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Fire-Side, Vol. 1 No. 12 (1820), by Various**

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THE  
**RURAL MAGAZINE,**  
AND  
**LITERARY EVENING FIRE-SIDE.**

VOL. I. PHILADELPHIA, *Twelfth Month*, 1820. No. 12.

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FOR THE RURAL MAGAZINE.

**THE DESULTORY REMARKER.**

**No. XI.**

Man is a being, holding large discourse,  
Looking before and after.

In my last number I availed myself of the occasion, to dwell with some emphasis, on the necessity and advantage of retrospection. The past is rife with lessons of experience, fitted to serve as waymarks and beacons, for the government of human conduct in the subsequent course. Obvious as this may appear, it is nevertheless lamentably true, as the venerable JOHN ADAMS has somewhere observed, that our attention is too frequently monopolized in the pursuit of present enjoyment, and that each succeeding generation is not satisfied, until it "*has made experience for itself.*" It is, however, gratifying to believe, that many are not so unmindful of their real interests, and so destitute of true wisdom; but are on proper occasions employed, in "looking before and after." To these no apology will be necessary, for recommending a preparation for those duties, which appertain to the severe and dreary season, upon which we are now entering. A season, above all others calculated, to illustrate the generous and benevolent principles of our nature; and which calls most loudly and authoritatively for their exercise. When indigence is gifted with peculiar eloquence, which the powers of a BURKE or an AMES, could scarcely *heighten*. We are fortunately so constituted, that the sight of distress is amply sufficient to awaken our sympathy, without requiring by a conclusive moral deduction, the establishment of the fact, that it is our duty to sympathize with the objects of it. Ere long a wide field will present itself for mitigating the sufferings and relieving the wants of

THE POOR.

The most efficacious *preventive*, of the evils attendant on poverty, is the general and extensive application of mental and moral discipline to the rising generation. This is the only radical remedy for the disease; a truth, which should never be lost sight of, by forecasting statesmen and enlightened philanthropists. But the urgency and immediate pressure of want, requires prompt

relief, not to be derived from this source. The array of indigence will be unusually great during the approaching winter, for even honest industry is frequently disappointed in its search after employment. Among the objects of public beneficence there will generally be found a considerable number of this description, whose condition is the result of misfortune alone; while the calamities of others, are the consequences of vice and improvidence. But it should always be remembered, that wretchedness and misery from whatever cause they may proceed, are entitled to commiseration; and that genuine charity imitates though at infinite distance, the example of our beneficent Creator, who "maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust."

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The most salutary mode of extending relief, is unquestionably that of employment. Idleness is uniformly prejudicial to sound morals, and intrinsically mischievous in its character. When alms are distributed it is moreover, far preferable to furnish the necessaries of life, rather than money, which is too often misapplied. As this is to many, the season of plenty and good cheer, particularly in the country, the situation of the necessitous is from this circumstance, entitled to primary consideration. I well remember, when a boy and residing in a neighbouring county, being despatched to some of the poor in the vicinity, with a part of the superabundance of the season; and their grateful and affectionate benedictions on the head of their revered benefactor, will never be forgotten. I may perhaps be indulged in adding, that I rejoice in believing, that he is now in that city "which hath foundations;" not one of whose inhabitants can say "I am sick." The example of such men is cheering and of signal advantage to society. "The memory of the just is blessed."

I am well aware, that to dwell at length on the subject here recommended, would, as it respects some of the patrons of the Rural Magazine be an act of supererogation. To such as these, all that is necessary to stimulate to a performance of their duties to their unfortunate fellow creatures, is to be made acquainted with their situation. The extension of the necessary assistance, is however, in many instances, a task of peculiar delicacy. Reference is here made to those who have seen happier days, and whose feelings, will not permit them publicly to solicit relief. In this class will generally be found, the least obtrusive but most deserving individuals; those who have undoubted claims on the generous and humane.

As this is probably the last opportunity, I shall have of holding communion, with my readers, it would be a source of real satisfaction, should ever a solitary hint of a profitable tendency, be derived from this valedictory paper. If the pressure of grief and privation, in a single instance be obviated, the reward would indeed be ample. Duties of the most imperative and important character, are constantly claiming our serious and assiduous attention. I cannot therefore, with more propriety, terminate my humble, desultory labours, than by sincerely and fervently desiring, that when the winter of old age and the evening of life shall arrive, we may enjoy the delightful consciousness of having faithfully performed our respective obligations, and particularly those which we owe to THE POOR. ☞

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FOR THE RURAL MAGAZINE.

## **THE VILLAGE TEACHER.**

The winter season of desolation as it is, has charms and attractions of its own. There is something exquisitely mournful in the whistling of its winds through the leafless branches of the forest, and around the lonely walls of a country dwelling. The absence of all gaudy decoration and its mute and desert loneliness give to the landscape a sublimity which is in perfect keeping with these deeper and harsher tones of the lyre of Æolus. The mind that has been at all trained in the school of nature, and has drank of true philosophy at its source amid fields and groves and mountains, can catch the glow of inspiration even from these stern and rugged features. It can discern in every aspect of external nature a feeling and an attribute, touching and peculiar, and can trace out in them those moral truths, of which it would seem that the forms of the physical creation, are but the types and the shadows. It is not merely that the remembrance of the enjoyments and hopes which have faded, and of the friends that are no more, subdue and chasten the soul; but the naked majesty, and austere colouring of the landscape find an answer in the mind. We view life divested of its gaudy trappings, and feel the cold reality of what had mocked us at a distance with the semblance of felicity. At the same time the hopes which endure, and the happiness which we know by experience to be solid, gain value in our estimation, as we are thus lifted above a dependence upon transitory and perishing enjoyments.

I had by this train of thought, wrought up my mind to a comfortably good opinion of my own fortitude, during a long ramble to-day, and was seated by my solitary fire this evening, meditating on the subject I had chosen for my next essay, and heaping Pelion upon Ossa in my dreams of future eminence; when a letter from the Editors was brought in, announcing that the next number of the Magazine was to be the last.

The angels in Milton's Pandemonium did not more suddenly contract into pigmies than did my fancied self-importance at this sad intelligence. From the port and aspect of one of the enlighteners of mankind, I shrunk at once into an obscure village schoolmaster unknown beyond the next township, and unnoticed save by a few of my humble patrons,

"Husbanding that which I possess within  
And going to the grave unthought of."

I looked round in my despair upon the naked walls, and they seemed to stare at me, as even they had never heard of me. An impertinent cricket in the wainscot was the only audible being near me and he kept on with his idle song, as if in derision. The feeling of disappointment for a time overpowered my philosophy, and I did not see my gorgeous hopes vanish into air without a bitter feeling of regret. To be thus cut off in the very bud of expectancy of authorship—to have that genial current of thought and feeling which was but beginning to flow turned back to its source, are misfortunes which none but an author can estimate, and which send us back to the dull routine of life with altered feelings.

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Why should I not please myself with the imagination of what I might have achieved? It is true that of the many into whose hands these numbers have fallen, the greater part may have passed over my essays unnoticed.

An inharmonious period—an uninteresting sentiment may have caught their attention, and they have turned away with indifference. Of those who have perused them, many have done it in a spirit of captious criticism, some with forced and struggling attention, and a few perhaps with real kindness and interest. Yet all this ill will and kindness and indifference has been lost upon me, and disturb not the dreams of vanity. The stillness of my retreat has not been broken by a sound of murmur or approbation, nor do I know that I have lightened for a moment the brow of sorrow, or attracted for a still shorter period, the attention of the busy, or the idle:—happy if from this failure also, I shall learn another lesson of humility and shrink without repining into my own proper dimensions.

I have not entered my first and fortieth year without being armed against such disappointments, nor will I part from them with whom I have thus sojourned in ill will or moroseness. What, though I may have overrated my own powers of entertainment, I have only proclaimed that which is the open or secret vanity of all. What though my readers have gone unsatisfied away from the table which I had spread for them?—the fruits of wisdom though harsh and austere in their taste, have not lost their savour with *me*; they still hang upon the tree of nature, and I can yet gather them for my own sustenance, though it be in solitude and obscurity. Minds, to whose gigantic proportions I feel myself a pigmy have exhausted their skill in portraying the beauty of virtue, and the world still lingers in corruption and defilement. My own efforts would have been more important, and I begin to think that I should have wasted my strength in idle display; if indeed I had not met with rueful discomfiture.

Reader! if in thy journeyings through the heart of Pennsylvania thou shouldst pass the quiet hamlet of Plainfield—if the recollection of these essays still linger in thy heart and thou shouldst seek a further acquaintance with their author—stop, and inquire at my landlord's for

THE VILLAGE TEACHER.

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## EXCURSION FROM EDINBURGH TO DUBLIN.

BY AN AMERICAN.

*Glasgow, Friday, April 11, 1817.*

At the hour of dinner we went to 'North wood-side,' a delightful country residence about two miles from Glasgow, the property of an opulent merchant. It is situated upon the Kelvin, a tributary stream of the Clyde, and together with its grounds, exhibits striking evidences of the elegant but costly taste of its proprietor. The gentleman has been in America, and was not a little attached to its form of government,—a partiality which naturally extended itself to the individuals concerned in its administration; and, accordingly we were gratified with beholding the portraits of several of our most distinguished countrymen adorning the walls of his apartments. The afternoon passed highly to our satisfaction; and we would gladly have accepted an invitation, which was given with a sincerity which could not be mistaken, to protract our visit beyond the day, but for engagements which required our return to Glasgow. After coffee we left North Wood-side, and reached the city in season to sup at the Rev. Dr. Chalmers'.

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It had been my good fortune to meet and become partially acquainted with this extraordinary man in Edinburgh. He has politely invited me to visit him in Glasgow, and this morning I called at his house, and passed half an hour with him. I found him then much engaged in completing some preparations for a journey to London which he is to commence on Monday. He desired my company at supper in the evening, and extended the invitation to my companion. We found a few friends at his house, among whom were several ladies. Mrs. C. possesses a pleasing person, and engaging manners, and performed the honours of the table with great propriety. Dr. C. had finished the necessary arrangements for his journey, and entered freely into an animated and instructive conversation. His colloquial powers are of a high order. Even in familiar conversation, he is impressive and striking;—although he seems not to be ambitious of display or the distinction of taking a lead.—He is at home on most of the popular topics of the day. In discussing any of interest, he engages '*totus in illis*.' His thoughts in that case are rapid, and his remarks,—assuming the complexion of his fervid mind,—abound in glowing but easy illustrations. He spoke

very feelingly upon the subject of the English poor laws, and the alarming increase of mendicity in Scotland. As in instance of the unnatural state of things in Glasgow itself, he referred to the sum of 14,000*l.* sterling, which in less than a month had been raised by subscription in this single city, for the relief of the poorer classes. To the honour, however, of the wealthy population of Glasgow, it should be added, that the moneys thus contributed, have been more than enough, with other private benefactions, to supply the present need; and the surplus has been funded to meet some future, and I hope, very distant exigency.

Conversation at table turned upon that dark and malignant spirit of infidelity, which under various forms, seems insidiously stealing like a pestilence throughout society. Dr. C's. remarks upon this subject were very eloquent, both in commenting upon the different masks which it assumes, and the coverts wherein it lurks, and in suggesting some seemingly effectual checks to the prevalence of this tremendous evil. The inquiries of Dr. C. relative to America, as well now as during a former interview, indicated no small degree of attention which he has paid to its civil and religious institutions. He spoke in terms of great commendation of the writings of the late Jonathan Edwards, and pronounced them to be among the ablest in English theology. In metaphysics he considers Edwards to have equalled the deepest thinkers of his age.

The supper at Dr. C's. was liberally and tastfully provided. Immediately after its removal, and before the wine was placed upon the table, the service of evening devotion was introduced. It was simple but engaging; consisting of a portion of scripture, which was read with great solemnity, and a prayer, during which all the company kneeled, as is usual to family devotions throughout this country. The servants were present. It was nearly twelve o'clock when we took leave of Dr. C. A very friendly request which he made that I would visit him hereafter in Glasgow, I fear that I shall never have it in my power to comply with.

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*Glasgow, 14th April.*—Yesterday I had the satisfaction to hear Dr. Chalmers preach once more. It was generally understood that it would be the last time that he would officiate in Glasgow for two or three months, and the crowds which assembled to hear him were very great. He was absent from his own pulpit, by exchange, in the morning, which did not prevent, however many from following him to the church where he preached. The Tron, in the afternoon, was overflowing some time before the hour of service, and the rush of people to the doors was as great as I have seen at Covent Garden, when John Kemble was to play. I repaired early to the church with some ladies, and we were fortunate in procuring excellent seats. Dr. C. fully equalled my expectations, although I have heard him in Edinburgh produce a superior effect. The eloquence of this great man is very vehement and impassioned. The effect which he produces in preaching, does not consist in approaching his point by any artful and covert process of reasoning and illustration, but by openly marching up and confronting it with unhesitating and manly intrepidity. Whatever faults may be detected in Dr. C's. style by the cool eye of fastidious criticism,—from the profusion of his ornaments, the overstraining of his metaphors, the redundancy of his expression,—perhaps there is no person living who, when once seen and heard, would be pronounced more free from the petty or laboured artifices which are generally employed to recommend and enforce instruction. So regardless is he of the factitious aids of composition, that his style may often be considered negligent, and sometimes even coarse. This again may be regarded by hyper-critics as a species of affectation; a contrary, and, I believe, a juster inference may be drawn from the fact. Dr. C. unconsciously overlooks, while he is thought studiously to disdain, the more common trappings and gilding of composition. In preaching, he seems wholly absorbed in his sublime occupation, and to be irresistibly borne along by the grandeur of his theme. As a man, he appears to sink under a prostrating sense of his own personal nothingness, but as a herald of the Christian faith, he rises to the majesty of more than mortal elevation. In discussing the great truths of Revelation, his imagination kindles; and strange it would be if it did not. The fire which is elicited is the natural effect of the rapid motion of his thoughts, combined with the fervour of his ardent piety. His single services yesterday were enough to prove him the first preacher of his age. In each of his discourses there are some parts which are particularly impassioned, and at such moments he hurries onward as with the excitement of inspiration, and produces an effect which Whitefield could not have surpassed. At these times, too, the listening audience may be seen bending forward, as if with breathless interest, to catch each word as it falls from his lips; and, on his arriving at the conclusion of the particular train of sentiment, again arousing as from the spell of a dream to the reality of conscious existence. This is not fancy, or if it be, it is one which I am not singular in possessing. Dr. C. at least produces the effect of awakening susceptibilities in the most obdurate bosoms. I was present one evening when he was preaching in lady Glenorchy's chapel, in Edinburgh, and occupied a seat next to Spurzheim, the celebrated craniologist. I noticed that he was deeply engaged by the preacher. On his finishing, I inquired what he thought of him? "It is too much, too much," said he, passing his hand across his forehead, "my brain is on a fever by what I have been hearing," a striking declaration from a cold and phlegmatic German.

