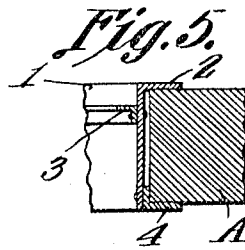
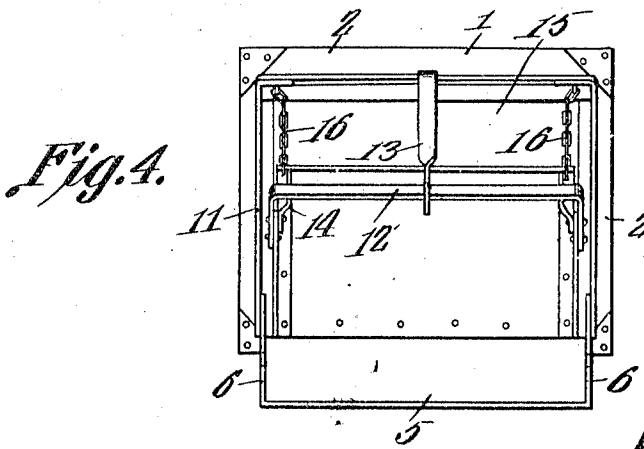
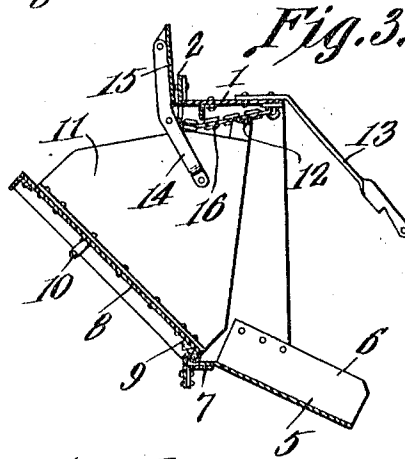
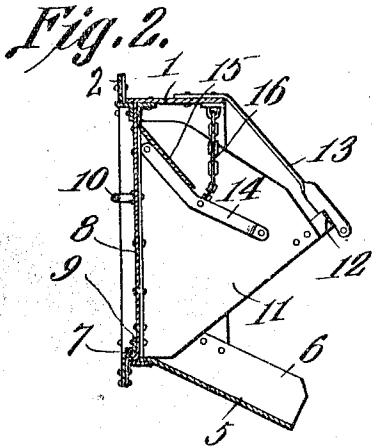
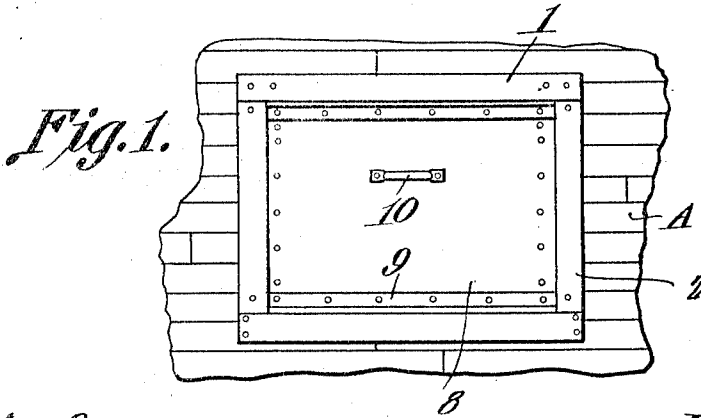


W. H. TAYLOR.
 COAL HOPPER FOR WINDOWS AND THE LIKE.
 APPLICATION FILED MAY 24, 1912.

1,061,427.

Patented May 13, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. TAYLOR, OF KEWANEE, ILLINOIS.

COAL-HOPPER FOR WINDOWS AND THE LIKE.

1,061,427.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed May 24, 1912. Serial No. 699,582.

To all whom it may concern:

Be it known that I, WILLIAM H. TAYLOR, a citizen of the United States, residing at Kewanee, in the county of Henry and State of Illinois, have invented a new and useful Coal-Hopper for Windows and the Like, of which the following is a specification.

This invention relates to coal hoppers for windows and the like, its object being to provide a simple and durable structure of this character which can be readily placed in position and which has combined therewith a shield which is normally housed within the hopper but which is adapted to move upwardly to active position when the hopper is open and thereby prevent coal and the like from striking the wall above the hopper and defacing it.

Another object is to provide a hopper of this character which is made up of but few parts and which will lock automatically when closed.

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 the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a front elevation of the hopper closed and in position within the wall of a building. Fig. 2 is a central vertical section through the hopper, the same being shown closed. Fig. 3 is a view similar to Fig. 2 and showing the hopper open. Fig. 4 is a rear elevation of the hopper while closed. Fig. 5 is an enlarged horizontal section through one side portion of the hopper.

