

No. 687,231.

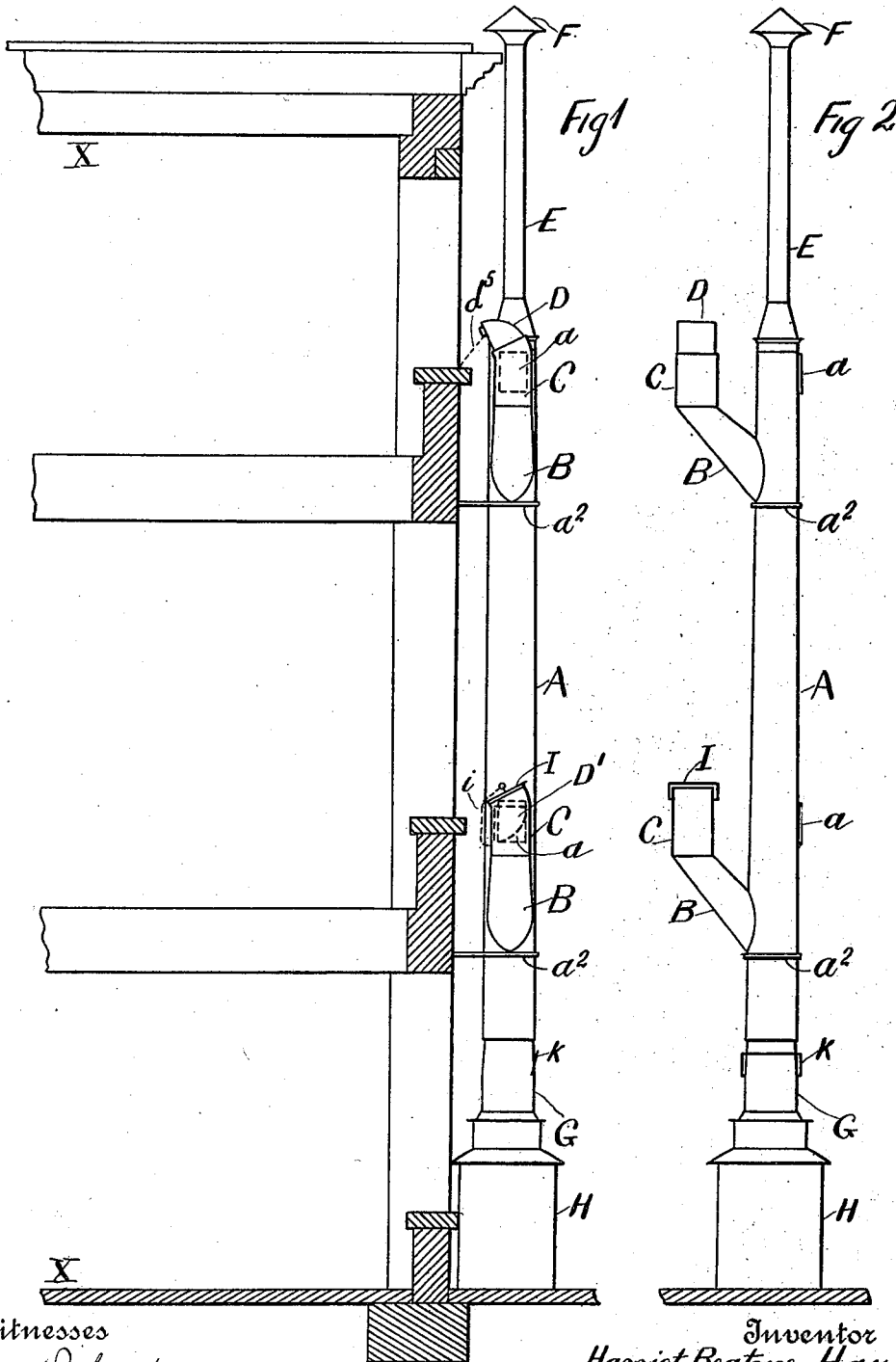
Patented Nov. 26, 1901.

