

Scientific American.

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

Vol. 4.

New York, January 13, 1849.

No. 17.

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—\$3 a year—\$1 in advance, and
the remainder in 6 months.
See advertisement on last page.

Poetry.

CONSOLATIONS FOR THE LONELY.

BY MARY HOWITT.

There is a land where beauty cannot fade,
Nor sorrow dim the eye;
Where true love shall not droop, nor be dis-
mayed.
And none shall ever die!
Where is that land, O where!
For I should hasted there;
Tell me—I fain would go,
For I am weary with a heavy wo!
The beautiful have left me all alone;
The true, the tender, from my path have gone;
O guide me with thy hand,
If thou dost know that land,
For when burthened with oppressive care,
And I am weak and fearful with despair;
Where is it? Tell me where.

Friend thou must trust in him who trod before
The desolate paths of life;
Must bear in meekness as he meekly bore,
Sorrow and pain, and strife;
Think how the Son of God
These thorny paths hath trod;
Think how he longed to go,
Yet tarried out for thee the appointed wo.
Think of his weariness in places dim,
Where no man comforted or cared for him!
Think of the blood-like sweat,
With which his brow was wet;
Yet how he prayed unaided and alone,
In that great agony, "Thy will be done!"
Friend do not thou despair;
Christ, from the heaven of heavens will hear
thy prayer!

THE FATHERLESS.

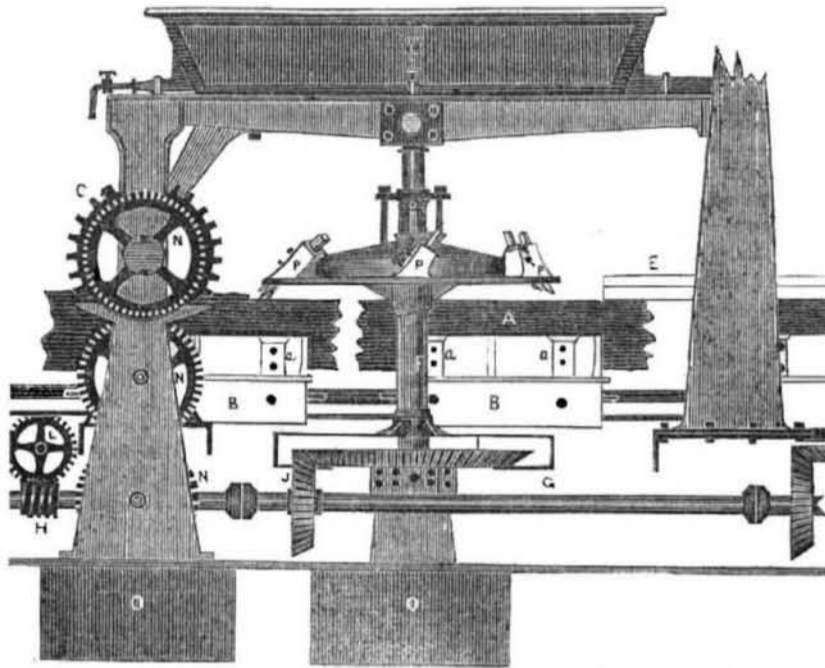
"Speak softly to the fatherless!
And check the harsh reply
That sends the crimson to the cheek,
The tear-drop to the eye.
They have the weight of loneliness
In this rude world to bear;
Then gently raise the fallen bud,
The drooping flowerets spare.

Speak kindly to the fatherless!
The lowliest of their band
God keepeth, as the waters,
In the hollow of his hand.
'Tis sad to see life's evening sun
Go down in sorrow's shroud,
But sadder still when morning's dawn
Is darkened by the cloud.

Look mildly on the fatherless!
Ye may have power to wile
Their hearts from sadden'd memory
By the magic of a smile.
Deal gently with these little ones
Be pitiful, and He,
The friend and father of us all,
Shall gently deal with thee!"

Mr. and Mrs. Randall, the celebrated Scotch giant and giantess, have recently had a son born to them, at their residence, near Mineral Point, Wisconsin, whose weight at three days old was twenty two pounds! This is their first child, and is, we believe, the first successful experiment in modern times, in the production of a race of giants. They do great things in Wisconsin now a days.

STONE CUTTING MACHINE.—Figure 1.



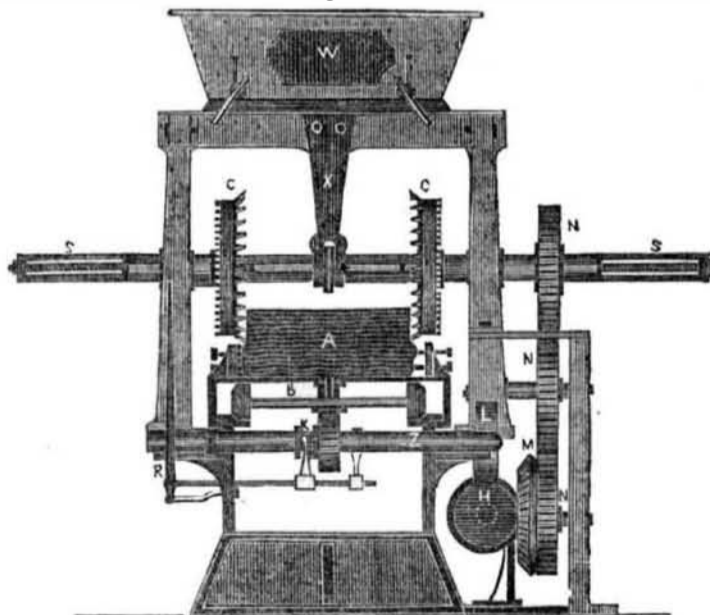
This is a Stone Cutting Machine which we publish for the benefit of our subscribers and those who are engaged in the stone cutting business. It is a machine perfectly practicable and will work well. It is public property and a good mechanic skilled in the art may construct one similar to it from these drawings. Wealthy companies who have large quarries would, we think, find it profitable to have such a machine, as it would no doubt be a great saving for plain work. For ornamental work it is not intended. In that branch the head and the hand of the skillful workman have as yet found no equal and never will.

