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CHAMBERS' EDINBURGH JOURNAL

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LONDON CROSSING-SWEEPERS.

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There is no occupation in life, be it ever so humble, which is justly worthy of contempt, if by it a man is enabled to administer to his necessities without becoming a burden to others, or a plague to them by the parade of shoeless feet, fluttering rags, and a famished face. In the multitudinous drama of life, which on the wide theatre of the metropolis is ever enacting with so much intense earnestness, there is, and from the very nature of things there always must be, a numerous class of supernumeraries, who from time to time, by the

force of varying circumstances, are pushed and hustled off the stage, and shuffled into the side-scenes, the drear and dusky background of the world's proscenium. Of the thousands and tens of thousands thus rudely dealt with, he is surely not the worst who, wanting a better weapon, shoulders a birch-broom, and goes forth to make his own way in the world, by removing the moist impediments of filth and refuse from the way of his more fortunate fellows. Indeed, look upon him in what light you may, he is in some sort a practical moralist. Though far remote from the ivy chaplet on Wisdom's glorious brow, yet his stump of withered birch inculcates a lesson of virtue, by reminding us, that we should take heed to our steps in our journeyings through the wilderness of life; and, so far as in him lies, he helps us to do so, and by the exercise of a very catholic faith, looks for his reward to the value he supposes us to entertain for that virtue which, from time immemorial, has been in popular parlance classed as next to godliness.

Time was, it is said, when the profession of a street-sweeper in London was a certain road to competence and fortune—when the men of the brooms were men of capital; when they lived well, and died rich, and left legacies behind them to their regular patrons. These palmy days, at any rate, are past now. Let no man, or woman either, expect a legacy at this time of day from the receiver of his copper dole. The labour of the modern sweeper is nothing compared with his of half a century ago. The channel of viscous mud, a foot deep, through which, so late as the time when George the Third was king, the carts and carriages had literally to plough their way, no longer exists, and the labour of the sweeper is reduced to a tithe of what it was. He has no longer to dig a trench in the morning, and wall up the sides of his fosse with stiff earth, hoarded for the purpose, as we have seen him doing in the days when 'Boney' was a terror. The city scavengers have reduced his work to a minimum, and his pay has dwindled proportionately. The twopences which used to be thrown to a sweeper will now pay for a ride, and the smallest coin is considered a sufficient guerdon for a service so light. But what he has lost in substantial emolument, he has gained in *morale*; he is infinitely more polite and attentive than he was; he sweeps ten times as clean for a half-penny as he did for twopence or sixpence, and thanks you more heartily than was his wont in the days of yore. The truth is, that civility, as a speculation, is found to pay; and the want of it, even among the very lowest rank of industrials in London, is at the present moment not merely a rarity, but an actual phenomenon—always supposing that something is to be got by it.

The increase of vehicles of all descriptions, but more especially omnibuses, which are perpetually rushing along the main thoroughfares, has operated largely in shutting out the crossing-sweepers from what was at one period the principal theatre of their industry. Independent, too, of the unbroken stream of carriages which renders sweeping during the day impossible, and the collection of small coin from the crowd who dart impatiently across the road when a practicable breach presents itself, equally so, it is found that too dense a population is less favourable to the brotherhood of the broom than one ever so sparse and thin. Had the negro of Waithman's obelisk survived the advent of Shillibeer, he would have had to shift his quarters, or to have drawn upon his three-and-a-half per cents. to maintain his position. The sweepers who work on the great lines of traffic from Oxford Street west to Aldgate, are consequently not nearly so numerous as they once were, though the members of the profession have probably doubled their numbers within the last twenty years. They exercise considerable judgment in the choice of their locations, making frequent experiments in different spots, feeling the pulse of the neighbourhood, as it were, ere they finally settle down to establish a permanent connection.

We shall come to a better understanding of the true condition of these muddy nomads by considering them in various classes, as they actually exist, and each of which may be identified without much trouble. The first in the rank is he who is bred to the business, who has followed it from his earliest infancy, and never dreamed of pursuing any other calling. We must designate him as

No. 1. *The Professional Sweeper*.—He claims precedence before all others, as being to the manner born, and inheriting his broom, with all its concomitant advantages, from his father, or mother, as it might be. All his ideas, interests, and affections are centered in one spot of ground—the spot he sweeps, and has swept daily for the last twenty or thirty years, ever since it was bequeathed to him by his parent. The companion of his childhood, his youth, and his maturer age, is the post buttressed by the curb-stone at the corner of the street. To that post, indeed, he is a sort of younger brother. It has been his friend and support through many a stormy day and blustering night. It is the confidant of his hopes and his sorrows, and sometimes, too, his agent and cashier, for he has cut a small basin in the top of it, where a passing patron

may deposit a coin if he choose, under the guardianship of the broom, which, while he is absent for a short half-hour discussing a red herring and a crust for his dinner, leans gracefully against his friend the post, and draws the attention of a generous public to that as the deputy-receiver of the exchequer. Our professional friend has a profound knowledge of character: he has studied the human face divine all his life, and can read at a glance, through the most rigid and rugged lineaments, the indications of benevolence or the want of it; and he knows what aspect and expression to assume, in order to arouse the sympathies of a hesitating giver. He knows every inmate of every house in his immediate neighbourhood; and not only that, but he knows their private history and antecedents for the last twenty years. He has watched a whole generation growing up under his broom, and he looks upon them all as so much material destined to enhance the value of his estate. He is the humble pensioner of a dozen families: he wears the shoes of one, the stockings of another, the shirts of a third, the coats of a fourth, and so on; and he knows the taste of everybody's cookery, and the temper of everybody's cookmaid, quite as well as those who daily devour the one and scold the other. He is intimate with everybody's cat and everybody's dog, and will carry them home if he finds them straying. He is on speaking terms with everybody's servant-maid, and does them all a thousand kind offices, which are repaid with interest by surreptitious scraps from the larder, and jorums of hot tea in the cold wintry afternoons. On the other hand, if he knows so much, he is equally well known: he is as familiar to sight as the Monument on Fish Street Hill to those who live opposite; he is part and parcel of the street view, and must make a part of the picture whenever it is painted, or else it wont be like. You cannot realise the idea of meeting him elsewhere; it would be shocking to your nerves to think of it: you would as soon think of seeing the Obelisk walking up Ludgate Hill, for instance, as of meeting him there—it could not be. Where he goes when he leaves his station, you have not the least notion. He is there so soon as it is light in the morning, and till long after the gas is burning at night. He is a married man, of course, and his wife, a worthy helpmate, has no objection to pull in the same boat with him. When Goggs has a carpet to beat—he beats all the carpets on his estate—Mrs Goggs comes to console the post in his absence. She usually signalises her advent by a desperate assault with the broom upon the whole length of the crossing: it is plain she never thinks that Goggs keeps the place clean enough, and so she brushes him a hint. Goggs has a weakness for beer, and more than once we have seen him asleep on a hot thirsty afternoon, too palpably under the influence of John Barleycorn to admit of a doubt, his broom between his legs, and his back against his abstinent friend the post. Somehow, whenever this happens, Mrs G. is sure to hear of it, and she walks him off quietly, that the spectacle of a sweeper overtaken may not bring a disgrace upon the profession; and then, broom in hand, she takes her stand, and does his duty for the remainder of the day. The receipts of the professional sweeper do not vary throughout the year so much as might be supposed. They depend very little upon chance contributions: these, there is no doubt, fall off considerably, if they do not fail altogether, during a continuance of dry weather, when there is no need of the sweeper's services; but the man is remunerated chiefly by regular donations from known patrons, who form his connection, and who, knowing that he must eat and drink be the weather wet or dry, bestow their periodical pittances accordingly.

No. 2 is the *Morning Sweeper*.—This is rather a knowing subject, one, at least, who is capable of drawing an inference from certain facts. There are numerous lines of route, both north and south of the great centres of commerce, and all converging towards the city as their nucleus, which are traversed, morning and evening, for two or three consecutive hours, by bands of gentlemanly-looking individuals: clerks, book-keepers, foremen, business-managers, and such like responsible functionaries, whose unimpeachable outer integuments testify to their regard for appearances. This current of respectability sets in towards the city at about half-past six in the morning, and continues its flow until just upon ten o'clock, when it may be said to be highwater. Though a large proportion of these agents of the world's traffic are daily borne to and from their destination in omnibuses, still the great majority, either for the sake of exercise or economy, are foot-passengers. For the accommodation of the latter, the crossing-sweeper stations himself upon the dirtiest portion of the route, and clearing a broad and convenient path ere the sun is out of bed, awaits the inevitable tide, which must flow, and which can hardly fail of bringing him some remuneration for his labour. If we are to judge from the fact, that along one line of route which we have been in the habit of traversing for several years, we have counted as many as fourteen of these morning sweepers in a march of little more than two miles, the speculation cannot be altogether unprofitable. In traversing the same route in the middle of the day, not three of the sweepers would be found at their post; and the reason would be obvious enough, since the streets are then

comparatively deserted, being populous in the morning only, because they are so many short-cuts or direct thoroughfares from the suburbs to the city. The morning sweeper is generally a lively and active young fellow; often a mere child, who is versed in the ways of London life, and who, knowing well the value of money from the frequent want of it, is anxious to earn a penny by any honest means. Ten to one, he has been brought up in the country, and has been tutored by hard necessity, in this great wilderness of brick, to make the most of every hour, and of every chance it may afford him. He will be found in the middle of the day touting for a job at the railway stations, to carry a portmanteau or to wheel a truck; or he will be at Smithfield, helping a butcher to drive to the slaughterhouse his bargain of sheep or cattle; or in some livery-yards, currying a horse or cleaning out a stable. If he can find nothing better to employ him, he will return to his sweeping in the evening, especially if it be summer-time, and should set in wet at five or six o'clock. When it is dark early, he knows that it won't pay to resume the broom; commercial gentlemen are not particular about the condition of their Wellingtons, when nobody can see to criticise their polish, and all they want is to exchange them for slippers as soon as possible. If we were to follow the career of this industrious fellow up to manhood, we should in all probability find him occupying worthily a hard-working but decent and comfortable position in society.

No. 3 is the *Occasional Sweeper*.—Now and then, in walking the interminable streets, one comes suddenly upon very questionable shapes, which, however, we don't question, but walk on and account for them mythically if we can. Among these singular apparitions which at times have startled us, not a few have borne a broom in their hands, and appealed to us for a reward for services which, to say the best of them, were extremely doubtful. Now an elderly gentleman in silver spectacles, with pumps on his feet, and a roquelaure with a fur-collar over his shoulders, and an expression of unutterable anguish in his countenance, holds out his hand and bows his head as we pass, and groans audibly the very instant we are within earshot of a groan; which is a distance of about ten inches in a London atmosphere. Now an old, old man, tall, meagre, and decrepit, with haggard eye and moonstruck visage, bares his aged head to the pattering rain—

'Loose his beard and hoary hair
Stream like a meteor to the troubled air.'

He makes feeble and fitful efforts to sweep a pathway across the road, and the dashing cab pulls up suddenly just in time to save him from being hurled to the ground by the horse. Then he gives it up as a vain attempt, and leans, the model of despair, against the wall, and wrings his skeleton fingers in agony—when just as a compassionate matron is drawing the strings of her purse, stopping for her charitable purpose in a storm of wind and rain, the voice of the policeman is heard over her shoulder: 'What! you are here at it again, old chap? Well, I'm blowed if I think anything 'll cure you. You'd better put up your pus, marm: if he takes your money, I shall take him to the station-us, that's all. Now, old chap—trot, trot, trot!' And away walks the old impostor, with a show of activity perfectly marvellous for his years, the policeman following close at his heels till he vanishes in the arched entry of a court.