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Dr. C. seems to act and feel as one, who, possessed of great intellectual endowments, is conscious that he owes them all to the service of religion. His aim apparently is, to "bring every thought into captivity to the truth of Christ," and to "cast down each lofty imagination," at the foot of the cross. To add to the weight of his discourses, he is accustomed to call into requisition the abounding stores of his various knowledge. In delivering his sermons he usually commences in a low, but always a distinct tone of voice; and proceeds for some time with a calm and uniform utterance. As his subject is developed, his mind and feelings gradually expand, and his voice is insensibly raised. His manner at first is not prepossessing; nor indeed is his voice to an English ear, as it has much of the Fifeshire accent. The hearer, however, soon loses whatever is disagreeable in each; and even forgets the man while listening to the message of the preacher.

Dr. C. appears turned of thirty-eight, in his person he is tall, and rather slender; his hair and complexion incline to dark; his eye is a blue tending to gray, and is distinguished at first only by a certain heaviness in its expression. It beams however in conversation, and flashes in public discourse.

Some facts in the history of this extraordinary man are peculiar. For the first few years of his ministry he was settled in Kilmany, an inconsiderable parish in the county of Fife. While there, he was generally accounted a man of talents, but rather indifferent to the duties of his profession, fond of social and gay company, proud of his intellectual powers no less so of his acquirements, and careless of the construction which the more serious part of the community might put upon his principles and sentiments. If I am correctly informed, he occasionally gave lectures in natural philosophy at the university of St. Andrews, and was considered as belonging to the moderate party in the kirk. Dr. Brewster applied to him to write the article *Christianity*, in his Encyclopedia; and it is said, that the train of thought into which his investigation led him, terminated in convictions which had the effect of changing his whole course of life and sentiments; and from that moment, entering into the ranks of orthodoxy, he became an eminent and powerful champion of the faith. His essay has since been published in a separate form, and entitled the "Evidences of Christianity." Shortly after this remarkable change, his reputation rose with astonishing rapidity; his zeal in the service of religion became inextinguishable; and if the excellence of a preacher is to be estimated by his popularity, Dr. C. is decidedly the first in Great Britain. He was transferred to Glasgow two or three years ago. His parish is very large, consisting, as he told me, of nearly ten thousand souls. So great a number imposes duties upon him peculiarly heavy; nor does his constitution seem capable of sustaining his fatigues. In delivering his discourses from the pulpit, which generally occupy an hour, it is usual with him to stop about midway, and read a hymn of six or eight verses, to be sung by the audience, while an opportunity is given him to recover from the partial exhaustion occasioned by this vehement oratory. The people in Edinburgh are desirous of erecting a church for him, and requesting him to settle among them; but an obstacle is found in the jealousy of the inhabitants of Glasgow, who look with no small uneasiness upon every thing which tends to aggrandize the reputation of Edinburgh.

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## THE NATURAL HISTORY OF ANTS.<sup>[1]</sup>

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Natural history is perhaps the most amusing of studies, though not so useful as botany or chemistry. It is curious to observe, however, on the score of utility, that the more minute parts of creation are of infinitely greater importance than the superior creatures in the scale of animal life. A knowledge of entomology is calculated to elicit more for the benefit of man, than an acquaintance with the habits of the larger brutes: the bee, the silk-worm, the cochineal insect, the Spanish fly, &c. &c. are far more essential to our purposes than the lion, the elephant, the rhinoceros, or the bear; even the sheep and the cow, only compete with these insects, as clothiers and victuallers; and the horse is merely physical force, subjected to the direction of the higher animal, man.

If we consider further, how very limited our research has yet been into the micrographick world, we may, without being thought too speculative, lose ourselves in the idea of the immensity of stores that remain to be discovered in the merest particles of animated nature: there is nothing too much to be imagined on the subject. But our business is rather to disclose the remarkable circumstances ascertained by the ingenious M. Huber, than to indulge in theorising; and we therefore proceed to his History of Ants, which we have found so entertaining, that we have no doubt it will furnish more than one interesting paper for our work.

The first chapter treats of the architecture of ants. The various habits of these wonderful insects are amply described; and were we not assured by ocular examination, of the truth of many of the particulars, we could hardly extend our belief to the prodigies related by the author: but we have witnessed so much that we can credit all. To return to the architecture; we find that their habitations, their cities, are not the least curious of their performances. Mr. Huber details the formation of a domicile by the fallow ants, and adds—

"Our little insects, now in safety in their nest, retire gradually to the interior before the last passages are closed, one or two only remain without, or concealed behind the doors on guard, whilst the rest either take their repose, or engage in different occupations in the most perfect security.

"I was impatient to know what took place in the morning upon these ant-hills, and therefore visited them at an early hour. I found them in the same state in which I had left them the preceding evening. A few ants were wandering about on the surface of the nest, some others issued from time to time from under the margin of the little roofs formed at the entrance of the galleries: others afterwards came forth who began removing the wooden bars that blockaded the entrance, in which they readily succeeded. This labour occupied them several hours. The passages were at length free, and the materials with which they had been closed scattered here and there over the ant-hill.

"Every day, morning and evening, during the fine weather, I was a witness to similar proceedings. On days of rain, the doors of all the ant-hills remain closed. When the sky is cloudy in the morning, or rain is indicated, the ants who seem to be aware of it, open but in part their

several avenues, and immediately close them when the rain commences. It would appear from this they are not insensible of the motive for which they form these temporary closures.

"To have an idea how the straw or stubble roof is formed, let us take a view of the ant-hill at its origin, when it is simply a cavity in the earth. Some of its future inhabitants are seen wandering about in search of materials fit for the exterior work, with which, though rather irregularly, they cover up the entrance; whilst others are employed in mixing the earth, thrown up in hollowing the interior, with fragments of wood and leaves, which are every moment brought in by their fellow-assistants; and this gives a certain consistence to the edifice, which increases in size daily. Our little architects leave here and there cavities, where they intend constructing the galleries which are to lead to the exterior; and as they remove in the morning the barriers placed at the entrance of their nest the preceding evening, the passages are kept entire during the whole time of its construction. We soon observe it to become convex; but we should be greatly deceived did we consider it solid. This roof is destined to include many apartments or stories. Having observed the motions of these little masons through a pane of glass which I adjusted against one of their habitations, I am enabled to speak with some degree of certainty upon the manner in which they are constructed."

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"I never found, even after long and violent rains, the interior of the nest wetted to more than a quarter of an inch from the surface, provided it had not been previously out of repair, or deserted by its inhabitants."

"The ants are extremely well sheltered in their chambers, the largest of which is placed nearly in the centre of the building; it is much loftier than the rest, and traversed only by the beams that support the ceiling; it is in this spot that all the galleries terminate, and this forms, for the most part, their usual residence."

"Those ants who lay the foundation of a wall, a chamber, or gallery, from working separately, occasion now and then a want of coincidence in the parts of the same or different objects. Such examples are of no unfrequent occurrence, but they by no means embarrass them. What follows proves that the workman on discovering his error, knew how to rectify it.

"A wall had been erected with the view of sustaining a vaulted ceiling, still incomplete, that had been projected from the wall of the opposite chamber. The workman who began constructing it, had given it too little elevation to meet the opposite partition upon which it was to rest. Had it been continued on the original plan, it must infallibly have met the wall at about one-half of its height, and this it was necessary to avoid. This state of things very forcibly claimed my attention; when one of the ants, arriving at the place, and visited the works, appeared to be struck by the difficulty which presented itself; but this it as soon obviated, by taking down the ceiling and raising the wall upon which it reposed. It then, in my presence, constructed a new ceiling with the fragments of the former one.

"When the ants commence any undertaking, one would suppose that they worked after some preconceived idea, which indeed would seem verified by the execution. Thus, should any ant discover upon the nest, two stalks of plants, which lie cross-ways, a disposition favourable to the construction of a lodge; or some little beams that may be useful in forming its angles and sides, it examines the several parts with attention, then distributes with much sagacity and address parcels of earth, in the spaces, and along the stems, taking from every quarter materials adapted to its object, sometimes not caring to destroy the work that others had commenced; so much are its motions regulated by the idea it has conceived, and upon which it acts, with little attention to all else around it. It goes and returns, until the plan is sufficiently understood by its companions."

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"From these observations, and a thousand similar, I am convinced that each ant acts independently of its companions. The first who conceives a plan of easy execution, immediately gives the sketch of it: others have only to continue what this has begun, judging, from an inspection of the first labours, in what they ought to engage. They can all lay down plans, and continue to polish or retouch their work as occasion requires. The water furnishes the cement they require, and the sun and air hardens the materials of which their edifice is composed. They have no other chisel than their teeth, no other compass than their antennæ, and no other trowel than their fore-feet, of which they make use in an admirable manner, to affix and consolidate the moistened earth."

We have thus some idea of that masonry which erects the abodes familiar to every eye, though the execution may not be familiar to many minds. The second chapter contains an account of the eggs, larvæ pupæ; and here other marvels are unfolded. In the ants nest are males whose sole business is to perpetuate the species and die; females who are waited upon like peeresses in their own right, who neither toil nor spin, but are served by neutrals, labourers, who tend their innumerable eggs, nourish and unfold the larvæ, and in short, do all the duties of mothers, nurses, and menials. The author devised means to observe their internal economy; and he says—

"Let us now open the shutter which conceals from us the interior of the ant hill, and let us see what is passing there.

"Here the pupæ are heaped up by hundreds in their spacious lodges; there the larvæ are collected together, and guarded by workers. In one place, we observe an assemblage of eggs, in another place, some of the workers seem occupied in following an ant of larger size than the rest;—this is the mother, or at least one of the females, for there are always several in each ant-hill:—she lays as she walks, and the guardians, by whom she is surrounded, take up her eggs, or seize them at the very moment of her laying them; they collect them together, and carry them in little heaps in their mouths.<sup>[2]</sup> On looking a little closer, we find that they turn them continually with

their tongues; it even appears, they pass them one after the other between their teeth, and thus keep them constantly moistened. Such is the first *aperçu* which my glazed apparatus offered.

"Having directed my close attention to these eggs, I remarked they were of different sizes, shades and forms. The smallest were white, opaque, and cylindrical; the largest, transparent, and slightly arched at both ends; those of a middle were semi-transparent. In holding them up to the light, I observed a sort of white oblong cloud; in some, a transparent point might be remarked at the superior extremity; in others, a clear zone above and underneath the little cloud. The largest presented a single opaque and whitish point in their interior. There were some whose whole body was so remarkably clear as to allow of my observing very distinctly the rings. In fixing my attention more closely upon the latter, I observed the egg open, and the larva appear in its place."

"I have been enabled to observe through the glasses of my artificial ant-hill, the great care taken of these little worms, which bear also the name of Larvæ. They were generally guarded by a body of ants, who, raised upon their feet, with their abdomen brought between these members, were prepared to cast their venom upon all intruders, whilst here and there, other workers were engaged in clearing the passages, by removing the materials which were out of place: a great number of their companions taking at the same time their repose, and appearing to be fast asleep: but a busy scene occurred at the moment of transporting their little ones to enjoy the warmth of the sun. When the sun's rays fell upon the exterior portion of the nest, the ants, who were then on the surface, descended with great rapidity to the bottom of the ant-hill, struck with their antennæ the other ants, ran one after the other, and jostled their companions, who mounted at the moment under the bell glass, and redescended with the same speed, putting in their turn the whole colony in motion, so that we could observe a swarm of workers, filling up all the passages; but what proved still more their intention by these movements, was, the violence with which the workers sometimes seized, with their mandibles, those who did not appear to understand them, dragging them forth to the top of the ant-hill, and immediately leaving them, to go and seek those still remaining with the young.

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"As soon as the ants had intimation of the appearance of the sun, they occupied themselves with the larvæ and pupæ; they carried them with all expedition above the ant-hill, where they left them exposed to the influence of the heat. Their ardour suffered no relaxation; the female larvæ (which are heavier, and much larger than those of the other cast) were carried passages, leading from the interior to the exterior of the ant-hill, and placed in the sun, by the side of those of the workers and males. After remaining there a quarter of an hour, the ants again took them up, and sheltered them from the direct rays of the sun, by placing them in chambers, situated under a layer of straw, which did not entirely intercept the heat.

The workers, after having fulfilled the duties imposed upon them in regard to the larvæ, did not forget themselves; they sought, in their turn, to stretch themselves in the sun, lay upon each other in heaps, and seemed to enjoy some repose, but it was of no long duration. I observed a great number constantly employed on the surface of the ant-hill, and others engaged in carrying back the larvæ, in proportion as the sun declined. The moment of nourishing them being at length arrived, each ant approached a larva, and offered it food. "The larvæ of ants," observes M. Latreille, "resemble, when they quit the egg, little white worms destitute of feet, thick short, and in form almost conical; their body is composed of twelve rings: the anterior part is slender and curved. We remark at the head two little horny pieces or hooks, too distant from each other to be regarded as true teeth; under these hooks we observe four little points or *cils*, two on each side, and a *mamelon*, or tubercular process, almost cylindrical, soft, and retractile, by which the larva receives its food."

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## FATA MORGANA.

This singular and curious phenomenon, which is occasionally seen near the Bay of Naples, and which is nearly allied to the *mirage*, so well known in the east, was observed in Huntingdonshire, during the late hot weather. The sun was shining in a cloudless sky, and the light vapours arising from the river Ouze, were hovering over a little hill, near St. Noet's when suddenly the village of Great Paxton, its farm-houses, barns, dispersed cottages, and indeed the whole of its beautiful and picturesque scenery were distinctly visible in these vapours, forming a splendid aerial picture, which extended from east to west for several hundred yards. This natural panorama lasted for about ten minutes, and was visible from a neighbouring declivity, about half a mile from Great Paxton.

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## WONDERS OF NATURE.—ENTOMOLOGY.

