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RAIL-ROAD NEWS.

Railroad Car Axles.

A correspondent of the American Railway Times, in a long communication, discusses the question, "what is the cause of the breaking of railway car axles?" He presents totally different views from those which appeared in the Journal of Commerce, by a correspondent, a few weeks ago. The following are the causes which he believes tend to break the axles of cars:—

First—The wheels are attached to the axles at unequal distances apart. I have found the extreme distances to equal fully three-fourths of an inch. Second—The guard rails which are placed opposite points of the frogs, for preventing the wheels from taking the wrong direction as they pass through them, I have frequently seen so placed that the distance between the scores in the frogs and the guard rails is an inch or more greater than the distance between the wheels which pass them; of course the base of the wheels, or rather that portion of the wheels which rest upon the rails at the moment of passing, must be spread that amount, and the axle must bend sufficiently to correspond therewith or be broken. So forcibly are these guards operated upon by the wheels as they pass them, that large spikes are found to be insufficient to keep them in their place, and the repairers find it necessary to place pieces of planks or joists, in the form of struts or braces, between them and the frogs to prevent them from being pinched towards each other."

Rochester and Niagara Falls Railroad.

The railroad from Rochester to Lockport and Niagara Falls, is completed; it is believed that it will be in very active operation next month. This is a very important railroad; hitherto there has been no railroad direct to Niagara Falls from the East. To get there, visitors had to take the round-about road by Buffalo, and come away backwards about fifteen miles. It is true, they could go by the canal to Lockport, at the slow pace of some old line boat, and then take the cars, and "sail like a snail" on the miserable old railroad from that place to the Falls. All this will soon be changed; passengers will steam it right through without winding round and round by Buffalo and Schlossar's Mill—so famous in story. It passes through a beautiful and fertile country, the garden of our State, and visitors will be able to go to the Falls from New York city in about 16 hours.

Dilatory Telegraph.

Smith Pyne complains, in a letter in the Washington "Republic," of the shameful delay of two messages which were sent to him by telegraph. One was an account of his sister's death: it was received by him one hour and a half after it was sent through, and an hour too late for the cars to take him away that evening; it was a shame.

A short time ago Dr. Jackson administered a pound and a half of ether to a lion, at South Boston, Mass., and removed his claws during the twenty minutes the animal was insensible.

SANDER'S IMPROVED GRAIN DRILL.—Fig. 1.

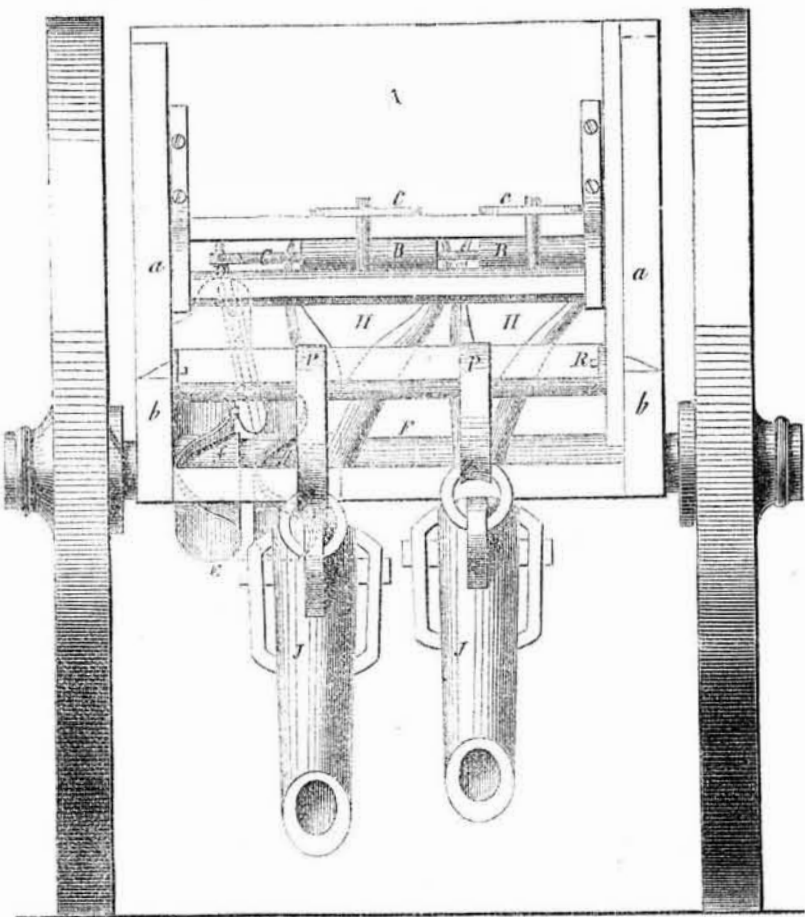


Figure 2.

