

Scientific American.

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

VOLUME VII.]

NEW-YORK, DECEMBER 27, 1851.

[NUMBER 15.

THE
Scientific American,
CIRCULATION 16,000.

PUBLISHED WEEKLY

At 128 Fulton street, N. Y., (Sun Buildings),
BY MUNN & COMPANY.

Hotchkiss & Co., Boston.
Dexter & Bro., New York City.
Stokes & Bro., Philadelphia.
Jno. Thomson, Cincinnati, O.
Cooke & LeCount, San Francisco, Cal.
Courtenay & Wienges, Charleston, S. C.
John Carruthers, Savannah, Ga.
M. Boulemet, Mobile, Ala.
Sidney Smith, St. Louis, Mo.
Barlow & Co., London.
M. M. Gardissal & Co., Paris.

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.

Reading Railroad.

The Pottsville Journal intimates that the running machinery of the road has been worn to the capacity of 36,000 tons a week. It is intended to increase the capacity to 50,000. Of course this implies a considerable expenditure. The Philadelphia Ledger says that certain improvements are suggested as substitutes for a cash dividend. One project is, to build a fleet of very coarse steam vessels, each to carry 600 tons of coal from Philadelphia to New York, in 24 hours, at a paying charge of 75 cents. They can be furnished, it is said, at a cost of \$30,000 each, which is much less per ton of coal carried than sailing vessels.—Whatever improvements may or may not immediately be adopted, it seems quite certain the shareholders are to touch no money, this year.

Railroad Movement in Arkansas.

A large meeting of the citizens of Phillips County, Arkansas, was held at Helena on the 15th ult., at which it was resolved to organize a company to construct a railroad from Helena to the mouth of Cache or White river; and the citizens west of White river were called upon to co-operate in the work, with a view of extending it to Little Rock, with branches penetrating Northern Arkansas and Southern Missouri, and Western Arkansas, and through Southern Arkansas to Texas.

We hope the people of Arkansas, will go ahead in this good work. No State in our Union, is more in need of, and would be greater benefitted by railroads, than Arkansas. We also advise the construction of good plank roads for farmers.

Obstructions on Railroads.

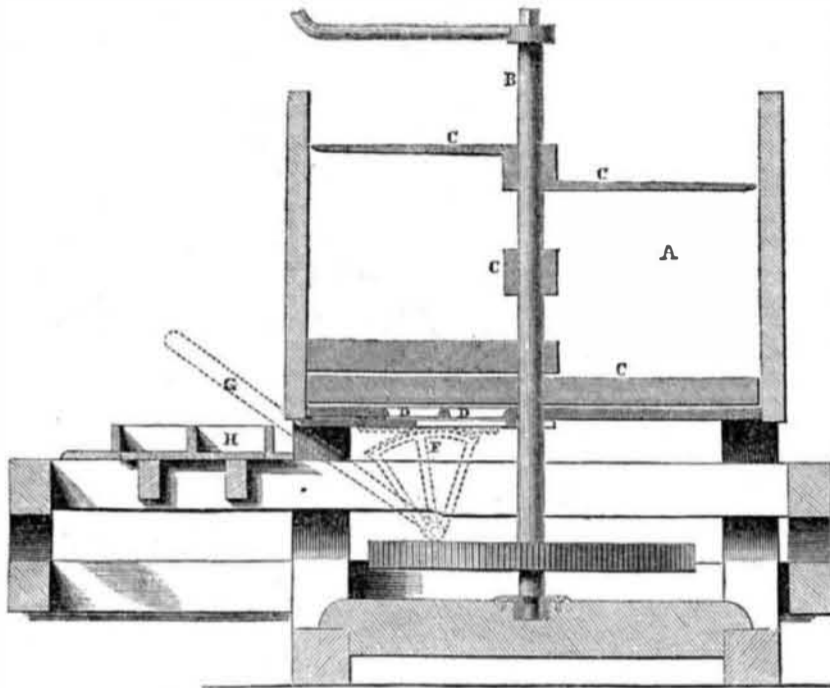
A bill is before the Kentucky Legislature, which makes the placing of any obstructions on a railroad track, displacing of any switch, &c., whereby the cars may be upset or thrown off the track, punishable by confinement in the penitentiary from one to five years; if any life be put in immediate peril by any such obstruction, the imprisonment is to be from two to ten years; and if death be caused, the offender shall be deemed guilty of murder, and suffer death. This would prove an excellent law.

