature are not commands; they are uniformities which resemble commands only in so far as they may be supposed to have been ordered by some intelligent being. But they are not commands in the only proper sense of that word—they are not addressed to reasonable beings, who may or may not will obedience to them. Laws of nature are not addressed to anybody, and there is no possible question of obedience or disobedience to them. Austin accordingly pronounces them laws improperly so called, and confines his attention to laws properly so called, which are commands addressed by a human superior to a human inferior.

This distinction seems so simple and obvious that the energy and even bitterness with which Austin insists upon it now seem superfluous. But the indiscriminate identification of everything to which common speech gives the name of a law was, and still is, a fruitful source of confusion. Blackstone’s statement that when God “put matter into motion He established certain laws of motion, to which all movable matter must conform,” and that in those creatures that have neither the power to think nor to will such laws must be invariably obeyed, so long as the creature itself subsists, for its existence depends on that obedience, imputes to the law of gravitation in respect of both its origin and its execution the qualities of an act of parliament. On the other hand the qualities of the law of gravitation are imputed to certain legal principles which, under the name of the law of nature, are asserted to be binding all over the globe, so that “no human laws are of any validity if contrary to this.” Austin never fails to stigmatize the use of “natural laws” in the sense of scientific facts as improper, or as metaphorical.

Having eliminated metaphorical or figurative laws, we restrict ourselves to those laws which are commands. This word is the key to the analysis of law, and accordingly a large portion of Austin’s work is occupied with the determination of its meaning. A *command* is an order issued by a superior to an inferior. It is a signification of desire distinguished by this peculiarity that “the party to whom it is directed is liable to evil from the other, in case he comply not with the desire.” “If you are able and willing to harm me in case I comply not with your wish, the expression of your wish amounts to a command.” Being liable to evil in case I comply not with the wish which you signify, I am *bound* or obliged by it, or I lie under a *duty* to obey it. The evil is called a *sanction*, and the command or duty is said to be *sanctioned* by the chance of incurring the evil. The three terms *command*, *duty* and *sanction* are thus inseparably connected. As Austin expresses it in the language of formal logic, “each

of the three terms signifies the same notion, but each *denotes* a different part of that notion and *connotes* the residue.”

All commands, however, are not laws. That term is reserved for those commands which oblige generally to the performance of acts of a class. A command to your servant to rise at such an hour on such a morning is a particular command, but not a law or rule; a command to rise always at that hour is a law or rule. Of this distinction it is sufficient to say in the meantime that it involves, when we come to deal with positive laws, the rejection of particular enactments to which by inveterate usage the term law would certainly be applied. On the other hand it is not, according to Austin, necessary that a true law should bind persons as a class. Obligations imposed on the grantee of an office specially created by parliament would imply a law; a general order to go into mourning addressed to the whole nation for a particular occasion would not be a law.

So far we have arrived at a definition of laws properly so called. Austin holds superiority and inferiority to be necessarily implied in command, and such statements as that “laws emanate from superiors” to be the merest tautology and trifling. Elsewhere he sums up the characteristics of true laws as ascertained by the analysis thus: (1) laws, being commands, emanate from a determinate source; (2) every sanction is an evil annexed to a command; and (3) every duty implies a command, and chiefly means obnoxiousness to the evils annexed to commands.

Of true laws, those only are the subject of jurisprudence which are laws strictly so called, or positive laws. Austin accordingly proceeds to distinguish positive from other true laws, which are either laws set by God to men or laws set by men to men, not, however, as political superiors nor in pursuance of a legal right. The discussion of the first of these true but not positive laws leads Austin to his celebrated discussion of the utilitarian theory. The laws set by God are either revealed or unrevealed, *i.e.* either expressed in direct command, or made known to men in one or other of the ways denoted by such phrases as the “light of nature,” “natural reason,” “dictates of nature,” and so forth. Austin maintains that the principle of general utility, based ultimately on the assumed benevolence of God, is the true index to such of His commands as He has not chosen to reveal. Austin’s exposition of the meaning of the principle is a most valuable contribution to moral science, though he rests its claims ultimately on a basis which many of its supporters would disavow. And the whole discussion is now generally condemned as lying outside the proper scope of the treatise, although the reason for so condemning it is not always correctly stated. It is found in such assumptions of fact as that there is a God, that He has issued commands to men in what Austin calls the “truths of revelation,” that He designs the happiness of all His creatures, that there is a predominance of good in the order of the world—which do not now command universal assent. It is impossible to place these propositions on the same scientific footing as the assumptions of fact with reference to human society on which jurisprudence rests. If the “divine laws” were facts like acts of parliament, it is conceived that the discussion of their characteristics would not be out of place in a scheme of jurisprudence.

The second set of laws properly so called, which are not positive laws, consists of three classes: (1) those which are set by men living in a state of nature; (2) those which are set by sovereigns but not as political superiors, *e.g.* when one sovereign commands another to act according to a principle of international law; and (3) those set by subjects but not in pursuance of legal rights. This group, to which Austin gives the name of positive morality, helps to explain his conception of positive law. Men are living in a state of nature, or a state of anarchy, when they are not living in a state of government or as members of a political society. “Political society” thus becomes the central fact of the theory, and some of the objections that have been urged against it arise from its being applied to conditions of life in which Austin would not have admitted the existence of a political society. Again, the third set in the group is intimately connected with positive laws on the one hand and rules of positive morality which are not even laws properly so called on the other. Thus laws set by subjects in consequence of a legal right are clothed with legal sanctions, and are laws positive. A law set by guardian to ward, in pursuance of a right which the guardian is bound to exercise, is a positive law pure and simple; a law set by master to slave, in pursuance of a legal right, which he is not bound to exercise, is, in Austin’s phraseology, to be regarded both as a positive moral rule and as a positive law.¹ On the other hand the rules set by a club or society, and enforced upon its members by exclusion from the society, but not in pursuance of any legal right, are laws, but not positive laws. They are imperative and proceed from a determinate source, but they have no legal or political sanction. Closely connected with this positive morality, consisting of true but not positive laws, is the positive morality whose rules are not laws properly so called at all, though they are generally denominated laws. Such are the laws of honour, the laws of fashion, and, most important of all, international law.

Nowhere does Austin’s phraseology come more bluntly into conflict with common usage than in pronouncing the law of nations (which in substance is a compact body of well-defined rules resembling nothing so much as the ordinary rules of law) to be not laws at all, even in the wider sense of the term. That the rules of a private club should be law properly so called, while the whole mass of international jurisprudence is mere opinion, shocks our sense of the proprieties of expression. Yet no man was more careful than Austin to observe these properties. He recognizes fully the futility of definitions which involve a painful struggle with the current of ordinary speech. But in the present instance the apparent paralogism cannot be avoided if we accept the limitation of laws properly so called to commands proceeding from a determinate source. And that limitation is so

generally present in our conception of law that to ignore it would be a worse anomaly than this. No one finds fault with the statement that the so-called code of honour or the dictates of fashion are not, properly speaking, laws. We repel the same statement applied to the law of nature, because it resembles in so many of its most striking features—in the certainty of a large portion of it, in its terminology, in its substantial principles—the most universal elements of actual systems of law, and because, moreover, the assumption that brought it into existence was nothing else than this, that it consisted of those abiding portions of legal systems which prevail everywhere by their own authority. But, though “positive morality” may not be the best phrase to describe such a code of rules, the distinction insisted on by Austin is unimpeachable.

The elimination of those laws properly and improperly so called which are not positive laws brings us to the definition of positive law, which is the keystone of the system. Every positive law is “set by a sovereign person, or sovereign body of persons, to a member or members of the independent political society wherein that person or body is sovereign or superior.” Though possibly sprung directly from another source, it is a positive law, by the institution of that present sovereign in the character of a political superior. The question is not as to the historical origin of the principle, but as to its present authority. “The legislator is he, not by whose authority the law was first made, but by whose authority it continues to be law.” This definition involves the analysis of the connected expressions *sovereignty*, *subjection* and *independent political society*, and of *determinate body*—which last analysis Austin performs in connexion with that of commands. These are all excellent examples of the logical method of which he was so great a master. The broad results alone need be noticed here. In order that a given society may form a society political and independent, the *generality or bulk* of its members must be in a *habit* of obedience to a certain and common superior; whilst that certain person or body of persons must not be *habitually* obedient to a certain person or body. All the italicized words point to circumstances in which it might be difficult to say whether a given society is political and independent or not. Several of these Austin has discussed—*e.g.* the state of things in which a political society yields obedience which may or may not be called habitual to some external power, and the state of things in which a political society is divided between contending claimants for sovereign power, and it is uncertain which shall prevail, and over how much of the society. So long as that uncertainty remains we have a state of *anarchy*. Further, an independent society to be political must not fall below a number which can only be called considerable. Neither then in a state of anarchy, nor in inconsiderable communities, nor among men living in a state of nature, have we the proper phenomena of a political society. The last limitation goes some way to meet the most serious criticism to which Austin’s system has been exposed, and it ought to be stated in his own words. He supposes a society which may be styled independent, which is considerable in numbers, and which is in a savage or extremely barbarous condition. In such a society, “the bulk of its members is not in the habit of obedience to one and the same superior. For the purpose of attacking an external enemy, or for the purpose of repelling an attack, the bulk of its members who are capable of bearing arms submits to one leader or one body of leaders. But as soon as that emergency passes the transient submission ceases, and the society reverts to the state which may be deemed its ordinary state. The bulk of each of the families which compose the given society renders habitual obedience to its own peculiar chief, but those domestic societies are themselves independent societies, or are not united and compacted into one political society by habitual and general obedience to one common superior, and there is no law (simply or strictly so styled) which can be called the law of that society. The so-called laws which are common to the bulk of the community are purely and properly customary laws—that is to say, laws which are set or imposed by the general opinion of the community, but are not enforced by legal or political sanctions.” Such, he says, are the savage societies of hunters and fishers in North America, and such were the Germans as described by Tacitus. He takes no account of societies in an intermediate stage between this and the condition which constitutes political society.

We need not follow the analysis in detail. Much ingenuity is displayed in grouping the various kinds of government, in detecting the sovereign authority under the disguises which it wears in the complicated state system of the United States or under the fictions of English law, in elucidating the precise meaning of abstract political terms. Incidentally the source of many celebrated fallacies in political thought is laid bare. That the question who is sovereign in a given state is a question of fact and not of law or morals or religion, that the sovereign is incapable of legal limitation, that law is such by the sovereign’s command, that no real or assumed compact can limit his action—are positions which Austin has been accused of enforcing with needless iteration. He cleared them, however, from the air of paradox with which they had been previously encumbered, and his influence was in no direction more widely felt than in making them the commonplaces of educated opinion in this generation.

Passing from these, we may now consider what has been said against the theory, which may be summed up in the following terms. Laws, no matter in what form they be expressed, are in the last resort reducible to commands set by the person or body of persons who are in fact sovereigns in any independent political society. The sovereign is the person or persons whose commands are habitually obeyed by the great bulk of the community; and by an independent society we mean that such sovereign head is not himself habitually obedient to any other determinate body of persons. The society must be sufficiently numerous to be considerable before we can speak of it as a political society. From command, with its inseparable incident of sanction, come the duties and rights in terms of which laws are for the most part expressed. Duty means that the person of whom it is

predicated is liable to the sanction in case he fails to obey the command. Right means that the person of whom it is predicated may set the sanction in operation in case the command be disobeyed.

We may here interpolate a doubt whether the condition of independence on the part of the head of a community is essential to the legal analysis. It seems to us that we have all the elements of a true law present when we point to a community habitually obedient to the authority of a person or determinate body of persons, no matter what the relations of that superior may be to any external or superior power. Provided that in fact the commands of the lawgiver are those beyond which the community never looks, it seems immaterial to inquire whether this lawgiver in turn takes his orders from somebody else or is habitually obedient to such orders when given. One may imagine a community governed by a dependent legislative body or person, while the supreme sovereign whose representative and nominee such body or person may be never directly addresses the community at all. We do not see that in such a case anything is gained in clearness by representing the law of the community as set by the suzerain, rather than the dependent legislator. Nor is the ascertainment of the ultimate seat of power necessary to define political societies. That we get when we suppose a community to be in the habit of obedience to a single person or to a determinate combination of persons.

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The use of the word "command" is not unlikely to lead to a misconception of Austin's meaning. When we say that a law is a command of the sovereign, we are apt to think of the sovereign as enunciating the rule in question for the first time. Many laws are not traceable to the sovereign at all in this sense. Some are based upon immemorial practices, some can be traced to the influence of private citizens, whether practising lawyers or writers on law, and in most countries a vast body of law owes its existence as such to the fact that it has been observed as law in some other society. The great bulk of modern law owes its existence and its shape ultimately to the labours of the Roman lawyers of the empire. Austin's definition has nothing to do with this, the historical origin of laws. Most books dealing with law in the abstract generalize the modes in which laws may be originated under the name of the "sources" of law, and one of these is legislation, or the direct command of the sovereign body. The connexion of laws with each other as principles is properly the subject matter of historical jurisprudence, the ideal perfection of which would be the establishment of the general laws governing the evolution of law in the technical sense. Austin's definition looks, not to the authorship of the law as a principle, not to its inventor or originator, but to the person or persons who in the last resort cause it to be obeyed. If a given rule is enforced by the sovereign it is a law.

It may be convenient to notice here what is usually said about the sources of law, as the expression sometimes proves a stumbling-block to the appreciation of Austin's system. In the *corpus juris* of any given country only a portion of the laws is traceable to the direct expression of his commands by the sovereign. Legislation is one, but only one, of the sources of law. Other portions of the law may be traceable to other sources, which may vary in effect in different systems. The list given in the *Institutes* of Justinian of the ways in which law may be made—*lex, plebiscitum, principis placita, edicta magistratum*, and so on—is a list of sources. Among the sources of law other than legislation which are most commonly exemplified are the laws made by judges in the course of judicial decisions, and law originating as custom. The source of the law in the one case is the judicial decision, in the other the custom. In consequence of the decisions and in consequence of the custom the rule has prevailed. English law is largely made up of principles derived in each of those ways, while it is deficient in principles derived from the writings of independent teachers, such as have in other systems exercised a powerful influence on the development of law. The *responsa prudentum*, the opinions of learned men, published as such, did undoubtedly originate an immense portion of Roman law. No such influence has affected English law to any appreciable extent—a result owing to the activity of the courts of the legislature. This difference has profoundly affected the form of English law as compared with that of systems which have been developed by the play of free discussion. These are the most definite of the influences to which the beginning of laws may be traced. The law once established, no matter how, is nevertheless law in the sense of Austin's definition. It is enforced by the sovereign authority. It was originated by something very different. But when we speak of it as a command we think only of the way in which it is to-day presented to the subject. The newest order of an act of parliament is not more positively presented to the people as a command to be obeyed than are the elementary rules of the common law for which no legislative origin can be traced. It is not even necessary to resort to the figure of speech by which alone, according to Sir Henry Maine (*Early History of Institutions*, p. 314), the common law can be regarded as the commands of the government. "The common law," he says, "consists of their commands because they can repeal or alter or restate it at pleasure." "They command because, being by the assumption possessed of uncontrollable force, they could innovate without limit at any moment." On the contrary, it may be said that they command because they do as a matter of fact enforce the rules laid down in the common law. It is not because they could innovate if they pleased in the common law that they are said to command it, but because it is known that they will enforce it as it stands.

The criticism of Austin's analysis resolved itself into two different sets of objections. One relates to the theory of sovereignty which underlies it; the other to its alleged failure to include rules which in common parlance are laws, and which it is felt ought to be included in any satisfactory definition of law. As the latter is to some extent anticipated and admitted by Austin himself, we may deal with it first.

Frederic Harrison (*Fortnightly Review*, vols. xxx., xxxi.) was at great pains to collect a number of laws or rules of law which do not square with the Austinian definition of law as a command creating rights and duties. Take the rule that "every will must be in writing." It is a very circuitous way of looking at things, according to Harrison, to say that such a rule creates a specific right in any

determinate person of a definite description. So, again, the rule that “a legacy to the witness of a will is void.” Such a rule is not “designed to give any one any rights, but simply to protect the public against wills made under undue influence.” Again, the technical rule in Shelley’s case that a gift to A for life, followed by a gift to the heirs of A, is a gift to A in fee simple, is pronounced to be inconsistent with the definition. It is an idle waste of ingenuity to force any of these rules into a form in which they might be said to create rights.

This would be a perfectly correct description of any attempt to take any of these rules separately and analyse it into a complete command creating specific rights and duties. But there is no occasion for doing anything of the kind. It is not contended that every grammatically complete sentence in a textbook or a statute is *per se* a command creating rights and duties. A law, like any other command, must be expressed in words, and will require the use of the usual aids to expression. The gist of it may be expressed in a sentence which, standing by itself, is not intelligible; other sentences locally separate from the principal one may contain the exceptions and the modifications and the interpretations to which that is subject. In no one of these taken by itself, but in the substance of them all taken together, is the true law, in Austin’s sense, to be found. Thus the rule that every will must be in writing is a mere fragment—only the limb of a law. It belongs to the rule which fixes the rights of devisees or legatees under a will. That rule in whatever form it may be expressed is, without any straining of language, a command of the legislator. That “every person named by a testator in his last will and testament shall be entitled to the property thereby given him” is surely a command creating rights and duties. After testament add “expressed in writing”; it is still a command. Add further, “provided he be not one of the witnesses to the will,” and the command, with its product of rights and duties, is still there. Each of the additions limits the operation of the command stated imperatively in the first sentence. So with the rule in Shelley’s case. It is resolvable into the rule that every person to whom an estate is given by a conveyance expressed in such and such a way shall take such and such rights. To take another example from later legislation. An English statute passed in 1881 enacts nothing more than this, that an act of a previous session shall be construed as if “that” meant “this.” It would be futile indeed to force this into conformity with Austin’s definition by treating it as a command addressed to the judges, and as indirectly creating rights to have such a construction respected. As it happens, the section of the previous act referred to (the Burials Act 1880) was an undeniable command addressed to the clergy, and imposed upon them a specific duty. The true command—the law—is to be found in the two sections taken together.

All this confusion arises from the fact that laws are not habitually expressed in imperative terms. Even in a mature system like that of England the great bulk of legal rules is hidden under forms which disguise their imperative quality. They appear as principles, maxims, propositions of fact, generalizations, points of pleading and procedure, and so forth. Even in the statutes the imperative form is not uniformly observed. It might be said that the more mature a legal system is the less do its individual rules take the form of commands. The greater portion of Roman law is expressed in terms which would not misbecome scientific or speculative treatises. The institutional works abound in propositions which have no legal significance at all, but which are not distinguished from the true law in which they are embedded by any difference in the forms of expression. Assertions about matters of history, dubious speculations in philology, and reflections on human conduct are mixed up in the same narrative with genuine rules of law. Words of description are used, not words of command, and rules of law assimilate themselves in form to the extraneous matter with which they are mixed up.

It has been said that Austin himself admitted to some extent the force of these objections. He includes among laws which are not imperative “declaratory laws, or laws explaining the import of existing positive law, and laws abrogating or repealing existing positive law.” He thus associates them with rules of positive morality and with laws which are only metaphorically so called. This collocation is unfortunate and out of keeping with Austin’s method. Declaratory and repealing laws are as completely unlike positive morality and metaphorical laws as are the laws which he describes as properly so called. And if we avoid the error of treating each separate proposition enunciated by the lawgiver as a law, the cases in question need give us no trouble. Read the declaratory and the repealing statutes along with the principal laws which they affect, and the result is perfectly consistent with the proposition that all law is to be resolved into a species of command. In the one case we have in the principal taken together with the interpretative statute a law, and whether it differs or not from the law as it existed before the interpretative statute was passed makes no difference to the true character of the latter. It contributes along with the former to the expression of a command which is a true law. In the same way repealing statutes are to be taken together with the laws which they repeal—the result being that there is no law, no command, at all. It is wholly unnecessary to class them as laws which are not truly imperative, or as exceptions to the rule that laws are a species of commands. The combination of the two sentences in which the lawgiver has expressed himself, yields the result of silence—absence of law—which is in no way incompatible with the assertion that a law, when it exists, is a kind of command. Austin’s theory does not logically require us to treat every act of parliament as being a complete law in itself, and therefore to set aside a certain number of acts of parliament as being exceptions to the great generalization which is the basis of the whole system.

Rules of procedure again have been alleged to constitute another exception. They cannot, it is said, be regarded as commands involving punishment if they be disobeyed. Nor is anything gained by considering them as commands addressed to the judge and other ministers of the law. There may be

no doubt in the law of procedure a great deal that is resolvable into law in this sense, but the great bulk of it is to be regarded like the rules of interpretation as entering into the substantive commands which are laws. They are descriptions of the sanction and its mode of working. The bare prohibition of murder without any penalty to enforce it would not be a law. To prohibit it under penalty of death implies a reference to the whole machinery of criminal justice by which the penalty is enforced. Taken by themselves the rules of procedure are not, any more than canons of interpretation, complete laws in Austin's sense of the term. But they form part of the complete expression of true laws. They imply a command, and they describe the sanction and the mode in which it operates.

A more formidable criticism of Austin's position is that which attacks the definition of sovereignty. There are countries, it is said, where the sovereign authority cannot by any stretch of language be said to command the laws, and yet where law manifestly exists. The ablest and the most moderate statement of this view is given by Sir Henry Maine in *Early History of Institutions*, p. 380:—

"It is from no special love of Indian examples that I take one from India, but because it happens to be the most modern precedent in point. My instance is the Indian province called the Punjab, the country of the Five Rivers, in the state in which it was for about a quarter of a century before its annexation to the British Indian Empire. After passing through every conceivable phase of anarchy and dormant anarchy, it fell under the tolerably consolidated dominion of a half-military half-religious oligarchy known as the Sikhs. The Sikhs themselves were afterwards reduced to subjection by a single chieftain belonging to their order, Runjeet Singh. At first sight there could be no more perfect embodiment than Runjeet Singh of sovereignty as conceived by Austin. He was absolutely despotic. Except occasionally on his wild frontier he kept the most perfect order. He could have commanded anything; the smallest disobedience to his commands would have been followed by death or mutilation; and this was perfectly well known to the enormous majority of his subjects. Yet I doubt whether once in all his life he issued a command which Austin would call a law. He took as his revenue a prodigious share of the produce of the soil. He harried villages which recalcitrated at his exactions, and he executed great numbers of men. He levied great armies; he had all material of power, and he exercised it in various ways. But he never made a law. The rules which regulated the lives of his subjects were derived from their immemorial usages, and those rules were administered by domestic tribunals in families or village communities—that is, in groups no larger or little larger than those to which the application of Austin's principles cannot be effected on his own admission without absurdity."

So far as the mere size of the community is concerned, there is no difficulty in applying the Austinian theory. In postulating a considerably numerous community Austin was thinking evidently of small isolated groups which could not without provoking a sense of the ridiculous be termed nations. Two or three families, let us suppose, occupying a small island, totally disconnected with any great power, would not claim to be and would not be treated as an independent political community. But it does not follow that Austin would have regarded the village communities spoken of by Maine in the same light. Here we have a great community, consisting of a vast number of small communities, each independent of the other, and disconnected with all the others, so far as the administration of anything like law is concerned. Suppose in each case that the headman or council takes his orders from Runjeet Singh, and enforces them, each in his own sphere, relying as the last resort on the force at the disposal of the suzerain. The mere size of the separate communities would make no sort of difference to Austin's theory. He would probably regard the empire of Runjeet Singh as divided into small districts—an assumption which inverts no doubt the true historical order, the smaller group being generally more ancient than the larger. But provided that the other conditions prevail, the mere fact that the law is administered by local tribunals for minute areas should make no difference to the theory. The case described by Maine is that of the undoubted possession of supreme power by a sovereign, coupled with the total absence of any attempt on his part to *originate* a law. That no doubt is, as we are told by the same authority, "the type of all Oriental communities in their native state during their rare intervals of peace and order." The empire was in the main in each case a tax-gathering empire. The unalterable law of the Medes and Persians was not a law at all but an occasional command. So again Maine puts his position clearly in the following sentences: "The Athenian assembly made true laws for residents on Attic territory, but the dominion of Athens over her subject cities and islands was clearly a tax-taking as distinguished from a legislating empire." Maine, it will be observed, does not say that the sovereign assembly did not command the laws in the subject islands—only that it did not legislate.

In the same category may be placed without much substantial difference all the societies that have ever existed on the face of the earth previous to the point at which *legislation* becomes active. Maine is undoubtedly right in connecting the theories of Bentham and Austin with the overwhelming activity of legislatures in modern times. And formal legislation, as he elsewhere shows, comes late in the history of most legal systems. Law is generated in other ways, which seem irreconcilable with anything like legislation. Not only the tax-gathering emperors of the East, indifferent to the condition of their subjects, but even actively benevolent governments have up to a certain point left the law to grow by other means than formal enactments. What is *ex facie* more opposed to the idea of a sovereign's commands than the conception of schools of law? Does it not "sting us with a sense of the ridiculous" to hear principles which are the outcome of long debates between Proculians and Sabinians described as commands of the emperor? How is sectarianism in law possible if the sovereign's command is really all that is meant by a law? No mental attitude is more common than that which regards law as a natural product—discoverable by a diligent investigator, much in the

same way as the facts of science or the principles of mathematics. The introductory portions of Justinian's *Institutes* are certainly written from this point of view, which may also be described without much unfairness as the point of view of German jurisprudence. And yet the English jurist who accepts Austin's postulate as true for the English system of our own day would have no difficulty in applying it to German or Roman law generated under the influence of such ideas as these.

