E. Maguire.

Coal Chute.

No. 67,995. Patented Aug. 20, 1867.

Fig: 1.

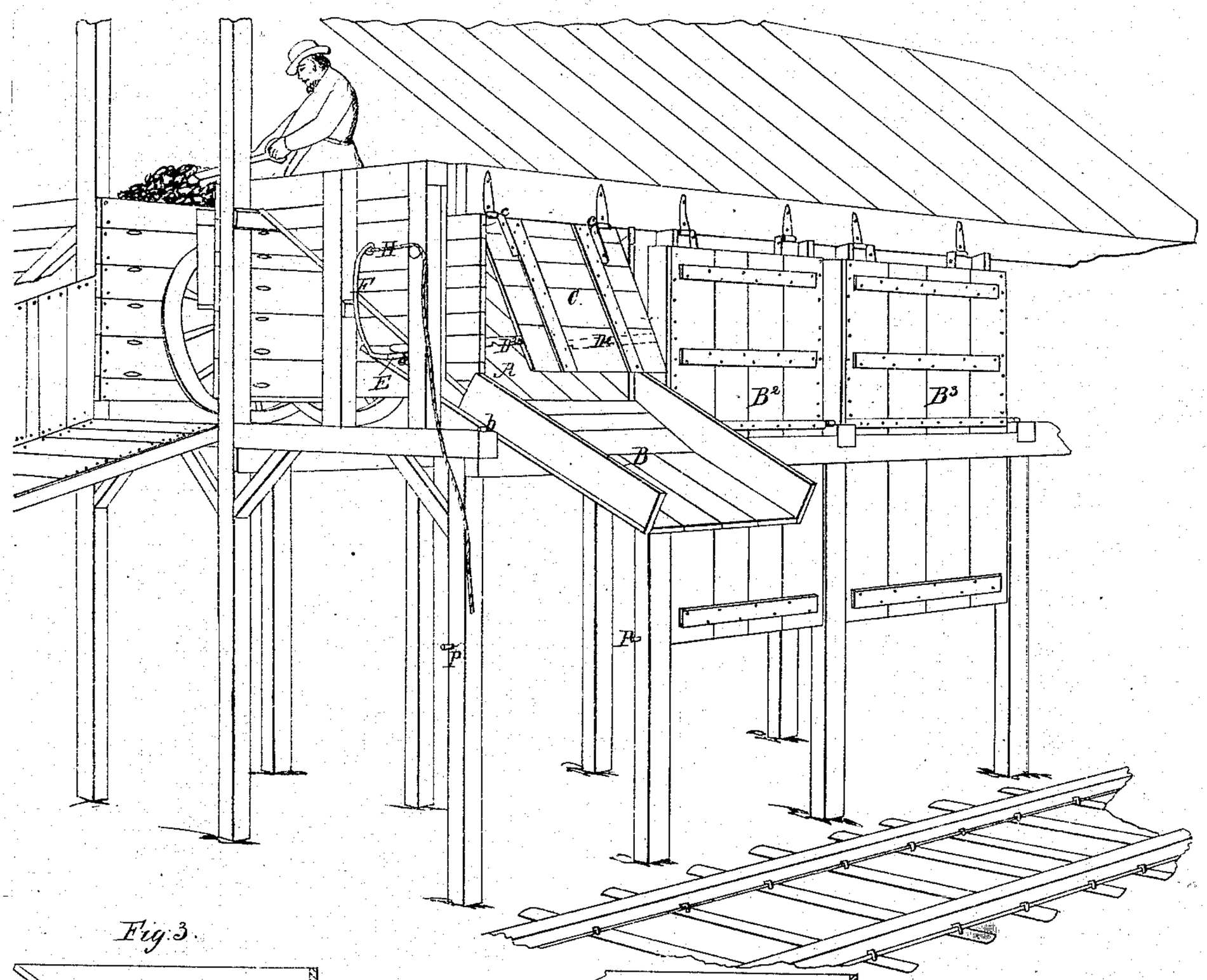


Fig: 3.

