New Inventions.

Velocitrat Lubricator.

The patent granted for a lubricator for machinery to George Dixon, of Lafayette, Ind., bearing the above name, and the claims of which was published on page 294, SCIENTIFIC AMERICAN, two weeks ago, embraces a very ingenious apparatus. The oil cup is applied to the crank pin of an engine, and has a steam valve in it, which is made to open at every downward motion of the connecting rod, owing to the movement of the latter being quicker. This allows the oil to escape on the crank pin in a jet, when it closes by its own gravity, shutting off the oil until the connecting rod makes another downward stroke. By this method of lubricating (there being also a regulating screw in the cup) the exact quantity of oil is supplied at every stroke by a positive motion.

Michigan Philanthropy for Ericsson.

We have now before us a printed circular headed "State of Michigan," and signed "Naw-Beck," suggesting that subscriptions be taken up for Capt. Ericsson throughout the United States. The mover of this enterprise says he is a native of New York, but has resided in Michigan for thirty years, and is well known to Gen. Cass. He suggests that the people of different States, form themselves into County Committees, unite their subscriptions, purchase drafts on New York, payable to John Ericsson, and forward them to John Thompson, Wall street. This philanthropic individual is still full of caloric, and looks upon the Caloric Engine as one of the greatest discoveries of the age. He compares Ericsson to Christopher Columbus, and sets him above Fulton. He had read, as we can perceive from his remarks, one of the floating paragraphs from some obscure source, which were recently propagated, respecting Capt. Ericsson having expended his whole fortune and that of his wife, and which had led to their separation. We have been informed that this report respecting his family affairs is entirely destitute of truth.—"Naw-Beck," who appears to be a hot-hasty philanthropist, desires that the contributions should all be made up by the next Fourth of July. We hope "Naw-Beck" will subscribe liberally; he no doubt ought to know, away out *there*, far better about such matters than the people *here*,—who generally do not yet know who paid all the expenses of the *Ericsson*, or whether they are all settled.

Rounding and Beveling Barrel Heads.

The accompanying figure is a perspective view of a machine for the above named purpose, for which a patent was granted to Joel P. Heacock, of Marlborough, Ohio, on the 7th of March last year.

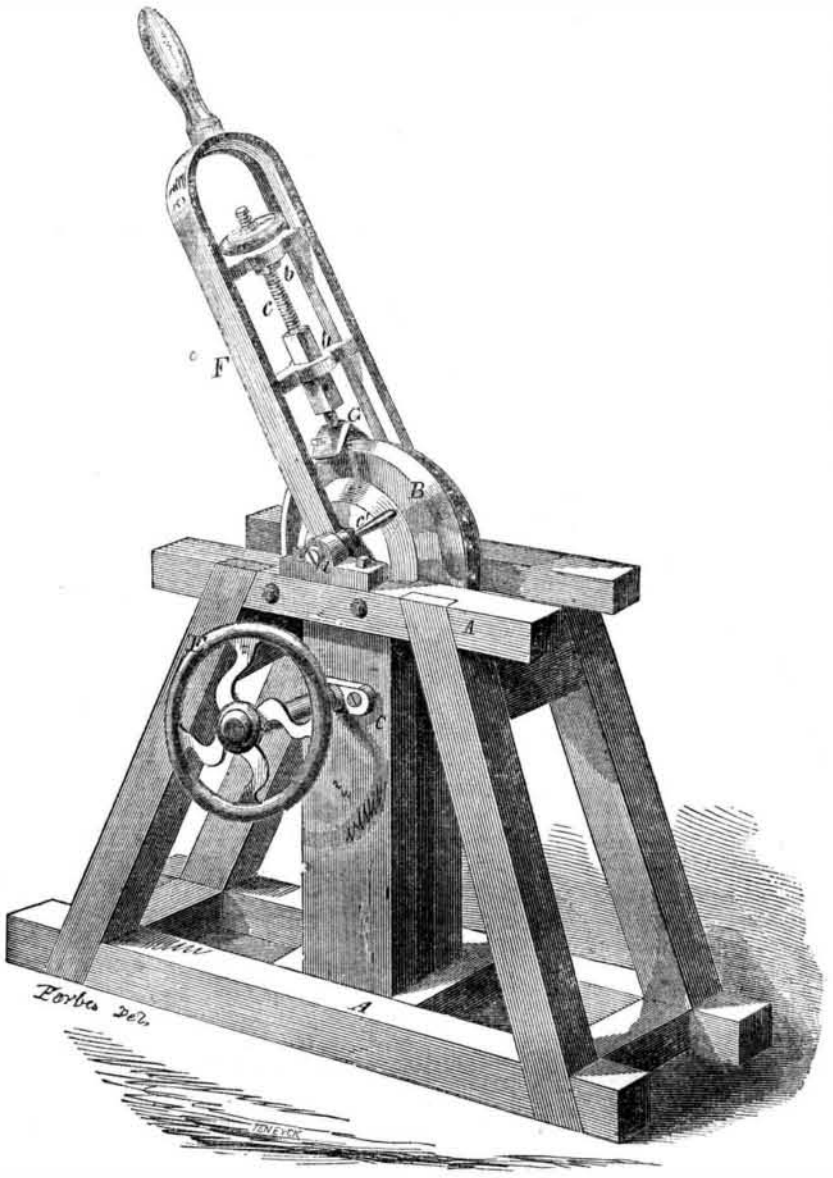
The nature of this invention consists in the employment of two jaws or clamps for holding the stuff for making the barrel head, in combination with a double edged or V-shaped adjustable cutter, which is attached to a swinging lever, that is moved back and forth in the path of a circle from a horizontal to a vertical position, and vice versa, and thereby made to give the proper shape and bevel to the stuff intended for a barrel head.

