

purpose in question. Their bearing was so frank and open—their countenances beamed with such joy and pleasure—their laughter was so hearty and unrestrained—there was so little selfishness, so little guile, so little conventionalism in their behaviour, that I inwardly prayed that the denizens of the world were all little boys and girls, that I might love them as I was capable of doing.

By and by, Emmy brought me a message from her mama, that she was desirous of seeing me. The little thing had not kept her promise, but I forgave her. I called upon my friends, and was reconciled to them; and, after much persuasion, they prevailed upon me to return to the town, where I soon drew around me a small select circle of friends. When I reviewed my past conduct, I reproached myself severely; for I thought if mankind were ever so depraved, I felt I was not justified in sacrificing a single sincere friend by excluding myself from the world entirely. No matter how circumspect a man may be, no matter how desirous of pleasing, no matter how solicitous for the world's good opinion; experience had taught me that there would always be a class of people ready to invent some calumny or seize upon some pretext that they might be enabled to cast some degree of obloquy upon his reputation; and as Achilles was only vulnerable in his heel, so there is nobody whose character is ever so unspotted, but possesses some frailty, some weakness, that may be seized upon by his enemies and turned to his own disadvantage. Therefore, as it appeared impossible to earn the good opinions of all, I resolved to be satisfied if I could secure those of a few. I reflected upon the multitude of passions by which the minds of men are beset; I considered the cares, distractions, and disappointments which those struggling with the world have to encounter; and I thought it was possible to incur a person's displeasure or hatred without suffering any moral degradation by so unhappy a circumstance. So long as I was myself conscious of a manly rectitude of heart; so long as I had wittingly done no action that could throw a stain upon my character; so long, indeed, as I continued to discharge the duties becoming a Christian and a gentleman; so long I conceived myself capable of defying the opinions of the world, and of treating its slanders and machinations with indifference. This little history may not be without its use; and I invite all persons inclined to be misanthropical to read it.

From the Rev. Dr. Anderson's Course of Creation.

EARLY HISTORY OF THE USE OF COAL.

BITUMINOUS matter, if not the carboniferous system itself, exists abundantly on the banks of the Euphrates. In the basin of the Nile coal has been recently detected. It occurs sparingly in some of the states of Greece; and Theophrastus in History of Stones, refers to Mineral Coal being found in Liguria and in Elis, and used by the smiths; the coals are earthly, he adds, but kindle and burn like wood coals. But by none of the Oriental nations does it appear that the vast latent powers and virtues of the mineral were thus early discovered, so as to render it an object of commerce or geological research. What the Romans termed *lapis ampelites*, is generally understood to mean our cannel coal, which they used not as fuel, but in making toys, bracelets and other ornaments; while their *carbo*, which Pliny describes as *vehementis peractus*, was simply the petroleum or naphtha, which issues so abundantly from all the tertiary deposits. Coal is found in Syria and the term frequently occurs in the Sacred Writings. But there is no reference anywhere in the inspired record as to digging or boring for the mineral, no directions for its use, no instructions as to its constituting a portion of the promised treasures of the land. In their peace offerings wood appears uniformly to have been employed; in Leviticus the term is used as synonymous with fire, where it is said that 'the priests shall lay the parts in order upon the wood—that is on the fire which is upon the altar. And in the same manner for all domestic purposes, wood and charcoal were invariably made use of. Doubtless the ancient Hebrews would be acquainted with natural coal, as in the mountains of Lebanon, whither they continually resorted for their timber, seams of coal near Beirut were seen to protrude through the superincumbent strata in various directions. Still there are no traces of pits or excavations into the rock to shew that they duly appreciated the extent and uses of the article. For many reasons it would seem that among modern nations the primitive Britons were the first to avail themselves of the valuable combustible. The word by which it is designated is not of Saxon but of British extraction, and it is still employed to this day by the Irish, in their form of *o-gaul*, and in that of *kolan* by the Cornish. In Yorkshire, stone hammers and hatchets and spades have been found in old mines, showing that the early Britons worked coals before the invasion of the Romans. Manchester which has risen upon the very ashes of the mineral, and grown to all its wealth and greatness under the influences of its heat and light, next claims the merit of the discovery. Portions of coal have been found under, or imbedded in the sand of a Roman way, excavated some years ago for the construction of a house, and which at the time were ingeniously conjectured by the local antiquaries to have been collected for the use of the garrison stationed on the route of these warlike invaders at Mancunium, or the place of Tents. Certain it is

