

## New Inventions.

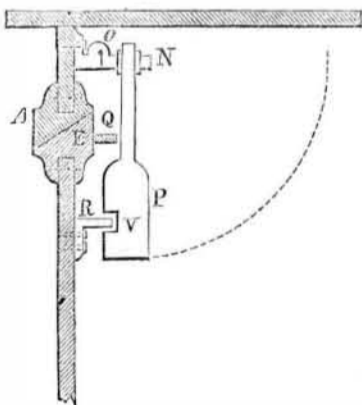
## Improved Tops for Railroad Cars.

The number of accidents which yearly occur on our railroads, the amount of human life lost and property destroyed, have become a most serious consideration with all who ever do or are likely to travel, and each one in their own way tries to think of a plan whereby these accidents (many of them the result of carelessness) can be avoided. Let us recapitulate the account of two accidents of somewhat recent occurrence. On the Camden and Amboy Railroad, near Burlington, and also on the North Pennsylvania Railroad, near Gwynedd. The wounded and suffering passengers were compelled to linger a long time within the wrecked cars, jammed between broken timbers until some means on the outside were provided to break open their prison house, and extricate them from their perilous and painful condition. In the latter case referred to, the wrecked cars having taken fire, a number of persons were burned to death before the means were at hand to break open the cars, and let the sufferers out. These occurrences are painful in the extreme, and if we cannot at present invent, discover or contrive a method either of preventing accidents or of holding some one individual responsible for the lives of the persons in a train of cars, we can at least attempt to alleviate the horror of accidents when they do happen.

The subject of our engraving is a proposal for attaining this end, and is simple in its construction, being nothing more than an improvement in the making of the roofs of cars. The ordinary roof is part and parcel of the car, and in case of accident there is no means of exit through it, should the doors be jammed up, and should the cars go over a drawbridge, or any way fall into the water, the travellers must die the awful death of drowning, but with this roof it is not so, as it could be lifted off and give them a chance of escape. This roof is made of light metal, in a semi-cylindrical form, and is capable of being detached from the car by the slightest disturbance of the center of gravity.

Figure 1 shows a view of a car with the roof lifted up, it is attached longitudinally by means of a groove in the side of the car in which the edge fits, and in which it can slide up and down. Figure 3 shows the method of

Fig. 3



attachment at the ends; it is a section through the fastening apparatus. E is a metallic piece fitting on the end of the car. A is a similar piece forming part of the roof, from the upper part of which (inside the car) projects the piece, O N, having a rule joint at O, only capable of opening upwards, and round at N, on this end, a pendulum, P V, is free to swing to and from the sides of the car, and a piece, R, curved to the arc described by V, is fastened to the end; the piece, Q, also projects from E. Figure 2 at once explains itself; it represents an accident. One car has capsized, and the roof has been instantly thrown off, giving the passengers a place of exit; the other car has slipped into the water, the roof has here also slid off and forms a boat, in

which the passengers can rest until aid is brought to them. The operation is as follows:—

Suppose a car to be in the act of capsizing, the pendulum swings beyond the limits of the

piece, R, and the roof is unfastened and slides off; or suppose that one end sinks down through a broken arch, or down an embankment, the pendulum, P V, describes (by means of the rule joint, O) the arc marked in