Panama Railroad.

The railroad across the Isthmus was opened on the 8th inst., for part of the whole route. It was anticipated that it would be opened throughout in the course of two months.—Large hotels are being built to accommodate the travelling public, and it is believed, by the end of next year, the journey to San Francisco, from this city, will be as pleasant and comfortable as between this and New Orleans. Great energy has been displayed by our American engineers in laying out and constructing this road.

The Magnetic Telegraph wires have been laid across the bed of the Mississippi river, opposite St. Louis, insulated in a thick casing of lead pipe.

LONG'S BRICK MACHINE.—Fig. 1.



The accompanying engravings illustrate the improvements on Presses for Making Brick, which was patented on the 19th day of last August, by the inventor, Mr. Richard Long, of Columbus, Franklin Co., Ohio.

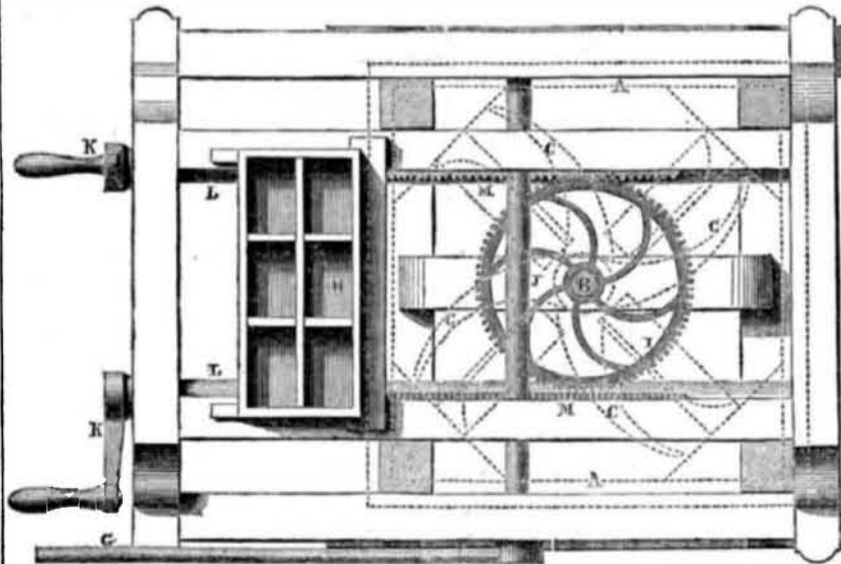
Figure 1 is a vertical section, and figure 2 is a plan view, partly in section. The same letters refer to like parts.

A is the box or receptacle, into which the clay and sand to make the brick are placed. Through the centre of this box passes the shaft, B. It has revolving blades or arms, C C, on it: the upper arms are curved, and the lower radial, as represented by the dotted lines, fig. 2; these cut up and mix the clay, and the lower ones scrape close on the bottom of the box, and feed the tempered clay through slits or rectangular openings, D D, into the moulds, H, for forming the bricks. When the moulds are filled up, a slide cutter, E, having a rack

on its bottom, is moved in by a lever, G, which operates the rack sector, F, that takes into the rack of the slide, and this cuts off the clay and communication between the moulds, H, and the clay in the box, A, and then the moulds can be drawn out, and the moulded bricks carried away. When another set of moulds are placed in the carriage and pushed in, the slide, E, is moved out by the lever, G, and communication is opened between the moulds and the box, A, and the clay is then forced down into the moulds through the openings, D D, by the revolving arms, C C.