that fragments of coal are being constantly, in the districts, washed out and brought down by the Medlock and other streams, which break from the mountains through the coal strata. The attention of the inhabitants would in this way be the more early and readily attracted by the glistening substance. Nevertheless, for long after coal was but little valued or appreciated, turf and wood being the common articles of consumption throughout the country. About the middle of the ninth century, a grant of land was made by the Abbey of Peterborough, under the restrictions of certain payments in kind to the monastery, among which are specified sixty carts of wood, and as shewing their comparative worth, only twelve carts of pit coal. Towards the end of the thirteenth century, Newcastle is said to have traded in this article, and by a charter of Henry III., of date 1284, a license is granted to the burgesses to dig for the mineral. About this time coals for the first time began to be imported into London, but were made use of only by smiths, brewers dyers and other artisans, when, in consequence of the smoke being regarded as very injurious to the public health, Parliament petitioned the king, Edward I., to prohibit the burning of coal on the ground of being an intolerable nuisance. A proclamation was granted, conformable to the prayer of the petition; and the most severe inquisitorial measures were adopted to restrict or altogether abolish the use of the combustible, by fine, imprisonment, and destruction of the furnaces and workshops. They were again brought into common use in the time of Charles I., and have continued to increase steadily, with the extension of the arts and manufactures, and the advancing tide of population, till now, in the metropolis and suburbs, coals are annually consumed to the amount of three millions of tons. The use of coal in Scotland seems to be connected with the rise of the monasteries. Under the regime of domestic rule at Dunfermline, coals were worked in the year 1291—at Dysart and other places along the Fife coast, about half a century later—and generally in the fourteenth and fifteenth centuries the inhabitants were assessed in coal to the churches and chapels, which, after the reformation have still continued to be paid in many parishes. Boethius records that in his time the inhabitants of Fife and the Lothians dug a black stone, which, when kindled, gave out a heat sufficient to melt iron.

From the Friend of India.

A HINDOO BLACKSMITH.

It is frequently asserted by those who have observed only the surface of the native character, that the inhabitants of India and particularly those of Bengal, are deficient in that hard working, pushing energy which distinguishes the Anglo Saxon, and that they never raise themselves to eminence except by money transactions. We have now however to record the death of one who exhibited in his own labours a complete refutation of all these assertions, and who, though moving in the humble sphere of a blacksmith, was as worthy of admiration as any of the men who have in England raised themselves to independence solely by their own exertions. The father of Crishna Chundra, Manohur Kama, entered the service of the Serampore Missionaries shortly after their arrival in this country, as a manufacturer of the steel dies from which the matrix is formed for casting types, or, in the parlance of the trade, as a punch cutter. In this capacity he worked on the Serampore establishment for more than thirty years, and cut the punches in more than fifteen Oriental languages. The son continued at his father's employment, and cut, among other difficult type, the intricate Chinese characters required by Dr. Marshman for his Chinese works, and which have puzzled some of the best typefounders in England. Crishna Chundra subsequently determined to set up for himself as a printer; but he was aware of the inefficiency of the old wooden presses, and was without sufficient capital to purchase an iron one. With an energy and patience deserving of the highest commendation, he constructed with his own hands an iron press on the model of one of them employed in the Serampore printing-office. With this single press he commenced business, and his low rate of charges, and singular skill in his trade speedily procured him as much business as he could conveniently manage. He gradually purchased or constructed another press or two, and commenced the publication of a Punjika, or Bengalee Almanac, by far the most popular of the many editions current in Bengal, and the annual circulation of which rose shortly to four or five thousand. Although this gave him a greater command of money, he still continued his trade of punch-cutting; and the great improvements which have been made in the appearance of the Bengalee types, now used in twenty presses in Calcutta, is almost entirely to be ascribed to his exertions. His labours, though they never afforded him wealth, gave him an income much superior to that enjoyed by the generality of his countrymen in his own rank, and we believe, his sudden death has not left his family unprovided for. An attack of cholera, which seized him carried him off in a few hours; and we have rarely witnessed more regret for the death of an individual than that displayed by the native community of Serampore, by whom he was universally respected. His life and success should be a stimulus to his countrymen in the path of active, patient exertion, and his history, if fully narrated, would go far to redeem them from the charge of being deficient either in energy or perseverance.

Albert Smith's Month at Constantinople.

A CAMEL RIDE.

