



Restoration of Sight.

The following article abridged from the Philadelphia Ledger, will be found not uninteresting, as something connected with science:—

The Boston Traveller gives some interesting accounts of experiments made by Professor Bronson, in removing imperfections of the sight, produced by age or malformation. According to the Traveller, old people have been enabled to lay aside their spectacles, and people of all ages who suffered from short sight have been entirely cured. The Traveller says that Bronson is the author of these discoveries, and that his practice consists entirely in manipulation:

But while giving credit to Professor Bronson for his efforts in doing good, and while admitting that his method of treating the eye is original with himself, we do not admit that he was the first discoverer. The very treatment ascribed to him for restoring decayed sight, was discovered long ago by John Quincy Adams, and successfully practiced on himself.

Mr. Adams did not communicate his discovery to the world, but mentioned it accidentally, and as of no great importance to two or three friends in the course of his life.

We certainly wonder at him and them, for not perceiving its general utility. Mr. Adams never wore spectacles, his sight enduring to the last. Yet those who remember him in private conversation, may remember his habit while listening, of manipulating his eyes with his fingers by passing them gently over the surface from the external to the internal angle.

The decay of sight that is remedied by convex spectacles, is caused by the gradual absorption of the humors, or relaxation of the coats, rendering the transparent cornea less convex. The manipulation, or gentle pressure, perhaps by stimulating the coats, and thereby causing them to contract, restores the original convexity, and subsequently the original perfection of sight. In rubbing or wiping the eyes, we naturally pass the hand or towel over the convex surface, from the internal to the external angle. This diminishes the convexity, and thus promotes the decay of sight, and therefore should be carefully avoided. The pressure, whether in wiping or manipulating, should proceed, in eyes originally perfect, from the external to the internal angle. Short sight, remedied by concave glasses, is caused by undue convexity of the external cornea, whether congenital or caused by disease, all wiping, rubbing or manipulation should proceed from the internal or external angle, the reverse of the motion necessary to the case first mentioned. In manipulation, care must be taken against pressure too hard, or continued too long, which may develop inflammation.

[Every science is made up of facts—general facts arranged into a system. If the above conclusions are the result of a few isolated cases only, then no dependence can be placed upon it as a branch of correct science; but this is easy to determine. Every person can test the system, and if it is correct, we say that no greater discovery has ever been made, because of its very simplicity, and the great benefits it will confer upon the whole human family.]

To Separate Gold from Copper.

The following is Dr. Jackson's process for separating gold from copper. The alloy being dissolved in aqua regia the solution is to be evaporated to small bulk and the excess of nitric is thus driven off.

A little oxalic acid is then added and then a solution of carbonate of potash sufficient to take up nearly all the gold in the state of aurite of potash is gradually added. A large quantity of crystallized oxalic acid is then added so as to be in great excess and the whole is to be quickly boiled. All the gold is immediately precipitated in the form of a

beautiful yellow sponge which is absolutely pure metallic gold. All the copper is taken up by the excess of oxalic acid and may be washed out.

Boil the sponge in pure water so long as any trace of acidity remains, and the gold is then to be removed from the capsule and dried on filtered paper. It may be pressed into rolls, bars or thin sheets, by pressing it moderately in paper.

By moderate pressure, the spongy gold becomes a solid mass and burnishes quite brilliantly.

The jeweller or goldsmith will find spongy gold to be quite convenient when he requires it for a solder, and it is a convenient form of the metal for making an amalgam for fine gilding. It is good for soldering platina.

The method of separating fine gold from alloys, is very simple, and cheaper than the usual processes. It is applicable in the separation of gold from ores that may be treated by acids, and is vastly preferable to the method commonly used by chemists and assayers.

When making oxyde of gold for dentist's use, the chemist will find that oxalic acid added to his potassic solution, will at once recover all the gold that is dissolved in an excess of the alkaline solution.

A Good Salve.

"Take an egg and boil it hard, then take out the yolk and fry it in half a tablespoonful of clean lard for about 5 minutes, and you have an excellent salve. It is especially good for sore nipples and requires just to be rubbed on as occasion may require."

One of our subscribers sends us the above from Hamilton Co. Ohio, and we must say that it is a good salve. We have seen it tried and judge of its merits from a practical experience.

A Chain Pump.

This pump consists of a tube, made by nailing together two pieces of two inch plank each of which has a semi-circular groove, and thus forming a tube.

This tube is the entire length of the well through which passes an endless chain, which is moved by a wheel and crank at a convenient distance above the well curb. At proper distances apart on the chain, flat discs of iron or leather are placed, their diameter being somewhat less than that of the tube.

Chilblains or Frosted Feet.

Mix, in a glass vial a quarter of an ounce of pure muriatic acid with two ounces of water. Wet a piece of sponge or soft cloth with the liquid and gently bathe the parts that have been frozen. Let it dry on, and wrap the feet in bandages, or draw on a pair of old stockings to keep the bed linen from contact with the acid, which will drop into holes wherever it is touched by it. This speedily cools the inflammation, allays the intensely painful itching, and, when the frost is not very deep, it cures by a few applications.

When the chilblains are of long standing, and the skin has cracked, or when sores are formed, the first two or three bathings are apt to cause a smarting pain that is somewhat discouraging to persons unacquainted with the virtues of this simple remedy; but if they will persevere they will be rewarded by a complete cure.

How to dislodge a Fish Bone from the Throat.

