

IMPROVED UPRIGHT MOULDING MACHINE.

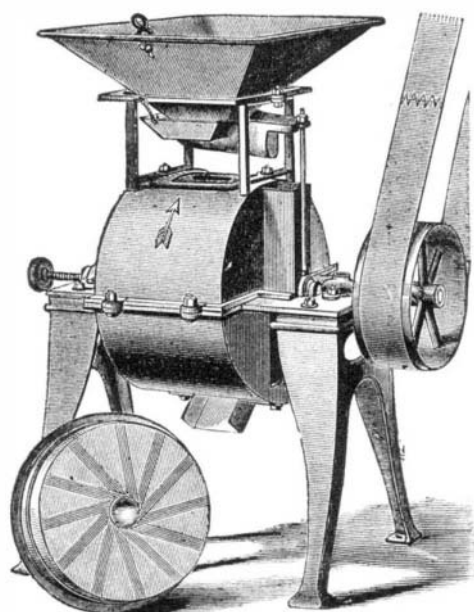
In the improved upright moulder shown in the accompanying illustration, there are several excellent features. The table is lowered or raised by turning the hand wheel, while the socket of the table, being a plain and truly bored hole, fitting to a neat working fit over the thread upon the standard, is always kept true and is not liable to get out of true, as it would be were it threaded itself. Furthermore, the table, being fastened with a set screw, will stand true even though the table socket had worn so as to become loose upon the screw or thread. Upon the thread on the standard, a groove is cut down to the bottom of the thread or a little below it; and into this groove the end of the set screw projects. Thus the table is prevented from turning, while the set screw is prevented from damaging the thread upon the standard. The tables upon all large machines are made square, as shown in our engraving; while those for small machines are made round, as shown in the engraving in our advertising columns.

The spindle or shaft, it will be seen, is provided with cone bearings, running in composition brass boxes, at top and bottom, the lower one being of smallest diameter, so that it will pass through the upper one when putting the shaft into its place. Beneath the lower bearing is placed the set screw shown in the sectional view; by means of which screw a perfect adjustment of the bearings may be made. In both the upper and the lower boxes are enclosed cavities for the introduction of cotton waste or other similar material and oil, so that perfect lubrication is ensured while the bearing is at the same time kept clean. To further ensure this latter object, the oil holes are provided with plugs, easily removable when the bearings require a new supply of oil. The spindle is made of the best cast steel; and from the design of its bearing and the proximity and rigidity of the bearings, it runs at the highest of speeds with quietness and without undue wear. The cutter carrier, or cutter spindle, is coned similarly to a lathe center, and is furthermore held to its place by a nut; so that, while it is certain to run true, it is at the same time capable of carrying any required amount of cut; and it also enables the cutter spindles to be changed from $\frac{3}{8}$ to $\frac{1}{2}$ and 1 inch, to suit light or heavy work. The loose pulley is made self-oiling by a very simple device; and it is a noteworthy fact that there is not a bolt and nut about the whole machine. The cutters are reversible, and danger of accident is removed by the use of the guard shown. The machine is of good material, and it received the highest awards at the American Institute Exhibition of 1875 and at the Centennial Exhibition.

For further particulars, address the patentee and manufacturer, J. H. Blaisdell, 20 North 4th street, Philadelphia, Pa.

