

# Scientific American.

THE ADVOCATE OF INDUSTRY, AND JOURNAL OF SCIENTIFIC, MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME 6.]

NEW-YORK, FEBRUARY 15, 1851.

[NUMBER 22.]

THE  
Scientific American,  
CIRCULATION 16,000.

PUBLISHED WEEKLY

At 128 Fulton, street, N. Y., (Sun Building,) and  
13 Court street, Boston, Mass.

BY MUNN & COMPANY,

The Principal Office being at New York.  
A. T. Hotchkiss, Boston.  
Dexter & Bro., New York City.  
Weid & Co., New Orleans.  
Stokes & Bro., Philadelphia.  
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Responsible Agents may also be found in all the  
principal cities and towns in the United States.

TERMS—\$2 a year—\$1 in advance and the  
remainder in 6 months.

## Rail-Road News.

### Savannah and Georgia Railroads.

Savannah is advantageously situated as a great Georgian, and a great southern port. Her harbor is a good and capacious one for all ordinary commercial purposes. The Savannah river, washing her whole eastern frontier, and opening to her a large portion of South Carolina, is her tributary. The railroads of the State already constructed, are, and those now rapidly urged towards their completion, will also be her tributaries. By the Central Railroad of 191 miles, and the Macon and Western of 101 miles, she has a direct communication with Atlanta, distant, in all, 292 miles, through the heart of the State, embracing its richest regions,—which field is widened by the cross lines of the southwestern and the Macon and Columbus roads, stretching to different points of the valley of the Chattahoochie and the borders of Alabama; and the intended extensions, northward from Atlanta, of the main central route to Nashville on the one side, and to Knoxville on the other, will open to her the vast and as yet undeveloped wealth of Tennessee.

### East Tennessee and Virginia Railroad.

We learn, says the Knoxville Register, of the 23d ult., that a contractor from Pennsylvania has taken a contract to complete and equip the forty mile section of the East Tennessee and Virginia Railroad, lying between McBee's Ferry and Bull's Gap, within two years from the date of the contract. We have learned nothing of the details of the contract, further than that the contractor is to receive \$30,000 in the stock of the company.

### To Prevent Railway Accidents in England.

All the lines are to employ the telegraph, and no train is to pass any station until a telegraphic signal has been received of the preceding train having passed the next station. Without the use of common signals, engineers will be enabled to drive their engines at any speed they please. We recommend this practice to our railroads.

Mr. Bullock, a defaulting cashier of the Central Railroad Co., Geo., has been found guilty by a jury.

### Chimney Sweep Suffocated.

A little chimney sweep was suffocated on last Saturday, while cleaning a chimney in a house in Bleeker street, this city. We perceive by the Washington Republic, that a gentleman in that city, has a patent machine for sweeping chimneys, which he has brought from London. We believe, that boys by law are prohibited from being employed for chimney sweeps in Britain. The same law should extend to our city. We pity the "poor little sweep."

The Common Council of New York have granted the Harlem R. R. Co. the privilege of extending the lower terminus of their road to Broadway.

## IMPROVED SEED PLANTER.—Figure 1.

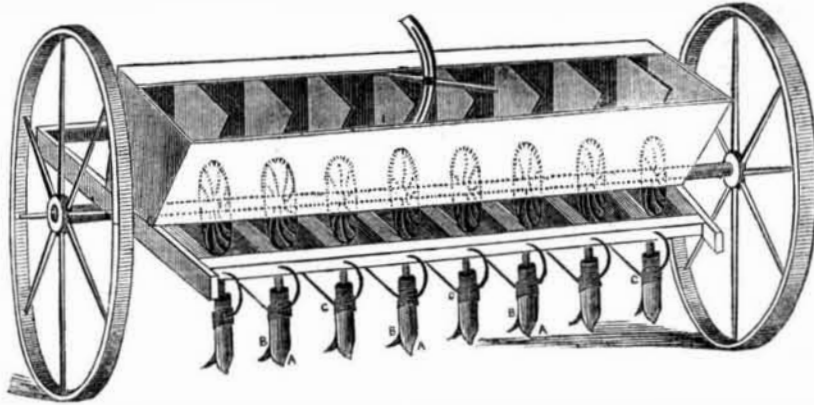


FIG. 2.

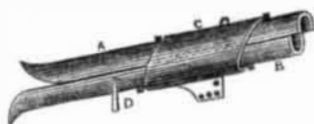


Figure 1 is a perspective view, and figure 2 is a view of one of the cast iron shovel spouts. The cast iron shovels are made of two pieces,

