

Scientific American

NEW YORK, MAY 31, 1851.

America at the Great Exhibition.

By all accounts from London, the American Department of the Exhibition is but meagerly occupied; even Jules Janin, the celebrated French letter writer, in writing to the "Journal des Debats," speaks unfavorably of the show we make there. Our branch, he says, "is complete, and order reigns, but it is open to one objection—the want of objects to exhibit!" The London "Times," has spoken slightly of the poor show we make, and a number of letter writers to papers at home speak in the same strain. We are sorry, and yet we are not sorry; it will teach us two useful lessons, we hope—one to employ the right means and adopt the right measures to sustain the honor of our country abroad; and the other is, not to think so much of ourselves generally as to undervalue those of other nations. The latter fault is characteristic of every nation, but we want to see it removed from America, because we believe it would tend to advance and benefit us as a nation and people in every department of useful knowledge, art, and science. Men who have never travelled imagine their own peculiar neighborhood to be the greatest in the world; Iceland is a *great* country to its natives, but what is it to the world. The English papers, in commenting upon our department at the Exhibition, do not deal justly and sensibly with us. It surely could not be expected that America could send as many articles to the Great Fair as France. All our articles had to be carried 3,000 miles over the ocean; we have little more than half the population of France, and our people are spread over an area of greater extent than Austria, France, Germany, Italy, and England combined. We do not make the excuse that "our country is new." Why, suppose it is, are the people new? have we not started with the same civilization as the nations of Europe, and have we not European artisans here? and can we not do the same things here that are done there? Yes. Well, then, what is the reason we are so poorly represented at the great Exhibition? There is more than one reason: one is, if America was only 25 miles from England, like France, a different face would have been put upon the affair. Another is the bad management—political-twaddle management of the whole commission at home, in preparing for the Exhibition. England displays beautiful locomotives—so could we, but we do not. We could also have stood well beside her in marine engines, but we do not. In river steamboat engines we would have stood unequalled. And so it is with a great deal of our manufactures; we are not represented at all. The expenses were too much for our people, and no measure such as a general subscription was resorted to for the purpose of appearing well there.

The American Department appears fully as well as we expected, for the gentlemen composing the Committee appointed for this State, to examine articles for the Exhibition, were not competent judges, nor did they take pains to encourage our people in the rivalry:—the whole business was managed contemptibly: it was saddled and bridled along with some old sleeping gentlemen connected with the American Institute. Nobody knew where to find them: "they met, 'twas"—not in a crowd, but, "in a cloud," and were fished from the depths of the most unmechanised faculty of men in our goodly city. They were appointed by Gov. Fish, and if any one wants to know who they were, let him look on page 74 of the present Volume of the Scientific American. There was not a single good mechanic among them; other States may have been equally unfortunate.

Many, no doubt, went to the Exhibition expecting from what they were told, that their machines would surely outshine all others. Our people are very ingenious—our backwoodsmen have it in them by nature; but we have travelled in Europe, we have been in the machine shops of England, her factories, &c., and we must tell our people, there is nothing like

travelling for rubbing off the rust of prejudice. Here is what the Washington "Republic" says about American inventive and tasteful qualities:—

"In building ships and steamboats, in the manufacture of all kinds of labor-saving machinery, in cultivating the soil, constructing bridges, railroads, and canals, and in making agricultural implements, no people can excel us. But in the grace, the elegancies, the ornamentations of art manufacture, we are sadly, shamefully, and needlessly behind all others."

Here is what "Observer," the correspondent of the Philadelphia Ledger, says:

"In about twenty years from now Europe will be just civilized enough and educated enough to furnish competent critics for the great works with which America will astonish the world."

