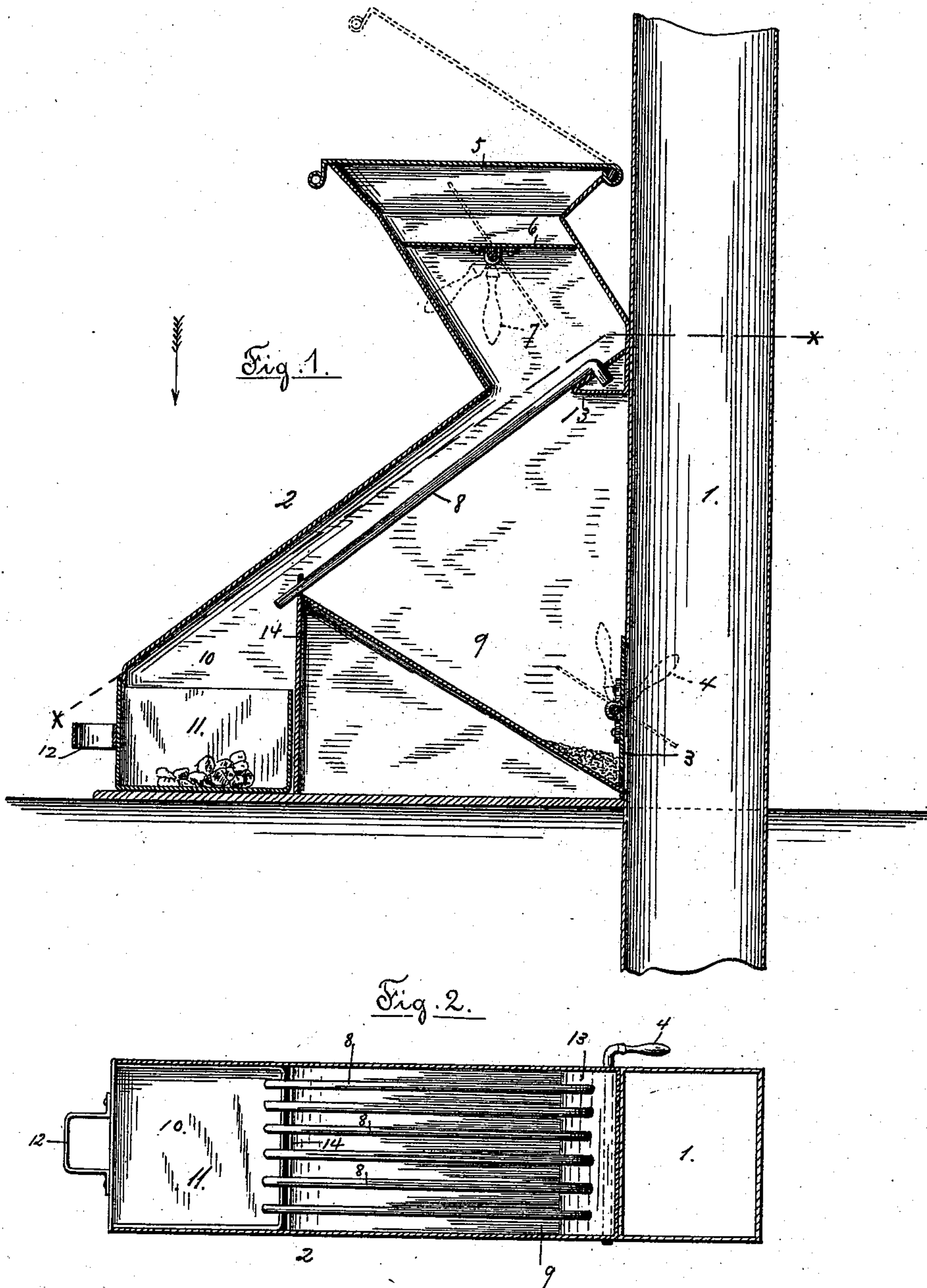


(No Model.)

J. H. WHITTLE  
CONDUCTOR FOR ASHES.

No. 377,921.

Patented Feb. 14, 1888.



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# UNITED STATES PATENT OFFICE.

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## CONDUCTOR FOR ASHES.

SPECIFICATION forming part of Letters Patent No. 377,921, dated February 14, 1888.

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*To all whom it may concern:*

Be it known that I, JAMES H. WHITTLE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Conductors for Ashes, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which, in connection with the drawings making a part of this specification, will enable others skilled in the art to which my invention belongs to make and use the same.

My invention relates to conductors for ashes, &c., which are now generally employed in high buildings for receiving the ashes, &c., on the different floors of the building and conducting them through one general pipe or chute to the basement of the building, where a suitable receptacle is provided to receive them.

My invention more particularly relates to the receiver provided at each floor, and which is connected with the general conductor pipe or chute, and into which the ashes, &c., are poured; and my invention consists in certain novel features of construction of the receiver, as will be hereinafter fully described.

The object of my invention is to provide a receiver for the ashes, &c., connected with the general conductor pipe or chute, constructed in such a manner that by the single operation of pouring or placing the ashes in the upper part of the receiver they will be thoroughly screened or sifted and the pieces of coal or clinkers automatically separated from the ashes proper, which will be delivered into the general conductor or chute and the pieces of coal or clinkers into a removable receptacle forming a part of said receiver. I also provide my receiver with one or more hinged or sliding doors or traps, to confine the dust caused by the pouring in of the ashes to the receiver, and to prevent the same from escaping into the general conductor or chute leading to the different floors.