### ORDER IV.—NEUROPTERA.



Thick in yon stream of light, a thousand ways,  
 Upward, and downward, thwarting, and convolved,  
 The quivering nations sport; till tempest winged,  
 Fierce Winter sweeps them from the face of day.  
 E'en so luxurious men unheeding pass  
 An idle summer life in fortune's shine,  
 A season's glitter! Thus they flutter on  
 From toy to toy, from vanity to vice;  
 Till blown away by death, oblivion comes  
 Behind, and strikes them from the book of life.

The neuroptera, or *nerve-winged* insects, have four wings, which are membranaceous, naked, and so interspersed with delicate veins, that they have the appearance of beautiful network. Their tail has no sting; but that of the male is frequently furnished with a kind of forceps or pincers. The genera are:—1. *Libellula*, dragon-fly.—2. *Ephemera*, May-fly, or trout-fly, &c.

The *libellula*, or dragon-fly, is an insect of very splendid and variegated colours. It is a large and well known fly, and frequents rivers, lakes, pools, and stagnating waters, in which the females deposit their eggs. The egg, when deposited by the parent in the water, sinks to the bottom, and remains there till the young insect has acquired sufficient maturity and strength to burst from its confinement. The larva, at first small increases to nearly half the size of the perfect fly, by changing its skin at different intervals like the caterpillars of moths and butterflies. The appearance of the little cases containing the rudiments of the wings, at the lower margin of the thorax, denotes its change to the state of pupa. The head of this larva is exceedingly singular, being covered with a mask extending over the whole of the fore part of the head, with cavities in the anterior surface to suit the different prominences of the face to which it is fitted with perfect neatness. Its form is triangular, growing smaller towards the bottom: in the latter part there is a knuckle which fits a cavity near the neck, and on this part it turns as on a pivot. The upper part of this mask is divided into two pieces, which the insect can open or close at pleasure, and it can also let down the whole mask, should occasion require. The inner edges of these two pieces are toothed like a saw, and serve the animal as a pair of forceps to seize and retain its prey. This is the general principle on which these projecting forceps are constructed in the larva of the libellulæ; they differ in shape in the several species, but uniformly act in a similar manner.

These animals generally live and feed at the bottom of water, swimming only occasionally. Their motion in the water can scarcely be called swimming; it is accomplished by sudden jerks repeated at intervals. This motion is not occasioned by their legs, which at this time are kept immovable and close to the body: it is by forcing out a stream of water from the tail that the body is carried forward, as may be easily perceived by placing them in a flat vessel, in which there is only just water enough to cover the bottom. Here the action of the water squirted from their tail will be very visible; it will occasion a small current, and give sensible motion to any light bodies that are lying on the surface. This action can only be effected at intervals, because after each ejaculation the insect is obliged to take a fresh supply of water. The larva will sometimes turn its tail above the surface of the water, and force out a small stream, as from a little fountain, and with considerable force.

Under the same order is comprehended the *phryganea*, or spring-fly: the caterpillars of this genus live in the water, and are covered with a silken tube. They have a very singular aspect; for, by means of a gluten, they attach to the tubes in which they are enclosed small pieces of wood, sand, gravel, leaves of plants, and not unfrequently live on testaceous animals, all of which they drag along with them. They are very commonly found on the leaves of the water-cress; and, as they are often entirely covered with them, they have the appearance of animated plants. They are in great request among fishermen, by whom they are distinguished by the name of stone or cod-bait. The fly, or perfect insect, frequents running water, in which the females deposit their eggs.

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## CHEAP AND ELEGANT CARPETS.

On the 6th of September, the Society for the encouragement of national industry at Paris, granted to Mr. Chenavard, (Boulevard St. Antoine, No. 65, Paris) the premium of 1200 francs, which had been promised to the person who could manufacture, at the lowest price, the kind of carpet best calculated for low and damp habitations. The most complete success in the making of this article rewarded the exertions of Mr. C. whose manufacturing ingenuity, in a great variety of branches is well known, and who is particularly celebrated for his rich and tasty *paper and stuff hangings*. Mr. C. has most satisfactorily fulfilled the proposed object of the said Society, and it is asserted impossible better to combine, in that branch of industry, cheapness, elegance and solidity. The new invented article is a sort of varnished felt, far superior to any thing of the kind that was ever manufactured in England, with which stone floors, marbles, mosaics, and even the finest carpets of Persia can be imitated. It is not dearer than the coarsest mats. A square foot of it may be purchased for 4 sols: so that the quantity which is necessary for a room 24 feet by 20, would amount to no more than 48 francs, or about 9 dollars. 14 cents. Mr. C. is now giving his attention to a new kind of winter carpet, which its cheapness and superior qualities will make a valuable acquisition to the lovers of comfort.



## **CULTIVATION OF FLOWERS IN HOLLAND.**

After passing through the small town of Liss, the road continued with the sandhills in perfect barrenness till we approached that city; whose entrance is decorated with country seats of considerable magnificence and beautiful flower gardens which supply bulbs to the horticulturists of their own country, as well as furnish the most beautiful specimens of flowers to the rest of Europe.

The attention of the cultivation of flower roots and seeds, independent of the elegance of the pursuit, has by the profits it has brought become an object of some importance. It is the source of prosperity to many respectable families, and in some measure lays all Europe under obligations which are repaid by profit to the cultivators. The number of flower-gardeners is not above twelve or thirteen, but the operations of each are very extensive. It is said, that there are more than twenty acres of land devoted solely to the cultivation of hyacinths, and a large portion to tulips, and other flowers. These flowers are principally sold when in full bloom in Amsterdam, where there is a weekly market on Sunday afternoon, and the whole of Monday; the trade, however, has vastly declined of late years, having sunk in weekly returns from 15,000 to 3,000 florins. The tulip mania which afflicted Holland in the years 1636 and 1637, and which involved so many families in ruin, has long ceased; but in 1730, a hyacinth-mania, inferior to it indeed, but equally ridiculous, prevailed: and speculations were made in those flowers to a considerable extent, so that some single bulbs were sold as high as sixty or seventy pounds. There can be no doubt but the taste for cultivating flower gardens, which has extended itself over almost the whole of Europe, may be traced to this country, which furnishes bulbs and seeds till the intervention of successive wars and their interruptions to communication, induced the other nations to propagate those flowers at home, whose growth was most congenial to their soil and climate.

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From Lyman's "Political State of Italy."

## **A VISIT TO TWO NUNNERIES IN ROME.**

I obtained permission to visit the nunnery called "Tor di Specchio," one of the richest and most respectable of Rome, having twenty-one nuns, great rents, and requiring one thousand eight hundred dollars of expenses for the ceremony of vestire. I was received in a room just beyond the grate in which the confessor of the convent, a red faced, good natured looking man, was warming himself; a 'converse' spinning flax, and the sister whose duty it was to wait in the room for the week. In the garden, great numbers of roses and other flowers were cultivated. I was led through several corridors, at the end of each of which was placed an image of the Saviour or the Virgin, with a lamp burning before it. In the corridor of the second story, the cells of the sisters were situated, each covered towards the passage by a large green curtain. These cells looked into the garden, and opposite each door in the corridor was placed a large stand of ashes, at which the nuns cooked their morning chocolate and warmed themselves. The dining room was large, and the tables were well covered with green baize. In the middle of the room there was a pulpit, from which a sister read in turn religious works during the meals, a practice which prevails in nearly all Roman convents; the word "Silentium," in large letters, was cut deep in a stone over the principal door. The kitchen was large, but dirty. In this nunnery there were three chapels, one church for summer and another for winter. I was suffered to enter the cell of the superior, who received me with great courtesy. She was sitting upon a bed, that she had not left for three years, spinning flax, and holding a large rosary in one hand. She was at that time eighty-three years of age, and had entered the convent at twelve for her education, which she had never left since that hour, having been suffered to remain during the French time. She spoke much, and with great vivacity. There were six or seven straw bottomed chairs in her little cell, a handsome, but old fashioned clock, a small wardrobe and a few religious prints. In several cells, which happened to be open as I passed, I saw books, flowers in the windows—a harpsichord, a harp and some other musical instruments. In this convent, meat is eaten four times a week, and the order of the day is as follows, much resembling that of all convents. In summer they get up at five. Prayers last an hour and a half; breakfast at seven—prayer till eight—prayers again at ten—dine at eleven—after dinner sleep—evening office at four—supper at six, and bed at eight. In the intervals of meals and offices, the sisters read pious books, talk, walk, embroider, tear lint for hospitals, or do coarse work. They confess themselves and take the sacrament every eight days; they confess themselves to a priest named by the head of the order; he is changed several times a year. The person, who conducted me, was a princess of a Roma family. She had taken the veil twenty-one years ago, but possessed perfect ease, simplicity and courtesy. She spoke of those matters, which are always subjects of conversation in drawing rooms of antiquities, carnivals, deaths of queens, &c. Her dress was coarse black, and by no means neat. She was perfectly affable, and answered with great complaisance numerous troublesome questions. Indeed, there was not the slightest tinge of gloom, or solitude, or austerity about this convent, or in the appearance and manners of the few nuns, whom I happened to see. I recollect hearing an aged Roman lady, who possessed a vast experience in courts, convents, drawing-rooms, boudoirs, and of every thing else which relates to

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the world, remark some time after that of all creatures she had ever seen, the most amiable in their manners, and good natured, were nuns.

*Vive Seppolte.*—As its name denotes, the nuns of this convent never see the face of any human being but of the inmates of it. They confess themselves to a confessor through a brass plate, pierced with small holes; they are allowed to hold converse with their friends only once a year, through a similar plate. No window or any kind of opening looks upon a street or any sort of building; all the light comes from their own courtyard. They wear woollen next their skin, which is changed only once a month, sleep in their clothes upon straw, and wear pieces of leather tied about their feet. At the restoration of the pope all returned, excepting one, who went to a similar convent at Albano. They have now fifty-four nuns, and one of them unluckily possesses a large fortune. No convent in Rome receives such abundant charity. At the head of the staircase, leading to this nunnery, a large solid barrel, girt with iron, and divided into eight parts, is fixed into the thick wall of the building, and made to turn, so that articles may be conveyed from and into the convent. We knocked upon this wall and immediately a voice answered from within, "Praise be to our Lord Jesus Christ," and said, "what come ye to seek?" We desired to speak with the abbess. Whereupon the invisible rung a bell, and turning the barrel, a key was brought to our view, that was taken by a man, who had appeared at the ringing, and who unlocked the "parlatoire," a small room, in one corner of which was a plate of copper, twelve or fourteen inches square, fixed in the wall, and pierced with the finest holes imaginable.

The abbess now spoke to us from the other side of the plate, "I salute you in the name of our Lord Jesus Christ." This person had a lively voice and cheerful manner, and she spoke with perfect freedom and willingness about her own concerns and those of the convent. She told us that she had taken the veil thirty-eight years ago, and had been made abbess at the restoration. She said moreover, that the sisters were happy, enjoyed good health, and that she had never seen a dissatisfied look, or heard a repentant wish. This was no doubt true; people are contented in many conditions worse than that of the *Vive Seppolte*, and conditions, too, which they never regard as probations or martyrdoms, to be rewarded in another world. In 1815 the Pope had permitted this convent to be re-established, and since that time not a human face, beyond those of the sisterhood, had been seen by any inhabitants of it. Judging from the sound of this woman's voice, and her rapid, pleasant, and animated conversation, it is evident that she had neither regretted nor suffered much from this deprivation. She appeared to have vast vivacity, and much playfulness of mind, and was a great talker. Still it did not often befall her to speak to foreigners through the grate, and much allowance ought to be made for the excitement which a similar situation doubtless awakened. When a small tribute was turned upon the barrel into the convent, she said "God has sent us this gift." "Those, who sent it, will be remembered in our prayers."

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Having seen and heard much of the convents of Rome, I am satisfied that the inhabitants of them do not condemn themselves to many deprivations and mortifications, which they would not have suffered in the ordinary chances of a different life; that the passions, which exist there, are less active, violent and frequent, and that the carelessness of mind, health of body, and absence from all gloom and severity, utterly contradict and put to shame the theories and creeds of the world. One cannot discourse too long upon the impossibility of ascertaining the relative amount of happiness in the different courses of life to which habit, inclination, or chance, may call. A foreign gentleman, who had lived twenty years in Rome, told me that he had never heard of any scandalous conduct in any nunnery during all that time.

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From the Journal of Science.

## **ANTISEPTIC POWER OF THE PYROLIGNEOUS ACID.**

Results of some experiments made by Mr. W. Ramsay.—

A number of herrings were cleaned on the 10th of July, 1819; and without being salted, were immersed for three hours in distilled pyroligneous acid, specified gravity 1012. When withdrawn they were softened and not so firm as fish taken out of common pickle. They were hung up in the shade; July and August were hot months, but the herrings had no signs of putrefaction about them, but had a very wholesome smell, combined with that of the acid. One being broiled the empyreumatic smell was very strong. The rest, after six months, were in complete preservation.

It was afterwards found that the period of immersion had been too long. If the fish are simply dipped in acid of specific gravity 1012, and dried in the shade, it is sufficient for their preservation; and such herrings, when boiled, are very agreeable and have not the disagreeable empyreuma of the former.

A number of haddocks were cleaned, split, and slightly sprinkled with salt for six hours; then being drained, dipped for about three seconds in pyroligneous acid, and hung in the shade for eight days. On being broiled, they were of an uncommonly fine flavour, delicately white, and equal to the highly esteemed Finnan Haddock.

Herrings were cured in the same way as the haddocks. After being dried in the shade for two months, they were equal in quality and flavour to the best red herrings. The fish retained the shining and fresh appearance they had when taken from the sea.

A piece of fresh beef was dipped for one minute in pyroligneous acid of specific gravity 1012, in

July 1819. On March 4, 1820, it was as free from taint as when first immersed. No salt was used in this experiment. A piece of beef was dipped in at the same time in pure vinegar, of specific gravity 1009. It was perfectly free from taint on the 18th of November. This experiment indicates antiseptic powers in pure vinegar; some haddocks were cured with it, which remained free from taint, but when cooked had an insipid taste.

When beef is partially salted, and then steeped for a short time in the pyroligneous acid, after being drained and cooked, it has the same flavor as Hamburg beef.

Mr. Ramsay has no doubt, that with proper modifications, the use of the acid may be extended to the preservation of every species of animal food.

