

## New Inventions.

### Carriage Couplings.

Norman B. Livingston, of Portland, Ind., has made an improvement in the manner of coupling the front axle and reach of carriages and wagons, the same consisting in having an eye piece or collar with a shank instead of the usual "king bolt." The shank of the collar is attached to the reach, and is capable of revolving; the collar turns loosely in a groove formed in the periphery of a horizontal circle plate which is secured to the top of the front axle, and is made in two parts, to admit of the eye piece being fitted in the groove. By this coupling a greater bearing surface is secured, and the carriage or wagon is made to adjust itself more freely and easily, when running, to the inequalities of roads. This coupling is also stronger than that of the usual king bolt, is more durable, and not so liable to get out of order. Measures have been taken to secure a patent.

### Bullets for Breech-Loading Fire Arms.

Henry W. Adams, of this city, has taken measures to secure a patent for an improvement in bullets for breech-loading fire arms. The bullet is hollow with a portion of its exterior of the form of the frustum of a cone, the smaller end of which is of the same size as the bore of the barrel, for which it is intended. The object in view for making the ball of this form is, that when it is driven by the force of the powder from the enlarged chamber in which it has been received, into the regular bore of the barrel, it may perfectly "slug" and fill the grooves, and be afterwards kept expanded to fill the grooves, until it is discharged from the muzzle.

### Mortising Sash Stiles.

J. B. Smith, of Milwaukee, Wis., has taken measures to secure a patent for an improvement in mortising sash stiles by machinery, which mortises both ends of the sash stiles—no matter what their length is—and clearing out the mortises at the same time, without the necessity of reversing the ends of the stiles, tightening or slackening the driving belt. This improvement obviates the necessity of laying out the stuff, thus saving both time and labor in the operation.

### Improved Car Seat.

A. C. Moestue, of La Porte, Ind., has made an improvement in car seats, which consists in a peculiar construction of the seat, whereby its back, when the car is going in one direction, forms the seat, when the car is going in the opposite direction. The seat and back being formed or connected together and provided with folding leaves for the purpose of having high backs when required. The whole seat swings upon pivots, and is kept in the desired position by means of pawls or catches, which fit or catch in segment racks attached to the sides of the seat. Measures have been taken to secure a patent.

### Grease Feeder.

Francis A. Hoyt, of Fitchburg, Mass., has taken measures to secure a patent for an improvement in a grease feeder for lubricating the interior of steam cylinders, and other parts of steam engines, the nature of which consists in forcing the grease from a cup on the exterior to the interior of the steam cylinder, &c., by means of a piston working in a small cylinder which has communication at one end with the interior of the steam cylinder through a passage in which is placed a valve, which closes by the outward pressure of the steam. This grease feeder is a force pump, and its check valve simply prevents the steam in the cylinder from acting on the oil in the pump, while the plunger is raised. The oil from the cup descends by gravity under the plunger of the pump, when it is injected into the cylinder, to lubricate its interior by the plunger of the pump.

### Hose Coupling.

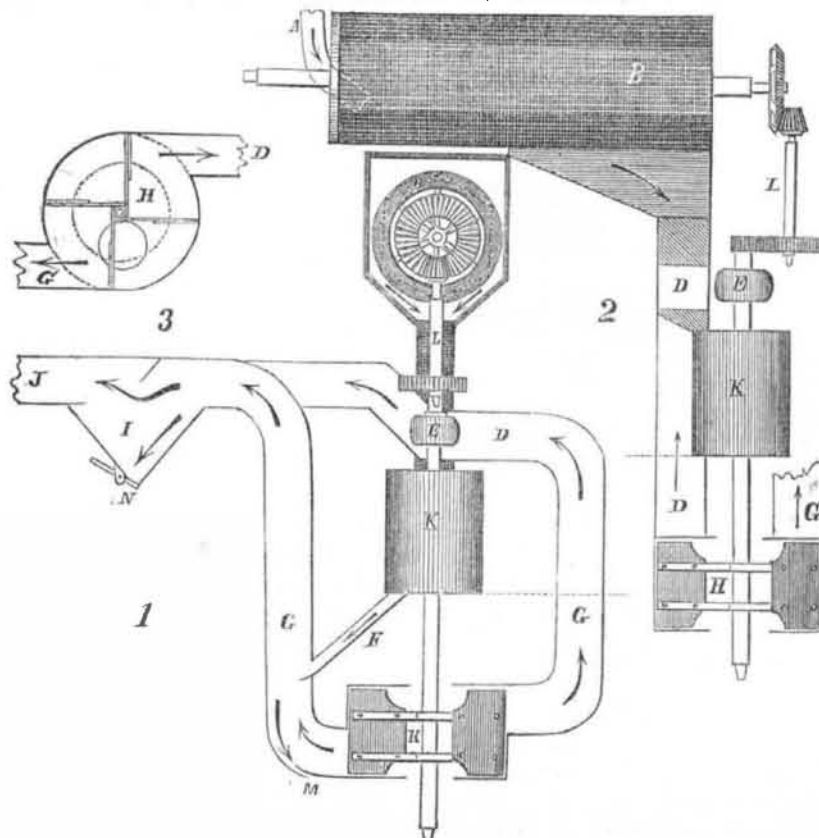
James McPhail and Ephraim C. Barrett, of the city of Boston, have made an improvement in Hose Couplings, which consists in the employment of a raised galvanized iron collar or annular guard round the screw end of the male