Again, referring to the instance of Runjeet Singh, Sir H. Maine says no doubt rightly that "he never did or could have dreamed of changing the civil rules under which his subjects lived. Probably he was as strong a believer in the independent obligatory force of such rules as the elders themselves who applied them." That too might be said with truth of states to which the application of Austin's system would be far from difficult. The sovereign body or person enforcing the rules by all the ordinary methods of justice might conceivably believe that the rules which he enforced had an obligatory authority of their own, just as most lawyers at one time, and possibly some lawyers now, believe in the natural obligatoriness, independently of courts or parliaments, of portions of the law of England. But nevertheless, whatever ideas the sovereign or his delegates might entertain as to "the independent obligatory force" of the rules which they enforce, the fact that they do enforce them distinguishes them from all other rules. Austin seizes upon this peculiarity and fixes it as the determining characteristic of positive law. When the rule is enforced by a sovereign authority as he defines it, it is his command, even if he should never so regard it himself, or should suppose himself to be unable to alter it in a single particular.

It may be instructive to add to these examples of dubious cases one taken from what is called ecclesiastical law. In so far as this has not been adopted and enforced by the state, it would, on Austin's theory, be, not positive law, but either positive morality or possibly a portion of the Divine law. No jurist would deny that there is an essential difference between so much of ecclesiastical law as is adopted by the state and all the rest of it, and that for scientific purposes this distinction ought to be recognized. How near this kind of law approaches to the positive or political law may be seen from the sanctions on which it depended. "The theory of penitential discipline was this: that the church was an organized body with an outward and visible form of government; that all who were outside her boundaries were outside the means of divine grace; that she had a command laid upon her, and authority given to her, to gather men into her fellowship by the ceremony of baptism, but, as some of those who were admitted proved unworthy of their calling, she also had the right by the power of the keys to deprive them temporarily or absolutely of the privilege of communion with her, and on their amendment to restore them once more to church membership. On this power of exclusion and restoration was founded the system of ecclesiastical discipline. It was a purely spiritual jurisdiction. It obtained its hold over the minds of men from the belief, universal in the Catholic church of the early ages, that he who was expelled from her pale was expelled also from the way of salvation, and that the sentence which was pronounced by God's church on earth was ratified by Him in heaven." (Smith's *Dictionary of Christian Antiquities*, art. "Penitence," p. 1587.)

These laws are not the laws of the jurists, though they resemble them closely in many points—indeed in all points except that of the sanction by which they are enforced. It is a spiritual not a political sanction. The force which lies behind them is not that of the sovereign or the state. When physical force is used to compel obedience to the laws of the church they become positive laws. But so long as the belief in future punishments or the fear of the purely spiritual punishments of the church is sufficient to procure obedience to them, they are to be regarded as commands, not by the state, but by the church. That difference Austin makes essential. In rejecting spiritual laws from the field of positive law his example would be followed by jurists who would nevertheless include other laws, not ecclesiastical in purpose, but enforced by very similar methods.

Austin's theory in the end comes to this, that true laws are in all cases obeyed in consequence of the application of regulated physical force by some portion of the community. That is a fair paraphrase of the position that laws are the commands of the sovereign, and is perhaps less objectionable inasmuch as it does not imply or suggest anything about the forms in which laws are enunciated. All rules, customs, practices and laws—or by whatever name these uniformities of human conduct may be called—have either this kind of force at their back or they have not. Is it worth while to make this difference the basis of a scientific system or not? Apparently it is. If it were a question of distinguishing between the law of the law courts and the laws of fashion no one would hesitate. Why should laws or rules having no support from any political authority be termed laws positive merely because there are no other rules in the society having such support?

The question may perhaps be summed up as follows. Austin's definitions are in strict accordance with the facts of government in civilized states; and, as it is put by Maine, certain assumptions or postulates having been made, the great majority of Austin's positions follow as of course or by ordinary logical process. But at the other extreme end of the scale of civilization are societies to which Austin himself refuses to apply his system, and where, it would be conceded on all sides, there is neither political community nor sovereign nor law—none of the facts which jurisprudence assumes to exist. There is an intermediate stage of society in which, while the rules of conduct might and generally would be spoken of as laws, it is difficult to trace the connexion between them and the sovereign authority whose existence is necessary to Austin's system. Are such societies to be thrown out of account in analytical jurisprudence, or is Austin's system to be regarded as only a partial explanation of the field of true law, and his definitions good only for the laws of a portion of the world? The true answer to this question appears to be that when the rules in any given case are habitually enforced by physical penalties, administered by a determinate person or portion of the

community, they should be regarded as positive laws and the appropriate subject matter of jurisprudence. Rules which are not so enforced, but are enforced in any other way, whether by what is called public opinion, or spiritual apprehensions, or natural instinct, are rightly excluded from that subject matter. In all stages of society, savage or civilized, a large body of rules of conduct, habitually obeyed, are nevertheless not enforced by any state sanction of any kind. Austin's method assimilates such rules in primitive society, where they subserve the same purpose as positive laws in an advanced society, not to the positive laws which they resemble in purpose but to the moral or other rules which they resemble in operation. If we refuse to accept this position we must abandon the attempt to frame a general definition of law and its dependent terms, or we must content ourselves with saying that law is one thing in one state of society and another thing in another. On the ground of clearness and convenience Austin's method is, we believe, substantially right, but none the less should the student of jurisprudence be on his guard against such assumptions as that legislation is a universal phenomenon, or that the relation of sovereign and subject is discernible in all states of human society. And a careful examination of Maine's criticism will show that it is devoted not so much to a rectification of Austin's position as to correction of the misconceptions into which some of his disciples may have fallen. It is a misconception of the analysis to suppose that it involves a difference in juridical character between custom not yet recognized by any judicial decision and custom after such recognition. There is no such difference except in the case of what is properly called "judicial legislation"—wherein an absolutely new rule is added for the first time to the law. The recognition of a custom or law is not necessarily the beginning of the custom or law. Where a custom possesses the marks by which its legality is determined according to well understood principles, the courts pronounce it to have been law at the time of the happening of the facts as to which their jurisdiction is invoked. The fact that no previous instance of its recognition by a court of justice can be produced is not material. A lawyer before any such decision was given would nevertheless pronounce the custom to be law—with more or less hesitation according as the marks of a legal custom were obvious or not. The character of the custom is not changed when it is for the first time enforced by a court of justice, and hence the language used by Maine must be understood in a very limited sense. "Until customs are enforced by courts of justice"—so he puts the position of Austin—they are merely "positive morality," rules enforced by opinion; but as soon as courts of justice enforce them they become commands of the sovereign, conveyed through the judges who are his delegates or deputies. This proposition, on Austin's theory, would only be true of customs as to which these marks were absent. It is of course true that when a rule enforced only by opinion becomes for the first time enforceable by a court of justice—which is the same thing as the first time of its being actually enforced—its juridical character is changed. It was positive morality; it is now law. So it is when that which was before the opinion of the judge only becomes by his decision a rule enforceable by courts of justice. It was not even positive morality but the opinion of an individual; it is now law.

The most difficult of the common terms of law to define is *right*; and, as right rather than duty is the basis of classification, it is a point of some importance. Assuming the truth of the analysis above discussed, we may go on to say that in the notion of law is involved an obligation on the part of some one, or on the part of every one, to do or forbear from doing. That obligation is duty; what is right? Dropping the negative of forbearance, and taking duty to mean an obligation to do something, with the alternative of punishment in default, we find that duties are of two kinds. The thing to be done may have exclusive reference to a determinate person or class of persons, on whose motion or complaint the sovereign power will execute the punishment or sanction on delinquents; or it may have no such reference, the thing being commanded, and the punishment following on disobedience, without reference to the wish or complaint of individuals. The last are absolute duties, and the omission to do, or forbear from doing, the thing specified in the command is in general what is meant by a crime. The others are relative duties, each of them implying and relating to a right in some one else. A person has a right who may in this way set in operation the sanction provided by the state. In common thought and speech, however, right appears as something a good deal more positive and definite than this—as a power or faculty residing in individuals, and suggesting not so much the relative obligation as the advantage or enjoyment secured thereby to the person having the right. J. S. Mill, in a valuable criticism of Austin, suggests that the definition should be so modified as to introduce the element of "advantage to the person exercising the right." But it is exceedingly difficult to frame a positive definition of right which shall not introduce some term at least as ambiguous as the word to be defined. T. E. Holland defines right in general as a man's "capacity of influencing the acts of another by means, not of his own strength, but of the opinion or the force of society." Direct influence exercised by virtue of one's own strength, physical or otherwise, over another's acts, is "might" as distinguished from right. When the indirect influence is the opinion of society, we have a "moral right." When it is the force exercised by the sovereign, we have a legal right. It would be more easy, no doubt, to pick holes in this definition than to frame a better one.²

The distinction between rights available against determinate persons and rights available against all the world, *jura in personam* and *jura in rem*, is of fundamental importance. The phrases are borrowed from the classical jurists, who used them originally to distinguish actions according as they were brought to enforce a personal obligation or to vindicate rights of property. The owner of property has a right to the exclusive enjoyment thereof, which avails against all and sundry, but not against one person more than another. The parties to a contract have rights available against each other, and against no other persons. The *jus in rem* is the badge of property; the *jus in personam* is a mere personal claim.

That distinction in rights which appears in the division of law into the law of persons and the law of things is thus stated by Austin. There are certain rights and duties, with certain capacities and incapacities, by which persons are determined to various classes. The rights, duties, &c., are the condition or status of the person; and one person may be invested with many status or conditions. The law of persons consists of the rights, duties, &c., constituting conditions or status; the rest of the law is the law of things. The separation is a mere matter of convenience, but of convenience so great that the distinction is universal. Thus any given right may be exercised by persons belonging to innumerable classes. The person who has the right may be under twenty-one years of age, may have been born in a foreign state, may have been convicted of crime, may be a native of a particular county, or a member of a particular profession or trade, &c.; and it might very well happen, with reference to any given right, that, while persons in general, under the circumstances of the case, would enjoy it in the same way, a person belonging to any one of these classes would not. If belonging to any one of those classes makes a difference not to one right merely but to many, the class may conveniently be abstracted, and the variations in rights and duties dependent thereon may be separately treated under the law of persons. The personality recognized in the law of persons is such as modifies indefinitely the legal relations into which the individual clothed with the personality may enter.

T. E. Holland disapproves of the prominence given by Austin to this distinction, instead of that between public and private law. This, according to Holland, is based on the public or private character of the persons with whom the right is connected, public persons being the state or its delegates. Austin, holding that the state cannot be said to have legal rights or duties, recognizes no such distinction. The term "public law" he confines strictly to that portion of the law which is concerned with political conditions, and which ought not to be opposed to the rest of the law, but "ought to be inserted in the law of persons as one of the limbs or members of that supplemental department."

Lastly, following Austin, the main division of the law of things is into (1) primary rights with primary relative duties, (2) sanctioning rights with sanctioning duties (relative or absolute). The former exist, as it has been put, for their own sake, the latter for the sake of the former. Rights and duties arise from facts and events; and facts or events which are violations of rights and duties are *delicts* or *injuries*. Rights and duties which arise from delicts are remedial or sanctioning, their object being to prevent the violation of rights which do not arise from delicts.

There is much to be said for Frederic Harrison's view (first expressed in the *Fortnightly Review*, vol. xxxi.), that the rearrangement of English law on the basis of a scientific classification, whether Austin's or any other, would not result in advantages at all compensating for its difficulties. If anything like a real code were to be attempted, the scientific classification would be the best; but in the absence of that, and indeed in the absence of any habit on the part of English lawyers of studying the system as a whole, the arrangement of facts does not very much matter. It is essential, however, to the abstract study of the principles of law. Scientific arrangement might also be observed with advantage in treatises affecting to give a view of the whole law, especially those which are meant for educational rather than professional uses. As an example of the practical application of a scientific system of classification to a complete body of law, we may point to W. A. Hunter's elaborate *Exposition of Roman Law* (1876).

It is impossible to present the conclusions of historical jurisprudence in anything like the same shape as those which we have been discussing. Under the heading [JURISPRUDENCE, COMPARATIVE](#), an account will be found of the method and results of what is practically a new science. The inquiry is in that stage which is indicated in one way by describing it as a philosophy. It resembles, and is indeed only part of, the study which is described as the philosophy of history. Its chief interest has been in the light which it has thrown upon rules of law and legal institutions which had been and are generally contemplated as positive facts merely, without reference to their history, or have been associated historically with principles and institutions not really connected with them.

The historical treatment of law displaces some very remarkable misconceptions. Peculiarities and anomalies abound in every legal system; and, as soon as laws become the special study of a professional class, some mode of explaining or reconciling them will be resorted to. One of the prehistorical ways of philosophizing about law was to account for what wanted explanation by some theory about the origin of technical words. This implied some previous study of words and their history, and is an instance of the deep-seated and persistent tendency of the human mind to identify names with the things they represent. The *Institutes* of Justinian abound in explanations, founded on a supposed derivation of some leading term. *Testamentum*, we are told, *ex eo appellatur quod testatio mentis est*. A testament was no doubt, in effect, a declaration of intention on the part of the testator when this was written. But the *-mentum* is a mere termination, and has nothing to do with *mens* at all. The history of testaments, which, it may be noted incidentally, has been developed with conspicuous success, gives a totally different meaning to the institution from that which was expressed by this fanciful derivation. So the perplexing subject of *possessio* was supposed in some way to be explained by the derivation from *pono* and *sedeo*—*quasi sedibus positio*. *Posthumi* was supposed to be a compound of *post* and *humus*. These examples belong to the class of rationalizing derivations with which students of philosophy are familiar. Their characteristic is that they are suggested by some prominent feature of the thing as it then appeared to observers—which feature thereupon becomes identified with the essence of the thing at all times and places.

Another prehistorical mode of explaining law may be described as metaphysical. It conceives of a rule or principle of law as existing by virtue of some more general rule or principle in the nature of things. Thus, in the English law of inheritance, until the passing of the Inheritance Act 1833, an estate belonging to a deceased intestate would pass to his uncle or aunt, to the exclusion of his father or other lineal ancestor. This anomaly from an early time excited the curiosity of lawyers, and the explanation accepted in the time of Bracton was that it was an example of the general law of nature: "Descendit itaque jus quasi ponderosum quid cadens deorsum recta linea vel transversali, et nunquam reascendit ea via qua descendit." It has been suggested that the "rule really results from the associations involved in the word descent." It seems more likely, however, that these associations explained rather than that they suggested the rule—that the omission of the lineal ancestor existed in custom before it was discovered to be in harmony with the law of nature. It would imply more influence than the reasoning of lawyers is likely to have exercised over the development of law at that time to believe that a purely artificial inference of this kind should have established so very remarkable a rule. However that may be, the explanation is typical of a way of looking at law which was common enough before the dawn of the historical method. Minds capable of reasoning in this way were, if possible, farther removed from the conceptions implied in the reasoning of the analytical jurists than they were from the historical method itself. In this connexion it may be noticed that the great work of Blackstone marks an era in the development of legal ideas in England. It was not merely the first, as it still remains the only, adequate attempt to expound the leading principles of the whole body of law, but it was distinctly inspired by a rationalizing method. Blackstone tried not merely to express but to illustrate legal rules, and he had a keen sense of the value of historical illustrations. He worked of course with the materials at his command. His manner and his work are obnoxious alike to the modern jurist and to the modern historian. He is accused by the one of perverting history, and by the other of confusing the law. But his scheme is a great advance on anything that had been attempted before; and, if his work has been prolific in popular fallacies, at all events it enriched English literature by a conspectus of the law, in which the logical connexion of its principles *inter se*, and its relations to historical facts, were distinctly if erroneously recognized.

While the historical method has superseded the verbal and metaphysical explanation of legal principles, it had apparently, in some cases, come into conflict with the conclusions of the analytical school. The difference between the two systems comes out most conspicuously in relation to customs. There is an unavoidable break in the analytical method between societies in which rules are backed by regulated physical force and those in which no such force exists. At what point in its development a given society passes into the condition of "an independent political society" it may not be easy to determine, for the evidence is obscure and conflicting. To the historical jurist there is no such breach. The rule which in one stage of society is a law, in another merely a rule of "positive morality," is the same thing to him throughout. By the Irish Land Act 1881 the Ulster custom of tenant-right and other analogous customs were legalized. For the purposes of analytical jurisprudence there is no need to go beyond the act of parliament. The laws known as the Ulster custom are laws solely in virtue of the sovereign government. Between the law as it now is and the custom as it existed before the act there is all the difference in the world. To the historical jurist no such separation is possible. His account of the law would not only be incomplete without embracing the precedent custom, but the act which made the custom law is only one of the facts, and by no means the most significant or important, in the history of its development. An exactly parallel case is the legalization in England of that customary tenant-right known as copyhold. It is to the historical jurist exactly the same thing as the legalization of the Ulster tenant right. In the one case a practice was made law by formal legislation, and in the other without formal legislation. And there can be very little doubt that in an earlier stage of society, when formal legislation had not become the rule, the custom would have been legalized relatively much sooner than it actually was.

Customs then are the same thing as laws to the historical jurist, and his business is to trace the influences under which they have grown up, flourished and decayed, their dependence on the intellectual and moral conditions of society at different times, and their reaction upon them. The recognized science—and such it may now be considered to be—with which historical, or more properly comparative, jurisprudence has most analogy is the science of language. Laws and customs are to the one what words are to the other, and each separate municipal system has its analogue in a language. Legal systems are related together like languages and dialects, and the investigation in both cases brings us back at last to the meagre and obscure records of savage custom and speech. A great master of the science of language (Max Müller) has indeed distinguished it from jurisprudence, as belonging to a totally different class of sciences. "It is perfectly true," he says, "that if language be the work of man in the same sense in which a statue, or a temple, or a poem, or a law are properly called the works of man, the science of language would have to be classed as an historical science. We should have a history of language as we have a history of art, of poetry and of jurisprudence; but we could not claim for it a place side by side with the various branches of natural history." Whatever be the proper position of either philology or jurisprudence in relation to the natural sciences, it would not be difficult to show that laws and customs on the whole are equally independent of the efforts of individual human wills—which appears to be what is meant by language not being the work of man. The most complete acceptance of Austin's theory that law everywhere and always is the command of the sovereign does not involve any withdrawal of laws from the domain of natural science, does not in the least interfere with the scientific study of their affinities and relationships. Max Müller elsewhere illustrates his conception of the different relations of words and laws to the individual will by the

story of the emperor Tiberius, who was reproved for a grammatical mistake by Marcellus, whereupon Capito, another grammarian, observed that, if what the emperor said was not good Latin, it would soon be so. "Capito," said Marcellus, "is a liar; for, Caesar, thou canst give the Roman citizenship to men, but not to words." The mere impulse of a single mind, even that of a Roman emperor, however, probably counts for little more in law than it does in language. Even in language one powerful intellect or one influential academy may, by its own decree, give a bent to modes of speech which they would not otherwise have taken. But whether law or language be conventional or natural is really an obsolete question, and the difference between historical and natural sciences in the last result is one of names.

The application of the historical method to law has not resulted in anything like the discoveries which have made comparative philology a science. There is no Grimm's law for jurisprudence; but something has been done in that direction by the discovery of the analogous processes and principles which underlie legal systems having no external resemblance to each other. But the historical method has been applied with special success to a single system—the Roman law. The Roman law presents itself to the historical student in two different aspects. It is, regarded as the law of the Roman Republic and Empire, a system whose history can be traced throughout a great part of its duration with certainty, and in parts with great detail. It is, moreover, a body of rationalized legal principles which may be considered apart from the state system in which they were developed, and which have, in fact, entered into the jurisprudence of the whole of modern Europe on the strength of their own abstract authority—so much so that the continued existence of the civil law, after the fall of the Empire, is entitled to be considered one of the first discoveries of the historical method. Alike, therefore, in its original history, as the law of the Roman state, and as the source from which the fundamental principles of modern laws have been taken, the Roman law presented the most obvious and attractive subject of historical study. An immense impulse was given to the history of Roman law by the discovery of the *Institutes* of Gaius in 1816. A complete view of Roman law, as it existed three centuries and a half before Justinian, was then obtained, and as the later *Institutes* were, in point of form, a recension of those of Gaius, the comparison of the two stages in legal history was at once easy and fruitful. Moreover, Gaius dealt with antiquities of the law which had become obsolete in the time of Justinian, and were passed over by him without notice.

Nowhere did Roman law in its modern aspect give a stronger impulse to the study of legal history than in Germany. The historical school of German jurists led the reaction of national sentiment against the proposals for a general code made by Thibaut. They were accused by their opponents of setting up the law of past times as intrinsically entitled to be observed, and they were no doubt strongly inspired by reverence for customs and traditions. Through the examination of their own customary laws, and through the elimination and separate study of the Roman element therein, they were led to form general views of the history of legal principles. In the hands of Savigny, the greatest master of the school, the historical theory was developed into a universal philosophy of law, covering the ground which we should assign separately to jurisprudence, analytical and historical, and to theories of legislation. There is not in Savigny's system the faintest approach to the Austinian analysis. The range of it is not the analysis of law as a command, but that of a *Rechtsverhältniss* or legal relation. Far from regarding law as the creation of the will of individuals, he maintains it to be the natural outcome of the consciousness of the people, like their social habits or their language. And he assimilates changes in law to changes in language. "As in the life of individual men no moment of complete stillness is experienced, but a constant organic development, such also is the case in the life of nations, and in every individual element in which this collective life consists; so we find in language a constant formation and development, and in the same way in law." German jurisprudence is darkened by metaphysical thought, and weakened, as we believe, by defective analysis of positive law. But its conception of laws is exceedingly favourable to the growth of a historical philosophy, the results of which have a value of their own, apart altogether from the character of the first principles. Such, for instance, is Savigny's famous examination of the law of possession.

There is only one other system of law which is worthy of being placed by the side of Roman law, and that is the law of England. No other European system can be compared with that which is the origin and substratum of them all; but England, as it happens, is isolated in jurisprudence. She has solved her legal problems for herself. Whatever element of Roman law may exist in the English system has come in, whether by conscious adaptation or otherwise, *ab extra*; it is not of the essence of the system, nor does it form a large portion of the system. And, while English law is thus historically independent of Roman law, it is in all respects worthy of being associated with it on its own merits. Its originality, or, if the phrase be preferred, its peculiarity, is not more remarkable than the intellectual qualities which have gone to its formation—the ingenuity, the rigid logic, the reasonableness, of the generations of lawyers and judges who have built it up. This may seem extravagant praise for a legal system, the faults of which are and always have been matter of daily complaint, but it would be endorsed by all unprejudiced students. What men complain of is the practical hardship and inconvenience of some rule or process of law. They know, for example, that the law of real property is exceedingly complicated, and that, among other things, it makes the conveyance of land expensive. But the technical law of real property, which rests to this day on ideas that have been buried for centuries, has nevertheless the qualities we have named. So too with the law of procedure as it existed under the "science" of special pleading. The greatest practical law reformer, and the severest critic of existing systems that has ever appeared in any age or country, Jeremy Bentham, has admitted this: "Confused, indeterminate, inadequate, ill-adapted, and

inconsistent as to a vast extent the provision or no provision would be found to be that has been made by it for the various cases that have happened to present themselves for decision, yet in the character of a repository of such cases it affords, for the manufactory of real law, a stock of materials which is beyond all price. Traverse the whole continent of Europe, ransack all the libraries belonging to all the jurisprudential systems of the several political states, add the contents together, you would not be able to compose a collection of cases equal in variety, in amplitude, in clearness of statement—in a word, all points taken together, in constructiveness—to that which may be seen to be afforded by the collection of English reports of adjudged cases” (Bentham’s *Works*, iv. 460). On the other hand, the fortunes of English jurisprudence are not unworthy of comparison even with the catholic position of Roman law. In the United States of America, in India, and in the vast Colonial Empire, the common law of England constitutes most of the legal system in actual use, or is gradually being superimposed upon it. It would hardly be too much to say that English law of indigenous growth, and Roman law, between them govern the legal relations of the whole civilized world. Nor has the influence of the former on the intellectual habits and the ideas of men been much if at all inferior. Those who set any store by the analytical jurisprudence of the school of Austin will be glad to acknowledge that it is pure outcome of English law. Sir Henry Maine associated its rise with the activity of modern legislatures, which is of course a characteristic of the societies in which English laws prevail. And it would not be difficult to show that the germs of Austin’s principles are to be found in legal writers who never dreamed of analysing a law. It is certainly remarkable, at all events, that the acceptance of Austin’s system is as yet confined strictly to the domain of English law. Maine found no trace of its being even known to the jurists of the Continent, and it would appear that it has been equally without influence in Scotland, which, like the continent of Europe, is essentially Roman in the fundamental elements of its jurisprudence.

The substance of the above article is repeated from Professor E. Robertson’s (Lord Lochee’s) article “Law,” in the 9th ed. of this work.

Among numerous English textbooks, those specially worth mention are: T. E. Holland, *The Elements of Jurisprudence* (1880; 10th ed., 1906); J. Austin, *Lectures on Jurisprudence* (4th ed., 1873); W. Jethro Brown, *The Austinian Theory of Law* (1906); Sir F. Pollock, *A First Book on Jurisprudence* (1896; 2nd ed., 1904).

