

## New Inventions.

## Improved Car for Transporting Cattle.

One of the greatest benefits conferred by railroads upon our people, who dwell in cities like New York, is in the transportation of cattle from distant places. Formerly the cattle which were intended for slaughter in this city, and other cities, were marched from Ohio, Canada, and the Western parts of this State, over bad roads, frequently travelling three and four hundred miles before they reached their destination. The time required to perform such journeys, was long, being no less than six days and a quarter, at the rate of twenty miles per day. This was attended with great expense, great labor, and exposure of drovers and cattle. One of the greatest drawbacks to the old system of driving, was the great loss of beef in cattle from long journeys, and this was a loss, too, as great to the consumers as the drovers. The transportation of cattle on railroads saves the loss of beef, as they suffer no fatigue, and are but a short time on the road. Cattle can also be brought from much greater distances to cities; indeed, they are brought now from places at such remote distances from New York, that it would have been impossible to bring them thence on foot. They are also brought without trouble, and require but little attendance. With respect to the vehicles—the cars for transporting cattle—it has been found that some improvements were required, and Andrew B. Dickinson, of Hornby, N. Y., has taken measures to secure a patent for such a purpose, the nature of which improvement consists in placing in the body of the car, a rack extending its whole length, and having the lower ends of its uprights secured by pivots to the sill piece, and the upper ends secured by pins between the joists. By this arrangement the racks can be shifted to confine the racks of the animals, to make each occupy a certain portion of the car; this prevents one interfering with or injuring another.

These cars are manufactured by Paine & Alcott, Corning, N. Y.

## New Wardrobe Bedstead.

An improvement in Wardrobe Bedsteads has been invented by Andrew Erich Botter, of New York City, for which he has taken measures to secure a patent. This bedstead may be folded or shut up, so as to represent a wardrobe, a book-case, or any like piece of furniture. The bedstead, when unfolded, is partially supported by a rectangular chest, which may contain a child's crib, or drawers for clothing. This chest, when the bedstead is folded up, being underneath it, forms its support, and serves to increase its height so as to conform to the height of a wardrobe or book-case.

## New Gas Meter.

C. Collier, of Indianapolis, Ind., has taken measures to secure a patent for an improvement in gas meters, the nature of which consists in a certain arrangement of waste water chambers and a seal pipe, whereby the bottom of the inlet pipe is always sealed by the waste water, but is altogether beyond the control of the consumer, who can let off all the waste water, except that required to seal the tube and balance the pressure of the gas, for which a proper quantity must always remain.

## Machine for Making Bed Pins.

William McBride, of Bristolville, Ohio, has taken measures to secure a patent for improvements on machines for making bed pins, which consists, 1st. in attaching to a common turning lathe a sliding stock provided with two peculiarly shaped cutters, one stationary and the other movable. The stationary cutter is of such a shape that it forms the tapering part of the pin, the movable cutter is of such a shape as to form a round head on the pin, and cut off the pin from the block ready to be discharged. 2nd. It also consists in making the pins of a uniform length, by employing a spring gauge which discharges the pins after being turned and cast off.

We have seen it stated in our daily papers, that "the inventor of wood gas had arrived here from Europe." He must be an ancient fellow, as gas was made from wood 150 years ago.

## MACHINE FOR CUTTING AND BENDING METAL DISCS.

The annexed engraving is a perspective view of a machine for cutting and bending the edges of metal discs—such as the bottoms of tin pans, &c. It is the invention of Elliot Savage, of Berlin, Ct. A patent was granted for the improvement, on the 30th of last August, 1853. It is an improvement on the patented machine of Joseph F. Flanders, assigned to Roys & Wilcox, who are also the assignees of this patent.

CUTTING.—A is the frame for sustaining the operative parts. There are two circular disc

grippers, one B on shaft D; the other is opposite to it on another shaft and not seen. The piece of metal to be cut into a disc and have its edge turned, is first placed between these grippers. The small shaft containing the gripper not seen, is moved longitudinally towards shaft D, by the toggle lever F. G is a crank lever to rotate D. There are two rollers to cut the sheet of metal; the one H only is seen; they are used in other machines of a like character. As the piece of tin to be cut is revolved in the grippers, it will be



observed that the cutting rollers cut it off, forming it into a disc. The waste pieces are shown below the table.

BENDING.—a is a conic frustum or roller, whose axle is supported on a small frame b, which is so applied to the large frame A, as to be capable of being moved towards or from the shaft D. The frame b rests and moves on rails d e, and is provided with a set screw and nut g, by which it may be confined in any desirable position on the rails. I is another small frame which moves on rails i h, and may be confined thereto by the nut l, working on a set screw. This frame carries a small sliding carriage K, which by means of the lever L, may be made to move transversely across frame I, so as to carry a support conical roller M towards or away from the roller a. The roller M is supported by a vertical bar that extends down from carriage K; the said bar, at its lower end, is bent at right angles, and sustains through ears m or parts of it, center screws that serve to support a frame Q. This frame turns horizontally on the screws, and carries a frusto-conic bending roller R, which is so arranged, that it may be turned around the angle of the two edges of the rollers a M. The roller R is placed at a distance from the edges of the other two, equal to the thickness of the sheet of metal which is to have its edges bent. The lever S extends from the frame Q, by it the bending roller R may be moved back and forth.

