New Inventions.

Preventing Cars Running off the Track.

In our list of claims this week, the patent granted to G. P. Ketchum, of Bedford, Ind., embraces peculiar features to prevent the cars running off the track in consequence of passing over obstacles thereon. Upon one of the axles of each truck, a pair of arms are placed loosely, and the arms of each pair of trucks are connected by a longitudinal rod, and so arranged that when either pair of wheels are thrown off the rails, the ends of the arms mentioned will come in contact with the rails and serve as guides.

Improvement in Flour Bolting.

The patent just granted to F. B. Hunt, and Elias Nordyke, of Richmond, Ind., whose claims are published in this week's list, embraces the expanding and contracting of the rotating brushes which act against the inner surface of the wire cloth of the bolt, and force the flour through the meshes, these brushes bearing with a greater or less pressure against the wire cloth, according as they are adjusted. Adjustable spouts are also employed and so arranged, that the bolted flour, may be separated, at various points underneath the bolt according to the nature of the grain that is being ground.

Grain Separator and Smut Machine.

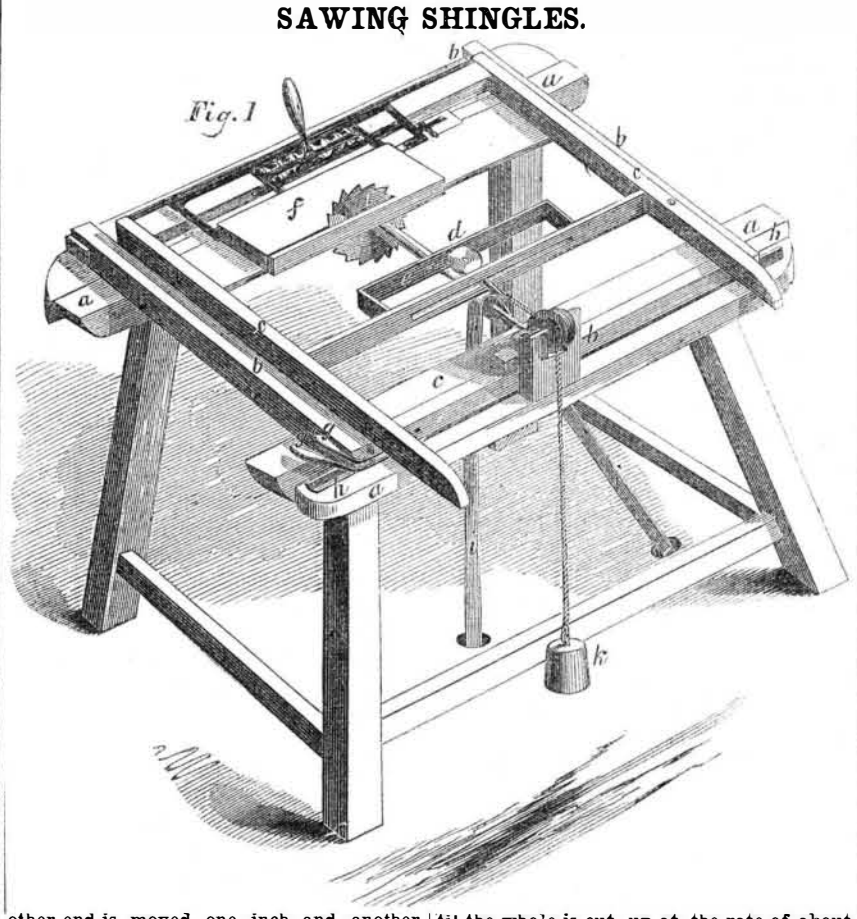
The nature of the improvement on separators and smut machines, for which a patent has just been granted to John Bean and B. Wright, of Hudson, Mich., as set forth in the claims of this week, consists in combining the grain separator with the smut apparatus in such a manner that the air in passing to the fan of the separator goes through the smut screen, and materially assists in cleansing the grain more perfectly than by other machines.

Shingle Machine.

The annexed engraving is a perspective view of a shingle machine, for which a patent was granted to Charles J. Conrod, of Lower Augusta Township, Pa., on the 19th of last Sept.