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- 1 This appears to be an unnecessary complication. The sovereign has authorized the master to set the law, although not compelling him to do so, and enforces the law when set. There seems no good reason why the law should be called a rule of positive morality at all.
- 2 In English speech another ambiguity is happily wanting which in many languages besets the phrase expressing “a right.” The Latin “jus,” the German “Recht,” the Italian “diritto,” and the French “droit” express, not only a right, but also law in the abstract. To indicate the distinction between “law” and “a right” the Germans are therefore obliged to resort to such phrases as “objectives” and “subjectives Recht,” meaning by the former law in the abstract, and by the latter a concrete right. And Blackstone, paraphrasing the distinction drawn by Roman law between the “jus quod ad res” and the “jus quod ad personas attinet,” devotes the first two volumes of his *Commentaries* to the “Rights of Persons and the Rights of Things.” See Holland’s *Elements of Jurisprudence*, 10th ed., 78 seq.



JURISPRUDENCE, COMPARATIVE. The object of this article is to give a general survey of the study of the evolution of law. It is not concerned with analytical jurisprudence as a theory of legal thought, or an encyclopaedic introduction to legal teaching. Jurisprudence in such a philosophic or pedagogical sense has certainly to reckon with the methods and results of a comparative study of law, but its aims are distinct from those of the latter: it deals with more general problems. On the other hand, the comparative study of law may itself be treated in two different ways: it may be directed to a comparison of existing systems of legislation and law, with a view to tracing analogies and contrasts in the treatment of practical problems and taking note of expedients and of possible solutions. Or else it may aim at discovering the principles regulating the development of legal systems, with a view to explain the origin of institutions and to study the conditions of their life. In the first sense, comparative jurisprudence resolves itself into a study of home and foreign law (cf. Hofmann in the *Zeitschrift für das private und öffentliche Recht der Gegenwart*, 1878). In the second sense, comparative jurisprudence is one of the aspects of so-called sociology, being the study of social evolution in the special domain of law. From this point of view it is, in substance, immaterial whether the legal phenomena subjected to investigation are ancient or modern, are drawn from civilized or from primitive communities. The fact that they are being observed and explained as features of social evolution characterizes the inquiry and forms the distinctive attribute separating these studies from kindred subjects. It is only natural, however, that early periods and primitive conditions have attracted investigators in this field more than recent developments. The interest of students seems to have stood in inverse ratio to the chronological vicinity of the facts under consideration—the farther from the observer, the more suggestive and worthy of attention the facts

were found to be. This peculiarity is easily explained if we take into account the tendency of all evolutionary investigations to obtain a view of origins in order to follow up the threads of development from their initial starting-point. Besides, it has been urged over and over again that the simpler phenomena of ancient and primitive society afford more convenient material for generalizations as to legal evolution than the extremely complex legal institutions of civilized nations. But there is no determined line of division between ancient and modern comparative jurisprudence in so far as both are aiming at the study of legal development. The law of Islam or, for that matter, the German civil code, may be taken up as a subject of study quite as much as the code of Hammurabi or the marriage customs of Australian tribes.

The fact that the comparative study of legal evolution is chiefly represented by investigations of early institutions is therefore a characteristic, but not a necessary feature in the treatment of the subject. But it is essential to this treatment that it should be *historical* and *comparative*. Historical, because it is only as history, *i.e.* a sequence of stages and events, that development can be thought of. Comparative, because it is not the casual notices about one or the other chain of historical facts that can supply the basis for any scientific induction. Comparisons of kindred processes have to be made in order to arrive at any conception of their general meaning and scientific regularity. As linguistic science differs from philology in so far as it treats of the general evolution of language and not of particular languages, even so comparative jurisprudence differs from the history of law as a study of general legal evolution distinct from the development of one or the other national branch of legal enactment. Needless to say that there are intermediate shades between these groups, but it is not to these shades we have to attend, but to the main distinctions and divisions.

1. The idea that the legal enactments and customs of different countries should be compared for the purpose of deducing general principles from them is as old as political science itself. It was realized with especial vividness in epochs when a considerable material of observations was gathered from different sources and in various forms. The wealth of varieties and the recurrence of certain leading views in them led to comparison and to generalizations based on comparison. Aristotle, who lived at the close of a period marked by the growth of free Greek cities, summarized, as it were, their political experience in his *Constitutions* and *Politics*; students of these know that the Greek philosopher had to deal with not only public law and political institutions, but also to some extent private, criminal law, equity, the relations between law and morals, &c.

Another great attempt at comparative observation was made at the close of the pre-revolutionary period of modern Europe. Montesquieu took stock of the analogies and contrasts of law in the commonwealths of his time and tried to show to what extent particular enactments and rules were dependent on certain general currents in the life of societies—on forms of government, on moral conditions corresponding to these, and ultimately on the geographical facts with which various nationalities and states have to reckon in their development.

These were, however, only slight beginnings, general forecasts of a coming line of thought, and Montesquieu's remarks on laws and legal customs read now almost as if they were meant to serve as materials for social Utopias, although they were by no means conceived in this sense. At this distance of time we cannot help perceiving how fragmentary, incomplete and uncritical his notions of the facts of legal history were, and how strongly his thought was biased by didactic considerations, by the wish to teach his contemporaries what politics and law should be.

It was reserved for the 19th century to come forward with connected and far-reaching investigations in this field as in many others. We are not deceived by proximity and self-consciousness when we affirm that comparative jurisprudence, as understood in these introductory remarks, dates from the 19th century and especially from its second half.

There were many reasons for such a new departure: two of these reasons have been especially manifest and decisive. The 19th century was an eminently historical and an eminently scientific age. In the domain of history it may be said that it opened an entirely new vista. While, speaking roughly, before that time history was conceived as a narrative of memorable events, more or less skilful, more or less sensational, but appealing primarily to the literary sense of the reader, it became in the course of the 19th century an encyclopaedia of reasoned knowledge, a means of understanding social life by observing its phenomena in the past. The immense growth of historical scholarship in that sense, and the transformation of its aims, can hardly be denied.

Apart from the personal efforts of eminent writers, a great and general movement has to be taken into account in order to explain this remarkable stage of human thought. The historic bent of mind of 19th-century thinkers was to a great extent the result of heightened political and cultural self-consciousness. It was the reflection in the world of letters of the tremendous upheaval in the states of Europe and America which took place from the close of the 18th century onwards. As one of the greatest leaders of the movement, Niebuhr, pointed out, the fact of being a witness of such struggles and catastrophes as the American Revolution, the French Revolution, the Napoleonic Empire and the national reaction against it, taught every one to think historically, to appreciate the importance of historical factors, to measure the force not only of logical argument and moral impulse, but also of instinctive habits and traditional customs. It is not a matter of chance that the *historical school* of jurisprudence, Savigny's doctrine of the organic growth of law, was formed and matured while Europe collected its forces after the most violent revolutionary crisis it had ever experienced, and in most intimate connexion with the romantic movement, a movement animated by enthusiastic belief in

the historical, traditional life of social groups as opposed to the intellectual conceptions of individualistic radicalism.

On the other hand, the 19th century was a scientific age and especially an age of biological science. Former periods—the 16th and 17th centuries especially—had bequeathed to it high standards of scientific investigation, an ever-increasing weight of authority in the direction of an exact study of natural phenomena and a conception of the world as ruled by laws and not by capricious interference. But these scientific views had been chiefly applied in the domain of mathematics, astronomy and physics; although great discoveries had already been made in physiology and other branches of biology, yet the achievements of 19th-century students in this respect far surpassed those of the preceding period. And the doctrine of transformation which came to occupy the central place in scientific thought was eminently fitted to co-ordinate and suggest investigations of social facts. As F. York Powell put it, Darwin is the greatest historian of modern times, and certainly an historian not in the sense of a reader of annals, but in that of a guide in the understanding of organic evolution. Though much is expressed in the one name of Darwin, it is perhaps even more momentous as a symbol of the tendency of a great age than as a mark of personal work. To this tendency we are indebted for the rise of anthropology and of sociology, of the scientific study of man and of the scientific study of society. Of course it ought not to be disregarded that the application of scientific principles and methods to human and social facts was made possible by the growth of knowledge in regard to savage and half-civilized nations called forth by the increased activity of European and American business men, administrators and explorers. Ethnography and ethnology have brought some order into the wealth of materials accumulated by generations of workers in this direction, and it is with their help that the far-reaching generalizations of modern inquirers as to man and society have been achieved.

2. It is not difficult to see that the comparative study of legal evolution finds its definite place in a scientific scheme elaborated from such points of view. Let us see how, as a matter of fact, the study in question arose and what its progress has been. The immediate incitement for the formation of comparative jurisprudence was given by the great discoveries of comparative philology. When the labours of Franz Bopp, August Schleicher, Max Müller, W. D. Whitney and others revealed the profound connexion between the different branches of the Indo-European race in regard to their languages, and showed that the development of these languages proceeded on lines which might be studied in a strictly scientific manner, on the basis of comparative observation and with the object of tracing the uniformities of the process, it was natural that students of religion, of folk-lore and of legal institutions took up the same method and tried to win similar results (Sir H. Maine, *Rede lecture in Village Communities*, 3rd ed.).

It is interesting to note that one of the leading scholars of the Germanistic revival in the beginning of the 19th century, Jacob Grimm, a compeer of Savigny in his own line, took up with fervent zeal and remarkable results not only the scientific study of the German language, but also that of Germanic mythology and popular law. His *Rechtsalterthümer* are still unrivalled as a collection of data as to the legal lore of Teutonic tribes. Their basis is undoubtedly a narrow one: they treat of the varieties of legal custom among the continental Germans, the Scandinavians and the Germanic tribes of Great Britain, but the method of treatment is already a comparative one. Grimm takes up the different subjects—property, contract, procedure, succession, crime, &c.—and examines them in the light of national, provincial and local customs, sometimes noticing expressly affinities with Roman and Greek law (*e.g.* the subject of imprisonment for debt, *Rechtsalterthümer*, 4th ed., vol. ii., p. 165).

A broader basis was taken up by a linguist who tried to trace the primitive institutions and customs of the early Aryans before their separation into divers branches. Adolphe Pictet (*Les Origines indo-européennes*, i. 1859; ii. 1863) had to touch constantly on questions of family law, marriage, property, public authority, in his attempt to reconstruct the common civilization of the Aryan race, and he did so on the strength of a comparative study of terms used in the different Indo-European languages. He showed, for instance, how the idea of protection was the predominant element in the position of the father in the Aryan household. The names *pitar*, *pater*, *πατήρ*, *father*, which recur in most branches of the Aryan race, go back to a root *pā-*, pointing to guardianship or protection. Thus we are led to consider the *patria potestas*, so stringently formulated in Roman law, as an expression of a common Aryan notion, which was already in existence before the Aryan tribes parted company and went their different ways. Descriptions of Aryan early culture have been given several times since in connexion with linguistic observations. An example is W. E. Hearn's *Aryan Household* (1879). Fustel de Coulanges' famous volume on the ancient city and Rudolf von Jhering's studies of primitive Indo-European institutions (*Vorgeschichte der Indoeuropäer*) start from similar observations, although the first of these scholars is chiefly interested in tracing the influence of religion on the material arrangements of life, while the latter draws largely on principles of public and private law, studied more especially in Roman antiquity.

3. The chief work in that direction has been achieved in one sense by a German scholar, B. W. Leist. His Graeco-Roman legal history, his *Jus Gentium of Primitive Aryans*, and his *Jus Civile of Primitive Aryans*, form the most complete and learned attempt not only to reconstitute the fundamental rules of common Aryan law before the separation of tongues and nations, but also to trace the influence of this original stock of juridical ideas in the later development of different branches of the Aryan race. These three books present three stages of comparison, marked by a successive widening of the horizon. He began his legal history by putting together the data as to

Roman and Greek legal origins; in the *Alt-arisches Jus Gentium* the material of Hindu law is not only drawn into the range of observation, but becomes its very centre; in the *Alt-arisches Jus Civile* the legal customs of the Zend branch, of Celts, Germans and Slavs, are taken into account, although the most important part of the inquiry is still directed to the combination of Hindu, Greek and Roman law. In this way Leist builds up his theories by the comparative method, but he restricts its use consciously and consistently to a definite range. He does not want to plunge into haphazard analogies, but seeks common ground before all things in order to be able to watch for the appearance of ramifications and to explain them. According to his view comparison is of use only between "coherent" lines of facts. Common origin, not similarity of features, appears to him as the fundamental basis for fruitful comparison. It may be said that Leist's work is characterized by the attempt to draw up a continuous history of a supposed archaic common law of the Aryan race rather than to put different solutions of kindred legal problems by the side of each other. For him Aryan tribal organization with its double-sided relationship—cognatic and agnatic—through men and through women—is one, and although he does not draw its picture as Fustel de Coulanges does by the help of traits taken indiscriminately from Hindu, Roman and Greek material, although he notices divisions, degrees and variations, at bottom he writes the history of one set of principles exemplified and modulated, as it were, in the six or seven main varieties of the race. Even so the nine rules of conduct prescribed by Hindu sacral law are, according to his view, the directing rules of Roman, Greek, Germanic, Celtic, Slavonic legal custom—the duties in regard to gods, parents and fatherland, guests, personal purity, the prohibitions against homicide, adultery and theft—are variations of one and the same religious, moral and legal system, and their original unity is reflected and proved by the unity of legal terminology itself.

The same leading idea is embodied in the books of Otto Schröder—*Urgeschichte und Sprachvergleichung* (1st ed., 1883; 2nd ed., 1890) and *Reallexikon der indogermanischen Altertumskunde* (1901). In this case we have to do not with a jurist but with a linguist and a student of cultural history. His training made him especially fit to trace the national affinities in the data of language, and the sense of the intimate connexion between the growth of institutions on one side, of words and linguistic forms on the other, underlies all his investigations. But Schröder testifies also to another powerful influence—to that of Victor Hehn, the author of a remarkable book on early civilization, *Kulturpflanzen und Haustiere in ihrem Übergang aus Asien in Europa* (1st ed., 1870; 7th ed., 1902), dealing with the migrations of tribes and their modes of acquiring material civilization. Although the linguistic and archaeological sides naturally predominate in Schröder's works, he has constantly to consider legal subjects, and he strives conscientiously to obtain a clear and common-sense view of the early legal notions of the Aryans. Speaking of the "ordeals," the "waging of God's law," for example, he traces the customs of purification by fire, water, iron, &c., to the practice of oaths (Sans. *am*; Gr. ὄμνυμι; O. Ital. *omr* = first group; O. Ger. *aips*, Ir. *óeth* = second group; O. Norse *rota*, Arm. *erdnum* = I swear = third group). The central idea of the ordeal is thus shown to be the imprecation—"Let him be cursed whose assertion is false."

The comparative study of the Aryan group assumed another aspect in the works of Sir Henry Maine. He did not rely on linguistic affinities, but made great use of another element of investigation which plays hardly any part in the books of the writers mentioned hitherto. His best personal preparation for the task was that he had not only taught law in England, but had come into contact with living legal customs in India. For him the comparison between the legal lore of Rome and that of India did not depend on linguistic roots or on the philological study of the laws of Manu, but was the result of recognizing again and again, in actual modern custom, the views, rules and institutions of which he had read in Gaius or in the fragments of the Twelve Tables. The sense of historical analogy and evolution which had shown itself already in the lectures on *Ancient Law*, which, after all, were mainly a presentment of Roman legal history mapped out by a man of the world, averse from pedantic disquisitions. But what appears as the expression of Maine's personal aptitude and intelligent reading in *Ancient Law* gets to be the interpretation of popular legal principles by modern as well as by ancient instances of their application in *Village Communities*, *The Early History of Institutions*, *Early Law and Custom*. The evolution of property in land out of archaic collectivism, ancient forms of contract and compulsion, rudimentary forms of feudalism and the like, were treated in a new light in consequence of systematic comparisons with the conditions not only of India but of southern Slavonic nations, medieval Celts and Teutons. This breadth of view seemed startling when the lectures appeared, and the original treatment of the subject was hailed on all sides as a most welcome new departure in the study of legal customs and institutions. And yet Maine set very definite boundaries to his comparative surveys. He renounced the chronological limitation confining such inquiries to the domain of antiquaries, but he upheld the ethnographical limitation confining them to laws of the same race. In his case it was the Aryan race, and in his *Law and Custom* he opposed in a determined manner the attempts of more daring students to extend to the Aryans generalizations drawn from the life of savage tribes unconnected with the Aryans by blood.

Thus, notwithstanding all diversities in the treatment of particular problems, one leading methodical principle runs through the works of all the above-mentioned exponents of comparative study. It was to proceed on the basis of common origin and on the assumption of a certain common stock of language, religion, material culture, and law to start with. What Pictet, Leist, Schröder, and Maine were doing for the Aryans, F. Hommel, Robertson Smith and others did in a lesser degree for the Semitic race.

4. The literary group which started from the discoveries of comparative philology and history was met on the way by what may be called the ethnological school of inquirers. The original impetus was given, in this case, by jurists and historians who took up the study in the field of ancient history, but treated it from the beginning in such a way as to break up the subdivisions of historic races and to direct the inquiry to a state of culture best illustrated by savage customs. The first impulse may be said to have come from J. J. Bachofen (*Mutterrecht*, 1861; *Antiquarische Briefe*, 1880; *Die Sage von Tanaquil*). All the representatives of Aryan antiquities are at one in laying stress on the patriarchal and agnatic system of the kindreds in the different Aryan nations; even Leist, although dwelling on the importance of cognatic ties, looks to agnatic relationship for the explanation of military organization and political authority. And undoubtedly, if we argue from the predominant facts and from the linguistic evidence of parallel terms, we are led to assume that already before their separation the Aryans lived in a patriarchal state of society. Now, Bachofen discovered in the very tradition of classical antiquity traces of a fundamentally different state of things, the central conception of which was not patriarchal power, but maternity, relationship being traced through mothers, the wife presenting the constant and directing element of the household, while the husband (and perhaps several husbands) joined her from time to time in more or less inconstant unions. Such a state of society is definitely described by Herodotus in the case of the Lycians, it is clearly noticeable even in later historical times in Sparta; the passage from this matriarchal conception to the recognition of the claims of the father is reflected in poetical fiction in the famous Orestes myth, based on the struggle between the moral incitement which prompted the son to avenge his father and the absolute reverence for the mother required by ancient law. Although chiefly drawing his materials from classical literature, Bachofen included in his *Antiquarian Letters* an interesting study of the marriage custom and systems of relationship of the Malabar Coast in India; they attracted his attention by the contrasts between different layers of legal tradition—the Brahmans living in patriarchal order, while the class next to them, the Nayirs (Nairs), follow rules of matriarchy.

Similar ideas were put forward in a more comprehensive form by J. F. McLennan. His early volume (*Studies in Ancient History*, 1876) contains several essays published some time before that date. He starts from the wide occurrence of marriage by capture in primitive societies, and groups the tribes of which we have definite knowledge into endogamous and exogamous societies according as they take their wives from among the kindred or outside it. Marriage by capture and by purchase are signs of exogamy, connected with the custom in many tribes of killing female offspring. The development of marriage by capture and purchase is a powerful agent in bringing about patriarchal rule, agnatic relationship, and the formation of clans or *gentes*, but the more primitive forms of relationship appear as variations of systems based on mother-right. These views are supported by ethnological observations and used as a clue to the history of relationship and family law in ancient Greece. In further contributions published after McLennan's death these researches are supplemented and developed in many ways. The peculiarities of exogamous societies, for instance, are traced back to the even more primitive practice of Totemism, the grouping of men according to their conceptions of animal worship and to their symbols. McLennan's line of inquiry was taken up in a very effective manner not only by anthropologists like E. B. Tylor or A. Lang, but also in a more special manner by students of primitive family law. One of the most brilliant monographs in this direction is Robertson Smith's study of *Kinship and Marriage in Arabia*.

But perhaps the most decisive influence was exercised on the development of the ethnological study of law by the discoveries of an American, Lewis H. Morgan. In his epoch-making works on *Systems of Consanguinity* (1869) and on *Ancient Society* (1877) he drew attention to the remarkable fact that in the case of a number of tribes—the Red Indians of America, the Australian black tribes, some of the polar races, and several Asiatic tribes, mostly of Turanian race—degrees of relationship are reckoned and distinguished by names, not as ties between individuals, but as ties between entire groups, classes or generations. Instead of a mother and a father a man speaks of fathers and mothers; all the individuals of a certain group are deemed husbands or wives of corresponding individuals of another group; sisters and brothers have to be sought in entire generations, and not among the descendants of a definite and common parent, and so forth. There are variations and types in these forms of organization, and intermediate links may be traced between unions of consanguine people—brothers and sisters of the same blood—on the one hand, and the monogamic marriage prevailing nowadays, on the other; but the central and most striking fact seems to be that in early civilizations, in conditions which we should attribute to savage and barbarian life, marriage appears as a tie, not between single pairs, but between classes, all the men of a class being regarded as potential or actual husbands of the women of a corresponding class. Facts of this kind produce very peculiar and elaborate systems of relationship, which have been copiously illustrated by Morgan in his tables. In his *Ancient Society* he attempted to reduce all the known forms and facts of marriage and kinship arrangements to a comprehensive view of evolution leading up to the Aryan, Semitic and Uralian family, as exhibiting the most modern type of relationship.

These observations, in conjunction with Bachofen's and McLennan's teaching on mother-right, brought about a complete change of perspective in the comparative study of man and society. The rights of ethnologists to have their say in regard to legal, political and social development was forcibly illustrated from both ends, as it were. On the one hand, classical antiquity itself proved to be a rather thin layer of human civilization hardly sufficient to conceal the long periods of barbarism and primitive evolution which had gone to its making. On the other hand, unexpected combinations in regard to family, property, social order, were discovered in every corner of the inhabited world, and

our trite notions as to the character of laws and institutions were reduced to the rank of variations on themes which recur over and over again, but may be and have been treated in very different ways.

There is no need to speak of the use made of ethnological material in the wider range of anthropological and sociological studies—the works of Tylor, Lubbock, Lippert, Spencer are in everybody's hands—but attention must be called to the further influence of the ethnological point of view in comparative jurisprudence. An interesting example of the passage from one line of investigation to another, from the historical to the anthropological line, if the expression may be used for the sake of brevity, is presented in the works of one of the founders of the *Zeitschrift für vgl. Rechtswissenschaft*—Franz Bernhöft. He appears in his earlier books as an exponent of the comparative study of Greek and Roman antiquities, more or less in the style of Leist. Like the latter he was gradually incited to draw India into the range of his observations, but unlike Leist, he ended by fully recognizing the importance of ethnological evidence, and although he did not do much original research in that direction himself, the influence of Bachofen and of the ethnologists made itself felt in Bernhöft's treatment of classical antiquity itself: in his *State and Law in Rome at the Time of the Kings* he starts from the view that patricians and plebeians represent two ethnological layers of society—a patriarchal Aryan and a matriarchal pre-Aryan one.

But, of course, the utmost use was made of ethnological evidence by writers who cut themselves entirely free from the special study of classical or European antiquities. The enthusiasm of the explorers of new territory led them naturally to disregard the peculiar claims of European development in the history of higher civilization. They wanted material for a study of the *genus homo* in all its varieties, and they had no time to look after the minute questions of philological and antiquarian research which had so long constituted the daily bread of inquirers into the history of laws. The most characteristic representative of the new methods of extensive comparison was undoubtedly A. H. Post (1839-1895)—the author of many works, in which he ranges over the whole domain of mankind—Hovas, Zulus, Maoris, Tunguses, alternating in a kaleidoscopic fashion with Hindus, Teutons, Jews, Egyptians. The order of his compositions is systematic, not chronological or even ethnographical in the sense of grouping kindred races together. He takes up the different subdivisions of law and traces them through all the various tribes which present any data in regard to them. His method is not only not bound by history, it is opposed to it. He writes:—

“The method of comparative ethnology is different from the historical method, inasmuch as it collects the given material from an entirely distinct point of view. Historical investigation tries to get at the causes of the facts of rational life by observing the development of these facts from such as preceded them within the range of separate kindreds, tribes and peoples. The investigation of comparative ethnology inquires after the causes of facts in national life by collecting identical or similar ethnological data wherever they may be found in the world, and by drawing inferences from these materials to identical or similar causes. This method is therefore *quite unhistorical*. It severs things that have been hitherto regarded as closely joined and arranges these shreds into new combinations” (*Grundriss*, i. 14).

This is not a mere paradox, but the necessary outcome of the situation in respect of the material used. What is being sought is not common origin or a common stock of ideas, but recourse to similar expedients in similar situations, and it is one of the most striking results of ethnology that it can show how peoples entirely cut off from each other and even placed in very different planes of development can resort to analogous solutions in analogous emergencies. Is not the custom of the so-called *Couvade*—the pretended confinement of the husband when a child is born to his wife—a most quaint and seemingly recondite ceremony? Yet we find it practised in the same way by Basques, Californian Indians, and some Siberian tribes. They have surely not borrowed from each other, nor have they kept the ceremony as a remnant of the time when they formed one race: in each case, evidently the passage from a matriarchal state to a patriarchal has suggested it, and a very appropriate method it seems to establish the fact of fatherhood in a solemn and graphic though artificial manner. Again, an inscription from the Cretan town of Gortyn, published in the *American Journal of Archaeology* (2nd series, vol. i., 1897) by Halbherr, tells us that the weapons of a warrior, the wool of a woman, the plough of a peasant, could not be taken from them as pledges. We find a similar idea in the prohibition to take from a knight his weapons, from a villein his plough, in payment of fines, which obtained in medieval England and was actually inserted in Magna Carta. Here also the similarity extends to details, and is certainly not derived from direct borrowing or common origin but from analogies of situations translating themselves into analogies of legal thought. It may be said in a sense that for the ethnological school the less relationship there is between the compared groups the more instructive the comparison turns out to be.

