(No Model.)

J. S. FAHRINGER & M. CRIPPEN.

SLATE SEPARATOR FOR COAL CHUTES.

No. 266,448. Patented Oct. 24, 1882.

Fig. 1

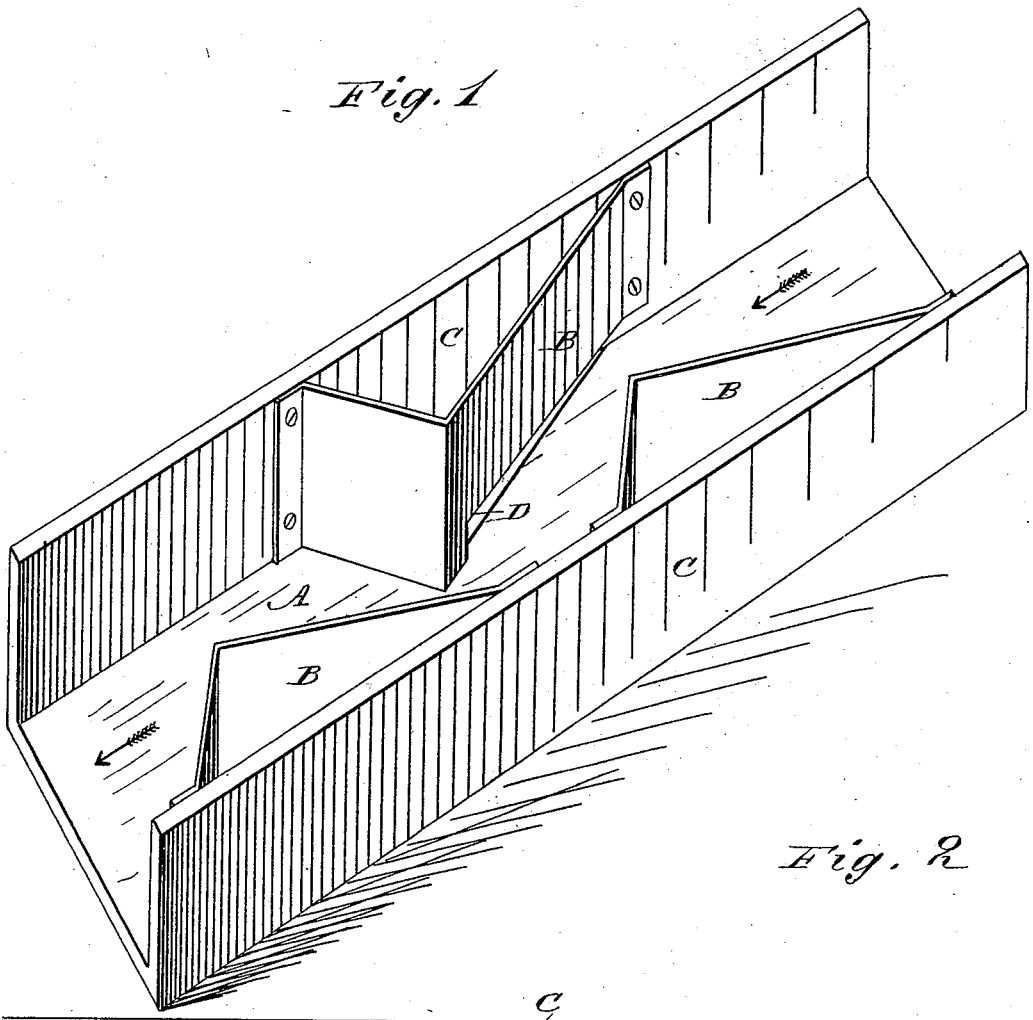
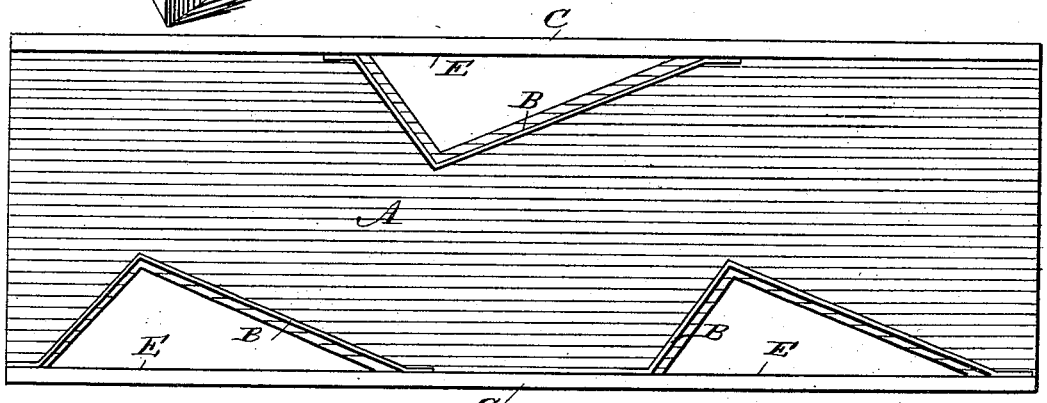


