

cordingly executed, but in a most barbarous and butcher-like manner, amidst a numerous multitude of weeping spectators.

WEARING STOCKINGS.—Two centuries ago, not one person in a thousand wore woollen stockings: one century ago, not one person in five hundred wore them; now, not one person in a thousand is without them; yet, William Lea, the inventor of the stocking-frame, could get no person to patronise his invention, and he died of a broken heart.

COINING.—We sometimes behold that singularity of character which joyfully steps out of the beaten track for the sake of being ridiculous; thus the barber, to excite attention, exhibited in his window, green, blue, and yellow wigs; and thus *Noah Bullock*, enraptured with his name, that of the first navigator, and the founder of the largest family upon record, having three sons, named them after those of his predecessor, *Shem, Ham, Japhet*; and to complete the farce, being a man of property, built an *Ark*, and launched it upon the *Derwent*, above *St. Mary's Bridge*: whether a *Bullock* graced the stern, history is silent. Here *Noah* and his sons enjoyed their abode, and the world their laugh. But nothing is more common than for people to deceive each other, under a mask. If they publicly ridiculed him, he privately laughed at them: for it afterwards appeared he had more sense than honesty, and more craft than either; for his disguise and retreat were to be a security to coin money. He knew justice could not easily overtake him; and if it should, the deep was ready to hide his crimes and his utensils. Sir Simon Degge, an active magistrate, who resided at *Babington Hall*, was informed of *Noah's* proceedings, whom he personally knew; the knight sent for him, and told him, he had taken up a new occupation, and desired to see a specimen of his work; *Noah* hesitated. The magistrate promised that no evil should ensue, provided he relinquished the trade. He then pulled out a sixpence, and told Sir Simon, he could make as good work as that. The knight smiled; *Noah* withdrew, broke up his ark, and escaped the halter.—*Hulton's History of Derby.*

WASHING.—Further on, where the brook fell into a deeper basin, we saw some women washing linen by stamping on it with their feet,—the universal method of washing here, where nearly every thing is done in a manner precisely the reverse of ours. For example, the Arabs mount their horses on the right side; write from right to left; wear the crooked sabre with the concave side in front: let the beard grow, and shave the head; sit on their own legs instead of a chair; eat their bread hot, and their meat cold; take their soup at the end of the meal, instead of the beginning; bare their feet instead of their heads on entering a room; and many other things in like manner. If our laundresses chose to adopt the Arabian fashion, they would have a double advantage; they could wash and knit at the same time. You see I profit by my travels. We afterwards saw a man pass on horseback who had put meat under his saddle, in the manner of the Tartars, to make it tender; by which means it really becomes more tender and better flavoured than it does by all the beating the cutlets get with us, to soften their dispositions.—*Semilasso in Africa.*

POISONOUS FLY.—Near this place (*Babakala*, on the *Danube*) we found a range of caverns, famous for producing the poisonous fly, too well known in *Servia* and *Hungary* under the name of the *Golubacser fly*. These singular and venomous insects, somewhat resembling mosquitoes, generally make their appearance during the first great heat of summer, in such numbers as to seem like vast volumes of smoke; their attacks are always directed against every description of quadruped, and so potent is the poison they communicate, that even an ox is unable to withstand its influence, for he always expires in less than two hours. This results, not so much from the virulence of the poison, as that every vulnerable part is simultaneously covered with these most destructive insects; when the wretched animals, frenzied with pain, rush wild through the fields till death puts a period to their sufferings, or they accelerate dissolution by plunging headlong into the rivers. The shepherds of these countries, taught by experience the time of their approach, anoint every part of their flocks and herds, unprotected by nature, with a strong decoction of wormwood; to which it appears, these flies have a great antipathy. In addition to this, the shepherds keep immense fires constantly blazing; around which the poor animals, aware of their danger, tremblingly and patiently congregate. Kind nature has, however, mercifully ordained that their existence shall be most ephemeral; for the slightest variation in the weather is sufficient to destroy the whole swarm; hence they seldom live beyond a few days. The probable supposition, however, is, that when the *Danube* rises, which it always does in the early part of summer, the caverns are flooded, and the water remaining in them becomes putrid, and produces, during the heat of summer, this most noxious fly.—*Spencer's Circassia.*