In order to ascertain whether the volatile oil in the pyroligneous acid, or the acid itself, was the agent to prevent putrefaction, Mr. Ramsay dipped haddocks and fresh beef in pure vinegar of specific gravity 1009. When fish were allowed to remain in the vinegar a few minutes, he observed that the muscular fibre was immediately acted on, a partial solution of the fish took place, and the acid became milky. When vinegar of a stronger quality was used, the fish was entirely dissolved, particularly if aided by heat. Both fish and beef which were dipped in vinegar, of specific gravity 1009, and which were afterwards dried in a summer heat, remained for a long time after perfectly free from taint.

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Mr. Stodart has repeated some of these experiments, and especially those relating to the haddocks, with perfect success in London.

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#### FOR THE RURAL MAGAZINE.

The following plan for preparing cheap and nutritious food, received from a friend in England, was about a year ago extensively circulated in this country, by means of several of the daily journals. Whether its utility, has to any considerable extent, been tested by practice is unknown to the writer; but as it is believed to be worthy of preservation, and as economy should still continue to be the order of the day, its republication may possibly be useful.

### **CHEAP, WHOLESOME, AND SAVORY FOOD.**

Take one pound of RICE, steep it in cold water for at least one hour, (longer would be better;) then put it into boiling water, and, if previously steeped enough, it will be sufficiently boiled in about five minutes; then pour off the water, and dry it on the fire, as in cooking potatoes.

Use it with the following gravy or sauce: two or three ounces of mutton suet, fried with onions until done enough; then add some flour and water, (as in making gravy,) with salt and about as much Cayenne pepper, as will lie on a sixpence, (or twelve and a half cent piece;) the different ingredients, however, may be varied to the taste.

At the present wholesale prices of RICE, the above would only cost about three pence, (a fraction more than *five and a half cents*;) and would be sufficient meal for *a family of six persons*.

I will merely add, that having eaten of the food prepared in exact conformity with the foregoing directions, it was found by no means unpalatable.

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### **GINGER.**

The cultivation of this root is nearly similar to that of potatoes. The land is first well cleansed from weeds; it is then dug into trenches similar to those which gardeners, make for celery; and the plants are set in these trenches in March or April. They flower about September and in January or February; when the stalks are withered, the roots are in a proper state to be dug up.— These are prepared for use in two ways. When intended for what is called *white ginger*, they are picked, scraped, separately washed, and afterwards dried with great care by exposure in the sun. For *black ginger*, they are picked, cleansed, immersed in boiling water and dried. This process is much less laborious and expensive than the other; consequently the price of the article is not so great. By boiling, the ginger loses a portion of its essential oil, and its black colour is owing to this.

The use of ginger, both in medicine, and as a spice, are numerous and well known. In the West Indies, it is frequently eaten fresh in sallads, and with other food, and the roots when dug up young, namely, at the end of three or four months after they have been planted, are preserved in syrup, and exported as a sweet meat to nearly all parts of the world. The ginger brought from the East Indies is much stronger than that coming from Jamaica.

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### **WARS OF THE ANTS.**

"The guard or sentry of the ant-hill will furnish us with the first proof of their social relations. We could, without doubt, irritate ants on the surface of the nest, without alarming those in the interior, if they acted isolately, and had no means of communicating their mutual impressions. Those who are occupied at the bottom of their nest, removed from the scene of danger, ignorant of what menaces their companions, could not arrive to their assistance; but it appears, that they are quickly and well informed of what is passing on the exterior. When we attack those without, the most part engage in their defence with a considerable degree of courage; there are always some, who immediately steal off and produce alarm throughout their city; the news is communicated from quarter to quarter, and the labourers come forward in a crowd, with every mark of uneasiness and anger. What however, is highly worthy our remark is that the ants, to whose charge the young are confided, and who inhabit the upper stories, where the temperature is highest, warned also of the impending danger, always governed by that extreme solicitude for their charge, which we have so often admired, hasten to convey them to the deepest part of their habitation, and thus deposit them in a place of safety.

"To study in detail the manner in which this alarm spreads over the ant-hill, we must extend our observations to the individuals of the largest species: the Herculean Ants, who inhabit hollow trees and who quit them only in the spring, to accompany the males and females, have very much assisted me in this object.

"The labourers are from five to six lines in length; the winged individuals are also proportionally large; they may be frequently seen running about the trunk of an oak, at the entrance of their labyrinths. When I disturbed those ants that were at the greatest distance from their companions, by either observing them too closely, or blowing upon them lightly, I saw them run towards the other ants, give them gentle blows with their heads against the corslet, communicating to them in this way, their fear or anger, passing rapidly from one to the other in a semicircular direction, and striking several times successively against those who did not put themselves in instant motion. These, warned of their common danger, set off immediately, describing in their turn different curves, and stopping to strike with their heads all those they met on their passage. In one moment the signal was general, all the labourers ran over the surface of the tree with great agitation, those within receiving notice of the danger, and probably by the same means, came out in a crowd and joined this tumult. The same signal which produced upon the workers this effect, caused a different impression upon the males and females; as soon as one of the labourers had informed them of their danger, they sought an asylum, and re-entered precipitately the trunk of the tree;—not one thought of quitting its temporary shelter, until a worker approached and gave them the signal for flight. The solicitude of the labourers in their favour, is manifested in the activity they display, in giving them advice or intimating to them the order for their departure; they redouble then the above signals, as if conscious of their understanding their intent less readily than the companions of their labours; the latter understand them, if I may use the expression, at half a word."

"Of all the enemies of the ant, those most dreaded are the ants themselves; the smallest not the least, since several fasten at once upon the feet of the largest, drag them to the ground, embarrass their movements, and thus prevent their escape. One would be astonished at the fury of these insects in their combats; it would be more easy to tear away their limbs and cut them to pieces, than compel them to quit their hold. It is nothing uncommon to see the head of an ant suspended to the legs or antennæ of some worker, who bears about, in every place, this pledge of his victory. We also observe, not unfrequently, the ants dragging after them the entire body of some enemy they had killed some time before, fastened to their feet in such a way as not to allow of their disengaging themselves.

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"Supposing the ants to be of equal size, those furnished with a sting have an advantage over those who employ only for their defence their venom and their teeth. The whole of those ants whose peduncles has no scale, but one or two knots, are provided with a sting; the Red Ants, which are said to sting more sharply than the rest, possess both these sorts of arms. In general the ants furnished with a sting are, in our country, some of the smallest. I know but one species of middle size; but it is very rare and only inhabits the Alps.

"The wars entered into by ants of different size bear no resemblance to those in which ants engage who come to combat with an equal force. When the large attack the small, they appear to do it by surprise, most likely to prevent the latter from fastening upon their legs; they seize them in the upper part of the body and strangle them immediately between their pincers. But when the small ants have time to guard against an attack, they intimate to their companions the danger with which they are threatened, when the latter arrive in crowds to their assistance. I have witnessed a battle between the Herculean and the Sanguine Ants; the Herculean Ants quitted the trunk of the tree in which they had established their abode, and arrived to the very gates of the dwelling of the Sanguine Ants; the latter, only half the size of their adversaries, had the advantage in point of number; they however acted on the defensive. The earth, strewed with the dead bodies of their compatriots, bore witness they had suffered the greatest carnage; they therefore, took the prudent part of fixing their habitation elsewhere, and with great activity transported to a distance of fifty feet from the spot, their companions, and the several objects that interested them. Small detachments of the workers were posted at little distances from the nest, apparently placed there to cover the march of the retreats and to preserve the city itself from any sudden attack. They struck against each other when they met, and had always their mandibles separated in the attitude of defiance. As soon as the Herculean Ants approached their camp, the centinals in front assailed them with fury; they fought at first in single combat. The Sanguine Ant threw himself upon the Herculean Ant, fastened upon its head, turned its abdomen

against the chest of its adversary or against the lower part of its mouth, and inundated it with venom. It sometimes quitted its antagonist with great quickness: more frequently, however, the Herculean Ant held between its feet its audacious enemy. The two champions then rolled themselves in the dust and struggled violently. The advantage was at first in favour of the largest ant; but its adversary was soon assisted by those of its own party who collected around the Herculean Ant and inflicted several deep wounds with their teeth. The Herculean Ant yielded to numbers<sup>[3]</sup>; it either perished the victim of its temerity, or was conducted a prisoner to the enemy's camp.

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"Such are the combats between ants of different size; but if we wish to behold regular armies war in all its form, we must visit those forests in which the Fallow Ants establish their dominion over every insect in their territory. We shall there see populous and rival cities, regular roads passing from the ant hill as so many rays from a centre, and frequently by an immense number of combatants, wars between hordes of the same species for they are naturally enemies and jealous of the territory which borders their own capital. It is in these forests I have witnessed the inhabitants of two large ant-hills engaged in spirited combat. I cannot pretend to say what occasioned discord between these republics. They were composed of ants of the same species, alike in their extent and population; and were situated about a hundred paces distance from each other. Two empires could not possess a greater number of combatants.

"Let us figure to ourselves this prodigious crowd of insects covering the ground lying between these two ant-hills, and occupying a space of two feet in breadth. Both armies met at half-way from their respective habitations, and there the battle commenced. Thousands of ants took their station upon the highest ground, and fought in pairs, keeping firm hold of their antagonists by their mandibles; a considerable number were engaged in the attack and leading away prisoners. The latter made several ineffectual efforts to escape, as if aware that, upon their arrival at the camp, they would experience a cruel death. The scene of warfare occupied a space of about three feet square; a penetrating odour exhaled from all sides; numbers of dead ants were seen covered with venom. Those ants composing groups and chains, took hold of each other's legs and pincers, and dragged their antagonists on the ground. These groups formed successively. The fight usually commenced between two ants, who seized each other by the mandibles, and raised themselves upon their hind legs, to allow of their bringing their abdomen forward, and spirting the venom upon their adversary. They were frequently so closely wedged together that they fell upon their sides, and fought a long time in that situation, in the dust; they shortly after raised themselves, when each began dragging its adversary; but when their force was equal, the wrestlers remained immovable, and fixed each other to the ground, until a third came to decide the contest. It more commonly happened that both ants received assistance at the same time, when the whole four, keeping firm hold of a foot or antenna, made ineffectual attempts to gain the battle. Some ants joined the latter, and these were, in their turn seized by new arrivals. It was in this way they formed chains of six, eight, or ten ants, all firmly locked together; the equilibrium was only broken when several warriors, from the same republic, advanced at the same time, who compelled those that were enchained to let go their hold, when the single combats again took place. On the approach of night each party returned gradually to the city, which served it for an asylum. The ants, which were either killed or led away into captivity, not being replaced by others, the number of combatants diminished, until their force was exhausted.

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"The ants returned to the field of battle before dawn. The groups again formed; the carnage recommenced with greater fury than on the preceding evening, and the scene of combat occupied a space of six feet in length, by two, in breadth. Success was for a long time doubtful; about mid-day the contending armies had removed to the distance of a dozen feet from one of their cities, whence I conclude some ground had been gained. The ants fought so desperately, that nothing could withdraw them from their enterprize; they did not even perceive my presence, and although I remained close to the army, none of them climbed upon my legs; they seemed absorbed in one object, that of finding an enemy to contend with."

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## THE DIAMOND.

Of all transparent substances, none can be compared to the brilliancy of the diamond; and its hardness is such, that no kind of steel instrument can make any impression upon it. Notwithstanding which, it has been proved that the diamond is but carbon or charcoal, in a pure or chrystallized state. When strongly heated, it consumes entirely away. Diamonds, when rubbed together, have a peculiarly, and scarcely to be described grating sound, which is remarkably characteristic of this gem; so that by this circumstance alone, rough diamonds may be accurately and expeditiously distinguished from every other gem. When the diamond is rubbed, it will attract bits of straw, feathers, hairs, and other small objects, and if exposed to the rays of the sun, and immediately taken into a dark place, will appear luminous.

The largest diamond ever known, is in the possession of the Queen of Portugal, and weighs about eleven ounces. It was found in Brazil, and sent from thence to London, in the year 1746. It is still uncut, and has been valued at twenty-five million six hundred thousand dollars.

Diamonds are much worn in England as ornaments. When converted into powder or dust, the diamond is used with steel instruments to divide pebbles and precious stones. Its use in cutting glass is generally known. Rock crystal, brought from Brazil, is divided into leaves, and ground

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## EXTRACTS FROM WIRT.

"Excessive wealth is neither glory nor happiness. The cold and sordid wretch, who thinks only of himself; who draws his head within his shell and never puts it out, but for the purposes of lucre and ostentation—who looks upon his fellow creatures not only without sympathy, but with arrogance and insolence, as if they were made to be his vassals, and he was made to be their lord—as if they were formed for no other purpose than to pamper his avarice, or to contribute to his aggrandizement—such a man may be rich, but trust me, that he can never be happy, nor virtuous, nor great. There is in fortune a golden mean, which is the appropriate region of virtue and intelligence. Be content with that; and if the horn of plenty overflow, let its droppings fall upon your fellow men; let them fall, like the droppings of honey in the wilderness, to cheer the faint and wayworn pilgrim. I wish you indeed to be distinguished; but wealth is not essential to distinction. Look at the illustrious patriots, philosophers and philanthropists, who in various ages have blessed the world; was it their wealth that made them great? Where was the wealth of Aristides, Socrates, of Plato, of Epaminondas, of Fabricius, of Cincinnatus, and a countless host upon the rolls of fame. Their wealth was in the mind and the heart. Those are the treasures by which they have been immortalized, and such alone are the treasures that are worth a serious struggle."

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## ON THE ADVANTAGES OF NARROW RESOURCES.

In minds of a certain cast, the title of this essay may possibly excite surprise. It might be imagined that the writer was guided in the choice of a subject, as the Cynic was directed in his tub, by that misanthropy which affects to look on good and evil, with an equal frown; or by that pride which finding itself linked to poverty, strives to dignify the despised partner of its destiny. Yet, in spite of these suggestions, much may be said in favour of those narrow resources, which the superficial view with pity, and the worldling with scorn. And further, the assertion may be hazarded, that they are favourable to individual character and happiness, as well as to the general cause of literature and virtue.

Repeated proofs of the first position, may be drawn from the common scenery of life.—Observe that boy, in the early stages of his education.—Why does he destroy his books, and cast about him his pens and his pencils? Why are his pages the repository of blots, and deformed with dogs-ears, and his volumes alternately his sport, and his footstool? Because he feels that his parents are able to purchase more. Why does he occasionally fix on their contents, a scowling eye, and the bent brow of discontent? Fear of present discipline, or a listless desire of winning the dainties and praises of parental indulgence, are forcing a reluctant attention to his lesson.

