

Scientific American.

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

Vol. 3.

New York, November 27, 1847.

No. 10.

THE SCIENTIFIC AMERICAN:

PUBLISHED WEEKLY
At 129 Fulton Street, New York (Sun Building,) and
13 Court Street, Boston, Mass.

By Munn & Company.

The Principal Office being at New York.

TERMS—\$3 a year—\$1 in advance, and
the remainder in 6 months.

Poetry.

THE MAID'S LAMENT.

Oh? why am I not married?
I'm sure I'm not to blame:
My friends are asking me the time,
When I shall change my name?
They tell me I shall surely be
A nun or lonesome maid;
And such it really seems to me,
For beauty 'gins to fade.
And every hope I had is gone,
They've perished with my years,
And now, no consolation left,
A maid is all my fears.

How many friends in life I've seen,
Have all got married early:
And really I must be excused,
If oft I'm sad and surly.
I scarce can live to see them thus,
Live happy in this life;
Whilst I, poor mortal seem to be
Marked out for no man's wife
But seem to live to bear a name,
That all, alas! degrade!
And I, like others, e'en do scorn,
The title of—"Old Maid."

I've had my chances like the rest,
But then I thought I'd tarry;
For whilst in youth with pleasure blest
Why need I wish to marry,
There's time enough when I am tired
Of living as I do;
And with this fancy like a fool,
My love I did subdue.
But would I now reject a chance,
Though Fancy might persuade,
There still might be another chance?
Oh, no! I'd change the maid.

ANGRY WORDS.

Angry words are lightly spoken
In a rash and thoughtless hour,
Brightest links of life are broken
By their dark, insidious power.
Hearts, inspired by warmest feeling,
Ne'er before by anger stirr'd,
Oft are rent past human healing,
By a single angry word.

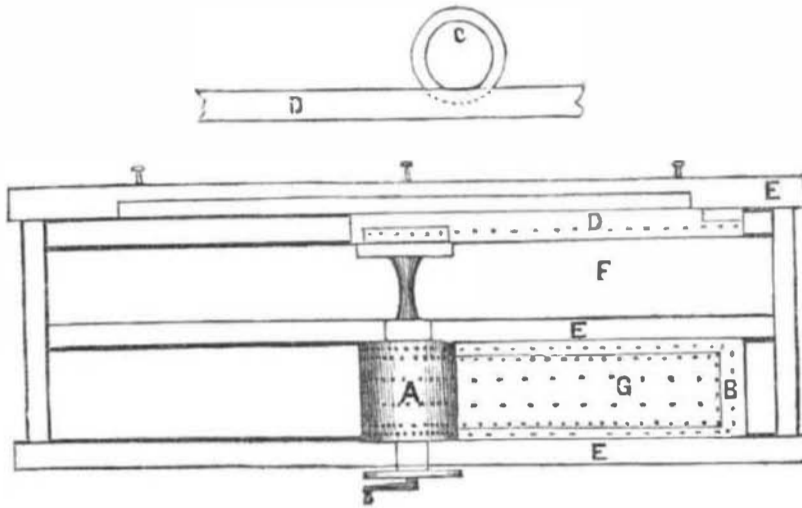
Poison-drops of care and sorrow,
Bitter poison-drops are they,
Weaving for the coming morrow,
Sad memorials of to-day.
Angry words—oh, let them never
From the tongue unbridled slip;
May the heart's best impulse ever
Check them ere they soil the lip.

Love is much too pure and holy,
Friendship is too sacred far,
For a moment's reckless folly
Thus to desolate and mar.
Angry words are lightly spoken;
Bitterest thoughts are rashly stirr'd;
Brightest links of life are broken
By a single angry word.

Friction Matches.

The fabrication of chemical aluminettes occupies in the environs of Paris more than a thousand workmen. A single house employs three hundred. One house sends annually to London friction matches to the amount of 120,000 francs.

MACHINE FOR PUNCHING COPPER SHEETS.

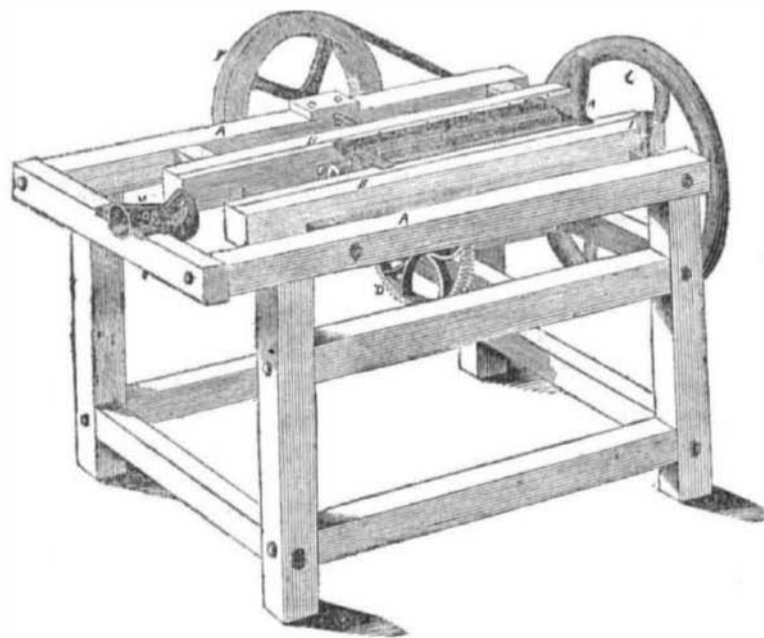


The above engraving is vertical view of a machine, invented by Mr. William H. Daforth, of Salem, Mass. It is well worthy attention, as it is very simple for the purpose intended.