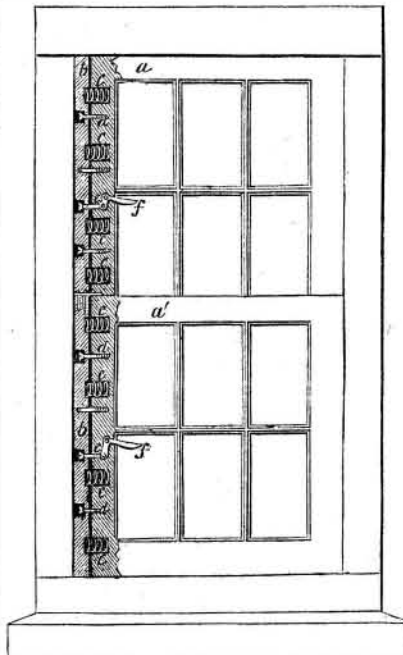
By applying to the two rollers R a, the support roller M, the cut plate is firmly gripped or held at or near its outer edge, and while the bending down of it is effected by the action of the bending roller. In bending down the edge of a circle of tin plate, held between the gripper plates, it has been customary to make the grippers of a diameter large enough to allow the flange to be bent down upon the periphery of one of them, such requiring a set of grippers of different sizes, in accordance with the various sizes of circles to be cut and bent.

One set of grippers only is employed in this machine, as the bending of the tin is not performed on either gripper, but by mechanism independent of it. The plate to be bent in this machine is, therefore, held by separate holders; its edge projecting beyond the rollers, R, a, a distance equal to the width of the part to be turned down. While the plate is revolved the

roller, R is moved around against it, and turns down the edge against the conic surface of roller, a. These machines are manufactured by the skilful, enterprising, and extensive manufacturers of such tools, Messrs. Roys and Wilcox, of Berlin, aforesaid, to whom communications for more information may be addressed.

## Expanding Window Sash.

The annexed engraving is a vertical view partly in section, of a window, to which the expanding sash is applied. A patent was granted for the improvement on the 16th of June, 1852, to M. Nutting, of Portland, Me.



a a are the upper and lower frames of a window. Into one side of the sash is made a groove, and into this is let the expanding sash, b, which is a strip of wood. Small recesses or holes are cut in the sash of the window, and into these are placed coiled springs, c c. The expanding sash is secured by screws, d d, to the window sash. This expanding sash, owing to the tension of the springs, c c, presses against the side of the window casing, and holds the window in any position in which it may be placed; f f are small toggle levers, their fulcrum are in the window sashes, and they are attached

at their inner ends to the pins, e e, which thus secure them to the expanding sashes, b b. By pressing upwards on either the upper or lower levers, f, it will be observed that the strip, b, will be drawn in to its groove in the window sash, to allow the window to be raised. It goes back to its former position when the lever, f, is relieved from pressure. This expanding sash is designed as a substitute for balance weights and catches. It can be applied to any window, and makes a close fit so as to prevent any shaking of a window, and also act as a side weather strip. A model sash of this kind is on exhibition in the Crystal Palace, in Class No. 7, lower floor, near the large patent scales. The patentee or his agent is regular in his attendance there, and willing to explain the advantages of the invention to all enquirers, and probably would not object to receiving orders for state or county right.

## Improved Mowing Machine.

Martin Hallenbeck, of the city of Albany, N. Y., has taken measures to secure a patent for an improvement in mowing machines, which consists in placing the sickle or cutter at the back of the driving wheel, and attaching the draft pole to the machine out of line with the driving wheel, and at the side of the driving wheel towards the sickle. By this arrangement the line of draught is made to counteract the resistance which the grass offers to the sickle; the sickle consequently moves forward in a steady manner, keeping in the same line; the machine thereby being made to proceed with a very steady motion. The fingers of this machine for holding the grass are peculiarly constructed, so as to prevent the grass being forced out from them when acted upon by the sickle; the recesses in the fingers are also prevented from being clogged or filled with dirt.—The sickle is also secured above the fingers by a metal plate in a very superior manner.

## Lardner and Steam Navigation.

We have received the following letter from a friendly correspondent:

"By the way, I have twice seen in your paper a denial of certain positions in regard to Ocean Steamers, attributed to Dr. Lardner; but if you will refer to 'Fisk's Travels,' Harper & Bro., 1838, page 616, you will find that the President of the Wesleyan University states that he heard Dr. L., 'give a very long lecture to prove the impossibility of navigating the ocean with steam without an intermediate stopping place to take in fuel.' Thinking there might be something connected with this matter overlooked by you, I have taken the liberty of calling your attention to the above. S. S. B. Danville, Va."

[We do not deny, neither does Dr. Lardner, that he used language, akin to that attributed to him by Fisk. What we have contradicted, because it has been usually said of Dr. Lardner, is, "he asserted the impossibility of steamships crossing the Atlantic Ocean." In the state of steam navigation at the time Dr. Lardner made his remarks, he was perfectly correct, and even some years afterwards, in 1846, we well remember how the French steamers always put into Halifax for coal.

## The Jacquard Loom Superseded.

The Correspondence of Turin says—"A new and ingenious application of electricity has been much spoken of here lately. The Chevalier Bonelli, of this place, director of the Sardinian telegraphs, has invented electric weaving machines, destined to replace with advantage the frames a la Jacquard for weaving figured stuffs. Details are as yet wanting respecting this invention.—[Ex.

[The Chevalier may have invented a loom by which various movements may be given by electro magnetism, this is quite feasible, but then it cannot be operated so cheaply as by hand, water, or steam power.

The mechanics of Massachusetts are making efforts for the passage of a "ten hour law." They have long labored for this object for the factory operatives without success. The hours of labor in many of the factories are far too many.

We will have something more to say about inventors in our next.