W. H. MAY.

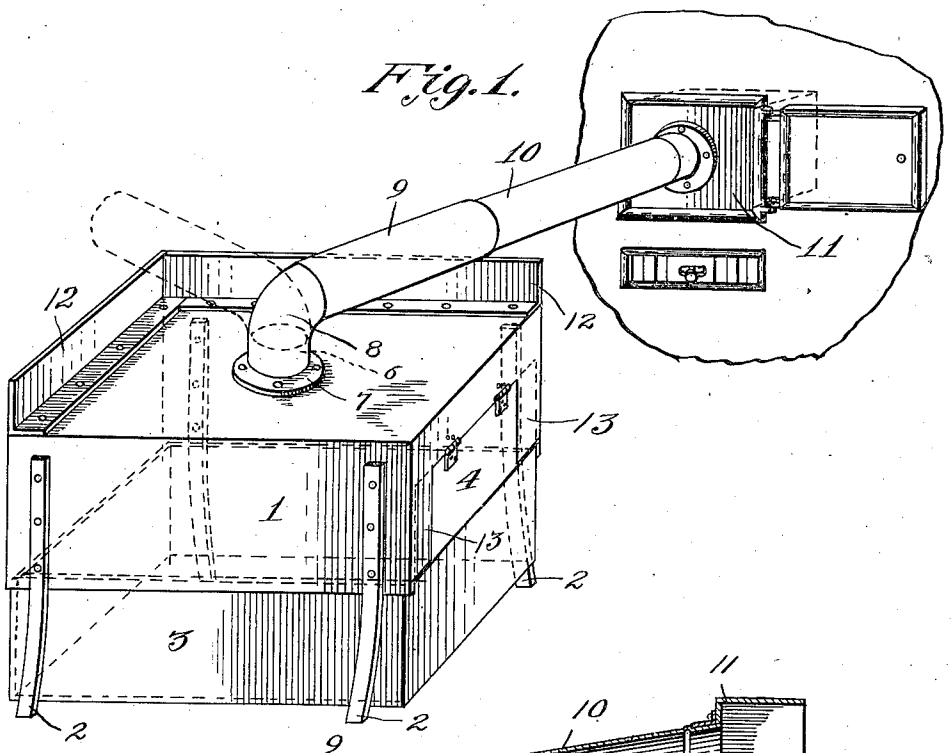
DUST REMOVER.

APPLICATION FILED JAN. 16, 1913.

1,065,953.

Patented July 1, 1913.

Fig. 1.



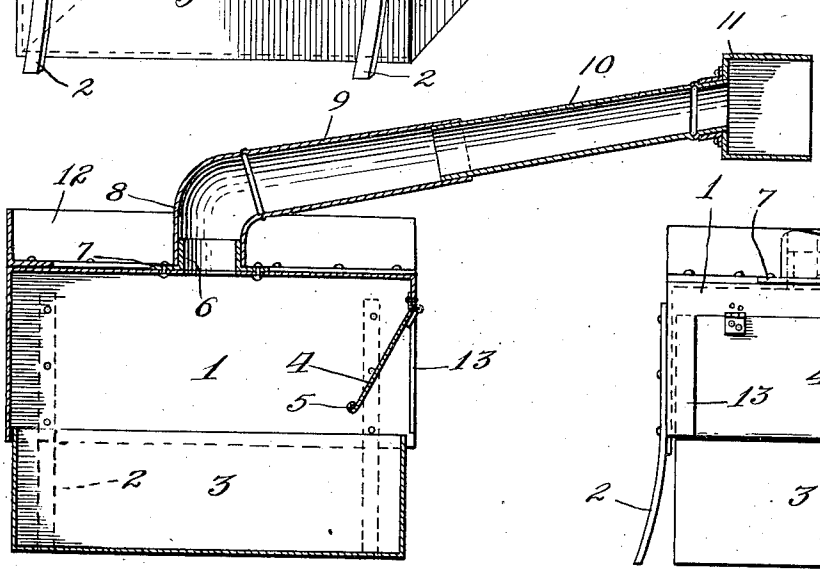


Fig. 2.

Fig. 3.

WITNESSES:

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DUST-REMOVER.

1,065,953. Specification of Letters Patent. Patented July 1, 1913.

Application filed January 16, 1913. Serial No. 742,411.

To all whom it may concern:

Be it known that I, WILLIAM H. MAY, a citizen of the United States, residing at Beach City, in the county of Stark and State of Ohio, have invented a certain new and useful Improvement in Dust-Removers, of which the following is a specification.

