E. W. BYRN.

Coal-Hod.

No. 160,873. Patented March 16, 1875.

Fig. 1.

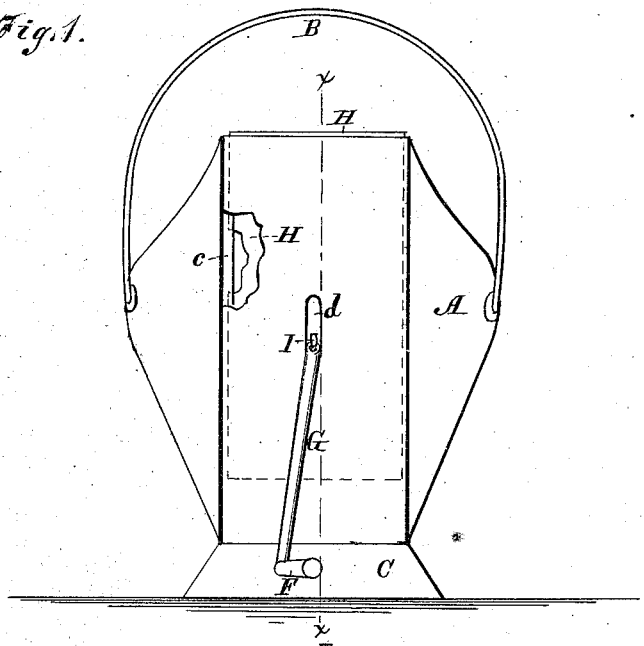


Fig. 2.

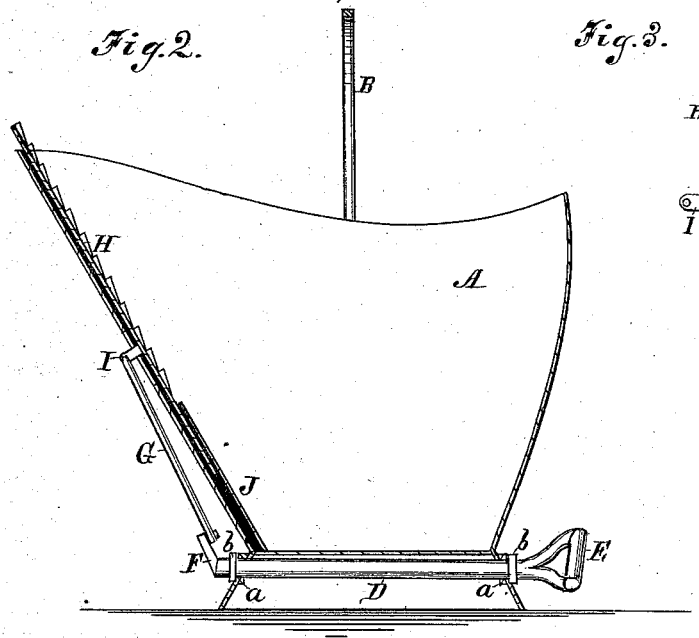
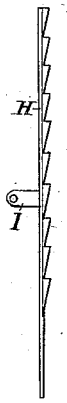


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWARD W. BYRN, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO HIMSELF AND THOMAS F. REA, OF SAME PLACE.

IMPROVEMENT IN COAL-HODS.

Specification forming part of Letters Patent No. **160,873**, dated March 16, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, EDWARD W. BYRN, of the city of Washington, in the District of Columbia, have invented a new and useful Improvement in Coal-Hods; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical front elevation; Fig. 2, a vertical section of Fig. 1 through line *x x*, and Fig. 3 a detail of the slide.

This invention relates to certain improvements in coal-hods; and it consists in the combination, with a coal-hod, of a reciprocating slide, the face of which is wrought into transverse forwardly-inclined ridges, which, after the manner of saw-teeth, slide under the coal during the retrograde movement, and urge the same forward with a positive motion on the advance movement. It also consists, in combination with a coal-hod, of a rock-shaft, which terminates at one end in a handle for tilting the scuttle and operating the slide, and at the other in a crank for converting the rotary motion into a rectilinear one. The invention further consists in the combination of the rock-shaft, the connecting-rod, and the reciprocating slide.

In the drawings, A represents the body of the coal-hod; B, the supporting-handle, and C the base-frame, which latter is made preferably a little deeper than usual, to allow plenty of room for the operation of the devices hereinafter described. D is the rock-shaft, which is journaled in bearing-plates *a*, attached to the base-frame, and provided with a handle, E, projecting from the rear of the hod, by means of which the hod is tilted and the said shaft is rocked. This said rock-shaft D is held in position by collars *b*, in the place of which pins may be used, and terminates, at the end opposite the handle, in a short crank, F, which is attached to a connecting-rod, G, extending about half-way up the hod. H is a reciprocating slide, which moves in guideways *c*, and forms the bottom of the channel through which the coal is discharged. The said slide has its face wrought into transverse forwardly-inclined ridges, as shown in Fig. 3, which, like saw-teeth, slide under the coal when retracted, and delivers the coal with a positive motion when advanced. I is an extension attached to the under side of the slide H, which moves in a vertical slot, *d*, in the outer casing, and is attached to the rod G in such a manner as to allow the latter a slight radial motion. J is a lip or inner casing of sheet metal, extending up over the lower end of the slide, for the purpose of relieving the slide of a portion of the superincumbent coal, and also for the purpose of preventing portions of the coal from obstructing the backward motion of the slide. This said casing may have at its lower end a transverse slot, to admit the removal of accumulated coal-dust.

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

1. The combination, with a coal-hod, of a reciprocating slide, having its face wrought into transverse forwardly-inclined ridges, which form the bottom of the channel through which the coal is discharged, substantially as and for the purpose described.

2. The combination, with a coal-hod, of a rock-shaft having at one end a handle for tilting the hod and rocking the shaft, and at the other a crank for converting the rotary into a rectilinear motion, substantially as described.

3. The rock-shaft D, provided with a suitable handle, in combination with the connecting-rod G and the reciprocating slide H, substantially as and for the purpose described.

This specification of my invention signed by me this 27th day of February, A. D. 1875.

EDWARD W. BYRN.

Witnesses:

CHAS. A. PETTIT,

T. P. SIMPSON.