DESCRIPTION.—Fig. 1 is a side elevation and fig. 2 is an end view. The same letters refer to like parts on both.

The stones are carried forward in carriages,

below revolving cutters, one set to cut the sides of the stone and another set to cut the surface. The carriage may be made in two pieces, the upper part, like a turn table to swing round if desired. The underside of each carriage has a rack on it and is moved forward by spur wheels gearing into said rack. Their may be a continuous round of this gearing, so that the carriage may move continually round. A is the stone in the carriage, made firm by strong set screws α , as seen in fig. 2. B is the carriage—a train of which is shown passing through the machine. C are the two side cutting wheels. These wheels are adjustable; the shafts are turned parallel and coupled at the middle suspended in the bearing X fig. 2. The shafts are hollow about half their lengths, and have two broad strong

Figure 2.



feathers each—one on each side. On the outer end is a nut fastened, which works a screw S, which is made to shift the naves of the cutter wheels to any width required. The wheels move to cut at the front only; so that the tools when they come to the lowest point in the machine, move off leaving it untouched behind. The side cutter wheels are moved by cog wheels N N N, working a worm wheel H, on G the main driving shaft, that meshes into the bevel wheel M, on the shaft of the lower N. F is the shaft on which the cutters that cut the face of the stone are arranged and attached. The cutters are fixed in sockets P, near the periphery of the wheel, of which

there are two, one on each side, both alike, and the cutters set so that those of one wheel pass alongside at the middle of the stone just after the other. The shaft F is made to be set at an angle from the perpendicular line, so that the cutters will not touch the stone behind as seen in fig. 1. This shaft is revolved by J a bevel wheel on the main driver meshing into I, a large bevel wheel on the bottom of F. We have thus described the top and side cutting operation. There may be as many tools used as desired fixed with set screws in the sockets P, and of different forms to suit the kinds of stone to be pressed. The wheels and shafts must be boxed in to keep them from dust. W

is a large water cistern above to be used if necessary. E at the section post behind, may be a polisher driven by the same power to polish the stone in its progress, and finish them at one operation. O O, is the bed framing. It remains now to be explained how the carriages are moved. This is accomplished as follows: H the worm wheel on the shaft G, meshes into L and drives the cross shaft Z, as seen in fig. 2 at the middle of which is a spur pinion that works the rack in the bottom of each carriage moving them forward. R, fig. 2, is a lever which operates the clutch K, to stop the carriage at pleasure. Cutter wheels may also be arranged to cut the ends of the stones, and the serrated and pointed or flat chisels may be very effectually used. For the cutting of heavy blocks, such a machine would be a great acquisition for rapid and cheap stone dressing. We know of no machine equal to one of this description in all respects, and the public are now both the judges of its merits and possessors of its principle.

RAIL ROAD NEWS.

Housatonic, New York and New Haven Railroads.

An indignation meeting of the passengers who left Albany on Tuesday of last week was held the next day at the Harlem Railroad House in this city, expressing their disapprobation at the treatment they received from the several companies. The cars were 24 hours on the route and they were delayed in one of the most bitter cold nights upon the road, and at Harlem were left without fuel, fire or lights. One man almost perished from the effects of the cold and a number of females suffered severely.

New York and New Haven Railroad.

The first regular train from New York over this railroad, left this city on Friday the 29th ult. and arrived at New Haven in a running time of less than 4 hours, although the track was obstructed by snow. The distance from New Haven is 76 miles. The fare is established at the low rate of \$1.50, or two cents a mile. Two trains are advertised, leaving New Haven at 6 o'clock A. M. and 1 P. M., and leaving New York at 8½ A. M. and at 3½ P. M.

Nashville and Chattanooga Railroad.

We have received from W. H. Humphries, Esq. the first annual report of the stockholders of this road. The report of the chief engineer is an able one. The whole route has been surveyed, the points determined and many contracts made. It is to be hoped that Tennessee, so long and far behind our Eastern States in Railroad enterprise, will now exhibit an energy and enterprise which will make up for lost time and character.

Most of the railroads in Great Britain have lowered the price of travelling to 1½ cents per mile and the consequent increase of travel has not only made up for the decrease, but the average income has been greater.

Telegraphs.

The British Government are going to lay telegraph wires across the Irish Channel, from Wales. This is certainly a great undertaking for the wires have to be laid in pipes in the bed of the sea, a distance of 60 miles.

The copying telegraph of Mr. Bain sends 400 letters per minute with a single wire from London to Slough.

Settlement of the Niagara Bridge Question.

It is reported that the company and Mr. Ellett have settled their difficulty. He is to receive \$12,000 and his shares taken at par—Mr. Buchanan has been engaged to complete the work. No less than \$5000 have already been taken from passengers crossing.