The next specimen is perhaps a 'swell' out at elbows, a seedy and somewhat ragged remnant of a very questionable kind of gentility—a gentility engendered in 'coal-holes' and 'cider-cellars,' in 'shades,' and such-like midnight 'kens'—suckled with brandy and water and port-wine negus, and fed with deviled kidneys and toasted cheese. He has run to the end of his tether, is cleaned out even to the last disposable shred of his once well-stocked wardrobe; and after fifty high-flying and desperate resolves, and twice fifty mean and sneaking devices to victimise those who have the misfortune to be assailable by him, 'to this complexion he has come at last.' He has made a track across the road, rather a slovenly disturbance of the mud than a clearance of it; and having finished his performance in a style to indicate that he is a stranger to the business, being born to better things, he rears himself with front erect and arms a-kimbo, with one foot advanced after the approved statuesque model, and exhibits a face of scornful brass to an unsympathising world, before whom he stands a monument of neglected merit, and whom he doubtless expects to overwhelm with unutterable shame for their abominable treatment of a man and a brother—and a gentleman to boot. This sort of exhibition never lasts long, it being a kind of standing-dish for which the public have very little relish in this practical age. The 'swell' sweeper generally subsides in a week or two, and vanishes from the stage, on which, however ornamental, he is of very little use.

The occasional sweeper is much oftener a poor countryman, who has

wandered to London in search of employment, and, finding nothing else, has spent his last fourpence in the purchase of a besom, with which he hopes to earn a crust. Here his want of experience in town is very much against him. You may know him instantly from the old *habitué* of the streets: he plants himself in the very thick and throng of the most crowded thoroughfare—the rapids, so to speak, of the human current—where he is of no earthly use, but, on the contrary, very much in the way, and where, while everybody wishes him at Jericho, he wonders that nobody gives him a copper; or he undertakes impossible things, such as the sweeping of the whole width of Charing Cross from east to west, between the equestrian statue and Nelson's Pillar, where, if he sweep the whole, he can't collect, and if he collect, he can't sweep, and he breaks his heart and his back too in a fruitless vocation. He picks up experience in time; but he is pretty sure to find a better trade before he has learned to cultivate that of a crossing-sweeper to perfection.—Many of these occasional hands are Hindoos, Lascars, or Orientals of some sort, whose dark skins, contrasted with their white and scarlet drapery, render them conspicuous objects in a crowd; and from this cause they probably derive an extra profit, as they can scarcely be passed by without notice. The sudden promotion of one of this class, who was hailed by the Nepaulese ambassador as he stood, broom in hand, in St Paul's Churchyard, and engaged as dragoman to the embassy, will be in the recollection of the reader. It would be impossible to embrace in our category even a tithe of the various characters who figure in London as occasional sweepers. A broom is the last resort of neglected and unemployed industry, as well as of sudden and unfriended ill-fortune—the sanctuary to which a thousand victims fly from the fiends of want and starvation. The broken-down tradesman, the artisan out of work, the decayed gentleman, the ruined gambler, the starving scholar—each and all we have indubitably seen brooming the muddy ways for the chance of a half-penny or a penny. It is not very long since we were addressed in Water Street, Blackfriars, by a middle-aged man in a garb of seedy black, who handled his broom like one who played upon a strange instrument, and who, wearing the words *pauper et pedester* written on a card stuck in his hat-band, told us, in good colloquial Latin, a tale of such horrifying misery and destitution, that we shrink from recording it here. We must pass on to the next on our list, who is

No. 4, the *Lucus-a-non*, or a sweeper who never sweeps.—This fellow is a vagabond of the first-water, or of the first-mud rather. His stock in trade is an old worn-out broom-stump, which he has shouldered for these seven years past, and with which he has never displaced a pound of soil in the whole period. He abominates work with such a crowning intensity, that the very pretence of it is a torture to him. He is a beggar without a beggar's humbleness; and a thief, moreover, without a thief's hardihood. He crawls lazily about the public ways, and begs under the banner of his broom, which constitutes his protection against the police. He will collect alms at a crossing which he would not cleanse to save himself from starvation; or he will take up a position at one which a morning sweeper has deserted for the day, and glean the sorry remnants of another man's harvest. He is as insensible to shame as to the assaults of the weather; he will watch you picking your way through the mire over which he stands sentinel, and then impudently demand payment for the performance of a function which he never dreams of exercising; or he will stand in your path in the middle of the splashy channel, and pester you with whining supplications, while he kicks the mire over your garments, and bars your passage to the pavement. He is worth nothing, not even the short notice we have taken of him, or the trouble of a whipping, which he ought to get, instead of the coins that he contrives to extract from the heedless generosity of the public.

No. 5 is the *Sunday Sweeper*.—This neat, dapper, and cleanly variety of the genus besom, is usually a young fellow, who, pursuing some humble and ill-paid occupation during the week, ekes out his modest salary by labouring with the broom on the Sunday. He has his regular 'place of worship,' one entrance of which he monopolises every Sabbath morning. Long before the church-going bell rings out the general invitation, he is on the spot, sweeping a series of paths all radiating from the church or chapel door to the different points of the compass. The business he has cut out for himself is no sinecure; he does his work so effectually, that you marvel at the achievement, and doubt if the floor of your dwelling be cleaner. Then he is himself as clean as a new pin, and wears a flower in his button-hole, and a smile on his face, and thanks you so becomingly, and bows so gracefully, that you cannot help wishing him a better office; and of course, to prove the sincerity of your wish, you pay him at a better rate. When the congregation are all met, and the service is commenced, he is religious enough, or knowing enough, to walk stealthily in, and set himself upon the poor bench, where he sits quietly, well behaved and attentive to the end; for which very proper conduct he is pretty

sure to meet an additional reward during the exit of the assembly, as they defile past him at the gate when all is over. In the afternoon, he is off to the immediate precinct of some park or public promenade; and selecting a well-frequented approach to the general rendezvous, will cleanse and purify the crossing or pathway in his own peculiar and elaborate style, vastly to the admiration of the gaily-dressed pedestrians, and it is to be supposed, to his own profit. Besides this really clever and enterprising genius, there is a numerous tribe of a very different description, who must sally forth literally by the thousand every Sunday morning when the weather is fine, and who take possession of every gate, stile, and wicket, throughout the widespread suburban districts of the metropolis in all directions. They are of both sexes and all ages; and go where you will, it is impossible to go through a gate, or get over a stile, without the proffer of their assistance, for which, of course, you are expected to pay, whether you use it or not. Some of these fellows have a truly ruffianly aspect, and waylay you in secluded lanes and narrow pathways; and carrying a broom-stump, which looks marvellously like a bludgeon, no doubt often levy upon the apprehensions of a timorous pedestrian a contribution which his charity would not be so blind as to bestow. The whole of this tribe constitute a monster- nuisance, which ought to be abated by the exertions of the police.

No. 6 are the *deformed, maimed, and crippled sweepers*, of whom there is a considerable number constantly at work, and, to do them justice, they appear by no means the least energetic of the brotherhood. Nature frequently compensates bodily defects by the bestowal of a vigorous temperament. The sweeper of one leg or one arm, or the poor cripple who, but for the support of his broom, would be crawling on all-fours, is as active, industrious, and efficient as the best man on the road; and he takes a pride in the proof of his prowess, surveying his work when it is finished with a complacency too evident to escape notice. He considers, perhaps, that he has an extra claim upon the public on account of the afflictions he has undergone, and we imagine that such claim must be pretty extensively allowed: we know no other mode of accounting for the fact, that now and then one of these supposed maimed or halt performers turns out to be an impostor, who, considering a broken limb, or something tantamount to that, essential to the success of his broom, concocts an impromptu fracture or amputation to serve his purpose. Some few years ago, a lively, sailor-looking fellow appeared as a one-handed sweeper in a genteel square on the Surrey side of the water. The right sleeve of his jacket waved emptily in the wind, but he flourished his left arm so vigorously in the air, and completed the gyration of his weapon, when it stuck fast in the mud, so manfully by the impulse of his right leg, that he became quite a popular favourite, and won '*copper* opinions from all sorts of men,' to say nothing of a shower of sixpences from the ladies in the square. Unfortunately for the continuance of his prosperity, a gentleman intimate with one of his numerous patronesses, while musing in the twilight at an upstairs window, saw the fellow enter his cottage after his day's work, release his right arm from the durance in which it had lain beneath his jacket for ten or twelve hours, and immediately put the power of the long-imprisoned limb to the test by belabouring his wife with it. That same night every tenant in the square was made acquainted with the disguised arm, and the use for which it was reserved, and the ingenious performer was the next morning delivered over to the police. The law, however, allows a man to dispose of his limbs as he chooses; and as the delinquent was never proved to have *said* that he had lost an arm; and as he urged that one arm being enough for the profession he had embraced, he considered he had a right to reserve the other until he had occasion for it—he was allowed to go about his business.

No. 7, and the last in our classification, are the *Female Sweepers*.—It is singular, that among these we rarely if ever meet with young women, properly so called. The calling of a crossing-sweeper, so far as it is carried on by females, is almost entirely divided between children or young girls, and women above the age of forty. The children are a very wandering and fickle race, rarely staying for many weeks together in a single spot. This love of change must militate much against their success, as they lose the advantage of the charitable interest they would excite in persons accustomed to meet them regularly in their walks. They are not, however, generally dependent upon the produce of their own labours for a living, being for the most part the children of parents in extremely low circumstances, who send them forth with a broom to pick up a few halfpence to assist in the daily provision for the family. The older women, on the other hand, of whom there is a pretty stout staff scattered throughout the metropolis, are too much impressed with the importance of adhering constantly to one spot, capriciously to change their position. They would dread to lose a connection they have been many years in forming, and they will even cling to it after it has ceased to be a thoroughfare through the opening of a new route, unless they can discover the direction

their patrons have taken. When a poor old creature, who has braved the rheumatism for thirty years or so, finds she can stand it no longer, we have known her induct a successor into her office by attending her for a fortnight or more, and introducing the new-comer to the friendly regard of her old patrons. The exceptions to these two classes of the old and the very juvenile, will be found to consist mostly of young widows left with the charge of an infant family more or less numerous. Some few of these there are, and they meet with that considerate reception from the public which their distressing cases demand. The spectacle of a young mother, with an infant on one arm muffled up from the driving rain, while she plies a broom single-handed, is one which never appeals in vain to a London public. With a keen eye for imposture, and a general inclination to suspect it, the Londoner has yet compassion, and coin, too, to bestow upon a deserving object. It is these poor widows who, by rearing their orphaned offspring to wield the broom, supplement the ranks of the professional sweepers. They become the heads of sweeping families, who in time leave the maternal wing, and shift for themselves. We might point to one whom we have encountered almost daily for the last ten years. In 1841, she was left a widow with three small children, the eldest under four, and the youngest in arms. Clad in deep mourning, she took up a position at an angular crossing of a square, and was allowed to accommodate the two elder children upon some matting spread upon the steps of a door. With the infant in one arm, she plied her broom with the other, and held out a small white hand for the reception of such charity as the passers-by might choose to bestow. The children grew up strong and hearty, in spite of their exposure to the weather at all seasons. All three of them are at the present moment sweepers in the same line of route, at no great distance from the mother, who, during the whole period, has scarcely abandoned her post for a single day. Ten years' companionship with sun and wind, and frost and rain, have doubled her apparent age, but her figure still shews the outline of gentility, and her face yet wears the aspect and expression of better days. We have frequently met the four returning home together in the deepening twilight, the elder boy carrying the four brooms strapped together on his shoulder.

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The sweeper does better at holiday seasons than at any other time. If he is blessed with a post for a companion, he decks it with a flower or sprig of green, and sweeps a clear stage round it, which is said to be a difficult exploit, though we have never tried it. At Christmas, he expects a double fee from his old patrons, and gets it too, and a substantial slice of plum-pudding from the old lady in the first floor opposite. He decks the entrance to his walk with laurel and holly, in honour of the day, and of his company, who walk under a triumphal arch of green, got up for that occasion only. He is sure of a good collection on that day, and he goes home with his pocket heavy and his heart light, and treats himself to a pot of old ale, warmed over a fire kindled with his old broom, and sipped sparingly to the melody of a good old song about the good old times, when crossing-sweepers grew rich, and bequeathed fortunes to their patrons.

