

Scientific American.

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

Vol. 4.

New York, November 18, 1848.

No. 9.

THE
SCIENTIFIC AMERICAN :
CIRCULATION 11,500.

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.

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

See advertisement on last page.

Poetry.

THE TRUE ORNAMENT.

I ask not for the glittering wreath,
Of India's sparkling diamonds rare,
To deck my brow, while oft beneath,
There throbs a heart with heaviest care.

I ask not for the gilded chain,
Of perishing and worthless gold,
To clasp my neck, while oft in vain
The heart's best sympathies unfold.

Oh! give me not the worthless dust,
For which vain, anxious mortals toil,
To treasure up where moth and rust,
Doth soon corrupt the hoarded pile.

I covet not the gay attire,
In which vain beauty oft appears,
Oft that which wondering crowds admire,
Needeth far more their heartfelt tears.

But there's an ornament I crave ;—
To grant, vain world, it is not thine,
It floateth not o'er yon proud wave.
Nor yields it me earth's richest mine,

Oh, may it be a guileless heart!
In heaven's own sight of priceless worth!
Where nought corrupting ere hath part,
Pure, as the source which gave it birth.

A spirit meek and pure within ;
May this, alone, my life adorn,
Unsuited by the touch of sin,
Though subject to the proud world's scorn.

This ornament, O God of Love!
'Tis Thine, and Thine alone, to give ;
Oh, may I its rich beauties prove,
And in its full possession, live !

SIMPLE AFFINITY.

Some Water and Oil
One day had a boil,
As down in a glass they were dropping,
And would not unite
But continued to fight,
Without any prospect of stopping.

Some Pearlash o'erheard
And quick as a word,
He jumped in the midst of the clashing.
When all three agreed
And united with speed,
And SOAP was created for washing.

BRIGHTER DAYS.

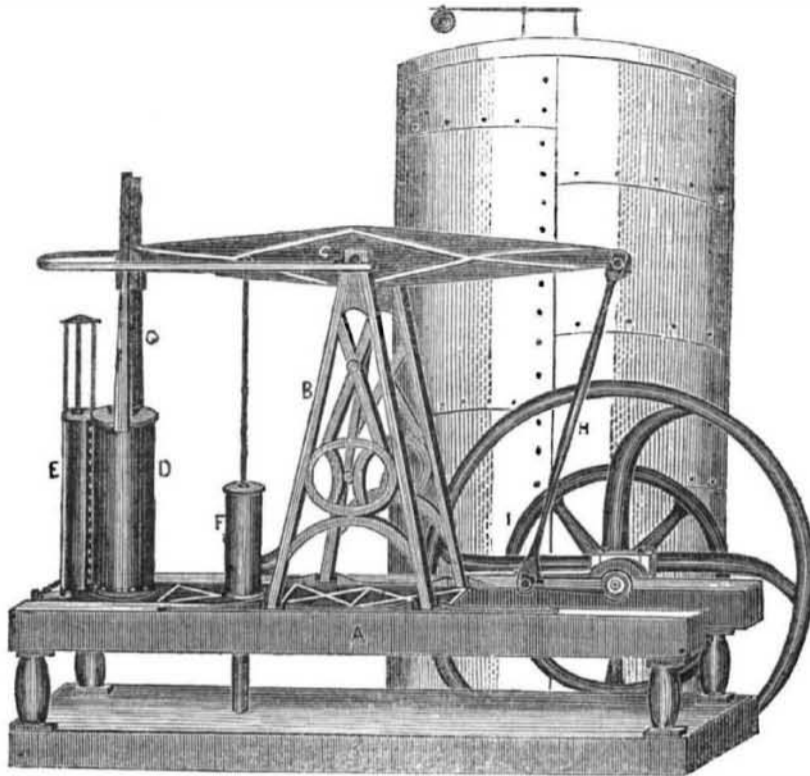
Let us hope for brighter days !
We have struggled long together,
Hoping that the summer rays
Might succeed the winter weather ;

Hoping till the summer came,
That to us seemed winter still,
Summer, winter, all the same
To our hearts so cold and chill.

Let us hope for brighter days !
Surely they must come at last,
As we see the solar rays,
When the storm has hurried past.

About 8,000 sheep have been slaughtered
this fall at Cincinnati, for their tallow.

WALKING BEAM ENGINE.



The above is a representation of a beautiful little one horse power steam engine which we have for sale, and the novelty of its construction, together with a desire to bring it to the notice of any one who may be in want of a cheap, substantial and convenient power for machinery, has induced us to illustrate it with an engraving. In No. 7 of this vol. of the Scientific American we published an engraving of a Horizontal Engine. The one we now present is what is called a Walking Beam Engine, and is a perfect miniature of the large engines now used in all the Hudson River steamboats.