Referring to the figures by characters of reference A designates a portion of a wall having a coal hole or window therein in which the hopper constituting the present invention is fitted. This hopper includes a rectangular frame 1 having flanges 2 along the edges thereof and adapted to lap and bear against the outer surface of the wall A. Angle strips 3 are secured along the inner faces of the sides, top and bottom of the frame and constitute stops for the front

plate of the hopper. The frame 1 can be secured within the opening in the wall A by means of anchoring strips 4 riveted or otherwise secured to the inner portions of the sides of the frame 1 for lapping the inner surface of the wall A as shown in Fig. 5. A short chute 5 extends from the bottom of frame 1 and is inclined downwardly and rearwardly therefrom, said chute being provided with upstanding side walls 6 riveted or otherwise secured to the sides of the frame. A pivot rod 7 extends transversely of the frame 1 close to the bottom thereof and is movably engaged by the lower edge portion of the closure plate 8. Said lower edge portion is preferably curved throughout the length thereof so as to straddle the rod 7 and an angle strip 9 is riveted or otherwise secured along the outer face of the closure plate so as to hold said curved portion of the plate in engagement with the rod 7. A handle 10 is connected to the plate 8 and said plate, when closed, fits snugly within the frame 1 and bears against the stop strips 3. Wings 11 extend inwardly from the sides of the plate 8 and are connected at their upper inner corners by a cross bar 12 which, when the plate 8 is in closed position, is designed to engage a spring locking tongue 13 extending inwardly and downwardly from the top of the frame 1. This position of the parts has been shown in Fig. 2. With bar 12 in engagement with the tongue 13 it will be seen that the plate 8 will be securely locked in closed position.

Pivotaly connected to the wings 11 are arms 14 which are preferably angular and the free end portions of which are connected by a guard plate 15. This plate normally rests against the inner face of the plate 8 and close to the top of the frame 1. Chains 16 or other flexible devices connect the arms 14 to the top of the frame 1.

By referring to Fig. 2 it will be seen that when the plate 8 is closed, the guard plate 15, arms 14 and chains 16 are all housed within the frame 1. When it is desired to use the hopper as when coal is to be discharged into the chute 5, the tongue 13 is shifted upwardly so as to become disengaged from the bar 12. Handle 10 is then used for the purpose of swinging plate 8 outwardly and downwardly about rod 7 as a pivot. During this outward movement of the plate

8 the arms 14 will be swung about their pivots by the chains 16 and said arms, as well as the plate 15, will thus be projected outwardly from and upwardly above the frame 1. Thus the outward movement of plate 8 will be limited and, at the same time, the plate 16 will be brought into position to protect from injury that portion of the wall A above the frame 1. When coal or the like is directed into the hopper formed by plate 8 and wings 11, it will gravitate therealong into the chute 5. It will be seen that by this arrangement of parts the wall adjacent the coal opening is fully protected.

15 When the plate 8 is closed against the stop strips 3, the arms 14 and the guard plate 15 will swing downwardly into position between the wings 11 and the bar 12 will automatically engage tongue 13 so as thus to lock the plate 8 in closed position. The parts will thus assume the positions shown in Fig. 2.

25 While the outward movement of the plate 8 can be limited by the chains 16 and arms 14, in the manner hereinbefore set forth, it is to be understood that, if desired, this outward movement can be limited by the bar 12 moving against the stop strip 3, as will be apparent.

30 What is claimed is:—

1. The combination with a frame and an inclined chute extending from the bottom thereof, of a closure plate hingedly mounted at its lower edge within the frame, side wings extending therefrom into the frame, a guard plate movably connected to the wings, and means operated by the movement of the closure plate and wings to open position, for elevating the guard plate above the frame.

2. The combination with a frame and an inclined chute extending from the bottom thereof, of a closure plate hingedly mounted at its lower edge within the frame, side wings extending therefrom into the frame, a guard plate movably connected to the wings, and means operated by the movement of the closure plate and wings to open position, for elevating the guard plate above the frame, said guard plate being normally housed between the wings and within the frame.

3. The combination with a frame and an inclined chute extending from the bottom

thereof, of a closure plate hingedly mounted at its lower edge within the frame, side wings extending therefrom into the frame, a guard plate movably connected to the wings, means operated by the movement of the closure plate and wings to open position, for elevating the guard plate above the frame, and cooperating means upon the wings and frame for locking the closure plate when closed.

4. The combination with a frame and an inclined chute extending from the bottom thereof, of a closure plate hingedly mounted at its lower edge within the frame, side wings extending therefrom into the frame, a guard plate movably connected to the wings, means operated by the movement of the closure plate and wings to open position, for elevating the guard plate above the frame, and cooperating means upon the wings and frame for automatically locking the closure plate when closed.

5. The combination with a frame and an inclined chute extending from the bottom thereof, of a closure plate hingedly mounted at its lower edge within the frame, side wings extending therefrom into the frame, a guard plate movably connected to the wings, means operated by the movement of the closure plate and wings to open position, for elevating the guard plate above the frame, said guard plate being normally housed between the wings and within the frame, and cooperating means upon the wings and frame for automatically locking the closure plate when closed.

6. The combination with a frame, and an inclined chute extending from the bottom thereof, of a closure plate movably connected to the frame, side wings extending therefrom and into the frame, arms pivotally connected to the wings, a guard plate connecting the arms, and a flexible connection between one of the arms and the frame, said guard plate and arms being normally housed between the wings and within the frame.

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

WILLIAM H. TAYLOR.

Witnesses:

GEO. H. WHITNEY,
EDWIN J. FAUL.