H. B. HAY.
DISCHARGING CHUTE.

(Application filed Dec. 8, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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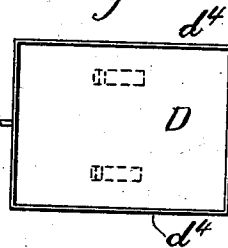
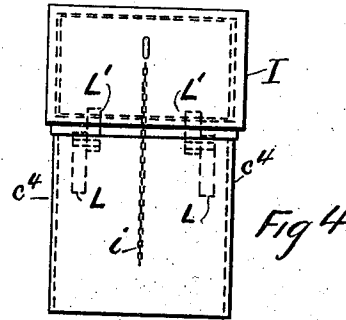
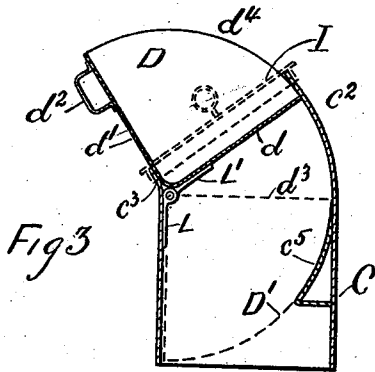


Fig 6

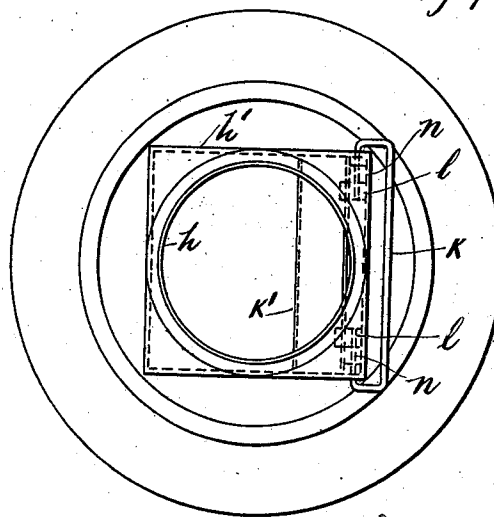
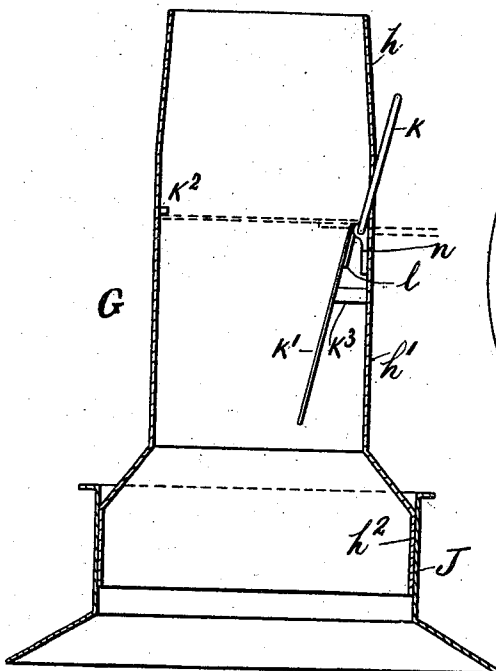


Fig 7

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UNITED STATES PATENT OFFICE.

HARRIET BEATRICE HAY, OF JERSEY CITY, NEW JERSEY.

DISCHARGING-CHUTE.

SPECIFICATION forming part of Letters Patent No. 687,231, dated November 26, 1901.

Application filed December 8, 1900. Serial No. 39,193. (No model.)

To all whom it may concern:

Be it known that I, HARRIET BEATRICE HAY, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Discharging-Chutes, of which the following is a specification.

My invention relates to means for disposing of ashes, garbage, refuse, and the like by means of chutes.

The object of the invention is to conveniently dispose of the ashes, garbage, and the like with proper sanitation, avoiding dangerous odors, and securing a simple device which will not be a menace to health.

In the accompanying drawings my device is shown secured to the outside of a building, and it is evident that it is applicable to the inside of the same without departing from the spirit of the invention.

Figure 1 shows a fragmentary sectional elevation of a building with a side elevation of the chutes and their appurtenances. Fig. 2 is a front view of the device. Fig. 3 represents an inlet-valve with its valve-box in sectional elevation on a plane through the longitudinal axis. Fig. 4 is a rear view of a valve-box with its cover. Fig. 5 is a top view of the valve shown in Fig. 3. Fig. 6 shows a sectional elevation on a plane through the longitudinal axis of the lower connection. Fig. 7 represents a plan view of Fig. 6.

The device is shown to consist of the main tapering discharging-chute A, which connects the secondary chutes B, on which are mounted the valve-boxes C, containing the valves D. The chute A is secured to the building X X by means of clamps a^2 and is capped by a ventilating-pipe E with the hood F. Hand-holes a , with covers a^3 , are provided in the main tapering discharging-chute A for the purpose of inspecting and cleaning the same.

To the lower end of the main chute there is attached the lower connection G, which fits on the receptacle H, into which the material is discharged.

In Figs. 1 and 2 the uppermost valve is represented as swung open to receive a charge, and the next lower valve is closed and swung into the valve-box C, the latter being closed with the cover I.

It is evident that the number of secondary chutes, with their valves and appurtenances, could be increased or decreased to suit any situation.

