Scientific American.

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

VOLUME 5.] NEW YORK OCTOBER 27, 1849. [NUMBER 6.

THE
Scientific American,
THE
BEST MECHANICAL PAPER IN THE WORLD.
CIRCULATION 12,000.
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.
Barlow & Payne, Agents, 89 Chancery Lane, London

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

Rail Road News.

Railroad to the Pacific.

A large and enthusiastic meeting was held in New Orleans on the evening of the 5th inst. for the purpose of taking into consideration the project of uniting the Atlantic and Pacific Oceans, by means of a railroad. One of the speakers said, "It is 1400 miles nearer to San Francisco from New York via Tehuantepec, than by Panama; and for Louisiana and the other gulf and river States, it is 1,825 miles shorter to go to San Francisco by Tehuantepec than by Panama."

The meeting expressed itself in favor of the Tehuantepec route, and passed a series of resolutions embodying its sentiments. The delegates from the State to the Memphis Convention were to be instructed to bring the route under the Convention's consideration. The following resolution passed by the meeting is in the right spirit.

Resolved, That we are in favor of the construction of a Railroad to the Pacific entirely within the territories of the United States, if, upon examination and survey such road shall be ascertained to be practicable; and that we will heartily aid, so far as our efforts may avail, in the support and prosecution of such an undertaking, whatever may be the route which shall be finally determined upon.

New Light for Railroads.

Proff. Grant is at present engaged in arranging his "Calcium Light," for the use of the Camden and Amboy and New Jersey Railroads, to be placed upon the front of the locomotives. Should this prove successful, says the Philadelphia Ledger, and of the utility Professor Grant supposes, it will render travelling by railroad as safe by night as by day. This light is a discovery by Proff. Grant, and is said to combine the several qualities of both the Electric and the Drummond light, and can be furnished at a comparatively much cheaper rate than the ordinary lights.

Great Tunnell.

The Huddersfield and Manchester Railroad Tunnel, in England, is more than three miles in length, being the largest in the world, at a depth of 625 feet below the ridge of the hill, which it pierces. The tunnel is so perfectly straight that on a clear day one can see through from either end.

Panama Isthmus Railroad.

The contract for grading about half the contemplated railroad across the Isthmus of Panama had been taken by a Philadelphia house.

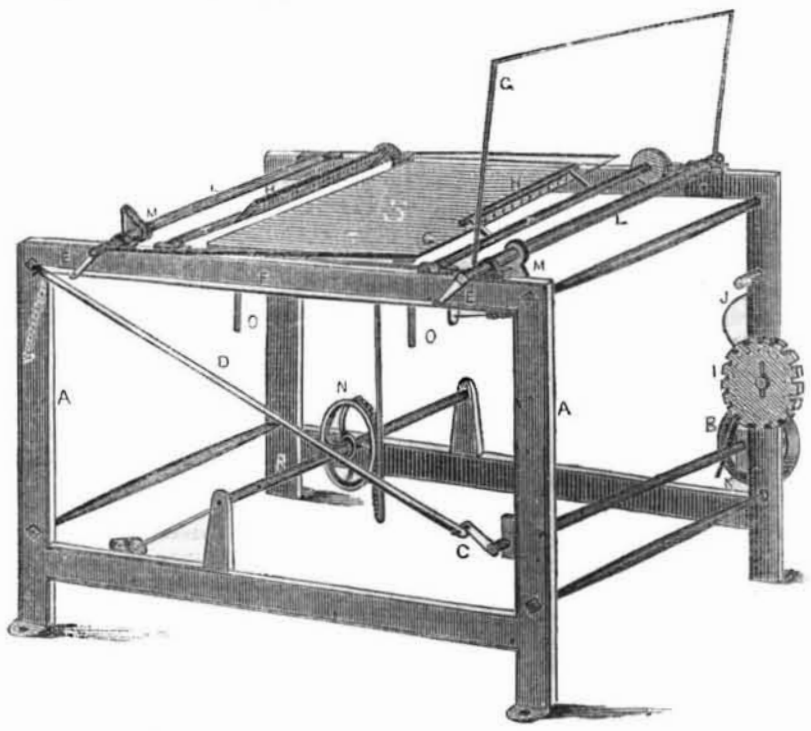
Wheeling Suspension Bridge.

The Suspension Bridge at Wheeling is completed and passengers are now crossing. Mr. Ellett the enginer first crossed in a horse and buggy.

The Blue Ridge Tunnel.

The Louisa Railroad Company has awarded the execution of the Blue Ridge Tunnel to Mr. Rutten, of New York, an experienced and energetic contracter.

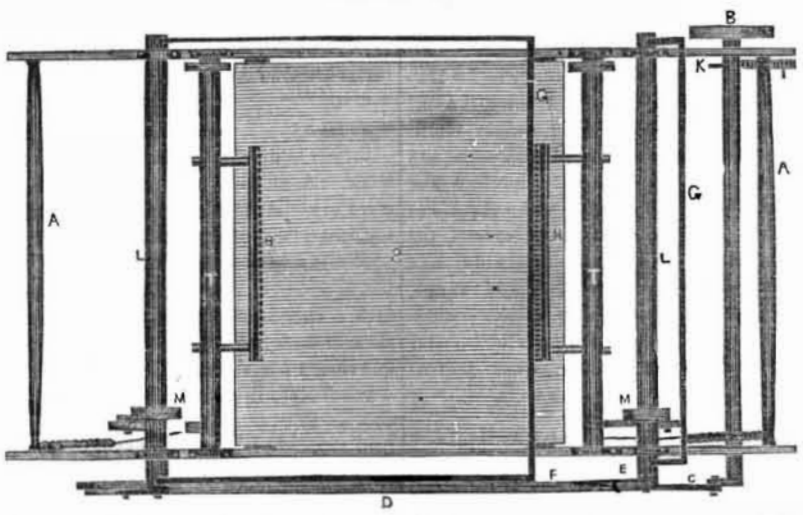
NEW CLOTH-FOLDING MACHINE.---Fig. 1.