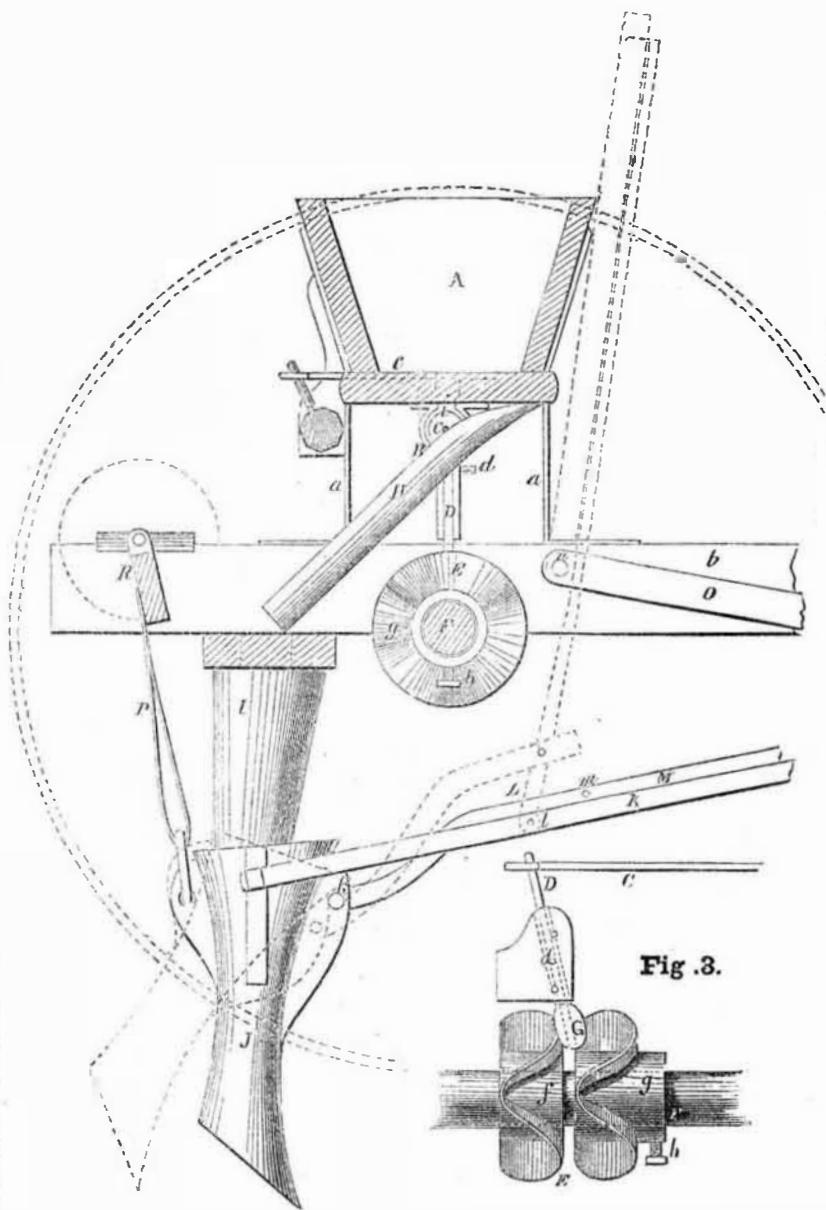


Fig. 3.

The accompanying engravings are views of an improved Grain Drill, patented by Benjamin D. Sanders, of Holiday's Cove, Brooke Co., Va. Figure 1 is a back view of the Drill in elevation; figure 2 is a longitudinal vertical section, taken at the middle of fig. 1. Fig. 3 is a section showing the cam which operates upon the lever that works the shove rod. The same letters of reference indicate like parts on all the figures.

A is the hopper or grain box; it is supported by standards, *a*, which rest upon the side rails, *b*, of the frame; B B are cylindrical tubes placed horizontally underneath the hopper. Each of these tubes has an opening in the upper part, through which the grain from the hopper passes. A valve, *c*, works over each opening so that the communication from the hopper to the tubes may be cut off when desired. C is a rod which passes horizontally through the tubes, B B. This rod has a number of circular slides, *i*, upon it, one fitting each tube. D is a lever which passes through an eye at one end of the rod, C. This lever has its fulcrum at *d*, which is formed by a pin passing through the lever, and two plates which are secured by one of the side rails, the lever being between the plates, as shown in fig. 2. The lower end of lever D has a friction roller, G, which revolves, as it is acted upon by a cam, E; this cam is placed upon the axle, F, of the wheels, and is formed of two separate parts, one part, *f*, being firmly secured to the axle, and the other part, *g*, moving loosely on the axle, and secured to it at any desired point by the set screw, *h*. On each of these parts, *f* and *g*, there is a zig-zag projection. The space between these projections, therefore, is of a zig-zag form, and the roller, G, sets in the space. As the cam, E, revolves with the axle, the inner surfaces of the projections, *f* and *g*, act against the roller, G, and give the lever, D, to which the roller is attached, a vibratory motion. As part of the said lever passes through an eye in one end of the rod, C, a reciprocating motion is consequently given to it, and also to the slides, *i*, on the said rod, and which are within the tubes, B B. The slides move backwards and forwards in the tubes, directly under the openings in the upper part of them; therefore, as the grain falls into the said tubes, it is pushed out first at one side, and then at the other, by the reciprocating motion of the slides. The grain falls from the tubes, B B, into inclined troughs, H H—one for each tube; these convey the grain to the leather tubes, I I, which fit in the hollow teeth, J J. The method of distributing the grain will now be rendered evident. The grain may be distributed faster or slower, by giving the rod, C, a greater or less stroke, by placing the part, *g*, of the cam, E, at a greater or less distance from the other part, *f*. If the space between the zig-zag projection is considerable, there will be a shorter stroke given than if the space were narrower. The fulcrum, or pin, *d*, of lever D may also be placed higher or lower, holes being made for that purpose, by which the stroke of the rod, C, may be lengthened or shortened.

We will now explain how the lower ends of the teeth are thrown up when they meet with obstacles in the earth. K are draw rods (one seen) secured to the front of the side rails, *l*, in the usual manner, the ends of the said draw rods being forked and fitting in eyes. The opposite ends of the said rods are also forked, and in these forks the hollow teeth, J J, fit; to the front of each hollow tooth there is a lever, L, attached by a pivot, *k*; this lever passes up through the fork in the end of the draw rod, and is attached by a pivot, *m*, a lever, M, which is secured to the draw rod by a pivot, *l*. O is a frame hung loosely by pivots, *n*, to the side rail, *b*; the ends of this frame rests upon the levers, M M.