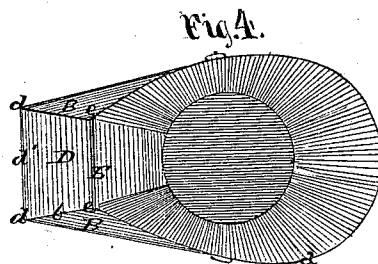
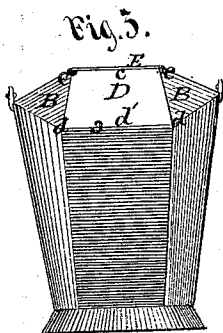
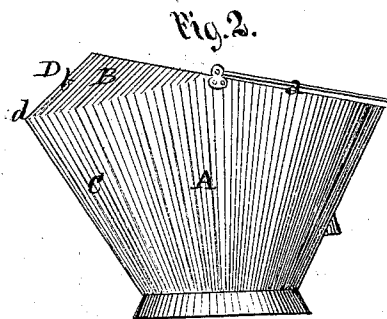
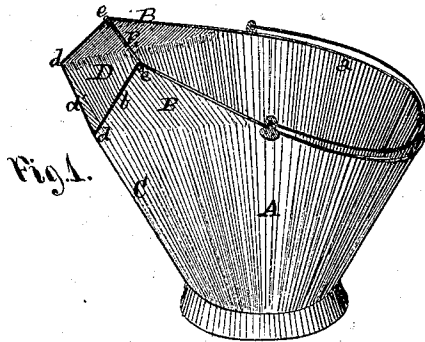


D. SMITH.

Coal-Scuttles.

No. 133,806.

Patented Dec. 10, 1872.



Witnesses. { James Easterly.
Alex. Selkirk David Smith
Inventor.

UNITED STATES PATENT OFFICE.

DAVID SMITH, OF ALBANY, NEW YORK.

IMPROVEMENT IN COAL-SCUTTLES.

Specification forming part of Letters Patent No. 133,806, dated December 10, 1872.

To all whom it may concern:

Be it known that I, DAVID SMITH, of the city and county of Albany, State of New York, have invented certain new and useful Improvements in Coal-Hods; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 represents a perspective view of the coal-hod embodying the improvements in this invention; Fig. 2 is a side view of the same; Fig. 3 is a front view; and Fig. 4 is a vertical view of the same.

My invention relates to a new article of manufacture; and consists in a coal-hod so constructed as to embrace the following elements, to wit: A sloping, open, flaring top, gathering-wings, a sudden slope of the discharge-mouth, a contraction of the upper portion of the discharge-mouth within the line of the lower lip of the same, a contraction of the breast of the hod at its bottom greater than at the discharge-mouth, and a hook or rod connecting the wings, all of which are so arranged as to effect a clear, full, and free discharge of the coal when tilted without the least liability of the hod being overflowed at any part.

To enable others skilled in the art to make and use my invention, I will proceed to describe it in reference to the drawing and the letters of reference marked thereon, the same letters indicating like parts.

In the drawing, A represents the body of the hod, made with a flaring open top, as shown, which top is constructed with the inclination *a* from the front to the rear, as in Figs. 1, 2, and 3. B B are gathering-wings, commencing front of the bail-ears and terminating at the mouth of the hod, with their upper portions shelving inward over the funnel C of the hod, as shown. D is the discharge-mouth. The lower lip is formed by the upper edge of the breast of the funnel, while its sides are formed by the front edges of the wings B B. The said mouth is made with the very considerable slope *b*, as shown in Figs. 1 and 2. The upper portion of the said mouth is so constructed that its outer points *e' e''* will line within the outer points *d' d''* of the lower portion *d* of the said mouth, as shown in Figs. 3 and 4. E is the connecting-bar, which attaches

with each of the gathering-wings B B at their top termination with the mouth D. The said connecting-bar consists of a hook, one end of which may be hinged permanently to one of the wings, while the other end may be made so that it can be readily disconnected from the opposite wing when desired. The breast C of the funnel is made more contracted at the bottom than at the lower lip *d'* of the mouth, as shown in Figs. 3 and 4.

The manner in which the several parts of this invention operate to produce the intended new results is as follows: First, the sloping open top *a* prevents the upper surface of the coal (when the hod is filled) from assuming a horizontal position, and causes the greatest and highest body of the coal to lie in close proximity to the discharge-funnel C, or directly over the same, so that when the hod is tilted to discharge the said higher body of coal will be discharged before the coal lying back will be moved forward; and when the coal lying back is made to move forward it will move below a line with the sloping top edge *a*, and be incapable of overflowing the sides of the hod, which operation and results cannot be secured with hods having a horizontal line of top edge, as now used. Second, the gathering-wings B operate with the sloping top edge of the hod, with which they connect, to gather the coal (the hod being moved to a discharge) from the bulk lying back in the more flaring portion of the hod, and prevent a too rapid flow of the coal from the rear, the forward rising of the sloping top edge *a* operating in the while to guide the coal, in its forward movement, into the space between the said gathering-wings. Third, the great inclination *b* or sudden slope of the discharge-mouth D operates to permit the coal to have a quick flow, with a considerable depth of coal from the space between the gathering-wings B B and in the funnel C, which effectually prevents the coal overflowing off the wings when being poured out either slowly or suddenly. Fourth, the contracted upper portion of the mouth D, between the points *e e*, operates to cause the stream of coal flowing from the said mouth to fall considerably within a line with the points *d d* of its lower lip *d'*, and thus prevents the coal, when being discharged, from scattering and falling outside a line with the outer corners of the

said mouth. Fifth, the contraction of the lower portion of the breast C of the funnel of the hod and its enlarged width above effectually prevent any clogging or lodgment of coal in the funnel, and operate to give a rapid discharge for the coal throughout the whole depth of the funnel. Sixth, the hook E operates to hold the gathering-wings in a sure position, and prevents the said wings from being bent out. Having described my invention, what I

claim, and desire to secure by Letters Patent, is—

An article of manufacture, consisting of the coal-hod constructed to embrace the several elements specified, substantially as and for the purpose set forth.

DAVID SMITH.

Witnesses:

JAMES EASTERLY,
ALEX. SELKIRK.