

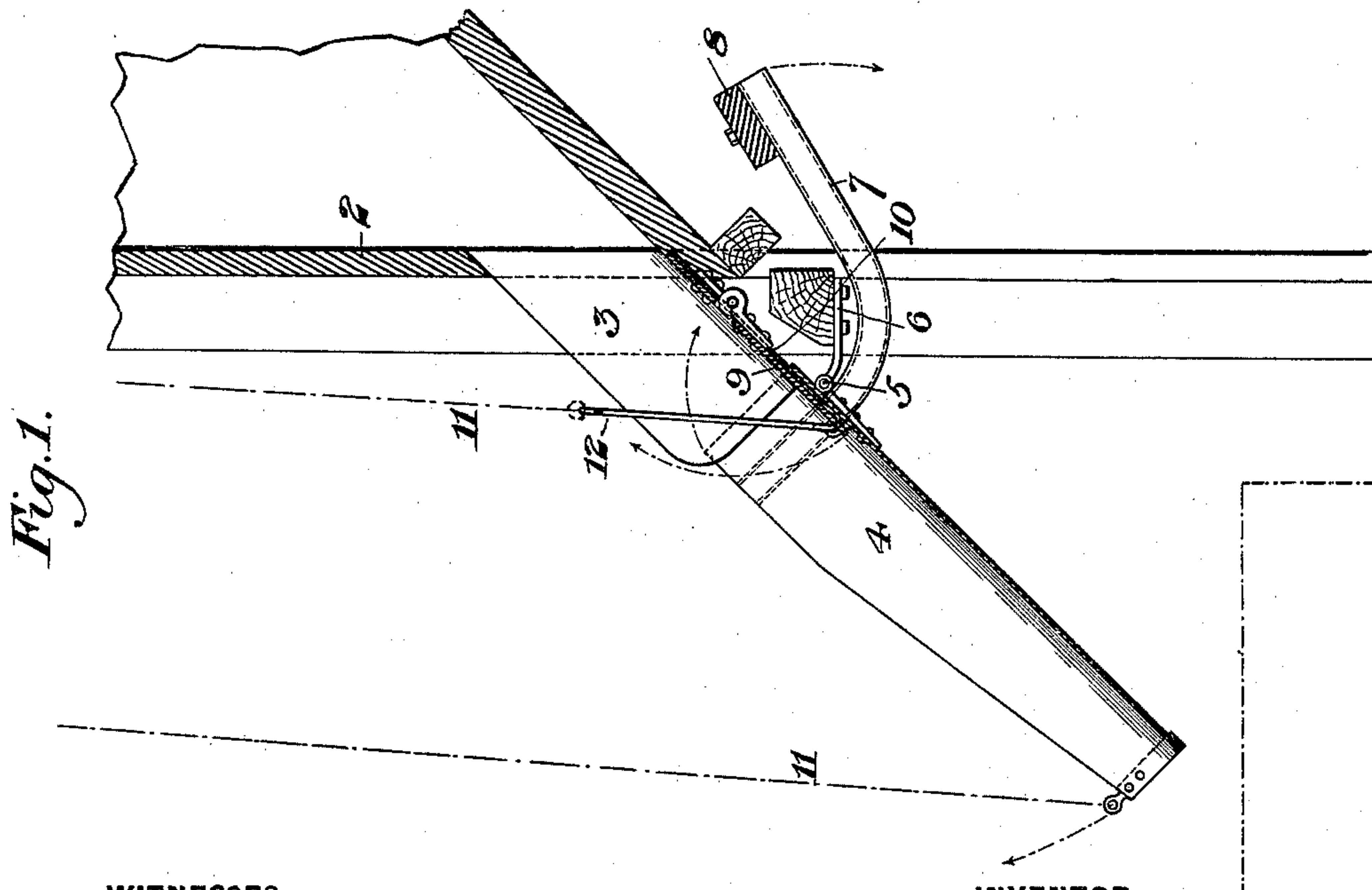
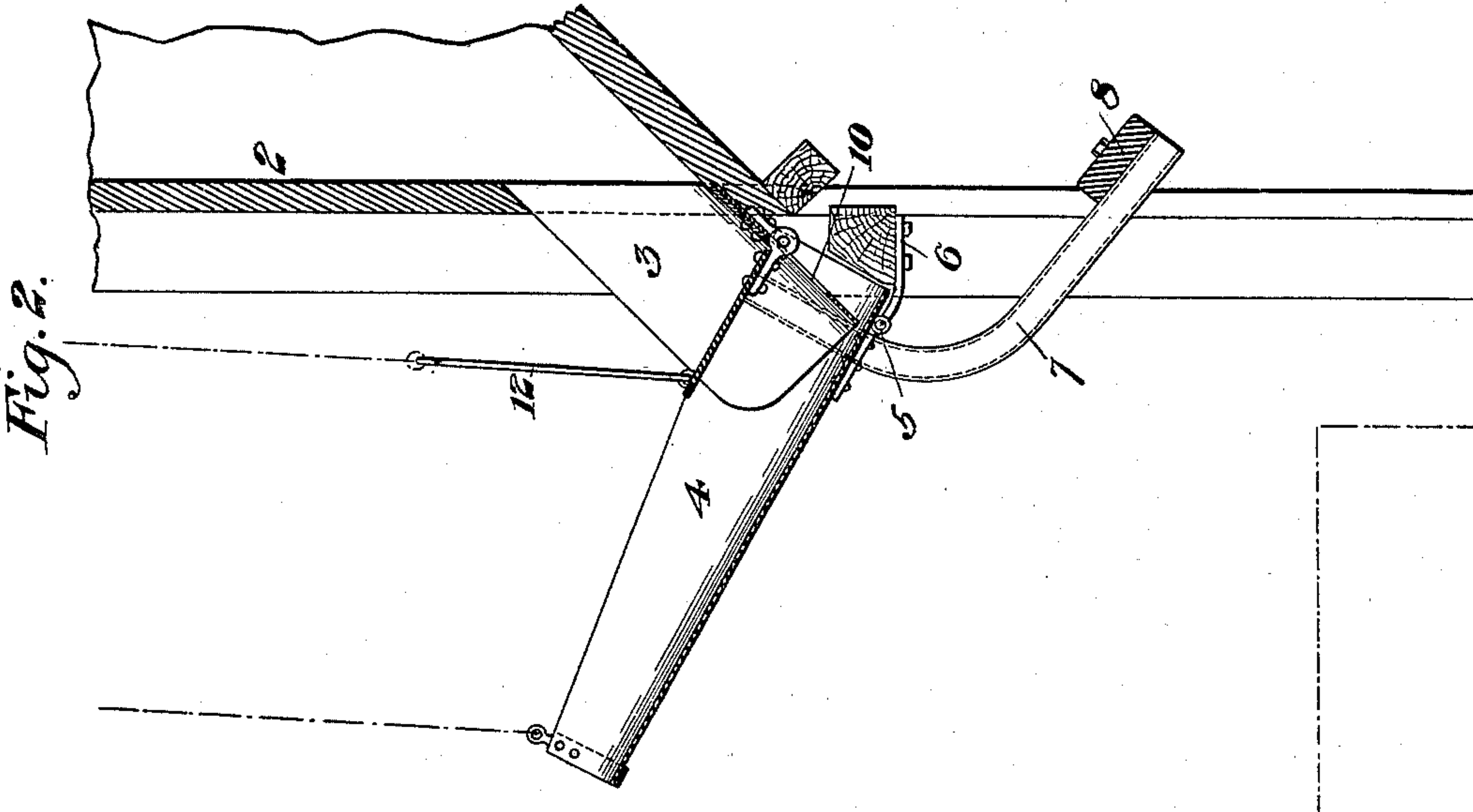
No. 639,051.

