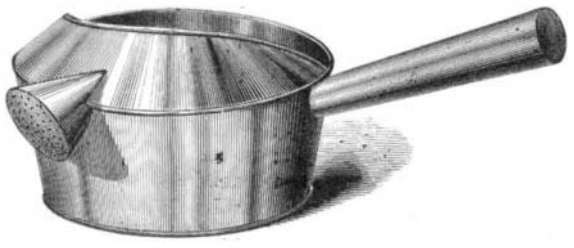
Chloroforming during Sleep.

The possibility of chloroforming a person in sleep, without waking him, having been disputed in a recent murder trial, Dr. J. V. Quimby, of Jersey City, was led to test the question experimentally. The results were presented in a paper before the section of medical jurisprudence at the meeting of the American Medical Association a few days ago. Dr. Quimby made arrangements with a gentleman to enter his room when he was asleep and apply chloroform to him. He did this with entire success, transferring the person from natural to artificial sleep without arousing him. He used about three drachms of Squibb's chloroform, and occupied about seven minutes in the operation. The second case was a boy of thirteen who had refused to take ether for a minor operation. Dr. Quimby advised the mother to give the boy a light supper and put him to bed. She did so, and Dr. Quimby, calling when the boy was asleep, administered the chloroform and performed the operation without awakening the boy. The third case was a boy of ten years suffering from an abscess, and the same course was pursued with equal success. Two important inferences may be drawn from these cases, Dr. Quimby said. Minor surgical operations may be done with perfect safety and much more pleasantly than in the ordinary way, and, secondly, a person somewhat skilled in the use of chloroform may enter a sleeping apartment and administer chloroform with evil intentions while a person is asleep. Hence the use of this drug in the hands of a criminal may become an effective instrument in the accomplishment of his nefarious designs.

IMPROVED WATERING DIPPER.

A convenient vessel for watering plants, sprinkling floors, and for other similar purposes is shown in the annexed engraving. It is simply a dipper of the usual form, partly covered at the top by a shield, at the center of which is fixed a sprinkler spout. The utility of this improvement will be



HARRISON'S WATERING DIPPER.

recognized without further description. It was recently patented by Mr. R. Harrison, of Columbus, Miss.

IMPROVED ELECTRIC LAMP.

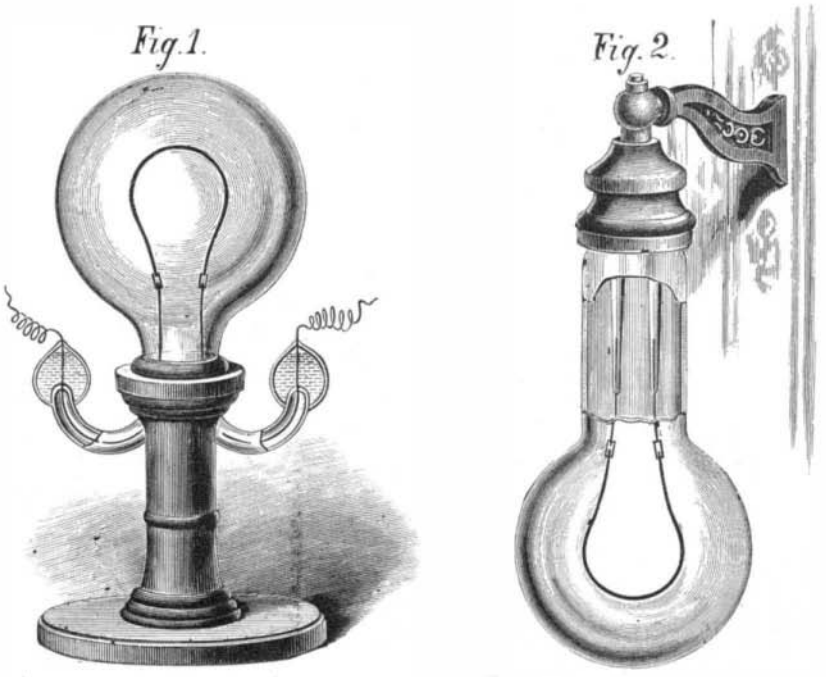
The lamp shown in the engraving will be recognized as an Edison lamp, the vacuum globe and the carbon horseshoe being the principal elements. Mr. John H. Guest, a well known electrical inventor of Brooklyn, N. Y., judging from his own experience in fusing platinum with glass in the manufacture of thermostatic fire alarms, concluded that the principal trouble with the Edison lamp would be the entrance of air around the wires passing through the glass of the vacuum globe, devised a simple plan of sealing the joint between the wires and the glass by means of mercury, thus interposing an effectual barrier to the entrance of air at that point.

