

(No. Model.)

W. O. & J. O. V. WISE.  
CHUTE.

No. 365,421.

Patented June 28, 1887.

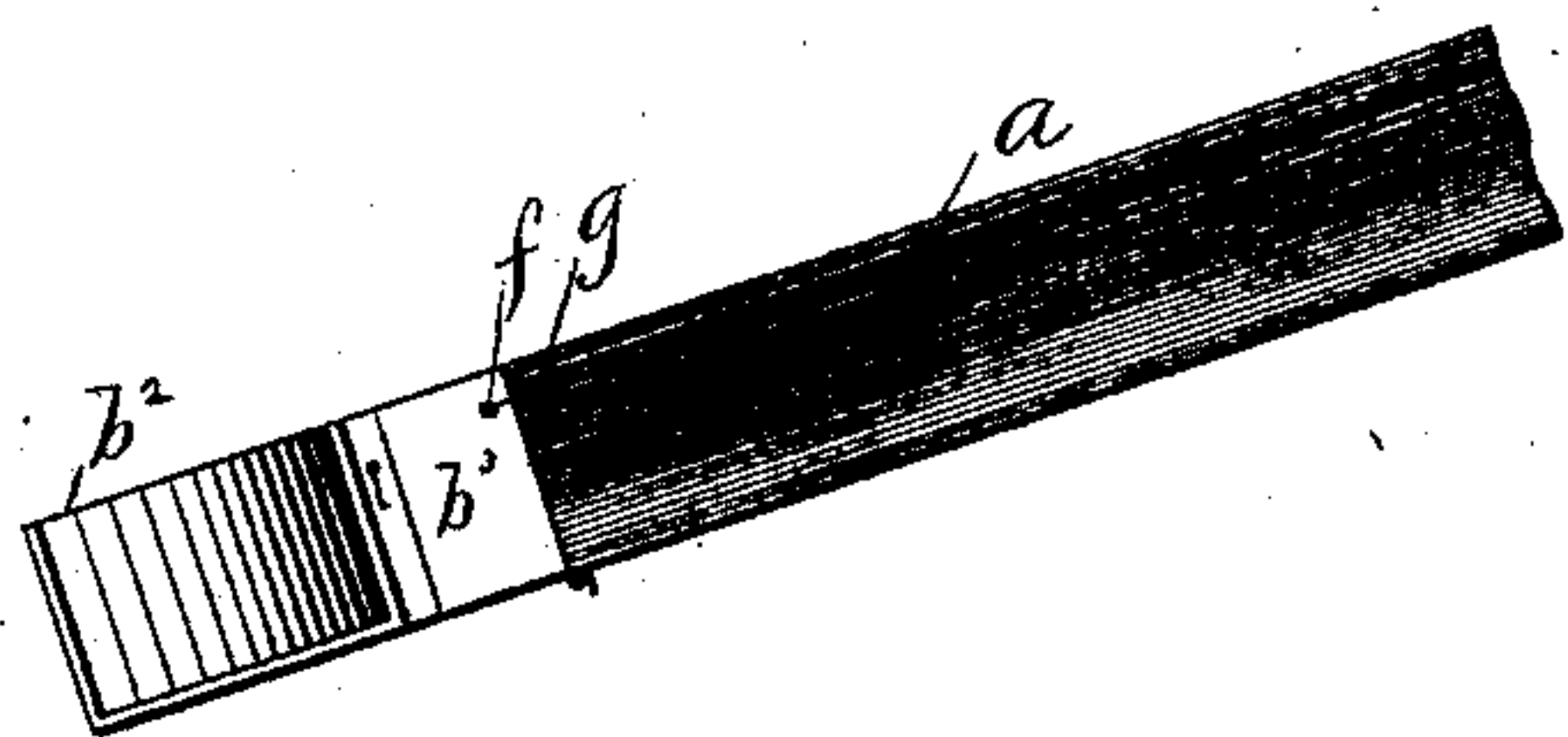


Fig 1

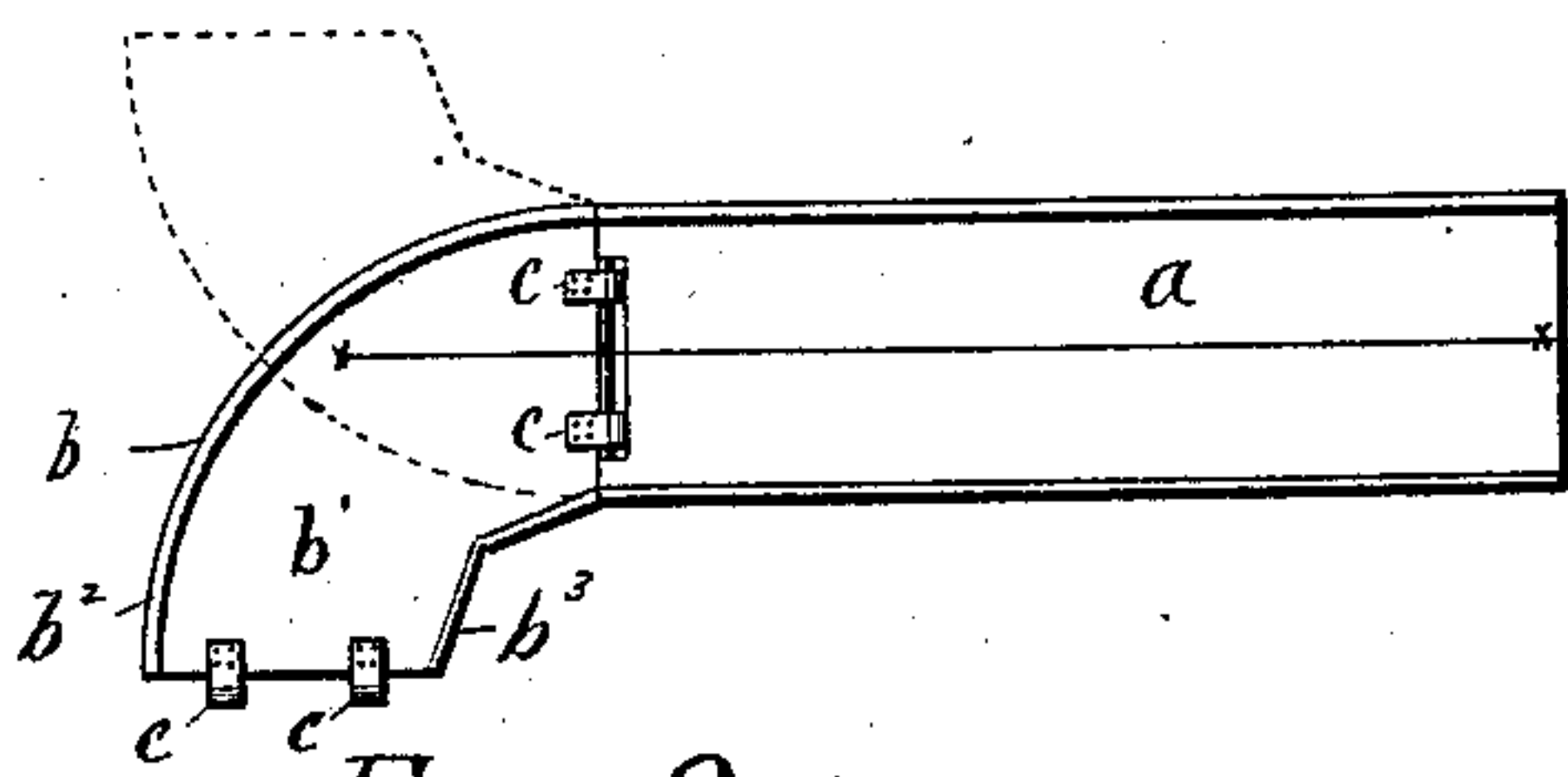


Fig 2

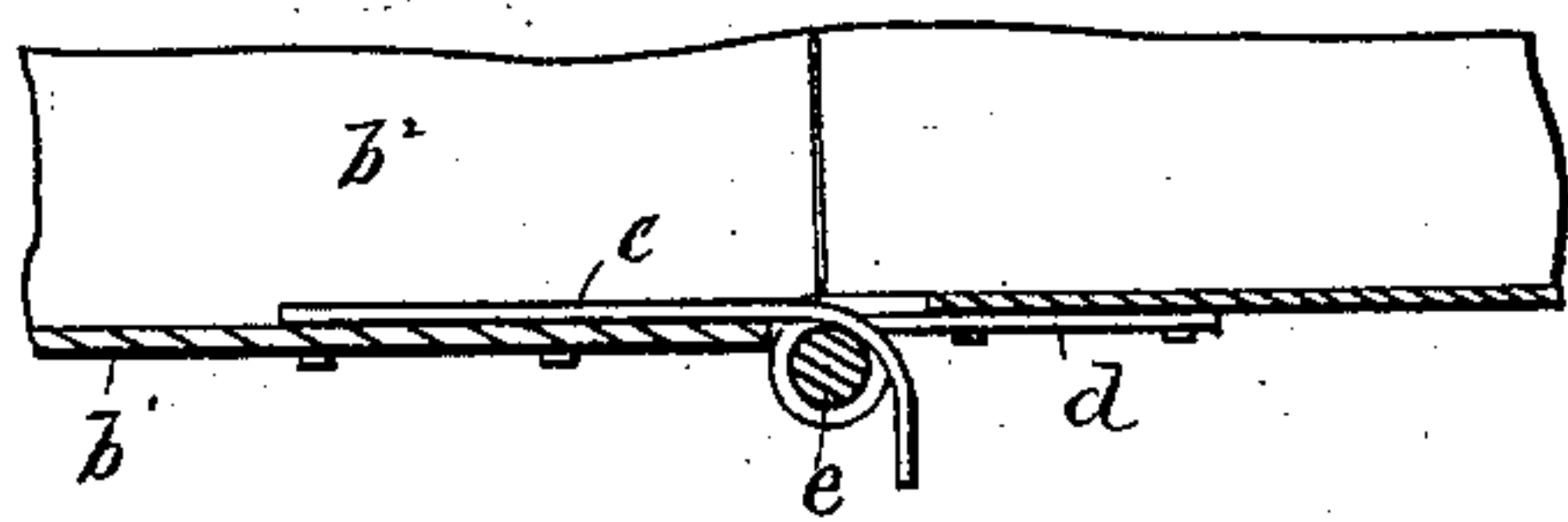


Fig 3

WITNESSES:

*N. W. Sullyrove*  
*P. J. Hurley*

INVENTORS

*William O. Wise*  
*Joseph O. V. Wise*

BY

*R. M. McDermott*  
Their  
ATTORNEY

# UNITED STATES PATENT OFFICE.

WILLIAM O. WISE AND JOSEPH O. V. WISE, OF CANFIELD, COLORADO.

## CHUTE.

SPECIFICATION forming part of Letters Patent No. 365,421, dated June 28, 1887.

Application filed April 1, 1887. Serial No. 233,275. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM O. WISE and JOSEPH O. V. WISE, both citizens of the United States, residing at Canfield, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Coal-Chutes; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to switches for coal-chutes; and the objects of our invention are, first, to provide a switch to combine with coal-chutes for loading railroad-cars, which switch will break the force of the coal sliding down the chute and cause it to be delivered at right angles to the chute on either side; second, to provide a delivery-switch for ordinary coal-chutes, which switch will turn the course of falling coal, so as to prevent the usual wear on the sides and doors of cars; third, to provide a switch for coal-chutes which will deliver the coal in such a manner that it will lessen the labor of stowing the cargo and reduce the cost of shipping. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the device. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view of a portion of the switch and chute on the line *xx* of Fig. 2.