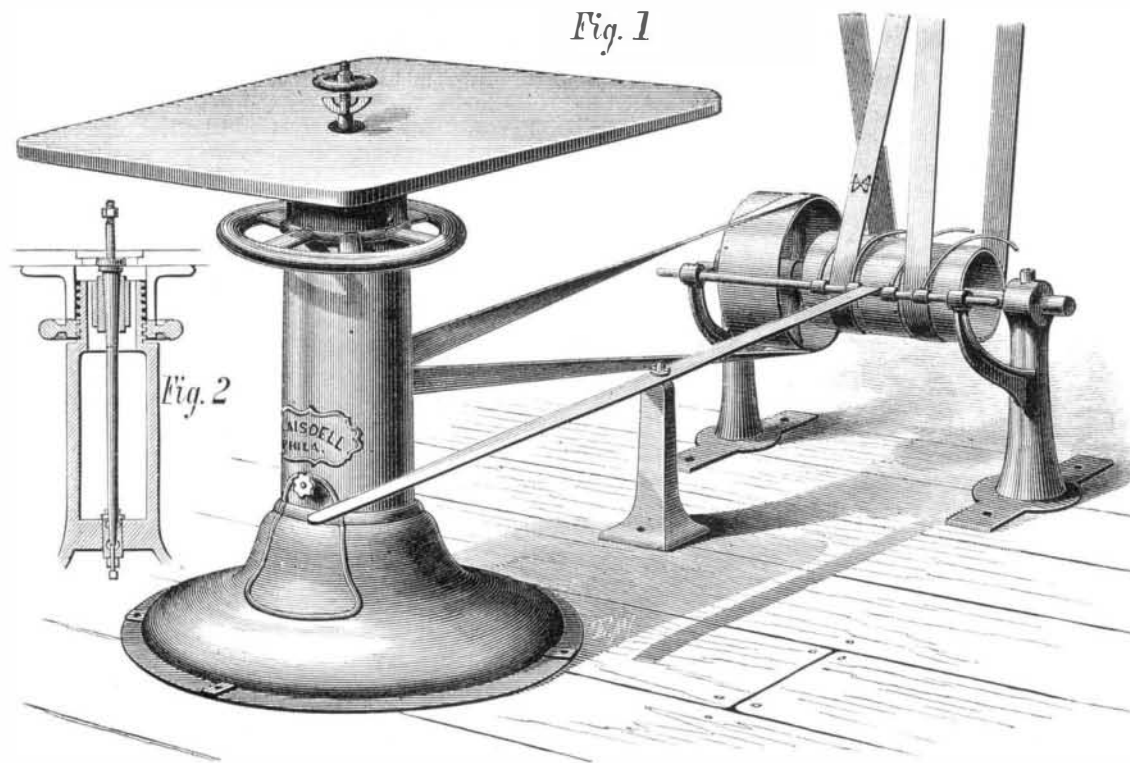
THE SCIENTIFIC GRAIN MILL.

We illustrate herewith a new mill for grinding grain, middlings, minerals, or paint. Among the advantages claimed are that it requires no costly counter shafts and large pulleys



in order that a high speed may be obtained. It is a French burr mill and corn cob breaker combined; it will remain true in line while shaving both sides of tender bran between the millstones; it has journal boxes with caps to take up wear; it is simple in design; and finally, the millstones may be easily removed and dressed.

The bedplate is cast solid in a single piece. It has the stone case in the middle, with large dirt spaces at each end, so that the dirt falls to the floor without passing into the journal boxes. The space around the stones measures $2\frac{1}{2}$ inches, and there is a bottom discharge to prevent clogging. The bedstone is secured in an iron ring, bolted against the end of the stone case, forming a dust-tight joint. It is trammed to the runner with three set screws. The journal boxes, which, as already stated, have caps to take up wear, are lined with Babbitt metal, and are seven inches in length. The screw conveyer, corn cob breaker, eccentric, and pulley are all fast to the spindle, the latter being cast to the running

**BLAISDELL'S UPRIGHT MOULDING MACHINE.**

stone with zinc. The temper screw at one end of the bedplate rests against a hard plate, and the latter against the spindle. The pulley has a hub on one side, and the journal box passes half way through on the other side, to remove the strain of the belt from the spindle. This allows the belt to approach from any angle, and to be removed without unsewing. The mill is raised on legs as shown, so that a bottom discharge is allowed, while the expense of a foundation is avoided. The hood rests upon the bedplate, there being a heavy twine packing between the two; and a large feed trunk at its end extends down to the cob breaker. The feed shoe is damzeled in front by the eccentric on the spindle, and the hopper has a valve in the bottom to control its discharge.

The manufacturers state that either the 12, 20, or 30 inch mill will make first quality of wheat or rye flour after having been ground into face, turning out fine large bran, discharging the flour round, live, and cool, making as good a yield as any four foot stone, and all this without keeping the flour between the stones, rubbing, heating, and killing it long after it is fine and should be discharged. This mill is especially adapted for regrinding middlings, and requires one horse power for every 300 lbs. per hour. When grinding paint in oil, two scrapers are added, one L-shaped, bolted against the hind side of the running stone. This scrapes the case clean outside of both stones. The other scraper is bolted to the bedstone, passes inside the L scraper at its free end, and scrapes the running stone clean. An open space around both stones is thus kept.

For further information, address the manufacturers, Messrs. A. W. Straub & Co., 1357, 1359, and 1361 Ridge avenue, Philadelphia, Pa.

Simultaneous Weather Observations.