Heretofore, after the ashes have been poured into the receiver, in order to sift or screen them properly, a common form of ash-sifter or some other device operated by the attendant has been employed. This requires time and labor. My improved receiver is so constructed that the ashes are thoroughly sifted

or screened automatically by simply pouring them into the receiver, requiring no additional device operated by the attendant for that purpose, thus saving much time and unnecessary labor.

Referring to the drawings, Figure 1 is a central vertical section through an ash-receiver embodying my improvements and a portion of the general conductor pipe or chute with which it is connected; and Fig. 2 is a section on line *xx*, Fig. 1, looking in the direction of the arrow, same figure, showing a plan view of the bars or rods for screening the ashes.

In the accompanying drawings, 1 is the general conductor pipe or chute, of any ordinary construction, connecting the different floors of a building.

2 is the ash-receiver, preferably made in substantially the shape shown, and connected at its lower part with the conductor-pipe 1, the opening into the conductor-pipe being closed by means of a pivoted door or trap, 3, provided with a handle, 4, the position of which handle is so arranged that the weight thereof will tend to keep the door 3 closed, as shown in Fig. 1.

The office of the trap-door 3 is to prevent the dust escaping into the conductor-pipe 1 in the process of sifting the ashes, and also to prevent the escape of any dust or smell from the conductor-pipe into the receiver 2, and therefore the door 3 will always be closed, except when it is opened by the attendant to allow the sifted ashes to pass from the receiver into the conductor-pipe.

The receiver 2 is preferably made hopper shape at its upper end and provided with a hinged cover, 5. A pivoted door or trap, 6, is preferably arranged in the upper part of the receiver 2 and provided with a handle, 7, the position of which handle is so arranged that the weight of said handle will tend to keep the door 6 closed. (See Fig. 1.)

The office of the trap-door 6 is to separate the upper part of the receiver from the lower part and to form a chamber into which the ashes are first poured. The hinged cover 5 is then closed, preventing any escape of dust from the top of the receiver, and the trap-door 6 is opened, allowing the ashes to pass from the upper part of the receiver into the lower part



and to become screened or sifted in the act of passing, in the manner to be hereinafter described.

The lower part of the receiver 2 is divided by means of inclined bars or rods 8, having spaces between them and supported within the receiver, into two chambers—the chamber 9, for receiving the sifted ashes, provided with an inclined bottom, along which the ashes slide on their passage into the conductor-pipe 1, and the chamber 10, for receiving the pieces of coal or clinkers separated from the ashes, and which in this instance is provided with a removable pan, 11, having a handle, 12, into which the pieces of coal, &c., fall.

The inclined bars or rods 8, used as a screen for sifting the ashes which fall thereon, are in this instance made removable by having their upper ends bent and fitting into holes made in a shelf or projection, 13, formed within the receiver 2, and their lower ends lying in grooves or slots made in the upper edge of the division 14.

The object of making the rods or bars 8 removable is that it may often be desirable to pour things into the general conductor-pipe which do not require sifting or screening; or it may be desirable to vary the width of the spaces between the bars or rods 8, forming the screen, to sift fine or coarse ashes.

In lieu of the bars or rods 8, any ordinary form of wire-mesh screen or net may be used to screen or sift the ashes poured into the receiver.

The operation of my improved ash-receiver will be readily understood from the above description in connection with the drawings, and is as follows: The trap-doors 3 and 6 are closed, as shown by full lines, Fig. 1, the hinged cover 5 is raised, and the ashes, &c., poured into the upper part of the receiver 2. The cover 5 is then closed, to prevent any dust, &c., from escaping from the receiver, and the trap-door 6, by means of the handle 7, is opened, as shown by dotted lines, Fig. 1, and then closed. This causes the ashes to slide into the lower part of the receiver and fall upon the inclined bars or rods 8, which act as a screen and cause the fine ashes to be separated from the pieces of coal and to sift between the bars into the chamber 9, the inclined bottom of which carries them toward the conductor-pipe 1 and against the trap-door 3, which is then opened, allowing the sifted ashes to pass into the con-

ductor-pipe 1. Said door 3 is then closed to prevent any dust or smell escaping from the conductor-pipe into the receiver. In the meantime the pieces of coal, &c., which are too large to pass between the bars or rods 8, have slid down said bars into the pan 11 in the chamber 10 of the receiver. Said pan may be removed at the pleasure of the attendant.

The advantages of my improved ash-receiver will be apparent to those skilled in the art. I provide an ash-receiver simple in construction and easily operated, and by means of which the ashes are thoroughly sifted and the pieces of coal automatically separated from the fine ashes.

I prefer to make use of the pivoted door or trap 6 in the upper part of the ash-receiver 2 as an extra preventive for keeping the dust within the receiver and preventing it from escaping out of the top thereof; but said trap-door may be dispensed with, if desired.

Instead of having the trap-doors 3 and 6 pivoted or hinged, they may be made to slide or move in grooves in the receiver 2 in any ordinary manner.

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

1. The combination, with a conductor, 1, of an ash-receiver, 2, provided with a cover upon its upper open end, a trap-door, 6, in its upper part, a series of inclined rods or bars supported within the body of the receiver, upon which the ashes fall to be screened, and an inclined surface leading from the lower end of said bars to the opening into the conductor 1, along which the sifted ashes pass to enter said conductor automatically upon the opening of the trap-door 3, and said trap-door 3, for closing the opening between the conductor and the ash-receiver, all constructed and arranged substantially as shown and described.

2. In an ash-receiver, a series of inclined removable bars or rods, forming a screen and dividing the receiver into two chambers, for the purpose stated, and upon which the ashes fall, to be automatically screened or sifted before passing out of said receiver, substantially as shown and described.

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