

Scientific American.

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

VOLUME 5.]

NEW YORK JULY 13, 1850.

[NUMBER 43.]

THE
Scientific American,
CIRCULATION 14,000.

PUBLISHED WEEKLY.
At 128 Fulton Street, New York, (Sun Building,) and
13 Court Street, Boston, Mass.

BY MUNN & COMPANY.

The Principal Office being at New York.

A. T. Hottelkiss Boston.
Geo. Dexter & Bro., New York City.
Stokes & Bro., Philadelphia.
R. Morris & Co., Southern.

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.

A Fiendish Plot.

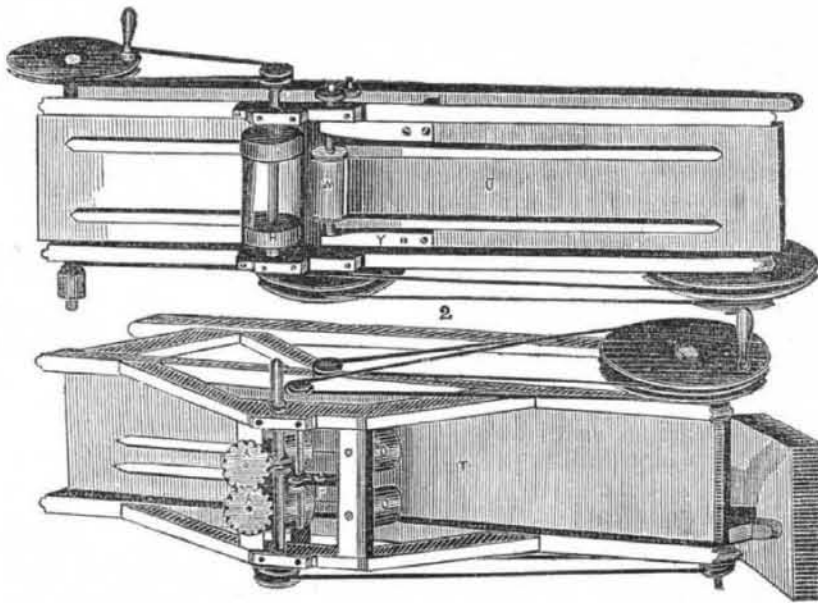
A gentleman who arrived from Springfield in the New York and New Haven train, due here at 11 o'clock last night, informs us that a few miles this side of Worcester, when the train was under speed of about thirty miles per hour, there was a sudden and violent shock which threw the passengers all into a heap, and caused the utmost confusion and consternation. The train was soon stopped, and upon examination it appeared that some hellish villains had placed a cross-tree across the track. The engineer stated that he saw it, when near, and too late to avoid it. The locomotive had bounded over it without breaking anything, and kept upon the track; as the first baggage car came in contact with it, the brake was broken, and the first passenger car on coming up got a terrible shaking. The investigating party walked down the track for some distance, and discovered that sticks of timber, plank, trees, &c., were laid in different positions across the track for some four or five miles! The fiends who had laid them on were evidently determined not to be foiled in accomplishing their hellish purpose of a complete destruction of the train, and of course of the lives of the passengers in it. But this was only one half of the murderous plot. There is a double track, and there was evidence that the up train, which had passed, had also met with similar obstructions, and broken one of their brakes, which they left by the side of the track. Sticks of timber, similar to those found upon the other track, were found lying outside and parallel with the rails, as if they had been removed from across them.

[The above is from the Boston Times. Those who talk about abolishing the death penalty, we hope will invent some new and peculiar mode of punishing such fiends as were guilty of the above crime—hanging is too good for them.]

Atlanta and La Grange Railroad, Georgia.