THE animal I got was a common baggage camel—very savage and stubborn, crying loudly and running backwards when beaten; so that my first experience was not a very pleasant one. He knelt down for me to get upon him, but even then it was a long stretch to cross his back. Subsequently, in Egypt, I learned to vault on to the saddle; if, indeed, the package of old carpet, straw, and wood-work could be called one. In front there is a high pommel, which you clutch hold of when the animal rises. If you did not do this, the pitching forwards and backwards is so violent that you would inevitably be thrown off. You have only a simple single halter to guide him with, and the end of this is sufficiently long to beat him. I will own to having been in a terrible fright all the time I was on his back. With his uneasy rocking motion I had the greatest difficulty in the world to keep on, and the fall from my elevated perch—for such it was—would have been no joke; and when he trotted it was enough to bring the heart into the mouth. If I were asked to describe the first sensations of a camel ride, I would say—take a music stool and having wound it up as high as it will go, put it in a cart without springs, get on the top, and next drive the cart transversely across a ploughed field, and you will then form some notion of the terror and uncertainty you would experience the first time you mounted a camel. To make him go fast you cry 'Su, su,' and also make a noise with your tongue something like the word 'thuck' and to get him to kneel down, you pull his neck sideways and downwards, and produce a creaking sound by pressing your tongue against the back of your teeth. At first a very short journey is exceedingly fatiguing, and gives one the lumbago for a week; but afterwards a see-saw motion becomes so little cared for, that I can well understand folks going to sleep on a camel. Once, in the desert, on a very hot day I nearly dozed off myself.

ENGLISH SCRAPS.

ADVANTAGES OF EDUCATION TO MECHANICS.

It has a tendency to exalt the character, and, in some measure, to correct and subdue the taste for gross sensuality. It enables the possessor to beguile his leisure moments (and every man has such) in an innocent, at least, if not in a useful manner. The poor man who can read, and who possesses a taste for reading, can find entertainment at home, without being tempted to repair to the public-house for that purpose. His mind can find employment, where his body is at rest. There is in the mind of such a man an intellectual spring, urging him to the pursuit of mental good; and if the minds of his family are also a little cultivated, conversation becomes the more interesting, and the sphere of domestic enjoyment enlarged. The calm satisfaction which books afford puts him into a disposition to relish more exquisitely the tranquil delight of conjugal and parental affection; and as he will be more respectable in the eyes of his family than he who can teach them nothing, he will naturally be induced to cultivate whatever may preserve, and to shun whatever would impair that respect.—Robert Hall.

THOMPSON'S GLASS-SILVERING PROCESS.

Experiment has completely established the superior advantage, in point of beauty and warmth of lustre, which pure silver has over the amalgam of tin and mercury usually employed in the manufacture, and the only doubtful point involved in its application consists in the choice of the agent by which the pure metal is to be precipitated from the solution. Under one patent, essential oils have been used to throw it down from a solution of nitrate of silver; but this process, besides being attended with expense, is said not to be permanently effective, the reflecting surface gradually becoming black with the lapse of time. Dr. Thompson's patent substitutes a saccharine solution for the essential oil, and by this means is free from the demerits of the old practice. His second patent involves a process of singular ingenuity, the value of which can only be appreciated by a reference to the extraordinary beauty and variety, and the absolute novelty of the resulting manufacture. Though susceptible of application to every article as decoration, presenting externally the appearance of silver, gold, or bronze, we shall explain its general nature by describing the outline of the manufacture of a glass vase. The glass having been blown in the proper mould, the external portion of it is drawn out into an elongated form, and whilst in a soft state is doubled back within the mould by exhausting a portion of the air which it contains. In this way a vase is formed, having in reality double surfaces, leaving an intermediate space between them. The silvering solution is poured into this, and the aperture is then hermetically sealed. When either surface is cut to the required pattern, the removal of the external colouring matter allows the bright silver to appear thro' the transparent body of the glass, and thus the most beautiful effects, infinite in variety, arises from the blending of colour and metallic brilliancy.

IMPROVEMENT IN BLASTING.

A cartridge tube of water-proof paper, made of a conical or sugar-loaf form, has been used at Philadelphia by a Mr Speakman for insertion into the usual blast hole, in order to ensure a greater breadth of effect. Rammed in with earth, and fired, the force of the wedge-like mass of powder is said to take a lateral direction, and to yield double execu-

tion compared with the old operation of tamping.

