No. 879,622. PATENTED FEB. 18, 1908.

J. GALVIN.

ASH COLLECTING BOX ATTACHMENT FOR FURNACES, &c.

APPLICATION FILED NOV. 19, 1907.

Fig. 1.

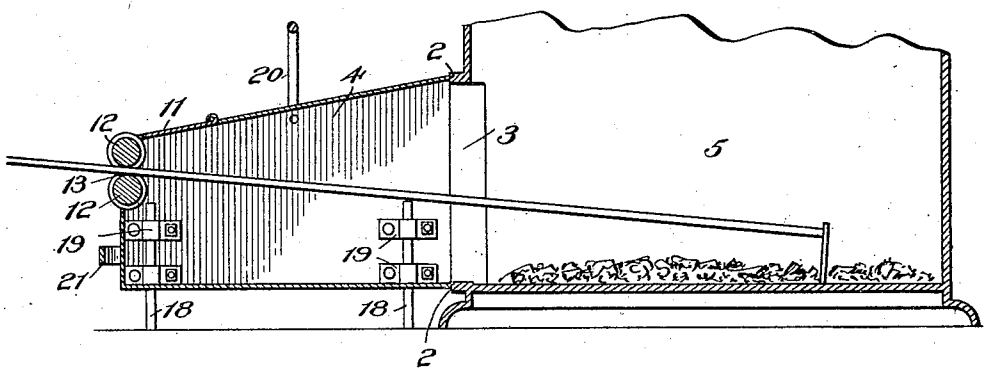


Fig. 2.

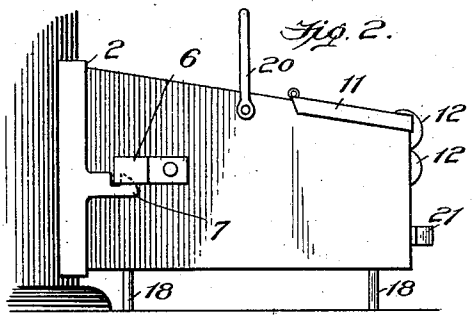


Fig. 3.

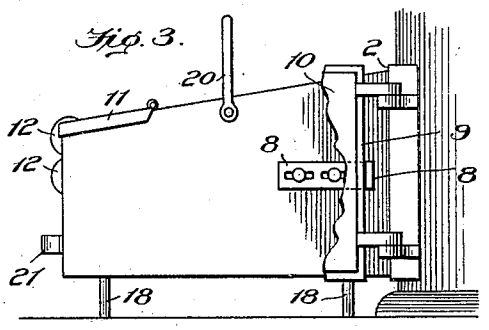


Fig. 4.

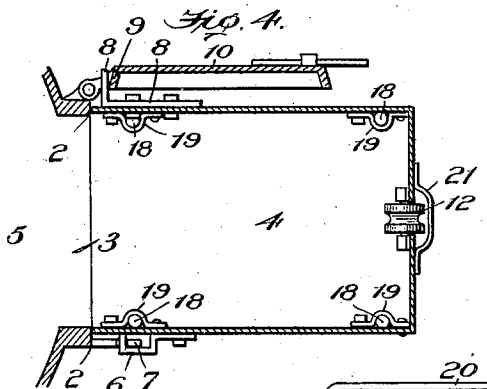


Fig. 5.

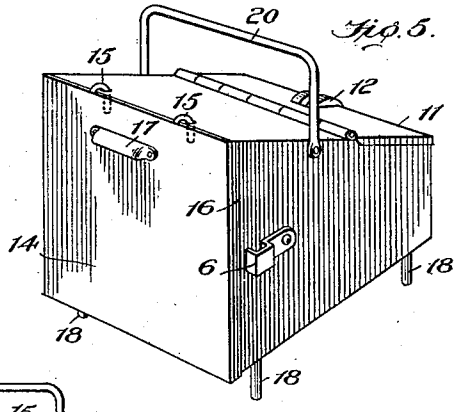
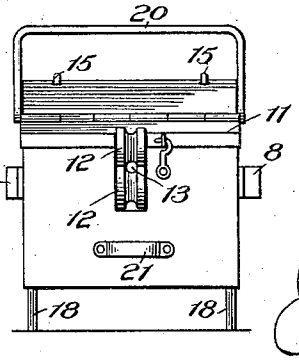


Fig. 6.



WITNESSES

Edwin L. Bradford

J. M. Copenhaver

INVENTOR

John Galvin

By Johnson & Johnson

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN GALVIN, OF BRATTLEBORO, VERMONT.

ASH-COLLECTING BOX ATTACHMENT FOR FURNACES, &c.

No. 879,622. Specification of Letters Patent. Patented Feb. 18, 1908.

Application filed November 19, 1907. Serial No. 402,823.

To all whom it may concern:

Be it known that I, JOHN GALVIN, a citizen of the United States, residing at Brattleboro, in the county of Windham and State of Vermont, have invented certain new and useful Improvements in Ash-Collecting Box Attachments for Furnaces, &c.; and I do hereby 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.

I have produced an improved ash-collector box as a portable attachment for the ash-pit opening of furnaces and for steam and hot water boilers, and the purpose of my improvement is to adapt the collector as an attachment for the furnace ash-pit opening as a means for receiving, holding and storing the ashes and cinders as they are being drawn from the ash-pit, prevent the littering of the furnace floor and the filling of the room with dust, which results in cleaning the furnace with the ordinary ash-pan and finds its way into the hot air space and into the rooms of the house.