Similar letters refer to similar parts throughout the several views.

In the drawings, *a* represents a coal-chute. *b* represents the switch. *b'* represents the bottom of the switch; *b<sup>2</sup>* and *b<sup>3</sup>*, the sides of the same. *c c c c* represent hooks fastened to the switch. *d* represents eye-straps attached to the chute. *e* represents a rod held in position by the eye-straps. *f* represents a hook on the switch. *g* represents a staple in the side of the chute.

The chute is of ordinary construction, being a bottom with two sides attached to it and made of any suitable material. The switch is formed as shown in the drawings, and has a bottom and sides corresponding in size with those of the chute. The hooks *c* are thin

plates of strap-iron bolted or riveted to the bottom of the switch at each end on its upper side and extend a short distance beyond the end of the switch. These projecting ends of the hooks are then turned down at right angles with the bottom of the switch, and two or more of these hooks should be used on each end of the switch. The eye-straps *d* are formed, as shown, with an eye in one end, and are securely bolted to the under surface of the bottom of the chute, near the outer sides. The rod *e* is a piece of round iron of sufficient length to extend across the chute from side to side and slightly beyond the eye-straps. The hook *f* is pivoted to the side *b<sup>3</sup>* of the switch, at any convenient place where it will engage with the staple *g*, which is held in the side of the chute near its top.

In setting the switch for operation the rod *e* is placed in the eyes of the eye-straps *d*. The hooks *c* on one end of the switch are passed down over the rod and the hook *f* fastened in the staple *g*; and should it be desired that the switch deliver the coal passing through it in the opposite direction, it is only necessary to remove the switch from the rod *e* and place the hooks on the other end of the switch in place, as before mentioned.

In operating, the coal is thrown into the chute at the upper end, when it will slide down and be turned to either side by the switch, and thus prevent the usual wear on the sides and doors of the car and at the same time deliver the coal, so that no extra handling will be necessary.

Having now fully explained our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

The switch *b*, consisting of the bottom *b'*, with the hooks *c* attached to its ends, and sides *b<sup>2</sup>* and *b<sup>3</sup>*, in combination with the chute *a*, having a bottom and sides corresponding with those of the switch and provided with eye-straps *d* and rod *e*, all substantially as described and set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM O. WISE.  
JOSEPH O. V. WISE.

Witnesses:

B. F. HERSHEY,  
WILLIAM ANGOVE.