A LIVONIAN WEDDING.—The house of the bride is surmounted by a huge plume of feathers, ribbons, and rags, of every form and hue, and her door is arched round with branches and flowers. At two o'clock, on Sunday morning, she hears a knock at the door, and feels as if it had struck upon her heart. She does not answer—transmitted custom forbids; and the covers

are obliged to bribe the family to disclose her retreat. These are the friends selected to conduct the ceremony, and who are under the obligation to defray every expense preliminary to the moment of union. The hours are spent in drinking till it is time to go to church, when a relation of the bride gives the signal for starting, by taking down the plume from the roof, and mounting with it on horseback. In this state, he leads the procession, and the destined fair one follows, with her female friends, in a carriage borrowed for the occasion. The bride is usually dressed like a French lady, for her mistress would be austere indeed, if, on so interesting an occasion, she refused the loan of almost any part of the wardrobe. The cavalcade visits the lord of the land, and other rich neighbors, to all of whom the virgin offers a pair of gloves, stockings, or garters, receiving in return a present of money. When passing the bridge of the town or village in which the church is situated, she throws a pair of garters among the crowd; lucky is that individual, who, in the general scramble which ensues, obtains possession of the prize. After the marriage ceremony is performed in the usual way, the procession returns in the same order, celebrating the event by shouting and firing pistols. The whole party then repair to the bridegroom's house; and both sexes sit down to a feast, from which they rarely think of rising till midday on Monday.—[*Leigh Ritchie's Journal.*]

A NOTICE TO THIEVES.—A number of years ago, Captain *Edgar*, an eccentric old gentleman residing at a cottage near *Laswade*, was greatly annoyed by nocturnal depredations habitually breaking the fences of his garden, in order to get at the good things which the premises contained. As he did not care so much for the loss of his fruit as the damage done to the enclosures, and as he was rather fond of witticism, he had the following notice put up:—"All thieves are in future to enter at the gate, which will be left open every night for the purpose."

ON METALS.

CONSIDERED IN REGARD TO THEIR UTILITY,—DELIVERED BEFORE THE HALIFAX MECHANICS' INSTITUTE.

By W. F. Teulon.*

But what are we thinking about all this time; and what are the subjects of our enquiry? What are the metals spoken of? And what are we to understand by a metal? A metal is an elementary atom, disposed to crystallization, the calces of which are earths, or alkalies; and the solutions of which in other metals are alloys, in gases calces, and in acids salts;—having tenacity, and lustre, not friable but extensible under the hammer, and the burnisher; being sonorous, and opaque, when reduced to plates, and having a paramount capacity and conductivity for caloric, and electricity, [or magnetism]. Iron is the best specimen of a simple metal; and steel of a compound one or alloy.

There are probably many unknown metals, even in our own planet. An alphabetical catalogue of such as are known is as follows:—

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| 1 Antimony or Stibium. | 23 Manganese. |
| 2 Arsenium or Arsenic. | 24 Molybdenum. |
| 3 Aluminium. | 25 Magnesium. |
| 4 Barium. | 26 Nickel. |
| 5 Bismuth. | 27 Natronium or Sodium. |
| 6 Britannium or Tin. | 28 Osmium. |
| 7 Carbonium or Adamant. | 29 Platinum. |
| 8 Copper. | 30 Palladium. |
| 9 Chalcium or Potassium. | 31 Rhodium. |
| 10 Cadmium. | 32 Silver. |
| 11 Cobalt. | 33 Selenium. |
| 12 Ceromium. | 34 Strontium. |
| 13 Chalcidra or Iron. | 35 Sulfur. |
| 14 Columbium. | 36 Tellurium. |
| 15 Cerium. | 37 Tungsten. |
| 16 Calcium. | 38 Titanium. |
| 17 Crumabarium or Quicksilver. | 39 Uranium. |
| 18 Gold. | 40 Vanadium. |
| 19 Glucium. | 41 Yttrium. |
| 20 Iridium. | 42 Zinc. |
| 21 Lythargyoun or Lead. | 43 Zirconium. |
| 22 Lithium. | |

None of these are devoid of interesting or utile characters, though many of them are rare, or but little recognized. I refer you to Mineralogical, and Chemical treatises for the description of their properties, uses, etc. and decline the interesting task of dwelling for a time upon the more prominent, only because that time is denied me.

Is not the utility of metals, then admitted to be, an interesting fact? It is also a fact that the ancients bore a frequent testimony in favor of it. Moses in the *Pentateuch* and *Book of Job*, makes early and repeated mention of metals, their sources, and their uses. "Surely there is a vein for the Silver, and a place for the gold where they find it, Iron is taken out of the clay, and Brass, is [Copper] molten out of the calamine stone;" and subsequent inspired, as well as secular writers, from *Pythagoras* as to *Pliny*, have honoured the subject with their descriptions and allusions. The ancient Mythology also evidences that Metallurgists were even deified in obedience to the principle of their acknowledged utility. These concessions appertained to the more enlightened and polished nations of the earth: but nations deprived of the use of metals were either barbarous or enslaved, and such under these privations they are still found to be:—while from their ex-

tended use arises modern civilization, freedom, literature, improvement in the arts, (to say nothing of arms) and general refinement.