We do not agree in opinion with those first quoted: America has produced and has her eminent artists; we are not behind in the ornamental arts, for in furniture and all kinds of wood work, the artists of no nation equal—yes equal—ours. In constructing bridges and railroads, and in cultivating the soil, in some respects we are not on a level with the English. Our hand implements are better and more convenient, but we think the English

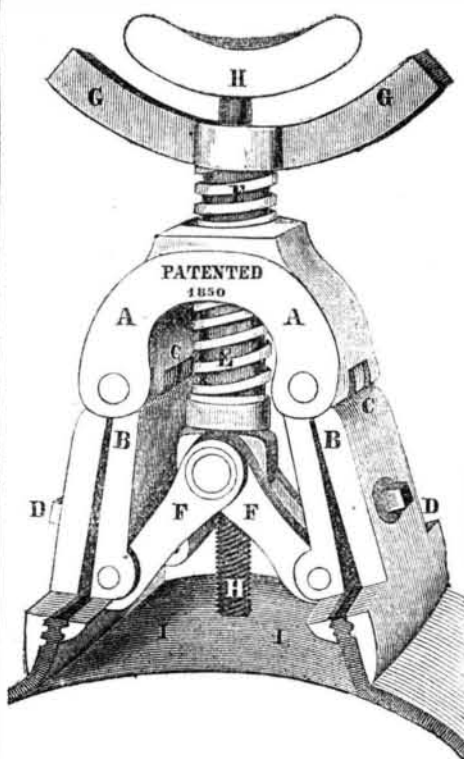
farmers excel in large machines. The extract from the Ledger is incomprehensible.

In twenty years from the present moment there will be less of national inventions, but none the less of inventions and improvements: the genius of man is now becoming more cosmopolite—it has a world-wide influence. A valuable improvement made in Illinois this week, is known in London within two weeks more; and so it is here with those in Europe. The World's Fair will tend to advance science and art throughout the world—to make it less national but more human.

Our artists, our mechanics and tradesmen are just as talented, skillful, and competent to produce works of art as those of any other nation; and in saying this we award the same meed of praise to the artists, &c., of other civilized nations. We have one hope of yet excelling all other nations, and that hope is based upon our superior national advantages. Talent is in proportion to the mass, and the greater the means of developing it—bringing it out—so will there be a greater display of it. We have better means of developing it—our population is increasing more rapidly than that of other nations, consequently we must rise—we have the men,—the hour will soon be at hand.

VROOMAN'S PATENT LASTING, CRIMPING AND STRETCHING MACHINE.

FIG. 1.



The accompanying engravings represent applications of a new machine invented by Mr. Henry S. Vrooman, of Springfield, Mass., and recently secured to him by patent. Fig. 1 is a perspective view of a small machine for performing the labor of belting or girding emery wheels, or for obtaining any degree of tension on a flexible substance drawn round a circle, bringing the ends in close contact, performing the work with great ease and perfection, besides being a much more expeditious manner of accomplishing said operation.

The representation shows the machine attached to the covering of an emery wheel, and indicates its position prior to the leather being strained or brought together preparatory to tacking. A represents the circle or base of the structure, to each end of which is attached a pair of jaws, B B, connected at C C, by a hinge like joint; each pair being thrown open to receive the girding substance, by coiled springs, and closed by the screw bolts, D D, they being operated by a movable thumb wrench. E is a hollow screw passing through the centre of, and acting upon the arch, A.

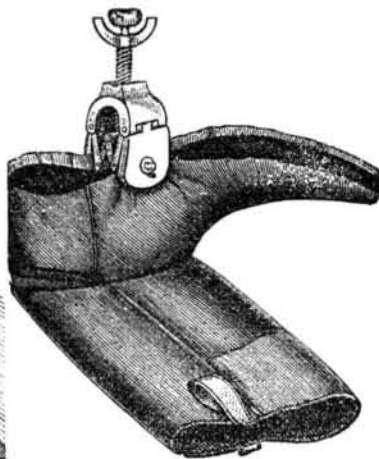
F F are straps, there being two on each side, the ends of the jaws with the lower end of the hollow screw, E, working in a joint at both ends, thereby giving the screw, E, entire control over the ends of the jaws, expanding or contracting them when the screw is opera-

ted by means of the arms, G G. H is a screw rod running through the entire length of E, and takes effect on its inner surface, and passes, as will be seen, down to the face of the wheel, I I, and rests upon it; its office being to control the motion of the whole machine towards or from the wheel when such separate motion is required.