The invention is so clearly shown in the engraving that scarcely a word of explanation is necessary. In the lamp shown in Fig. 1, the wires that convey the current to the carbon horseshoe are sealed in the ends of curved glass tubes communicating with the globe, and these joints are inclosed in small globes formed on the ends of the glass tubes and filled with mercury.

In this lamp Mr. Guest has made provision partially or wholly preventing the circulation of air, should any remain in the globe after exhaustion with the air pump. The device by which this is accomplished is simply a small globe connected with the lower portion of the lamp globe by a contracted passage, the theory being that the cooler and heavier portion of the air will be drawn into the auxiliary globe by its own gravity.

Fig. 2 shows a lamp in which the tubes that support the wires extend downward into the lamp globe. These tubes at their junction with the vacuum globe are fused to the platinum conducting wires, and the tubes act simply as lateral supports to the wires inside the globe, allowing the wires to expand freely lengthwise. The tubes are sealed outside the globe in the manner shown in Fig. 1.

Another improvement made by Mr. Guest consists in inclosing the ends of the platinum wire conductors in the ends of the material of the carbon before it is carbonized, the wire being formed into a loop to increase the conducting surface and to insure a good connection with the carbon,



GUEST'S IMPROVED ELECTRIC LAMP.

APPARATUS FOR PRESERVING FRUIT.

The annexed engraving represents a simple apparatus for perserving fruit in its natural state, by means of a partial vacuum. The vessel is especially designed for the purpose, and is provided with an absorbent which takes up whatever moisture may emanate from the fruit. The vessel is pre-

FRUIT-PRESERVING APPARATUS.

ferably made of glass or earthenware, and is provided with a cover having a packing ring and a device for receiving the stems of the fruit. The cover is secured to the vessel by an adjustable screw clamp. In the bottom of the vessel there is an absorbing ring made of burnt or dried clay, which absorbs the moisture escaping from the fruit. The air in the vessel is rarefied either by heat or by the application of an air pump to the opening in the bottom.

This apparatus was recently patented by Mr. Carl J. Renz, of Hudson, N. Y.

New Process for Printing Gold and Silver Colors on Carpetings and other Textiles.

(Translated for the *Commercial Bulletin.*)

Gold and silver designs for carpeting and oilcloths have been hitherto prepared in the following manner: The gold or silver were put in leaves or bronze powder on the designs, which were printed with a varnish of linseed oil, or similar adhesive. The bronze thus attached did not possess much firmness, and the method was necessarily expensive. The method recently adopted by Wohlforth is as follows: The bronze powder is united at once to printing material. The liquid silicate of potash, or of oxide of sodium, answers this purpose. One part, by weight, of gold, silver, or bronze powder, along with two parts of the silicate, will give a print color, which is easily transferable by rollers to paper, oilcloth, and woods and metals. The bronze thus printed dries very rapidly, and cannot be taken off by oil or water, unless they are boiling. It bears light and heat equally well, and especially sulphureted hydrogen, which has such a destructive effect on bronzes put on in the form of powder. It is recommended to thin the mass by an addition of warm water, 10 to 20 per cent, so as to keep it from becoming too hard during the process of printing. An addition of glycerine or sirup, of 5 to 10 per cent, will be even preferable. The bronze color remaining on the printing forms can be taken off by warm water.