## POTTS' TOPS FOR RAILROAD CARS.

Fig. 1

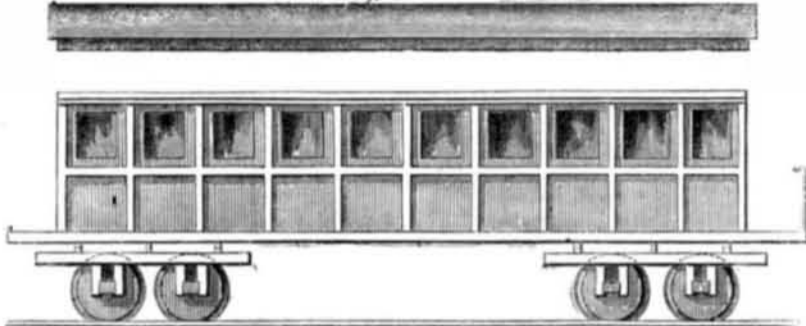


Fig. 2



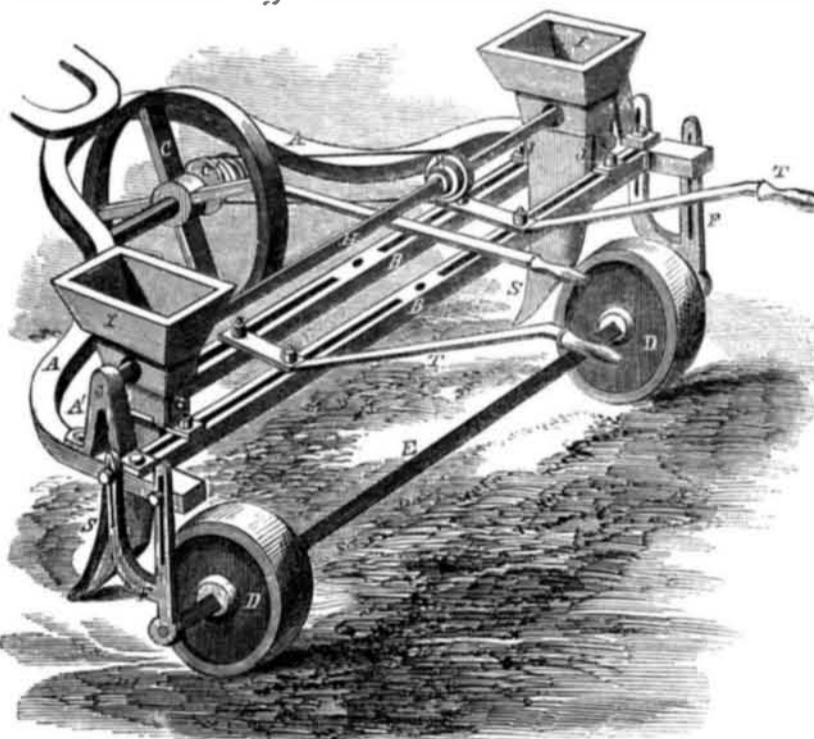
Fig. 3, and loosens one end; the piece, Q, at the other end of the car comes in contact with the other, opens that, and then the roof is free to slide off. An invention of this kind, when practicable, is of the greatest value, and should the success of this one be even an ap-

proximation to the ideas of the inventor, it will be of the greatest service.

It was patented Aug. 11, 1857, and for further particulars and information address Albert Potts, corner Third and Willow streets, Philadelphia, Pa.

## GOULD AND FLANDERS' SEED PLANter.

Fig. 1

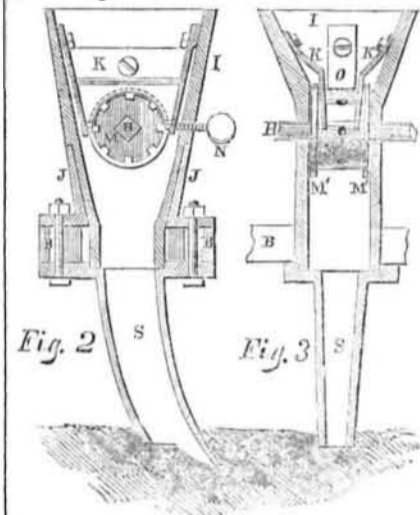


The improvements in this seed planter, on which the inventors have obtained a patent, lie in the capability of adjustment of the planters and rollers or following wheel, and also in the feeding device. The latter is so arranged that no seed can drop between the delivery wheel and sides of the hopper as is often the case.

These various modifications will be understood by reference to the engravings, Fig. 1 being a perspective view of the whole, Fig. 2 a transverse section of hopper, and Fig. 3 a longitudinal section of the same. Similar letters of reference indicate like parts in each figure. A is the frame, and A' two pedestals which support the square axle, H, along which

the slotted crossbars, B B, and the two hoppers, I, are capable of moving either nearer to or further from each other. C is the leading wheel, and C' a cone pulley on its axle, which by a strap over it, and the cone pulley, H', give motion to the regulating device. D D are the trailing wheels mounted on the square shaft, E, which is kept in position by an adjustable bracket, F, so that it is capable of a vertical motion, and the wheels, D D, can be moved to correspond with the hoppers, I. J J are knee brackets to support I.

In Figs. 2 and 3, K is the inside hopper shell, which is so shaped (as seen in Fig. 3) that it prevents the seed from falling between the sides of the hopper and the distributing wheel, M, with collars on its edge, M'. N is a screw by whose means K K are brought nearer together, or the reverse, and O is the



scraper which only allows a certain amount of seed to pass under it in the perforations on M. S S are the hollow shares and diggers, and T T, Fig. 1, the guiding handles.

It was patented last week, and it will be found in our List of Claims on another page. The inventors are Aaron M. Gould and Albert Flanders, Middleport, N. Y., from whom all further particulars and information may be obtained.

## Rollers for Calendering, Mangleing, &amp;c.

John Worsley, of Providence, R. I., has recently secured an English patent through the Scientific American Patent Agency, for an improvement in rollers for calendering, and other processes of analogous character, which consists in making them of husks of the common Indian corn. The advantages of such rollers are, that they retain their cylindrical form better, are less affected by wet, and wear smoother than those made of cotton, paper, wood, or other material commonly used.

The fibers are taken in a dry state, or only very slightly moistened, and placed in handfuls in an upright cylindrical vessel, having a stick or rod set upright in its center, and packed and pressed together to form cylindrical masses, each having a hole in its center. A suitable number of these cylinders being obtained, the shaft for a roller, having an iron collar fast near one end, is driven through as many as its length will contain, and the whole are then submitted to pressure in a direction parallel with the axis of the shaft, more cylinders being placed on the shaft as those previously placed on are compressed sufficiently to make room for them, until the shaft has received a sufficient number. When the fibers are thus compressed together in a compact and solid mass, another collar is placed on the shaft, and secured to confine them, and the exterior of the mass of fibre is turned off in a lathe, to bring the roller to a cylindrical form of proper size, in the same manner as other calendering rollers are turned, and the roller is then ready for use.

## Acknowledgments.

We are indebted to Hon. Joseph Holt for a copy of the Commissioner of Patent's Reports on Agriculture for 1856.

Hon. Thomas R. Whitney, M. C. for New York, has our thanks for his generous contributions to our library in the shape of valuable Reports.