The collection of ethnological parallels for the use of sociology and comparative jurisprudence has proceeded in a most fruitful manner. By the side of special monographs about single tribes or geographical groups of tribes, such as *Kamilaroi and Kurnai*, by L. Fison & A. W. Howitt (1880), and *The Native Tribes of Australia*, by Baldwin Spencer & F. G. Gillen (1899), the whole range of ethnological jurisprudence was gone through by Wilken in regard to the inhabitants of the Dutch possessions in Asia, by M. M. Kovalevsky in regard to Caucasians, &c. As a rule the special monographs turned out to be more successful than the general surveys, but the interest of the special monographs themselves depended partly on the fact that people's eyes had been opened to the recurrence of certain widespread phenomena and types of development.

5. Ethnologists of Post's school have not had it entirely their own way, however. Not only did their

natural opponents, the philologists, historians and jurists, reproach them with lack of critical discrimination, with a tendency to disregard fundamental distinctions, to wipe out characteristic features, to throw the most disparate elements into the same pot. In their own ranks a number of conscientious and scientifically trained investigators protested against the haphazard manner in which the most intricate problems were treated, and sought to evolve more definite methodical rules. P. and F. Sarrasin in their description of the Ceylon Veddahs showed a most primitive race scattered in small clusters, monogamous and patriarchal in their marriage customs and systems of relationship. E. A. Westermarck challenged the sweeping generalizations indulged in by many ethnologists about primitive promiscuity in sexual relations and the necessary passage of all human tribes through the stages of matriarchy and group marriage.

A very interesting departure was attempted by Dargun in his studies on the origin and development of property and his treatise on mother-right and marriage by capture. His lead was followed by R. Hildebrand in the monograph on law and custom. The principal idea of these inquirers may be stated as follows. We must utilize ethnological as well as historical materials from the whole world, but it is no use doing this indiscriminately. Fruitful comparisons may be instituted mainly in the case of tribes on the same level in their general culture and especially their economic pursuits. Hunting tribes must be primarily compared with other hunters, fishers with fishers, pastoral nations with pastoral nations, agriculturists with agriculturists; nations in transitional stages from one type of culture to the other have to be grouped and examined by themselves. The result would be to establish certain parallel lines in the development of institutions and customs. From this point of view both Dargun and Hildebrand attacked the prevailing theory of primitive communism and insisted on the atomistic individualism of the rudimentary civilization of hunting tribes. Collectivism in the treatment of ownership, common field husbandry, practices of joint holdings, co-aration, common stores, &c., make their appearance according to Dargun in consequence of the drawing together of scattered groups and smaller independent settlements. An evolution of the same kind leading from loose unions around mothers through marriage by capture to patriarchal kindreds was traced in the history of relationship. Grosse (*Die Formen der Familie und der Wirtschaft*, 1896) followed in a similar strain. Another line of criticism was opened up from the side of exact sociological study. Its best exponent is Steinmetz, who represents with Wilken the Dutch group of investigators of social phenomena. He takes up a standpoint which severs him entirely from the linguistic and historic school. In a discourse on the *Meaning of Sociology* (p. 10) he expresses himself in the following words: "One who judges of the social state of the Hindus by the book of Manu takes the ideal notions of one portion of the people for the actual conditions of all its parts." In regard to jurisprudence he distinguishes carefully between art and science. "Jurisprudence in the wider sense is an art, the art of framing rules for social intercourse in so far as these rules can be put into execution by the state and its organs, as well as the art of interpreting and applying these rules. In another sense it is pure science, the investigation of all consciously formulated and actually practised rules, and of their conditions and foundations, in fact of the entire social life of existing and bygone nations, without a knowledge and understanding of which a knowledge and understanding of law as its outcome is, of course, impossible." In this sense jurisprudence is a part of ethnology and of the comparative history of culture. But in order to grapple with such a tremendous task comparative jurisprudence has not only to call to help the study of scattered ethnological facts. This is not sufficient to widen the frame of observation and to realize the relative character of the principles with which practical lawyers operate, without ever putting in question their general acceptance or logical derivations. Ethnological studies themselves have to look for guidance to psychology, especially to the psychology of emotional life and of character. Although these branches of psychological science have been much less investigated than the study of intellectual processes, they still afford material help to the ethnologist and the comparative jurist; and Steinmetz himself made a remarkable attempt to utilize a psychological analysis of the feelings of revenge in his *Origins of Punishment*.

6. The necessity of employing more stringent standards of criticisms and more exact methods is now recognized, and it is characteristic that the foremost contemporary representative of comparative jurisprudence, Joseph Kohler of Berlin, principal editor of the *Zeitschrift für vgl. Rechtswissenschaft*, often gives expression to this view. Beginning with studies of procedure and private law in the provinces of Germany where the French law of the Code Napoléon was still applied, he has thrown his whole energy into monographic surveys and investigations in all the departments of historical and ethnological jurisprudence. The code of Khammurabi and the Babylonian contracts, the ancient Hindu codes and juridical commentaries on them, the legal customs of the different tribes and provinces of India, the collection and sifting of the legal customs of aborigines in the German colonies in Africa, the materials supplied by investigators of Australian and American tribes, the history of legal customs of the Mahommedans, and numberless other points of ethnological research, have been treated by him in articles in his *Zeitschrift* and in other publications. Comprehensive attempts have also been made by him at a synthetic treatment of certain sides of the law—like the law of debt in his *Shakespeare vor dem Forum der Jurisprudenz* (1883) or his *Primitive History of Marriage*. Undoubtedly we have not to deal in this case with mere accumulation of material or with remarks on casual analogies. And yet the importance of these works consists mainly in their extensive range of observation. The critical side is still on the second plane, although not conspicuously absent as in the case of Post and some of his followers. We may sympathize cordially with Kohler's exhortation to work for a universal history of law without yet perceiving clearly what the stages of this universal history are going to be. We may acknowledge the

enormous importance of Morgan's and Bachofen's discoveries without feeling bound to recognize that all tribes and nations of the earth have gone substantially through the same forms of development in respect of marriage custom, and without admitting that the evidence for a universal spread of group-marriage has been produced. Altogether the reproach seems not entirely unfounded that investigations of this kind are carried on too much under the sway of a preconceived notion that some highly peculiar arrangement entirely different from what we are practising nowadays—say sexual promiscuity or communism in the treatment of property—must be made out as a universal clue to earlier stages of development. Kohler's occasional remarks on matters of method (*e.g. Zeitschrift für vgl. Rechtswissenschaft*, xii. 193 seq.) seem hardly adequate to dispel this impression. But in his own work and in that of some of his compeers and followers, J. E. Hitzig, Hellwig, Max Huber, R. Dareste, more exact forms and means of inquiry are gradually put into practice, and the results testify to a distinct heightening of the scientific standard in this group of studies on comparative jurisprudence. Especially conspicuous in this respect are three tendencies: (a) the growing disinclination to accept superficial analysis between phenomena belonging to widely different spheres of culture as necessarily produced by identical causes (*e.g. Darinsky's review of Kovalevsky's assumptions as to group marriage among the Caucasian tribes, Z. für vgl. Rw.*, xiv. 151 seq.); (b) the selection of definite historical or ethnological territories for monographic inquiries, in the course of which arrangements observed elsewhere are treated as suggestive material for supplying gaps and starting possible explanations: Kohler's own contributions have been mainly of this kind; (c) the treatment of selected subjects by an intensive legal analysis, bringing out the principles underlying one or the other rule, its possible differentiation, the means of its application in practice, &c.: Hellwig's monograph on the right of sanctuary in savage communities (*Das Asylrecht der Naturvölker*) may be named in illustration of this analytical tendency. Altogether, there can be no doubt that the stage has been reached by comparative jurisprudence when, after a hasty, one might almost say a voracious consumption of materials, investigators begin to strive towards careful sifting of evidence and a conscious examination of methods and critical rules which have to be followed in order to make the investigations undertaken in this line worthy of their scientific aims. Until the latter has been done many students, whose trend of thought would seem to lead them naturally into this domain, may be repelled by the uncritical indistinctness with which mere analogies are treated as elusive proofs by some of the representatives of the comparative school. F. W. Maitland, for instance, was always kept back by such considerations.

7. It is desirable, in conclusion, to review the entire domain of comparative jurisprudence, and to formulate the chief principles of method which have to be taken into consideration in the course of this study. It is evident, to begin with, that a scientific comparison of facts must be directed towards two aims—towards establishing and explaining similarity, and towards enumerating and explaining differences. As a matter of fact the same material may be studied from both points of view, though logically these are two distinct processes.

(a) Now at this initial stage we have already to meet a difficulty and to guard against a misconception: we have namely to reckon with the *plurality of causes*, and are therefore debarred from assuming that wherever similar phenomena are forthcoming they are always produced by identical causes. Death may be produced by various agents—by sickness, by poison, by a blow. The habit of wearing mourning upon the death of a relation is a widespread habit, and yet it is not always to be ascribed to real or supposed grief and the wish to express it in one's outward get-up. Savage people are known to go into mourning in order to conceal themselves from the terrible spirit of the dead which would recognize them in their everyday costume (Jhering, *Der Zweck im Recht*, 2nd ed., 1884-1886). This is certainly a momentous difficulty at the start, but it can be greatly reduced and guarded against in actual investigation. In the example taken we are led to suppose different origin because we are informed as to the motives of the external ceremony, and thus we are taught to look not only to bare facts, but to the psychological environment in which they appear. And it is evident that the greater the complexity of observed phenomena, the more they are made up of different elements welded into one sum, the less probability there is that we have to do with consequences derived from different causes. The recurrence of group-marriage in Australia and among the Red Indians of North America can in no way be explained by the working of entirely different agencies. And it may be added that in most cases of an analysis of social institutions the limits of human probability and reasonable assumption do not coincide with mathematical possibility in any sense. When we register our facts and causes in algebraic forms, marking the first with *a, b, c*, and the latter with *x, y, z*, we are apt to demand a degree of precision which is hardly ever to be met with in dealing with social facts and causes. Let us rest content with reasonable inferences and probable explanations.

(b) The easiest way of explaining a given similarity is by attributing it to a direct *loan*. The process of reception, of the borrowing of one people from the other, plays a most notable part in the history of institutions and ideas. The Japanese have in our days engrafted many European institutions on their perfectly distinct civilization; the Germans have used for centuries what was termed euphemistically the Roman law of the present time (*heutiges römisches Recht*); the Romans absorbed an enormous amount of Greek and Oriental law in their famous jurisprudence. A check upon explanation by direct loan will, of course, lie in the fact that two societies are entirely disconnected, so that it comes to be very improbable that one drew its laws from the other. Although migrations of words, legends, beliefs, charms, have been shown by Theodor Benfey and his school to range over much wider areas than might be supposed on the face of it, still, in the case of law, in so far as it has

to regulate material conditions, the limits have perhaps to be drawn rather narrowly. In any case we shall not look to India in order to explain the burning of widows among the negroes of Africa; the *suttee* may be the example of this custom which happens to be most familiar to us, but it is certainly not the only root of it on the surface of the earth.

It is much more difficult to make out the share of direct borrowing in the case of peoples who might conceivably have influenced one another. A hard and fast rule cannot be laid down in such cases, and everything depends on the weighing of evidence and sometimes on almost instinctive estimates. The use of a wager for the benefit of the tribunal in the early procedure of the Romans and Greeks, the *sacramentum* and the *πρωτανεία*, with a similar growth of the sum laid down by the parties in proportion to the interests at stake, has been explained by a direct borrowing by the Romans from the Greeks at the time of the Twelve Tables legislation (Hofmann, *Beiträge zur Geschichte des griechischen und römischen Rechts*). No direct proof is available for this hypothesis, and the question in dispute might have lain for ever between this explanation and that based on the analogous development in the two closely related branches of law. The further study of the legal antiquities of other branches of the Aryan race leads one to suppose, however, that we have actually to do with the latter and not with the former eventuality. Why should the popular custom of the *Vzdání* in Bohemia (Kapras, "Das Pfandrecht in altböhmischen Landrecht," *Z. für vgl. R.-wissenschaft*, xvii. 424 seq.), regulating the wager of litigation in the case of two parties submitting their dispute to the decision of a public tribunal, turn out to be so similar to the Greek and the Roman process? And the Teutonic *Wedde* would further countenance the view that we have to do in this case with analogous expediency or, possibly, common origin, not loans. But while dwelling on considerations which may disprove the assumption of direct loans, we must not omit to mention circumstances that may render such an assumption the best available explanation for certain points of similarity. We mean especially the recurrence of special secondary traits not deducible from the nature of the relations compared. Terminological parallels are especially convincing in such cases. An example of most careful linguistic investigation attended by important results is presented by W. Thomsen's treatment of the affinities between the languages and cultures of the peoples of northern and eastern Europe. Taking the indications in regard to the influence of Germanic tribes on Finns and Lapps, we find, for instance, that the Finnish race has stood for some 1500 or 2000 years under "the influence of several Germanic languages—partly of a more ancient form of Gothic than that represented by *Ulfilas*, partly of a northern (Scandinavian) tongue and even possibly of a common Gothic-northern one." The importance of these linguistic investigations for our subject becomes apparent when we find that a series of most important legal and political terms has been imported from Teutonic into Finnish. For example, the Finnish *Kuningas*, "king," comes from a Germanic root illustrated by O. Norse *konung*, O. H. Ger. *chuning*, A.-S. *cyning*, Goth. *thiudans*. The Finnish *valta*, "power," "authority," is of Germanic origin, as shown by O. N. *vald*, Goth. *valdan*. The Finnish *kihla*, a compact secured by solemn promise, is akin with O. N. *gisl*, A.-S. *gīsel*, O. H. Ger. *gīsal*, "hostage." The explanation for Finnish *vuokra*, "interest," "usury," is to be found in Gothic *vokrs*, O. N. *okr*, Ger. *Wucher*, &c. (W. Thomsen, *Über den Einfluss der germanischen Sprachen auf die Finnisch-lappischen*, trans. E. Sievers, 1870, p. 166 seq.; cf. W. Thomsen, *The Relations between Ancient Russia and Scandinavia and the Origin of the Russian State*, p. 127 seq.; Miklosich, "Die Fremdwörter in den slavischen Sprachen," *Denkschriften der Wiener Akademie*, Ph. hist. Klasse, XV.).

(c) The next group of analogies is formed by cases which may be reduced to *common origin*. In addition to what has already been said on the subject in connexion with the literature of the historical school, we must point out that in the case of kindred peoples this form of derivation has, of course, to be primarily considered. This is especially the case when we have to deal with the original stock of cultural notions of a race, and when analogies in the framing and working of institutions and legal rules are supported by linguistic affinities. The testimony of the Aryan languages in regard to terms denoting family organization and relationship can in no way be disregarded, whatever our view may be about the most primitive stages of development in this respect. The fact that the common stock of Aryan languages and of Aryan legal customs points to a patriarchal organization of the family may be regarded as established, and it is certainly an important fact drawn from a very ancient stage of human history, although there are indications that still more primitive formations may be discovered.

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Inferences in the direction of common origin become more doubtful when we argue, not that certain facts proceed from a common stock of notions embodied in the early culture of a race before it was broken up into several branches, but that they have to be accounted for as instances of a similar treatment of legal problems by different peoples of the same ethnic family. The only thing that can be said in such a case is that, methodically, the customs of kindred nations have the first claim to comparison. It is evident that in dealing with blood feud, composition for homicide, and the like, among the Germans or Slavs, the evidence of other Aryan tribes has to be primarily studied. But it is by no means useless for the investigator of these problems to inform himself about the aspect of such customs in the life of nations of other descent, and especially of savage tribes. The motives underlying legal rules in this respect are to a large extent suggested by feelings and considerations which are not in any way peculiarly Aryan, and may be fully illustrated from other sources, as has been done *e.g.* in Steinmetz's *Origins of Punishment*.

(d) This leads to the consideration of what maybe called *disconnected analogies*. They are instructive in so far as they go back, not to any continuous development, but to the fundamental, psychological and logical unity of human nature. In similar circumstances human beings are likely to

solve the same problems in the same way. Take a rather late and special case. In the Anglo-Saxon laws of Ine, a king who lived in the 7th century, it is enacted that no landowner should be allowed to claim personal labour service from his tenants unless he provides them not merely with land, but with their homesteads. Now an exactly similar rule is found in the statement of rural by-laws to be enforced on great domains in Africa, which had been taken over by the imperial fiscus—the *Lex Manciana* (cf. Schulten, *Lex manciana*). There is absolutely no reason for assuming a direct transference of the rule from one place to the other: it reflects considerations of natural equity which in both cases were directed against similar encroachments of powerful landowners on a dependent peasant population. In both instances government interfered to draw the line between the payment of rent and the performance of labour, and fastened on the same feature to fix the limit, namely, on the difference between peasants living in their own homes and those who had been settled by the landowner on his farms. Of such analogies, the study of savage life presents a great number, *e.g.* the widely spread practices of purification by ordeal (H. C. Lea, *Superstition and Force*).

(e) Organizing thought always seeks to substitute order for chaotic variety. Observations as to disconnected analogies lead to attempts to systematize them from some comprehensive point of view. These attempts may take the shape of a theory of *consecutive stages* of development. Similar facts appear over and over again in ethnological and antiquarian evidence, because all peoples and tribes, no matter what their race and geographical position, go through the same series of social arrangements. This is the fundamental idea which directed the researches of Maine, McLennan, Morgan, Post, Kohler, although each of these scholars formulated his sequence of stages in a peculiar way. McLennan, for instance, puts the idea referred to in the following words:—

“In short, it is suggested to us, that the history of human society is that of a development following very slowly one general law, and that the variety of forms of life—of domestic and civil institution—is ascribable mainly to the unequal development of the different sections of mankind.... The first thing to be done is to inform ourselves of the facts relating to the least developed races. To begin with them is to begin with history at the farthest-back point of time to which, except by argument and inference, we can reach. Their condition, as it may to-day be observed, is truly the most ancient condition of man” (*Studies in Ancient History*, 2nd series, 9, 15).

On this basis we might draw up tables of consecutive stages, of which the simplest may be taken from Post:—

“Four types of organization: the tribal, the territorial, the seignorial, and the social. The first has as its basis marriage and relationship by blood; the second, neighbouring occupation of a district; the third, patronage relations between lord and dependants; the fourth, social intercourse and contractual relations between individual personalities” (Post, *Grundriss*, i. 14).

This may be supplemented from Friedrichs in regard to initial stages of family organization. He reckons four stages of this kind: promiscuity, loose relations, matriarchal family, patriarchal family, modern, bilateral family (*Z. f. vgl. R. wissenschaft*). This mode of grouping similar phenomena as a sequence of stages leads to a conception of universal history of a peculiar kind. And as such it has been realized and advocated by Kohler (see *e.g.* his article in Helmholt's *World's History*, Eng. trans. i.). Prompted by this conception several representatives of comparative jurisprudence have found no difficulty to insert such a peculiar institution as group-marriage into the general and obligatory course of legal evolution. It is to be noticed, however, that Kohler himself has entered a distinct protest against McLennan's and Post's view that the more rudimentary a people's culture is, the more archaic it is, and the earlier it has to be placed in the natural sequence of evolution. This would create difficulties in the case of tribes of exceedingly low culture, like the Ceylon Veddahs, who live in monogamous and patriarchal groups. According to Kohler's view, neither the mere fact of a low standard of culture, nor the fact that a certain legal custom precedes another in some cases in point of time, settles the natural sequence of development. The process of development must be studied in cases when it is sufficiently clear, gaps in other cases have to be supplied accordingly, and the working together of distinct institutions, especially in cases when there is no ethnic connexion has to be especially noticed. These are counsels of perfection, but Kohler's own example shows sufficiently that it is not easy to follow them to the letter. One thing is, however, clearly indicated by these and similar criticisms; it is, at the least, premature to sketch anything like a course of universal development for legal history. We have grave doubts whether the time will ever come for laying down any single course of that kind. The attempts made hitherto have generally led to overstating the value of certain parts of the evidence and to squeezing special traits into a supposed general course of evolution.

(f) Another group of thinkers is therefore content to systematize and explain the material from the point of view, not of universal history, but of *correspondence to economic stages and types*. This is, as we have seen, the leading idea in Dargun's or Hildebrand's investigations. It is needless to go into the question of the right or wrong of particular suggestions made by these writers. The place assigned to individualism and collectivism may be adequate or not; how far can be settled only by special inquiries. But the general trend of study initiated in this direction is certainly a promising one, if only one consideration of method is well kept in view. Investigators ought to be very chary of laying down certain combinations as the necessary outcome of certain economic situations. Such combinations or consequences certainly exist; pastoral husbandry, the life of scattered hunting groups, the conditions of agriculturists under feudal rule, certainly contain elements which will recur in divers ethnical surroundings. But we must not forget a feature which is constantly before our eyes

in real life: namely, that different minds and characters will draw different and perhaps opposite conclusions in exactly similar outward conditions. This may happen in identical or similar geographical environment; let us only think of ancient Greeks and Turks on the Balkan peninsula, or of ancient Greeks and modern Greeks for that matter. But even the same *historical medium* leaves, as a rule, scope for treatment of legal problems on divers lines. Take systems of succession. They exercise the most potent influence on the structure and life of society. Undivided succession, whether in the form of primogeniture or in that of junior right, sacrifices equity and natural affection to the economic efficiency of estates. Equal-partition rules, like *gavelkind* or *parage*, lead in an exactly opposite direction. And yet both sets of rules coexisted among the agriculturists of feudal England; communities placed in nearly identical historical positions followed one or the other of these rules. The same may be said of types of dwelling and forms of settlement. In other words, it is not enough to start from a given economic condition as if it were bound to regulate with fatalistic precision all the incidents of legal custom and social intercourse. We have to start from actual facts as complex results of many causes, and to try to reduce as much as we can of this material to the action of economic forces in a particular stage or type of development.

(g) The psychological diversities of mankind in dealing with the same or similar problems of food and property, of procreation and marriage, of common defence and relationship, of intercourse and contrast, &c., open another possibility for the grouping of facts and the explanation of their evolution. It may be difficult or impossible to trace the reasons and causes of synthetic combinations in the history of society. That is, we can hardly go beyond noting that certain disconnected features of social life appear together and react on each other. But it is easier and more promising to approach the mass of our material from the *analytical* side, taking hold of certain principles, or rules, or institutions, and tracing them to their natural consequences either through a direct systematization of recorded facts or, when these fail, through logical inferences. Some of the most brilliant and useful work in the historical study of law has been effected on these lines. Mommsen's theory of Roman magistracy, Jhering's theory of the struggle for right, Kohler's view of the evolution of contract, &c., have been evolved by such a process of legal analysis; and, even when such generalizations have to be curtailed or complicated later on, they serve their turn as a powerful means of organizing evidence and suggesting reasonable explanations. The attribute of "reasonableness" has to be reckoned with largely in such cases. Analytical explanations are attractive to students because they substitute logical clearness for irrational accumulation of traits and facts. They do so to a large extent through appeals to the logic and to the reason common to us and to the people we are studying. This deductive element has to be closely watched and tested from the side of a concrete study of the evidence, but it seems destined to play a very prominent part in the comparative history of law, because legal analysis and construction have at all times striven to embody logic and equity in the domain of actual interests and forces. And, as we have seen in our survey of the literature of the subject, recent comparative studies tend to make the share of juridical analysis in given relative surroundings larger and larger. What is so difficult of attainment to single workers—a harmonious appreciation of the combined influences of common origin, reception of foreign custom, recurring psychological combinations, the driving forces of economic culture and of the dialectical process of legal thought, will be achieved, it may be hoped, by the enthusiastic and brotherly exertions of all the workers in the field.

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(P. Vi.)



JURJĀNĪ, the name of two Arabic scholars.

1. ABŪ BAKR 'ABDU-L-QĀHIR IBN 'ABDUR-RAHMĀN UL-JURJĀNĪ (d. 1078,) Arabian grammarian, belonged to the Persian school and wrote a famous grammar, the *Kitāb ul-'Awāmil ul-Mi'a or Kitāb Mi'at 'Āmil*, which was edited by Erpenius (Leiden, 1617), by Baillie (Calcutta, 1803), and by A. Lockett (Calcutta, 1814). Ten Arabic commentaries on this work exist in MS., also two Turkish. It has been versified five times and translated into Persian. Another of his grammatical works on which several commentaries have been written is the *Kitāb Jumal fin-Nahw*.

For other works see C. Brockelmann's *Gesch. der Arabischen Litteratur* (1898), i. 288.

