

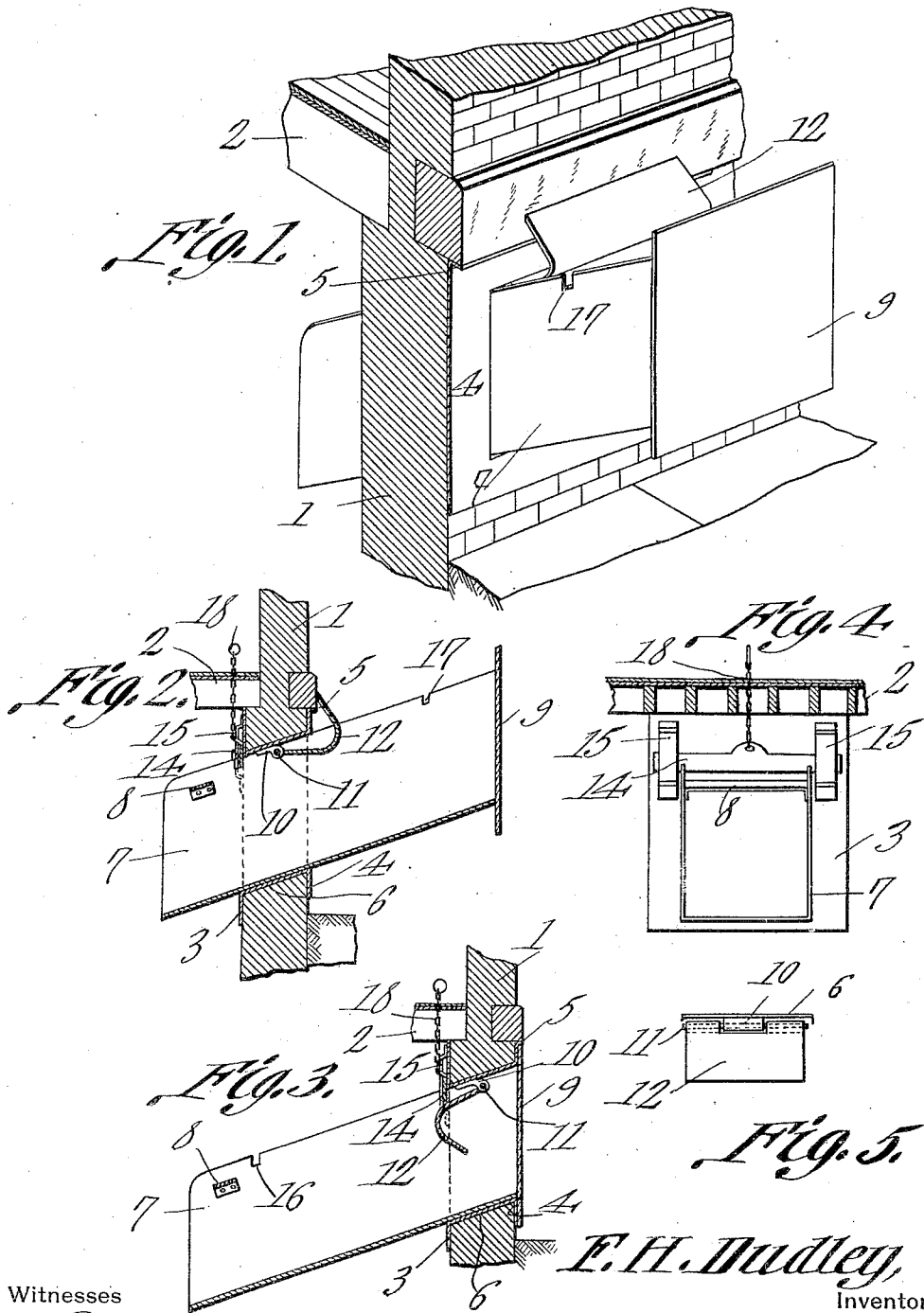
F. H. DUDLEY.

COAL CHUTE.

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1,049,464.

Patented Jan. 7, 1913.



Witnesses

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FRED H. DUDLEY, OF LINCOLN, NEBRASKA.

COAL-CHUTE.

1,049,464.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRED H. DUDLEY, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented a new and useful Coal-Chute, of which the following is a specification.

The device constituting the subject-matter of this application, is a coal chute, adapted to be employed primarily, although not exclusively, upon a building, to facilitate the introduction of coal and like material therein.

The invention aims to provide novel means for mounting the chute for sliding movement, to provide novel means for locking the chute in extended position and at the extremity of its inward movement, to provide novel means for actuating the locking mechanism whereby the chute is held in successive positions, to provide a member adapted to prevent the building from being injured, above the chute, when the material is cast into the chute, and to provide a structure in which the latch mechanism cannot be tampered with from the outside of the building in which the device is mounted.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—Figure 1 shows the invention in perspective; Fig. 2 is a vertical longitudinal section, the chute being disposed in protruding position; Fig. 3 is a vertical longitudinal section, the chute being disposed at the limit of its inward movement; Fig. 4 is a rear elevation of the chute and attendant parts; and Fig. 5 is an elevation of the deflector, together with the means whereby the same is pivotally mounted.

In the drawings, the numeral 1 indicates the wall of a building, the numeral 2 indicating the floor. To the rear face of the wall 1, a back plate 3 is secured, a front plate 4 being secured to the forward face of the wall, the front plate 4 being equipped along its upper edge with a laterally projecting lip 5, constituting a water table. A tube 6 extends through an opening in the

wall 1 and is connected with the back plate 3 and with the front plate 4, the tube 6 slanting downwardly and inwardly.