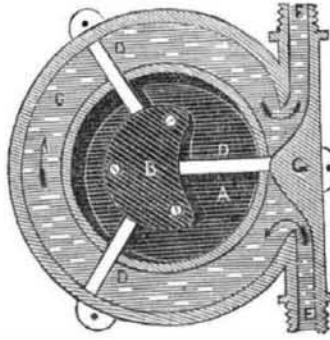
It sometimes happens that a fish bone accidentally swallowed will remain in the œsophagus, and occasion serious inconvenience; in fact, instances have been known where so much irritation had arisen that death has followed. In such cases it is advisable, as soon as possible, to take four grains of tartar emetic, dissolved in one half pint of warm water and immediately afterwards the white of six eggs. The coagulated mass will not remain in the stomach more than two or three minutes, and the probability is that the bone will be ejected with the contents of the stomach. If tartar emetic is not to be found conveniently a teaspoonful of mustard dissolved in milk warm water and swallowed will answer the same purpose.

A solution of alcohol with a very little camphor brushed over the backs of books, will keep them from mildew.

History of the Rotary Engine.

Prepared expressly for the Scientific American.

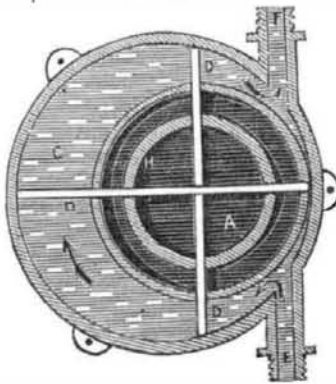
FRENCH ROTARY ENGINE.
FIG. 56.



This is a vertical section of a French rotary engine. It is composed of an inside revolving drum and an outside stationary one. A is revolving drum; it runs round with its edge in a concentric groove cut or cast in the inside of the stationary cylinder C. B is a cam fastened securely to the cylinder C. D D D, are pistons that revolve with A and slide out and in proper grooves in the revolving cylinders G is a stationary abutment that divides the induction and exhaust tubes E F. This abutment is placed so near to the periphery of the revolving drum as to be always in contact—steam tight with it. The arrows indicate the course of the steam, now represented as entering by E, and departing through F. The cam B is such a shape, as to allow the piston D when it comes to the abutment G—to be pressed in by the abutment, but when the piston is past G, the cam B then presses out the pistons, so that they always move steam tight in contact with the inner surface of the outside stationary cylinder, to let the steam have full effect upon the pistons to propel the revolving drum A. This drum has a shaft (not seen in the engraving) which extends from its centre through a stuffing box on the outside cylinder. The power is communicated by the said shaft to the other machinery. This engine is very simple and easily constructed.

In 1829 Mr. Thomas Smith of Derby, England, obtained a patent on a rotary engine which Hebert describes as being very ingenious and different from others that went before it. It had no fixed fulcrum for the steam to act against, but had two vanes turning upon axis whose centres of motion were coincident with each other and with the axis of the cylinder into which they fitted steam tight. The axis of the two vanes were connected to a train of eccentric toothed wheels which causes them to revolve with different velocities more curious than useful.

FIG. 57.



This is a rotary engine which was exhibited in this city about nine years ago. There was no patent on it we believe, but it was represented to be new then. The same kind of engine, however, is constructed upon the principles of the preceding one, only it has an interior moveable cylinder H, and it has two pistons, which cross one another at right angles, being feathered to the middle for that purpose, and answer the purpose of four pistons. We prefer the first rotary to this. It is more simple and is not so liable to get out of order, neither do we think there is as much friction.

By covering with fine charcoal the earth of a pot in which there is flowers growing, they will assume far deeper tints of coloring. Pale and sickly looking roses, have been by this process transformed in a few days, into the rich bloom of health and beauty.

LITERARY NOTICES.

Minifie's Mechanical Drawing Book.

We have received a copy of the above work by William Minifie, Esq. architect and teacher in drawing in the Central High School of Baltimore. It is the best work on Drawing that we have ever seen and is especially a text book of geometrical drawing for the use of mechanics and schools. No young mechanic, such as a machinist, engineer, cabinet maker, millwright or carpenter, should be without it. It is illustrated with fifty six steel plates and contains more than 200 diagrams. The author Mr. Minifie, shows that he is master of his subject in all its various branches, which he has illustrated with plans, sections, elevations, perspective and linear views of buildings and machinery. Such books—are books.

This book is for sale at our office—the price is \$3, which can be enclosed in a letter, post paid, and addressed to Munn & Co. We will have something more to say about it again. The price is very moderate considering the quality, the sterling worth and style of the work.

Godey's Lady's Book for April is a magnificent number, and we take pleasure in awarding it the highest commendation, for it is truly a work of extraordinary merit, as thousands can testify who have been the fortunate readers of it from its commencement. It is splendidly embellished with 12 engravings, reflecting the highest credit upon the artistical corps. If space would allow we should like to give our readers a full description of its contents. H. Long & Brother, agents for this city.

Sartain's Union is equally deserving, and it will puzzle the Magazine publishers to excel him in engravings and excellence of reading matter. We are pleased to hear of the success of this enterprise. Godey has done well and why should not Sartain and others meet with encouragement from a reading community.—Dewitt & Davenport, agents for New York; also agents for Peterson's Ladies National.

Messrs. Pratt & Co 161 William st. this city, have just issued the New England Mercantile Business Directory, containing a map of each State, the name, location and business of merchants, manufacturers, professional men, artists, corporations, &c. It is an excellent publication, and should be in the hands of every man of business, as a book of reference.—It contains over 800 pages, closely printed, price \$1, which we consider very cheap for so valuable a work.

Messrs. Fowlers & Wells of this city, have published a very interesting work upon the Ship Fever, its causes and prevention, by Dr. Combe. Price 6 1-4 cents.



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