

Scientific American.

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

Vol. 4.

New York, March 10, 1849.

No. 25.

THE
SCIENTIFIC AMERICAN :

CIRCULATION 11,500.

PUBLISHED WEEKLY.

At 126 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.

See advertisement on last page.

Poetry.

WILLIE.

How beautiful was Willie,
With his curls of sunny hair ;
With his loving, laughing eyes,
Unshadowed by a care :
His voice so glad and joyous,
So full of love and mirth—
Oh! he was very beautiful,
Too beautiful for earth

He was lovely, very lovely,
And we loved him but too well,
Though we knew it not till o'er his face
The dim death shadow fell.
We felt it when our darling
Was lying cold and still,
With a seal of death upon his lips,
And on his heart the chill.

An idol was our Willie—
An idol frail as fair :
Ah! me we fondly grudge the grave,
The beauty hidden there,
But his memory is with us,
A pure and holy thing—
Our love for him around our hearts
For evermore will cling.

We loved him very dearly,
But He who lent the gem
Hath taken it again, to shine
In the Saviour's diadem.
He has taken home sweet Willie,
Our beautiful and blest—
Shall we mourn because "the fatherless"
Has found his father's rest?

We are very sad and lonely,
When we miss his joyous face,
But we know there is one seraph more,
In the 'high and holy place.'
We will plant fresh bowers above him,
Their gentle breath to shed,
Above the quiet resting place
Of our beloved dead,
For pure and fair as they, was he
O'er whom the dust is spread.

LOVE.

BY THE LATE THOMAS HOOD.

There is dew for the flow'ret,
And honey for the bee ;
And bowers for the wild-bird,
And love for you and me !

There are tears for the many,
And pleasure for the few ;
But the world pass on dear,
There's love for me and you !

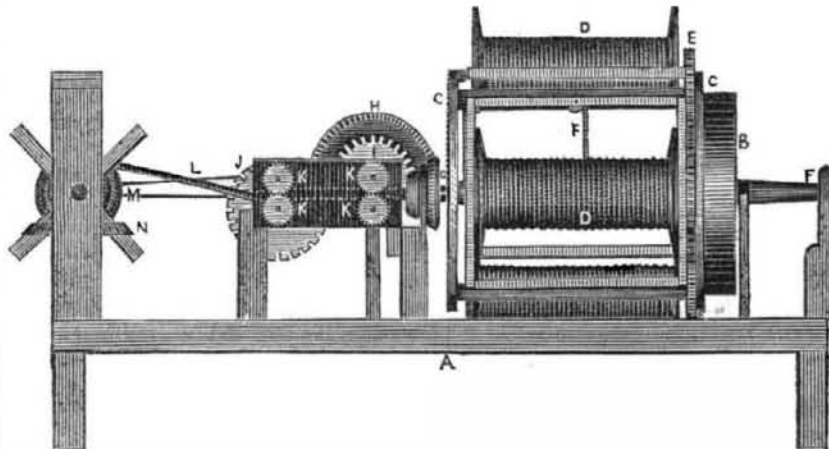
There is Care that will not leave us,
And Pain that will not flee ;
But on our hearth unaltered
Sits Love, 'tween you and me !

Our love, it ne'er was reckoned,
Yet good it is and true ;
It's half the world to me, dear,
It's all the world to you !

Artesian Wells in Texas.

The Galveston News says that Col. Thos. Wm. Ward of Austin has commenced boring for water, and expected to penetrate to the depth of 300 feet in a fortnight.

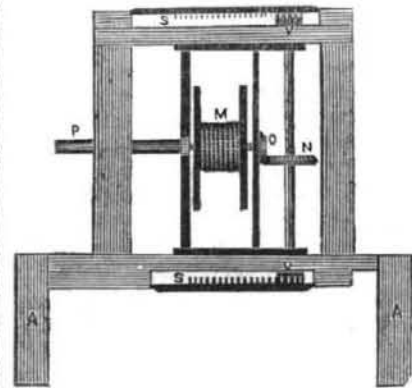
NEW MACHINE FOR MAKING ROPES.—Figure 1.



This machine is the invention of Henry A. Clum, of Walworth, Wayne Co., N. Y. who has taken measures to secure a patent for the same. Its object is to make ropes, twisting the strands from a number of spools set in a large reel and managing the twist so as to form the rope in a very small space—yet controlling the degree of twist in the most perfect manner, as it is well known that on this depends the principal value of the rope—as overtwisting detracts from its strength. It can also make rope in a very rapid manner and it therefore combines a number of economic advantages.

Fig. 1 is a side elevation, and fig. 2 is an end view of the receiving reel on which the finished rope is wound. A, is a stout frame with uprights to support the machinery above B, is a driving pulley, and F, is the centre or shaft of a large circular spool frame of which C C are the circular ends. This circu-

FIG. 2.



lar spool frame supports three spools D D D, the axis of which extends across from C to C, near the periphery of it, and they are made to revolve with it. Each spool D, however, is placed in a frame by itself and while the large spool frame revolves the smaller spools with their frames have another and a faster motion inside by a compensation gearing E. Thus there are two motions in the large frame, viz. the motion of the frame itself and the spools with the minor frames inside, which are driven at about four times the speed of the large

spool frame. The strands to make the rope—one from each spool—passes up at F over a small pulley in the cross piece of the minor spool frame—then passes along to the left over another small pulley seen at the corner, then down and through an eye near the periphery of C, and from thence into the laying collar G, where three strands meet and are laid, as it is technically termed—twisted together into the rope—after which they are drawn through between the breeding rollers K K, on to the receiving reel M. The breeding rollers, as will readily be noticed get their motion from G, driving the bevel-wheel H, and H driving a pinion I, on the shaft, and J, on the other breeding roller.

