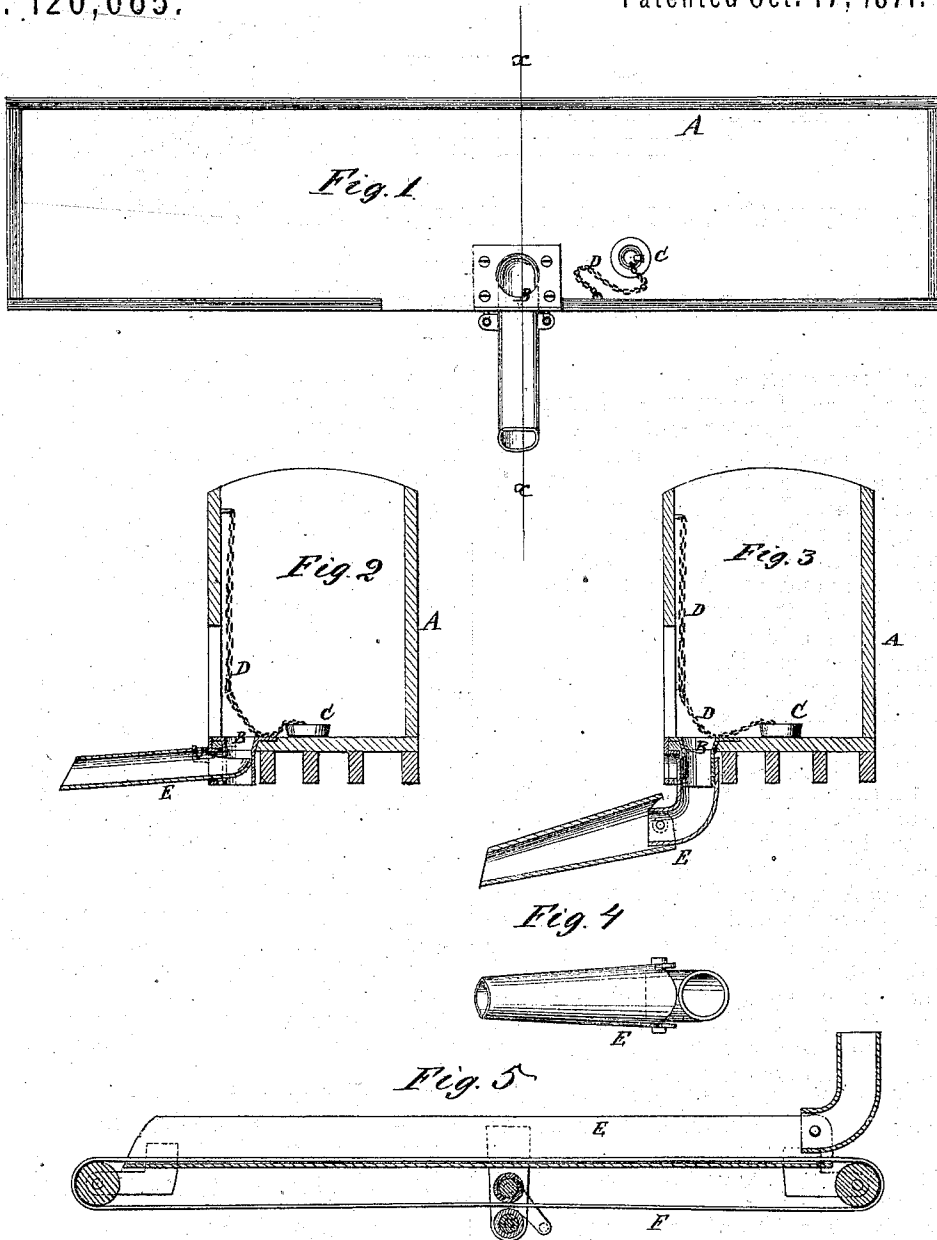


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Improvement in Devices for Discharging Grain from Railway Cars.

No. 120,065.

Patented Oct. 17, 1871.



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IMPROVEMENT IN DEVICES FOR DISCHARGING GRAIN FROM RAILWAY CARS.

Specification forming part of Letters Patent No. 120,065, dated October 17, 1871.

To all whom it may concern:

Be it known that I, SAMUEL W. HAWES, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Device for Discharging Grain from Railroad Cars, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification.

My invention consists in the improvement of devices for discharging grain from cars, as hereinafter fully described, and subsequently pointed out in the claims.

In the accompanying drawing, Figure 1 is a top view of a railroad car, showing the opening, the valve, and the spout. Figs. 2 and 3 are vertical cross-sections of Fig. 1 taken on the line *xx*, showing delivery-spouts applied to the opening. The grain from railroad cars is usually discharged into elevators or into vessels or barges at the docks, and to provide for the varying height of the tide, on tide-water, it is necessary to have the delivery-spouts made adjustable or removable. Fig. 4 shows the adjustable spout, Fig. 3, detached. Fig. 5 represents a longitudinal section of an adjustable spout provided with an endless apron, by the revolving of which by a crank the grain may be elevated or carried on a level.

Similar letters of reference indicate corresponding parts.

A is the car. B is the opening in the bottom near the middle of the car, consisting of a valve-tube of any desired or convenient form, to the top of which is fitted the valve or cover C. D is a chain attached to the valve and to the upper part of the car, so that the valve can be raised when the car is full or nearly full of grain. E represents the spouts connected with the tubular

opening B in any manner—either to the side, as seen in Fig. 2, or to the bottom, as seen in Fig. 3. In the former case the delivery-spout slips into the tube and stops the lower aperture. In the latter case the spout slips on the tube and closes the side opening.

Ordinarily the spout is made in two parts jointed together, so that the outer or delivery end may be raised or lowered, as may be found convenient, to suit the point of delivery. The spouts may be made in any form, open or closed, and when it is necessary to move the grain horizontally, or even to elevate it the revolving endless apron F may be combined with the delivery-spout, as seen in Fig. 5, and revolved by means of a crank by hand or otherwise.

In an ordinary car the valve-tube B will be from twelve to fifteen inches in diameter, so that a car-load may be discharged in three or four minutes, the delivery-spouts being, of course, made in proportion as to size.

This improvement may be applied to wagons as well as to cars, and its advantages over the ordinary mode of delivery are many and obvious.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A discharge-spout, B E, placed at the bottom of a grain-transporting car, combined with an endless carrier-belt, F, as and for the purpose specified.

2. A discharge-spout for grain-transporting cars, consisting of the tube B, combined with the double and jointed tubes E, as described and shown in Fig. 3 of drawing.

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Witnesses:

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