

The Philosophy of Fascination.

"The power possessed by serpents to fascinate birds has always been (says Dr. Braid, a foreign author,) a source of interest and admiration to the curious. That a crawling reptile, such as a serpent, doomed to move prone on the earth, should possess the craft and power, by the mere fixed gaze of its glaring eyes, irresistibly to draw down birds, seems to proclaim this as one of the most remarkable of nature's laws. The question, therefore, arises, by what means is this remarkable result effected? Is there any magnetic attraction in the eye of the serpent by which the bird is drawn? Or is it the result of any poisonous emanation projected by the serpent? Is it a voluntary or an involuntary process by which the creature approaches and falls an easy prey to its fell destroyer? After due consideration I feel satisfied that the approach and surrender of itself by the bird or other animal, is just an example of the *monoideo-dynamic*, or unconscious muscular action, from a dominant idea possessing the mind, which I first published as the true cause of 'table-turning.'

The law upon which these phenomena are to be explained has long been familiar to me, from observations made during my investigation of hypnotic and mesmeric phenomena, and it is simply this: that when the attention of man or animal is deeply engrossed or absorbed by a given idea, associated with movement, a current of nervous force is sent into the muscles which produce a corresponding motion, not only without any conscious effect of volition, but even in opposition to volition in a great many instances; and hence they seem to be irresistibly drawn, or spell-bound, according to the purport of the dominant idea or impression in the mind of each at the time. The volition is prostrate; the individual is so completely monoideized, or under the influence of the dominant idea, as to be incapable of exerting an efficient restraining or opposing power to the dominant idea; and, in the case of the bird and serpent, fear causes that monoideo-dynamic action of the muscles which involuntarily issues in the advance and capture of the unhappy bird. This is the principle, moreover, which accounts for such accidents as are frequently witnessed in the streets of every crowded thoroughfare, where some persons, when crossing the streets amid a crowd of carriages, not only become spell-bound by a sense of their danger, so that they cannot move from the point of danger, but it even sometimes happens that they seem impelled to advance forward into the greater danger from which they are anxious to escape, and from which a person with self-possession or presence of mind may be fired, by the very sense of his danger, to escape by making an incredible bound—his natural powers having become stimulated to unwonted energy by a lively faith as to his capability to accomplish such a feat.

It is also upon the same principle that some individuals may be brought so much under the control of others, through certain audible, visible, and tangible suggestions by another individual, as is seen in the phenomena exhibited in the waking condition, in what has been so absurdly called "electro-biology." The whole of these phenomena come under the same category, namely, the influence of a dominant idea, or fixed act of attention, absorbing, or putting in abeyance for the nonce the other and great controlling power of the mind—the will." This explanation of fascination is very clear and philosophical.

Explosion of a Ship by Coal Gas.

The English papers contain accounts of a recent singular and dreadful explosion of a Russian ship, caused by spontaneous generated coal gas. The vessel was lying in Cardiff Harbor, Wales, loaded with bituminous coal. The hatches had been on all night against orders, and it seems that quite a quantity of carburetted hydrogen gas had accumulated in the hold. A coal trimmer early next morning went down with a lighted candle, when the gas—which had been saturated with air—took fire, and a terrific explosion ensued. It being quite dark at the time, the sheet of flame was seen ascending to a great height, while the blazing fragments of the wreck shot

through the air like rockets; the adjacent dock and the rigging of the ill-fated vessel took fire. One man was instantaneously killed, and eleven of the crew dangerously wounded.

Some idea of the force of the explosion may be formed from the fact that one of the anchors, weighing about 35 cwt., was blown over the forestay, from 15 to 18 feet high; it then fell into a barge alongside, which it sunk. The maintopmast was blown away, and, in fact, the vessel was nearly blown to pieces; not a vestige of the deck remained, and she sunk in about 12 feet of water. The windows of several houses on the dock were broken, and the report of the explosion was heard at places four miles distant.

Important Patent Case.

Knitting Machine.—An important patent case was decided in the U. S. Circuit Court at Providence, R. I., on the 24th ult., Judge Curtis presiding. The parties were J. S. Winsor against Kendall and others, for infringing the plaintiff's patent, granted for a harness knitting machine, on the 2nd of January, 1855.