A is a cast iron cylinder, the dots representing punching irons upon its circumference; B is a travelling bed plate or carriage on which the sheet to be punched is placed; the dots represent the holes to receive the punching irons as the carriage is taken through it being done by means of a roller under the carriage connected to the cylinder by gearing wheels, the lower gearing wheels being turned by a crank: C, is a rim of steel or cutter on one side of the edge of a cast iron wheel which has a sharp corner fitting closely to a

corresponding one on the edge of the small carriage D. The dots on the wheel represent punching irons (side view) and the dots in the carriage representing holes as before stated. E E E, is the frame work of the machine. F is a sinkage of 3-4 of an inch below the surface of the carriage D, upon which the sheet to be reduced in width is placed and held firm by set screws, the part to be cut off falls upon the sinkage F, as it passes under the cutting wheel, the part that remains upon the carriage is reduced to the proper width and one end is punched, the carriage is kept closely to the cutter by means of set screws: G, represents a sheet of copper upon the bed plate after passing under the cylinder. Measures are taking to secure a patent.

TREENAIL MACHINE.



The above is an engraving of Mr. Nathan Mitchell's machine for making Treenails for shipbuilding. It was invented by Mr. E. Webber, but is now the exclusive property of Mr. Mitchell, Gardiner, Maine. It is a machine which has received the most favorable testimonials from the first shipbuilders and owners of vessels in Maine. It makes a perfect Treenail and is therefore superior to any other mode of making them that is at present known.

DESCRIPTION.—A A, represents the frame. B B, timbers to which slides are attached for operating the machine. D, is the driving cog wheel. E, long cog pinion frame. F, band wheel. G, socket to hold the treenail to be turned. H, handle to move back the

cog pinion frame after the treenail is turned, for the purpose of saving time, instead of reversing the motion of the wheel C. J, is a handle as shipper to feed the gear. L, is a shaft on band wheel running across the frame and meshing into a rack on the under side of cog frame, by a small cog wheel for the purpose of moving cog frame on to the cutter and back by a reverse motion. M, is a double trumpet mouth cone through which the treenail passes. N, cutter. O, lips and screw to hold the cutter.

OPERATION.—The wood for the treenail is fixed in G; the balance wheel is then moved, which being on the end of the frame has a cog wheel on its horizontal shaft, which meshing into a large plate cog wheel, (these

are not seen,) on a cross shaft, drives a small drum which by the band drives the band wheel. The band wheel drives a small cog wheel on the end of its cross shaft L, which moves the cog frame by a rack below on to the cutters. The cog driving wheel D, meshes into the cog frame and by the motion on the horizontal shaft on C spins round the cog frame, which being moved forward by the rack spoken of on the cutters N, drives the treenail of a perfect shape through the hollow cone cylinder M. It will readily be understood by this description that the cutter is stationary and that the cog frame holding the rough wood for the treenail spins round turning the treenail, while at the same time the horizontal motion of the frame drives the treenail through the iron cone mould M. The cog frame therefore has two motions when in full operation. One is a rotary motion from the wheel D, the other a forward horizontal motion from the shaft of the band wheel working on a sliding rack underneath.

This machine can now be seen at Mr. Hills, see advertisement on another page. Mr. Mitchell is desirous of selling the patent right, and there can be no doubt of its value, as it can be varied to cut the treenails of all sizes. It is therefore an important machine for shipbuilders. Information respecting the machine can be had either of Mr. Mitchell, the proprietor, or Mr. Hills, the Agent.

RAIL ROAD NEWS.

The Broad Gauge.

The broad track has been adopted by the Erie, road, New York: the Paterson and Ramapo, and the Athica and Hornersville route. This makes the broad gauge rather a feature in New York State, and its example will stand much chance of being carried through upon other roads that intend to do a large business.

Telegraphing.

A correspondent of the Buffalo Express, tells the largest story yet of feats performed by Telegraph operators. He says, among other marvellous things, that Mr. S. Porter, the Superintendent of the telegraph line from Buffalo to Toronto, Canada, for lack of other facilities at the moment, has read communications correctly by holding the ends of the wires in his hands and observing the twitchings of the nerves at his wrist. Another operator, Mr. C. C. Haskins, who is in charge of the office at Queenston, by placing the end of the wire upon his tongue, reads perfectly, and without the slightest error, by the sensation of the shocks. This he has often done, and with entire accuracy.

There are eleven lines of telegraph in the course of erection in the United States and Canada.

Niagara Suspension Bridge.

The Suspension Bridge Companies have directed the construction of the Bridge for the passage of Railroad trains, and also for foot and wagon tracks. The strength of the supporting cables is to be no less than six thousand five hundred tons.

The cost is not to exceed \$190,000 and the whole is to be completed by May 1st, 1849.

The Bridge will be within sight both of the cataract and whirlpool, and span the gorge by an arch of 330 feet, suspended 230 feet above the surface of the Niagara River.

An undertaking beside which the works of the ancients appear as dwarfs beside a giant.

A correspondent informs us that wood goes further when left out of doors than when well housed, some of his having gone upwards of a quarter of a mile in one night.

"The fire is amazingly cold," said an old toper, who was trying to warm his toes in the moonlight on a snow bank.