This machine is the invention of Messrs. Carey & Bagley, of Amesbury, Mass., who have taken measures to secure a patent.

Figure 1 is a perspective view, and fig. 2 is a plan view—looking down upon the machine. The same letters refer to like parts. The object of the machine is to fold the cloth upon a table, by friskets lapping down on the table from side to side, alternately. The motions are governed by cams, but the main shaft has a rotary motion, and can be driven by a belt from the shaft of the prime mover. A is the frame of the machine; B is a pulley on the main driving shaft, to give motion to the whole machine. The reader must suppose the cloth to be taken from another table and carried above the middle of the table or folding-board, S; and G G the friskets that lap it down, alternately, from side to side, on the table. On the shaft of the pulley, B, is a crank, C, attached to the connecting rod, D, which is attached at the upper end of the machine to a longitudinal bar, F, which is attached by cranks, E E, to the axis, L L, of the friskets, G G. It will therefore be observed, that when the crank, C, revolves, the bar, F, will have a reciprocating motion, and the axis, L L, will have a rocking motion, giving the friskets, G G, a vibrating motion from side to side, alternately, to lap or fold the cloth down on the table. One of the friskets, in fig. 1, is represented as being down, and the other standing up. When the one frisket is rising the other is falling, and they pass at the vertex of the angle which they form. The friskets alone could not fold the cloth, as every lap must be retained in its proper place when laid down. This is done by two rocking stenter bars, H H, which hold down the cloth snugly at each side, and only rise to let the ends of the friskets pass under them to fold the cloth, and immediately fall when the friskets rise. These stenter bars are just cross bars, with some pin teeth in them, and are fixed upon two short arms each, which are secured on rocking axis, T T. The rocking axis of these stenters for retaining and holding down the cloth, are moved at the right moment by cams, M M, on the axis, L L, of the friskets. These cams strike projections on the under side of T T, and thus make the stenter bars rise, opening like jaws, which immediately fall when the frirksts rise, by the two coiled springs attached to the projections below, and to the cross bars, A A, as seen in fig. 2.

Figure 2.



The table, S, rises and sinks like a balance table of weighing machines. It has four round guide bars, O O, (two not seen) which pass through openings in plates inside, and it has a pillar attached to its centre and passing down, is attached by a chain to the periphery of the balance pulley, N, which is secured on a shaft, R, having a weight, Z, attached to an arm on one side of it. Therefore when there is no cloth upon the table it is high up, allowing the stenters to hold the cloth firmly at one fold, and as the weight of the cloth increases on the table, it gradually sinks, overcoming the gravity of the weight, Z, allowing the cloth to be folded under the stenter bars on the table.

At the right hand there is a register wheel, I. It tells the number of yards folded on the table. It is moved one tooth every half revolution of the pulley shaft, B, or every fold of the friskets. This is done by a ratchet cam, K, extending through the said shaft, which takes into the teeth of the wheel, moving it one tooth round every time it catches, the ratchet, J, holding the wheel from turning back in the other direction.

We have thus described this machine in such a way that its motions will be easily understood, and its merits appreciated. More information may be obtained of the inventors, by letter (*p. p.*)

Useful Receipts.

How to Preserve Grapes.

The following article from the Newark (N. J.) Sentinel will be very important and useful to many of our readers.

For several years past I have succeeded in preserving Isabella grapes till March. We have had the luxury of having fresh grapes all through the winter; and have found them very useful and refreshing to the sick, especially to consumtive people. We pick our grapes to preserve for the winter as late as we can, and save them from frost; gathering them when they are perfectly dry, say in the middle of a sunny day. We take a dry box,—a common candle box is very convenient for the purpose, first cover the bottom with common cotton batting. We then put down a layer of grapes, one cluster after another as thick as they can well lay. Care should be taken that there are no broken nor green ones in the clusters.—If there are, they will cause the others to mould and decay. We then put down a layer of cotton batting, and then another layer of grapes, till the box is full.

Some have been at the trouble to seal the end of each stem with wax. We do not believe it is of any service. As the stems are brittle it is necessary to handle them with a great deal of care. When they are thus laid down, much depends upon the place where you deposit the box. It should be placed in the driest aud coolest place you have in the house. Some prefer the garret. There they are apt to wilt and loose all their flavor. Sometimes they will mould in the cellar. The princapal difficulty in preserving grapes lies in the keeping them secure from the time you lay them down and the setting in of cold weather. After that there is no difficulty; I have generally had them come out as green and as fresh in the middle of winter as they were when first laid down, and with all their original flavor.

So far as my experience goes I have succeeded best in preserving them in the upper part of the cellar. I have never failed in preserving them in this way. As they may be kept, they become a more desirable fruit, and the cultivation of the vine should be greatly increased not for the purpose of making intoxicating drink, but as an article of wholesome food.—There can be no doubt but that fruit should constitute a much larger share of our diet. The free use of it would relieve us in a geat measure of some of our most common diseases.

How to Keep Smoked Hams.

The best method of keeping hams is, after they are smoked, to put them back into the pickle, and the smoky taste is preserved as perfectly as when put in ashes or kept in a dry place.