

Scientific American.

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

Vol. 4.

New York, July 28, 1849.

No. 45.

THE
Scientific American.

THE
BEST MECHANICAL PAPER IN THE WORLD.
CIRCULATION 12,000.

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.
Barlow & Payne, Agents, 89 Chancery Lane, London

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

Poetry.

LECTURE FROM MRS. BROWN.

Why don't you take the paper Brown?
I'm sure it is a shame,
That we can't get the news from town
Before it's old and tame?
There's Deacon Jones across the way,
Who gets one every week,
And he can beat you all they say,
When called upon to speak.

The reason, sir, is plain you know,
For when he reads it through,
His words like milk and honey flow,
And all he tells is new;
So he is taken by the hand
For what he can impart;
While old and young around him stand,
And say the Deacon's smart.

Oh, is it not a shame, I say,
To hug your purse so tight,
When a mere bit of clay
Would set the matter right?
What good is gold, now can you tell,
To any of our kind,
Unless it keeps the body well
And benefits the mind?

Why don't you take the paper, Brown?
I'm sure it is a shame,
That we can't get the news from town
Before its old and tame!
Now let us quit at once this way,
And take a worthy start,
And ere a year our friends will say,
"The Browns are getting smart."

Stand as an Anvil when Beaten Down.
"Stand, like an anvil," when the stroke
Of stalwart men falls fierce and fast:
Storms but more deeply root the oak,
Whose brawny arms embrace the blast.

"Stand like an anvil," when the sparks
Fly far and wide, a fiery shower;
Virtue and truth must still be marks,
Where malice proves its want of power.

"Stand like an anvil," when the bar
Lies red and glowing on its breast:
Duty shall be life's leading star,
And conscious innocence, its rest.

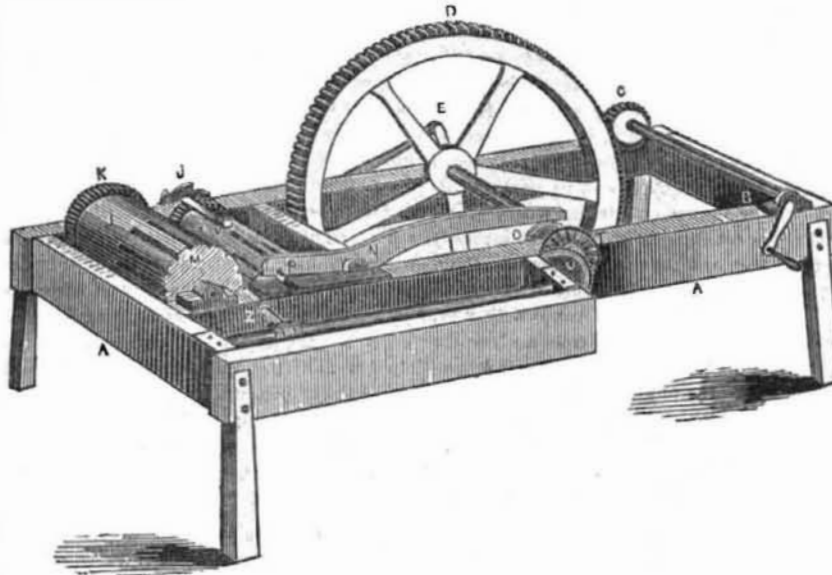
"Stand like an anvil," when the sound
Of ponderous hammers pains the ear:
Thine, but the still and stern rebound
Of the great heart, but cannot fear.

"Stand like an anvil." Noise and heat
Are born of earth, and die with time.
The soul, like God, its source and seat,
Is solemn, still, serene, sublime.

Pointed Shoes.

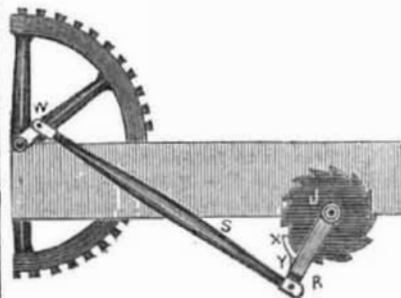
In the reign of William Rufus was introduced the fashion of wearing shoes with long points, turned up before, and fastened to the knee with a chain. The clergy endeavored, by their preaching, to abolish the ridiculous custom; but the people still persisted in wearing long points to their shoes in spite of all opposition.

NEW SPIKE HEADING MACHINE.—Figure 1.