2. 'ALĪ IBN MAḤOMMED UL-JURJĀNĪ (1339-1414), Arabian encyclopaedic writer, was born near Astarābād and became professor in Shirāz. When this city was plundered by Timūr (1387) he removed to Samarkand, but returned to Shirāz in 1405, and remained there until his death. Of his thirty-one extant works, many being commentaries on other works, one of the best known is the *Ta'rifāt* (*Definitions*), which was edited by G. Flügel (Leipzig, 1845), published also in Constantinople (1837), Cairo (1866, &c.), and St Petersburg (1897).

(G. W. T.)



JURY, in English law, a body of laymen summoned and sworn (*jurati*) to ascertain, under the guidance of a judge, the truth as to questions of fact raised in legal proceedings whether civil or criminal. The development of the system of trial by jury has been regarded as one of the greatest achievements of English jurisprudence; it has even been said that the ultimate aim of the English constitution is "to get twelve good men into a box."¹ In modern times the English system of trial by jury has been adopted in many countries in which jury trial was not native or had been strangled or imperfectly developed under local conditions.

The origin of the system in England has been much investigated by lawyers and historians. The result of these investigations is a fairly general agreement that the germ of jury trial is to be found in the Frankish inquest (*recognitio* or *inquisitio*) transplanted into England by the Norman kings. The essence of this inquest was the summoning of a body of neighbours by a public officer to give answer upon oath (*recognoscere veritatem*) on some question of fact or law (*jus*), or of mixed fact and law. At the outset the object of the inquiry was usually to obtain information for the king, e.g. to ascertain facts needed for assessing taxation. Indeed Domesday Book appears to be made up by recording the answers of inquests.

The origin of juries is very fully discussed in W. Forsyth's *History of Trial by Jury* (1852), and the various theories advanced are more concisely stated in W. Stubbs's *Constitutional History* (vol. i.) and in E. A. Freeman's *Norman Conquest* (vol. v.). Until the modern examination of historical documents proved the contrary, the jury system, like all other institutions, was popularly regarded as the work of a single legislator, and in England it has been usually assigned to Alfred the Great. This supposition is without historical foundation, nor is it correct to regard the jury as "copied from this or

that kindred institution to be found in this or that German or Scandinavian land," or brought over ready made by Hengist or by William.² "Many writers of authority," says Stubbs, "have maintained that the entire jury system is indigenous in England, some deriving it from Celtic tradition based on the principles of Roman law, and adopted by the Anglo-Saxons and Normans from the people they had conquered. Others have regarded it as a product of that legal genius of the Anglo-Saxons of which Alfred is the mythical impersonation, or as derived by that nation from the customs of primitive Germany or from their intercourse with the Danes. Nor even when it is admitted that the system of 'recognition' was introduced from Normandy have legal writers agreed as to the source from which the Normans themselves derived it. One scholar maintains that it was brought by the Norsemen from Scandinavia; another that it was derived from the processes of the canon law; another that it was developed on Gallic soil from Roman principles; another that it came from Asia through the crusades," or was borrowed by the Angles and Saxons from their Slavonic neighbours in northern Europe. The true answer is that forms of trial resembling the jury system in various particulars are to be found in the primitive institutions of all nations. That which comes nearest in time and character to trial by jury is the system of recognition by sworn inquest, introduced into England by the Normans. "That inquest," says Stubbs, "is directly derived from the Frank capitularies, into which it may have been adopted from the fiscal regulations of the Theodosian code, and thus own some distant relationship with the Roman jurisprudence." However that may be, the system of "recognition" consisted in questions of fact, relating to fiscal or judicial business, being submitted by the officers of the crown to sworn witnesses in the local courts. Freeman points out that the Norman rulers of England were obliged, more than native rulers would have been, to rely on this system for accurate information. They needed to have a clear and truthful account of disputed points set before them, and such an account was sought for in the oaths of the recognitors.³ The Norman conquest, therefore, fostered the growth of those native germs common to England with other countries out of which the institution of juries grew. Recognition, as introduced by the Normans, is only, in this point of view, another form of the same principle which shows itself in the compurgators, in the *frith-borh* (frank-pledge), in every detail of the action of the popular courts before the conquest. Admitting with Stubbs that the Norman recognition was the instrument which the lawyers in England ultimately shaped into trial by jury, Freeman maintains none the less that the latter is distinctively English. Forsyth comes to substantially the same conclusion. Noting the jury germs of the Anglo-Saxon period, he shows how out of those elements, which continued in full force under the Anglo-Normans, was produced at last the institution of the jury. "As yet it was only implied in the requirement that disputed questions should be determined by the voice of sworn witnesses taken from the neighbourhood, and deposing to the truth of what they had seen or heard." The conclusions of Sir F. Pollock and F.W. Maitland, expressed in their *History of English Law*, and based on a closer study, are to the same effect.

This inquest then was a royal institution and not a survival from Anglo-Saxon law or popular custom, under which compurgation and the ordeal were the accepted modes of trying issues of fact.

The inquest by recognition, formerly an inquest of office, *i.e.* to ascertain facts in the interests of the crown or the exchequer, was gradually allowed between subjects as a mode of settling disputes of fact. This extension began with the assize of novel disseisin, whereby the king protected by royal writ and inquest of neighbours every seisin of a freehold. This was followed by the grand assize, applicable to questions affecting freehold or status. A defendant in such an action was enabled by an enactment of Henry II. to decline trial by combat and choose trial by assize, which was conducted as follows. The sheriff summoned four knights of the neighbourhood, who being sworn chose the twelve lawful knights most cognisant of the facts, to determine on their oaths which had the better right to the land. If they all knew the facts and were agreed as to their verdict, well and good; if some or all were ignorant, the fact was certified in court, and new knights were named, until twelve were found to be agreed. The same course was followed when the twelve were not unanimous. New knights were added until the twelve were agreed. This was called afforcing the assize. At this time the knowledge on which the jurors acted was their own personal knowledge, acquired independently of the trial. "So entirely," says Forsyth, "did they proceed upon their own previously formed view of the facts in dispute that they seem to have considered themselves at liberty to pay no attention to evidence offered in court, however clearly it might disprove the case which they were prepared to support." The use of recognition is prescribed by the constitutions of Clarendon (1166) for cases of dispute as to lay or clerical tenure. See Forsyth, p. 131; Stubbs, i. 617.

This procedure by the assize was confined to real actions, and while it preceded, it is not identical with the modern jury trial in civil cases, which was gradually introduced by consent of the parties and on pressure from the judges. Jury trial proper differs from the grand and petty assizes in that the assizes were summoned at the same time as the defendant to answer a question formulated in the writ; whereas in the ordinary jury trial no order for a jury could be made till the parties by their pleadings had come to an issue of fact and had put themselves on the country, *posuerunt se super patriam* (Pollock and Maitland, i. 119-128; ii. 601, 615, 621).

The Grand Jury.—In Anglo-Saxon times there was an institution analogous to the grand jury in criminal cases, viz. the twelve senior thegns, who, according to an ordinance of Æthelred II., were sworn in the county court that they would accuse no innocent man and acquit no guilty one. The twelve thegns were a jury of presentment or accusation, like the grand jury of later times, and the absolute guilt or innocence of those accused by them had to be determined by subsequent

proceedings—by compurgation or ordeal. Whether this is the actual origin of the grand jury or not, the assizes of Clarendon (1166) and Northampton (1176) establish the criminal jury on a definite basis.

In the laws of Edward the Confessor and the earlier Anglo-Saxon kings are found many traces of a public duty to bring offenders to justice, by hue and cry, or by action of the *frith-borh*, township, tithing or hundred. By the assize of Clarendon it is directed that inquiry be made in each county and in each hundred by twelve lawful (*legaliores*) men of the hundred, and by four lawful men from each of the four villis nearest to the scene of the alleged crime, on oath to tell the truth if in the hundred or vill there is any man accused (*rettatus aut publicatus*) as a robber or murderer or thief, or receiver of such. The assize of Northampton added forgery of coin or charters (*falsionaria*) and arson. The inquiry is to be held by the justices in eyre, and by the sheriffs in their county courts. On a finding on the oath aforesaid, the accused was to be taken and to go to the ordeal. By the articles of visitation of 1194, four knights are to be chosen from the county who by their oath shall choose two lawful knights of each hundred or wapentake, or, if knights be wanting, free and legal men, so that the twelve may answer for all matters within the hundred, including, says Stubbs, "all the pleas of the crown, the trial of malefactors and their receivers, as well as a vast amount of civil business." The process thus described is now regarded as an employment of the Frankish inquest for the collection of *fama publica*. It was alternative to the rights of a private accuser by appeal, and the inquest were not exactly either accusers or witnesses, but gave voice to public repute as to the criminality of the persons whom they presented. From this form of inquest has developed the grand jury of presentment or accusation, and the coroner's inquest, which works partly as a grand jury as to homicide cases, and partly as an inquest of office as to treasure trove, &c.

The number of the grand jury is fixed by usage at not less than twelve nor more than twenty-three jurors. Unanimity is not required, but twelve must concur in the presentment or indictment.⁴ This jury retains so much of its ancient character that it may present of its own knowledge or information, and is not tied down by rules of evidence. After a general charge by the judge as to the bills of indictment on the file of the court, the grand jury considers the bills in private and hears upon oath in the grand jury chamber some or all the witnesses called in support of an indictment whose names are endorsed upon the bill. It does not as a rule hear counsel or solicitors for the prosecution, nor does it see or hear the accused or his witnesses, and it is not concerned with the nature of the defence, its functions being to ascertain whether there is a prima facie case against the accused justifying his trial. If it thinks that there is such a case, the indictment is returned into court as a true bill; if it thinks that there is not, the bill is ignored and returned into court torn up or marked "no bill," or "*ignoramus*." Inasmuch as no man can be put on trial for treason or felony, and few are tried for misdemeanour, without the intervention of the grand jury, the latter has a kind of veto with respect to criminal prosecutions. The grand jurors are described in the indictment as "the jurors for our lord the king." As such prosecutions in respect of indictable offences are now in almost all cases begun by a full preliminary inquiry before justices, and inasmuch as cases rarely come before a grand jury until after committal of the accused for trial, the present utility of the grand jury depends very much on the character of the justices' courts. As a review of the discretion of stipendiary magistrates in committing cases for trial, the intervention of the grand jury is in most cases superfluous; and even when the committing justices are not lawyers, it is now a common opinion that their views as to the existence of a case to be submitted to a jury for trial should not be over-ridden by a lay tribunal sitting in private, and in this opinion many grand jurors concur. But the abolition of the grand jury would involve great changes in criminal procedure for which parliament seems to have no appetite. Forsyth thinks that the grand jury will often baffle "the attempts of malevolence" by ignoring a malicious and unfounded prosecution; but it may also defeat the ends of justice by shielding a criminal with whom it has strong political or social sympathies. The qualification of the grand jurymen is that they should be freeholders of the county—to what amount appears to be uncertain—and they are summoned by the sheriff, or failing him by the coroner.

The *coroner's jury* must by statute (1887) consist of not more than twenty-three nor less than twelve jurors. It is summoned by the coroner to hold an inquest *super visum corporis* in cases of sudden or violent death, and of death in prisons or lunatic asylums, and to deal with treasure trove. The qualification of the coroner's jurors does not depend on the Juries Acts 1825 and 1870, and in practice they are drawn from householders in the immediate vicinity of the place where the inquest is held. Unanimity is not required of a coroner's jury; but twelve must concur in the verdict. If it charges anyone with murder or manslaughter, it is duly recorded and transmitted to a court of assize, and has the same effect as an indictment by a grand jury, *i.e.* it is accusatory only and is not conclusive, and is traversable, and the issue of guilt or innocence is tried by a petty jury.

The Petty Jury.—The ordeal by water or fire was used as the final test of guilt or innocence until its abolition by decree of the Lateran council (1219). On its abolition it became necessary to devise a new mode of determining guilt as distinguished from ill fame as charged by the grand jury. So early as 1221 accused persons had begun to put themselves on the country, or to pay to have a verdict for "good or ill"; and the trial seems to have been by calling for the opinions of the twelve men and the four townships, who may have been regarded as a second body of witnesses who could traverse the opinion of the hundred jury. (See Pollock and Maitland, ii. 646.) The reference to *judicium parium* in Magna Carta is usually taken to refer to the jury, but it is clear that what is now known as the petty jury was not then developed in its present form. "The history of that institution is still in manuscript,"

It is not at all clear that at the outset the trial by the country (*in pais; in patria*) was before another and different jury. The earliest instances look as if the twelve men and the four vills were the *patria* and had to agree. But by the time of Edward I. the accused seems to have been allowed to call in a second jury. A person accused by the inquest of the hundred was allowed to have the truth of the charge tried by another and different jury.⁵ "There is," says Forsyth, "no possibility of assigning a date to this alteration." "In the time of Bracton (middle of the 13th century) the usual mode of determining innocence or guilt was by combat or appeal. But in most cases the appellant had the option of either fighting with his adversary or putting himself on his country for trial"—the exceptions being murder by secret poisoning, and certain circumstances presumed by the law to be conclusive of guilt.⁶ But the separation must have been complete by 1352, in which year it was enacted "that no indictor shall be put in inquests upon deliverance of the indictees of felonies or trespass if he be challenged for that same cause by the indictee."

The jurors, whatever their origin, differed from the Saxon doomsmen and the jurats of the Channel Islands in that they adjudged nothing; and from compurgators or oath-helpers in that they were not witnesses called by a litigant to support his case (Pollock and Maitland, i. 118). Once established, the jury of trial whether of actions or indictments developed on the same lines. But at the outset this jury differed in one material respect from the modern trial jury. The ancient trial jury certify to the truth from their knowledge of the facts, however acquired. In other words, they resemble witnesses or collectors of local evidence or gossip rather than jurors. The complete withdrawal of the witness character from the jury is connected by Forsyth with the ancient rules of law as to proof of written instruments, and a peculiar mode of trial *per sectam*. When a deed is attested by witnesses, you have a difference between the testimony of the witness, who deposes to the execution of the deed, and the verdict of the jury as to the fact of execution. It has been contended with much plausibility that in such cases the attesting witnesses formed part of the jury. Forsyth doubts that conclusion, although he admits that, as the jurors themselves were originally mere witnesses, there was no distinction in principle between them and the attesting witnesses, and that the attesting witnesses might be associated with the jury in the discharge of the function of giving a verdict. However that may be, in the reign of Edward III., although the witnesses are spoken of "as joined to the assize," they are distinguished from the jurors. The trial *per sectam* was used as an alternative to the assize or jury, and resembled in principle the system of compurgation. The claimant proved his case by vouching a certain number of witnesses (*secta*), who had seen the transaction in question, and the defendant rebutted the presumption thus created by vouching a larger number of witnesses on his own side. In cases in which this was allowed, the jury did not interpose at all, but in course of time the practice arose of the witnesses of the *secta* telling their story to the jury. In these two instances we have the jury as judges of the facts sharply contrasted with the witnesses who testify to the facts; and, with the increasing use of juries and the development of rules of evidence, this was gradually established as the true principle of the system. In the reign of Henry IV. we find the judges declaring that the jury after they have been sworn should not see or take with them any other evidence than that which has been offered in open court. But the personal knowledge of the jurors was not as yet regarded as outside the evidence on which they might found a verdict, and the stress laid upon the selection of jurymen from the neighbourhood of the cause of the action shows that this element was counted on, and, in fact, deemed essential to a just consideration of the case. Other examples of the same theory of the duties of the jury may be found in the language used by legal writers. Thus it has been said that the jury may return a verdict although no evidence at all be offered, and again, that the evidence given in court is not binding on the jury, because they are assumed from their local connexion to be sufficiently informed of the facts to give a verdict without or in opposition to the oral evidence. A recorder of London, *temp.* Edward VI., says that, "if the witnesses at a trial do not agree with the jurors, the verdict of the twelve shall be taken and the witnesses shall be rejected." Forsyth suggests as a reason for the continuance of this theory that it allowed the jury an escape from the *attaint*, by which penalties might be imposed on them for delivering a false verdict in a civil case. They could suggest that the verdict was according to the fact, though not according to the evidence.

In England the trial jury (also called petty jury or traverse jury) consists of twelve jurors, except in the county court, where the number is eight. In civil but not in criminal cases the trial may by consent be by fewer than twelve jurors, and the verdict may by consent be that of the majority. The rule requiring a unanimous verdict has been variously explained. Forsyth regards the rule as intimately connected with the original character of the jury as a body of witnesses, and with the conception common in primitive society that safety is to be found in the number of witnesses, rather than the character of their testimony. The old notion seems to have been that to justify an accusation, or to find a fact, twelve sworn men must be agreed. The affording of the jury, already described, marks an intermediate stage in the development. Where the juries were not unanimous new jurors were added until twelve were found to be of the same opinion. From the unanimous twelve selected out of a large number to the unanimous twelve constituting the whole jury was a natural step, which, however, was not taken without hesitation. In some old cases the verdict of eleven jurors out of twelve was accepted, but it was decided in the reign of Edward III. that the verdict must be the unanimous opinion of the whole jury. Diversity of opinion was taken to imply perversity of judgment, and the law sanctioned the application of the harshest methods to produce unanimity. The jurors while considering their verdict were not allowed a fire nor any refreshment, and it is said in some of the old books that, if they failed to agree, they could be put in a cart and drawn after the justices to

the border of the county, and then upset into a ditch. These rude modes of enforcing unanimity has been softened in later practice, but in criminal cases the rule of unanimity is still absolutely fixed.

In civil cases and in trials for misdemeanour, the jurors are allowed to separate during adjournments and to return to their homes; in trials for treason, treason-felony and murder, the jurors, once sworn, must not separate until discharged. But by an act of 1897 jurors on trials for other felonies may be allowed by the court to separate in the same way as on trials for misdemeanour.

These rules do not apply to a jury which has retired to consider its verdict. During the period of retirement it is under the keeping of an officer of the court.

At common law aliens were entitled to be tried by a jury *de medietate linguae*—half Englishmen, half foreigners, not necessarily compatriots of the accused. This privilege was abolished by the Naturalization Act 1870; but by the Juries Act 1870 aliens who have been domiciled in England or Wales for ten years or upwards, if in other respects duly qualified, are liable to jury service as if they were natural-born subjects (s. 8).

A jury of matrons is occasionally summoned, viz. on a writ *de ventre inspiciendo*, or where a female condemned to death pleads pregnancy in stay of execution.

The jurors are selected from the inhabitants of the county, borough or other area for which the court to which they are summoned is commissioned to act. In criminal cases, owing to the rules as to venue and that crime is to be tried in the neighbourhood where it is committed, the mode of selection involves a certain amount of independent local knowledge on the part of the jurors. Where local prejudice has been aroused for or against the accused, which is likely to affect the chance of a fair trial, the proceedings may be removed to another jurisdiction, and there are a good many offences in which by legislation the accused may be tried where he is caught, irrespective of the place where he is alleged to have broken the law. As regards civil cases, a distinction was at an early date drawn between local actions which must be tried in the district in which they originated, and transitory actions which could be tried in any county. These distinctions are now of no importance, as the place of trial of a civil action is decided as a matter of procedure and convenience, and regard is not necessarily paid to the place at which a wrong was done or a contract broken.

The qualifications for, and exemptions from, service as a petty juror are in the main contained in the Juries Acts 1825 and 1870, though a number of further exemptions are added by scattered enactments. The exemptions include members of the legislature and judges, ministers of various denominations, and practising barristers and solicitors, registered medical practitioners and dentists, and officers and soldiers of the regular army. Persons over sixty are exempt but not disqualified. Lists of the jurors are prepared by the overseers in rural parishes and by the town clerks in boroughs, and are submitted to justices for revision. When jurors are required for a civil or criminal trial they are summoned by the sheriff or, if he cannot act, by the coroner.

Special and Common Juries.—For the purpose of civil trials in the superior courts there are two lists of jurors, special and common. The practice of selecting special jurors to try important civil cases appears to have sprung up, without legislative enactment, in the procedure of the courts. Forsyth says that the first statutory recognition of it is so late as 3 Geo. II. c. 25, and that in the oldest book of practice in existence (Powell's *Attorney's Academy*, 1623) there is no allusion to two classes of jurymen. The acts, however, which regulate the practice allude to it as well established. The Juries Act 1870 (33 & 34 Vict. c. 77) defines the class of persons entitled and liable to serve on special juries thus: Every man whose name shall be on the jurors' book for any county, &c., and who shall be legally entitled to be called an esquire, or shall be a person of higher degree, or a banker or merchant, or who shall occupy a house of a certain rateable value (*e.g.* £100 in a town of 20,000 inhabitants, £50 elsewhere), or a farm of £300 or other premises at £100. A special jurymen receives a fee of a guinea for each cause. Either party may obtain an order for a special jury, but must pay the additional expenses created thereby unless the judge certifies that it was a proper case to be so tried. For the common jury any man is qualified and liable to serve who has £10 by the year in land or tenements of freehold, copyhold or customary tenure; or £20 on lands or tenement held by lease for twenty-one years or longer, or who being a householder is rated at £30 in the counties of London and Middlesex, or £20 in any other county. A special jury cannot be ordered in cases of treason or felony, and may be ordered in cases of misdemeanour only when the trial is in the king's bench division of the High Court, or the civil side at assizes.

Challenge.—It has always been permissible for the parties to challenge the jurors summoned to consider indictments or to try cases. Both in civil and criminal cases a challenge "for cause" is allowed; in criminal cases a peremptory challenge is also allowed. Challenge "for cause" may be either to the *array*, *i.e.* to the whole number of jurors returned, or to the *polls*, *i.e.* to the jurors individually. A challenge to the array is either a *principal* challenge (on the ground that the sheriff is a party to the cause, or related to one of the parties), or a challenge for *favour* (on the ground of circumstances implying "at least a probability of bias or favour in the sheriff"). A challenge to the polls is an exception to one or more jurymen on either of the following grounds: (1) *propter honoris respectum*, as when a lord of parliament is summoned; (2) *propter defectum*, for want of qualification; (3) *propter affectum*, on suspicion of bias or partiality; and (4) *propter delictum*, when the juror has been convicted of an infamous offence. The challenge *propter affectum* is, like the

challenge to the array, either principal challenge or “to the favour.” In England as a general rule the juror may be interrogated to show want of qualification; but in other cases the person making the challenge must prove it without questioning the juror, and the courts do not allow the protracted examination on the *voir dire* which precedes every *cause célèbre* in the United States. On indictments for treason the accused has a right peremptorily to challenge thirty-five of the jurors on the panel; in cases of felony the number is limited to twenty, and in cases of misdemeanour there is no right of peremptory challenge. The Crown has not now the right of peremptory challenge and may challenge only for cause certain (Juries Act 1825, s. 29). In the case of felony, on the first call of the list jurors objected to by the Crown are asked to stand by, and the cause of challenge need not be assigned by the Crown until the whole list has been perused or gone through, or unless there remain no longer twelve jurors left to try the case, exclusive of those challenged. This arrangement practically amounts to giving the Crown the benefit of a peremptory challenge.

Function of Jury.—The jurors were originally the mouthpiece of local opinion on the questions submitted to them, or witnesses to fact as to such questions. They have now become the judges of fact upon the evidence laid before them. Their province is strictly limited to questions of fact, and within that province they are still further restricted to matters proved by evidence in the course of the trial and in theory must not act upon their own personal knowledge and observation except so far as it proceeds from what is called a “view” of the subject matter of the litigation. Indeed it is now well established that if a juror is acquainted with facts material to the case, he should inform the court so that he may be dismissed from the jury and called as a witness; and Lord Ellenborough ruled that a judge would misdirect the jury if he told them that they might reject the evidence and go by their own knowledge. The old *decantatum* assigns to judge and jury their own independent functions: *Ad quaestionem legis respondent iudices: ad quaestionem facti juratores* (Plowden, 114). But the independence of the jurors as to matters of fact was from an early time not absolute. In certain civil cases a litigant dissatisfied by the verdict could adopt the procedure by attain, and if the attain jury of twenty-four found that the first jury had given a false verdict, they were fined and suffered the villainous judgment. Attaints fell into disuse on the introduction about 1665 of the practice of granting new trials when the jury found against the weight of the evidence, or upon a wrong direction as to the law of the case.

In criminal cases the courts attempted to control the verdicts by fining the jurors for returning a verdict *contra plenam et manifestam evidentiam*. But this practice was declared illegal in Bushell’s case (1670); and so far as criminal cases are concerned the independence of the jury as sole judges of fact is almost absolute. If they acquit, their action cannot be reviewed nor punished, except on proof of wilful and corrupt consent to “embracery” (Juries Act 1825, s. 61). If they convict no new trial can be ordered except in the rare instances of misdemeanours tried as civil cases in the High Court. In trials for various forms of libel during the 18th century, the judges restricted the powers of juries by ruling that their function was limited to finding whether the libel had in fact been published, and that it was for the court to decide whether the words published constituted an offence.⁷ By Fox’s Libel Act 1792 the jurors in such cases were expressly empowered to bring in a general verdict of libel or no libel, *i.e.* to deal with the whole question of the meaning and extent of the incriminated publication. In other words, they were given the same independence in cases of libel as in other criminal cases. This independence has in times of public excitement operated as a kind of local option against the existing law and as an aid to procuring its amendment. Juries in Ireland in agrarian cases often acquit in the teeth of the evidence. In England the independence of the jury in criminal trials is to some extent menaced by the provisions of the Criminal Appeal Act 1907.

