



Automaton Extraordinary.

A great number will readily remember what a sensation was created in Europe two years ago, by the appearance of an automaton invented by Professor Faber, of Munich, Bavaria. It could articulate a number of words and perform some very extraordinary feats. The Professor spent some 27 years in the construction of his image, and though it exhibited much ingenuity, still we could not but consider that the Professor had wasted for 27 years his genius and time and wealth upon a trifle light as air. Mechanical ingenuity nevertheless always excites attention and regret is mingled with admiration for the productions of man although no result of any utility or benefit to the world may be the consequence. Who has not heard of the German philosopher who in his desire to create a fellow mortal, created his own evil genii. A late Augsburg paper announces that Dr. Lube of that City, has invented an artificial man, which throws Professor Faber's in the shade, and seems to be almost life itself. A visitor who writes to the Augsburg German Gazette, was invited with a friend to visit the Doctor's Sanctum. They beheld him seated at a key board similar to that of a piano forte, and nearly in the centre of the room was a fashionably dressed young man, whom the Doctor introduced as a Mr. Eisenbrass, who wished the visitors good morning, and remained standing until they were seated. At first the conversation was upon the ordinary topics of the day—Mr. Eisenbrass joined in with an occasional remark, but to which the Doctor paid very little attention, and kept amusing himself with the keys of the instrument, at which he was seated yet without producing any sound. This surprised the visitors, and one said, Doctor your instrument does not seem inclined to be musical at present. This brought a laugh from the Doctor, which was echoed by Mr. Eisenbrass, in such an unearthly and comical manner that the visitors had to laugh also, although they felt the laugh to be at their own expense. As soon as the visitors became calm the Dr. rose from his seat, and taking them calmly by the hand said, "Pardon me, my dear friends for having played an innocent prank upon you.—Mr. Eisenbrass is the Automaton I invited you here to see; and being the first who has seen it, I could not resist a sort of paternal desire of showing it off, as fond parents always do their first born children. They looked at the Doctor, then at Mr. Eisenbrass, and again at the Doctor, to see if he was not quizzing. There sat Mr. E. immovable, with his eyes fixed on the floor, while the Doctor seemed almost bursting with delight. They looked again. "I see," said he, "you are incredulous, let me convince you," and seating himself at the instrument again, and touching the keys, Mr. E. immediately became animated and laughed and talked quite fluently.

The Doctor then rose and explained the whole affair. When Professor Faber completed his speaking automaton Dr. Lube conceived the idea of constructing an artificial man, and placing within it a modification of the apparatus of Professor Faber, to be operated by voltaic electricity, but intended to imitate to a greater extent, the power of speech than the Professor had done. The idea once conceived, was immediately acted upon. The bones of a human subject were procured and clothed with a complete muscular system, composed of vulcanized caoutchouc. The consummate anatomical knowledge of Dr. Lube enabled him to do this with great success, at the same time adding a perfect system of nerves made of fine platinum wire covered with silk. It is undoubtedly known to most of our readers that the muscles of animals act by an enlargement and contraction in the middle, produced by the will acting through the nerves. These efforts are imitated by placing in the centre of each muscle

electro magnets, with delicate machinery attached, to be worked by galvanic currents through the platinum wires or nerves, which were connected with the battery, and the key-board of the instrument above referred to. So all that was necessary to produce a certain action in the figure or make it give forth particular sounds, was to touch the required key—as in certain descriptions of Telegraphs and the required result was sure to follow. As a matter of course, the accomplishment of all this was a matter of no small difficulty and ordinary minds would have shrunk from undertaking it. But Dr. Lube, with a zeal and perseverance worthy of all imitation, has mastered every obstacle, and produced a work the most extraordinary, ever constructed by mortal man.

The Fiery Shower.

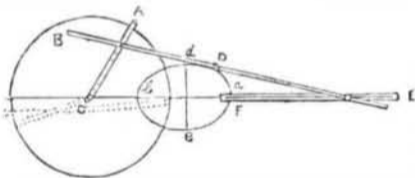
On a plate put a number of any kind of seeds, grains of sand, or brass dust. The conductor being strongly electrified, those light particles will be attracted and repelled by the plate, suspended from the conductor, with amazing rapidity, so as to exhibit a perfect fiery shower.

Another way is by a sponge that has been soaked in water. When this sponge is first hung to the conductor, the water will drop from it very slowly; but when it is electrified, the drops will fall very fast, and appears like small globes of fire, illuminating the basin into which they fall.

Electricity from Leather Bands.

Much electricity is often developed by the action of bands passing over pulleys in factories. Electricity lies inert in almost every substance until disturbed by friction, hence the reason for the electric development by the action of the band. By presenting a piece of leather two feet long, with one end slightly curved, to the band that develops electricity, a succession of brilliant flashes and jets is immediately produced, giving a very perfect imitation of the aurora light.

Instrument for Drawing an Oval.



The above is a drawing of a cheap and simple instrument, by means of which an oval curve may be described sufficiently accurate for ordinary purposes. It is made use of by some artists and engravers. A C, is an arm or radius moveable on the fixed centre C; E F, is a bar of wood or metal having a groove in it, in which slides a cylindrical pin fixed near one extremity of the rule B, the other end B is attached to any part of the radius A C, by any convenient contrivance. If now the radius A C turn around C, by which the end B of the rule is made to describe a circle, the pin causing the other extremity to move backwards and forward in the straight line of the groove; a pencil fixed anywhere in the rule B, as at D, will describe an oval curve which sufficiently approaches to a true ellipse, as not to be distinguished from it by an inexperienced eye. The longer axis ab will always be equal to twice the distance from C to B, or the point where B is attached to A C, wherever the point D may be between B F, consequently, the distance C B being made equal to half the given axis, the point D must then be moved through the vortex of the shorter axis cd : this adjustment is easily made by a trial or two. The longer the rule B, the more nearly will the curve resemble a true ellipse.