Mark that boy at his side. Why does he so carefully use his scanty writing materials, and so faithfully return his books to their place, when his task is finished? Because he has learnt their value by the difficulty of obtaining them. Why does he pursue his studies with unremitting application, yet with a cheerful countenance? Because he considers it a privilege to be permitted to acquire knowledge, and his studies are but a recreation from severer labours. His mind takes its pastime along with its nourishment, while his companion, like a prisoner, is only anxious to escape from durance. One, in toiling to gain instruction, feels himself the indebted party: the other, if he ever submits to it, fancies he has conferred a favour which entitles him to commendation and reward. This diversity of motive, will naturally produce diversity of action; and action, long continued, becomes confirmed into habit. Time, while he palsies the springs of energy, and quenches the ardour of thought, adds force to those habits, which indulgence has fostered and nourished. And will it be supposed that habits of carelessness, watchfulness, and mental indolence, continued through the important period of school education, will have no influence on the future character? Is the productiveness of Autumn, not affected by the poverty of the blossoms of Spring; or the future symmetry of the tree, uninjured by the excrescences of the sapling? No one imagines that early habits of industry, economy, and application, stamped on the character in its formation, will ever be wholly obliterated; why then, is that state of fortune considered as an evil, which aids their implantation by the strength of necessity?

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Mark that student at the University. Why is he lounging in the fashionable walks, ogling the ladies, displaying an expensive dress, contracting bills at the confectioner's and tailor's, late at prayers, listless at recitations, satisfied only in the resorts of folly, vanity, and dissipation? Why does he return home, uninformed in mind, undecided in profession, tinctured with extravagance, or involved in debt? Because he knew his parents were rich, and believed that wealth was a substitute, both for science and for virtue.

Why does a youth from the same neighbourhood, perhaps his inferior in talents, maintain the first standing in his class, and gain the honours of his seminary? What heightens his love of knowledge, brightens his eye with intelligence, incites him to mark every hour with diligence, every day with duty; what enables him to scorn luxurious indulgence, and to endure privation with a noble hardiness of soul? The consciousness that his family are poor, and that by his own

exertions he must stand or fall.

Thus excited to perseverance, he ascertains the extent of his own talents, bends them to their proper objects, brightens them by exercise, and entrusts them "to the usurer, that the Giver, at his coming, may receive his own."—The indolent mind, weakened by indulgence, views knowledge as "an austere man," and committing its talent to the earth, beholds its harvest in the mildew, the mouldering, and decay of its own powers.

Where a taste for literature exists, and the means of attaining it are not precluded, narrow resources are favourable to its acquisition. Would Johnson, the giant of English literature, have gained the proud eminence which he commands, without aid from the strong hand of necessity? Did he not even express gratitude, that the touch of adversity had been appointed to rouse him from the slumber of his native indolence? Is it probable that mankind would have been delighted with the elegance of his "Prince of Abyssinia," if affluence had enabled him to discharge the mournful debt of his mother's obsequies? Did not the classical Beattie trace his ardour of literary pursuit, and his premature proficiency to the stimulus of his bursary at Aberdeen? Did he not refer some of the most descriptive stanzas in his "Minstrel," to his state of seclusion and poverty, when a parish schoolmaster, and precentor, at the foot of the Grampian Mountains?—Would the Ayrshire ploughman's "wild bird of heaven," have displayed such varying plumage, such fearless compass of tone, had it been confined in a gilded cage, and pampered with the enervating luxuries of fortune?

Whatever enforces mental application, is favourable to mental improvement; and nothing teaches the lesson of application more thoroughly than necessity. Whatever exercises the inventive powers, is favourable to genius, and necessity executes this office so powerfully, that it is styled even by the common people, "the mother of invention." The affinity between restricted resources, and virtue, is of obvious perception. Habits of self-denial, and self-control, insensibly lead to moderated desires, and inspire that content which is the secret of happiness. A well-regulated mind, by accustoming itself to privation, and sacrifice, rises superior to selfish gratifications, and improves in that disinterested state of the affections, which is one of the greatest objects of piety to cultivate.—The man, whose narrow possessions are the fruit of his own industry, will better understand their value, more studiously avoid the vices that dissipate them, and more conscientiously limit his expenses by his income.—Thus will he keep his spirit unhumbled by the embarrassments of debt, and his heart unchilled by dread at the face of a creditor. Rational economy, while it supplies him with the means of rendering every man his due, will prove also the legitimate fountain of charity. Profusion is no friend to pity; and how can he have a right to be liberal, whose debts are unpaid. The movings of Charity are silenced, by the "cry of the labourers whose wages are kept back;" while he, whose industry has satisfied the claims of justice, may make glad the hearts of theirs, while his own reproaches him not. May we not suppose that the remembrance of having ourselves known want, would soften the feelings to the wants of others? as a participation in the sufferings of sickness, creates deeper sympathy for the victims of disease? Who, with a warmer overflowing of charity, would impart bread to the hungry, and a garment to the shelterless, than the man, who had himself felt the need of one, or by his own labour obtained possession of the other? A class of distresses, of which the rich can have no conception, he has entered into; and in his humble gift there will be more charity, than in the ample donations of Pride, listening to hear Fame extol her bounty. As the Israelites were incited to hospitality, by the remembrance that they had once "been strangers in the land of Egypt," so the heart that has endured the privations of poverty, can better estimate, and more feelingly relieve them.

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If the happiness of any condition be computed by its usefulness, by the energies which it awakens, and the virtues which it cherishes, may we not believe, that many in making up their account of life, will have reason to bless the Almighty Disposer, that they were shielded by his providence from the enervating influence and the dangerous temptations of wealth.

[*Con. Mirror.*]

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## ACCOUNT OF MAMMOTH CAVE,

*in Kentucky and a remarkable Mummy, or dried Indian woman found in it.*

"I received information, that an infant, of nine or twelve months old, was discovered in a saltpetre Cave in Warren county, about four miles from the Mammoth Cave, in a perfect state of preservation. I hastened to the place; but, to my mortification, found that, upon its being exposed to the atmosphere, it had fallen into dust, and that its remains, except the skull, with all its clothing, had been thrown into the furnace. I regretted this much, and promised the labourers to reward them, if they would preserve the next subject for me. About a month afterwards, the present one was discovered, and information given to our agent at the Mammoth Cave, who sent immediately for it, and brought and placed it there, where it remained for twelve months. It appeared to be the exsiccated body of a female. The account which I received of its discovery, was simply this. It was found at the depth of about ten feet from the surface of the Cave, bedded in clay, strongly impregnated with nitre, placed in a sitting posture, incased in broad stones, standing on their edges, with a flat stone covering the whole. It was enveloped in coarse clothes, (a specimen of which accompanied it) the whole wrapped in deer skins, the hair of which was shaved off in the manner in which the Indians prepare them for market. Enclosed in the stone



coffin, were the working utensils, beads, feathers, and other ornaments of dress, which belonged to her. The body was in a state of much higher perfection, when first discovered, and continued so, as long as it remained in the Mammoth Cave, than it is at present, except the depredations committed on its arms and thighs by the rats, many of which inhabit the Cave. After it was brought to Lexington, and become the subject of great curiosity, being much exposed to the atmosphere, it gradually began to decay, its muscles to contract, and the teeth to drop out, and much of its hair was plucked from its head by wanton visitants. As to the manner of its being embalmed, or whether the nitrous earth and atmosphere had a tendency to preserve it, must be left to the speculations of the learned.

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The Cave in which the Mummy was found, is not of great extent, not being more than three quarters of a mile in length; its surface, covered with loose limestone, from four to six feet deep, before you enter the clay impregnated with nitre. It is of easy access, being above twenty feet wide, and six feet high, at the mouth or entrance. It is enlarged to about fifty feet wide, and ten feet high, almost as soon as you enter it. This place had evident marks of having once been the residence of the aborigines of the country, from the quantity of ashes, and the remains of fuel, and torches made of the reed, &c. which were found in it."

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## RECIPT FOR MAKING ECONOMICAL BREAD.

Separate the bran and grosser part; from the flour; then take five pounds of it (of 16 ounces) and boil them in four gallons and three quarters of water, so that when it is dissolved, there shall remain three gallons and three quarters of glutinous water. With this knead fifty-six pounds of flour, adding salt and yeast, in the same manner and in the same proportion as for other bread. When the dough is ready to be put into the oven, divide it into loaves and let it bake for two hours and a half.

In this way the flour will imbibe three quarters of a gallon more of glutinous, than it would of simple water, and will yield not only a more nutritive and substantial food, but likewise an increase of a fifth beyond the quantity of common bread, a saving of one day's consumption out of six. Upon this plan, fifty-six pounds of meal will yield eighty-three pounds and a half of bread. When this is quite stale (baked since ten days) if it be put into the oven and left there for twenty minutes, it becomes fresh again, a very convenient property in long sea voyages.

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## BREAD MADE OF RICE AND FLOUR MIXED.

Rice is an excellent substitute for wheat flour. The following receipt for the mixture yields a solid and palatable bread.

Soften well by a slow fire a pound of rice with three quarters of a gallon of water. When it has acquired a certain degree of heat, mix up with it, well, four pounds of flour, some salt and yeast, as in making common bread; knead it and put it near the fire to rise. This will give eight pounds and a half of good bread. If the rice seems to require more water, add, for there are several qualities of rice which swell more than others.

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## JONAH'S GOURD.

"The bottle gourd, (*lagenaria*) grows in many parts of the world to near six feet long, and two feet thick.

The rinds or shells are used by the negroes in the West India islands as bottles, holding from one pint to many gallons. Barham speaks of one that hold nine gallons; and the Rev. Mr. Griffith Hughes mentions them in his history of Barbadoes, as holding twenty-two gallons. Sloane mentions one of these gourds as large as the human body.

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"The gourd called Vegetable Marrow, is of a pale yellow colour. Those I have seen did not exceed from seven to nine inches in length. It has only been known a few years in this country; and, I believe, was not sold in the shops and markets before the summer of 1819; and although they are of so late an introduction, the accounts are very imperfect: but it seems most probable that the seeds were brought in some East India ships, and likely from Persia, where it is called *cicader*. It is cultivated in the same manner as cucumbers, and is said by those who have grown them to be very productive. This fruit is used for culinary purposes in every stage of its growth. When very young, it is good fried with butter; when half-grown, it is said to be excellent, either plainly boiled, and served up sliced on toasted bread, as asparagus; or stewed with rice sauce, for which purpose it is likewise sliced. It is often sent to table mashed like turnips: when full grown,

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it is used for pies. It has been highly recommended to me by many persons who have grown it, while others speak of it as but little superior to the pompion."

We observe, from Galiffe, that the pumpkin is the principal food of the lower orders in Venice; and have no doubt but that it might be very advantageously introduced into the messes of this country, but for the prejudice against all innovations of this sort, and for purposes of economy. All along the Danube too, the gourd and the melon constitute, during their season, the daily meals of the labouring classes.

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## THE PROMPTER.—No. X.

*It will do for the present.*

Custom, with an iron rod, rules four-fifths of mankind. My *father* planted corn on a certain piece of land—it answered well—I do the same, though it does *not* answer well. My neighbour such a one tells me that I had better try a change of crops, deep ploughing, or sowing turnips or clover; it may be the land will recruit; but my neighbour is notional, and fond of *new things*. I do not like projects. My father did so before me, and *it does for the present*.

So says the Virginia planter; he has raised tobacco on a field, until the soil is exhausted; he knows not how to fertilize the land again; his only resource is to clear a new spot, and take the benefit of nature's manure. *This does for the present*. But when his land is *all* impoverished, what will he do? Go to Kentucky; as the New England men to Genesec. But when the western world is all peopled, what will our *do for the present folks* do for good land? The answer is easy; necessity will compel them to use *common sense*; and common sense will soon make old poor land rich again. When farmers learn *to work it right*, they will keep it good, for the Prompter ventures to assert, that a *proper tillage* will for ever keep land good. How does nature *work it*? Why nature covers land with herbage; that herbage withers and rots upon the land; and gradually forms a rich black mould. But farmers, when they have used land till it will bear *no crops*, let it lie without feeding it. No herbage grows on the land, till the weeds and a little grass creep in by chance; after three or four years, the farmer ploughs it for a crop, and has a job at killing weeds. Surely the man *does not work it right*; but he says, *it will do for the present*.

But no *body* is so apt to put off things with, *it will do for the present*, as *corporate bodies*. If the navigation of a river wants improvement, the *public body*, that is, *any body, every body, and no body*, immediately exclaims, "how did our *fathers* get along? The river did well enough for *them—it must do for the present*." If a bad law exists, by which the *public money* is to be collected in the *worst manner* that can be imagined; or if a constitution is defective, in permitting the same men to be *makers* and *judges* of a law; or the same men to rejudge a cause in a *higher* court, which they have before judged in a *lower* court; or which makes a legislature of two hundred men, a supreme court, to review the decisions of all inferior courts, and reverse their judgments; or if a constitution has *no executive at all*, and a *judiciary power* dependent on the annual votes of two hundred men, which is little better than *none*; I say, if a man proposes any reformation in those particulars, the public body says, away with your *projects; let us go on in the good old way; it will do for the present*. So in little public bodies, a town or a city, the poor must be provided for, bridges must be built, roads must be repaired—How? By a tax, or by labour. Is it best to raise money enough this year to pay the town debt? No, says the town. We will raise *almost* enough; *this will do for the present*. Let a little debt accrue every year, till the whole will make a *shilling tax*, and pay the whole at once. Put off, put off, says the town. *And so says the sinner*.

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A bridge must be built. Is it best to build a good one; of stone, or some materials that will last? No, it will cost *more*, says the town; a wooden bridge *will do for the present*. The water may carry it away; it will decay, and somebody may break his neck by the fall; but no matter, *it must do for the present*.

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## CHARACTER OF CHARLES JAMES FOX.