section of the coupling, for preventing vehicles, stones, &c., coming in contact with the screw thread and injuring it during the time that the said screw part may be disconnected from its converse coupling part. Measures have been taken to secure a patent.

### New Nail Machine.

A new self-feeding machine has lately been put in operation at Troy, N. Y., which, it is said, will manufacture, in a given time, as many again nails as any other known process, while one man and a boy can operate ten machines.

## WHEAT CLEANING MACHINERY.



The annexed engravings represent a combination of screen fans and smut mill, forming a compact and efficient machine for cleaning wheat, invented by Samuel Taggart, millwright, of Indianapolis, Ind., who has taken measures to secure a patent for the same.

Figure 1 is an elevated section; figure 2 is a transverse section of figure 1, and figure 3 is a horizontal section through the dotted lines in figures 1 and 2. The same letters refer to like parts in all the figures.

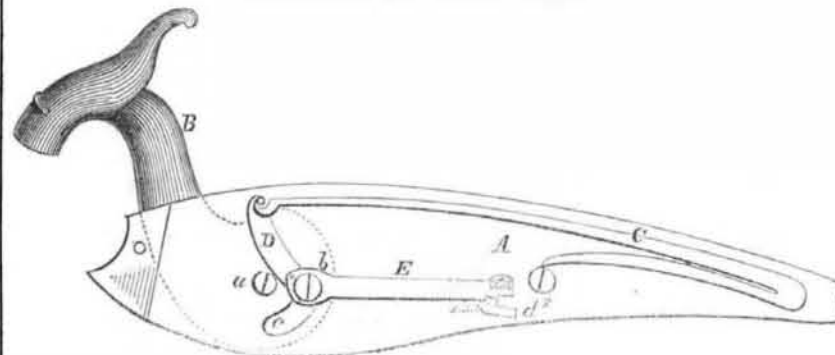
The mode practiced at the present day is to place the several component parts of wheat cleaning machinery on different floors of flouring mills, at an expense of from \$1,000 to \$3,000 in some instances. The inventor asserts that by using this machine more than half the usual cost of wheat cleaning machinery can be saved, that it does not require more than quarter the room occupied by the ordinary machinery now in use for cleaning wheat, and that less propelling power drives it.

DESCRIPTION.—A, figure 2, is a spout leading from a wheat garner—or hopper—into the screen, B, through which the wheat passes, and finds its way through the coarse wire cloth,

into the spout, then passing through the air trunk, D, where it is fanned, into the cylinder or smut mill, K, where it is scoured, thence into the air trunk, G, through the spout, F, where it is fanned the second time, passing out at the opening in the bottom of air trunk at M, into an elevator, and is carried to the hopper to be ground. L, figure 2, is a shaft, bevel, and spur wheels, to which motion is transmitted to the screen, B; E is a pulley on smut mill shaft, through which motion is given to the entire machine by a belt; J, figure 1, is a hopper to receive shrunken wheat and chaff, which pass through the aperture at the valve, N. The smut, chaff, and other impurities pass on through the trunk, I, out of the mill, and thus got rid of, without filling the room in which the machine stands, with dust and dirt, the case of the smut mill, K, being tight—not perforated. The arrows in the engraving show the direction of the air—or blast—wheat, chaff, &c., respectively, H H H, figures 1, 2, and 3, show the fans which produce or create the blast.

More information may be obtained by letter addressed to Mr. Taggart, at Indianapolis.