The case is an uncommon one, and we call the attention of manufacturers and inventors to it, as it relates to the use of machines, constructed before the patents for them are issued. The plaintiff charged defendants with an infringement of his right, in using (after his patent was granted,) ten machines constructed by them before his application for that patent. The point of defence was, that the plaintiff had, in legal effect, licensed the making of these machines; and the question presented to the jury under the Court's charge was, "Did the defendants construct their machines under the belief, authorized by the plaintiff, that he consented and allowed them so to do?" A verdict of \$2000 damages was given to the plaintiff by the jury in half an hour after the case was submitted to them.

India Rubber Car Springs.—In the U. S. Circuit Court, Boston, on the 28th ult., an injunction was granted against Thomas Wason, car builder, of Springfield, restraining him from issuing or selling any Vulcanized India-Rubber Car Springs. This injunction was asked for by the New England Car Spring Co., to prevent the making, using, or selling of Vulcanized Rubber Car Springs made by the Union India Rubber Company, of New York, it being an infringement of the patents owned only by the New England Car Spring Company.

Tempering Steel Tools.

Great care and experience are required in tempering tools, because they are so liable to crack when plunged into the cold water bath. When they are heated to the tempering point, which is known by their color—yellow for a hard and blue for soft temper—their surfaces should be rubbed over with a paste of the prussiate of potash, before plunging them into the water. File makers draw their files, after they are taken from the fire, through the lees of beer or a mixture of salt and the hoofs of animals ground into powder, before they immerse them in the water bath. Some tool makers dip their tools in strong soapsuds, before plunging them into cold water. Steel rollers are tempered by heating them up to a red heat, then covering their surface with a paste of prussiate of potash, and placing them in the cold water bath. Steel rollers are very difficult to temper. The liability of steel articles to crack in tempering is owing to the sudden chilling and contracting of the molecules at the surface, while the interior molecules are still expanded and hot. To prevent this evil, the coating of the surface of tools with soap, grease, prussiate of potash, &c., before plunging them into the cold water bath, has been found successful in practice, but the reason why is not very well known.

A Great Bell.

A monster bell has been cast for the clock tower at the Palace at Westminster. It weighs 33,850 lbs.—15 tons 50 lbs. Its mouth is 9 feet 5 1-2 inches in diameter, and it is about ten inches thick. It is the largest bell in the world, excepting the famous one at Moscow, in Russia.

Black Band Iron Ore.

A correspondent of the Philadelphia *Ledger* describes recent discoveries of the above famous ore at McKean Co., Pa.

"Black Band iron ore is found in Scotland, and has obtained celebrity for the peculiar quality of the metal it produces. It makes iron which is much more fluid when molten than any other, and therefore it makes casings much finer, and with less weight of metal.

The closest search has been made for it in America—but up to the month of October of this year, it had not been found of such extent and quality as to be worthy of remark.

But in October, 1856, Profs. Owen, of Indiana, and Newham, of Lackawanna, while examining the new bituminous coal in McKean county, Penn., discovered the regular seam of this most valuable mineral, forming the roof of a five foot vein of cannel coal, and giving undoubted evidence that it covers a great portion of that coal field. They suspected that some of the slates of the coal veins might be saturated with iron, because in no part of our State is limestone of other varieties so plentiful as in McKean county. The vein is five feet thick, and one bench of it, eighteen inches in thickness, yields, by the analysis, 43 1-2 per cent. of iron."

Questions for Solution.

When the London "Royal Society" was first instituted, Charles II., who loved a joke, proposed to the *savans*, its members, a very scientific question for solution. It was this: "What is the reason that when a fish is placed in a basin full of water, none of it overflows?" After bothering their brains for weeks to discover the cause of this phenomenon, Sir Christopher Wren, the architect of St. Paul's cathedral, says to the witty monarch, "Is your Majesty, quite certain that none of the water overflows, when the fish is put into the basin?" "Ah, there you have it," said Charles, "I do not know."

There are too many persons who, without the humor of Charles, ask just as absurd questions.

Old Silver Coin.

The Bangor, Me., *Journal*, gives an account of some very antique coins recently found in a sand bank near that city. Some workmen in digging on the bank of the Kenduskeag stream, turned out a deposit of silver coin, amounting to about \$40 in value. These coins are of the size of a sixpence and a common cent. On one side is a head, and on the other an Indian with bows and arrows, and one star. The money is quite thick and very imperfectly trimmed, having no finish upon the edge.

Steam for Raising Ships.