My invention relates to improvements in dust removers designed to remove the fine ashes or dust when the same are taken from the ash pit of a furnace and placed in a receptacle to be later removed.

The objects of my present invention are, first, to provide a simple means for removing the dust or fine ashes by means of the draft of a furnace, such as commonly used in dwelling houses, and second, to provide for the connecting and disconnecting of the remover to and from the furnace. I obtain these objects together with other objects readily apparent to those skilled in the art by the construction illustrated in the accompanying drawings, although my invention may be embodied in a variety of other mechanical forms without departing from the nature of the invention.

In the accompanying drawing: Figure 1 is a perspective view showing the dust remover properly connected to a furnace. Fig. 2 is a vertical section. Fig. 3 is a front end view.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the housing or open bottomed cover which is preferably formed rectangular in cross section and of any desired size. The cover 1 is supported at the required height by means of the supports 2 which are securely connected in any convenient and well known manner to the cover 1. Below the cover 1 is normally located the ash box 3, which ash box is formed of such a height that its top or upper portion will come a short distance above the bottom of the supported and elevated cover 1.

To one end of the cover 1 is hinged the door 4, which door is hinged at the top or upper end and when in its normal position is designed to close the end of the cover. For the purpose of causing the door to hang in a true vertical position and in such a position to close the end of the cover 1, the bottom or free end of the door is provided with a weight 5. To the top of the cover 1 is attached the sleeve or short tube 6 by means of the connecting flange 7. Upon the short tube 6 is rotatably mounted the elbow 8, said elbow being so constructed that it will fit down and upon the short tube 6 in such a manner that it can be rotated in a horizontal plane.

To the elbow 8 is attached or formed integral therewith the pipe 9, to which pipe is telescopically connected the pipe 10 and to the pipe 10 is attached the hood 11, which hood is formed of a size and shape to correspond substantially with the size and shape of the fuel opening of a furnace, but it will be understood that for the purpose of easily inserting the hood it should be somewhat smaller than the fuel opening of the furnace in order to provide for easily connecting and disconnecting said hood from the furnace.

For the purpose of providing means for inserting and withdrawing the hood 11 the dust conveying pipe sections 9 and 10 are telescopically connected together by which arrangement the pipes can be slid one within the other a sufficient distance to insert and withdraw the hood into and from the fuel opening of the furnace. For the purpose of preventing the pipe sections 9 and 10 from becoming accidentally detached they are formed tapering, and are tapered in such a manner that the larger end of the pipe 10 cannot be withdrawn from the smaller end of the pipe 9.

In use the cover and the ash box are placed in close proximity to a furnace and when it is desired to remove the fine ashes and dust when the same are removed from the ash pit of the furnace and placed in the ash pit of the ash box 3 the hood 11 is placed in the position shown in Fig. 1, at which time the draft of the furnace will convey the fine ashes and dust into the furnace when ashes are thrown into the ash box by reason of the draft of the furnace. When it is desired to discontinue the use of the ash remover the hood is removed and together with the telescopic pipe sections 9 and 10 turned into the position illustrated in the dotted lines Fig. 1, thereby bringing the same out of the way and in such a position that they will not interfere with the firing of the furnace in the usual manner.

For the purpose of removing the strain of the hood 11 and pipe sections 9 and 10 from the short pipe 6 the cover 1 is provided

with the upright flanges 12, which upright flanges are formed of such a height that they will support the pipe sections 9 and 10 together with the hood 11 connected thereto.

For the purpose of preventing the door 4 from swinging outward the cover 1 is provided with the flanges 13, but for the purpose of allowing the ash box 3 to be withdrawn and placed in position said flanges terminate at their bottom or lower ends, a short distance above the bottom of the cover. It will be understood that when ashes are placed in the box the door is free to be swung inward, which inward movement is produced by the striking of the shovel upon the door 4 and the instant the shovel is withdrawn after the ashes have been deposited the door is free to swing into position to close the opening at the end of the box, thereby preventing the escape of the ashes or dust. The cover 1 is so formed that it not only acts as a cover for the ash box, but also as a casing and chamber which is located partially above the ash box.

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is—

In a dust remover, the combination of a cover, an ash box located below said cover, said cover provided with a door adapted to automatically swing into closed position, a dust conveying pipe pivotally connected to the cover and telescopically connected together, a hood adapted to be inserted in the fuel opening of the furnace, said hood connected to one of the telescopically connected sections of the dust conveying pipe, and flanges extended from the top of the cover adapted to support the dust conveying pipe, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM H. MAY.

Witnesses:
JOHN H. BISHOP,
F. W. BOND.