On the lower end of the shaft, B, there is a cog wheel, I, which takes into two distinct racks, M M; each rack is secured on a spindle, L, and each has a crank handle, K, as shown in fig. 2. The spindles, L L, are secured into the ends of the mould carriage, and by the cog wheel, I, taking into one rack

Figure 2.



on the one side, and the other on the other side, alternately, the mould carriage or frame is moved out and in. By turning the upper crank handle, K, to its present vertical position, as represented in fig. 2, the upper rack is geared with the cog-wheel, I, and the mould carriage, with the moulds, are beginning to move in. When the moulds have moved into their exact position, viz., directly under the slits, D D, the mould carriage stops. It is stopped by a strong spring, which, pressing upon a projection (not shown) on the inner end of

nately to one side, to gear the racks, M, with the large wheel. The shaft, B, is driven by horse, water, or steam power, and is kept continually revolving. The whole construction and operations of this Brick Press are exceedingly simple, and, we believe, will be easily understood by the figures here presented, and the description given.

This machine is considerably improved since the patent was granted, it is more simple, therefore it can be made cheaper, will be easier kept in repair, and consequently it is more efficient and superior in every respect to what it was. It is a very compact and simple brick press, and is well worthy of the attention of the proprietors of small brick yards, as it is well adapted to be worked by horse power.

More information may be obtained by letter addressed to the inventor and patentee, as above directed.

Cures for Sore Throats.

Dr. Cornell publishes articles in the Boston Medical Journal, respecting the use of inhaling a powder for sore throats, &c. In March, 1848 he says, Dr. T. K. Chambers, of London, published in the London Lancet, and also in the Medical Gazette, an account of his use of an inhaling powder; and giving its composition. I immediately had some of it prepared according to his formula, which is as follows:—

“The plan is, the inhalation of a light innocuous powder, which may carry with it the required substance, either diffused in the air or absorbed in its pores. That which I have found well suited to the purpose is the pollen of the lycopodium, or club-moss, which has been made to imbibe as much as it would take up of a saturated solution of nitrate of silver, or of sulphate of copper, or of the two combined, and then carefully dried, and reduced again to an impalpable powder.

I have found this powder serviceable in several cases of bronchitis, laryngitis, ulcerated sore throat, inflammation of the mucous follicles, and in incipient phthisis. It is much preferable prepared as here directed, to that mixed with sugar, as the real pulverized nitrate was then used; but, as here prepared, the nitrate is first dissolved in pure water, then the ‘pollen of the moss’ is dipped in a saturated solution (or that of any other strength desired,) then dried, and finely pulverized. It can be made of any desirable strength, and should contain less of the nitrate than that made from a saturated solution, when employed with very irritable patients.

A small quantity, say three or four grains, of the powder, is put into the receiver of the inhaler, the inhaler is then placed in the mouth of the patient, as far back upon the tongue as can be conveniently borne; then held by the lips, or left hand of the patient, while with the right hand the receiver is twirled round to scatter the powder, and, by a full inspiration at the same time it is conveyed into the throat. This process may be repeated once a day, or more frequently if desirable. If the solution is used, the shower syringe is altogether more convenient and easy of application, and agreeable both to practitioner and patient, and does the work much more thoroughly, than the probang.

I have also made trial of the zinc, copper, alum, and some other astringents, prepared in the same way; but I think the nitrate for general use, is preferable to any other. Though the sulphate of copper, in some cases, has been as serviceable, and I have thought, even more so, in syphilitic sore throat.

In a class of diseases which have so very generally resulted in death, it seems to claim the attention of medical men, and deserves a fair and thorough trial.

It requires great care to make this powder in a proper manner, and the inhaler should be such as will easily convey it into the air tubes.”