INSECT WINGS.

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Animals possess the power of feeling, and of effecting certain movements, by the exercise of a muscular apparatus with which their bodies are furnished. They are distinguished from the organisations of the vegetable kingdom by the presence of these attributes. Every one is aware, that when the child sees some strange and unknown object he is observing start suddenly into motion, he will exclaim: 'It is alive!' By this exclamation, he means to express his conviction that the object is endowed with *animal* life. Power of voluntary and independent motion and animal organisation are associated together, as inseparable and essentially connected ideas, by even the earliest experience in the economy and ways of nature.

The animal faculty of voluntary motion, in almost every case, confers upon the creature the ability to transfer its body from place to place. In some animals, the weight of the body is sustained by immersion in a fluid as dense as itself. It is then carried about with very little expenditure of effort, either by the waving action of vibratile cilia scattered over its external surface, or by the oar-like movement of certain portions of its frame especially adapted to the purpose. In other animals, the weight of the body rests directly upon the ground, and has, therefore, to be lifted from place to place by more powerful mechanical contrivances.

In the lowest forms of air-living animals, the body rests upon the ground by

numerous points of support; and when it moves, is wriggled along piecemeal, one portion being pushed forward while the rest remains stationary. The mode of progression which the little earthworm adopts, is a familiar illustration of this style of proceeding. In the higher forms of air-living animals, a freer and more commodious kind of movement is provided for. The body itself is raised up from the ground upon pointed columns, which are made to act as levers as well as props. Observe, for instance, the tiger-beetle, as it runs swiftly over the uneven surface of the path in search of its dinner, with its eager antennæ thrust out in advance. Those six long and slender legs that bear up the body of the insect, and still keep advancing in regular alternate order, are steadied and worked by cords laid along on the hollows and grooves of their own substance. While some of them uphold the weight of the superincumbent body, the rest are thrown forwards, as fresh and more advanced points of support on to which it may be pulled. The running of the insect is a very ingenious and beautiful adaptation of the principles of mechanism to the purposes of life.

But in the insect organisation, a still more surprising display of mechanical skill is made. A comparatively heavy body is not only carried rapidly and conveniently along the surface of the ground, it is also raised entirely up from it at pleasure, and transported through lengthened distances, while resting upon nothing but the thin transparent air. From the top of the central piece—technically termed thoracic—of the insect's body, from which the legs descend, two or more membraneous sails arise, which are able to beat the air by repeated strokes, and to make it, consequently, uphold their own weight, as well as that of the burden connected with them. These lifting and sustaining sails are the insect's wings.

The wings of the insect are, however, of a nature altogether different from the apparently analogous organs which the bird uses in flight. The wings of the bird are merely altered fore-legs. Lift up the front extremities of a quadruped, keep them asunder at their origins by bony props, fit them with freer motions and stronger muscles, and cover them with feathers, and they become wings in every essential particular. In the insect, however, the case is altogether different. The wings are not altered legs; they are superadded to the legs. The insect has its fore-legs as well as its wings. The legs all descend from the under surface of the thoracic piece, while the wings arise from its upper surface. As the wings are flapping above during flight, the unchanged legs are dangling below, in full complement. The wings are, therefore, independent and additional organs. They have no relation whatever to limbs, properly so called. But there are some other portions of the animal economy with which they do connect themselves, both by structure and function. The reader will hardly guess what those wing-allied organs are.

There is a little fly, called the May-fly, which usually makes its appearance in the month of August, and which visits the districts watered by the Seine and the Marne in such abundance, that the fishermen of these rivers believe it is showered down from heaven, and accordingly call its living clouds, manna. Reaumur once saw the May-flies descend in this region like thick snow-flakes, and so fast, that the step on which he stood by the river's bank was covered by a layer four inches thick in a few minutes. The insect itself is very beautiful: it has four delicate, yellowish, lace-like wings, freckled with brown spots, and three singular hair-like projections hanging out beyond its tail. It never touches food during its mature life, but leads a short and joyous existence. It dances over the surface of the water for three or four hours, dropping its eggs as it flits, and then disappears for ever. Myriads come forth about the hour of eight in the evening; but by ten or eleven o'clock not a single straggler can be found alive.

From the egg which the parent May-fly drops into the water, a six-legged grub is very soon hatched. This grub proceeds forthwith to excavate for himself a home in the soft bank of the river, below the surface of the water, and there remains for two long years, feeding upon the decaying matters of the mould. During this aquatic residence, the little creature finds it necessary to breathe; and that he may do so comfortably, notwithstanding his habits of seclusion, and his constant immersion in fluid, he pushes out from his shoulders and back a series of delicate little leaf-like plates. A branch of one of the air-tubes of his body enters into each of these plates, and spreads out into its substance. The plates are, in fact, gills—that is, respiratory organs, fitted for breathing beneath the water. The little fellow may be seen to wave them backwards and forwards with incessant motion, as he churns up the fluid, to get out of it the vital air which it contains.

When the grub of the May-fly has completed his two years of probation, he comes out from his subterranean and subaqueous den, and rises to the

surface of the stream. By means of his flapping and then somewhat enlarged gills, he half leaps and half flies to the nearest rush or sedge he can perceive, and clings fast to it by means of his legs. He then, by a clever twist of his little body, splits open his old fishy skin, and slowly draws himself out, head, and body, and legs; and, last of all, from some of those leafy gills he pulls a delicate crumpled-up membrane, which soon dries and expands, and becomes lace-netted and brown-fretted. The membrane which was shut up in the gills of the aquatic creature, was really the rudiment of its now perfected wings.

The wings of the insect are then a sort of external lungs, articulated with the body by means of a movable joint, and made to subserve the purposes of flight. Each wing is formed of a flattened bladder, extended from the general skin of the body. The sides of this bladder are pressed closely together, and would be in absolute contact but for a series of branching rigid tubes that are spread out in the intervening cavity. These tubes are air-vessels; their interiors are lined with elastic, spirally-rolled threads, that serve to keep the channels constantly open; and through these open channels the vital atmosphere rushes with every movement of the membraneous organ. The wing of the May-fly flapping in the air is a respiratory organ, of as much importance to the wellbeing of the creature in its way, as the gill-plate of its grub prototype is when vibrating under the water. But the wing of the insect is not the only respiratory organ: its entire body is one vast respiratory system, of which the wings are offsets. The spirally-lined air-vessels run everywhere, and branch out everywhere. The insect, in fact, circulates air instead of blood. As the prick of the finest needle draws blood from the flesh of the backboned creature, it draws air from the flesh of the insect. Who will longer wonder, then, that the insect is so light? It is aerial in its inner nature. Its arterial system is filled with the ethereal atmosphere, as the more stolid creature's is with heavy blood.

If the reader has ever closely watched a large fly or bee, he will have noticed that it has none of the respiratory movements that are so familiar to him in the bodies of quadrupeds and birds. There is none of that heaving of the chest, and out-and-in movement of the sides, which constitute the visible phenomena of breathing. In the insect's economy, no air enters by the usual inlet of the mouth. It all goes in by means of small air-mouths placed along the sides of the body, and exclusively appropriated to its reception. Squeezing the throat will not choke an insect. In order to do this effectually, the sides of the body, where the air-mouths are, must be smeared with oil.

In the vertebrated animals, the blood is driven through branching tubes to receptacles of air placed within the chest; the air-channels terminate in blood extremities, and the blood-vessels cover these as a net-work. The mechanical act of respiration merely serves to change the air contained within the air-receptacles. In the insects, this entire process is reversed; the air is carried by branching tubes to receptacles of blood scattered throughout the body; the blood-channels terminate in blood-extremities, and a capillary net-work of air-vessels is spread over these. Now, in the vertebrated creature, the chest is merely the grand air-receptacle into which the blood is sent to be aërated; while in the insect, the chest contains but its own proportional share of the great air-system. In the latter case, therefore, there is a great deal of available space, which would have been, under other circumstances, filled with the respiratory apparatus, but is now left free to be otherwise employed. The thoracic cavity of the insect serves as a stowage for the bulky and powerful muscles that are required to give energy to the legs and wings. The portion of the body that is almost exclusively respiratory in other animals, becomes almost as exclusively motor in insects. It holds in its interior the chief portions of the cords by which the moving levers and membranes are worked, and its outer surface is adorned by those levers and membranes themselves. Both the legs and wings of the insect are attached to the thoracic segment of its body.

The extraordinary powers of flight which insects possess are due to the conjoined influences of the two conditions that have been named—the lightness of their air-filled bodies, and the strength of their chest-packed muscles. Where light air is circulated instead of heavy blood, great vascularity serves only to make existence more ethereal. Plethora probably takes the insect nearer to the skies, instead of dragging it towards the dust. The hawk-moth, with its burly body, may often be seen hovering gracefully, on quivering wings, over some favourite flower, as if it were hung there on cords, while it rifles it of its store of accumulated sweets by means of its long unfolded tongue. The common house-fly makes 600 strokes every second in its ordinary flight, and gets through five feet of space by means of them; but when alarmed, it can increase the velocity of its wing-strokes some five or six fold, and move through thirty-five feet in the second. Kirby believed, that if the

house-fly were made equal to the horse in size, and had its muscular power increased in the same proportion, it would be able to traverse the globe with the rapidity of lightning. The dragon-fly often remains on the wing in pursuit of its prey for hours at a stretch, and yet will sometimes baffle the swallow by its speed, although that bird is calculated to be able to move at the rate of a mile in a minute. But the dexterity of this insect is even more surprising than its swiftness, for it is able to do what no bird can: it is able to stop instantaneously in the midst of its most rapid course, and change the direction of its flight, going sideways or backwards, without altering the position of its body.

As a general rule, insect wings that are intended for employment in flight are transparent membranes, with the course of the air-tubes marked out upon them as opaque nervures. These air-tubes, it will be remembered, are lined by spires of dense cartilage; and hence it is that they become nervures so well adapted to act like tent-lines in keeping the expanded membranes stretched. In the dragon-flies, the nervures are minutely netted for the sake of increased strength; in the bees, the nervures are simply parallel. Most insects have two pairs of these transparent membraneous wings; but in such as burrow, one pair is converted into a dense leather-like case, under which the other pair are folded away. In the flies, only one pair of wings can be found at all, the other pair being changed into two little club-shaped bodies, called balancers.

Butterflies and moths are the only insects that fly by means of opaque wings; but in their case the opacity is apparent rather than real, for it is caused by the presence of a very beautiful layer of coloured scales spread evenly over the outer surface of the membranes. When these scales are brushed off, membraneous wings of the ordinary transparent character are disclosed. The scales are attached to the membrane by little stems, like the quill-ends of feathers, and they are arranged in overlapping rows. The variegated colours and patterns of the insects are entirely due to them. If the wings of a butterfly be pressed upon a surface of card-board covered with gum-water to the extent of their own outlines, and be left there until the gum-water is dry, the outer layer of scales may be rubbed off with a handkerchief, and the double membranes and intervening nervures may be picked away piecemeal with a needle's point, and there will remain upon the card a most beautiful representation of the other surface of the wings, its scales being all preserved by the gum in their natural positions. If the outlines of the wings be carefully pencilled first, and the gum-water be then delicately and evenly brushed on, just as far as the outlines, a perfect and durable fac-simile, in all the original variety of colour and marking, is procured, which needs only to have the form of the body sketched in, to make it a very pretty and accurate delineation of the insect.

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RUSTICATION IN A FRENCH VILLAGE.