The receiving frame has a reel M, upon it, which can be put on and taken out of the said frame. The reel is driven by a belt L, from a pulley on the shaft of J, fig 1 and drives the shaft P, fig 2. The end of the reel shaft communicates motion to the bevel pinion O, by being inserted in the collar or recess of the shaft O. This bevel pinion drives the wheel N, and moves a vertical shaft having a pinion V, on each end. These two pinions mesh into a rack S, S, one above and one below; this rack shifts across, but that is all, while the reel and vertical shaft traverse before the breeding rollers backwards and forwards to fill the reel evenly with the rope. The way in which the receiving reel frame is moved is by the pinions V V, which travel round the rack S, biting along and reversing the motion of the reel frame alternately. The bottom and top of the reel frame is guided in grooves by slides. From the foregoing, we believe that the action of this machine will be understood, and with the exception of the gearing to give the spools a greater motion than the large spool frame, and the strand passing from the eye of C to G, which cannot well be seen in a side view, all the parts are here displayed. This machine has been tried and has more than realized the expectations of the inventor and many others besides. It is certainly simple and it makes ropes with surprising rapidity.

A Good Deed.

Theodore S. Faxon, Esq. of Utica, N. Y. last week subscribed for 100 shares of the stock of the Water Works Co., amounting to \$2,500, and made a donation of the same to the Orphan Asylum. Mr. F. begun life a stage driver, and was penniless. He is a man of great energy, prudent and industrious. From driving horses, he became a proprietor—afterwards went extensively into the packet business in the Erie Canal. He has accumulated wealth rapidly, and is now an extensive stockholder in banks, railroads, factories and telegraph lines. To the latter he now devotes most of his time; the investments paying better than any other business.

Singular Phenomena.

The most singular display of light ever witnessed, says the Cincinnati Nonpareil of 23d ult., "took place last evening about ten o'clock in the western horizon. A bright streak of light shot suddenly up from the verge of the horizon, and after attaining an altitude of about 45 degrees, burst assunder, and spread over the whole surface of the heavens, making every thing for an instant plainly visible. It was followed by five other bursts of light, all of equal splendor, and rising from near the same place—it then gradually disappeared. The so called "Northern Lights" have been often seen and admired, but we believe Western Lights will soon eclipse them."

RAILROAD NEWS.

Great Northern Central Railroad.

The amount of travel and freight upon the great Central Railway, via Fitchburg, Keene, and the Connecticut Valley, to Canada and the Lakes, has thus far much exceeded the expectations of its friends.—The route bids fair to become a great and favourite thoroughfare. Even at this inclement season, the morning trains, of two cars each from the North and South, are usually full, and the evening trains, we hear, are well supported. The freight trains are very large and will make it necessary to run night trains.

Railroad Collision.

A fearful collision occurred last week on the Camden and Amboy passenger train from the New York and the through transportation train from Philadelphia, at West's turn-out. The trains were not in sight of each other till just before the collision, as they were turning one of the curves. As soon as the engineers saw each other (says the State Gazette,) they reversed their engines, but seeing that the collision was inevitable they all jumped off. The locomotives struck with great violence tearing up the track, and making perfect wrecks of each other. Fortunately the passengers were not hurt.

The train run off the Erie Railroad a little above Piermont last week, tearing up the track in a most beautiful manner.

The Massachusetts and Vermont Railroad was opened on the 20th ult.

The Cleveland and Columbus Railroad, in Ohio, is progressing rapidly.

The loan of \$500,000 offered by the Hudson River Railroad has been all taken. There were numerous bidders.

About \$23,000 have been subscribed on the books of the Syracuse and Binghamton Railroad.

A Race with a Locomotive.

As the train of cars which conveyed the stockholders and invited guests to the "opening of the Vermont and Massachusetts Railroad" was leaving Northfield, on its return, a horse attached to a sleigh became frightened and breaking from his fastenings, soon distanced the cars, took the track, and for two or three miles kept clear of the train. The exciting race was finally terminated by the horse, who politely turned out and gave the train the whole of the road. A noble Newfoundland dog, holding on by the "skin of his teeth" to the buffalo robe, accompanied the horse in this Gilpin race, and, as the long train passed them, they both preserved a quiet yet respectful dignity, as much as to say, we only yield to superior power.

Bridging the Ohio.

Mr. Ellet proposes to build a suspension bridge over the Ohio, between Cincinnati and Covington, to cost \$300,000, and not to interfere with the navigation. The gigantic arch is to be 120 feet above the centre of the river at low water, or fifty-two feet above the great flood of 1832—the towers for the suspension of the wire cables 230 feet high—twenty cables four inches in diameter, capable of sustaining a weight of 7000 tons. The lower House of the Ohio Legislature has passed a bill incorporating a company to build the bridge.

Lynn has a population of 12,000, 8,000 of whom, of both sexes are engaged in making boots and shoes. 3,000,000 pairs were "created" last year.

The Middlesex Company at Lowell, Mass. make use annually of 6,000,000 teazels, 1,716,000 lbs fine wool, 80,000 lbs. glue, \$60,000 worth dye stuffs, and \$17,000 worth of soap