*By Sir James Macintosh.*

Mr. Fox united, in a most remarkable degree, the seemingly repugnant characters of the mildest of men, and the most vehement of orators. In private life he was gentle, modest, placable, kind, of simple manners, and so averse from dogmatism, as to be not only unostentatious, but even something inactive in conversation. His superiority was never felt but in the instruction which he imparted, or in the attention which his generous preference usually directed to the more obscure members of the company. The simplicity of his manners was far from excluding that perfect urbanity and amenity which flowed still more from the mildness of his nature, than from familiar intercourse with the most polished society of Europe. The pleasantry, perhaps, of no man of wit, had so unlaboured an appearance. It seemed rather to escape from his mind, than to be produced by it. He had lived on the most intimate terms with all his contemporaries distinguished by wit, politeness, or philosophy, or learning, or the talents of public life. In the course of thirty years he had known almost every man in Europe, whose intercourse could strengthen, or enrich, or polish the mind. His own literature was various and elegant. In classical

erudition, which by the custom of England is more peculiarly called learning, he was inferior to few professed scholars. Like all men of genius, he delighted to take refuge in poetry, from the vulgarity and irritation of business. His own verses were easy and pleasant, and might have claimed no low place among those which the French call *vers de société*. The poetical character of his mind was displayed by his extraordinary partiality for the poetry of the two most poetical nations, or at least languages of the west, those of the Greeks and of the Italians. He disliked political conversation, and never willingly took any part in it.

To speak of him justly as an orator would require a long essay. Every where natural, he carries into public something of that simple and negligent exterior which belonged to him in private. When he began to speak, a common observer, might have thought him awkward; and even a consummate judge could only have been struck with the exquisite justness of his ideas, and the transparent simplicity of his manners. But no sooner had he spoken for some time than he was changed into another being. He forgot himself and every thing around him. He thought only of his subject. His genius warmed and kindled as he went on. He darted fire into his audience. Torrents of impetuous eloquence swept along their feelings and convictions. He certainly possesses above all moderns, that union of reason, simplicity, and vehemence, which formed the prince of orators. He was the most Demosthenian speaker since the days of Demosthenes. "I knew him," says Mr. Burke, in a pamphlet written after their unhappy difference, "when he was nineteen; since which he has risen, by slow degrees, to the most brilliant and accomplished debater the world ever saw."

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The quiet dignity of a mind roused only by great objects, the absence of petty bustle, the contempt of show, the abhorrence of intrigue, the plainness and down-rightness, and the thorough good-nature which distinguished Mr. Fox, seem to render him no unfit representative of the old English character, which, if it ever changed, we should be sanguine indeed to expect to see it succeeded by a better. The simplicity of his character inspired confidence, the ardour of his eloquence roused enthusiasm, and the gentleness of his manner invited friendship. "I admired," says Mr. Gibbon, after describing a day passed with him at Lausanne, "the powers of a superior man, as they are blended in his attractive character, with all the softness and simplicity of a child; no human being was ever more free from any taint of malignity, vanity, or falsehood."

The measures which he supported or opposed may divide the opinion of posterity, as they have divided those of the present age. But he will most certainly command the unanimous reverence of future generations, by his pure sentiments towards the commonwealth, by his zeal for the civil and religious rights of all men, by his liberal principles, favourable to mild government, to the unfettered exercise of the human faculties, and the progressive civilization of mankind; by his ardent love for a country of which the well-being and greatness were, indeed, inseparable from his own glory; and by his profound reverence for that free constitution, which he was universally admitted to understand better than any other man of his age, both in an actually legal, and in a comprehensive philosophical sense.

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## PUBLIC LANDS.

*Washington City, Nov. 18.*

An interesting document was transmitted by the Secretary of the Treasury to the Senate, in pursuance of a resolution of that house at the late Session, containing a body of information on the subject of the lands of the United States purchased from the Indians; the quantity sold; for how much sold, &c. &c. The sums which have been paid, and remain to be paid under Treaties made with the Indian tribes, to indemnify them for cessions of lands to the United States is 2,542,916 dollars. The expense of surveying the Public Lands, from 4th of March, 1789 to 31st December, 1819, has been 4,243,632 dollars. The whole quantity of land which has been sold by the United States, as well before as since the opening of the Land Offices, up to, 30th September, 1819, is 20,138,482 acres; and the amount for which it has been sold is 45,098,696 dollars. Of this amount, 22,229,180 dollars had been paid, and 22,000,657 *remained to be paid*, at the close of Sept. 1819. The quantity of lands surveyed in the several Land Office Districts is 72,805,092 acres, whereof 13,601,930 acres have been sold, leaving 54,203,162 acres unsold. The quantity surveyed for military bounty lands, is 12,315,360 acres. The whole quantity of land purchased from the Indians by the various treaties and cessions is estimated at 191,978,536 acres.

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### ***Extracts from the last Edinburgh Review.***

"Mr. Lewis Burckhardt was a young Swiss, employed by the African Association to make discoveries in that country. He is recently dead; and the society are now publishing the result of his labours. Thoroughly aware that a great part of the failures of African discoveries proceeded from their want of previous education in the customs, manners, and languages of the east, Mr. Burckhardt prepared himself, by the study of Arabic, by a residence of six years in Syria and Egypt, by journies in Nubia, Palestine, in Arabia, and in the countries between Egypt and the Red sea, for his great purpose of penetrating into the heart of Africa. His knowledge of Arabic and the Koran, were so great, that after the severest examination by doctors of the Mohammedan law,

appointed for that express purpose by Mohammed Ali, pacha of Egypt, he was pronounced to be not only a real, but a very learned Mohammedan. But as his skill in oriental manners and languages improved, his constitution became impaired; and he became at last the victim of a tour in Arabia: dying better qualified than any traveller hitherto employed by the association for the purpose of discovery in Africa."

"Some of his excursions were very unfortunate—twice, in spite of solemn bargains with shekhs and high blooded Arabs, he is deserted and pillaged in the desert. In one of these instances, the robbers leave him nothing but his breeches. These he thought tolerably secure; but he was not yet sufficiently acquainted with the manners and customs of the east. A female Arab met him with these breeches; and a very serious conflict for them ensued between the parties. The association have not stated the result.

"We are much struck by the perpetual miseries to which this traveller is subjected. In all his journies, he seems kick'd and cuff'd by the whole party, and subjected to the grossest contempt and derision, for the appearance of poverty he always thought it prudent to assume. His system was, that the less display of wealth a man makes in the east the safer he is. This may be true enough in general; but when he travelled with a caravan containing merchants who had ten or twelve camels, and twenty or thirty slaves each, he might surely have ventured on the display of one camel, and one or two slaves; for in one journey he travels upon an ass, without a slave; and in consequence his own wood to cut, his water skins to fill, and his supper to dress. He receives as much respect, therefore, as a man would do who was to rub down his own horse in England; and is well nigh overpowered by the great and unnecessary fatigues to which this violent economy subjects him. We do not remember that other travellers in Africa, proceeding with caravans, have found it necessary to affect such an extreme state of pauperism; and Mr. Burckhardt himself admits, that Ali Bey, the pretended Arabian, penetrated every where in the east by the very opposite system of magnificence and profusion, even though he was suspected not to be a Mussulman by the natives themselves."

"In his visit to the peninsula of Mount Sinai, Mr. Burckhardt meets with a substance which he considers to be the same as the manna mentioned in the books of Moses.

"A botanist would find a rich harvest in these high regions, in the most elevated parts of which, a variety of sweet scented herbs grow. The Bedouins collect to this day the manna, under the very same circumstances described in the books of Moses. Whenever the rains have been plentiful during the winter, it drops abundantly from the tamarisk (in Arabic, Tarfa;) a tree very common in the Syrian and Arabian deserts, but producing, as far as I know, no manna any where else. They gather it before sunrise, because, if left in the sun it melts; its taste is very sweet, much resembling honey; they use it as we do sugar, principally in their dishes composed of flour. When purified over the fire, it keeps for many months; the quantity collected is inconsiderable, because it is exclusively the produce of the Tarfa, which tree is met with only in a few vallies at the foot of the highest granite chain. The inhabitants of the peninsula, amounting to almost four thousand, complain of the want of rain and of pasturage; the state of the country must therefore be much altered from what it was in the time of Moses, when all the tribes of Beni Israel found food here for their cattle."

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## COTTON-SEED OIL.

The subject of *Cotton-seed Oil*, is gaining attention, and obtaining investigations, both in Europe and America. It is a subject highly important to the southern states. Millions of bushels of cotton seed are annually used as manure for corn, wheat, &c. in South Carolina. For this purpose the article is worth, at the present reduced prices of staple commodities, about 12 or 15 cents a bushel; weighing about 25 lbs. lightly thrown in. One hundred pounds of cotton seed, yields about 27 pounds of clean cotton, and about three bushels of seed. The oleaginous quality of the pulp of cotton-seed has long been known; and it is believed that any given quantity of it contains as much oil as a like quantity of the pulp of any other seed. As to its qualities, they are not all fully developed; but considerable experience among leather-dressers in North Carolina, has proven it to be equal to any other oil for currying of leather for shoes, boots, harness, &c. Whether it can be made to take the place of linseed oil, in painting, or of olive in manufactures, remains to be determined. The great difficulty attending the extracting of oil from cotton-seed, lies in the soft and spongy texture of the shell which encloses the pulp, which with the short fibres of cotton adhering to it, absorbs a great portion of oil in the process. If the seed could be made to pass hastily through fire, by the operation of machinery, to divest it of the adhering cotton, then it seems probable that a machine somewhat similar to that made for hulling barley, would take off the shell or hull with great expedition. From all the light elicited on the subject, it appears probable, that each bushel of seed might produce a gallon of oil; and that the pulp, after the extraction of the oil, would still be valuable for feeding cattle or for manure. For every bale of cotton there might be produced about ten gallons of oil: this, should the demand for oil continue, would be equal to half or two-thirds the value of the cotton. The subject is highly important to this state: and it is humbly conceived, would be worthy of attention of the Agricultural Society of South Carolina, and perhaps of legislative aid, by way of premiums, to encourage further practical investigation.

[*Pee Dee Gazette.*

*Nantucket whale fishery.*—The number of ships now employed in the whale fishery by the people of the small Island of Nantucket is 72—28 of them between 3 and 400 tons. In addition to which they have a large number of brigs and smaller vessels in the same employment.

*A running horse,* lately died in England, for which the owner was offered a few days before upwards of *fifteen thousand dollars.*

## CONGRESS OF THE UNITED STATES.

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*Statement showing the Commencement and Termination of each Session of Congress, held under the present Constitution, with the number of days in each.*

A: CONGRESS.  
 B: SESSION.  
 C: YEAR OF INDEPENDENCE.  
 D: NO. OF DAYS IN EACH SESSION.

A	B FROM		TO	C	D	WHERE HELD.
1	{ 1 March	4, 1789	September 29, 1789	13	210	New York
	{ 2 January	4, 1790	August 12, 1790	14	221	do
	{ 3 December	6, 1790	March 3, 1791	15	88	Philadelphia
2	{ 1 October	24, 1791	May 8, 1792	16	98	do
	{ 2 November	5, 1792	March 2, 1793	17	119	do
3	{ 1 December	2, 1793	June 9, 1794	18	190	do
	{ 2 November	3, 1794	March 3, 1795	19	121	do
4	{ 1 December	7, 1795	June 1, 1796	20	178	do
	{ 2 December	5, 1796	March 3, 1797	21	89	do
	{ 1 May	15, 1797	July 10, 1797	21	57	do
5	{ 2 November	13, 1797	July 16, 1798	22	247	do
	{ 3 December	3, 1798	March 3, 1799	23	90	do
6	{ 1 December	2, 1799	May 14, 1800	24	165	do
	{ 2 November	17, 1800	March 3, 1801	25	107	Washington City
7	{ 1 December	7, 1801	May 3, 1802	26	138	do
	{ 2 December	6, 1802	March 3, 1803	27	88	do
8	{ 1 October	17, 1803	March 27, 1804	28	163	do
	{ 2 November	5, 1804	March 3, 1805	29	119	do
9	{ 1 December	2, 1805	April 21, 1806	30	141	do
	{ 2 December	1, 1806	March 3, 1807	31	93	do
10	{ 1 October	26, 1807	April 25, 1808	32	183	do
	{ 2 November	7, 1808	March 3, 1809	33	117	do
	{ 1 May	22, 1809	June 28, 1809	33	38	do
11	{ 2 November	27, 1809	May 1, 1810	34	156	do
	{ 3 December	3, 1810	March 3, 1811	35	91	do
12	{ 1 November	4, 1811	July 6, 1812	36	246	do
	{ 2 November	2, 1812	March 3, 1813	37	94	do
	{ 1 May	24, 1813	August 2, 1813	37	71	do
13	{ 2 December	6, 1813	April 18, 1814	38	134	do
	{ 3 September	19, 1814	March 3, 1815	39	166	do
14	{ 1 December	4, 1815	April 30, 1816	40	149	do
	{ 2 December	2, 1816	March 3, 1817	41	92	do
15	{ 1 December	1, 1817	April 30, 1818	42	151	do
	{ 2 November	16, 1818	March 3, 1819	43	108	do
16	{ 1 December	6, 1819	May 15, 1820	44	162	do
	{ 2 November	13, 1820	March 3, 1821	45	111	do

## MISCELLANY.

*Gluten an Antidote for Corrosive Sublimate.*—During the researches undertaken by Dr. Taddei on gluten, and on wheaten flour, he discovered that gluten had the property of acting on the red oxide of mercury, and on corrosive sublimate. If it be mixed with either of these substances, it immediately loses its viscidty, becomes hard, and is not at all liable to putrefaction. Further, if flower be made into a paste, with solution of corrosive sublimate, it is impossible to separate the gluten and starch in the usual way. This effect induced Dr. Taddei to suppose, that in cases of poisoning by corrosive sublimate, wheaten flour and gluten would prove excellent antidotes to

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the poison. It was found by experiment, that wheaten flour and gluten, reduced corrosive sublimate to the state of calomel; and also that considerable quantities, of a mixture of flour or gluten with corrosive sublimate, might be eaten by animals without producing injury; thus fourteen grains of sublimate have been given in less than twelve hours to rabbits and poultry without injury, whereas a single grain was sufficient to produce death when administered alone. A grain of the sublimate required from twenty to twenty-five grains of fresh gluten to become innocuous; when dry gluten was used, half this quantity was sufficient, but when wheaten flour was taken, from fifteen to eighteen denari, (500 or 600 gr.,) were required. Dr. Taddei recommends that dried gluten be kept in the apothecaries' shops, and that it be administered when required, mixed with a little water.—*Giornale di Fisica*, 2. p. 375.