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Poverty is difficult to bear under any circumstances, but when compelled entirely to alter our habits of life in the same place where we have lived differently, we certainly feel it more acutely than when we at once change the scene, and see around us nothing we can well compare with what is past. It is unnecessary to say by what means *our* easy fortune was reduced to a mere pittance; but, alas! it *was* so, and we found ourselves forced to seek another dwelling-place. Following the example of most of our country-people in a similar situation, therefore, we resolved to go abroad; not, indeed, to enjoy society on an income which would in England totally shut us out from it, but to live in absolute retirement upon next to nothing. A cousin of mine—whose friend, M^{lle} de Flotte, long resident in England, had married a countryman of her own, and settled in Normandy—wrote to M^{me} de Terelcourt accordingly, to ask if there was a habitable hut in her neighbourhood where we might find shelter for three years, before which time we were told the settlement of our affairs could scarcely be completed. The answer was favourable: there was, she said, near the village of Flotte, a cottage which contained a kitchen, three rooms, and a garret where a *bonne* might sleep. A large garden was attached to it full of fruit-trees, though in a most neglected condition, and even the house requiring to be made weather-tight; but as the landlord undertook this latter business, and the rent for the whole was only L.12 a year, we gladly closed with the offer, and at the end of the month of April proceeded to take possession of our new home.

The situation was most lovely. The garden surrounded three sides of the cottage, and a large green field, or rather thinly-planted apple-orchard, the other, where grazed four fine cows belonging to a farm on the opposite side of

the lane, which supplied us with butter, eggs, and milk, and was near enough not to annoy but to gratify our ears with the country sounds so pleasant to those fond of rural things, and to give us the feeling of help at hand in case of any emergency. We were on the slope of a tolerably lofty hill; the high-road was below, where we could see and hear the diligence pass; but saving this, the farm-yard noises, and the birds and bees in the garden, were the only disturbers of our perfect quiet, except, indeed, the soothing sound of a small brook tinkling over a tiny waterfall, quite audible, although a good way on the other side of the *grande route*. The town of C— was seen to our right, the sea glittering beyond; and a rocky, shrubby dell, through which the little stream above mentioned murmured merrily on its way, turning a rustic mill, was the prospect from the windows. Two lime-trees stood at the gate, inside of which we joyfully discovered an unexpected lodge or cottage, containing two little rooms and a large shed, which had not been mentioned in the description, and which we found most useful for stowing away packing-cases, hampers, and boxes, keeping potatoes and apples, and a hundred things besides. The short road—avenue, our landlord termed it—which led from this to the house, had a strawberry-bank on one side, a row of cherry-trees on the other; and the garden, although overgrown with weeds and sprawling shrubs, looked quite capable of being easily made very pretty indeed. The entrance to this our magnificent *château* was through the kitchen only; for the room next it, although it could boast of an outside-door likewise, had none which opened into the interior of the house, was neither lathed nor plastered, and the bare earth was all there was to tread upon. Upstairs the flooring consisted merely of planks laid down; and you could hear when below the pins dropped from above, unless, indeed, they fell, as they generally did, into the large crevices. The *bonne's mansarde* was but a garret, where, till you got into the very middle, you could not stand upright; and although the tiled roof had been just painted and repaired, the breath of heaven came wooingly in every direction, even through the thick-leaved vines which covered it, closely trained up there, to make room for the apricots that grew against the wall below. Close by, a little stair led you out upon a terrace, where a road, bordered by peach-trees and backed by plums, gave a dry walk in all weathers; but you could go higher, higher, and higher still, terrace after terrace, till it terminated in a rock covered with briars and brambles—the fruit of which latter were as large and as good as mulberries. This we called our garden-wall, and it had a sunny seat commanding an extensive view, and from which all we saw was beautiful. How often have I sat there dreaming, lulled by the murmur of the insect world around, till the merry fife of a band of conscripts on their march, or the distant boom of a cannon from the forts, restored me to a consciousness that I was still at least *in* the world, although not *of* it.

But now I am going to descend to figures, and can assure my incredulous English readers, that what I relate is strictly true—*vraie*, although not *vraisemblable*. We hired a stout girl to weed and wash, without food, at 2½ d. a day; and another for L.5 per annum undertook to be our sole servant—to clean, and cook, and dress madame, only stipulating that she was to have *soupe à la graisse* and brown bread à *discretion* three times a day, two sous for cider, her aprons, and washing; but hoped if she gave satisfaction, that sometimes upon Sunday she might be allowed a bit of meat: on Fridays an egg and an apple contented her, and an occasional fish made her shout with joy. An old soldier, who had returned to his primitive employment of gardener, and lived near, undertook to dig, prune, and plant in the garden for a franc a day, during the time we ourselves were engaged with the inside of our mansion, and to come afterwards at 2d. an hour when we wanted him, either to go to C— for marketing, or to do anything else we required, for the hamlet of Flotte did not possess many shops. At this hamlet, however, we obtained bread and a variety of small articles on very moderate terms.

Having hired the requisite furniture, and papered the walls of our apartments, the humble tenement looked clean and comfortable. To get all into order, we both worked hard, and very soon could sit down by 'our own fireside' in a quiet, cheerful house, almost the work of our own hands, and therefore every creek and cranny in it full of interest. M^{me} de Terelcourt, with refined politeness, did not attempt to visit us herself until she understood we could receive her *sans gêne*; but she sent fruit and vegetables, and kind messages constantly, and at last a note intimating that she would, if convenient, call upon us after church next day. Strawberries and cream, butter, eggs, fresh bread, and the commonest *vin ordinaire*, were easily procured, of which our guest ate heartily, saying she would bring the rest of the family next day to partake of a similar feast. They came accordingly, and with them a cart loaded with shrubs, plants, flowers, and a whole hive of honeycomb, and various little comforts besides, pretending that they were thankful to us for receiving their superabundance, instead of obliging them to throw it away. This hospitable, unaffected kindness continued unabated the whole time of our stay, and the

kind beings always contrived to make out that they were the obliged persons, and we so polite and condescending for deigning to receive such trifles. M. and M^{me} de Terelcourt lived with M. le Marquis de Flotte and his wife; and her brother, the Count de Belgravin, occupied a house a quarter of a mile distant, which, although by no means a comfortable residence, he rented purposely to be near his sister. These amiable people spent a part of every day together, for they did not associate much with the inhabitants of C—; and I look back with much pleasure to our social evenings, when light-hearted merriment constantly prevailed; and I often thought how few of the many who talk so gravely of patience and resignation to the will of God, could or would understand that cheerfulness is, in fact, but a different way of shewing that resignation.

Our maid, Batilde, knew nothing about the *cuisine* beyond a good *roux* and a bad omelet; and except making a bed, appeared ignorant of all housework—even washing, dusting, or sweeping thoroughly. She, however, did everything we did not do for ourselves, and ironed the linen after a fashion. Tonette washed for us in the little river aforesaid, where she used an incredible quantity of soap, thumping our things with a piece of flat wood upon a great stone, most conveniently, as she observed, placed there for the purpose 'by the saints in heaven;' which method, if it hastened its wearing out, made our linen at least sweet and clean while it lasted. My husband shot and cultivated the garden in the respective seasons appropriate to these occupations, whilst I bought a cookery-book called 'Les Expériences de Mademoiselle Marguerite;' and pretending to be learning myself, taught Batilde to prepare our food a little better, without hurting her self-conceit, of which she possessed more than the average of her countrywomen. Our time, therefore, was fully occupied. Our health improved and our spirits rose with the excitement; we had agreeable society in the excellent people named above, meeting *sans façon*, taking breakfast or luncheon with each other, instead of dinners, in winter, and in summer often spending the evening at one another's houses.

At a distance not insurmountable there was an English chapel; but the character of the clergyman was not of a kind to recommend itself to persons who had some regard for the decencies of life; and so we contented ourselves with saying our prayers at home. The old curé of the place, with whom we became slightly acquainted, seemed to be a worthy sort of man, liberal in his ideas, and possessed of a considerable taste for music. He made rather an agreeable and obliging neighbour.

Talking of curés, I may mention that one came from a distance of several miles to pay his respects to us, and offer welcome to France. He said, he desired to make our acquaintance because we came from England, where he had found 'rest for twenty years, and received much kindness.' He was a rich man, had a pretty little church, a picturesque house in a sort of park, which he had stocked with pigs instead of sheep; and every day that was not one of fasting or abstinence, he had pork for dinner. He took a great fancy to us, and wanted us to give up our cottage, and come and live with him, as he had plenty of room and desired society; but we declined. Had we done so, I doubt not that he would have left us his money, for he had no relations, and bequeathed the whole, for want of an heir, to his grocer. He grew cooler after our refusal, but still sometimes came to see us on a pot-bellied cart-horse—a most stolid-looking beast, but one which often took most laughably strange fits of friskiness. Once I saw the good curé's watch jump out of his pocket, fly over his head, and disappear amid a heap of nettles, where little Victor found it, and hoped for a rich reward; but he only received an old book of devotion, and a lecture on the duty of reading it.

I must relate a little adventure which might have been written fifty years ago, when it would have obtained more credence than it will in the present day, from those travellers at least who have kept to the highways, and those residents who have lived only in the towns of France. One morning Batilde asked permission to visit a friend who had come to spend a day with her sister at C—. 'They breed poultry; and as madame likes a goose as soon as the fête of St Michel comes, it would be worth her while to desire Mère Talbot to feed one up against that time. They live a good way off,' pursued she, 'in a poor hamlet called Les Briares. It would be almost worth madame's while to go there some day, for it is such a primitive place, and they are such primitive people.' I liked the idea, and begged Mère Talbot might be told that I would come and look out my goose for myself the following week.

A fine Thursday morning dawned; and as early as we could get coffee made and taken, Batilde and I set out on our expedition, each, after the fashion of the canton, seated on a donkey, our feet in one pannier and a large stone to

balance in the other. I took as an offering to the hope and heir of the Talbots a toy much like what we in England call Jack-in-a-box, but in France is termed a *Diable*, as it is intended to represent his Satanic majesty, and alarm the lifter of the lid by popping up a black visage. The rough roads shaded by high hedges, white and pink with hawthorn, and the wild apple-tree blossom, and redolent of early honeysuckle, reminded me of the secluded parts of England; while Scotland presented itself to my mind when we left these lanes and crossed still, rushy brooks, or dashing tiny torrents, climbed heather braes, pursuing the yellow-hammer and large mountain-bees as they flew on to the furze and broom-bushes, filling the air with their cheerful music; or when, again, we descended to birch-shaded hollows, refreshing ourselves from clear little spring-wells, that sparkled over white pebbles at the foot of a gray rock tufted over with blaeberry and foxglove leaves. The poor thing chatted away like a child, inspired by the pure air, bracing, yet mild, and lost herself amongst recollections of her country home, talking of buttercups, hedge-sparrows' eggs, and *demoiselles* or dragon-flies.

Several happy hours we spent *en route*; and at last, on turning down from a hilly road, we saw on a flat brown plain a collection of low cottages. The nearer we approached, the more Scotch everything appeared; in some cases I even saw my dear native 'middens afore the door:' the aspect of the houses and looks of the old women especially, with their stoups and country caps—so very like mutches—striped petticoats and short-gowns, brought northern climes before me vividly; and the children stared and shouted like true Scots callants. The very accent was so Scotch that I felt as though I was doing something altogether ridiculous in talking French.

Upon entering Mère Talbot's house, the resemblance became more real. The flags stuck here and there in the earthen floor, the form of the chairs and tables, the press-beds, large red-checked linen curtains, the 'rock and its wee pickle tow,' the reel, the bowls on the shelves—each and all recalled my native country; and I positively should have ended by believing myself there in a dream, if not in reality, had not a glance at the fireplace undeceived me: there was no fire—all was dim, dusky, and dark; no glowing embers and cheerful pipe-clayed hearth, but iron dogs and wood-ashes where blazing coals should be. Even here, however, I could not but think of 'Caledonia stern and wild,' for there stood a real Carron 'three-leggit pat,' to which my very heart warmed. I was asked to sit down; and soon the news spread that *une Anglaise* was to be seen at Mère Talbot's, and people glanced by the window, peeped in at the door, and came to speak upon one pretence or other, as if it was not an everyday sight. By and by a girl and man—whose names from their appearance might have been Jenny and Sawnie—arrived for their dinner—consisting of brown bread, an apple, and cider, which they discussed on their knees—not sitting down at the table—and when finished, returned to their field-labour without speaking. The little boy, meanwhile, had disappeared with his toy-box, which greatly delighted him, and elevated him for the nonce above his fellows; for he was the undisputed possessor of a curiosity imported from England itself, over the sea, by the very lady who was to be seen at his grandmother's house eating pancakes.