A is a stout frame. B represents two circular plate jaws secured on the top of two legs, C. One of these legs is made fast to the frame; the other is moved out and in at the top, to open and close the jaws, by a screw on the shaft of the hand wheel, E.

F is a forked lever secured on an axis pin (one on each side of the frame,) working in bearings. The prongs of this lever are united together by cross ties, *b b*. G is a V-shaped adjustable cutter on the end of a screw shank, *c*. On the top of the screw is a nut wheel above the cross tie. By turning this wheel to the right or left, the cutter, G, is elevated or depressed. The small handle, *c'*, is the lever of a dog bolt, which passes through the center of the jaw, C, and centers, and holds the stuff. This dog bolt is capable of turning and describing a semicircle.

Supposing the stuff to form a barrel head to be placed in the open jaws, B, by turning wheel, E, to to the right, the off jaw will close, and retain the stuff to the action of the knife. The lever, F,—by its handle—is then pulled down from a vertical to a horizontal position towards one end of the bench, which rounds and bevels the barrel head from where the knife commences to act, until the end of the cut. The lever is then varied to a vertical position, and then moved in a reverse direction towards the other end of the bench, and this one half of the barrel head will be rounded and beveled. The wheel, E, is then turned to the left, the toothed jaw is thrown out, and the jaws then opened. By turning the dog lever, *c'*, the stuff will be moved round so as to bring the rough edge

ROUNDING AND BEVELING BARREL HEADS.