*Anecdote.*—During the examinations of Surgeons for the army or navy, it is well known that the veterans of that respectable class, question very minutely those who wish to become qualified. After answering very satisfactorily to the numerous inquiries made, a young gentlemen was asked; if he wished to give his patient a profuse perspiration, what he would prescribe? He mentioned many diaphoretic medicines in case the first failed, and had some hopes that he should pass with credit, but the unmerciful querist thus continued:— "Pray, sir, suppose none of those succeeded, what step would you take next?" "Why, sir," rejoined the harassed son of Esculapius, "I would send him here to be examined, and if *that* would not give him a sweat, I know not what would."

*Cutting of Wheat before it is ripe.*—It is said by a Paris paper that grain cut eight days before the ordinary time, has, first, the advantage of escaping the dangers which threatened it at that period. This is accidental, but it has the positive advantage of being more nutritive, larger, finer, and is never attacked by the weasel. These assertions are proved by the most conclusive experiments, made upon a piece of corn, half of which was cut prematurely, the other half at the customary time. The first part gave a hectolitre more corn for a half hectare. Afterwards an equal quantity of the farina was made into bread; that of the corn cut when green, made from six decalitres seven lbs. more bread than the other. Finally, the weasel attacked the corn cut when ripe, and the other was free from it. The moment to reap, is, when the grain, squeezed between the fingers, appears pasty, like the crumb of bread immediately after it is taken from the oven. This, which is the opinion of Mr. Cadet de Vaux, is supported by that of Mr. Mellard, a very respectable agriculturist. They both confirm their theory by experiments. The same custom has been practised for many years at the magnificent farm of Mr. Coke, at Holkham, in England, who cuts not only his grain before its maturity, but likewise grasses, and even herbaceous plants. He does not hesitate to attribute to this measure the superior quality of his corn and hay to that of other farmers, who reap all things at the period of their perfect maturity.

*Seduction.*—A verdict of damages, to the amount of fourteen hundred and fifty dollars, was lately given in Ohio, in a case of seduction. This is "paying dear for the whistle."

*Milk and Water.*—We have received a communication (says the N. Y. Gazette,) from a very respectable source, giving an estimate of the probable quantity of milk sold in New-York in one year, and the quantity of water in the milk; by which it appears, that the citizens of New York pay in one year the sum of \$35,587 for water. Our correspondent's calculations follow. He supposes the city to contain 120,000 inhabitants, 6 to a family—20,000 families, at 3 cents worth of milk per day, is \$600, or 219,000 for one year; to which is added one twelfth for strangers, &c. making \$237,250. Deduct one fifteenth, or \$35,587, which is annually paid for the WATER, with which the milk is reduced.—Our correspondent requests us to add, that he can prove the facts above stated, if called upon by the proper authority. He is himself an extensive dealer in milk, and is well acquainted with the management of most of those in his line.

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*Turkey Cement for joining Metals, Glass, &c.*—The jewellers in Turkey, who are mostly Armenians, have a curious method of ornamenting watch cases, and similar things with diamonds and other stones by simply gluing them on. The stone is set in silver or gold, and the lower part of the metal made flat, or to correspond with the part to which it is to be fixed; it is then warmed gently and the glue applied, which is so very strong that the parts never separate. This glue, which may be applied to many purposes, as it will strongly join bits of glass or polished steel, is thus made:

Dissolve five or six bits of mastic, as large as peas, in as much spirits of wine as will suffice to render it liquid; in another vessel dissolve as much isinglass, which has been previously soaked in water till it is swollen and soft, in French brandy or in rum, as will make two ounces, by measure, of strong glue, and add two small bits of gum galbanum, or ammoniacum, which must be rubbed or ground until they are dissolved; then mix the whole with a sufficient heat. Keep it in a phial stopped; and when it is used, set it in hot water.

*Death of Col. Boon.*—Col. Daniel Boon, the first white man that ever settled in Kentucky, lately died at his residence, near Franklin, Missouri, at the age of 98. He had 4 brothers and three sisters, of the following ages:—

Samuel Boon 88, Jonathan B. 86, Squire B. 76, George B. 83, Mrs. Wilcox 91, Mrs. Smith 83, and Mrs. Grant 84.

*Council Bluffs.*—A letter from Brigadier General Atkinson, stationed at Council Bluffs, states that at least 10,000 bushels of Indian corn, 4000 of potatoes, a like quantity of turnips, and about 250 tons of hay had been raised and harvested at that station during the last season. As a sample of the crop of Indian corn, an acre was measured, which gave upwards of 102 bushels. The turnip crop was much injured by the grasshoppers, and it is stated that if these insects had appeared three weeks sooner they would have totally destroyed the crop of corn. It would seem that they

are often very formidable in that quarter, frequently cutting off the crops entirely. The most of the Indians in that country are friendly. One or two tribes however, indicate some signs of hostility. They were much delighted with the exhibition of the steam boat, and as much intimidated by a display of the powers of the artillery, on an occasion when a large concourse of them were assembled at the Bluffs.

*Double-jointed Indian.*—A Detroit paper of November 10, says, a Mr. Robinson lately brought to that place an Indian from the country Mackinaw who has double the usual number of joints in the human frame. He is unable to stand, but can give himself locomotion by being placed in a large wooden bowl, which he is enabled to whirl or roll about on level grounds. Mr. R. also gives an account of an Indian in that country that is entirely covered with hair, his face as well as every other part of his body, and that on his arms and legs the hair is several inches in length.

*Population of Baltimore.*—In 1790 the number of inhabitants in this city and its precincts, was 13,503.—In 1800, 26,514—In 1810, 46,555, and by the present census 62,627.

*A New Sect of Christians* are said to have lately appeared at Marietta, (Ohio) who call themselves Halcyons. They believe that Aaron's breastplate, called by the Jews Urim and Thummim, which has long been lost, must be retrieved before the resurrection of the dead.

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*Ivory Paper.*—The Society for the encouragement of Arts, Manufactures and Commerce, in London, have voted thirty guineas to Mr. S. Einsle, for his communication on the use of artists. He produced, before the Committee of his Society several specimens of his ivory paper, about the eighth of an inch, and of superficial dimensions, much larger than the largest ivory: the surface was hard, smooth, and perfectly even. On trial of these, by some of the artists, members of the society, it appears that colours may be washed off the ivory paper more completely than from ivory itself, and that the process may be repeated three or four times on the same surface, without rubbing up the grain of the paper. It will also, with proper care, bear to be scraped with the edge of a knife, without becoming rough.

*Vegetable Antidotes to Poison.*—Dr. Chisholm in a paper read to the Society at Geneva, states, that the juice of the sugar cane is the best antidote known for arsenic. It has been tried upon various animals in the West Indies with complete success.

The American Academy of Languages and Belles Lettres, at New York, has offered a premium of not *less* than 400 dollars and a Gold Medal, to the author, being an American Citizen, who, within two years, shall produce the best written history of the United States, calculated for a Class Book.

*Increase of Population in America.*—In 1810, the population of the United States was 7,323,903. By the recent official report of the secretary of the treasury, it appears that our population progresses in the ratio of 34 per cent, in ten years. Proceeding on this basis, for the next 80 years, which will terminate this century, we shall find the following result.

In 1820	9,827,265	Inhabitants.
30	13,168,534	
40	17,545,844	
50	23,644,433	
60	31,584,633	
70	42,325,903	
80	56,716,716	
90	76,000,399	
1900	101,840,534.	

Such a review as this ought to produce a salutary influence on all the busy actors who now figure on the American theatre.

The probability is, that not one mortal now in being, of mature age, will be seen on the face of the earth in eighty years; although many of our youth will reach that proud era of American glory. What a solemn responsibility devolves on all the conspicuous actors of the present day, since this generation is destined to influence the happiness of one hundred millions of free born Americans in the short span of 80 years! This reflection offers to the contemplative mind, an extensive range.

*Drought.*—A letter, from a gentleman in Virginia, says that the drought has been greater there the last summer, than has been known for many years: on inquiry respecting its extent, he was informed by a facetious old farmer, that "he had to drive his stock thirty miles to water, but the worst of all was, he had to *cross a river*, in his way, and pay the *ferryage*."

*Square Miles of the States.*—In Vermont, the number of

square miles is	10,237
New Hampshire,	9,491
Maine, about	40,000
Massachusetts, is	6,250
Rhode Island, about	1,580
Connecticut,	4,674
New York,	45,000
New Jersey,	8,320
Pennsylvania,	46,800

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Delaware,	2,120
Maryland,	14,000
Virginia,	70,000
North Carolina,	48,000
South Carolina,	24,080
Georgia,	62,000
Kentucky,	50,000
Tennessee, length 400 miles, breadth	400
Ohio,	39,128

The States of Louisiana, Indiana, Illinois, and Alabama, the number of square miles of each, not ascertained. There are 22 States in the Union, each of which have a Legislature, who make all the laws necessary for the government of each State distinct from that of the United States.—

[*Boston Gazette.*

*Advice and Caution.*—When old persons enveigh against the vanity and nonsense of the world in order to check the wishes and curiosities of young persons from making their experiments also, they remind me of the indifference with which a man hands a newspaper to his neighbour, after an hour's enjoyment of it, saying, "There's nothing in it, sir." The poet speaks more philosophically on this subject.

—For youth no less becomes  
The light and careless livery that it wears,  
Than settled age his tables and his weeds  
Importing health and graveness.

[*Hamlet.*

*Drawing the wrong tooth.*—One of the most curious applications of galvanism to the useful purposes of life, is its recent employment as a means of distinguishing bad teeth from good. The test which galvanism has now supplied to remedy the frequent mistakes made by dentists, who, instead of ridding you of a bad tooth, will draw the best tooth you have in your head, is considered to be one of infallible certainty in its application. The method is thus described by Professor Aldini, the nephew of Galvani. "He (the dentist) first insulates the patient, and then places in his hands an electric chain; he then applies a small piece of wire, and draws it gradually over the surface of the tooth; he then applies it to the next tooth in the same manner, and proceeds in the like method with the rest until he comes to the diseased tooth, which is discovered by violent pain being produced, and an involuntary emotion in the body. It has always been remarked when the tooth is extracted, that it exhibits a careous part, which in its proper situation was not visible." Need we add, that after the discovery of so simple a test, drawing a wrong tooth ought to be made felony at least?

*Chemistry applied to industrious Economy.*—A new method of killing animals, without causing them pain, has been adopted in London: they are made to expire by means of nitrogen gas. By this means the meat is rendered much more fresh, of a more agreeable taste, and may be preserved for a greater length of time. A great number of the butchers of London already employ this process.

*Olives, Curious Fact in Botany.*—Letters from Provence, mention the total failure of the olive plantations in that part of France. It has, indeed, been remarked, that for upwards of half a century, the olives have shown a tendency to emigrate. The soil of Province now appears to be entirely ruined, and no hope is entertained there of the future cultivation of olives. For the last fifty years, none of the young shoots have risen to above five or six feet high. It is the same in the adjacent countries, which have all suffered more or less from the cold of late years.—Two fifths of these plants have been cut down to the very roots; and three years will scarce suffice to enable them to attain maturity. The olives of Marseilles and Var were some time ago in excellent condition; but all have perished.

*Rein-deer.*—Two rein-deers were brought last November, from Lapland, and are living at liberty at a country seat near Ghent. They bear the difference of climate and the variation of temperature well, and have produced a well-formed female fawn. This is the first example of these animals having become tame and producing their species so far from their own country.

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*Domestic sewing silk,* of various colours, gathered, from worms raised in Connecticut, and spun there, and said to be of the very best quality, has recently been publicly exposed for sale in Albany.

*William Griffith, Esq.* of Burlington, N. J., a gentleman highly recommended by the veterans of the bar in this city, has issued proposals for printing a new work to be called the 'LAW REGISTER'—to make one volume of at least 500 *closely* printed pages, royal 8vo. for five dollars, per annum, payable on delivery. Subscriptions to be addressed, (post paid,) to Mr. David Allison, Burlington, N. J.

*On the increase of sounds during the night.*—It has been remarked, even by the ancients, that the intensity of sound is greatly increasing during the night.—Humboldt was particularly struck with this fact when he heard the noise of the great cataracts of the Orinoco in the plain which

surrounds the Mission of the Apures. This noise is three times greater in the night than in the day. Some writers have ascribed this to the cessation of the humming of insects, the singing of birds, and the action of the wind upon the leaves of trees: but this cannot be the cause of it at the Orinoco, where the humming of insects is much greater in the night than in the day, and where the breeze is never felt till after sunset. Humboldt, therefore, ascribes it to the presence of the sun, which acts on the propagation and intensity of sound, by opposing them with currents of air of different density, and partial undulations of the atmosphere, caused by the unequal heating of different parts of the ground. In these cases the waves of sound are divided into two waves, where the density of the medium suddenly changes, and a sort of *acoustic mirage* is produced, arising from the want of homogeneity of the air in the same manner as the *luminous mirage* is produced from an analogous cause.—*Ann. de Chim.*

*Gil Blas and Don Quixote.*—These very ingenious and diverting authors seem calculated to please readers of very different descriptions. I have observed that literary men are most delighted with Don Quixote, and men of the world with Gil Blas. Perhaps the preference of Don Quixote in the former may be ascribed to the sympathy which learned readers feel for the knight, whose aberrations of intellect originated from too intense an application to books of his own selection, and from whims which his own brains engendered.

*Learned Ladies.*—A person who frequently attended the Royal Institution, and who was both astonished and delighted with the numerous attendance of the fair sex at these scientific lectures, observed with a smile somewhat Sardonic, that he saw great advantage arising from that circumstance, as he was sure that for the future the sciences would no longer have any secrets.

*Baron Smyth's Riddle.*—Some men of the greatest talents have taken delight in composing or endeavouring to unravel riddles. Dean Swift is a case in point. Sir William Smyth, the learned Irish Baron of the Exchequer, at one time spent two days and nights in considering the answer to this conundrum: Why is an egg underdone, like an egg overdone? He would not suffer any one to give him the answer, which he at last discovered. It is a tolerable pun enough. Because they are both *hardly* done.

*Disputants.*—How often men who love argument in conversation follow victory, and not truth. In order to entrap the adversary, a brilliant illustration is substituted for argument, to amuse the opponent, and divert him from the line of his reasoning. Bird catchers carry a light with them to entice their prey into their nets, and so the leathered tribe are allured to their captivity. High-flying disputants who are thus led aside by false lights are not uncommon.

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## GOVERNORS.