The fire was lighted; it crackled and blazed in two minutes; a stand was placed over it, upon which they put what they called a *tuile*; eggs, flour, and milk were mixed, and a bit of butter, the size of a bean in the first instance, of a pea afterwards—*c'est de rigueur*, to hinder every fresh *crêpe* thrown in from burning. Most capital pancakes they were; thin, crisp, hot, and sweet; and the kind people pressed them upon me so hospitably, that I ate till I felt I really could eat no longer, and was glad to finish with a draught of sour cider. I bought seven geese, to be brought to me one at a time, as *fat as caterpillars*, for two francs ten sous each. Mère Talbot was content with her bargain, and so was I with mine. When I rose to take leave, I was reminded again of Scotland, for a large parcel of cakes was put into the off-pannier; and as I should have mortally offended the kind creatures by refusing their gift, I carried them home, toasted them on a fork, and found it made them eat quite as crisp and good as at first. This sketch may appear perhaps very odd to be taken from nature so late as the year 1840, but I can assure my readers it is 'no less strange than true.'

All the summer we wandered about the woods and fields of Flotte, making little excursions in the neighbourhood, and sedulously avoiding the town; but after we had made ourselves acquainted with every beech-shaded hollow, every little fig-forest, every apple-orchard, climbed every broomy knowe, gathered heather from the highest rock and mushrooms from the oldest pasture, we turned our steps sometimes towards C— in search of variety. There, every Thursday, the military band of the 44th Regiment played in the alley of the mountain-ash, and there all the dames and *demoiselles* assembled,

dressed in a wonderfully neat way. We asked how these women, who were mostly in humble circumstances, were enabled to dress so finely. Batilde explained the phenomenon.

'Ah! they have infinite merit,' responded the Frenchwoman; 'two of them, whom I chance to know, in order to be enabled to do so, live on eggs and bread, in one room, where they sit, eat, and sleep, nay, sometimes cook; and they have their just reward, for they are universally admired and respected.'

This is a pretty fair specimen of the effort made by Frenchwomen of the humbler orders to maintain a tasteful exterior. To make themselves neat is a principle; and they seem to have an inherent perception of what constitutes taste. They may sometimes go too far in this direction, and think more of dress and ornaments than they should do. One can at least say, that they are on the safe side. Better to love outward show, than, as is often visible in Scotland, have no regard for appearances. Better cleanliness on any terms than utter slovenliness. I really must say, we saw some most creditable efforts in France to maintain self-respect, among the female population.

About this time, an old gentleman, who was distantly related to us, died—without having, however, an idea of the extent of our poverty—leaving my husband L.50 for a ring. Here was riches—unexpected riches! and I verily believe few who succeed to L.50,000 ever felt more or as much rapture as we did; and we spent an evening very happily settling how we should employ the money. In the first place, we hired a good servant for L.8! and dismissed Batilde; we then, by paying half, induced the landlord to lath, plaster, paper, and paint the large lumber-room, and open a door of communication into the passage, by which we avoided entering through the kitchen. Our late sitting-room we dined in, and made the dining-room a dressing-room; got several small comforts besides; and though last not least, hired an old piano; and every evening enjoyed music in a degree none but real lovers of that delightful art, long deprived of it, can have the slightest conception of—and all this happiness and comfort for L.50! Think of that, ye ladies who give as much for a gown!

Our new servant, Olive, was as clean, orderly, and active as our late one had been the reverse. The difference it made in our comfort was as great as if we had had our former establishment restored, and really our *bonne* was a host within herself. The house was always clean, but we never saw her cleaning: she went to market, baked all our bread, yet never seemed oppressed with work: her cookery was capital; she made excellent dishes out of what Batilde would have wasted: went to mass every morning, and was back in time to prepare everything for our breakfast. After staying a month, she begged permission to leave the cockloft and bring her 'effects' to the gate-house, which we willingly permitted; and her wardrobe was worth a journey to see, when we remembered that her wages had never been quite L.8 until she came to us, and her age only thirty. I shall give the list I copied, hoping some of our English Betties may read and profit by her example: twenty-four good strong linen shifts, made and marked neatly by herself; two dozen worsted and thread stockings, knit by herself; twelve pocket-handkerchiefs; six stout petticoats; four flannel do.; six pair of shoes; eight caps; eight neck-frills; umbrella; prayer-book; gold earrings and cross—which two last, with a beautiful lace-cap, she inherited, but everything else was of her *own earning*. She bought a wardrobe and bedstead, and was by degrees getting furniture; and as I exacted no sewing, every leisure moment she was spinning her future sheets. With all this she was also very kind to a married sister, who had a large family; but she wore no flowers, flounces, nor finery; her six gowns were of a stuff the Scotch call linsey-woolsey; and so in sixteen years' services she had amassed what I have just described. Why can't our girls do as much where wages are higher and clothes cheaper?

We spent three years in this happy solitude, and felt almost sorry when an unexpected legacy, and the settlement of our affairs together, enabled us to return to all the comforts and many of the luxuries of life. It gives me much pleasure to record the many kindnesses we received from all ranks of people. Upon one occasion we were forced to ask the butcher to wait three months longer for his bill: he not only consented, but his wife insisted upon lending us money, and was quite cross when we gratefully declined her kindness. Near the time of our departure, as we were paying a large account, the shopkeeper said: 'At this time you must have many calls upon you; transmit me the amount from England, for I can afford to wait.' Another of our tradesmen, a shoemaker, was a most singular character—a great physiognomist, and would not serve those he did not like. A dashing English family wished to employ him, but he fought shy, and made himself so disagreeable that they went to another: he told me this before his wife, who seemed annoyed at his conduct.

He explained that he did not like their appearance, and was sure they would not pay for what they had. He was right; they left the place in debt to his *confrère* and everybody else. I rejoice in this opportunity of assuring my countrymen that there is as much true kindness to be met with in France as in England, and the selfishness we complain of in our neighbours on the other side of the Channel, is often but a preconceived fancy, or induced by our own cold behaviour. The above true sketch shews at least that *we* met with substantial kindness, and I hope it also proves that we are sensible of it.

PHANTOMS OF THE FAR EAST.

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The form assumed by superstition in India is not very different from the European type, otherwise than in a certain exaggeration, impressed on it, no doubt, by the grotesque grandeur of the mythology. Witchcraft is pretty nearly the same in both regions—the old women being the chief professors of the art; but in many districts of the former country, the evil power is bestowed upon *every* old woman without exception. Girls will not marry into a family without a witch, for how could their infants be protected from the spells of the other old women? It is dangerous to jostle an old woman on the street, however accidentally, lest she take vengeance on the spot. A man came into this unpleasant contact while he was walking along, carelessly chewing a piece of sugar-cane; and hearing the muttered objurgations of the hag, as he turned round to apologise, he was not surprised to find the juice of the cane turned into blood. The spectators, likewise, recognised the metamorphosis as soon as it was pointed out to them; and when the terrified victim instantly leaped on his horse, and put ten or twelve miles between him and the sorceress before drawing bridle, he was believed to have saved his life by this dispatch.

The operations of the men-sorcerers are less spontaneous and more scientific. They set about their work in a business-like way; and within sight of the house of their intended victim the mystic caldron begins to boil and bubble. The victim, however, is not to be terrified out of his senses. What are his enemy's fires and incantations to him? He will only just take no notice, and continue to live on as if there was not a sorcerer in the world. But that smoke: it meets his eye the first object every morning. That ruddy glare: it is the last thing he sees at night. That measured but inarticulate sound: it is never out of his ear. His thoughts dwell on the mystical business. He is preoccupied even in company. He wonders what they are now putting into the pot; and whether it has any connection with the spasm that has just shot through him. He becomes nervous; he feels unwell; he cannot sleep for thinking; he cannot eat for that horrid broth that bubbles for ever in his mind. He gets worse, and worse, and worse. He dies!

But this empire of the imagination is beaten hollow in Java, where it is supposed that a housebreaker, by throwing a handful of earth upon the beds of the inmates, completely incapacitates them from moving to save their property. And this is no mere speculative belief, but an actual *fact*. The man who is to be robbed, on feeling the earth fall upon him, lies as motionless as if he was bound hand and foot. He is under a spell; a spell which, in our own country, even knowledge and refinement have power only to modify.

In England, there is a large class of persons who believe that a certain pill is able to cure all diseases, however opposite their natures, and however different the constitutions of the patients. It is in vain the analytical chemist describes publicly the component parts and real qualities of the quack medicine—their faith is unshaken. In India, this low and paltry credulity acquires a character of the poetical; for there the popular confidence reposes—not more irrationally—on the prayers and incantations of the practitioner. But this sort of practice, in the wilder parts of the country, renders the medical profession somewhat unsafe to its professors; for the doctor is looked upon as a wizard, with *power* to cure or kill as he chooses. In such places—the jungly districts—there are diseases of the liver and spleen, to which the children, more especially, are subject; and when so affected, the patient pines away and dies without any external token of disease. This result is, of course, attributed to supernatural means; and if there is not an old woman at hand obnoxious to suspicion, the doctor is set down as the murderer. 'I have in these territories,' says Colonel Sleeman, 'known a great many instances of medical practitioners being put to death for not curing young people for whom they were required to prescribe. Several cases have come before me as a magistrate, in which the father has stood over the doctor with a drawn sword, by the side of the bed of his child, and cut him down, and killed him

the moment the child died, as he had sworn to do when he found the patient sinking under his prescriptions.'

Another superstition of the country, originating no doubt in local circumstances, found its way into Europe, where no such circumstances existed. In India, a man suddenly vanishes. His family, perhaps, are expecting him at home, but from that moment he is never more heard of. He has been destroyed in the jungle by a tiger, and his remains so completely devoured by other animals, that there is scarcely a relic of his body left to give assurance of a man, far less as a proof of his identity. These mysterious disappearances, however, are connected with their real cause; and men are believed to be frequently metamorphosed—sometimes voluntarily, sometimes involuntarily—into tigers. The voluntary transformation is effected merely by eating a certain root, whereupon the man is instantly changed into a tiger; and when tired of his new character, he has only to eat another, when, *presto!* he subsides from a tiger into a man. But occasionally mistakes happen. An individual of an inquiring disposition once felt a strong curiosity to know what were the sensations attendant on such a transformation; but being a prudent person, he set about the experiment with all necessary precaution. Having provided himself with

—the insane root
That takes the reason prisoner,

he gave one likewise to his wife, desiring her to stand by and watch the event, and as soon as she saw him fairly turned into a tiger, to thrust it into his mouth. The wife promised, but her nerves were not equal to the performance. As soon as she saw her husband fixed in his new form, she took to flight—carrying in her hand, in the confusion of her mind, the root that would have restored him to her faithful arms! And so it befell that the poor man-tiger was obliged to take to the woods, where for many a day he dined on his old neighbours of the village, till he was at length shot, and *recognised!* In this superstition will be seen the prototype of the wolf-mania of mediæval Europe. In Brittany, men betook themselves to the forests in the shape of wolves, out of a morbid passion for the amusement of howling and ravening; but if they left in some secure place the clothes they had thrown off to prepare for the metamorphosis, they had only to reassume them in order to regain their natural forms. But sometimes a catastrophe like the above occurred: the wife discovered the hidden clothes, and carrying them home in the innocent carefulness of her heart, the poor husband lived and died a wolf.