This is a machine invented by Mr. E. B. White, of Nashua, N. H. and it embraces great simplicity in its arrangement and construction. A, is the frame of the machinery. B, is a crank or driving handle, to propel the pinion C, which drives the large cog wheel D. On the shaft of the cog wheel D, is a cam O, inside, fig. 1, and outside of the frame is cog wheel gearing to drive a horizontal shaft which works the header or die Z. The rods of iron are thrust into angle grooves L, in the small steel roller V, in the opening P, under the knife N. This knife has a notch to suit one half the square of the nail above, and the roller has the long groove for the other half square of the spike below. Whenever the iron is inserted in its groove in P, under the large knife N, the cam O, strikes the end of N, tipping the jaw down upon the iron rod and cutting it off at the right length. The roller V, is stationary while the iron is cut.

FIG. 2.



ting, but whenever it is cut, the roller moves onwards with the iron and carries it so as to bring the said iron into the opposite groove in the other steel roller M. Both grooves in the rollers then mesh together and form

Rise of a Factory Boy.

The Nashua, N. H. papers, speaking of the eloquent Fourth of July oration by Mr. Banks in that place, mentions that some years ago, the orator of the day was employed in the mills of the Nashua Manufacturing Company then within the reach of his voice. A lady remarked that the day must have been a proud one for him. He left the mill and the place, —and now, by his individual exertions, he is a member of the Massachusetts Bar, and an influential Representative in the Massachusetts Legislature.

[There are not a few factory boys whom we know, that stand pretty considerable high in the world. We believe that our factory operatives are among the most intelligent (if not altogether) of any other class of operatives in the Republic.

Grapes at all Seasons.

Mr. J. F. Allen, of Salem, Mass., it is said to be the greatest producer of grapes by artificial heat in the United States, having nine graperies. Some of his hot-houses are over one hundred feet in length, and ripe grapes of the choicest varieties are hanging on the vines every month in the year. His produce this year will be about 5000 pounds, and his arrangements promise to double the yield—for market of course. Peach trees and apricots are cultivated in the same way.

"The New Zealanders," says Black, "on being civilized have become dyspeptic! They eat more, fight less, and die faster."

About 800 persons have united with different churches within the last 8 months, in the Colorado Valley, Texas.

RAILROAD NEWS.

Worcester Railroad.

The Report of the Worcester Railroad states that the arrangement between that corporation and the Western Road has been renewed, with some modifications, for three years. The relaying of the track with heavy rail is not yet completed, but arrangements have been made to accomplish it speedily.—The new rails are to weigh 64 pounds to the yard, to be fastened at the joints by strong chains, firmly drawn upon the ends of the rails, and each rail of six yards in length, resting upon seven substantial cross-ties. Thus constructed, the Directors think the Road will be one of the firmest and most durable in the country. The Framingham track will soon be completed.

Suit for Ejecting a Passenger from a Railroad Car.

Mr. John F. Bodine, of Williamstown, Camden Co. N. J., has commenced an action in the District Court in Philadelphia, against the Philadelphia and Trenton Railroad Company, to recover damages for being ejected from the cars of the company a short time since. Mr. Bodine was at New York, the fare from which city to Philadelphia for through passengers, is four dollars. The fare from New York to Trenton is two dollars and fifty cents. Mr. Bodine engaged passage at New York for Trenton, and paid his fare, \$2.50. When he arrived at Trenton he remained in the cars, and after they had again started his fare was demanded. He inquired the amount and was told it was seventy five cents, but it was asked of him whether he had not come from New York. He said that he had, and was then told that it was \$1.50. He inquired the reason, and was told that the company was determined that passengers should not come it over them that way." He tendered the seventy five cents, but it was refused, and he was informed that if he did not pay the \$1.50, he should be put out of the cars at the next stopping place. He did not pay the sum demanded, and in accordance with the threat, when the train arrived at Bristol, he was forcibly seized, ejected from the cars, and forced to remain at Bristol all night.

[It is time that something was done to break up the scandalous system of charges between Jersey City and Philadelphia.

The track of the Schenectady and Saratoga Railway, is to be relaid with a heavy rail.

Another Tubular Bridge.

One of the tubes to form part of the celebrated Britannia Tubular Bridge over the Menai Straits in Wales, England, was recently floated to the position from which it is to be raised to its seat, and was the subject of great excitement, and no wonder. It is 472 feet in length and 30 feet in height. It is made of oblong plates of iron, and placed so as to look like stone work. There are no less than 327,000 rivets in a single tube and the whole weighs (one tube) 1600 tons. The Bridge will be formed of four such tubes. Each tube is to be raised 102 feet above high water. We will notice this event when it takes place.—This project is the most gigantic stretch of mechanical genius and enterprise, in the history of the world. Robert Stevenson, Esq. is the inventor and chief engineer.

The Wheeling Bridge, across the Ohio, has been protested against by the citizens of Pittsburgh, on the ground of a "public nuisance," as an obstruction to the free navigation of the Ohio River. Their protest invites the attention and co-operation of all other cities and villages interested in the freedom of the waters of the Ohio.

The bridge as intended to be built, is said to be too low for the funnels of some boats.