While the jury is in legal theory absolute as to matters of fact, it is in practice largely controlled by the judges. Not only does the judge at the trial decide as to the relevancy of the evidence tendered to the issues to be proved, and as to the admissibility of questions put to a witness, but he also advises the jury as to the logical bearing of the evidence admitted upon the matters to be found by the jury. The rules as to admissibility of evidence, largely based upon scholastic logic, sometimes difficult to apply, and almost unknown in continental jurisprudence, coupled with the right of an English judge to sum up the evidence (denied to French judges) and to express his own opinion as to its value (denied to American judges), fetter to some extent the independence or limit the chances of error of the jury.

“The whole theory of the jurisdiction of the courts to interfere with the verdict of the constitutional tribunal is that the court is satisfied that the jury have not acted reasonably upon the evidence but have been misled by prejudice or passion” (*Watt v. Watt* (1905), App. Cas. 118, per Lord Halsbury). In civil cases the verdict may be challenged on the ground that it is against the evidence or against the weight of the evidence, or unsupported by any evidence. It is said to be against the evidence when the jury have completely misapprehended the facts proved and have drawn an inference so wrong as to be in substance perverse. The dissatisfaction of the trial judge with the verdict is a potent but not conclusive element in determining as to the perversity of a verdict, because of his special opportunity of appreciating the evidence and the demeanour of the witnesses. But his opinion is less regarded now that new trials are granted by the court of appeal than under the old system when the new trial was sought in the court of which he was a member.

The appellate court will not upset a verdict when there is substantial and conflicting evidence before the jury. In such cases it is for the jury to say which side is to be believed, and the court will not interfere with the verdict. To upset a verdict on the ground that there is no evidence to go to the

jury implies that the judge at the trial ought to have withdrawn the case from the jury. Under modern procedure, in order to avoid the risk of a new trial, it is not uncommon to take the verdict of a jury on the hypothesis that there was evidence for their consideration, and to leave the unsuccessful party to apply for judgment notwithstanding the verdict. The question whether there was any evidence proper to be submitted to the jury arises oftenest in cases involving an imputation of negligence—*e.g.* in an action of damages against a railway company for injuries sustained in a collision. Juries are somewhat ready to infer negligence, and the court has to say whether, on the facts proved, there was any evidence of negligence by the defendant. This is by no means the same thing as saying whether, in the opinion of the court, there was negligence. The court may be of opinion that on the facts there was none, yet the facts themselves may be of such a nature as to be evidence of negligence to go before a jury. When the facts proved are such that a reasonable man might have come to the conclusion that there was negligence, then, although the court would not have come to the same conclusion, it must admit that there is evidence to go before the jury. This statement indicates existing practice but scarcely determines what relation between the facts proved and the conclusion to be established is necessary to make the facts evidence from which a jury may infer the conclusion. The true explanation is to be found in the principle of relevancy. Any fact which is relevant to the issue constitutes evidence to go before the jury, and any fact, roughly speaking, is relevant between which and the fact to be proved there may be a connexion as cause and effect (see [EVIDENCE](#)). As regards damages the court has always had wide powers, as damages are often a question of law. But when the amount of the damages awarded by a jury is challenged as excessive or inadequate, the appellate court, if it considers the amount unreasonably large or unreasonably small, must order a new trial unless both parties consent to a reduction or increase of the damages to a figure fixed by the court; see *Watt v. Watt* (1905), App. Cas. 115.

Value of Jury System.—The value of the jury in past history as a bulwark against aggression by the Crown or executive cannot be over-rated, but the working of the institution has not escaped criticism. Its use protracts civil trials. The jurors are usually unwilling and are insufficiently remunerated; and jury trials in civil cases often drag out much longer and at greater expense than trials by a judge alone, and the proceedings are occasionally rendered ineffective by the failure of the jurors to agree.

There is much force in the arguments of Bentham and others against the need of unanimity—the application of pressure to force conviction on the minds of jurors, the indifference to veracity which the concurrence of unconvinced minds must produce in the public mind, the probability that jurors will disagree and trials be rendered abortive, and the absence of any reasonable security in the unanimous verdict that would not exist in the verdict of a majority. All this is undeniably true, but disagreements are happily not frequent, and whatever may happen in the jury room no compulsion is now used by the court to induce agreement.

But, apart from any incidental defects, it may be doubted whether, as an instrument for the investigation of truth, the jury system deserves all the encomiums which have been passed upon it. In criminal cases, especially of the graver kind, it is perhaps the best tribunal that could be devised. There the element of moral doubt enters largely into the consideration of the case, and that can best be measured by a popular tribunal. Opinion in England has hitherto been against subjecting a man to serious punishment as a result of conviction before a judge sitting without a jury, and the judges themselves would be the first to deprecate so great a responsibility, and the Criminal Appeal Act 1907, which constituted the court of criminal appeal, recognized the responsibility by requiring a quorum of three judges in order to constitute a court. The same act, by permitting an appeal to persons convicted on indictment both on questions of fact and of law, removed to a great extent any possibility of error by a jury. But in civil causes, where the issue must be determined one way or the other on the balance of probabilities, a single judge would probably be a better tribunal than the present combination of judge and jury. Even if it be assumed that he would on the whole come to the same conclusion as a jury deliberating under his directions, he would come to it more quickly. Time would be saved in taking evidence, summing up would be unnecessary, and the addresses of counsel would inevitably be shortened and concentrated on the real points at issue. Modern legislation and practice in England have very much reduced the use of the jury both in civil and criminal cases.

In the county courts trial by jury is the exception and not the rule. In the court of chancery and the admiralty court it was never used. Under the Judicature Acts many cases which in the courts of common law would have been tried with a jury are now tried before a judge alone, or (rarely) with assessors, or before an official referee. Indeed cynics say that a jury is insisted on chiefly in cases when a jury, from prejudice or other causes, is likely to be more favourable than a judge alone.

In criminal cases, by reason of the enormous number of offences punishable on summary conviction and of the provisions made for trying certain indictable offences summarily if the offender is young or elects for summary trial, juries are less called on in proportion to the number of offences committed than was the practice in former years.

Scotland.—According to the *Regiam Majestatem*, which is identical with the treatise of Glanvill on the law of England (but whether the original or only a copy of that work is disputed), trial by jury existed in Scotland for civil and criminal cases from as early a date as in England, and there is reason to believe that at all events the system became established at a very early date. Its history was very different from that of the English jury system. There was no grand jury under Scots law, but it was introduced in 1708 for the purpose of high treason (7 Anne c. 21). For the trial of criminal cases the petty jury is represented by the criminal “assize.” This jury has always consisted of fifteen persons

and the jurors are chosen by ballot by the clerk of the court from the list containing the names of the special and common jurors, five from the special, ten from the common. Prosecutor and accused each have five peremptory challenges, of which two only may be directed against the special jurors; but there is no limit to challenges for cause. The jury is not secluded during the trial except in capital cases or on special order of the court made *proprio motu* or on the application of prosecutor or accused. The verdict need not be unanimous, nor is enclosure a necessary preliminary to a majority verdict. It is returned viva voce by the chancellor or foreman, and entered on the record by the clerk of the court, and the entry read to the jury. Besides the verdicts of "guilty" and "not guilty," a Scots jury may return a verdict of "not proven," which has legally the same effect as not guilty in releasing the accused from further proceedings on the particular charge, but inflicts on him the stigma of moral guilt.

Jury trial in civil cases was at one time in general if not prevailing use, but was gradually superseded for most purposes on the institution of the Court of Session (1 Mackay, *Ct. Sess. Pr.* 33). In this, as in many other matters, Scots law and procedure tend to follow continental rather than insular models. The civil jury was reintroduced in 1815 (55 Geo. III. c. 42), mainly on account of the difficulties experienced by the House of Lords in dealing with questions of fact raised on Scottish appeals. At the outset a special court was instituted in the nature of a judicial commission to ascertain by means of a jury facts deemed relevant to the issues in a cause and sent for such determination at the discretion of the court in which the cause was pending. The process was analogous to the sending of an issue out of chancery for trial in a superior court of common law, or in a court of assize. In 1830 the jury court ceased to exist as a separate tribunal and was merged in the Court of Session. By legislation of 1819 and 1823 certain classes of cases were indicated as appropriate to be tried by a jury; but in 1850 the cases so to be tried were limited to actions for defamation and nuisance, or properly and in substance actions for damages, and under an act of 1866 even in these cases the jury may be dispensed with by consent of parties.

The civil jury consists as in England of twelve jurors chosen by ballot from the names on the list of those summoned. There is a right of peremptory challenge limited to four, and also a right to challenge for cause. Unanimity was at first but is not now required. The jury if unanimous may return a verdict immediately on the close of the case. If they are not unanimous they are enclosed and may at any time not less than three hours after being enclosed return a verdict by a bare majority. If after six hours they do not agree by the requisite majority, *i.e.* are equally divided, they must be discharged. It was stated by Commissioner Adam, under whom the Scots civil jury was originated, that in twenty years he knew of only one case in which the jury disagreed. Jury trial in civil cases in Scotland has not flourished or given general satisfaction, and is resorted to only in a small proportion of cases. This is partly due to its being transplanted from England.

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Ireland.—The jury laws of Ireland do not differ in substance from those of England. The qualifications of jurors are regulated by O'Hagan's Acts 1871 and 1872, and the Juries Acts 1878 and 1894. In criminal cases much freer use is made than in England of the rights of the accused to challenge, and of the Crown to order jurors to stand by, and what is called "jury-packing" seems to be the object of both sides when some political or agrarian issue is involved in the trial. Until the passing of the Irish Local Government Act 1898, the grand jury, besides its functions as a jury of accusation, had large duties with respect to local government which are now transferred to the county councils and other elective bodies.

British Empire.—In most parts of the British Empire the jury system is in force as part of the original law of the colonists or under the colonial charters of justice or by local legislation. The grand jury is not in use in India; was introduced but later abolished in the Cape Colony; and in Australia has been for most purposes superseded by the public prosecutor. The ordinary trial jury for criminal cases is twelve, but in India may be nine, seven, five or three, according to certain provisions of the Criminal Procedure Code 1898. In countries where the British Crown has foreign jurisdiction the jury for criminal trials has in some cases been fixed at a less number than twelve and the right of the Crown to fix the number is established; see *ex p. Carew*, 1897, A.C. 719. In civil cases the number of the jury is reduced in some colonies, *e.g.* to seven in Tasmania and Trinidad.

European Countries.—In France there is no civil jury. In criminal cases the place of the grand jury is taken by the *chambre des mises en accusation*, and the more serious crimes are tried before a jury of twelve which finds its verdict by a majority, the exact number of which may not be disclosed. In Belgium, Spain, Italy and Germany, certain classes of crime are tried with the aid of a jury.

United States.—The English jury system was part of the law of the American colonies before the declaration of independence; and grand jury, coroner's jury and petty jury continue in full use in the United States. Under the Federal Constitution (Article iii.) there is a right to trial by jury in all criminal cases (except on impeachment) and in all civil actions at common law in which the subject matter exceeds \$20 in value (amendments vi. and vii.). The trial jury must be of twelve and its verdict must be unanimous; see Cooley, *Constitutional Limitations* (6th ed.), 389. The respective provinces of judge and jury have been much discussed and there has been a disposition to declare the jury supreme as to law as well as fact. The whole subject is fully treated by reference to English and American authorities, and the conflicting views are stated in *Sparf v. United States*, 1895, 156 U.S. 61. The view of the majority of the court in that case was that it is the duty of the jury in a criminal case to receive the law from the court and to apply it as laid down by the court, subject to the condition that in giving a general verdict the jury may incidentally determine both law and fact as compounded in the issues submitted to them in the particular case. The power to give a general verdict renders the duty one of imperfect obligation and enables the jury to take its own view of the terms and merits of the law involved.

The extent to which the jury system is in force in the states of the union depends on the constitution and legislation of each state. In some the use of juries in civil and even in criminal cases is reduced or made subject to the election of the accused. In others unanimous verdicts are not required, while the constitutions of others require the unanimous verdict of the common law dozen.

(W. F. C.)

- 1 I.e. the jury-box, or enclosed space in which the jurors sit in court.
- 2 Freeman, *Norman Conquest*, v. 451.
- 3 This fact would account for the remarkable development of the system on English ground, as contrasted with its decay and extinction in France.
- 4 Blackstone puts the principle as being that no man shall be convicted except by the unanimous voice of twenty-four of his equals or neighbours—twelve on the grand, and twelve on the petty jury.
- 5 The distinction between the functions of the grand jury, which presents or accuses criminals, and the petty jury, which tries them, has suggested the theory that the system of compurgation is the origin of the jury system—the first jury representing the compurgators of the accuser, the second the compurgators of the accused.
- 6 Forsyth, 206. The number of the jury (twelve) is responsible for some unfounded theories of the origin of the system. This use of twelve is not confined to England, nor in England or elsewhere to judicial institutions. "Its general prevalence," says Hallam (*Middle Ages*, ch. viii.), "shows that in searching for the origin of trial by jury we cannot rely for a moment upon any analogy which the mere number affords." In a *Guide to English Juries* (1682), by a person of quality (attributed to Lord Somers), the following passage occurs: "In analogy of late the jury is reduced to the number of twelve, like as the prophets were twelve to foretell the truth; the apostles twelve to preach the truth; the discoverers twelve, sent into Canaan to seek and report the truth; and the stones twelve that the heavenly Hierusalem is built on." Lord Coke indulged in similar speculations.
- 7 See *R. v. Dean of St. Asaph* (1789), 3 T.R. 418.



JUS PRIMAE NOCTIS, or DROIT DU SEIGNEUR, a custom alleged to have existed in medieval Europe, giving the overlord a right to the virginity of his vassals' daughters on their wedding night. For the existence of the custom in a legalized form there is no trustworthy evidence. That some such abuse of power may have been occasionally exercised by brutal nobles in the lawless days of the early middle ages is only too likely, but the *jus*, it seems, is a myth, invented no earlier than the 16th or 17th century. There appears to have been an entirely religious custom established by the council of Carthage in 398, whereby the Church required from the faithful continence on the wedding-night, and this may have been, and there is evidence that it was, known as *Droit du Seigneur*, or "God's right." Later the clerical admonition was extended to the first three days of marriage. This religious abstention, added to the undoubted fact that the feudal lord extorted fines on the marriages of his vassals and their children, doubtless gave rise to the belief that the *jus* was once an established custom.

The whole subject has been exhaustively treated by Louis Veillot in *Le Droit du seigneur au moyen âge* (1854).



JUS RELICTAE, in Scots law, the widow's right in the movable property of her deceased husband. The deceased must have been domiciled in Scotland, but the right accrues from movable property, wherever situated. The widow's provision amounts to one-third where there are children surviving, and to one-half where there are no surviving children. The widow's right vests by survivance, and is independent of the husband's testamentary provisions; it may however be renounced by contract, or be discharged by satisfaction. It is subject to alienation of the husband's movable estate during his lifetime or by its conversion into heritage. See also [WILL](#).



JUSSERAND, JEAN ADRIEN ANTOINE JULES (1855-), French author and diplomatist, was born at Lyons on the 18th of February 1855. Entering the diplomatic service in 1876, he became in 1878 consul in London. After an interval spent in Tunis he returned to London in 1887 as a member of the French Embassy. In 1890 he became French minister at Copenhagen, and in 1902 was transferred to Washington. A close student of English literature, he produced some very lucid and vivacious monographs on comparatively little-known subjects: *Le Théâtre en Angleterre depuis la conquête jusqu' aux prédécesseurs immédiats de Shakespeare* (1878); *Le Roman au temps de Shakespeare* (1887; Eng. trans. by Miss E. Lee, 1890); *Les Anglais au moyen âge: la vie nomade et les routes d'Angleterre au XIV^e siècle* (1884; Eng. trans., *English Wayfaring Life in the Middle Ages*, by L. T. Smith, 1889); and *L'Épopée de Langland* (1893; Eng. trans., *Piers Plowman*, by M. C. R., 1894). His *Histoire littéraire du peuple anglais*, the first volume of which was published in 1895, was completed in three volumes in 1909. In English he wrote *A French Ambassador at the Court of Charles II.* (1892), from the unpublished papers of the count de Cominges.



JUSSIEU, DE, the name of a French family which came into prominent notice towards the close of the 16th century, and for a century and a half was distinguished for the botanists it produced. The following are its more eminent members:—

1. ANTOINE DE JUSSIEU (1686-1758), born at Lyons on the 6th of July 1686, was the son of Christophe de Jussieu (or Dejussieu), an apothecary of some repute, who published a *Nouveau traité de la thériaque* (1708). Antoine studied at the university of Montpellier, and travelled with his brother Bernard through Spain, Portugal and southern France. He went to Paris in 1708, J. P. de Tournefort, whom he succeeded at the Jardin des Plantes, dying in that year. His own original publications are not of marked importance, but he edited an edition of Tournefort's *Institutiones rei herbariae* (3 vols., 1719), and also a posthumous work of Jacques Barrelier, *Plantae per Galliam, Hispaniam, et Italiam observatae*, &c. (1714). He practised medicine, chiefly devoting himself to the very poor. He died at Paris on the 22nd of April 1758.

2. BERNARD DE JUSSIEU (1699-1777), a younger brother of the above, was born at Lyons on the 17th of August 1699. He took a medical degree at Montpellier and began practice in 1720, but finding the work uncongenial he gladly accepted his brother's invitation to Paris in 1722, when he succeeded Sébastien Vaillant as sub-demonstrator of plants in the Jardin du Roi. In 1725 he brought out a new edition of Tournefort's *Histoire des plantes qui naissent aux environs de Paris*, 2 vols., which was afterwards translated into English by John Martyn, the original work being incomplete. In the same year he was admitted into the académie des sciences, and communicated several papers to that body. Long before Abraham Trembley (1700-1784) published his *Histoire des polypes d'eau douce*, Jussieu maintained the doctrine that these organisms were animals, and not the flowers of marine plants, then the current notion; and to confirm his views he made three journeys to the coast of Normandy. Singularly modest and retiring, he published very little, but in 1759 he arranged the plants in the royal garden of the Trianon at Versailles, according to his own scheme of classification. This arrangement is printed in his nephew's *Genera*, pp. lxiii.-lxx., and formed the basis of that work. He cared little for the credit of enunciating new discoveries, so long as the facts were made public. On the death of his brother Antoine, he could not be induced to succeed him in his office, but prevailed upon L. G. Lemonnier to assume the higher position. He died at Paris on the 6th of November 1777.

3. JOSEPH DE JUSSIEU (1704-1779), brother of Antoine and Bernard, was born at Lyons on the 3rd of September 1704. Educated like the rest of the family for the medical profession, he accompanied C. M. de la Condamine to Peru, in the expedition for measuring an arc of meridian, and remained in South America for thirty-six years, returning to France in 1771. Amongst the seeds he sent to his brother Bernard were those of *Heliotropium peruvianum*, Linn., then first introduced into Europe. He died at Paris on the 11th of April 1779.

4. ANTOINE LAURENT DE JUSSIEU (1748-1836), nephew of the three preceding, was born at Lyons on the 12th of April 1748. Called to Paris by his uncle Bernard, and carefully trained by him for the pursuits of medicine and botany, he largely profited by the opportunities afforded him. Gifted with a tenacious memory, and the power of quickly grasping the salient points of subjects under observation, he steadily worked at the improvement of that system of plant arrangement which had been sketched out by his uncle. In 1789 was issued his *Genera plantarum secundum ordines naturales disposita, juxta methodum in horto regio Parisiensi exaratam, anno MDCCCLXXIV.* This volume formed the basis of modern classification; more than this, it is certain that Cuvier derived much help in his zoological classification from its perusal. Hardly had the last sheet passed through the press, when the French Revolution broke out, and the author was installed in charge of the hospitals of Paris. The muséum d'histoire naturelle was organized on its present footing mainly by him in 1793, and he selected for its library everything relating to natural history from the vast materials obtained from the convents

then broken up. He continued as professor of botany there from 1770 to 1826, when his son Adrien succeeded him. Besides the *Genera*, he produced nearly sixty memoirs on botanical topics. He died at Paris on the 17th of September 1836.

5. ADRIEN LAURENT HENRI DE JUSSIEU (1797-1853), son of Antoine Laurent, was born at Paris on the 23rd of December 1797. He displayed the qualities of his family in his thesis for the degree of M.D., *De Euphorbiacearum generibus medicisque earundem viribus tentamen*, Paris, 1824. He was also the author of valuable contributions to botanical literature on the *Rutaceae*, *Meliaceae* and *Malpighiaceae* respectively, of "Taxonomie" in the *Dictionnaire universelle d'histoire naturelle*, and of an introductory work styled simply *Botanique*, which reached nine editions, and was translated into the principal languages of Europe. He also edited his father's *Introductio in historiam plantarum*, issued at Paris, without imprint or date, it being a fragment of the intended second edition of the *Genera*, which Antoine Laurent did not live to complete. He died at Paris on the 29th of June 1853, leaving two daughters, but no son, so that with him closed the brilliant botanical dynasty.

6. LAURENT PIERRE DE JUSSIEU (1792-1866), miscellaneous writer, nephew of Antoine Laurent, was born at Villeurbanne on the 7th of February 1792. His *Simon de Nantua, ou le marchand forain* (1818), reached fifteen editions, and was translated into seven languages. He also wrote *Simple notions de physique et d'histoire naturelle* (1857), and a few geological papers. He died at Passy on the 23rd of February 1866.



JUSTICE (Lat. *justitia*), a term used both in the abstract, for the quality of being or doing what is just, *i.e.* right in law and equity, and in the concrete for an officer deputed by the sovereign to administer justice, and do right by way of judgment. It has long been the official title of the judges of two of the English superior courts of common law, and it is now extended to all the judges in the supreme court of judicature—a judge in the High Court of Justice being styled Mr Justice, and in the court of appeal Lord Justice. The president of the king's bench division of the High Court is styled Lord Chief Justice (*q.v.*). The word is also applied, and perhaps more usually, to certain subordinate magistrates who administer justice in minor matters, and who are usually called *justices of the peace* (*q.v.*).



JUSTICE OF THE PEACE, an inferior magistrate appointed in England by special commission under the great seal to keep the peace within the jurisdiction for which he is appointed. The title is commonly abbreviated to J.P. and is used after the name. "The whole Christian world," said Coke, "hath not the like office as justice of the peace if duly executed." Lord Cowper, on the other hand, described them as "men sometimes illiterate and frequently bigoted and prejudiced." The truth is that the justices of the peace perform without any other reward than the consequence they acquire from their office a large amount of work indispensable to the administration of the law, and (though usually not professional lawyers, and therefore apt to be ill-informed in some of their decisions) for the most part they discharge their duties with becoming good sense and impartiality. For centuries they have necessarily been chosen mainly from the landed class of country gentlemen, usually Conservative in politics; and in recent years the attempt has been made by the Liberal party to reduce the balance by appointing others than those belonging to the landed gentry, such as tradesmen, Nonconformist ministers, and working-men. But it has been recognized that the appointment of justices according to their political views is undesirable, and in 1909 a royal commission was appointed to consider and report whether any and what steps should be taken to facilitate the selection of the most suitable persons to be justices of the peace irrespective of creed and political opinion. In great centres of population, when the judicial business of justices is heavy, it has been found necessary to appoint paid justices or stipendiary magistrates¹ to do the work, and an extension of the system to the country districts has been often advocated.

The commission of the peace assigns to justices the duty of keeping and causing to be kept all ordinances and statutes for the good of the peace and for preservation of the same, and for the quiet rule and government of the people, and further assigns "to you and every two or more of you (of whom any one of the aforesaid A, B, C, D, &c., we will, shall be one) to inquire the truth more fully by the oath of good and lawful men of the county of all and all manner of felonies, poisonings, enchantments, sorceries, arts, magic, trespasses, forestallings, regratings, engrossings, and extortions whatever." This part of the commission is the authority for the jurisdiction of the justices

in *sessions*. Justices named specially in the parenthetical clause are said to be on the quorum. Justices for counties are appointed by the Crown on the advice of the lord chancellor, and usually with the recommendation of the lord lieutenant of the county. Justices for boroughs having municipal corporations and separate commissions of the peace are appointed by the crown, the lord chancellor either adopting the recommendation of the town council or acting independently. Justices cannot act as such until they have taken the oath of allegiance and the judicial oath. A justice for a borough while acting as such must reside in or within seven miles of the borough or occupy a house, warehouse or other property in the borough, but he need not be a burgess. The mayor of a borough is *ex officio* a justice during his year of office and the succeeding year. He takes precedence over all borough justices, but not over justices acting in and for the county in which the borough or any part thereof is situated, unless when acting in relation to the business of the borough. The chairman of a county council is *ex officio* a justice of the peace for the county, and the chairman of an urban or rural district council for the county in which the district is situated. Justices cannot act beyond the limits of the jurisdiction for which they are appointed, and the warrant of a justice cannot be executed out of his jurisdiction unless it be backed, that is, endorsed by a justice of the jurisdiction in which it is to be carried into execution. A justice improperly refusing to act on his office, or acting partially and corruptly, may be proceeded against by a criminal information, and a justice refusing to act may be compelled to do so by the High Court of Justice. An action will lie against a justice for any act done by him in excess of his jurisdiction, and for any act within his jurisdiction which has been done wrongfully and with malice, and without reasonable or probable cause. But no action can be brought against a justice for a wrongful conviction until it has been quashed. By the Justices' Qualification Act 1744, every justice for a county was required to have an estate of freehold, copyhold, or customary tenure in fee, for life or a given term, of the yearly value of £100. By an act of 1875 the occupation of a house rated at £100 was made a qualification. No such qualifications were ever required for a borough justice, and it was not until 1906 that county justices were put on the same footing in this respect. The Justices of the Peace Act 1906 did away with all qualification by estate. It also removed the necessity for residence within the county, permitting the same residential qualification as for borough justices, "within seven miles thereof." The same act removed the disqualification of solicitors to be county justices and assimilated to the existing power to remove other justices from the commission of the peace the power to exclude *ex officio* justices.