Referring to Figs. 3 to 5, the inlet-valve D consists of the bottom portions d d' , curved at their intersection and connected by the sides d^4 , the top edges of the said sides being shaped to arcs of circles described from the centers of the hinges on which the valves swing. To the bottom portion d' is fastened the handle d^2 , by means of which, with the chains d^5 , Fig. 1, the valve is kept in place when being filled, the said chains being generally fastened to the window-sills. When the valve is to be filled, it is swung into the position shown in Fig. 3, in which it will be noticed that the center of gravity of the valve is on the side still contained in the valve-box C, and consequently the said center of gravity always remains in that relative position. When the chain d^5 , Fig. 1, is detached from the handle d^2 , the valve swings into the valve-box to the position indicated by the dotted lines at D', and consequently discharges its contents into the chute B, from which it is led to the main chute A.

The valve-box C is generally rectangular in sections taken at right angles to its longitudinal axis, with one of its walls curved to an arc of a circle, as c^2 , it being generally extended into the valve-box, as c^5 , and its opposite wall bent approximately parallel to c^2 for a short distance, as c^3 , the other two sides c^4 connecting the said walls. The hinges L L' are respectively secured to the inside of the valve-box and at the apex of the bottom portions of the valve.

In the position of the valve D as shown in Fig. 3 nearly the whole body of the valve is in proper position to be filled, yet the bottom portion d remains within the valve-box C and prevents any odors or flying material reaching the operator, and, further, when the valve is swung within the said valve-box before the outer edge of the bottom portion d swings out of contact with the curved portion of the valve-box the portion d' has entered, and when the valve assumes its final position the portion d' is found at d^3 and in contact with the curved portion of the valve-box. The shape of the wall of the valve-box at c^3 prevents the

valve being pulled too far out of the box and constitutes a stop for said valve. To further prevent any odor or dust escaping after the contents of the valve have been discharged, the cover I is secured to the valve-box, and it is provided with the chain *i*, fastened to the said valve-box C.

The lower connection G consists of the cylindrical portion *h*, mounted on the rectangular valve-box *h'*, the said valve-box terminating with the circular portion *h*². In the portion *h*² is fitted the hood-shaped sleeve J, which caps the receptacle H for the material. In the valve-box *h'* there is hinged the balanced valve *k'*, swinging between stops *k*² *k*³. The handle-rod *k* joins the brackets *n* *l*, constituting the hinges, and it is fastened to the brackets *l* of the valve and swings in the brackets *n* of the valve-box. The valve *k'* is counterbalanced by the handle-rod *k* and maintains the same normally in a horizontal position, by means of which any odors and dust of the material deposited in the receptacle H are prevented from rising in the main chute A. When any of the material is descending the chute, the valve assumes the position shown by the full lines, Fig. 6, and after passing the said valve assumes its normal horizontal position, (indicated in dotted lines,) and should there be an overcharge and the chamber *h'* become filled the valve will remain in the inclined position, which inclines the handle *k* and indicates that the receptacle H should be removed and its contents emptied.

Having described my invention, I desire to secure by United States Letters Patent and claim—

1. A discharging-chute, a valve fulcrumed in the end thereof so as to swing entirely within and partly without the chute, and so fulcrumed that the center of gravity of the valve always remains on the side of the valve which

remains in the chute, and a stop for the valve at the end of the chute.

2. A main chute, a ventilating-pipe with hood capping the said chute, secondary chutes entering the main chute, valve-boxes carried on the secondary chutes, inlet-valves operating in the valve-boxes, a bottom connection secured to the bottom of the main chute, a balanced valve in the bottom connection, a sleeve secured to the said bottom connection and fitting loosely thereon, a receptacle placed under said valve.

3. A main chute with hand-holes therein, and covers on the hand-holes, secondary chutes entering the said main chute, valve-boxes carried on the secondary chutes, valves fulcrumed in the valve-boxes so that the center of gravity of each of said valves always remains on the side of the valve contained in the valve-box, the bottom portions of the valves disposed so as to maintain one of the said portions always in contact with the sides and walls of its valve-box, a bottom connection fitted to the main chute, a receptacle under the bottom connection.

4. In discharging-chutes, a main tapering chute A, ventilating-pipe E with hood F secured thereon, secondary chutes B connecting with main chute, valve-boxes C secured to the secondary chutes, valves D actuating in said valve-boxes, a lower connection G at the lower end of main chute, a valve *k'* operating in the said connection, a receptacle H placed under the lower connection.

Signed at Jersey City, in the county of Hudson and State of New Jersey, this 20th day of November, A. D. 1900.

HARRIET BEATRICE HAY.

Witnesses:

HOWARD MORTON HAY,
JESSIE A. WRAY.