France seems to be a long distance behind America and England in the use of steam power for raising great bodies in the dockyards. At the Imperial dock yard at Cherbourg, they still raise the vessels on the stocks for repairs by capstan and hand labor. A short time since a line-of-battle-ship was raised for repairs, and no less than 700 men, manning six capstans, were employed for seven hours to accomplish this work. By the use of a steam engine of 70 horse power, the same work could have been performed with only a few attendants, in four hours.

Photography in Paris.

The city of Paris alone contains one hundred and ten establishments exclusively occupied in the manufacture of materials used by photographers, and some of them employ one hundred and thirty workmen. There are seven hundred photographers in Paris, some of whom execute eighty to a hundred portraits a day by each photographer, costing 15 cents each, and sold at an average of six dollars. The stereoscope is also a branch of photography, in which one Parisian firm has accumulated \$120,000.

Trial of a Railroad Conductor.

A. F. Hoppel, the Conductor of the excursion train on the North Pennsylvania railroad, which came in collision last summer with a down train, and by which about fifty persons were killed, has been tried in Philadelphia for manslaughter, and acquitted. The trial occupied several days, and was finished last week.

Another Metal Discovered.

Dr. Hoffman, following in the wake of Davy and Deville, has come forward as a discoverer of metal. In a lecture delivered by him lately at the British Royal Institution he exhibited a bright glistening mass something resembling butter, and described it as ammonium—the metallic base of ammonia. This is regarded as a highly interesting chemical fact, inasmuch as it strengthens the views entertained respecting the constituents of the atmosphere, viz., that they are all metallic.—[Exc.]

[If this is true, then the metal must be an alloy, because ammonia is composed of two gases,—nitrogen and hydrogen. It has been supposed by many chemists that a metal would yet be obtained from ammonia, because *amidogen*, always has been found combined with metals, and in organic compounds—never separate.

Giant Skeleton Found.

The Wheeling, Va., *Times* says: "A day or two since some workmen, engaged in sub-soiling the grounds of Sheriff Wickham, at his vineyard, in East Wheeling, came across a human skeleton. Although much decayed, there was not much difficulty in identifying it, by placing the bones, which could not have belonged to other than a human body, in their primitive position. The impression made by the skeleton in the earth, and the skeleton itself were measured by the Sheriff and another person, both of whom are prepared to swear that it was ten feet nine inches in length. Its jaws and teeth were almost as large as those of a horse. The bones are to be seen at the Sheriff's office."

A great number of large bones, asserted to be skeletons of human giants, and found in various parts of the world, have turned out to be skeletons of animals—the elephant and mastodon. The above bones may turn out to be those of an elephant.

Blue and Black Indelible Ink.

Dissolve in a solution of iodide of potassium as much more iodine as it contains, and pour this solution into one of yellow prussiate of potash, containing as much of the solid prussiate as the whole amount of iodine. Soluble prussian blue precipitates and iodide of potassium remains in solution. After filtering, the precipitate is dissolved in water, and forms a blue ink, containing no free acid, and therefore adapted to steel pens. If the soluble blue be added to common black ink, from galls, the result is a black ink which cannot be removed from paper without destroying it.

London Mechanics' Institute.

This once popular Institution in the city of London, numbering 1300 members, is at present in a very poor condition. It has now only 363 members, and has appealed for public aid to sustain it. It is a shame for the mechanics of London to allow this institution to disintegrate as it has done.

To Bleach Sponge.

Sponge contains lime; this is extracted by steeping the sponge in dilute sulphuric acid for a few minutes, then washing it in water. It is now put into a clear dilute solution of muriatic acid, and a solution of chloride of lime added, then rinsed in water and passed through an acid bath. It is then put into very dilute sulphuric acid, and afterwards thoroughly washed, pressed out, and dried.

Sad Death of an Inventor.

John B. Fairbanks, for a short period engaged in this office, a few years since, committed suicide, in this city, on the 29th ult., while laboring under a fit of temporary insanity. He was an inventor of considerable originality, and an honest man.

The Clipper Races.

The race among the clippers from China to England, with the first cargo of tea for the present season, has been won by the American clipper *Mauzy*. She carried a cargo of 600 tons of tea.

In the forests of California there is no undergrowth, scarcely anywhere a rock; the surfaces are as beautifully turned as if shaped by a landscape gardener, and dotted all over by myriads of flowers, more delicate, if not more various than any garden ever grew.