The justices for every petty sessional division of a county or for a borough having a separate commission of the peace must appoint a fit person to be their salaried clerk. He must be either a barrister of not less than fourteen years' standing, or a solicitor of the supreme court, or have served for not less than seven years as a clerk to a police or stipendiary magistrate or to a metropolitan police court. An alderman or councillor of a borough must not be appointed as clerk, nor can a clerk of the peace for the borough or for the county in which the borough is situated be appointed. A borough clerk is not allowed to prosecute. The salary of a justice's clerk comes, in London, out of the police fund; in counties out of the county fund; in county boroughs out of the borough fund, and in other boroughs out of the county fund.

The vast and multifarious duties of the justices cover some portion of every important head of the criminal law, and extend to a considerable number of matters relating to the civil law.

In the United States these officers are sometimes appointed by the executive, sometimes elected. In some states, justices of the peace have jurisdiction in civil cases given to them by local regulations.

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- 1 Where a borough council desire the appointment of a stipendiary magistrate they may present a petition for the same to the secretary of state and it is thereupon lawful for the king to appoint to that office a barrister of seven years' standing. He is by virtue of his office a justice for the borough, and receives a yearly salary, payable in four equal quarterly instalments. On a vacancy, application must again be made as for a first appointment. There may be more than one stipendiary magistrate for a borough.



JUSTICIAR (med. Lat. *justiciarius* or *justitarius*, a judge), in English history, the title of the chief minister of the Norman and earlier Angevin kings. The history of the title in this connotation is somewhat obscure. *Justiciarius* meant simply "judge," and was originally applied, as Stubbs points out (*Const. Hist.* i. 389, note), to any officer of the king's court, to the chief justice, or in a very general way to all and sundry who possessed courts of their own or were qualified to act as *judices* in the shire-courts, even the style *capitalis justiciarius* being used of judges of the royal court other than the chief. It was not till the reign of Henry II. that the title *summus* or *capitalis justiciarius*, or *justiciarius totius Angliae* was exclusively applied to the king's chief minister. The office, however, existed before the style of its holder was fixed; and, whatever their contemporary title (*e.g.* *Custos Angliae*), later writers refer to them as *justicarii*, with or without the prefix *summus* or *capitalis* (*ibid.* p. 346). Thus Ranulf Flambard, the minister of William II., who was probably the first to exercise the powers of a justiciar, is called *justiciarius* by Ordericus Vitalis.

The origin of the justiciarship is thus given by Stubbs (*ibid.* p. 276). The sheriff “was the king’s representative in all matters judicial, military and financial in the shire. From him, or from the courts of which he was the presiding officer, appeal lay to the king alone; but the king was often absent from England and did not understand the language of his subjects. In his absence the administration was entrusted to a justiciar, a regent or lieutenant of the kingdom; and the convenience being once ascertained of having a minister who could in the whole kingdom represent the king, as the sheriff did in the shire, the justiciar became a permanent functionary.”

The fact that the kings were often absent from England, and that the justiciarship was held by great nobles or churchmen, made this office of an importance which at times threatened to overshadow that of the Crown. It was this latter circumstance which ultimately led to its abolition. Hubert de Burgh (*q.v.*) was the last of the great justiciars; after his fall (1231) the justiciarship was not again committed to a great baron, and the chancellor soon took the position formerly occupied by the justiciar as second to the king in dignity, as well as in power and influence. Finally, under Edward I. and his successor, in place of the justiciar—who had presided over all causes *vice regis*—separate heads were established in the three branches into which the *curia regis* as a judicial body had been divided: justices of common pleas, justices of the king’s bench and barons of the exchequer.

Outside England the title justiciar was given under Henry II. to the seneschal of Normandy. In Scotland the title of justiciar was borne, under the earlier kings, by two high officials, one having his jurisdiction to the north, the other to the south of the Forth. They were the king’s lieutenants for judicial and administrative purposes and were established in the 12th century, either by Alexander I. or by his successor David I. In the 12th century a *magister justitiarius* also appears in the Norman kingdom of Sicily, title and office being probably borrowed from England; he presided over the royal court (*Magna curia*) and was, with his assistants, empowered to decide, *inter alia*, all cases reserved to the Crown (see Du Cange, *s.v. Magister Justitiarius*).

See W. Stubbs, *Const. Hist. of England*; Du Cange, *Glossarium* (Niort, 1885) *s.v.* “Justitiarius.”



JUSTICIARY, HIGH COURT OF, in Scotland, the supreme criminal court, consisting of five of the lords of session together with the lord justice-general and the lord justice-clerk as president and vice-president respectively. The constitution of the court is settled by the Act 1672 c. 16. The lords of justiciary hold circuits regularly twice a year according to the ancient practice, which, however, had been allowed to fall into disuse until revived in 1748. For circuit purposes Scotland is divided into northern, southern and western districts (see [CIRCUIT](#)). Two judges generally go on a circuit, and in Glasgow they are by special statute authorized to sit in separate courts. By the Criminal Procedure (Scotland) Act 1887 all the senators of the college of justice are lords commissioners of justiciary. The high court, sitting in Edinburgh, has, in addition to its general jurisdiction, an exclusive jurisdiction for districts not within the jurisdiction of the circuits—the three Lothians, and Orkney and Shetland. The high court also takes up points of difficulty arising before the special courts, like the court for crown cases reserved in England. The court of justiciary has authority to try all crimes, unless when its jurisdiction has been excluded by special enactment of the legislature. It is also stated to have an inherent jurisdiction to punish all criminal acts, even if they have never before been treated as crimes. Its judgments are believed to be not subject to any appeal or review, but it may be doubted whether an appeal on a point of law would not lie to the house of lords. The following crimes must be prosecuted in the court of justiciary: treason, murder, robbery, rape, fire-raising, deforcement of messengers, breach of duty by magistrates, and all offences for which a statutory punishment higher than imprisonment is imposed.



JUSTIFICATION, in law, the showing by a defendant in a suit of sufficient reason why he did what he was called upon to answer. For example, in an action for assault and battery, the defendant may prove in justification that the prosecutor assaulted or beat him first, and that he acted merely in self-defence. The word is employed particularly in actions for defamation, and has in this connexion a somewhat special meaning. When a libel consists of a specific charge a plea of justification is a plea that the words are true in substance and in fact (see [LIBEL AND SLANDER](#)).



JUSTIN I. (450-527), East Roman emperor (518-527), was born in 450 as a peasant in Asia, but enlisting under Leo I. he rose to be commander of the imperial guards of Anastasius. On the latter's death in 518 Justin used for his own election to the throne money that he had received for the support of another candidate. Being ignorant even of the rudiments of letters, Justin entrusted the administration of state to his wise and faithful quaestor Proclus and to his nephew Justinian, though his own experience dictated several improvements in military affairs. An orthodox churchman himself, he effected in 519 a reconciliation of the Eastern and Western Churches, after a schism of thirty-five years (see [HORMISDAS](#)). In 522 he entered upon a desultory war with Persia, in which he co-operated with the Arabs. In 522 also Justin ceded to Theodoric, the Gothic king of Italy, the right of naming the consuls. On the 1st of April 527 Justin, enfeebled by an incurable wound, yielded to the request of the senate and assumed Justinian at his colleague; on the 1st of August he died. Justin bestowed much care on the repairing of public buildings throughout his empire, and contributed large sums to repair the damage caused by a destructive earthquake at Antioch.

See E. Gibbon, *Decline and Fall of the Roman Empire* (ed. Bury, 1896), iv. 206-209.



JUSTIN II. (d. 578), East Roman emperor (565-578), was the nephew and successor of Justinian I. He availed himself of his influence as master of the palace, and as husband of Sophia, the niece of the late empress Theodora, to secure a peaceful election. The first few days of his reign—when he paid his uncle's debts, administered justice in person, and proclaimed universal religious toleration—gave bright promise, but in the face of the lawless aristocracy and defiant governors of provinces he effected few subsequent reforms. The most important event of his reign was the invasion of Italy by the Lombards (*q.v.*), who, entering in 568, under Alboin, in a few years made themselves masters of nearly the entire country. Justin's attention was distracted from Italy towards the N. and E. frontiers. After refusing to pay the Avars tribute, he fought several unsuccessful campaigns against them. In 572 his overtures to the Turks led to a war with Persia. After two disastrous campaigns, in which his enemies overran Syria, Justin bought a precarious peace by payment of a yearly tribute. The temporary fits of insanity into which he fell warned him to name a colleague. Passing over his own relatives, he raised, on the advice of Sophia, the general Tiberius (*q.v.*) to be Caesar in December 574 and withdrew for his remaining years into retirement.

See E. Gibbon, *Decline and Fall of the Roman Empire* (ed. Bury, 1896), v. 2-17; G. Finlay, *History of Greece* (ed. 1877), i. 291-297; J. Bury, *The Later Roman Empire* (1889), ii. 67-79.

(M. O. B. C.)



JUSTIN (JUNIANUS JUSTINUS), Roman historian, probably lived during the age of the Antonines. Of his personal history nothing is known. He is the author of *Historiarum Philippicarum libri XLIV.*, a work described by himself in his preface as a collection of the most important and interesting passages from the voluminous *Historiae philippicae et totius mundi origines et terrae situs*, written in the time of Augustus by Pompeius Trogus (*q.v.*). The work of Trogus is lost; but the *prologi* or arguments of the text are preserved by Pliny and other writers. Although the main theme of Trogus was the rise and history of the Macedonian monarchy, Justin yet permitted himself considerable freedom of digression, and thus produced a capricious anthology instead of a regular epitome of the work. As it stands, however, the history contains much valuable information. The style, though far from perfect, is clear and occasionally elegant. The book was much used in the middle ages, when the author was sometimes confounded with Justin Martyr.

Ed. princeps (1470); J. G. Graevius (1668); J. F. Gronovius (1719); C. H. Frotscher (1827-1830); J. Jeep (1859); F. Rühl (1886, with prologues); see also J. F. Fischer, *De elocutione Justinii* (1868); F. Rühl, *Die Verbreitung des J. im Mittelalter* (1871); O. Eichert, *Wörterbuch zu J.* (1881); Köhler and Rühl in *Neue Jahrbücher für Philologie*, xci., ci., cxxxiii. There are translations in the chief European languages; in English by A. Goldyng (1564); R. Codrington (1682); Brown-Dykes (1712); G. Turnbull



JUSTINIAN I. (483-565). Flavius Anicius Justinianus, surnamed the Great, the most famous of all the emperors of the Eastern Roman Empire, was by birth a barbarian, native of a place called Tauresium in the district of Dardania, a region of Illyricum,¹ and was born, most probably, on the 11th of May 483. His family has been variously conjectured, on the strength of the proper names which its members are stated to have borne, to have been Teutonic or Slavonic. The latter seems the more probable view. His own name was originally Uprauda.² Justinianus was a Roman name which he took from his uncle Justin I., who adopted him, and to whom his advancement in life was due. Of his early life we know nothing except that he went to Constantinople while still a young man, and received there an excellent education. Doubtless he knew Latin before Greek; it is alleged that he always spoke Greek with a barbarian accent. When Justin ascended the throne in 518, Justinian became at once a person of the first consequence, guiding, especially in church matters, the policy of his aged, childless and ignorant uncle, receiving high rank and office at his hands, and soon coming to be regarded as his destined successor. On Justin's death in 527, having been a few months earlier associated with him as co-emperor, Justinian succeeded without opposition to the throne. About 523 he had married the famous Theodora (*q.v.*), who, as empress regnant, was closely associated in all his actions till her death in 547.

Justinian's reign was filled with great events, both at home and abroad, both in peace and in war. They may be classed under four heads: (1) his legal reforms; (2) his administration of the empire; (3) his ecclesiastical policy; and (4) his wars and foreign policy generally.

1. It is as a legislator and codifier of the law that Justinian's name is most familiar to the modern world; and it is therefore this department of his action that requires to be most fully dealt with here. He found the law of the Roman empire in a state of great confusion. It consisted of two masses, which were usually distinguished as old law (*jus vetus*) and new law (*jus novum*). The first of these comprised: (i.) all such of the statutes (*leges*) passed under the republic and early empire as had not become obsolete; (ii.) the decrees of the senate (*senatus consulta*) passed at the end of the republic and during the first two centuries of the empire; (iii.) the writings of the jurists of the later republic and of the empire, and more particularly of those jurists to whom the right of declaring the law with authority (*jus respondendi*) had been committed by the emperors. As these jurists had in their commentaries upon the *leges*, *senatus consulta* and edicts of the magistrates practically incorporated all that was of importance in those documents, the books of the jurists may substantially be taken as including (i.) and (ii.). These writings were of course very numerous, and formed a vast mass of literature. Many of them had become exceedingly scarce—many had been altogether lost. Some were of doubtful authenticity. They were so costly that no person of moderate means could hope to possess any large number; even the public libraries had nothing approaching to a complete collection. Moreover, as they proceeded from a large number of independent authors, who wrote expressing their own opinions, they contained many discrepancies and contradictions, the dicta of one writer being controverted by another, while yet both writers might enjoy the same formal authority. A remedy had been attempted to be applied to this evil by a law of the emperors Theodosius II. and Valentinian III., which gave special weight to the writings of five eminent jurists (Papinian, Paulus, Ulpian, Modestinus, Gaius); but it was very far from removing it. As regards the *jus vetus*, therefore, the judges and practitioners of Justinian's time had two terrible difficulties to contend with—first, the bulk of the law, which made it impossible for any one to be sure that he possessed anything like the whole of the authorities bearing on the point in question, so that he was always liable to find his opponent quoting against him some authority for which he could not be prepared; and, secondly, the uncertainty of the law, there being a great many important points on which differing opinions of equal legal validity might be cited, so that the practising counsel could not advise, nor the judge decide, with any confidence that he was right, or that a superior court would uphold his view.

The new law (*jus novum*), which consisted of the ordinances of the emperors promulgated during the middle and later empires (*edicta, rescripta, mandata, decreta*, usually called by the general name of *constitutiones*), was in a condition not much better. These ordinances or constitutions were extremely numerous. No complete collection of them existed, for although two collections (*Codex gregorianus* and *Codex hermogenianus*) had been made by two jurists in the 4th century, and a large supplementary collection published by the emperor Theodosius II. in 438 (*Codex theodosianus*), these collections did not include all the constitutions; there were others which it was necessary to obtain separately, but many whereof it must have been impossible for a private person to procure. In this branch too of the law there existed some, though a less formidable, uncertainty; for there were constitutions which practically, if not formally, repealed or superseded others without expressly mentioning them, so that a man who relied on one constitution might find that it had been varied or abrogated by another he had never heard of or on whose sense he had not put such a construction. It was therefore clearly necessary with regard to both the older and the newer law to take some steps

to collect into one or more bodies or masses so much of the law as was to be regarded as binding, reducing it within a reasonable compass, and purging away the contradictions or inconsistencies which it contained. The evil had been long felt, and reforms apparently often proposed, but nothing (except by the compilation of the *Codex theodosianus*) had been done till Justinian's time. Immediately after his accession, in 528, he appointed a commission to deal with the imperial constitutions (*jus novum*), this being the easier part of the problem. The commissioners, ten in number, were directed to go through all the constitutions of which copies existed, to select such as were of practical value, to cut these down by retrenching all unnecessary matter, and gather them, arranged in order of date, into one volume, getting rid of any contradictions by omitting one or other of the conflicting passages.³ These statute law commissioners, as one may call them, set to work forthwith, and completed their task in fourteen months, distributing the constitutions which they placed in the new collection into ten books, in general conformity with the order of the Perpetual Edict as settled by Salvius Julianus and enacted by Hadrian. By this means the bulk of the statute law was immensely reduced, its obscurities and internal discrepancies in great measure removed, its provisions adapted, by the abrogation of what was obsolete, to the circumstances of Justinian's own time. This *Codex constitutionum* was formally promulgated and enacted as one great consolidating statute in 529, all imperial ordinances not included in it being repealed at one stroke.

The success of this first experiment encouraged the emperor to attempt the more difficult enterprise of simplifying and digesting the older law contained in the treatises of the jurists. Before entering on this, however, he wisely took the preliminary step of settling the more important of the legal questions as to which the older jurists had been divided in opinion, and which had therefore remained sources of difficulty, a difficulty aggravated by the general decline, during the last two centuries, of the level of forensic and judicial learning. This was accomplished by a series of constitutions known as the "Fifty Decisions" (*Quinquaginta decisiones*), along with which there were published other ordinances amending the law in a variety of points, in which old and now inconvenient rules had been suffered to subsist. Then in December 530 a new commission was appointed, consisting of sixteen eminent lawyers, of whom the president, the famous Tribonian (who had already served on the previous commission), was an exalted official (*quaestor*), four were professors of law, and the remaining eleven practising advocates. The instructions given to them by the emperor were as follows:—they were to procure and peruse all the writings of all the authorized jurists (those who had enjoyed the *jus respondendi*); were to extract from these writings whatever was of most permanent and substantial value, with power to change the expressions of the author wherever conciseness or clearness would be thereby promoted, or wherever such a change was needed in order to adapt his language to the condition of the law as it stood in Justinian's time; were to avoid repetitions and contradictions by giving only one statement of the law upon each point; were to insert nothing at variance with any provision contained in the *Codex constitutionum*; and were to distribute the results of their labours into fifty books, subdividing each book into titles, and following generally the order of the Perpetual Edict.⁴

These directions were carried out with a speed which is surprising when we remember not only that the work was interrupted by the terrible insurrection which broke out in Constantinople in January 532, and which led to the temporary retirement from office of Tribonian, but also that the mass of literature which had to be read through consisted of no less than two thousand treatises, comprising three millions of sentences. The commissioners, who had for greater despatch divided themselves into several committees, presented their selection of extracts to the emperor in 533, and he published it as an imperial statute on December 16th of that year, with two prefatory constitutions (those known as *Omnem reipublicae* and *Dedit nobis*). It is the Latin volume which we now call the *Digest* (*Digesta*) or *Pandects* (Πάνδεκται) and which is by far the most precious monument of the legal genius of the Romans, and indeed, whether one regards the intrinsic merits of its substance or the prodigious influence it has exerted and still exerts, the most remarkable law-book that the world has seen. The extracts comprised in it are 9123 in number, taken from thirty-nine authors, and are of greatly varying length, mostly only a few lines long. About one-third (in quantity) come from Ulpian, a very copious writer; Paulus stands next. To each extract there is prefixed the name of the author, and of the treatise whence it is taken.⁵ The worst thing about the *Digest* is its highly unscientific arrangement. The order of the Perpetual Edict, which appears to have been taken as a sort of model for the general scheme of books and titles, was doubtless convenient to the Roman lawyers from their familiarity with it, but was in itself rather accidental and historical than logical. The disposition of the extracts inside each title was still less rational; it has been shown by a modern jurist to have been the result of the way in which the committees of the commissioners worked through the books they had to peruse.⁶ In enacting the *Digest* as a law book, Justinian repealed all the other law contained in the treatises of the jurists (that *jus vetus* which has been already mentioned), and directed that those treatises should never be cited in future even by way of illustration; and he of course at the same time abrogated all the older statutes, from the Twelve Tables downwards, which had formed a part of the *jus vetus*. This was a necessary incident of his scheme of reform. But he went too far, and indeed attempted what was impossible, when he forbade all commentaries upon the *Digest*. He was obliged to allow a Greek translation to be made of it, but directed this translation to be exactly literal.

These two great enterprises had substantially despatched Justinian's work; however, he, or rather Tribonian, who seems to have acted both as his adviser and as his chief executive officer in all legal affairs, conceived that a third book was needed, viz. an elementary manual for beginners which should present an outline of the law in a clear and simple form. The little work of Gaius, most of

which we now possess under the title of *Commentarii institutionum*, had served this purpose for nearly four centuries; but much of it had, owing to changes in the law, become inapplicable, so that a new manual seemed to be required. Justinian accordingly directed Tribonian, with two coadjutors, Theophilus, professor of law in the university of Constantinople, and Dorotheus, professor in the great law school at Beyrout, to prepare an elementary textbook on the lines of Gaius. This they did while the *Digest* was in progress, and produced the useful little treatise which has ever since been the book with which students commonly begin their studies of Roman law, the *Institutes of Justinian*. It was published as a statute with full legal validity shortly before the *Digest*. Such merits as it possesses—simplicity of arrangement, clearness and conciseness of expression—belong less to Tribonian than to Gaius, who was closely followed wherever the alterations in the law had not made him obsolete. However, the spirit of that great legal classic seems to have in a measure dwelt with and inspired the inferior men who were recasting his work; the *Institutes* is better both in Latinity and in substance than we should have expected from the condition of Latin letters at that epoch, better than the other laws which emanate from Justinian.

In the four years and a half which elapsed between the publication of the *Codex* and that of the *Digest*, many important changes had been made in the law, notably by the publication of the "Fifty Decisions," which settled many questions that had exercised the legal mind and given occasion to intricate statutory provisions. It was therefore natural that the idea should present itself of revising the *Codex*, so as to introduce these changes into it, for by so doing, not only would it be simplified, but the one volume would again be made to contain the whole statute law, whereas now it was necessary to read along with it the ordinances issued since its publication. Accordingly another commission was appointed, consisting of Tribonian with four other coadjutors, full power being given them not only to incorporate the new constitutions with the *Codex* and make in it the requisite changes, but also to revise the *Codex* generally, cutting down or filling in wherever they thought it necessary to do so. This work was completed in a few months; and in November 529 the revised *Codex* (*Codex repetitae praelectionis*) was promulgated with the force of law, prefaced by a constitution (*Cordi nobis*) which sets forth its history, and declares it to be alone authoritative, the former *Codex* being abrogated. It is this revised *Codex* which has come down to the modern world, all copies of the earlier edition having disappeared.

The constitutions contained in it number 4652, the earliest dating from Hadrian, the latest being of course Justinian's own. A few thus belong to the period to which the greater part of the *Digest* belongs, *i.e.* the so-called classical period of Roman law down to the time of Alexander Severus (244); but the great majority are later, and belong to one or other of the four great eras of imperial legislation, the eras of Diocletian, of Constantine, of Theodosius II., and of Justinian himself. Although this *Codex* is said to have the same general order as that of the *Digest*, *viz.* the order of the Perpetual Edict, there are considerable differences of arrangement between the two. It is divided into twelve books. Its contents, although of course of the utmost practical importance to the lawyers of that time, and of much value still, historical as well as legal, are far less interesting and scientifically admirable than the extracts preserved in the *Digest*. The difference is even greater than that between the English reports of cases decided since the days of Lord Holt and the English acts of parliament for the same two centuries.

The emperor's scheme was now complete. All the Roman law had been gathered into two volumes of not excessive size, and a satisfactory manual for beginners added. But Justinian and Tribonian had grown so fond of legislating that they found it hard to leave off. Moreover, the very simplifications that had been so far effected brought into view with more clearness such anomalies or pieces of injustice as still continued to deform the law. Thus no sooner had the work been rounded off than fresh excrescences began to be created by the publication of new laws. Between 529 and 565 Justinian issued a great number of ordinances, dealing with all sorts of subjects and seriously altering the law on many points—the majority appearing before the death of Tribonian, which happened in 545. These ordinances are called, by way of distinction, new constitutions, *Novellae constitutiones post codicem* (νεαραὶ διατάξεις), *Novels*. Although the emperor had stated in publishing the *Codex* that all further statutes (if any) would be officially collected, this promise does not seem to have been redeemed. The three collections of the *Novels* which we possess are apparently private collections, nor do we even know how many such constitutions were promulgated. One of the three contains 168 (together with 13 Edicts), but some of these are by the emperors Justin II. and Tiberius II. Another, the so-called *Epitome of Julian*, contains 125 *Novels* in Latin; and the third, the *Liber authenticarum* or *vulgata versio*, has 134, also in Latin. This last was the collection first known and chiefly used in the West during the middle ages; and of its 134 only 97 have been written on by the *glossatores* or medieval commentators; these therefore alone have been received as binding in those countries which recognize and obey the Roman law,—according to the maxim *Quicquid non agnoscit glossa, nec agnoscit curia*. And, whereas Justinian's constitutions contained in the *Codex* were all issued in Latin, the rest of the book being in that tongue, these *Novels* were nearly all published in Greek, Latin translations being of course made for the use of the western provinces. They are very bulky, and with the exception of a few, particularly the 116th and 118th, which introduce the most sweeping and laudable reforms into the law of intestate succession, are much more interesting, as supplying materials for the history of the time, social, economical and ecclesiastical, than in respect of any purely legal merits. They may be found printed in any edition of the *Corpus juris civilis*.

This *Corpus juris*, which bears and immortalizes Justinian's name, consists of the four books described above: (1) The authorized collection of imperial ordinances (*Codex constitutionum*); (2) the authorized collection of extracts from the great jurists (*Digesta* or *Pandectae*); (3) the elementary

handbook (*Institutiones*); (4) the unauthorized collection of constitutions subsequent to the *Codex (Novellae)*.