## IMPROVED GUN LOCK.



This is an improvement in Gun Locks, for which a patent was granted to P. F. Charpie, of Mount Vernon, Ohio, on the 16th of last August. This figure is a view of the inner side of the lock-plate, showing most of the parts of the lock; the hammer is represented as being down.

The nature of this invention consists in connecting the dog of the main-spring to the hammer, by means of a screw passing through a curved slot in the lock-plate, in combination with suitable packing, encompassing the slot on the outside of the plate. By this combination

the inventor is enabled to use an extremely simple and useful device for a gun lock, and to place the principal parts on the inside of the plate, fully protected from moisture.

A represents the lock-plate of the ordinary shape, and constructed of the usual materials; B is the hammer attached to the plate by a screw, a; C is the lock-spring, the outer end of which is connected by a stirrup, D, to a dog, E. The screw, b, which connects the stirrup with the dog, passes through a curved slot, c, in the plate, A, and into the hammer, B. The end of the dog, opposite the end through

which the screw, b, passes, rests upon a stop, d, which is secured to the plate, A. This stop catches into notches 1 and 2. The notch, 1, being for the half cock, and the notch, 2, for the full cock. On the outer side of the plate, A, and surrounding the slot, c, there is a circular recess, in which recess is placed suitable packing. The lower and circular end of the hammer, B, through the center of which the screw, a, passes, covers this packing, and bears against it. The object of the packing is to prevent moisture from entering the lock through the slot, c.

OPERATION.—When the hammer, B, is drawn back and raised, the screw, b, moves downward in the slot, c, and the spring, C, is depressed; the dog, E, moves forward till either notch, as desired, catches upon the end of the stop, d: when the hammer is fully raised, the notch, 2, catches upon the stop; the notch, 1, being for the half cock, and the notch, 2, for the full cock, as aforesaid. The hammer is let fall by the ordinary means of a trigger. The end of the dog on which the notches are cut, is made to bear upon the stop, by the spring, C, as will be readily seen.

This lock prevents the entrance of moisture by means of the packing mentioned. The claim is for connecting the dog to the hammer by means of a screw, b, passing through the curved slot in the plate, in combination with the packing which encompasses said slot. The main-spring and dog are thus placed on the inside of the lock plate, and moisture may be kept out. More information may be obtained of Wm. Henry, Jr., Wooster, Ohio.

### Patent Cases.

UNSTAMPED PATENT ARTICLES—Before Judge Betts, U. S. Circuit Court, New York City, May 11th. Chester W. Palmer against A. Allen and W. Nichols. This suit was brought by the plaintiff against the defendants as the assignees of a patent issued to George H. Gray for a sash fastener, called Gray's Patent Sash Fastener, to recover \$10,000 penalty under the Patent act of 1852, sec. 6, which provides that "all patentees or assignees of patents are required to stamp or engrave, or cause to be stamped or engraved, on each article vendible or offered for sale, the date of the patent," under a penalty of \$100 for each offence.

The defendants are assignees of the patent for New York City, and some other counties, and sold 21 dozen of the articles in question, unstamped, at one time, in the City of New York. In defence of the action they proved that the articles were not manufactured by them, but by Gray, the patentee, who sold them to the defendants.

The Court charged the Jury that the assignees of a part of a patent were no more liable under this act, for articles purchased by them, than any other purchasers, unless it appeared that the articles were so manufactured with their connivance, and that it was not the selling of the articles which rendered them liable to the penalty, but the omitting to put on the stamp, and that if the articles were manufactured before coming into the possession of the assignees, it was not their duty to put on the stamp.

The Court also charged that the penalty was \$100 for every separate article sold unstamped, and not \$100 for all that were sold at one time; and that if they found that the defendants were liable to the penalty, they must give the plaintiff a verdict of \$100 for each article sold by them.

The Jury thereupon, after a short absence found a verdict for the defendants.

[Patentees must be very careful in stamping every patented article; the above named patentee is liable to a fine of \$25,200 for selling the above named number of articles. There is no way whereby he could escape such a penalty, excepting on proof of their manufacture previous to the issuing of the patent.]

BELL TELEGRAPH—On the same date an injunction was granted by Judge Betts, on the complaint of the U. S. Annunciator and Bell Telegraph Co., against J. W. Sanderson and C. L. Mather, for infringement of their patent, unless the defendants, within ten days, give security in \$5000 to abide by the decree of the court, in reference to a trial at law.