### New Water Machine for Driving a Printing Press.

The Boston Traveller, alluding to one of Hoe's large printing presses, which has lately been put up in that establishment, says: "it is driven by a novel and most convenient and powerful little machine, which is seen on the right of the printing press, consisting of a small cylinder, with cog-wheels and a pulley attached. It is called a water metre or power metre, and was invented by that ingenious mechanic, Mr. Samuel Huse, of this city, well known for his efficient labors as assistant superintendent of the Cochituate Water-Works. This machine was originally invented as a water measurer, and this is the first application of it as a motive power, it being found to possess this power to almost unexpected and extraordinary degree. It is simple, yet wonderfully efficient. It consists of a hollow cylinder, 10 inches wide and 16 inches in diameter; inside of which is a flange cylinder, about six inches in diameter. This inner cylinder has flanges, on which are four valves, extending from one end to the other of the cylinder, and attached to it by hinges. These valves, when folded, or shut into the cylinder, form a little more than half its surface. Upon one side of the metre, the space between the inside of the hollow and the surface of the flange cylinder, is so filled as to occupy something more than the width of one of the valves. This filling is made to fit so exactly as to prevent the water from passing. Upon one side of this filling, the water enters the metre, and upon the other side the water is discharged. The metre is so placed that the valves will, by the force of gravity, open as they reverse from under the solid filling, and shut upon the opposite side previous, to coming in contact with it. When thus arranged, the water is let into the cylin-

der, and comes in contact with the open valves; the inner cylinder revolves until the water escapes upon the opposite side; and of course, for every revolution of the interior cylinder, a given quantity of water must pass through the metre. This is carefully marked by means of a clock which is attached to the cylinder, and which will indicate the precise quantity of water which has passed through the machine in any given time.

This is a very simple seed drill, and is now being manufactured by Mr. Fawkes, at the above place, for about \$65, we believe. More information may be obtained by letter addressed to him.

The revolving flange cylinder is connected, externally, with cog-wheels, a shaft, and pulley; and from the pulley a belt extends to the driving wheel of the printing machine.

This metre, or water wheel, is driven by the Cochituate water, introduced from a six inch distributing pipe through a two inch lead pipe, and the flow of the water is regulated by means of a screw gate near the metre. This wheel, though so small as to occupy only about 24 inches of room, affords about three horse motive power.

[This invention appears to be very similar to a rotary pump, such as Hale's or Carey's. It has no cylinder, as far as we can judge by the above, as its diameter is greater than its length. It is merely a cased water wheel. It can have no more power than that due to the weight and velocity of the water. Either Hale's or Carey's pumps will answer for water wheels in the same way.

Lead is covered with a more or less thick coating in all waters; sometimes this layer or coating is formed of a sub-oxide of lead, insoluble in water and saline solutions. At other times, the coating is due to a higher oxide, which, in uniting with water and carbonic acid, forms a combination, soluble in from seven to ten-thousandths of its weight of pure water. Sometimes this coating contains sul-

phuric and other acids. When these substances, by means of organic matter and sesquioxide of iron, unite, they constitute an effectual protecting shield.

### Imitating Ivory and Bone.

The accompanying description of a new process of art, is taken from our valued contemporary "the London Patent Journal," and is the specification of a patent recently granted to a Benjamin Cheverton, of Camden Town, Eng. The invention consists in preparing or treating alabaster, gypsum, or other variety of sulphate of lime, of which water is a constituent, so as to produce translucency, hardness, and color, and thus imitating ivory and bone, both in its natural state, and stained or dyed of various colors. For this purpose the patentee adopts two methods, in one case he forms any object of ornament or utility which may be required, by cutting it of the required shape out of a block of alabaster, gypsum, or other variety of native sulphate of lime; in the other case he reduces the alabaster or gypsum to the state of plaster of paris powder, and obtains the desired object by pressing this powder into suitable moulds. In each case the subsequent processes adopted are precisely the same. The patentee recommends the first method for imitation ivory, and the second process for bone.

**FIRST PROCESS.**—The articles formed or moulded by either of the preceding operations, are placed on trays in an iron oven for forty-eight hours, the heat being gradually raised from 250° to 350° Fah. By this means, the water forming a constituent part of the alabaster or gypsum is evaporated, and the articles become opaque, acquire the property of absorbing moisture, and are so hard as to be very brittle.

**SECOND PROCESS.**—The articles treated as above are next exposed to the air for three or four hours, and are then immersed in either hard white varnish, common olive oil, or any other suitable oleaginous fat, or waxy substance, in a fluid or melted state, until their surfaces become completely saturated; by this means the translucency and transparency of ivory and bone are communicated to the articles, as also greater brilliancy of color, in the subsequent operation of dyeing, where color is required.

**THIRD PROCESS.**—The prepared articles are next immersed, for an instant, in water, of the temperature of 100° to 150° Fah.; this immersion is repeated every ten or fifteen minutes, until the articles are perfectly saturated. This operation imparts hardness to the object under treatment. The patentee finds the time required for the immersion of the articles after complete saturation has been effected, as above mentioned, varies according to the size and shape of the object, from two to ten hours. In case the imitation ivory or bone is required of a particular color, suitable mordants, dyes, or colors, must be added to the hot water as are capable of affording the tint or shade desired. The articles thus prepared may readily be polished with whiting or putty powder in a lath, or by means of the wheel ordinarily employed.

### Iron Pipes Coated inside with Glass.

Mr. W. B. Guy, of Boston, has introduced iron water pipes lined with glass—an improvement which should be encouraged, as it is a very useful one. The price, we believe, is more than for lead pipes, but then the evils of corroded lead pipes are entirely obviated. We are in favor of employing this kind of pipes to any other, because of their certain safety. It is true that some water affects lead pipes in a very small degree but it is always the best plan to leave doubt out of the question.