The Edison Ore Separator Not New

To the Editor of the Scientific American:

In your issue of June 19, 1880, I notice an illustration of an electro-magnetic ore separator invented by Mr. Edison, and patented June 1, 1880.

A device absolutely identical with this has been in use for the past ten or fifteen years at the emery works at Chester, Hampden county, Mass. I there saw it in use myself in November, 1876, and was informed, I think by Mr. Ames, that it was not patented, and that no valid patent could be granted upon it by reason of its long continued public use.

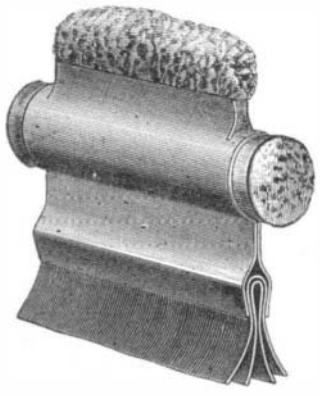
My uncle, John S. Williams, of this city, president of the Ore Knob Copper Company, had heard of the machine, and sent me to Chester with a view to purchasing the right to use it at the Ore Knob Copper Works, in Ashe county, North Carolina. On my return to Baltimore I had the magnets constructed by Watts & Co., electricians, on November 24, 1876, for a large machine, similar to the one at Chester, which machine was completed about December 10, 1876, and practically tested at No. 52 Commerce St., Baltimore. It was sent to the Ore Knob Mine about Christmas, 1876, to be used in separating magnetic oxide of iron from the copper ore, and, for aught I know to the contrary, is in use there yet. This is a striking instance of how history repeats itself in inventions. Mr. Edison is doubtless an original inventor of the device, but he most certainly is not the first inventor.

R. D. WILLIAMS.

Baltimore, Md., June, 1880.

NOVEL SLATE WASHER.

Few articles meet with a readier sale or more promptly remunerate the inventor than the class of inventions adapted to the use of children either in their school life or in their amusements. One of these useful little novelties is shown in our engraving. It is a slate washer, consisting of two



SMITH'S SLATE WASHER.

pieces of metal stamped up so as to form a holder for the sponge at the top and the cloth drier at the bottom. They also form a tubular receptacle containing a supply sponge, which is moistened by removing the corks at the ends.

This invention was recently patented by Mr. Jacob A. Smith, of Salem, Ohio.

The Utilization of Genesee Falls.

The plan to furnish Rochester, N. Y., with power for manufacturing and for running street cars through the utilization of the falls of the Genesee in compressing air, was described in this paper some weeks ago. All the power of the lower falls, save what is needed to run two wheels for factories already in operation, has been purchased by the inventor of the system, and a promising beginning has been made. According to the Rochester *Union*, a large gang of men are at work building the crib just below the falls on the east side of the river in a cove which seems to have been made by nature for this purpose. This foundation is 100 feet long by 75 feet wide, and will have an average depth of 13 feet. It is being constructed of solid logs of oak timber bolted together, and the center will be filled with stone. On the top of the crib will be erected the derrick, 125 feet high, and the water will pour into it from the top of the falls through the bulkheads at one end of the dam. The stand pipes will run from the top of the derrick to the cylinders on the crib, which will be in the neighborhood of 500 feet long. The whole machinery will be roofed in. The difficulty in the way of getting the materials to the place, they all having to be lowered over the falls, makes the work of construction somewhat slow. It is expected, however, that the first application of the system to the propulsion of street cars will be possible in September next.

Stevens Institute of Technology.

The commencement exercises took place on June 16 and 17, and were of a very interesting nature. On the 16th President Henry Morton delivered an able address before the graduating class on "Popular Fallacies in Engineering." We intend to publish the address in full in our next week's SUPPLEMENT.