The members last above described constitute a supporting structure, in which the chute proper, hereinafter described, is mounted for sliding movement.

The chute is denoted generally by the numeral 7 and is open at the top, and at its inner end, the outer end of the chute 7 being closed by a face plate 9, and the side walls of the chute being connected adjacent their upper edges, and near their rear ends, by a brace bar 8. A bracket 10 is secured to the tube 6, intermediate the front and rear ends of the tube. The bracket 10 receives a rod 11, upon which is mounted for swinging movement, within the chute 7, a curved deflector, denoted by the numeral 12.

A latch bar 14 is provided, the same being mounted to slide in guides 15 which are secured to the back plate 3, upon both sides of the tube 6. In the upper edges of the side walls of the tube 7 there are spaced notches 16 and 17. A flexible element 18 is connected with the latch bar 14, the flexible element 18 being extended upwardly through the floor 2.

When the parts are positioned as shown in Fig. 3, the face plate 9 of the chute 7 will abut against the front plate 4. Under such circumstances, the lip or water table 5 overhangs the upper edge of the face plate 9, and consequently, water cannot leak down into the chute. When the parts are positioned as shown in Fig. 3, the latch bar 14 is engaged in notches 17 of the chute, so that the chute cannot be withdrawn. It is to be observed that the member 12 hangs pendant within the chute 7, between the face plate 9 and the locking mechanism 14—15. Consequently, should a person drill or bore through the face plate 9, intending to manipulate the locking mechanism 14—15 with felonious designs, such an operation will be frustrated by the member 12. In order to permit the chute 7 to be withdrawn from the position shown in Fig. 3, into the position shown in Fig. 2, it is not necessary for a person who is within the building, to pass into the cellar, and enter the coal bin, in order to disengage the latch bar 14 from its interlocking relation with the chute 7. The latch bar 14 may be lifted from above the floor 2, by drawing upon the flexible element 18, whereupon a person without the

building may withdraw the chute, until it assumes the position shown in Fig. 2, whereupon the flexible element 18 may be slacked away, permitting the latch bar 14 to drop into the notches 16, whereupon the chute 7 will be locked in protruding position shown in Fig. 2. When the parts are positioned as shown in Fig. 2, the curved deflector 12 may be swung upon its pivotal mounting 11 until the free end of the deflector bears against the wall 1, above the chute 7.

As will be understood readily, the deflector 12, when positioned as shown in Fig. 2, serves to prevent the building or other structure from being defaced by the coal or like material which is cast into the chute 7. Any desired means may be provided for holding the deflector 12 in the position shown in Fig. 2. Preferably, the end walls of the chute are made resilient, and the deflector 12 is of sufficient length so that the side walls of the chute will bear yieldingly against the ends of the deflector, and hold the same in the position shown in Fig. 2.

When it is desired to remove the chute 7 entirely, in order that cinders and the like may be shoveled out of the cellar, the rack bar 14 may be disengaged from the chute, whereupon the chute may be entirely withdrawn.

The device herein disclosed may be applied to a wall, irrespective of the thickness thereof, the length of the tube 6 being increased accordingly. There are no hinges or like connecting elements upon the outside of the building, likely to be rusted, or to be tampered with for the purpose of gaining unlawful entrance into the building. All of the wear incident to the passage of the material into the building is confined to the chute 7.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a wall; a floor; a chute slidable in the wall; a locking member mounted to slide upon the wall and adapted to engage the chute to hold the chute against sliding movement; and means extended through the floor and connected with the locking member, for manipulating the locking member.

2. In a device of the class described, a supporting structure; a chute mounted to slide therein; means at the rear of the supporting structure for locking the chute at the extremity of its inward movement; and a protector for the locking mechanism, pivotally connected with the supporting structure and interposed between the locking mechanism and the forward end of the chute.

3. In a device of the class described, a supporting structure; a chute mounted to slide therein; locking mechanism connected with the rear of the supporting structure and adapted to engage the chute to hold the chute at the extremity of its inward movement; and a curved member pivotally connected with the supporting structure and hanging pendant within the chute, the member being located between the locking mechanism and the forward end of the chute, said member being movable to position its forward end in abutment with the forward face of the supporting structure, above the chute, whereby said member may constitute a deflector.

4. In a device of the class described, a supporting structure; a front plate secured to one edge of the supporting structure; a back plate secured to the opposite face of the supporting structure; and a tube connecting the plates; a chute mounted to slide in the tube; a locking device movably mounted upon the back plate, the chute being provided with spaced elements, engageable by the locking device, to hold the chute in protruding relation with respect to the supporting structure, and to hold the chute at the extremity of its inward movement.

5. In a device of the class described, a back plate; a front plate; a tube connecting the front plate with the back plate and disposed diagonally of the plates; a chute mounted to slide in the tube; guides secured to the back plate; and a latch bar slidable in the guide, the side walls of the chute being provided with spaced notches, the latch bar being engageable in one of said notches to hold the chute in protruding position, the latch bar being engageable in the other of said notches, to hold the extremity of the chute in close relation to the front plate.

6. In a device of the class described, a wall; a floor; a chute slidable in the wall at an acute angle to the wall; a latch bar mounted to slide upon the wall, transversely of the chute, there being spaced elements upon the chute, engageable by the latch bar to hold the chute in protruding position, and to hold the chute at the limit of its inward movement; and means extended through the floor and connected with the latch bar, for manipulating the latch bar.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRED H. DUDLEY.

Witnesses:

GEO. H. LUX,

MARTIN V. GRAVES.