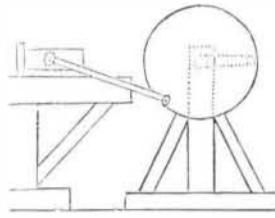
Steaming and Washing Colored Goods.

A new plan is now adopted for steaming in colors. The calicoes are put into bags, in place of being rolled on cylinders, and hung in the steam chests. By this operation some trouble is saved, and many think it more effective.

It is calculated that the heat produced by respiration in 12 hours, in the lungs of a healthy person, is such as would melt about 100 lbs. of ice.

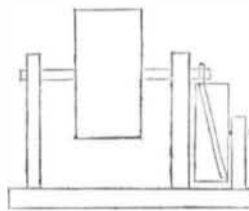
MECHANICAL MOVEMENTS.

Rectilinear from Circular Motion.



This cut exhibits a mode in which a rectilinear is communicated from a circular motion, and the reverse of this is to be observed in the operation of every horizontal engine.—The rod here connected with the plane on the bench is attached near to the circumference of the wheel and thus performs the same functions as a crank—which is represented sectionally by the dotted lines. This wheel may be called an eccentric and it shows the mode of imparting a motion very suitable for polishing marble or granite, but not for cutting stone, or planing either iron or wood, as the dip and lift motion has been found to be the best for these purposes.

Alternate Traverse in a Revolving Cylinder.



This arrangement for producing an alternate traverse motion in a revolving cylinder is done by a flange piece on the shaft to the right hand of the larger cylinder which takes into a groove in the smaller one, which revolving slowly on its axis necessarily traverses the larger shaft at every revolution. This motion is sometimes called the *screw cam*.

Discovery of Hæmatinon.

The Hæmatinon of the ancients, which has for ages excited the admiration of the world, and perplexed the experiments of science, has been discovered by Dr. Max. Pettenkoffer a celebrated chemist of Munich. At a meeting of the Royal Academy of Sciences, the learned doctor stated the progress of his discovery, and laid before the society several specimens of the Hæmatinon made by himself, and which could not be distinguished from the antique. It is the same that is spoken of by Pliny, in his Natural History, and which he describes as a glassy substance, highly prized by the ancients. Manifold have been the endeavors to imitate this splendid substance, which is found in Pompeii, in Mosaic pavements, in the Mural decorations, and in unformed houses. The fracture is perfectly conchoidal, on which account Pliny compares it to Obsidium; it is harder than glass, which it readily cuts, and therefore takes a very high polish; the color is a very splendid vermilion. When melted it becomes a blackish green, and nothing restores the original magnificent red. In Italy many endeavors have been made to imitate it, and in some of the Mosaic fabrics a beautiful Porporino has been made, shaded with gold, and which, though excessively expensive, cannot compare with the Hæmatinon. Dr. Pettenkoffer's success at least, is applicable not only to the red Hæmatinon, but to the purple, green, &c., the effect of which is so magnificent, shedding a lustrous light, which seems to issue from beneath the surface of the color. The King of Bavaria has taken much interest in the progress of the experiments, and ordered the immediate application of the brilliant substance upon a public monument which is to be executed. It can be employed in manifold ways, in mosaic floors, mosaic paintings, mural decorations, trays, vases, ladies' ornaments, &c.

Hydrophobia is said to be cured by the cold water remedy in Germany. The *douche* was applied to the head of a patient, who was entirely cured. The warm bath, wet sheet, *douche*, &c., are the usual methods with the disease, and remarkable success is reported.

Ice.

It is a curious fact that in transportation of American ice, even in the heat of summer, it is not sensibly reduced in bulk. This may be attributed to two circumstances—the magnitude and quality of the ice, and the manner in which it is packed. Ice frozen upon deep water is much more compact and solid than that which forms on the surface of shallow lakes and streams, and, therefore, when an equal surface is exposed to the atmosphere the former melts more slowly than the latter. American ice is famous throughout the world not only for its solidity but for its magnitude, being allowed to freeze until it attains 12 inches in thickness. Ice for shipping is packed in thin air tight timber boxes with straw and hay. In this way it is conveyed without loss, to the most distant quarters of the globe.

How to Enlarge Vegetables.

A vast increase of food may be obtained by managing judiciously, and systematically carrying out for a time the principle of increase. Take, for instance, a pea. Plant it in very rich ground, allow it to bear the first year, say half a dozen pods only, remove all others save the largest single pea of these. Sow it the next year, and retain of the produce three pods only, sow the largest one the following year, and retain one pod, again select the largest, and the next year the sort will by this have trebled its size and weight. Ever afterwards sow the largest seed, and by these means you will get peas, or anything else, of a bulk of which we at present have no conception.

Malleable Iron and Steel.

The process of converting cast iron to malleable iron and good tempered steel, consists in stratifying the cast articles in cylindrical metallic vessels, with native oxide of iron, and then submitting the whole to a regular heat in a furnace built for the purpose.

To Clean Steel and Iron.

One ounce of soft soap, two ounces of emery, made into a paste; then rub the article to be cleaned with white wash-leather, and it will give a brilliant polish.

Salt brine is said to be the best wash for stiff joints in horses. It is also good for hard hoof as it attracts moisture and thus keeps the hoof soft. It can easily be tried by any farmer.



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