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The Hindoos, like other ancient peoples, predict good or evil fortune from certain phenomena of nature; but one instance of this has been described to us in a communication from our Old Indian, which far excels in the poetical the finest fancies of the Greeks. We cannot undertake to say that the thing is new, although we ourselves never heard of it before; but as the knowledge of it was imparted to her by her moonshee as a profound secret, we present it as such to our readers, recommending them to make the experiment for themselves. At the initiation of our informant, she was about to undertake a distant journey, and the old moonshee was anxious to consult the fates as to the fortunes that might be in store for his beloved mistress. He, accordingly, prevailed upon her to walk forth one night from the veranda, and with many quaint expressions of respect and anxiety, besought her to follow his directions with an attentive mind, abstracted as much as possible from the common thoughts of life.

It was a clear, calm night; the moon was full, and not the faintest speck in the sky disturbed her reign. The Ganges was like a flood of silver light, hastening on in charmed silence; while on the green smooth sward on which they walked, a tall shrub, here and there, stood erect and motionless. The young lady, whose impressions were probably deepened by the mystical words of the moonshee, felt a kind of awe stealing over her: she looked round upon the accustomed scene, as if in some new and strange world; and when the old man motioned her to stop, as they reached an open space on the sward, she obeyed with an indescribable thrill.

'Look there,' said he, pointing to her shadow, which fell tall and dark upon the grass. 'Do you see it?'

'Yes,' said she faintly, yet beginning to be ashamed. 'How sharply defined are its edges! It looks like something you could touch.'

'But look longer—look better—look steadfastly. Is it still so definite?'

'A kind of halo begins to gather round it: my eyes dazzle'—

'Then raise them to the heavens; fix them on yonder blue sky. What do you see?'

'I see it still! But it is as white as mist, and of a gigantic size.'

'Has it a head?' asked the moonshee in an anxious whisper.

'Yes; it is complete in all its parts: but now it melts—floats—disappears.'

'Thank God!' said the old man: 'your journey shall be prosperous—such is the will of Heaven!' The experiment was tried on many other occasions by the young lady, and always with similar success, although never without a certain degree of trepidation, even after she had learned that the spectral appearance in the heavens was nothing more than the picture retained on the retina of the eye. She never saw the phantom without a head, which accounts for her being alive to this day; or even wanting a limb, although she has not been without her share of the trials of the world. It can easily be conceived, however, that certain conditions of the atmosphere may produce these phenomena, which are regarded by the Hindoo seer as sure tokens of death or disaster.

This superstition is not more unreasonable than the mistakes of our early travellers, who were accustomed to attribute a meaning to the phenomena of nature, of which more accurate knowledge has entirely stripped them. But the notions of the Hindoo are always peculiar—his fancy, even in its wildest excursions, is bounded by the circle of his mythology. When our Old Indian's wanderings led her to Pinang, in the Straits of Malacca, she found a Hindoo convict there, trembling even in his chains as his fancy connected the wonders of the place with the dogmas in which he had been reared. This most beautiful island, as our readers may remember, came into the possession of an Englishman in the latter part of last century in rather a romantic way—forming the dowry of a native princess, the daughter of the king of Quedah, whom he married. Captain Light transferred it to the East India Company, who were not slow in discovering the advantages of its fine harbour, rich soil, and salubrious climate. Its inhabitants at that time were a few fishermen on the coast; and the interior was covered with an almost impervious forest; but now there is a population of Europeans and Americans, and Asiatics of almost all countries; and plantations of sugar, coffee, pepper, and other intertropical produce. Among the inhabitants are invalids, who proceed thither from continental India for the restoration of their health; and convicts, who are compelled to compensate by their labour the injuries they have inflicted on society.

The man alluded to belonged to the latter class, having probably travelled for his country's good from the tamer lowlands of Bengal; and when the traveller asked him how he liked the region, he expressed the utmost awe, united with the bitterest condemnation of the Europeans, for desecrating by their roads and other works a place so obviously the abode of deutas and spirits. He said, that when they had begun to carry the up-hill road through these primeval forests, they were warned of their impiety by the voices of the gods themselves, in bursts of unearthly music, blasts of the trumpet, and the clash of cymbals and gongs.

'The first tree we struck with the axe,' added he with a shudder, 'ran milk; and the second, blood!' Of these two substances, the former is still more ominous in the Brahminical faith than the latter, for everything connected with the cow is sacred and mysterious.

'Well,' said the inquirer, 'what happened—since in spite of these omens you persisted in your task? Did the gods take vengeance?'

'Yes,' said he solemnly; 'but *we* were only instruments, like the axes in our hands; and the vengeance, therefore, fell upon the prime mover. The governor'—coming close up to the lady, and putting his mouth to her ear—'the governor died!' Now, all this was true—music, milk, blood, and death; and yet none of these was more the work of supernatural agency than any of the common circumstances of life.

The supposed unearthly sounds proceed neither from birds nor men, and the effect is either pleasing or awful, according to the mood of the listener. Some, in such circumstances, instead of receiving impressions of awe, like the Hindoo convict, would exclaim:

Where should this music be—i' the air, or the earth?
It sounds no more: and sure it waits upon
Some god of the island.

And again:

—The isle is full of noises,
Sounds, and sweet airs, that give delight and hurt not.
Sometimes a thousand twangling instruments
Will hum about mine ears; and sometimes voices,
That, if I then had waked after long sleep,
Will make me sleep again.

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One would think Shakspeare had actually been in some tropical forest when the daylight began to fade, and the myriads of insects to take up their evening-song! One of these extraordinary musicians is distinguished as the trumpeter; another produces a tinkle like a bell; and a third gives forth a sound which the imagination may ascribe to any instrument, or band of instruments, it pleases. This species of cricket buries himself in a centre, to which converge seven holes, which he has drilled in a circle; and from these seven tubes a sound rushes forth, which almost stuns the passer-by. It may be conceived, therefore, that a forest peopled with myriads upon myriads of such 'executants,' must have a strain for every ear, every mood, and every conscience.

The tree which welled forth milk when struck by the axe was the *Ficus elastica*—a sort of gigantic vine, as thick as a man's arm, which creeps along the ground, sending forth new roots from the joint, and, climbing at length some lofty tree, expands in branches. This is the chief caoutchouc-plant, and its sap has not only the colour, but many of the chemical properties of animal milk, and is frequently drunk as food. The blood came from one of the *eucalypta*, popularly called the blue gum-tree. The governor did die soon after his arrival on the island, and no doubt *immediately* after he had disturbed, in the manner related, the *genius loci*.

Pinang contains about 160 square miles of surface, nearly the whole of which is laid out in hills and dales, the loftiest of the former reaching a height of 2500 feet above the sea-level. On the slopes of this hill are built the governor's rural residence, and a bungalow, where invalids resort for country air. It is possible that great changes may have taken place here of late years, when efforts have been made to dot the island with sugar-plantations; but at the time we speak of, this was a solitary spot, behind which dark forests stretched upwards to the summit. Among these forests, on the shoulder of the hill, there occurs an optical phenomenon, not unknown in Europe, which is here an object of superstitious terror to the natives.

The first European who observed it was a gentleman who, taking advantage of the coolness of the hour, had strolled away in the early morning from the inhabited district, and was skirting round a deep valley, dotted at the bottom, and overhung at the sides with lofty trees. The beams of the sun had already begun to acquire some power, although his disk was scarcely yet above the horizon; and the traveller watched with interest the effect of the dawning light upon a sea of vapour which nearly filled the valley. This slowly-moving cloud, as it was acted upon by the sun, swelled higher and higher, and became whiter and whiter, till it finally settled, filling the whole valley with a substance that looked like alabaster, in the midst of which the topmost branches of the tall trees hung motionless. The scene was strangely beautiful; and the spectator, who was screened from the now risen sun by a belt of forest, lingered for awhile to contemplate it. When at length he resumed his walk, and, emerging from the trees, found himself in the full blaze of the rising sun, he turned once more to observe the effect on the vapour; and a cry of wonder which arose to his lips was only repressed by a feeling of awe, as he saw upon that alabaster surface a dark human figure of gigantic dimensions, surrounded by a halo that seemed formed of the rainbow. A confused rush of associations half acquainted him at the moment with the nature of the phenomenon; but giving way to the feeling of poetical delight, he clasped his hands above his head in admiration—a movement which the Phantom of the Alabaster Valley instantaneously imitated! It was indeed his own shadow—and a shadow he was not to recall, even when he turned away to journey homewards. There, in that lonely place, it seemed to him to remain for ever—a link connecting him with the spirit of nature, and ever and anon drawing him back into her domain from the meanness, and folly, and wickedness of the world.

DECIMAL SYSTEM OF WEIGHTS AND MEASURES.

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The state of our national weights and measures has been a fertile subject of legislative enactment ever since the signing of the Magna Charta, which proclaims that 'there shall be one weight and one measure.' 'We will and establish,' said an act of Edward III. nearly 500 years ago, 'that one weight, one measure, and one yard, be used throughout the land.' Act has followed act from that time to this, and still we have not only different weights and measures for different commodities, but for the same in different parts of the realm. An ounce means one thing to the grocer, another to the apothecary. A stone is 8 pounds to the London butcher or fishmonger, 14 to the provincial; 5 pounds to the dealer in glass, 16 to the cheesemonger, and 32 to the dealer in hemp. The corn-trade exhibits still greater varieties. Prices are quoted in official circulars in every fashion, from the Mark-Lane quarter to the Scotch boll, the firloft, the load (which may be of various dimensions), the coomb, the last, the barrel (which also may be various), the ton, the hundredweight, and the pound. We have seen an extract from an actual account-sales, by which it appeared, that at the same port the merchant had sold a cargo of foreign wheat by five different bushels according to the customs of the buyers. In paying the duty, these various bushels had to be converted into imperial quarters, and in calculating tonnage and other dues, it was necessary to reduce all to tons! Here is surely a source of endless confusion, if not an opening for fraud. Our legislature has gone on from century to century, mending or mutilating the statutes as the case might be, but laying down no principles scientific enough to command the approval of the educated, or simple enough to prevail over the established usages of the commonalty.

Our neighbours in France, who are particularly fond of framing theories and experimenting on them for the edification of other nations, availed themselves of the general upturning of affairs in 1789, to introduce a universal decimal system, to be applied to everything whatever that could be counted, weighed, or measured. They started from the measurement of the globe itself, and took as the basis of their whole system the ten-millionth part of a quadrant of a meridian, equal to 39-371/1000 inches English. This they called a *mètre* (measure), and to it, as a unit, they prefixed the Greek numerals to express increase in the decimal ratio; thus *decamètres*, tens of meters; *hectamètres*, hundreds of meters; and so on. To express diminution in the decimal ratio, they used the Latin numerals; thus, *decimètres*, tenths of meters; *centimètres*, hundredths of meters; *milliamètres*, thousandths of meters. The unit adopted for square measure was the *are*, equal to 100 square meters; for solid measure, the *stère*, equal to one cubic meter; and for measure of capacity, the *litre*, a cubic decimeter. The weights were derived from these measures; the *gramme* being the weight of one cubic centimeter of distilled water. The system of decimal gradation was applied to all of these; that is, each denomination represented a tenth part of the one above it, and ten times as much as the one next below it, the Latin and Greek numerals being prefixed as we have already described with reference to the meter. In conformity with this decimal law, the quadrant was divided, for astronomical purposes, into 100 degrees instead of 90; and the thermometer likewise into 100 degrees from the boiling to the freezing point. At the same time, a system of reckoning money by tens was introduced; and it must be owned, that the whole system of computation in weights, measures, and money established in France at this period, is one of the greatest triumphs of civilisation. In ordinary transactions, old denominations of money are still used by the French; the *sous*, in particular, being apparently ineradicable. But in book-keeping, the furnishing of accounts, and in literature, the modern and legal standards are invariably adhered to.