The President of this road is the Hon. J. P. King. It has a capital of \$1,000,000. Eighty-six miles of it are constructed; it has a surplus on hand. Forty-three miles of it were graded during the past ten months: L. P. Grant, a first rate man, is engineer. The road is to be all built on the cash principle, no debt being allowed to accrue. Heavy T rail, at \$43 per ton, delivered, is already purchased. This road connects 1500 miles of railroad at Atlanta with the Alabama Railroad. It is calculated that passengers from New York will be able to reach New Orleans in four and a half days, when this road is finished. There will be a continuous road from New York to the Alabama River at Montgomery. The estimated cost is \$850,000, and the dividends will be about 15 per cent. There can be no doubt but this road will be one of the best paying roads in the country—it will be the means of developing the great natural resources of that country.

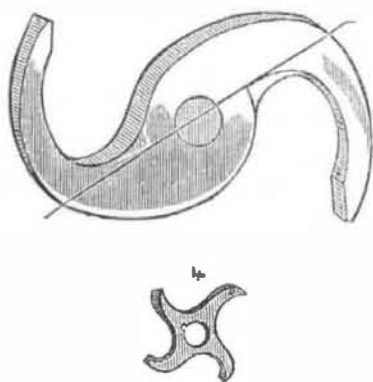
PLANING, TONGUEING AND GROOVING MACHINES. Figure 1.



We hereby present engravings of two machines, one for planing, and the other for matching timber, both machines employing pressure rollers and cutters. Figure 1 is the planing machine, and figure 2 the tongueing and grooving machine. The views are semi-perspective top views.

The planing is represented as being done by a cylinder and pressure rollers. O, figure 1, is the bed for feeding the board under the pressure roller, W; H is the cylinder with two conversely spiral set planing irons attached to the cylinder heads. All the rest of this machine will be easily understood. In fig. 2 T is the board bed on which the board is fed edge-wise between two vertical pressure rollers, O O, into the tongueing and grooving tools, one of which, P, is exhibited on a horizontal revolving shaft, with two S cutters on it, and a washer between to cut the tongue on the upper edge of the board, and there is one S cutter below to cut the groove on the lower edge of the board. A A are two cog wheels on the top of the pressure rollers, which receive motion from a worm on the horizontal shaft behind the cutter shaft.

FIG. 3.



Figures 3 and 4 are views of the cutters. Figure 1 is a fac simile of the original pattern, from which the revolving S cutters were made. Figure 4 is a double S cutter: it was used on this machine to tongue and groove before the single S cutter was made, but the single S cutter was found easier to grind, and was preferred. Two pair of vertical rollers were used on the matching machine, fig. 2,—one set to hold and the other to draw the board.

These engravings represent machines which were constructed by Stewart, Hill & Co., and used in the second story of their mill, half a mile from Baltimore, Md., in 1822. In that year floor boards were planed, tongueed and

grooved by them, and in the latter part of the year it was destroyed by fire.

The man who made the machinery is living, and Wm. W. Hubbell, Esq., of Philadelphia, has all the proof in his possession—proof which is of immense importance at the present moment. Having been shown drawings of the machinery, we deemed it our duty to present these engravings to the public, for the benefit of all parties interested in patents for planing boards. If the fact of this machinery having been in use in 1822 can be clearly established,—and we are assured by Mr. Hubbell that it can, as he has all the information in his possession,—then the sooner the owners of the Woodworth patent know it, so much the better for them, as well as others who are interested. We make no personal comments upon the subject, our object is to spread correct information on important subjects, and this is one of them. We stand first in doing up things in that manner and mean to keep at the head of the list.

If Adam Stewart, George Hill, or Griggs (engineer) who, with others, were interested in the machinery which planed, tongueed and grooved floor boards, in their mill, about half a mile from the city of Baltimore, near the Philadelphia Road, in the year 1822; (in the latter part of which year the mill was destroyed by fire,) are, or either of them is, still living, they will render important service, by informing Wm. W. Hubbell, Attorney at Law, Philadelphia, Pa., of the fact.

Fall of an Iron Bridge.