The nature of the improvement consists in a new mode and combination of parts, whereby the thickness of the shingles to be sawed is gauged with great facility, and at either end, according to the thickness and taper required. *a* is a strong table-shaped frame, which supports a circular saw, *i*, fixed upon an arbor having suitable bearings. Upon the two longest rails or timbers of the frame are secured two iron plates, *h*, with flanges or ways upon which the carriage frame, *b*, moves, aided by grooved castors or friction wheels. The frame, *b*. is furnished with an iron plate on each of the shorter or cross bars, one of which has notches in its upper edge one inch apart, and the other notches, alternately, three-fourths and one quarter of an inch apart. On the carriage frame, *b*, and within its shorter beam there is placed the register carriage or frame, *c*, it has a pin or single tooth projecting from each of its under sides, which rest in the notches of iron plate named, and is provided with dogs to grasp and hold the block or shingle bolt, *f*, about the center of the frame; *c*, extends a slotted piece, carrying ways upon its inner sides, upon which the double grooved pulleys, *d*, traverse freely, having a hooked projection from their axis, projecting through the slot, to which is fastened a cord passing over a pulley journalled in a projection from the frame, *a*, and sustains a counterbalance weight, *k*, the function of which is to draw the frome, *c*, forward when it is elevated and disengaged from the notches in the plates, or either of them, by the action of the crooked lever, *g g'*. When the machine is to be used, the sawyer takes his station with his left hand towards the shingle bolt, *f*, and brings the bolt up to the saw, he strikes or presses the shorter lever, *g*, which, by lifting the frame, *e*, allows the weight, *k*, to move the end of the frame, *c*, which is nearest to the sawyer, three-fourths of an inch; the power being applied to the circular saw, *i*, in any convenient manner, the carriage frame, *b*, is pushed forward by the left hand, and a shingle is cut; it is then drawn back, and by striking the short lever nearest the end, is moved one-fourth of an inch, and by striking the long lever, *g'*, the

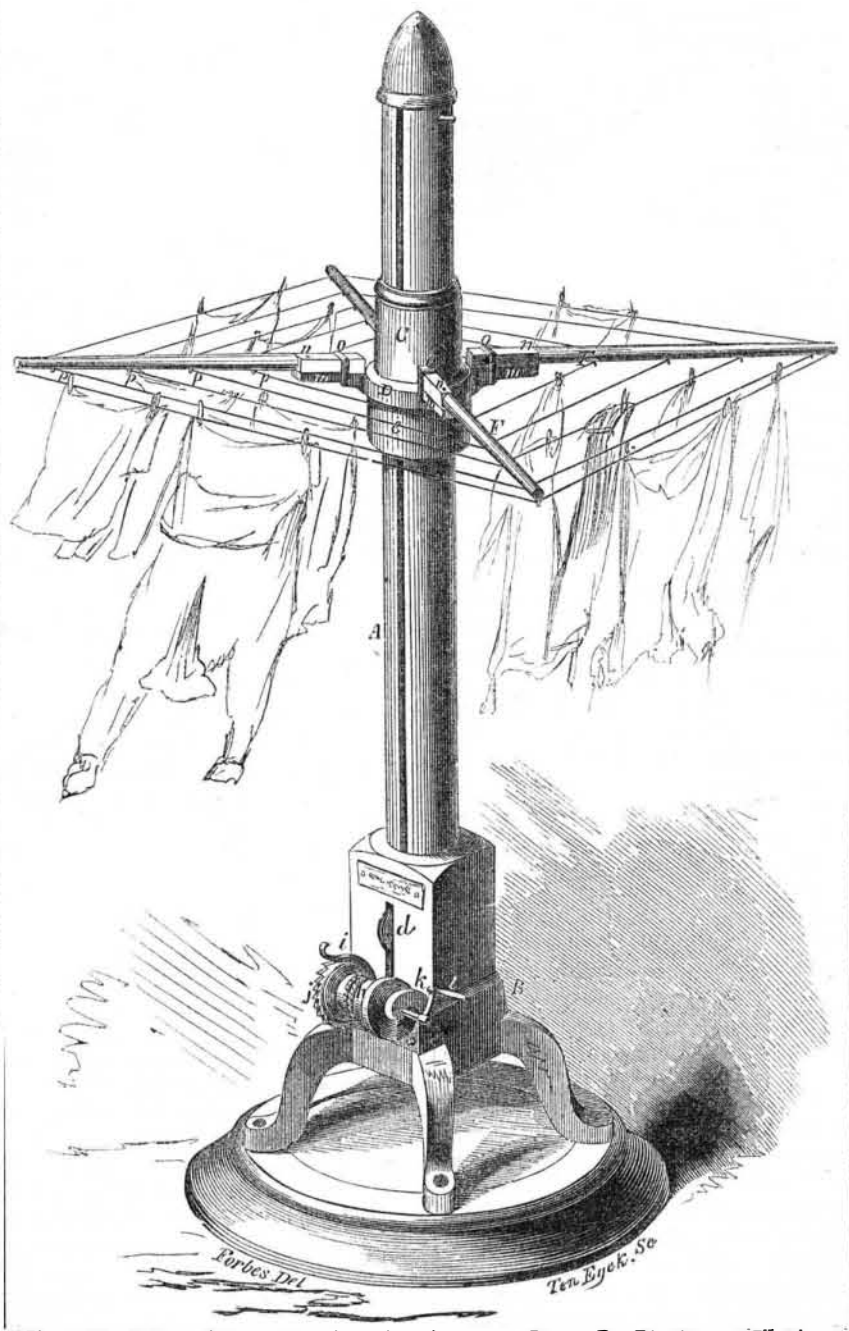
SAWING SHINGLES.