The collector-box has provision for adjusting and attaching it to the furnace at the ash-pit opening; and for attaching a removable door, so that when the ashes are collected the collector is removed and closed by said door and carried out of the room to dump the contents; and in the claims appended hereto I will point out the features which constitute my improvement in connection with the accompanying drawings, in which,—

Figure 1 shows in vertical section the collector as an attachment for the ash-pit openings of a furnace. Fig. 2 is a side view of the collector-box showing it hooked to the catch of the ash-pit door. Fig. 3 shows the opposite side of the collector box as it is hooked to the end of the ash-pit door. Fig. 4 shows a horizontal section of the collector-box when attached to the ash-pit opening. Fig. 5 is a perspective view of the collector-box. Fig. 6 shows the front closed end of the collector.

The collector-box is preferably made of galvanized sheet iron and of rectangular form open at one end which is adapted to fit against the outside walls 2, around the edge of the ash-pit opening 3, of a furnace to close it to make the chamber 4 of the collector-box an extension of the ash-pit 5. For holding the box, as an attachment to the furnace one side of the box has a pivoted angle-hook 6 adapted to be engaged with the catch 7, of the ash-pit door; while the other side of the box has an adjustable angle slide 8, adapted to be hooked on to the hinged end 9, of the ash-pit door 10, when it is open as in Fig. 4. At its closed end the box has a hinged lid 11, at its top held closed by a hook and through the opening closed by this lid the cleaning hoe is inserted and withdrawn from the collecting chamber.

A pair of grooved rolls 12—12 of wood or other material that will render the raking operation noiseless, are mounted in bearings at the front end of the box—one in a notch or recess in the front edge of the top cover and the other in an opening in the front of the box so that the grooves match and form a circular opening 13, Fig. 6 between the rolls to receive, support and form a closed guide for the handle of a hoe or scraper which being projected through the box into the ash-pit has its handle inserted between the rolls and serves to draw the ashes and cinders therefrom into the box.

It is important to note that the grooved rolls fit close together so that the grooves only form the opening for the handle, but the small openings formed by the edges of the lid and at the rolls form air drafts into the box to carry the dust therefrom into the ash-pit and this front draft aided by that created by the slightly open joints at the joining of the box with the furnace walls, will cause the dust to be carried from the box into the ash-pit so that while the ashes are drawn into the box the dust is drawn out of it with the draft of the furnace.

A door 14, is adapted to be hung by hooks 15, engaging holes in the top edge of the box and is formed with edge flanges 16, closely fitting over the side and bottom edges of the box to close it but this door is only used when the box is removed to dump the contents and is provided with a handhold 17.

The box is mounted upon adjustable legs 18, two at the front and two at the rear end thereof to adjust the height of the box to suit the ash-pit opening, and, as a simple and convenient means for effecting such adjustment, the legs may be set up in holes in the bottom of the box and clamped by a flanged socket 19, to the inner walls of the box. For this purpose the clamp is fixed at one side of the leg and clamped at the other side

of the leg so that the latter may be raised and lowered and clamped by the flange of the socket and the legs may be roughened to give them a binding hold in the socket.

The box is provided with a top bail 20, and a hand hold 21, at its front end. It will be understood the collector-box once adjusted and fixed to the ash-pit opening may remain so for use for several cleanings of the ash-pit.

An advantage of the grooved rolls is they form a rolling joint for the scraper-handle which allows it to be properly manipulated in scraping the ash-pit; while the circular opening formed by the matching grooves of the rolls forms a sort of universal joint for the scraper-handle. I prefer to mount the upper grooved roll in the lid so that the hoe-handle can be placed in the groove of the lower roll when the lid is raised.

I claim:

1. An ash-collecting attachment for furnaces consisting of a box having an open end adapted to fit and close the opening of the ash-pit door, a pair of grooved rolls mounted in the other end of the box, the roll grooves matching and forming a circular opening between them to form a bearing and guide for the handle of a scraper.

2. An ash collecting attachment for furnaces consisting of a box having an open end adapted to fit and close the opening of the ash-pit door, a hinged lid at the top of the other end of the box, a pair of grooved rolls one mounted in the free edge of the lid, the other mounted in an opening in the closed end of the box, the grooves matching and forming a circular opening between them, and adapted to form a bearing and guide for the handle of a scraper.

3. In an ash-collecting attachment for furnaces a box having an open end adapted to fit and close the opening of the ash-pit door, a hinged lid at the top of the front end of the box, a removable cover having a pair of hooks adapted to engage holes in the top edge of the box at its open end to close it, a hook at one side of the box adapted to engage the catch at the ash-pit door of the furnace, a slidable arm on the other side of the box adapted to engage the hinged end of the ash-pit door, and a pair of grooved rolls mounted in the closed end of the box, the grooves matching and forming a circular opening between them and adapted to form a bearing and a guide for the handle of a scraper.

4. In an ash collecting attachment for furnaces a box having an open end adapted to fit and close the opening of the ash-pit door, a hinged lid at the top of the front end of the box, a pair of legs at the inner and at the outer end of the box, means for vertically adjusting said legs, and a pair of grooved rolls mounted at the closed end of the box the grooves matching and forming a circular opening between them adapted to form a bearing and a guide for the handle of a scraper.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN GALVIN.

Witnesses:
A. F. SCHWENK,
EDITH S. FARR.