*In the different states, are chosen as follows:*

New Hampshire, annually, in March, by the people.

Massachusetts, annually, in April, by the people.

Maine, annually, in January, by the people.

Rhode Island, annually, by the people, though this state retains its original charter of 1663.

Connecticut, annually, in April, by the people.

Vermont, annually, in September, by the people.

New York, once in three years, in April, by the people.

New Jersey, annually, by the council and assembly.

Pennsylvania, once in three years, in October, by the people.

Delaware, once in three years, in October, by the people.

Maryland, annually, in December, by the general assembly.

Virginia, annually, by joint ballot of the general assembly.

North Carolina, annually, "by the Senate and House of Commons."

South Carolina, once in two years, by the "Senate and House of Representatives."

Georgia, once in two years, by the general assembly.

Louisiana, once in four years, by the people.

Kentucky, once in four years, by the people.

Ohio, once in two years, by the people.

Tennessee, once in two years, by the people.

Mississippi, once in two years, by the people.

Indiana, once in three years, by the people.

Alabama, once in two years, by the people.

From which we find that ten states elect their governor annually, six once in two years, four

once in three years, three once in four years—23 states; and that the *people* have a direct *voice* in the election, in all the states, except six.

[*Bost. Gaz.*]

*Dreaming.*—Mr. Andrew Carmichael has published a very ingenious theory of dreaming. He enumerates no less than seven different states of sleeping and waking—1. When the entire brain and nervous system are buried in sleep; then there is a total exemption from dreaming. 2. When some of the mental organs are awake, and all the senses are asleep: then dreams occur, and seem to be realities. 3. When the above condition exists, and the nerves of voluntary motion are also in a state of wakefulness; then may occur the rare phenomenon of somnambulism. 4. When one of the senses is awake, with some of the mental organs; then we may be conscious, during our dream, of its illusory nature. 5. When some of the mental organs are asleep, and two or more senses awake; then we can attend to external impressions, and notice the gradual departure of our slumbers. 6. When we are totally awake, and in full possession of all our faculties and powers. 7. When under these circumstances we are so occupied with mental operations as not to attend to the impressions of external objects; and then our reverie deludes us like a dream.

*Druids.*—We learn that the ancient Druids reckoned their days not by the course of the sun, but by that of the moon. Perhaps some learned ladies of this age have adopted the almanack of the Druids, and regulate their days or rather nights, by this planet; and the dame of fashion, like the Satan in Paradise Lost, never thinks of the sun, but to address him in the lines of that immortal bard.

"To tell him how she hates his beams."

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## FOR THE RURAL MAGAZINE.

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The present condition of the Aborigines of this country is specially fitted to awaken the sympathy of every feeling heart. They were once the exclusive proprietors of this immense continent; but successive inroads have been so rapidly made on their rights, that they have been dwindled, as to power and numbers, into absolute insignificance. Our ancestors fled from persecution and tyranny, and sought in this region an asylum, in which, they might enjoy civil and religious liberty. *They were not disappointed.* They were received with kindness and hospitality by the natives, a fact, which we their descendants should never forget. And what return has too frequently been made for this generous conduct?—Unjust and inhuman treatment,—the introduction of ruin amongst them—And generally, the pernicious influence of bad example. Notwithstanding these painful circumstances some of them occasionally visit the land of ONAS, to light the calumet of peace and brighten the chain of friendship, which uniformly subsisted between him and their fathers. A journey of this kind was recently made to Philadelphia by a number of Cherokee warriors. The earthly career of one of them, was terminated in this vicinity, and his exequies were performed by his brethren on the 6th of August last, in the woods back of Bartram's gardens. This incident, has furnished the subject of the following stanzas.

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## THE CHEROKEE'S GRAVE.

Calm be thy slumbers thou heart broken stranger,  
And downy the hillock which pillows thy head,  
The grave is a refuge from sorrow and danger,  
Were wrong and oppression pursue not the dead:  
Though far from thy cabin, thy kindred, and nation.  
Unwept and unhonour'd thy relics repose,  
Ere sleep with her poppies shall steal o'er creation.  
Oft a requiem will hallow the even's still close:  
And he who may wander at that witching hour,  
On the banks of the Schuylkill the greenwood among,  
Shall listen with rapture as night's shadows lower.  
To a soul thrilling anthem by mortals unsung.  
And there shall a cenotaph rise to the glory,  
Which gilds with mild halo the temples of PENN.  
Whose laurels still bloom in their records of story,  
As the friend of the Indian,—the noblest of men.  
But ere the wrapt minstrels evanish for ever,  
May the *Great Spirit* grant them the heart cheering boon,  
That the lucid example he furnished,—may never,  
Be 'merg'd in the darkness which rests on the tomb:  
That so long as the rivers replenish the ocean,  
And still while with verdure the spring crowns the trees,  
The heart of the white man may feel sad emotion,  
When the woes of the Indian shall sigh in the breeze.  
Calm be thy slumbers thou heart broken stranger.  
And downy the hillock which pillows thy head,  
The grave is a refuge from sorrow and danger,  
Where wrong and oppression pursue not the  
dead.

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## HOPE.

Come flattering Hope! now woes distress me,  
Thy flattery I desire again;  
Again rely on thee to bless me,  
To find thy vainness doubly vain,

Though disappointments vex and fetter,  
And jeering whisper, thou art vain,  
Still must I rest on thee for better,  
Still hope—and be deceived again.

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## ANGLER.

When smiling in the pride of May,  
The meads are green, the blossoms gay,  
When fleecy clouds the sky adorn,  
Across the dew-bespangled lawn,  
The angler hies with nimble pace,  
Eager to snare the finny race.  
The glowing landscape charms his eyes,  
Within his ardent bosom rise  
Fond hopes, that numerous watery spoils,  
Ere night, will crown his pleasing toils.  
But ah! ere he his art can try,  
And throw the well-dissembled fly,  
Wherein the swift meandering brook  
The trout may seize his fraudulent hook;  
Soon in his mind with fear dismay'd,  
The landscape darkens into shade,  
Black gathering clouds obscure the skies,  
The winds in hollow murmurs rise,  
The rains in copious streams descend,  
And all his fairy visions end.  
The Angler now, with rapid feet,  
Hastens to find a dry retreat,  
And homeward takes his dripping way,  
Sad disappointment's pensive sway,  
Still he resolves, the following morn,  
Again to trace the verdant lawn,  
Again to try his angle's wiles,  
And trust the weather's tempting smiles.  
HOPE, like the limpid stream he loves,  
With various course, still onward moves;  
Though rising high, or sinking low,  
Yet never ceases it to flow.

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## **THE MOTHER'S LAMENT.**

*By Bernard Barton.*

Pale and cold is the cheek that my kisses oft press'd,  
And quench'd is the beam of that bright-sparkling eye;  
For the soul, which its innocent glances confess'd,  
Has flown to its God and its Father on high.

No more shall the accents, whose tones were more dear  
Than the sweetest of sounds even music can make,  
In notes full of tenderness fall on my ear;  
If I catch them in dreams, all is still when I wake,

No more the gay smiles that those features display'd  
Shall transiently light up their own mirth in mine;  
Yet, though these, and much more, be now cover'd in shade,  
I must not, I cannot, and dare not repine.

However enchantingly flattering and fair.  
Were the hopes, that for thee, I had ventur'd to build,  
Can a frail, finite mortal presume to declare  
That the future those hopes would have ever fulfilled?

In the world thou hast left, there is much to allure  
The most innocent spirit from virtue and peace:  
Hadst thou liv'd, would thy own have been equally pure,  
And guileless, and happy, in age's increase?

Temptation, or sooner or later, had found thee;  
Perhaps had seduc'd thee from pathways of light;  
Till the dark clouds of vice, gath'ring gloomily round thee,  
Had enrapt thee for ever in horror and night.

But *now*, in the loveliest bloom of the soul,  
While thy heart yet was pangless, and true, and unstain'd;  
Ere the world one vain wish by its witcheries stole,  
What it could not confer, thou for ever hast gain'd

Like a dew-drop, kiss'd off by the sun's morning beam,  
A brief, but a beauteous existence was given;  
Thy soul seem'd to come down to earth, in a dream,  
And only to wake, when ascended to heaven!

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## CHURCH FELLOWSHIP.

*By James Montgomery.*

People of the living God!  
I have sought the world around,  
Paths of sin and Sorrow trod,  
Peace and comfort no where found;  
Now to you my spirit turns,  
Turns,—a fugitive unblest;  
Brethren! where your altar burns,  
O receive me to your rest.

Lonely I no longer roam  
Like the cloud, the wind, the wave,  
Where you dwell shall be my home,  
Where you die shall be my grave,  
Mine the God whom you adore,  
Your Redeemer shall be mine;  
Earth can fill my soul no more,  
Every idol I resign.

Tell me not of gain and loss,  
Ease, enjoyment, pomp, and power,  
Welcome poverty, and cross,  
Shame, reproach, affliction's hour!  
—"Follow me!"—I know thy voice,  
Jesus, Lord! thy steps I see;  
Now I take thy yoke by choice,  
Light thy burthen now to me.

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## STATE OF THE THERMOMETER.

	9 o'cl.	12 o'cl.	3 o'cl.
Nov. 8,	47	48	51
9,	49	55	52
10,	37	41	40
11,	33	34	34
12,	Snow this day.		
13,	30	36	34
14,	30	38	35
15,	32	39	39
16,	33	44	44
17,	37	49	50
18,	40	50	52
20,	44	49	46
21,	46	50	50
22,	39	52	50
23,	40	49	33
24,	45	57	57
25,	46	48	51
27,	33	40	36
28,	31	34	34
29,	32	41	39
30,	29	30	29
Dec. 1,	23	34	33
2,	33	43	41
4,	36	39	41
5,	38	41	41
6,	39	43	43
7,	35	42	45
8,	41	45	44
9,	38	40	41
11,	29	34	33
12,	25	27	26
13,	27	30	32
14,	33	38	38
15,	36	38	42
16,	28	30	28
18,	31	32	33
19,	35	37	33

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## RAIN GAUGE AT PHILADELPHIA.

		In. hun.
Novem. 8,	Rain,	0.17
11 to 12,	Rain and some Snow	2.35
21,	Rain,	0.30
Dec. 4,	do.	0.98
9,	do.	0.34
15,	do.	0.18
21,	do.	0.11

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## *TO OUR SUBSCRIBERS.*

The present number of the RURAL MAGAZINE will complete a volume; and is intended also to terminate our editorial labours in the present form. It may perhaps be proper, briefly to advert to the circumstances which have led to this determination.

We embarked in the enterprise, without making promises not designed to be performed, or indulging extravagant expectations, as to patronage and emolument. We honestly believed that important services might be rendered to the agricultural interests, which we consider the great



and growing interests of our country, by the extensive circulation of such a publication. We had no doubt, that enlightened and public spirited farmers, would have gladly availed themselves of our pages, for the purpose of disseminating useful information, connected with the prosperity and advancement of the FIRST OF ARTS. In this reasonable expectation, we are compelled to acknowledge, that we have been entirely disappointed.

Our farmers of Pennsylvania, who as practical men, if they do not surpass, are at least inferior to none in the United States, have discovered a most extraordinary reluctance in committing to writing the result of their experience. Hence a principal difficulty in supporting with a suitable degree of animation, an agricultural paper in this place.

We nevertheless look forward to the period, and we hope it is not far distant, when many of the discouragements which now present themselves will have disappeared; when such a work, or one perhaps *exclusively* devoted to AGRICULTURE and RURAL AFFAIRS, will be called for, by those most immediately interested. When this time shall arrive, we may possibly again undertake a work of this kind; but at present, lest we should be considered obtrusive, our editorial duties are relinquished.

To this we are reluctantly impelled, as well by pecuniary considerations, (for our subscription list has not latterly increased as was expected,) as for the reason already stated.

In reviewing the course which has been pursued, we are unconscious of having omitted any exertion, or failed in the performance of any stipulation, which the terms of our engagements seemed to us to impose. The twelve numbers published, will form a handsome volume; and we are induced to believe, contain many articles well worthy of preservation. For such of our friends, who may wish to have these bound, and will place them in our hands for that purpose, we will employ a binder, and see that the work is executed neatly, and on the most moderate terms.

To those of our patrons who have been punctual in their remittances, we return our thanks. Those who appear to have been unmindful of this duty, will we trust remember, as stimulating circumstances, the smallness and justice of our claims.—With these observations, we respectfully take leave of our readers, and feel desirous of parting with them, with sentiments of mutual good will.

As we cannot reciprocate the favour to those editors who have sent us their papers in exchange for ours, we of course will not expect to receive them in future.

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## FOOTNOTES:

- [1] The Natural History of Ants; by M. P. Huber, &c. Translated from the French, with Additional Notes, by J. R. Johnson, M.D. F.R.S. &c. London, 1820.
- [2] The eggs of ants are so remarkably minute, that there would seem an absolute necessity of their being held together by some glutinous matter, otherwise, it would render the removal of such small bodies in the mandibles of ants almost impossible; the mandibles being so constituted as not to be brought into that close contact necessary for this operation.—T.
- [3] I retained in close captivity in the same box nearly a month, about an equal number of Red and Yellow Ants. It would seem that a general feeling of compassion for their unfortunate imprisonment had given birth to a suspension of hostilities, and that rankling animosity had been exchanged for good will and social order. During this period I seldom witnessed any affray on the exterior of the nest, and on breaking it up, the interior gave me no room to suppose it had been the scene of much contention; but scarcely were they liberated, scarcely did they feel the fresh breeze passing over them, than their animosity rekindled, and the field of their liberty became the theatre of sanguinary combat. For a few moments each party seemed engaged in discovering a place of retreat, and it was only on returning to the ruins of their original prison, to bring off the rest of their companions, that they encountered and waged war upon each other. What was as singular as unexpected, they fought in pairs, in no one instance *en masse*; indeed, it only twice happened, although the ground was strewed with combatants, that a third came to the aid of its companion, and even then, as if conscious of the unequal contest, one immediately retired. It was inconceivable with what desperate fury, and with what determined obstinacy they fastened upon each other. With their mandibles alone they often succeeded in effecting a complete separation of the body of their antagonist, of which the ground exhibited many proofs when I revisited it.

### Transcriber's note:

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The first pages of Volume 1 No. 12 are incorrectly numbered 241 to 280, rather than 441 to 480; the numbers following 280 begin at 481. The transcriber has numbered them to continue the pattern of the previous issues.

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