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About thirty years ago, the Americans took it into serious consideration whether they should adopt the ready-made scale of France entire. On that occasion (1821), Mr John Quincy Adams produced a most elaborate report to Congress, containing an immense amount of information on the subject of metrology. He found great fault with the French nomenclature, so puzzling to the unlearned. 'Give the people,' said he, 'but their accustomed *words*, and they will call 16 a dozen; 120, 112, or any other number, a hundred.' He disapproved, likewise, of thrusting the decimal principle upon things incompatible with it. 'Decimal arithmetic,' said he, 'is a contrivance of man for computing numbers, and not a property of time, space, or matter. It belongs essentially to the keeping of accounts, but is merely an incident to the transactions of trade. Nature has no partiality for the number 10; and the attempt to shackle her freedom with them [decimal gradations], will for ever prove abortive.' And again: 'To the mensuration of the surface and the solid, the number 10 is of little more use than any other. If decimal arithmetic is incompetent to give the dimensions of most artificial forms, the square and the cube, still more incompetent is it to give the circumference, the area, and the contents of the circle and the sphere.' And once more: 'The new metrology of France, after trying the principle of decimal division in its almost universal

application, has been compelled to renounce it for all the measures of astronomy, geography, navigation, time, the circle, and the sphere; to modify it even for superficial and cubical linear measure.' The conclusion of the Americans was, that it was better to continue the use of the system of weights and measures inherited from the father-land. Partly on account of our intimate commercial relations with them, they are content to wait, and allow us to take the lead in the work of reform.

Taking our stand on the ground of mere practical utility, according to the views suggested, we do not advocate any interference with the foot, the rood, the acre, the mile, which would lead to the removal of old landmarks, and would render almost every chart and map and book in the country obsolete. But we suggest that the time has arrived when our national weights and measures may be finally adjusted on simple and scientific principles. Within the last thirty years, a principle that goes far towards clearing our way has been laid down, and in part carried into practice. By an act of the British legislature, which came into operation on the 1st January 1826, our standards were accurately adjusted, and certain rules were laid down, by which they could be restored if lost; while the uniform use of these in the business of the country was strictly enjoined. The imperial yard, which is the basis of the whole, is to be found in the following manner:—"Take a pendulum, vibrating seconds of time, in the latitude of London, in vacuum and at the level of the sea; divide all that part thereof which lies between the axis of suspension and the centre of oscillation into 391,393 equal parts; then will 10,000 of these parts be an imperial inch, 12 whereof make a foot, and 36 whereof make a yard.' All other measures of linear extension are to be computed from this. Thus, 'the foot, the inch, the pole, the furlong, and the mile, shall bear the same proportion to the imperial standard yard as they have hitherto borne to the yard measure in general use.' For the determination of weights, take a cube of an imperial inch of distilled water at 62 degrees Fahrenheit; let this be weighed with any weight, and let such weight be divided into 252,458 equal parts; then will a thousand of such parts be a *troy* grain, of which 5760 make a pound troy, and 7000 a pound avoirdupois.

'This troy-weight,' said the commissioners, 'appeared to us to be the ancient weight of this kingdom, having existed in the same state from the time of Edward the Confessor.' 'We were induced, moreover,' said they, 'to preserve the troy-weight, because all the coinage has been uniformly regulated by it, and all medical prescriptions and formulæ have always been estimated by troy-weight, under a peculiar subdivision which the college of physicians have expressed themselves most anxious to preserve.' It was resolved, therefore, to continue the use of troy-weight for drugs, bullion, &c. and to raise the avoirdupois on its basis. The commissioners went on to say: 'The avoirdupois pound, by which all heavy goods have been for a long time weighed, seems not to have been preserved with such scrupulous accuracy as the troy, by which more precious articles have been weighed;' but it was so nearly equivalent to 7000 grains troy, that they determined this should be its standard for the future. Measures of capacity were to be based upon this weight, and not, as heretofore, on cubic inches. Ten lbs. avoirdupois of distilled water weighed in air at the temperature of 62 degrees Fahrenheit, and the barometer at 30 inches, were henceforth to determine the imperial gallon, to the utter abolition of three distinct gallons for wine, ale, and corn, based respectively on the specific bulk and gravity of Bordeaux wine, English ale, and grains of wheat. All other measures were to be taken in parts or multiples of the said imperial standard gallon, according to the proportions hitherto in use. A great reform in this connection, was the obligation of dealers to sell most solid commodities—as coal, bread, potatoes, &c.—by weight and not by measure, which had been liable to great abuses. Corn, however, was not included in this provision; nor has even the use of the imperial bushel been universally enforced where it interfered with the long-established usages of corporate bodies.

To carry thus far into effect these newly-established measures, required no common exercise of authority. Every dealer, wholesale or retail, was obliged to have his weights verified and stamped. The brewer was compelled to get new casks; the retailer new pots and pints; the farmer new bushels, and, consequently, new corn-sacks. The expense thus incurred was enormous, and the grumbling was of course in due proportion.

It is believed that the units above mentioned—the yard, the pound avoirdupois, and the imperial gallon—cannot now be superseded by any other. It remains to shew, as Mr Taylor has very satisfactorily done,^[1] how that which has been well begun may be followed out and completed by the establishment of more complete uniformity, and the legalisation of decimal gradations for facilitating calculation.

The two co-existing pounds originally adjusted in relation to the specific gravities of wheat and spring-water, are now the sole remains and representatives of a fanciful theory spun in the middle ages; and the first question that occurs is, whether the pound troy, having served its purpose, might not be done away with, and the pound avoirdupois ascertained by reference to a cubic inch of distilled water. We were told forty years ago, that for the introduction of a uniform and scientific system, we must wait for the spread of education in the community; and we feel somewhat ashamed now to find that the members of the medical profession, which is understood to be one of the most highly-educated bodies, offer the most formidable opposition to reformation in this respect. 'The testimony, however,' says Mr Taylor, 'of many individuals of the medical profession, especially the younger portion, and certainly that of the retailers and dispensers of drugs, tends entirely to shew the practicability of a beneficial and convenient change. With all these, there appears no more serious difficulty to encounter than that involved in altered editions of their usual dispensatories, or books of reference'—an amount of trouble and expense, we should say, not greater, certainly, in proportion to the position of the parties concerned, than that which was forced on the poor chandlers and milkwomen by the act of 1826.

Then, to adapt the avoirdupois pound to the further objects in view, it must be reconstructed as to its divisional parts. In order to this, it is not necessary that the nomenclature should be changed, or that our poor people should be puzzled with the *decas*, and *hexas*, and *millias* which has formed the greatest practical difficulty in the decimal system of France. It is proposed simply to divide the pound avoirdupois into 10,000 parts instead of 7000, and to employ names at present in use for the minor denominations; but if it be thought incongruous to retain the term *grain*, which had reference to the weight of wheat or barley, *minim* might be substituted. Then the multiples of the pound, which have hitherto been so various, are to be decimally graduated—as, stones of 10 lbs., cwts. of 10 stone (or, literally, 100 lbs.), and tons of 10 cwt. The decimal measures below the gallon would correspond of course with the weights, as it is decided by the act, that a gallon is to contain ten pounds of water. The measures above gallons, it is proposed to call firkins and butts.

It is taken for granted that quarts and pints, as well as half-pounds and quarter-pounds, would still be continued in use. In France, the government was obliged to relax its decimal principles in favour of permitting a partial return to the binary mode of subdivision. Mr Adams, who is high authority on such a point, avers that such divisions are 'as necessary to the practical use of weights and measures, as the decimal divisions are convenient for calculations resulting from them.' If this be admitted, almost the only change to retailers of ordinary commodities would be the introduction of the new ounce weight, altered to the tenth of a pound, with price in correspondence; and perhaps the fluid pound, or tenth of a gallon. If, however, the latter were likely to be generally used by the masses, it would be desirable that it should bear a more familiar name. But probably it would be little known, except as the highest denomination generally used by the apothecary; in which case the nomenclature would be all the better for expressing the value of the measure scientifically in relation to distilled water, as is now usually done by this class.

It is easy to shew the practical advantages that would result in mercantile calculations if such a scale were adopted, and especially in connection with the decimal system of money advocated in a former number of this Journal.^[2] If a parcel of goods weighs 13 cwt., 7 stone, 8 lbs., and it be desired to know how many pounds it contains, it is unnecessary to change a single figure to shew that there are 1378; an additional cipher gives the number of ounces (137,80); another the number of drachms (137,800), instead of requiring the present tedious process of reduction. Again: if any commodity costs, for instance, 2 fl. 3 cents per lb., we know without taking up a pen that it is 2 cents 3 mil. per ounce; that it is L.2, 3 fl. per stone; L.23 per cwt.; L.230 per ton; and so on. Here is a cargo—no matter of what—weighing 374 tons, 7 cwt. 4 st. If the value is, for instance, L.2, 3s. per ton, we have but to multiply the figures 37474 by 23, and *point* the amount thus—L.861.9.0.2. If, however, the price be L.2, 3s. per cwt., the point after the pounds, which is the only essential one, must be removed a step further to the right—thus, L.8619.0.2; and if L.2, 3s. per stone, it will be L.86190.2. Let any one try the difference between these operations and similar calculations according to our present system, and he will confess it is no mean advantage that the advocates of decimal gradations are seeking to obtain for the community.

We are happy to add, that since our article on Decimal Coinage appeared, we have received numerous communications on the subject; and while there are minor differences of opinion as to the details, there appears to be perfect unanimity as to the desirableness of the system, and the possibility of bringing

it into general use.

FOOTNOTES:

[1] *The Decimal System*. By Henry Taylor. London: Groombridge & Sons.

[2] See No. 428.

THE LITTLE GRAY GOSSIP.

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Soon after Cousin Con's marriage, we were invited to stay for a few weeks with the newly-married couple, during the festive winter season; so away we went with merry hearts, the clear frosty air and pleasant prospect before us invigorating our spirits, as we took our places inside the good old mail-coach, which passed through the town of P—, where Cousin Con resided, for there were no railways then. Never was there a kinder or more genial soul than Cousin Con; and David Danvers, the goodman, as she laughingly called him, was, if possible, kinder and more genial still. They were surrounded by substantial comforts, and delighted to see their friends in a sociable, easy way, and to make them snug and cosy, our arrival being the signal for a succession of such convivialities. Very mirthful and enjoyable were these evenings, for Con's presence always shed radiant sunshine, and David's honest broad face beamed upon her with affectionate pride. During the days of their courtship at our house, they had perhaps indulged in billing and cooing a little too freely when in company with others, for sober middle-aged lovers like themselves; thereby lying open to animadversions from prim spinsters, who wondered that Miss Constance and Mr Danvers made themselves so ridiculous. But now all this nonsense had sobered down, and nothing could be detected beyond a sly glance, or a squeeze of the hand now and then; yet we often quizzed them about by-gones, and declared that engaged pairs were insufferable—we could always find them out among a hundred!

'I'll bet you anything you like,' cried Cousin Con, with a good-humoured laugh, 'that among our guests coming this evening' (there was to be a tea-junketing), 'you'll not be able to point out the engaged couple—for there will be only *one* such present—though plenty of lads and lasses that would like to be so happily situated! But the couple I allude to are real turtledoves, and yet I defy you to find them out!'

'Done, Cousin Con!' we exclaimed; 'and what shall we wager?'

'Gloves! gloves to be sure!' cried David. 'Ladies always wager gloves; though I can tell you, my Con is on the safe side now;' and David rubbed his hands, delighted with the joke; and *we* already, in perspective, beheld our glove-box enriched with half-a-dozen pair of snowy French sevens!