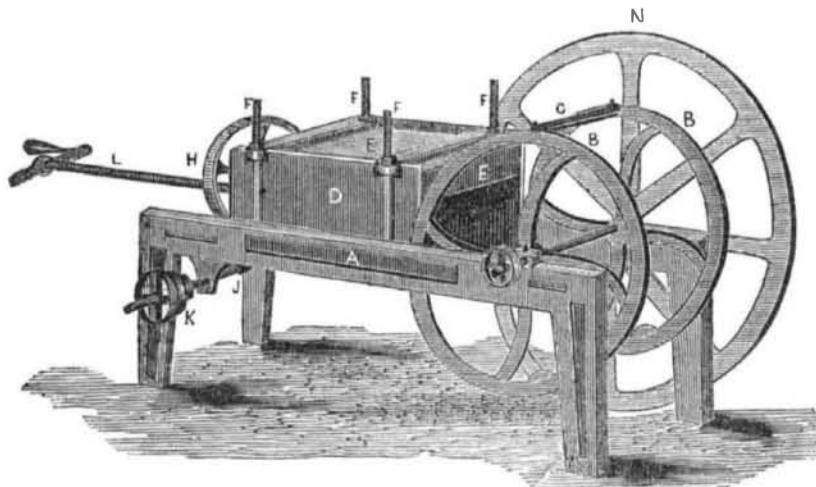
A, is the frame, which is very neat ; B, are the walking beam standards ; C, is the walking beam ; D, is the cylinder ; E, the steam chest ; F, the pump ; G, the piston working in guides ; H, the connecting crank rod ; I, is a band wheel on the main shaft outside of the fly wheel.

The engine is complete in every respect, with fly wheel, band wheel, force pump pipe, &c. ; it is now in excellent running order, works beautifully and is so easily managed that any one however unaccustomed to steam power, can use it with the utmost ease. It is ac-

companied by a strong and substantial boiler capable of sustaining a very heavy pressure.

There are many uses to which such an engine and boiler could be applied with great advantage. For grinding coffee, spices, paint, for driving lathes in a turning shop, for mortice and tenoning machines in a carpenter's, cabinet maker's or wheel wright's shop, for blower in a foundry, for the bellows in a blacksmith's shop, for driving light saws, for cutting wood for Locomotives and other purposes, in short for almost any business where a small mechanical power is desired they will be found exceedingly useful. The boiler will also answer as a stove for heating a shop, while it is equally as safe, the smoke pipe being turned into the chimney. Both engine and boiler are very compact, can be easily moved, and require no brickwork whatever. We will ship them with the pipes and every thing complete for running, for the low sum of \$175. The purchaser on receiving them will only have to screw on two pipes and they will be ready for use. They can be sent with perfect safety to any part of the United States. Letters may be directed to Munn & Co., Scientific American Office, New York.

TOBACCO CUTTING MACHINE.



This is a superior constructed Tobacco Cutting Machine, the invention of A. P. Finch, Red Falls, Greene Co. N. Y., and is now for sale at Suydam, Reed & Co.'s, No. 108 West street, this city. Its workmanship is of a very superior kind, strong, correct and simple,

and there can be no question of its qualities. A, is the frame. B B, are two wheels on which the cutting knife C, across the box D. E, is the lid of the box, which is pressed down the tobacco to the screw F F F F. As the to-

bacco to be cut has to be pressed down to a very solid bed, two cross bars extend under the nuts of the screw bolts across the box D, on the top of the cover E, and there are notches in the sides of the box to allow these bars to descend with the cover on the top of the tobacco as it is screwed down. H, is a cog wheel on the screw L. The screw passes through it and as there is a thread in the interior of the wheel, the screw will be moved forward or backward by the motion of the wheel. On the end of the screw in the box, there is a square block pressing behind the tobacco to move it gradually toward the knife. This is the office of the screw. Therefore as the knife cuts up the tobacco under E, at the right end of the box, the screw pushes up the compressed tobacco to present alternately a new layer of tobacco to the knife at every revolution of the revolving cutter wheels B B. N, is a fly wheel on the cutter shaft, and the pulley on the left of the cutter is for a band to drive the shaft. The cog wheel F, at the left end of the box, is driven by a worm wheel J, (scarcely seen) under the bottom of the box. K, is a set of pulleys on the shaft of J, to drive the said shaft, so that the screw may receive a forward or backward motion by the changing of the band. The handle on the end of the screw is merely to show the manner in which it may be turned.

The machine is to be seen at the store of the Company mentioned above, and those who are in need of such a machine will find this one to be both cheap and good.

RAIL ROAD NEWS.

New York and Erie Railroad.

The New York and Erie Railroad Company are said to have completed an arrangement for uniting their road, by way of Elmira and Seneca Lake, with the Central line of Railways between Albany and Buffalo. The Erie Railroad route will have the advantage of being eight hours shorter in time than the Albany route !

Old Colony Railroad.

The second track on the Old Colony Railroad to South Braintree, Mass. is nearly finished. It will add to the facilities of the Fall River line, which is already doing a large share of New York business. On this line a custom prevails which recommends itself to ladies travelling alone. The same conductor goes through from city to city.

Worcester and Nashua Railroad.

The Worcester and Nashua railroad has been completed to the crossing of the Fitchburgh road, 27 miles from Worcester ; thus bringing New York in direct connection with a large area of country which has formerly only been in railroad connection with Boston, and the trade of which has been monopolized by that city. New York will now share that trade, and the extension of this road to Nashua in December next will still farther increase the area of country brought into connection with this city. Passengers from all the country North, West or East of Nashua can then visit New York without passing through Boston.

Railroad Extravagance.

The London Times remarks, that a hundred million pounds sterling have been lost in England in the building of Railroads.— There has of course, been a serious check to that enterprise in that country. And probably the interests of this country would not suffer, if this branch of our enterprize were conducted with a little more moderation.

There is said to be a sweet potato in St. Louis four feet four inches long. That beats New Jersey. We should like to see that sweet potato very much. Seeing is believing.