STRANGE EFFECT OF RAILWAYS.

Much as we love railways, there is one thing undeniable: railways are shifting all towns of Britain into new places; no town will stand where it did, and nobody can tell for a long time yet where it will stand. This is an unexpected, and indeed most disastrous result. I perceive railways have set all the towns of Britain a-dancing. Reading is coming up to London, Basingstoke is going down to Gosport or Southampton, Dumfries to Liverpool and Glasgow; while at Crewe, and other places, I see new ganglions of population establishing themselves, and the prophecy of metallurgic cities which were not heard of before. Reading, Basingstoke, and the rest, the unfortunate towns, subscribed money to get railways; and it proves to be for cutting their own throats. Their business has gone else-whither; and they—cannot stay behind their business! They are set a-dancing as I said; confusedly waltzing in a state of progressive dissolution, towards the four winds; and know not where the end of the death-dance will be for them, in what point of space they will be allowed to rebuild themselves. That is their sad case.—Thomas Carlyle.

REMOVAL OF A WAREHOUSE.

The wholesale removal of a large warehouse was achieved last week at Cardiff (Wales.) Messrs. Grant, timber merchants, having lately had occasion to enlarge their premises, found it necessary to remove their bonded warehouse a distance of about one hundred feet. Instead of accomplishing the task by taking the whole asunder and shifting it stick by stick, in the old style, the entire pile was the other day at once removed, with great ease, and without extracting a single nail, by raising the whole warehouse on rollers, and propelling it by massive chains.

PURSUIT OF ART UNDER SINGULAR DIFFICULTIES.

A self-taught artist named Carter has recently died at Coggeshall, Essex, where he had for many years resided. He was originally a farm laborer, and by accident, lost the power of every part of his body but the head and neck. By the force of perseverance and an active mind, however, he acquired the power of drawing and painting, by holding the pencil between his lips and teeth, when placed there by the kind offices of an affectionate sister. In this manner he had not only whiled away the greater part of fourteen years of almost utter physical helplessness, but has actually produced works which have met with high commendation. His groups and compositions are said to have been most delicately worked and highly finished. The poor fellow had contemplated the preparation of some grand work for the International Exhibition, but the little of physical life remaining in him was lately extinguished by a new accident. The best of his art-productions would surely be worth a place in the Industrial Exhibition even independently of anything like art-merit.

NEW SCIENTIFIC INSTITUTION AT SOUTHAMPTON.

An eccentric gentleman of the name of Hartley has lately died at Havre, bequeathing property valued at from £20,000 to £25,000, to form a library and scientific institute at Southampton, whence he had departed, when young, after locking up his house, furniture, garden, &c., which have remained ever since *in statu quo*, or at least without interference by him, having refused either to let it or to receive the value of a portion of it taken under Act of Parliament by the Itchen Bridge Company.

THE WEST INDIA MAIL CONTRACT.

The particulars of the mail contract, recently entered into between the Admiralty and the West India Steam Packet Company, have just been printed and published by the Government. According to this document, the West India and Brazilian form one contract, which is to commence on the first of January next, and last eleven years. The Company are to provide fifteen wooden steam vessels; ten of them to be of 400, four of 250, and one of sixty horse power. They are to provide also a sailing vessel of one hundred tons burden. All these vessels are to have lightning conductors, and the commanders and chief, and second officers, must have certificates of fitness from the Board of Examiners appointed by Act of Parliament. None of the small vessels are to perform the Atlantic service. The company are to receive £270,000 a year from Government, and the penalties to which they are liable are £50,000 for non performance of the contract; £500 for not starting from Southampton at the proper time; and £200 for not starting from any other port. They are bound to vary, if required, the route of their vessels employed in the North and South Atlantic Oceans, between the latitudes of 27 degrees North, and 37 degrees South, and 20 degrees, and 97 degrees 52 seconds, West longitude. They are to receive nine shillings and ten pence for every additional mile their vessels are required to perform in the course of the year beyond 547,296 nautical miles. They are bound to make improvements in the construction, equipment and machinery of their vessels, as the advanced state of science may suggest. If the packet station is removed from Southampton, they are to receive compensation for the expense of removal and for diminution of receipts. In case of war they are to be paid extra, in the event of increase of the rate of insurance, and of the freight of coals. But the extra pay is not to exceed in one year £75,000, nor are they to be paid for additional freight, on more than 75,000 tons of coal annually. They are bound, if re-