The iron bridge recently erected across Red River, at Clarksville, Tenn., fell down. A gentleman by the name of Parish, and his son, were crossing at the time, with a load of cedar timber, and the whole were precipitated to the bottom, a distance of about sixty feet. The young man had his leg broken in two places, but not otherwise injured. The father escaped, as at first supposed, without injury, but it appears since, that his situation is perhaps worse than that of his son. The team consisted of five horses and one mule; all were instantly killed except one horse, which had both hind legs broken. The abutments and pier remain firm, therefore the iron must have given way and bent until the ends slipped off the pillars.

A coal miner planted last year a root of rhubarb in a mine, 36 yards below the surface, near Stonington, in England, and this year he cut down seven stalks 20 inches in length.

Useful Receipts.

For Vegetarians.

SAVOURY PIE.—Cold Savoury Omelet, 3 boiled eggs; 2 table-spoonsful of tapioca; $\frac{1}{4}$ of a pint of cold water; 1 oz. of butter, and paste. Steep the tapioca in the water 10 or 15 minutes; cut the omelet in small pieces; butter a pie dish and spread a little of the tapioca over the bottom; then the omelet and eggs; then another layer of tapioca, adding seasoning and a few small pieces of butter; cover it with paste and bake it.

POTATO PIE.—2 lbs. of potatoes; 2 oz. of onions, (cut small); 1 oz. of butter; paste, and $\frac{1}{2}$ an oz. of tapioca. Pare and cut the potatoes; season with pepper and salt; put them in a pie dish, adding the onion, tapioca and a few pieces of butter on the top, and half a pint of water; cover it with paste and bake it in a moderately hot oven. A little celery or powdered sage may be added.

HOT POT.—Cut the potatoes, as for a potato pie, put them in a dish, in layers, with pepper and salt between each layer, then put some butter on the top, adding a little water, and set it in the oven.

STEWED CELERY.—5 oz. of celery; $\frac{1}{2}$ a pint of new milk; $\frac{1}{2}$ an oz. of flour, and $\frac{1}{4}$ of an oz. of butter. Cut the celery into pieces one inch in length, placing it in a pan, with as much milk as will cover it, and letting it boil gently, till tender. Drain it, seasoning with pepper and salt, thickening with the flour and butter, and then boiling the whole for a few minutes. Garnish with toast sippets.

FRIED POTATOES.—Pare and cut the potatoes into thin slices, as large as a crownpiece, fry them brown in olive oil or butter, lay them on a dish, and sprinkle a little salt over them; or they may be dipped in batter and fried.

BAKED POTATOES.—3 lbs. of potatoes and 2 oz. of butter. Pare and roast the potatoes a short time in the oven. Then place them in a salt glazed brown dish with a little butter, and bake, occasionally shaking them, to secure their being equally browned.

BOILED BEET ROOT.—Boil the root till quite soft, with much salt in the water, and a piece of carbonate soda, about the size of a pea; then cool it with cold water, pare it, and slice it thin, laying it together, in a dish, with vinegar poured over it some time previous to serving.

FRIED BEET ROOT.—Prepare the root as directed for boiled beet root: slice it lengthways, and fry in butter, seasoning with pepper and salt.

JERUSALEM ARTICHOKE.—Boil and serve with butter sauce, (melted butter,) poured over them.

PLUM PUDDING.—1 pint basin of bread crumbs; 15 oz. of currants and Smyrna raisins, mixed in equal quantities; 11 oz of moist sugar; 3 oz. of butter; 2 oz. of candied lemon; 8 eggs; 1 tea-cupful of applesauce, and half a tea-cupful of milk. Rub the butter into the bread crumbs, and add the fruit, sugar, candied lemon and spice, beating the eggs with the whole. After standing 12 hours, mix the apple sauce or the skimmed milk with it, and boil it in a buttered mould for three hours, letting it stand for some time in the water. Serve with cream or butter-sauce.

We hope that those who complain of bad water during the warm weather, will not neglect to keep the kind they drink in porous earthen vessels, and filter it through charcoal. Everybody can filter their own water with a little charcoal resting on a diaphragm of cotton flannel.