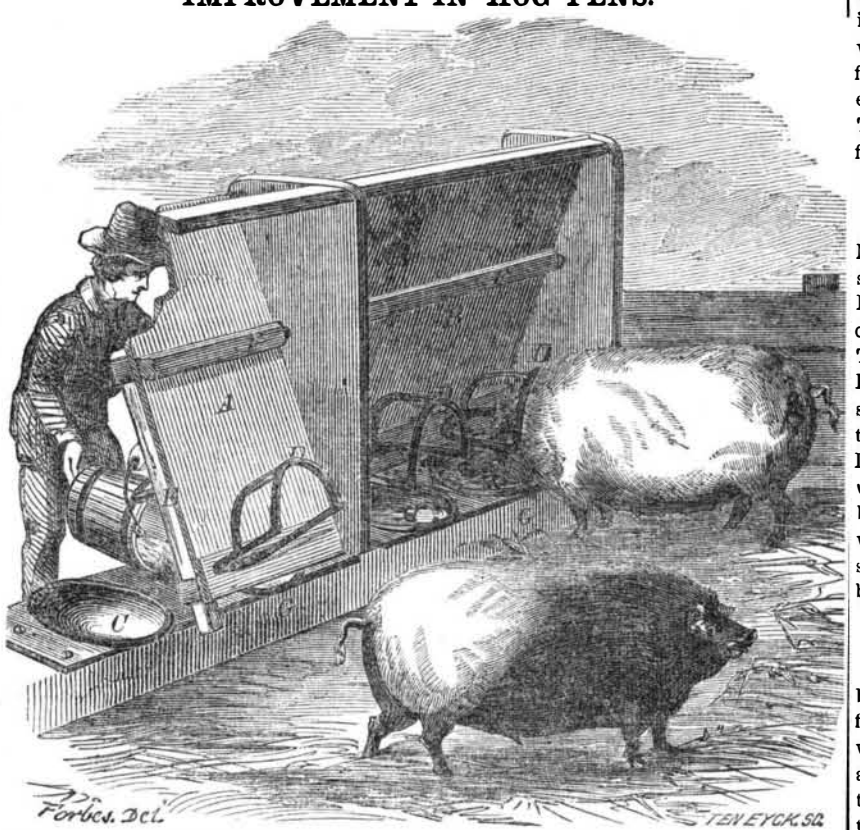


of the stuff to the proper position, to undergo the same operation as that described for the rest of the barrel head, thus completing and giving it the proper shape to fit the croze of the barrel.

The operation of this machine is exceedingly simple, and will be readily understood and appreciated.

More information may be obtained by letter addressed to the patentee.

IMPROVEMENT IN HOG PENS.



The accompanying figure is a perspective view of an improvement in the construction of Hog Pens, for which a patent was granted to R. M. Abbe, of Thompsonville, Conn., on the 29th of last August.

The improvement relates to the construction of the trough guards. A pen is first built of the requisite size for a certain number of hogs, and on the front part of it the improvement is placed. A B are swinging fronts intended to swing inwards, on F F, when cleaning out the troughs or feeding (as shown with front, A at E) and thus prevent the hogs interfering with any of these two operations. When the feed is placed in the trough, the swinging front is brought into place and made fast, by a bar, or button, as shown by B, thus allowing the hogs free access to the troughs, C C. These troughs are made of cast iron—oval formed basins,—and firmly secured in a frame, G. D D D are iron guards, one for each trough; these prevent the hogs from interfering with one another while feeding. They are fixed on the swinging frame inside the pen, and being secured with screw bolts, they can be raised or lowered to suit the size of the hogs. They are placed so as to allow each hog to pass his head in, but not his feet and feed freely. The latter is an ugly custom with hogs in common pens, by which they waste and foul their food.

By this method of constructing hog pens, the troughs can be easily cleaned out, and thus kept in proper condition. The health and growth of hogs are both greatly promoted by keeping their troughs clean, for it is certainly injurious to them if fresh food is mixed with any surplus that has been left from a previous meal, and suffered to ferment and become offensive. This method of constructing hog pens also saves food, by preventing waste, the grunters being very senseless animals in this respect, by getting into the trough with their fore feet and scattering their food on the floor.

More information may be obtained by letter addressed to the inventor.

Important Patent Case.

THE WOODWORTH AND NORCROSS PLANING MACHINES—An interesting trial at law between James G. Wilson and W. Van Hook, as owners of the Woodworth patent, and J. B. Church and J. W. Ogden, as defendants, using the Norcross machine, was terminated in this city before Judge Nelson, on the 29th ult. The complaint was that the defendants were infringing the Woodworth patent, and the trial was to decide this. The Judge limited the number of experts to two on each side, and circumscribed the range of testimony. In five days after the trial commenced all the testimony was taken, and the counsel on both sides (Keller for plaintiffs, Stoughton for defendants) had summed up. The Judge charged that two issues were involved, one for the planing part of the machine, and the other for a part of the tongueing and grooving. The jury brought in a verdict negative to the complainants except for the using a cutter for smoothing the edges of their tongued and grooved boards. The whole case may be said to have been in favor of the defendants.

Dry Dock Patent.

A motion for an injunction—before Judge Nelson, in the Circuit Court U. S.—to restrain Samuel Loveland from using the Dry Dock at the foot of Delancy street, this city, was denied with costs, on the 30th ult. The complainants were S. Williams and A. B. Hathaway, who claimed that the use of said dock was an infringement of the plaintiff's first patent, they having two on Dry Docks. The defence asserted, that if there was any infringement, it was not the first but the second patent of the plaintiff's on which the complaint was made: the Court seemed to view the matter in the same light, by refusing the injunction.

How to Prevent Worms on Trees.

Bore a hole into the tree the size of roll brimstone, six inches in depth, say four feet from the ground; fill the cavity four inches with the roll brimstone, plug two inches, and seal over with pitch. The sap absorbs the sulphur, and imparts a healthy hue to the leaves; beside being very offensive to the worms, it causes them to leave for parts unknown.—[Exchange.

Doubtful.