Every day, at precisely 7:35 o'clock, A. M., Washington mean time, simultaneous weather observations are taken from 106 stations in the United States, from the deck of every United States naval vessel, no matter in what part of the world she may be, from 8 stations in the West Indies, 28 in Canada, 58 in Great Britain, 6 in Algeria, 13 in Austria, 1 in Belgium, 6 in Denmark, 48 in France, 23 in Germany, 1 in Greece, 30 in Italy, 1 in Japan, 4 in the Netherlands, 4 in Norway, 4 in Portugal, 27 in Russia, 2 in Spain, 6 in Sweden, 2 in Switzerland, and 6 in Turkey. There is now needed only the organized aid of the mercantile marine, which can be given without loss of time, to place the entire northern hemisphere under a system of daily observations.

A Snake Rain.

The Kentucky meat shower, which attracted so much attention recently, has now been supplemented by a rain of live snakes in Memphis, Tenn. Thousands of little reptiles, ranging from a foot to eighteen inches in length, were distributed all over the southern part of the city. They probably were carried aloft by a hurricane and wafted through the atmosphere for a long distance; but in what locality snakes exist in such abundance is yet a mystery.

What Came in a Potato.

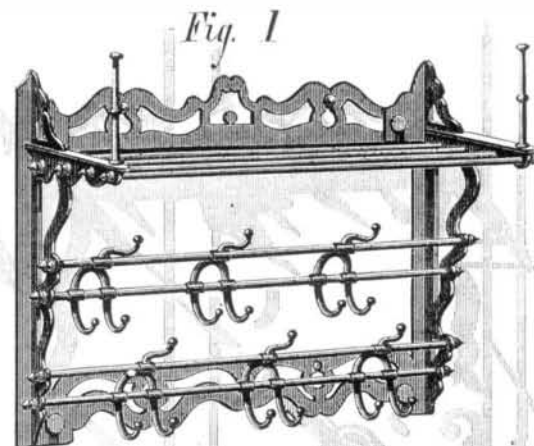
A friend of ours received a day or two ago through the post office, from Olympia, Washington Territory, a roundish, irregular package, which on examination proved to contain a large potato. Further investigation showed that the potato had been cut in two and the inside scooped out, and in the cavity were found flowers and leaves, which, as he learned by a note previously received, had been picked in a garden in the open air on the 26th day of December. The flowers, pansies, geraniums, and others, were as fresh and bright as if they had been gathered within an hour, though their journey across the continent had occupied 15 days. Olympia is in about the latitude of Quebec, though its winter climate is not more severe than that of Memphis.—*Worcester Spy.*

Training Camellias.

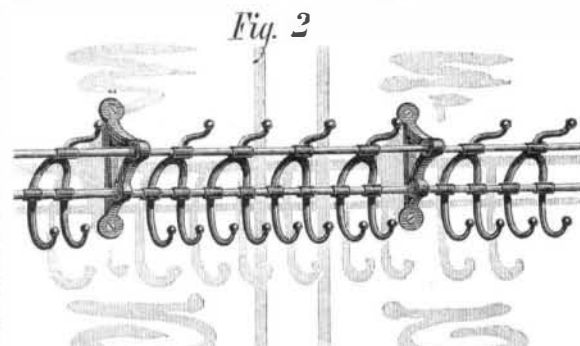
It is seldom that one sees camellias trained, says the *London Garden*; still it is perhaps as good an arrangement as can be effected with old spindly plants. If the branches be tied in as closely as possible, they will soon break freely from the old wood and make well furnished plants, which they will rarely do if left to themselves. Plants of this description are excellent for planting at the foot of pillars or iron supports in a conservatory. They furnish the lower part with green foliage where ordinary creepers would not succeed; and when other large growing creepers are trained up these pillars to the roof, the camellias serve to hide the ugly, bare stems; and when in a healthy condition and full of flower, they are exceedingly attractive.

IMPROVED HAT AND COAT RACK.

A large number of the portable hooks for the suspension of garments, hats, etc., are pivoted or otherwise arranged in wooden frames, so that their construction is not very strong. At the same time, the relative position of the hooks is fixed,



and there is no convenient way of adjusting them to afford space between for voluminous garments. In the present invention, the hooks are very strongly supported, and may be moved either close together or far apart as desired. To this end, the hooks (which, in common with the entire contrivance, are of metal) slide on parallel rods, which pass through suitable apertures in them. The rods are secured in neat brackets, and may be continued along indefinitely or placed as shown in Fig. 1, which is a hat and coat rack, the shelf of rods above serving to receive the hats. Fig. 2 represents the single line of hooks and rods as adapted for a wardrobe.



The hooks, it is claimed, cannot break off or pull out, while they may be disconnected from the rods and the latter from the brackets at pleasure.

For further particulars regarding agencies, sale of rights, etc., address the inventor, Mr. Russell R. Dorr, 206 Third street, Burlington, Iowa.