Patented Dec. 12, 1899.

G. H. HUTCHINSON.
CHUTE FOR BINS.

(Application filed Aug. 22, 1898.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE HUNT HUTCHINSON, OF WILKINSBURG, PENNSYLVANIA.

CHUTE FOR BINS.

SPECIFICATION forming part of Letters Patent No. 639,051, dated December 12, 1899.

Application filed August 22, 1898. Serial No. 689,219. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HUNT HUTCHINSON, of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Chutes for Bins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a vertical longitudinal section showing my improved chute in operative position, and Fig. 2 is a similar view showing the auxiliary door closed and the tilting chute-section swung upwardly.

15 My invention relates to that class of chutes for ore, coal, &c., wherein the lower portion is hinged or otherwise supported so that it may be moved out of the way of passing cars or locomotives when not in use; and it is designed to provide means whereby the supply of material may be cut off from this extension before it is moved into closed position, so that this movement may be easily and quickly made with the movable extension empty.

25 In the drawings, 2 represents the side of a bin having a chute leading therefrom. This chute consists of two parts—a rear stationary part 3, secured to the bin, and a forward oscillating portion 4, which is hinged at 5 to brackets 6, projecting from the bin structure.

30 The upper end of this lower portion or extension laps over and surrounds the lower end of the upper portion, and to rearwardly-projecting curved arms 7 of this lower portion is fixed a counterweight 8. An auxiliary shut-off door or plate 9 is pivoted within the upper portion 3 of the chute, the bottom being slotted, as shown at 10, for the reception of the hinges, so that this door may lie flat when

40 open, as shown in Fig. 1. The door 9 and the swinging portion 4 of the chute are operated by suitable chains 11, secured to swinging bails 12 at their outer ends.

When loading a car, the parts are lowered into the position shown in Fig. 1, the ore, coal, 45 or other material sliding freely through the chute and dropping into the car, the position of which is indicated by dotted lines. When it is desired to stop the flow of material, the auxiliary door is lifted and the material remaining in the swinging portion of the chute 50 then slides out, leaving this portion empty. It is then swung up out of the way, the parts being brought to the position shown in Fig. 2.

The advantages of my invention will be apparent to those skilled in the art, since by the use of the intermediate shut-off plate the supply of material may be cut off from the swinging portion of the chute and this portion easily raised, it being empty. 60

The movable section of the chute may be supported and moved in some other manner than that shown, as may also the shut-off door, without departing from my invention, since 65

I claim—

The combination with an inclined chute having a swinging front section forming an extension substantially in line with the chute when in open position, a swinging shut-off 70 door pivoted in the chute above the level of the axis of the front section, said door being arranged to prevent any flow of material along the chute when raised and to rest within the front section when lowered, and mechanism 75 for swinging the door and the section upwardly and independently of each other; substantially as described.

In testimony whereof I have hereunto set my hand.

GEORGE HUNT HUTCHINSON.

Witnesses:

EDWARD J. HINGSTON,
JOHN T. REES.