Never had we felt more interested in watching the arrivals and movements of strangers, than on this evening, for our honour was concerned, to detect the lovers, and raise the veil. Papas and mammas, and masters and misses, came trooping in; old ladies, and middle-aged; old gentlemen, and middle-aged—until the number amounted to about thirty, and Cousin Con's drawing-rooms were comfortably filled. We closely scrutinised all the young folks, and so intently but covertly watched their proceedings, that we could have revealed several innocent flirtations, but nothing appeared that could lead us to the turtledoves and their engagement. At length, we really had hopes, and ensconced ourselves in a corner, to observe the more cautiously a tall, beautiful girl, whose eyes incessantly turned towards the door of the apartment; while each time it opened to admit any one, she sighed and looked disappointed, as if that one was not the one she yearned to see. We were deep in a reverie, conjuring up a romance of which she was the heroine, when a little lady, habited in gray, whose age might average threescore, unceremoniously seated herself beside us, and immediately commenced a conversation, by asking if we were admiring pretty Annie Mortimer—following the direction of our looks. On receiving a reply in the affirmative, she continued: 'Ah, she's a good, affectionate girl; a great favourite of mine is sweet Annie Mortimer.'

'Watching for her lover, no doubt?' we ventured to say, hoping to gain the desired information, and thinking of our white kid-gloves. 'She is an engaged young lady?'

'Engaged! engaged!' cried the little animated lady: 'no indeed. The fates

forbid! Annie Mortimer is not engaged.' The expression of the little lady's countenance at our bare supposition of so natural a fact, amounted almost to the ludicrous; and we with some difficulty articulated a serious rejoinder, disavowing all previous knowledge, and therefore erring through ignorance. We had now time to examine our new acquaintance more critically. As we have already stated, she was habited in gray; but not only was her attire gray, but she was literally gray all over: gray hairs, braided in a peculiar obsolete fashion, and quite uncovered; gray gloves; gray shoes; and, above all, gray eyes, soft, large, and peculiarly sad in expression, yet beautiful eyes, redeeming the gray, monotonous countenance from absolute plainness. Mary Queen of Scots, we are told, had gray eyes; and even she, poor lady, owned not more speaking or history-telling orbs than did this little unknown gossip in gray. But our attention was diverted from the contemplation, by the entrance of another actor on the stage, to whom Annie Mortimer darted forward with an exclamation of delight and welcome. The new-comer was a slender, elderly gentleman, whose white hairs, pale face, and benignant expression presented nothing remarkable in their aspect, beyond a certain air of elegance and refinement, which characterised the whole outward man.

'That is a charming-looking old gentleman,' said we to the gray lady; 'is he Annie's father?'

'Her father! O dear, no! That gentleman is a bachelor; but he is Annie's guardian, and has supplied the place of a father to her, for poor Annie is an orphan.'

'Oh!' we exclaimed, and there was a great deal of meaning in our oh! for had we not read and heard of youthful wards falling in love with their guardians? and might not the fair Annie's taste incline this way? The little gray lady understood our thoughts, for she smiled, but said nothing; and while we were absorbed with Annie and her supposed antiquated lover, she glided into the circle, and presently we beheld Annie's guardian, with Annie leaning on his arm, exchange a few words with her in an undertone, as she passed them to an inner room.

'Who is that pleasing-looking old gentleman?' said we to our hostess; 'and what is the name of the lady in gray, who went away just as you came up? That is Annie Mortimer we know, and we know also that she isn't engaged!'

Cousin Con laughed heartily as she replied: 'That nice old gentleman is Mr Worthington, our poor curate; and a poor curate he is likely ever to continue, so far as we can see. The lady in gray we call our "little gray gossip," and a darling she is! As to Annie, you seem to know all about her. I suppose little Bessie has been lauding her up to the skies.'

'Who is little Bessie?' we inquired.

'Little Bessie is your little gray gossip: we never call her anything but Bessie to her face; she is a harmless little old maid. But come this way: Bessie is going to sing, for they won't let her rest till she complies; and Bessie singing, and Bessie talking, are widely different creatures.'

Widely different indeed! Could this be the little gray lady seated at the piano, and making it speak? while her thrilling tones, as she sang of 'days gone by,' went straight to each listener's heart, she herself looking ten years younger! When the song was over, I observed Mr Worthington, with Annie still resting on his arm, in a corner of the apartment, shaded by a projecting piece of furniture; and I also noted the tear on his furrowed cheek, which he hastily brushed away, and stooped to answer some remark of Annie's, who, with fond affection, had evidently observed it too, endeavouring to dispel the painful illusion which remembrances of days gone by occasioned.

We at length found the company separating, and our wager still unredeemed. The last to depart was Mr Worthington, escorting Annie Mortimer and little Bessie, whom he shawled most tenderly, no doubt because she was a poor forlorn little old maid, and sang so sweetly.

The next morning at breakfast, Cousin Con attacked us, supported by Mr Danvers, both demanding a solution of the mystery, or the scented sevens! After a vast deal of laughing, talking, and discussion, we were obliged to confess ourselves beaten, for there had been an engaged couple present on the previous evening, and we had failed to discover them. No; it was not Annie Mortimer: she had no lover. No; it was not the Misses Halliday, or the Masters Burton: they had flirted and danced, and danced and flirted indiscriminately; but as to serious engagements—pooh! pooh!

Who would have conjectured the romance of reality that was now divulged? and how could we have been so stupid as not to have read it at a glance? These contradictory exclamations, as is usual in such cases, ensued when the riddle was unfolded. It is so easy to be wise when we have learned the wisdom. Yet we cheerfully lost our wager, and would have lost a hundred such, for the sake of hearing a tale so far removed from matter-of-fact; proving also that enduring faith and affection are not so fabulous as philosophers often pronounce them to be.

Bessie Prudholm was nearly related to David Danvers, and she had been the only child of a talented but improvident father, who, after a short, brilliant career as a public singer, suddenly sank into obscurity and neglect, from the total loss of his vocal powers, brought on by a violent rheumatic cold and lasting prostration of strength. At this juncture, Bessie had nearly attained her twentieth year, and was still in mourning for an excellent mother, by whom she had been tenderly and carefully brought up. From luxury and indulgence the descent to poverty and privation was swift. Bessie, indeed, inherited a very small income in right of her deceased parent, sufficient for her own wants, and even comforts, but totally inadequate to meet the thousand demands, caprices, and fancies of her ailing and exigent father. However, for five years she battled bravely with adversity, eking out their scanty means by her exertions—though, from her father's helpless condition, and the constant and unremitting attention he required, she was in a great measure debarred from applying her efforts advantageously. The poor, dying man, in his days of health, had contributed to the enjoyment of the affluent, and in turn been courted by them; but now, forgotten and despised, he bitterly reviled the heartless world, whose hollow meed of applause it had formerly been the sole aim of his existence to secure. Wealth became to his disordered imagination the desideratum of existence, and he attached inordinate value to it, in proportion as he felt the bitter stings of comparative penury. To guard his only child—whom he certainly loved better than anything else in the world, save himself—from this dreaded evil, the misguided man, during his latter days, extracted from her an inviolable assurance, never to become the wife of any individual who could not settle upon her, subject to no contingencies or chances, the sum of at least one thousand pounds.

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Bessie, who was fancy-free, and a lively-spirited girl, by no means relished the slights and privations which poverty entails. She therefore willingly became bound by this solemn promise; and when her father breathed his last, declaring that she had made his mind comparatively easy, little Bessie half smiled, even in the midst of her deep and natural sorrow, to think how small and easy a concession her poor father had exacted, when her own opinions and views so perfectly coincided with his. The orphan girl took up her abode with the mother of David Danvers, and continued to reside with that worthy lady until the latter's decease. It was beneath the roof of Mrs Danvers that Bessie first became acquainted with Mr Worthington—that acquaintance speedily ripening into a mutual and sincere attachment. He was poor and patronless then, as he had continued ever since, with slender likelihood of ever possessing L.100 of his own, much less L.1000 to settle on a wife. It is true, that in the chances and changes of this mortal life, Paul Worthington might succeed to a fine inheritance; but there were many lives betwixt him and it, and Paul was not the one to desire happiness at another's expense, nor was sweet little Bessie either.

Yet was Paul Worthington rich in one inestimable possession, such as money cannot purchase—even in the love of a pure devoted heart, which for him, and for his dear sake, bravely endured the life-long loneliness and isolation which their peculiar circumstances induced. Paul did not see Bessie grow old and gray: in his eyes, she never changed; she was to him still beautiful, graceful, and enchanting; she was his betrothed, and he came forth into the world, from his books, and his arduous clerical and parochial duties, to gaze at intervals into her soft eyes, to press her tiny hand, to whisper a fond word, and then to return to his lonely home, like a second Josiah Cargill, to try and find in severe study oblivion of sorrow.

Annie Mortimer had been sent to him as a ministering angel: she was the orphan and penniless daughter of Mr Worthington's dearest friend and former college-chum, and she had come to find a shelter beneath the humble roof of the pious guardian, to whose earthly care she had been solemnly bequeathed. Paul's curacy was not many miles distant from the town where Bessie had fixed her resting-place; and it was generally surmised by the select few who were in the secret of little Bessie's singular history, that she regarded Annie Mortimer with especial favour and affection, from the fact, that Annie enjoyed the privilege of solacing and cheering Paul Worthington's declining years.

Each spoke of her as a dear adopted daughter, and Annie equally returned the affection of both.

Poor solitaries! what long anxious years they had known, separated by circumstance, yet knit together in the bonds of enduring love!

I pictured them at festive winter seasons, at their humble solitary boards; and in summer prime, when song-birds and bright perfumed flowers call lovers forth into the sunshine rejoicingly. They had not dared to rejoice during their long engagement; yet Bessie was a sociable creature, and did not mope or shut herself up, but led a life of active usefulness, and was a general favourite amongst all classes. They had never contemplated the possibility of evading Bessie's solemn promise to her dying father; to their tender consciences, that fatal promise was as binding and stringent, as if the gulf of marriage or conventional vows yawned betwixt them. We had been inclined to indulge some mirth at the expense of the little gray gossip, when she first presented herself to our notice; but now we regarded her as an object of interest, surrounded by a halo of romance, fully shared in by her charming, venerable lover. And this was good Cousin Con's elucidation of the riddle, which she narrated with many digressions, and with animated smiles, to conceal tears of sympathy. Paul Worthington and little Bessie did not like their history to be discussed by the rising frivolous generation; it was so unworldly, so sacred, and they looked forward with humble hope so soon to be united for ever in the better land, that it pained and distressed them to be made a topic of conversation.

Were we relating fiction, it would be easy to bring this antiquated pair together, even at the eleventh hour; love and constancy making up for the absence of one sweet ingredient, evanescent, yet beautiful—the ingredient we mean of youth. But as this is a romance of reality, we are fain to divulge facts as they actually occurred, and as we heard them from authentic sources. Paul and Bessie, divided in their lives, repose side by side in the old church-yard. He dropped off first, and Bessie doffed her gray for sombre habiliments of darker hue. Nor did she long remain behind, loving little soul! leaving her property to Annie Mortimer, and warning her against long engagements.

The last time we heard of Annie, she was the happy wife of an excellent man, who, fully coinciding in the opinion of the little gray gossip, protested strenuously against more than six weeks' courtship, and carried his point triumphantly.

THE WET SHROUD.

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'Ach, Sohn! was hält dich zurück?'
'Siehe, Mutter, das sind die Thränen.'
MUTTERTHRÄNEN.

They gave her back again:
They never asked to see her face;
But gazed upon her vacant place,
Moaning, like those in pain.

There was a brief hot thirst;
A thirsting of the heart for streams
Which never more save in sweet dreams
From that lost fount should burst.

There was a frightful cry,
As if the whole great earth were dead;
Yet was one arrow only sped,
One, only, called to die.

Then all grew calm as sleep;
And they in household ways once more
Did go: the anguish half was o'er,
For they had learned to weep.

They stood about her bed,
And whispered low beneath their cloud;
For she might hear them speaking loud—
She was so near, they said.

Softly her pillow pressing,
With reverent brows they mutely lay;

They scarcely missed the risen clay
In her pure soul's caressing.

Last, from their eyes were driven
Those heart-drops, lest—so spoke their fears—
Her robes all heavy with their tears
Might clog her flight to Heaven!
E.L.H.

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