The following is the operation or movements of the machine when used. Let the jaws, B B, be thrown apart by turning the screw to the right; each pair is then opened, and the leather or girding substance adjusted and secured between them, the screw rod, H, is then turned to the right, moving the whole machine from the wheel, producing any desired tension of the girding substance; H and E are turned to the left simultaneously, giving a compound movement to the jaws, both bringing them together or contracting them, and settling down to the wheel, or the object on which the machine rests, thereby bringing the ends of the girding substance in close contact and covering the entire face of the wheel with a uniform pressure on its parts, the leather being first prepared and glazed on its whole surface ready for use.

The same machine of suitable size but differently formed jaws is used with complete success in the lasting of boots in the shank; its application and form being seen in fig. 2.

FIG. 2.



The upper leather should be first drawn tightly over the toe and balls of the last; the machine is then attached to each side of the upper in the shank; the hollow screw is then turned to the left until the jaws commence contracting; the centre screw (which passes through the hollow screw) is then turned to the right, until the upper is brought sufficiently down over the instep; both screws are then turned together to the left, producing a compound movement of the jaws, both contracting and running them down to the inner sole; the machine is then moved towards or from the boot (if such motion is required) by turning the centre screw to the right or left; or, where an upper does not last very hard in the shank, it is more expeditious to take the centre screw entirely out of the machine and use it in that way; the upper being then drawn down over the instep at the same time it is brought in the shank, by using the whole machine as a lever, first drawing down one side of the upper and then the lower, alternately, as the hollow screw is being turned to the left to produce contraction. Those machines having long centre screws, are adapted to crimping, and are used the same as any common hand article, made expressly for that purpose.

The great variety of uses to which this invention is capable of being applied, renders it valuable beyond the first estimate of a casual observer. Judging from the skill embraced in its combination it cannot fail to be appreciated as a new and very useful invention.

More information about rights, sales, &c. may be obtained by letter addressed to Vrooman, Harris, & Co., at Springfield.

New Clipper-Ship "Flying Cloud."

A new ship built by Donald Mackay, of Boston, for Grinnell, Minturn & Co., of this city, for the California trade, has been the subject of much comment and observation since she has been in our city. She was built we believe without any restriction by the owners—the naval architect had it all his own way, and we have been informed that she is warranted to be the fastest sailer afloat. Her registered tonnage is 1,782 48/95, which exceeds that of any American sailing vessel afloat. She is expected to carry from 2,000 to 2,500 tons freight. Her length on the keel is 208 feet; on deck 225; and over all, from the knight heads to taffrail, 236. Her extreme breadth of beam is 41 feet; depth of hold 21 1/2. Her keel is 27 inches clear of garboards; her dead rise, at half floor, 30 inches. Her bow below the planksheer, is slightly concave. At 18 feet from the apron, inside, on the level with the between decks, she is only 11 feet wide. She has the sharpest bow we ever saw on any ship, although 10 inches fuller on the floor than most of the modern built clippers. She has three depths of midship keelsons, which, combined, are moulded 45 inches, and are sided from 17 to 15, making her with her keel, which is in three depths, nearly 9 feet through the backbone. She has also two depths of sister keelsons, the first 16 by 10, and the second 14 by 10, cross-bolted diagonally and at right angles through the naval timbers.

Some have praised and some have found fault with her form. One old shipwright said in our hearing "I am cheated if she can sail in a heavy sea, she is too hollow towards midships, otherwise she is perfect." Time, we say, will tell all better far than tongue can tell. She is full rigged and her masts rake 1 1/2 inch to the foot. Take her all in all, she is the finest ship that we ever saw with the exception, it may be, of the N. P. Palmer, which is smaller, to be sure, but none the less beautiful and graceful on that account.

The Presidential Tour.

The President and his Cabinet have been making the tour of New York State. It must appear not a little singular to him, in being so waited upon and honored because he is President, in those places where, a few months ago, few would have gone to their doors to see him. Cannons have been fired, bells rung, and trumpets sounded, to honor the office. Our city received him with all honors, and so have various cities throughout our State. He has been thus honored because he is President.