The truth of these assertions, are demonstrated by a visit to the various manufacturing departments:—and there observing how they operate and co-operate, adopt and transmit, forces borrowed from the water, the atmosphere, and from steam, to the stamp, the chasing tool, and the hammer, the roller, the lathe, and the draw-bench, thus producing almost an infinitude of useful forms; conducive to the multiplied conveniences of business, and social and domestic life. As a simple instance, "in the nail manufacture as carried on in *Birmingham*, machinery is used by which well formed nails are cut out of sheet iron, with a rapidity which leaves far behind the swiftest motion of the muscles in clipping paper, with the scissors. Nails thus cut, receive by powerful pressure well formed heads, while a happy application of chemical science in annealing, gives them a tenacity which almost rivals the productions of the fire and the hammer." The power and precision thus ensured cannot fail to delight the beholder, and to sanction the remarks here offered. An observance of the convenience and advancements of society will add a further confirmation to the idea, shewing that the pen, the press, and all the various embellishments of life exact largely upon the utilities of metals for their maintenance and exaltation.

Having in the gross considered their utility as engaged in expending and regulating the motor powers of water, caloric, and steam, let us still further, to ascertain the amount of their usefulness, inspect the various products of modern art; and see how metals are at once the subject matter, and the agents of their diversified and advantageous principles. By imagining what would result upon the privation of these advantages, we may derive further assistance toward the conviction of their immense utilities; and the acknowledgement that these utilities are of a nature to influence and adorn every department of civilized existence.

The facts proposed for our examination are then of inestimable value, and their real extent may be supposed by reflecting on the utilities of metals in relation to the inorganic world, as forming the great bulk of its materials—the organic world as entering into the substances of all living structures;—the political and moral world as furnishing an ample fund of coercion and restraint, employment and direction; and further, pecuniary reward, for the bad or good principles, and faculties of our nature. This enquiry, like most others, becomes increasingly valuable in proportion to the attention and energy we bestow upon it: its evidences, objects, design, and application.

The design I profess to have been—1st. To illustrate a subject, though interesting and important, is but seldom discussed;—2nd. To invite attention, and further enquiry into this topic of consideration;—3rd. To stimulate, especially in the young, the study of nature, and Natural Philosophy.—4th. To show how nature by very simple means, can produce diversified and magnificent results;—5th. To correct some popular errors connected with this enquiry. I trust these ends have not been entirely missed in the prosecution of the arrangement; and that from the opening to the close of these considerations, they are particulars, on which we may fix the attention, with some measure of delight and profit.

Proportioned to our acquaintance with a subject, is the interest it assumes in our understanding. If we then investigate the present, we shall find the employment fraught with interesting relations, and in the end shall find ourselves amply recompensed for our exertions. We may even perceive that a tract lies open to us in this field; and why should we expect to labour therein in vain.

Metals undoubtedly hold a distinguished, perhaps a principal place, among terrestrial substances;—they may be considered of an imperishable nature, constantly reappearing after all mutations, and decompositions have elapsed, and reasserting their original tenure.—They form the superstratum of our planet, and probably of all the planetary orbs—And I conceive that not our world only—but the visible heavens—the universe of matter, is pervaded and adorned by metals, and their useful productions; as well as by intelligent creatures to use and enjoy them.

Every department of Science is fraught with pleasure: and calculated to expand, and fertilize the understanding; which being thus improved, contributes to our usefulness and happiness. We thus advance in society, and philosophy; and hence the utility of Exercises, and Institutions such as the present. I believe the female mind is as well constituted for study as its opposite: as the conspicuous example of *Ladies eminent for literature, philosophy, and art*, sufficiently proves: hence the propriety of their attendance on such occasion, as this and of the female departments of society being instructed in Science. The limit of our studies in the field of physics is ample as the universe. This should warm and encourage, not dismay us. Scientific studies on this consideration lead us to a love of our immortality: as our existence is no otherwise bounded. And to conclude: as our study of nature, is but a contemplation of the Works of the Great Supreme; they should perpetually advance awe, admiration, humility, and gratitude towards Him.

*Concluded from our last.