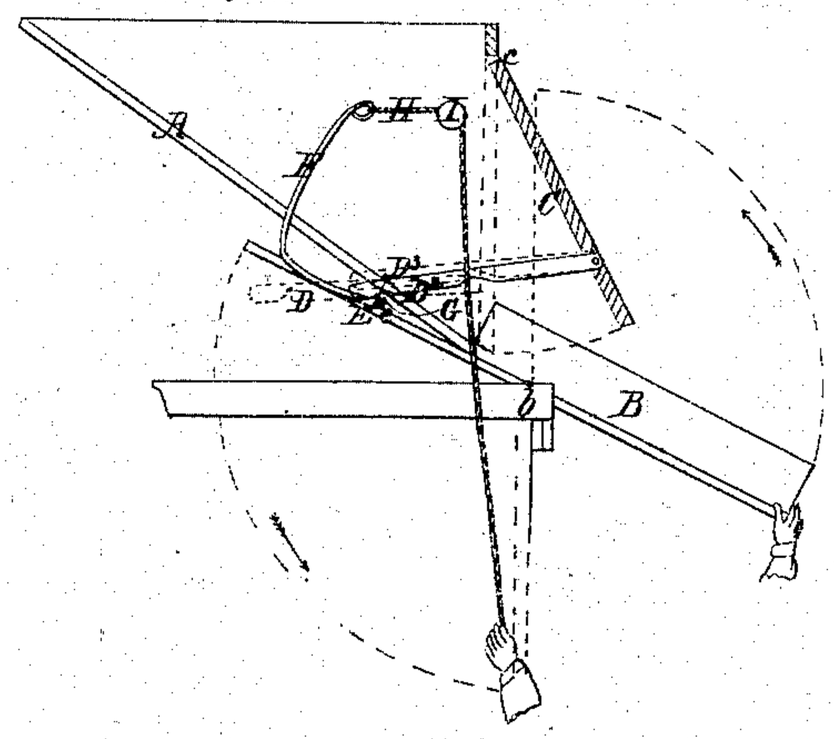
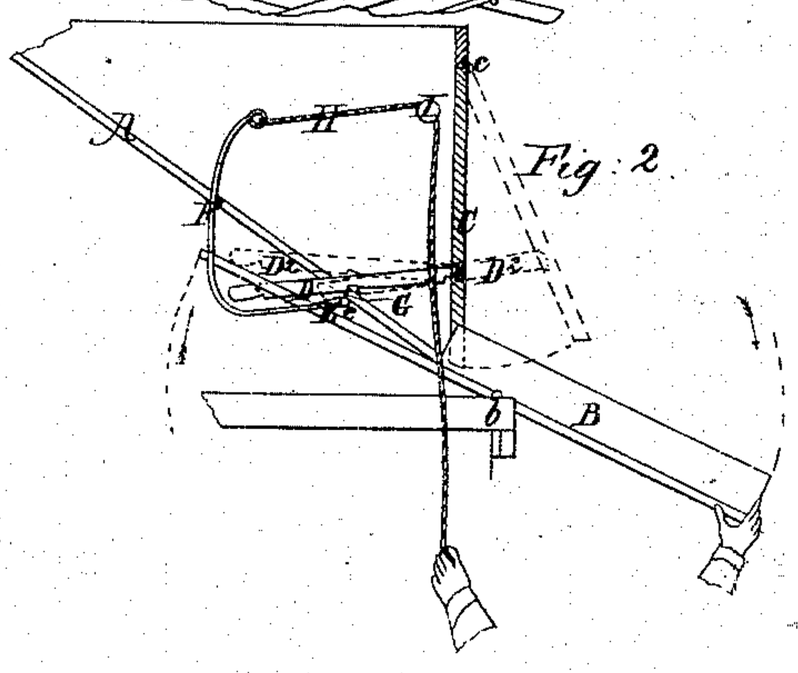


Fig: 2.



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United States Patent Office.

EPHRAM MAGUIRE, OF KEWANEE, ILLINOIS.

Letters Patent No. 67,995, *dated August* 20, 1867.

IMPROVED COAL-CHUTE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EPHRAM MAGUIRE, of Kewanee, in the county of Henry, and State of Illinois, have invented a new and useful improvement in Coal-Chutes for supplying locomotive tenders, etc.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made part of this specification, and in which—

Figure 1 is a perspective view of a series of chutes constructed upon my improved plan.

Figures 2 and 3 are sectional views illustrating the mode of operation.

Similar letters of reference indicate corresponding parts in the several figures.

To discharge the contents of the chute into the locomotive tender with facility and dispatch is the object of this invention; and to this end the chute is provided with a hinged door, to conduct the coal from the chute to the tender, and also with a hinged door, to guard the chute at its mouth or discharging end, together with accessory devices, so arranged that the conducting door, in being turned into position for use is made to release the other door and permit the coal to discharge from the chute, a novel provision being made for closing the chute, to adapt the same to be refilled.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe it in detail.

In the drawings, A may represent the permanent inclined bottom or bed of an ordinary chute. B is a door, which is hinged at *b*, and provided with side pieces *b' b'*, to adapt it, when turned down, as in figs. 2 and 3, to form a continuation of chute A, for the purpose of conducting the coal from the latter to the tender of the locomotive. C is a door, hung upon hinges at *c*, and applied for the purpose of guarding the mouth or discharging end of the chute. The door C is held in either its open or closed position by means of the arms D^2, one of which is pivoted at either side of the door C, near the lower end thereof, and each of which is formed with notches *o* and *s* respectively. The arms D^2 pass through slots in the bottom of the chute, as represented.

When the chute is closed, the door B is turned up, so as to occupy the upright position in which it is seen at B^2, fig. 1, in which position it is held by a pin, *p*, which is passed through an aperture in the supporting post and into a corresponding hole in the lower end of door B.

To open the chute to permit the coal to discharge therefrom, the pin *p* is withdrawn, and the door B swung down, to form a continuation of the chute, as above described. That part of the door B which swings up under the chute A strikes the ends of the arms D^2, and thereby disengages the notches *s* from the stationary catches G, the arms D^2 being thrown upward, as represented by the dotted lines in fig. 2. The door C being thus released, is thrown open by the weight of the coal within the chute, and the notches *o* on the arms D^2 are thereby made to engage with the catches G, so as to retain the door C in its open position while the coal descends upon the inclined chute now formed by A and B.

E represents a horizontal bar, which is hinged at the edge *e*, and placed directly under and contiguous to the arms D^2. The outer end of the bar E carries a bent rod, F, to which is attached a rope, H, which is passed over a grooved pulley, I, and allowed to hang so as to be conveniently reached by a person standing upon the ground.

The contents of the chute having been discharged, the rope H is pulled, and the bent rod F thereby made to turn bar E, so as to raise the arms D^2 sufficiently to disengage the notches *o* from the catches G, when the door C, being left without support, closes of itself, the notches *s* taking over the catches G, in order to hold the door firmly in its closed position while the chute is being refilled. The conducting door B is turned into its upright position by hand, and is thus held by the pin *p* till the chute is to be emptied, as above described.

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

The hinged bar E, rod F, and rope H, arranged and employed as described, in combination with the doors B C, notched arms D^2, and catches G, all arranged and operating in the manner and for the purpose specified.

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