other end is moved one inch, and another shingle is cut, which will be of the same taper and thickness as the first one. The operations, as described, are then repeated until the whole is cut up at the rate of about twelve shingles per minute.

More information may be obtained by letter addressed to Mr. Conrod.

CLOTHES DRYING MACHINE.



The annexed figure is a perspective view of a clothes drying machine, for which the inventor, James R. Higgins, of Rockport, Ind., has taken measures to secure a patent.

A is a hollow wooden post with a vertical slot cut in it. It is secured to a proper base, B; C is a band, and D is a collar placed around it, and resting upon a flanch, *e*; *m m* are four radial projections on the collar, to which arms, F F are secured by screws, *n n*, and clamps, *o*; hooks, *p p* are secured to the undersides of the arms, and cords or lines are strung around, as shown, upon which to hang the clothes. On the base, B, in the slot of the post, there is a pulley, *d*, over which, from the drum or windlass, *k*, there passes a cord, *h*, up in the post, and over a small pulley (not shown) at the top. This cord is attached by one end to a hook in the inside of a flanch, *e*, and a pawl, *i*, holds the windlass from turning. By turning the crank, *l*, of the small windlass, the flanchand collar, C, with the clothes, is elevated to any point on the post, and the pawl, *i*, by catching into the ratchet teeth, *j*, will retain the clothes driers, which may be termed "a reel," at any point, to which it is raised. This clothes reel, be it observed, is capable of turning round by the collar, C, being adapted to rotate on its flange. By taking out the ratchet, *i*, from its teeth, *j*, the clothes reel will descend by its own gravity.

The construction and operation of this clothes drying machine is so simple that all will understand it from this illustration and description, and more information may be obtained about it by letter addressed to Mr. Higgins.

New Portable Stove.

At the Society of Arts, on Wednesday, a portable stove for heating and cooking, called the Crimean Army Stove, constructed by Price's Patent Candle Company, was exhibited in full action. It is made of thin wrought iron, without any flue, may be used on any table and in any room, and was designed by the inventors for the use of the army, for whom it seems peculiarly suited. It is simple and compact in its arrangement. The fuel employed is cocoa-nut stearine, in cakes, burnt by means of six wicks introduced into each cake, the cake fitting into a tin dish, made exactly to contain it. No smoke is produced, and the stove is capable of boiling, baking, and broiling, and the whole is comprised in a cube of about 16 inches. The cost of fuel burnt is at the rate of 1d. per hour, a cake lasting eight hours. Our gallant army in the Crimea have suffered bitterly from the scarcity of fuel, as well as the difficulty of cooking their food, and it was to remedy these distressing evils that this contrivance was devised by its inventors. We understand that it was long since approved of by the government authorities, to whom it was referred for examination; but, although it can be supplied at 17s. per stove, our paralyzing and deplorable system of routine has hitherto prevented the necessary supply being forwarded to the Crimea. The company have themselves sent out 100 of the stoves, while the apathy and incapacity of the official department which assumes to manage the war, is, in addition to many other causes of reproach, exemplified in their not having as yet followed that spirited example.—[London Mining Journal.

Opening of the Panama Railroad.

The Panama Railroad was completed on the 8th of last month, and the first train passed over it on that day. It caused great excitement among the native population, very few of them having ever seen a locomotive. This railroad connects the Atlantic with the Pacific Ocean. Hereafter those who go from this city to the Pacific regions, need not fear the loss of health by fever, as formerly, when crossing the Isthmus. The time in crossing will only be about four hours, in comfortable cars, perfectly secluded from the weather. The Pacific Mail Steamship Company intend keeping one of their steamers ready at Panama, waiting for passengers from the Atlantic States, so that they will not be required to wait, but proceed at once from the railroad to California.

The English papers state that a very large dark spot can be seen in London near the center of the sun's disk.