Fig. 2



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UNITED STATES PATENT OFFICE.

JEREMIAH S. FAHRINGER AND MARTIN CRIPPEN, OF DICKSON BOROUGH, PENNSYLVANIA.

SLATE-SEPARATOR FOR COAL-CHUTES.

SPECIFICATION forming part of Letters Patent No. 266,448, dated October 24, 1882.

Application filed June 27, 1882. (No model.)

To all whom it may concern:

Be it known that we, JEREMIAH S. FAHRINGER and MARTIN CRIPPEN, of Dickson Borough, in the county of Lackawana and State of Pennsylvania, have invented a new and Improved Slate-Separator for Coal-Chutes, of which the following is a full, clear, and exact description.

The object of our invention is to facilitate the removing of pieces of slate from coal.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a perspective view of a coal-chute provided with our improved slate-separators. Fig. 2 is a plan view of the same.

On the upper side of the bottom of a coal-chute, A, a series of plates or aprons or separators, B, rest, which plates or separators are secured to the sides C of the chute and are inclined toward the lower end and the longitudinal middle line of the chute. The plates or separators B are alternately attached to opposite sides of the chute, and they alternately project in opposite directions, as is shown in Fig. 2. Each plate or separator has its bottom edge cut out in such a manner that a longitudinal slot, D, will be formed at the bottom of each plate or separator, which slots gradually increase in width from the upper toward the lower ends. Between each plate or separator B and the sides of the chute an aperture, E, is made in the cleats, and from these apertures chutes lead to the slate-receiving cars. The lower or outer ends of the plates or separators are preferably braced by bending the plate of which the separator is made so as to form a triangular pocket when attached to the side of the chute, or the free ends of the separators can be braced in any other suitable manner.

As is well known, the pieces of slate that appear in coals are all flat. As the coal runs down the chute the lumps of coal will strike one plate or separator, will be deflected in its course and thrown against the next lower plate or separator, and so on. In this manner the coals will pass through the chute in a zigzag line, striking each separator or plate B. Every time the coals strike a separator the coals only will be deflected, as they cannot pass through the slots D, but the flat pieces of slate pass through the slots D and through the apertures E into the slate-chutes, and thus a part of the slate will be removed each time the coals strike against a plate or separator. If a piece of slate catches and is jammed in the slot D, the following pieces of coal will drive it downward into the wider part of the slot, through which it can drop.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a slate-separator, the combination, with a chute, of a series of plates projecting downwardly and inwardly from the sides of the said chutes, and each having a tapering opening between its lower edge and the bottom of the chute for the passage of the slate, substantially as herein shown and described.

2. In a slate-separator, the combination, with the chute A, provided with apertures E, of a series of plates, B, projecting inwardly and downwardly from opposite sides of the chute, which plates have slots D formed in the lower edges, substantially as herein shown and described, and for the purpose set forth.

3. In a slate-separator, the combination, with the chute A, provided with apertures E, of a series of plates, B, projecting inwardly and downwardly from the sides of the chute, which plates B have slots D increasing in width from the upper toward the lower ends formed in the lower edges, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with the chute A, of the plates or separators B, projecting inwardly and downwardly and alternately from opposite sides, the slots D in the lower edges of the plates, and the apertures E, formed in the chute A, between these plates and the sides of the chute, substantially as herein shown and described, and for the purpose set forth.

JEREMIAH S. FAHRINGER.
MARTIN CRIPPEN.

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