From what has been already stated, the reader will perceive that Justinian did not, according to a strict use of terms, codify the Roman law. By a codification we understand the reduction of the whole pre-existing body of law to a new form, the re-stating it in a series of propositions, scientifically ordered, which may or may not contain some new substance, but are at any rate new in form. If he had, so to speak, thrown into one furnace all the law contained in the treatises of the jurists and in the imperial ordinances, fused them down, the gold of the one and the silver of the other, and run them out into new moulds, this would have been codification. What he did do was something quite different. It was not codification but consolidation, not remoulding but abridging. He made extracts from the existing law, preserving the old words, and merely cutting out repetitions, removing contradictions, retrenching superfluities, so as immensely to reduce the bulk of the whole. And he made not one set of such extracts but two, one for the jurist law, the other for the statute law. He gave to posterity not one code but two digests or collections of extracts, which are new only to this extent that they are arranged in a new order, having been previously altogether unconnected with one another, and that here and there their words have been modified in order to bring one extract into harmony with some other. Except for this, the matter is old in expression as well as in substance.

Thus regarded, even without remarking that the *Novels*, never having been officially collected, much less incorporated with the *Codex*, mar the symmetry of the structure, Justinian's work may appear to entitle him and Tribonian to much less credit than they have usually received for it. But let it be observed, first, that to reduce the huge and confused mass of pre-existing law into the compass of these two collections was an immense practical benefit to the empire; secondly, that, whereas the work which he undertook was accomplished in seven years, the infinitely more difficult task of codification might probably have been left unfinished at Tribonian's death, or even at Justinian's own, and been abandoned by his successor; thirdly, that in the extracts preserved in the *Digest* we have the opinions of the greatest legal luminaries given in their own admirably lucid, philosophical and concise language, while in the extracts of which the *Codex* is composed we find valuable historical evidence bearing on the administration and social condition of the later Pagan and earlier Christian empire; fourthly, that Justinian's age, that is to say, the intellect of the men whose services he commanded, was quite unequal to so vast an undertaking as the fusing upon scientific principles into one new organic whole of the entire law of the empire. With sufficient time and labour the work might no doubt have been done; but what we possess of Justinian's own legislation, and still more what we know of the general condition of literary and legal capacity in his time, makes it certain that it would not have been well done, and that the result would have been not more valuable to the Romans of that age, and much less valuable to the modern world, than are the results, preserved in the *Digest* and the *Codex*, of what he and Tribonian actually did.

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To the merits of the work as actually performed some reference has already been made. The chief defect of the *Digest* is in point of scientific arrangement, a matter about which the Roman lawyers, perhaps one may say the ancients generally, cared very little. There are some repetitions and some inconsistencies, but not more than may fairly be allowed for in a compilation of such magnitude executed so rapidly. Tribonian has been blamed for the insertions the compilers made in the sentences of the old jurists (the so-called *Emblemata Triboniani*); but it was a part of Justinian's plan that such insertions should be made, so as to adapt those sentences to the law as settled in the emperor's time. On Justinian's own laws, contained in the *Codex* and in his *Novels*, a somewhat less favourable judgment must be pronounced. They, and especially the latter, are diffuse and often lax in expression, needlessly prolix, and pompously rhetorical. The policy of many, particularly of those which deal with ecclesiastical matters, may also be condemned; yet some gratitude is due to the legislator who put the law of intestate succession on that plain and rational footing whereon it has ever since continued to stand. It is somewhat remarkable that, although Justinian is so much more familiar to us by his legislation than by anything else, this sphere of his imperial labour is hardly referred to by any of the contemporary historians, and then only with censure. Procopius complains that he and Tribonian were always repealing old laws and enacting new ones, and accuses them of venal motives for doing so.

The *Corpus Juris* of Justinian continued to be, with naturally a few additions in the ordinances of succeeding emperors, the chief law-book of the Roman world till the time of the Macedonian dynasty when, towards the end of the 9th century, a new system was prepared and issued by those sovereigns, which we know as the *Basilica*. It is of course written in Greek, and consists of parts of the substance of the *Codex* and the *Digest*, thrown together and often altered in expression, together with some matter from the *Novels* and imperial ordinances posterior to Justinian. In the western provinces, which had been wholly severed from the empire before the publication of the *Basilica*, the law as settled by Justinian held its ground; but copies of the *Corpus Juris* were extremely rare, nor did the study of it revive until the end of the 11th century.

The best edition of the *Digest* is that of Mommsen (Berlin 1868-1870), and of the *Codex* that of Krüger (Berlin 1875-1877).

2. In his financial administration of the empire, Justinian is represented to us as being at once rapacious and extravagant. His unwearied activity and inordinate vanity led him to undertake a great many costly public works, many of them, such as the erection of palaces and churches, unremunerative. The money needed for these, for his wars, and for buying off the barbarians who

threatened the frontiers, had to be obtained by increasing the burdens of the people. They suffered, not only from the regular taxes, which were seldom remitted even after bad seasons, but also from monopolies; and Procopius goes so far as to allege that the emperor made a practice of further recruiting his treasury by confiscating on slight or fictitious pretexts the property of persons who had displeased Theodora or himself. Fiscal severities were no doubt one cause of the insurrections which now and then broke out, and in the gravest of which, (532) thirty thousand persons are said to have perished in the capital. It is not always easy to discover, putting together the trustworthy evidence of Justinian's own laws and the angry complaints of Procopius, what was the nature and justification of the changes made in the civil administration. But the general conclusion seems to be that these changes were always in the direction of further centralization, increasing the power of the chief ministers and their offices, bringing all more directly under the control of the Crown, and in some cases limiting the powers and appropriating the funds of local municipalities. Financial necessities compelled retrenchment, so that a certain number of offices were suppressed altogether, much to the disgust of the office-holding class, which was numerous and wealthy, and had almost come to look on the civil service as its hereditary possession. The most remarkable instance of this policy was the discontinuance of the consulship. This great office had remained a dignity centuries after it had ceased to be a power; but it was a very costly dignity, the holder being expected to spend large sums in public displays. As these sums were provided by the state, Justinian saved something considerable by stopping the payment. He named no consul after Basilius, who was the name-giving consul of 541.

In a bureaucratic despotism the greatest merit of a sovereign is to choose capable and honest ministers. Justinian's selections were usually capable, but not so often honest; probably it was hard to find thoroughly upright officials; possibly they would not have been most serviceable in carrying out the imperial will, and especially in replenishing the imperial treasury. Even the great Tribonian laboured under the reproach of corruption, while the fact that Justinian maintained John of Cappadocia in power long after his greed, his unscrupulousness, and the excesses of his private life had excited the anger of the whole empire, reflects little credit on his own principles of government and sense of duty to his subjects. The department of administration in which he seems to have felt most personal interest was that of public works. He spent immense sums on buildings of all sorts, on quays and harbours, on fortifications, repairing the walls of cities and erecting castles in Thrace to check the inroads of the barbarians, on aqueducts, on monasteries, above all, upon churches. Of these works only two remain perfect, St Sophia in Constantinople, now a mosque, and one of the architectural wonders of the world, and the church of SS Sergius and Bacchus, now commonly called Little St Sophia, which stands about half a mile from the great church, and is in its way a very delicate and beautiful piece of work. The church of S. Vitale at Ravenna, though built in Justinian's reign, and containing mosaic pictures of him and Theodora, does not appear to have owed anything to his mind or purse.

3. Justinian's ecclesiastical policy was so complex and varying that it is impossible within the limits of this article to do more than indicate its bare outlines. For many years before the accession of his uncle Justin, the Eastern world had been vexed by the struggles of the Monophysite party, who recognized only one nature in Christ, against the view which then and ever since has maintained itself as orthodox, that the divine and human natures coexisted in Him. The latter doctrine had triumphed at the council of Chalcedon, and was held by the whole Western Church, but Egypt, great part of Syria and Asia Minor, and a considerable minority even in Constantinople clung to Monophysitism. The emperors Zeno and Anastasius had been strongly suspected of it, and the Roman bishops had refused to communicate with the patriarchs of Constantinople since 484, when they had condemned Acacius for accepting the formula of conciliation issued by Zeno. One of Justinian's first public acts was to put an end to this schism by inducing Justin to make the then patriarch renounce this formula and declare his full adhesion to the creed of Chalcedon. When he himself came to the throne he endeavoured to persuade the Monophysites to come in by summoning some of their leaders to a conference. This failing, he ejected suspected prelates, and occasionally persecuted them, though with far less severity than that applied to the heretics of a deeper dye, such as Montanists or even Arians. Not long afterwards, his attention having been called to the spread of Origenistic opinions in Syria, he issued an edict condemning fourteen propositions drawn from the writings of the great Alexandrian, and caused a synod to be held under the presidency of Mennas (whom he had named patriarch of Constantinople), which renewed the condemnation of the impugned doctrines and anathematized Origen himself. Still later, he was induced by the machinations of some of the prelates who haunted his court, and by the influence of Theodora, herself much interested in theological questions, and more than suspected of Monophysitism, to raise a needless, mischievous, and protracted controversy. The Monophysites sometimes alleged that they could not accept the decrees of the council of Chalcedon because that council had not condemned, but (as they argued) virtually approved, three writers tainted with Nestorian principles, Theodore of Mopsuestia, Theodoret, and Ibas, bishop of Edessa. It was represented to the emperor, who was still pursued by the desire to bring back the schismatics, that a great step would have been taken towards reconciliation if a condemnation of these teachers, or rather of such of their books as were complained of, could be brought about, since then the Chalcedonian party would be purged from any appearance of sympathy with the errors of Nestorius. Not stopping to reflect that in the angry and suspicious state of men's minds he was sure to lose as much in one direction as he would gain in the other, Justinian entered into the idea, and put forth an edict exposing and denouncing the errors contained in the writings of Theodore generally, in the treatise of Theodoret against Cyril of

Alexandria, and in a letter of Bishop Ibas (a letter whose authenticity was doubted, but which passed under his name) to the Persian bishop Maris. This edict was circulated through the Christian world to be subscribed by the bishops. The four Eastern patriarchs, and the great majority of the Eastern prelates generally, subscribed, though reluctantly, for it was felt that a dangerous precedent was being set when dead authors were anathematized, and that this new movement could hardly fail to weaken the authority of the council of Chalcedon. Among the Western bishops, who were less disposed both to Monophysitism and to subservience, and especially by those of Africa, the edict was earnestly resisted. When it was found that Pope Vigilius did not forthwith comply, he was summoned to Constantinople. Even there he resisted, not so much, it would seem, from any scruples of his own, for he was not a high-minded man, as because he knew that he dared not return to Italy if he gave way. Long disputes and negotiations followed, the end of which was that Justinian summoned a general council of the church, that which we reckon the Fifth, which condemned the impugned writings, and anathematized several other heretical authors. Its decrees were received in the East but long contested in the Western Church, where a schism arose that lasted for seventy years. This is the controversy known as that of the Three Chapters (*Tria capitula*, τρία κεφάλαια), apparently from the three propositions or condemnations contained in Justinian's original edict, one relating to Theodore's writings and person, the second to the incriminated treatise of Theodoret (whose person was not attacked), the third to the letter (if genuine) of Ibas (see Hefele, *Conciliengeschichte*, ii. 777).

At the very end of his long career of theological discussion, Justinian himself lapsed into heresy, by accepting the doctrine that the earthly body of Christ was incorruptible, insensible to the weaknesses of the flesh, a doctrine which had been advanced by Julian, bishop of Halicarnassus, and went by the name of Aphthartodocetism. According to his usual practice, he issued an edict enforcing this view, and requiring all patriarchs, metropolitans, and bishops to subscribe to it. Some, who not unnaturally held that it was rank Monophysitism, refused at once, and were deprived of their sees, among them Eutychius the eminent patriarch of Constantinople. Others submitted or temporized; but before there had been time enough for the matter to be carried through, the emperor died, having tarnished if not utterly forfeited by this last error the reputation won by a life devoted to the service of Orthodoxy.

As no preceding sovereign had been so much interested in church affairs, so none seems to have shown so much activity as a persecutor both of pagans and of heretics. He renewed with additional stringency the laws against both these classes. The former embraced a large part of the rural population in certain secluded districts, such as parts of Asia Minor and Peloponnesus; and we are told that the efforts directed against them resulted in the forcible baptism of 70,000 persons in Asia Minor alone. Paganism, however, survived; we find it in Laconia in the end of the 9th century, and in northern Syria it has lasted till our own times. There were also a good many crypto-pagans among the educated population of the capital. Procopius, for instance, if he was not actually a Pagan, was certainly very little of a Christian. Inquiries made in the third year of Justinian's reign drove nearly all of these persons into an outward conformity, and their offspring seem to have become ordinary Christians. At Athens, the philosophers who taught in the schools hallowed by memories of Plato still openly professed what passed for Paganism, though it was really a body of moral doctrine, strongly tinged with mysticism, in which there was far more of Christianity and of the speculative metaphysics of the East than of the old Olympian religion. Justinian, partly from religious motives, partly because he discountenanced all rivals to the imperial university of Constantinople, closed these Athenian schools (529). The professors sought refuge at the court of Chosroes, king of Persia, but were soon so much disgusted by the ideas and practices of the fire-worshippers that they returned to the empire, Chosroes having magnanimously obtained from Justinian a promise that they should be suffered to pass the rest of their days unmolested. Heresy proved more obstinate. The severities directed against the Montanists of Phrygia led to a furious war, in which most of the sectaries perished, while the doctrine was not extinguished. Harsh laws provoked the Samaritans to a revolt, from whose effects Palestine had not recovered when conquered by the Arabs in the following century. The Nestorians and the Eutychian Monophysites were not threatened with such severe civil penalties, although their worship was interdicted, and their bishops were sometimes banished; but this vexatious treatment was quite enough to keep them disaffected, and the rapidity of the Mahommedan conquests may be partly traced to that alienation of the bulk of the Egyptian and a large part of the Syrian population which dates from Justinian's persecutions.

4. Justinian was engaged in three great foreign wars, two of them of his own seeking, the third a legacy which nearly every emperor had come into for three centuries, the secular strife of Rome and Persia. The Sassanid kings of Persia ruled a dominion which extended from the confines of Syria to those of India, and from the straits of Oman to the Caucasus. The martial character of their population made them formidable enemies to the Romans, whose troops were at this epoch mainly barbarians, the settled and civilized subjects of the empire being as a rule averse from war. When Justinian came to the throne, his troops were maintaining an unequal struggle on the Euphrates against the armies of Kavadh I. (*q.v.*). After some campaigns, in which the skill of Belisarius obtained considerable successes, a peace was concluded in 533 with Chosroes I. (*q.v.*). This lasted till 539, when Chosroes declared war, alleging that Justinian had been secretly intriguing against him with the Hephthalite Huns, and doubtless moved by alarm and envy at the victories which the Romans had been gaining in Italy. The emperor was too much occupied in the West to be able adequately to defend his eastern frontier. Chosroes advanced into Syria with little resistance, and in 540 captured Antioch, then the greatest city in Asia, carrying off its inhabitants into captivity. The war continued with varying fortunes for four years more in this quarter; while in the meantime an even fiercer

struggle had begun in the mountainous region inhabited by the Lazi at the south-eastern corner of the Black Sea (see [COLCHIS](#)). When after two-and-twenty years of fighting no substantial advantage had been gained by either party, Chosroes agreed in 562 to a peace which left Lazica to the Romans, but under the dishonourable condition of their paying 30,000 pieces of gold annually to the Persian king. Thus no result of permanent importance flowed from these Persian wars, except that they greatly weakened the Roman Empire, increased Justinian's financial embarrassments, and prevented him from prosecuting with sufficient vigour his enterprises in the West. (See further [PERSIA: Ancient History](#), "The Sassanid Dynasty.")

These enterprises had begun in 533 with an attack on the Vandals, who were then reigning in Africa. Belisarius, despatched from Constantinople with a large fleet and army, landed without opposition, and destroyed the barbarian power in two engagements. North Africa from beyond the straits of Gibraltar to the Syrtes became again a Roman province, although the Moorish tribes of the interior maintained a species of independence; and part of southern Spain was also recovered for the empire. The ease with which so important a conquest had been effected encouraged Justinian to attack the Ostrogoths of Italy, whose kingdom, though vast in extent, for it included part of south-eastern Gaul, Raetia, Dalmatia and part of Pannonia, as well as Italy, Sicily, Sardinia and Corsica, had been grievously weakened by the death first of the great Theodoric, and some years later of his grandson Athalaric, so that the Gothic nation was practically without a head. Justinian began the war in 535, taking as his pretext the murder of Queen Amalasantha, daughter of Theodoric, who had placed herself under his protection, and alleging that the Ostrogothic kingdom had always owned a species of allegiance to the emperor at Constantinople. There was some foundation for this claim, although of course it could not have been made effective against Theodoric, who was more powerful than his supposed suzerain. Belisarius, who had been made commander of the Italian expedition, overran Sicily, reduced southern Italy, and in 536 occupied Rome. Here he was attacked in the following year by Vitiges, who had been chosen king by the Goths, with a greatly superior force. After a siege of over a year, the energy, skill, and courage of Belisarius, and the sickness which was preying on the Gothic troops, obliged Vitiges to retire. Belisarius pursued his diminished army northwards, shut him up in Ravenna, and ultimately received the surrender of that impregnable city. Vitiges was sent prisoner to Constantinople, where Justinian treated him, as he had previously treated the captive Vandal king, with clemency. The imperial administration was established through Italy, but its rapacity soon began to excite discontent, and the kernel of the Gothic nation had not submitted. After two short and unfortunate reigns, the crown had been bestowed on Totila or Baduila, a warrior of distinguished abilities, who by degrees drove the imperial generals and governors out of Italy. Belisarius was sent against him, but with forces too small for the gravity of the situation. He moved from place to place during several years, but saw city after city captured by or open its gates to Totila, till only Ravenna, Otranto and Ancona remained. Justinian was occupied by the ecclesiastical controversy of the Three Chapters, and had not the money to fit out a proper army and fleet; indeed, it may be doubted whether he would ever have roused himself to the necessary exertions but for the presence at Constantinople of a knot of Roman exiles, who kept urging him to reconquer Italy, representing that with their help and the sympathy of the people it would not be a difficult enterprise. The emperor at last complied, and in 552 a powerful army was despatched under Narses, an Armenian eunuch now advanced in life, but reputed the most skilful general of the age, as Belisarius was the hottest soldier. He marched along the coast of the Gulf of Venice, and encountered the army of Totila at Taginae not far from Cesena. Totila was slain, and the Gothic cause irretrievably lost. The valiant remains of the nation made another stand under Teias on the Lactarian Hill in Campania; after that they disappear from history. Italy was recovered for the empire, but it was an Italy terribly impoverished and depopulated, whose possession carried little strength with it. Justinian's policy both in the Vandalic and in the Gothic War stands condemned by the result. The resources of the state, which might better have been spent in defending the northern frontier against Slavs and Huns and the eastern frontier against Persians, were consumed in the conquest of two countries which had suffered too much to be of any substantial value, and which, separated by language as well as by intervening seas, could not be permanently retained. However, Justinian must have been almost preternaturally wise to have foreseen this: his conduct was in the circumstances only what might have been expected from an ambitious prince who perceived an opportunity of recovering territories that had formerly belonged to the empire, and over which its rights were conceived to be only suspended.

Besides these three great foreign wars, Justinian's reign was troubled by a constant succession of border inroads, especially on the northern frontier, where the various Slavonic and Hunnish tribes who were established along the lower Danube and on the north coast of the Black Sea made frequent marauding expeditions into Thrace and Macedonia, sometimes penetrating as far as the walls of Constantinople in one direction and the Isthmus of Corinth in another. Immense damage was inflicted by these marauders on the subjects of the empire, who seem to have been mostly too peaceable to defend themselves, and whom the emperor could not spare troops enough to protect. Fields were laid waste, villages burnt, large numbers of people carried into captivity; and on one occasion the capital was itself in danger.

5. It only remains to say something regarding Justinian's personal character and capacities, with regard to which a great diversity of opinion has existed among historians. The civilians, looking on him as a patriarch of their science, have as a rule extolled his wisdom and virtues; while ecclesiastics of the Roman Church, from Cardinal Baronius downwards, have been offended by his arbitrary

conduct towards the popes, and by his last lapse into heresy, and have therefore been disposed to accept the stories which ascribe to him perfidy, cruelty, rapacity and extravagance. The difficulty of arriving at a fair conclusion is increased by the fact that Procopius, who is our chief authority for the events of his reign, speaks with a very different voice in his secret memoirs (the *Anecdota*) from that which he has used in his published history, and that some of the accusations contained in the former work are so rancorous and improbable that a certain measure of discredit attaches to everything which it contains. The truth seems to be that Justinian was not a great ruler in the higher sense of the word, that is to say, a man of large views, deep insight, a capacity for forming just such plans as the circumstances needed, and carrying them out by a skilful adaptation of means to ends. But he was a man of considerable abilities, wonderful activity of mind, and admirable industry. He was interested in many things, and threw himself with ardour into whatever he took up; he contrived schemes quickly, and pushed them on with an energy which usually made them succeed when no long time was needed, for, if a project was delayed, there was a risk of his tiring of it and dropping it. Although vain and full of self-confidence, he was easily led by those who knew how to get at him, and particularly by his wife. She exercised over him that influence which a stronger character always exercises over a weaker, whatever their respective positions; and unfortunately it was seldom a good influence, for Theodora (*q.v.*) seems to have been a woman who, with all her brilliant gifts of intelligence and manner, had no principles and no pity. Justinian was rather quick than strong or profound; his policy does not strike one as the result of deliberate and well-considered views, but dictated by the hopes and fancies of the moment. His activity was in so far a misfortune as it led him to attempt too many things at once, and engage in undertakings so costly that oppression became necessary to provide the funds for them. Even his devotion to work, which excites our admiration, in the centre of a luxurious court, was to a great extent unprofitable, for it was mainly given to theological controversies which neither he nor any one else could settle. Still, after making all deductions, it is plain that the man who accomplished so much, and kept the whole world so occupied, as Justinian did during the thirty-eight years of his reign, must have possessed no common abilities. He was affable and easy of approach to all his subjects, with a pleasant address; nor does he seem to have been, like his wife, either cruel or revengeful. We hear several times of his sparing those who had conspired against him. But he was not scrupulous in the means he employed, and he was willing to maintain in power detestable ministers if only they served him efficiently and filled his coffers. His chief passion, after that for his own fame and glory, seems to have been for theology and religion; it was in this field that his literary powers exerted themselves (for he wrote controversial treatises and hymns), and his taste also, for among his numerous buildings the churches are those on which he spent most thought and money. Considering that his legal reforms are those by which his name is mainly known to posterity, it is curious that we should have hardly any information as to his legal knowledge, or the share which he took in those reforms. In person he was somewhat above the middle height, well-shaped, with plenty of fresh colour in his cheeks, and an extraordinary power of doing without food and sleep. He spent most of the night in reading or writing, and would sometimes go for a day with no food but a few green herbs. Two mosaic figures of him exist at Ravenna, one in the apse of the church of S. Vitale, the other in the church of S. Apollinare in Urbe; but of course one cannot be sure how far in such a material the portrait fairly represents the original. He had no children by his marriage with Theodora, and did not marry after her decease. On his death, which took place on the 14th of November 565, the crown passed to his nephew Justin II.

AUTHORITIES.—For the life of Justinian the chief authorities are Procopius (*Historiae, De aedificiis, Anecdota*) and (from 552 A.D.) the *History* of Agathias; the Chronicle of Johannes Malalas is also of value. Occasional reference must be made to the writings of Jordanes and Marcellinus, and even to the late compilations of Cedrenus and Zonaras. The *Vita Justiniani* of Ludewig or Ludwig (Halle, 1731), a work of patient research, is frequently referred to by Gibbon in his important chapters relating to the reign of Justinian, in the *Decline and Fall* (see Bury's edition, 1900). There is a *Vie de Justinien* by Isambert (2 vols., Paris, 1856). See also Hutton's *Church of the Sixth Century* (1897); J. B. Bury's *Later Roman Empire* (1889); Hodgkin's *Italy and her Invaders* (1880).

(J. BR.)

- 1 It is commonly identified with the modern Küstendil, but Usküb (the ancient Skupi) has also been suggested. See Tozer, *Highlands of European Turkey*, ii. 370.
- 2 The name Uprauda is said to be derived from the word *prauda*, which in Old Slavic means *jus, justitia*, the prefix being simply a breathing frequently attached to Slavonic names.
- 3 See, for an account of the instructions given to the commission, the constitution *Haec quae*, prefixed to the revised *Codex* in the *Corpus juris civilis*.
- 4 See the constitution *Deo auctore* (*Cod. i. 17, 1*).
- 5 In the middle ages people used to cite passages by the initial words; and the Germans do so still, giving, however, the number of the paragraph in the extract (if there are more paragraphs than one), and appending the number of the book and title. We in Britain and America usually cite by the numbers of the book, the title and the paragraph, without referring to the initial words.
- 6 See Bluhme, "Die Ordnung der Fragmente in den Pandektentiteln," in Savigny's *Zeitschr. f. gesch. Rechtswissenschaft*, vol. iv.



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