

A. ELKINS.
ASH SIFTING DEVICE.
APPLICATION FILED JUNE 27, 1919.

1,351,631.

Patented Aug. 31, 1920.
2 SHEETS—SHEET 1.

Fig. 1.

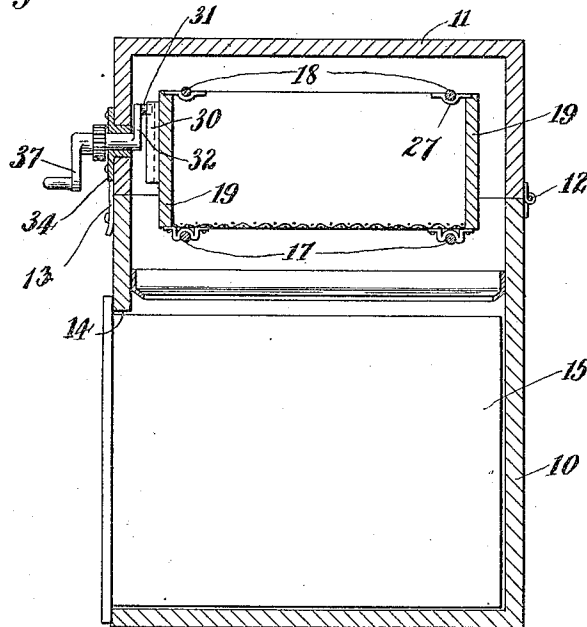


Fig. 2.

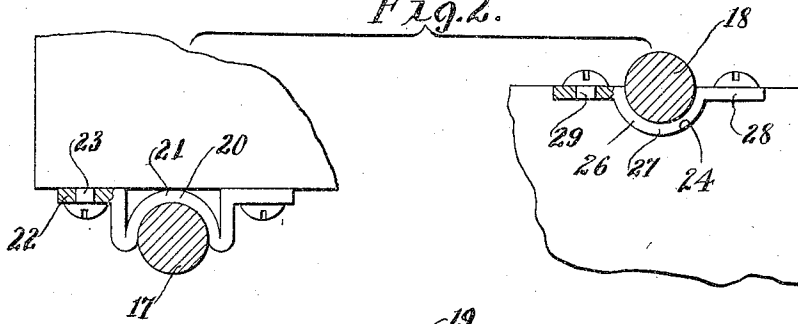
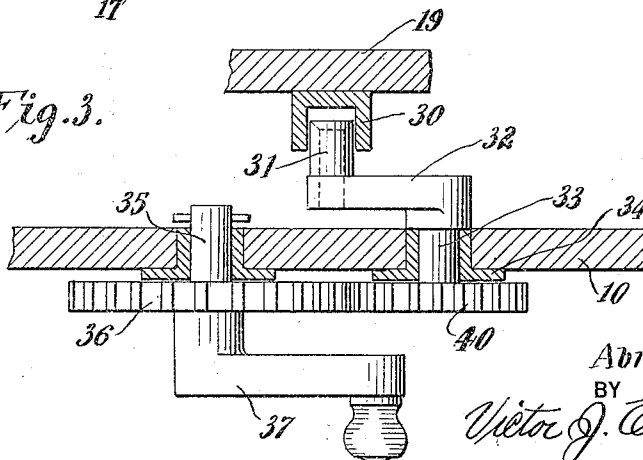


Fig. 3.



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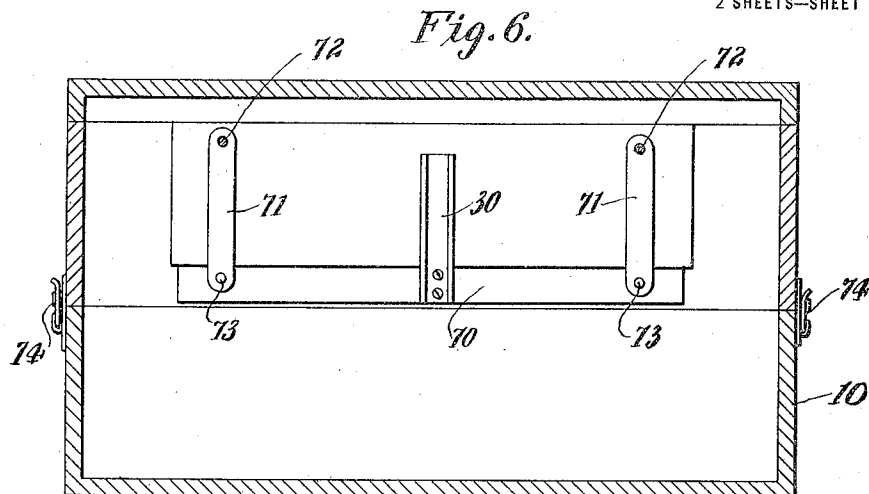


Fig. 5.

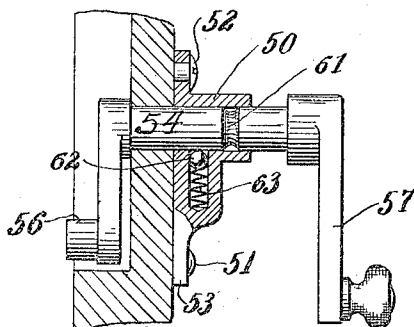
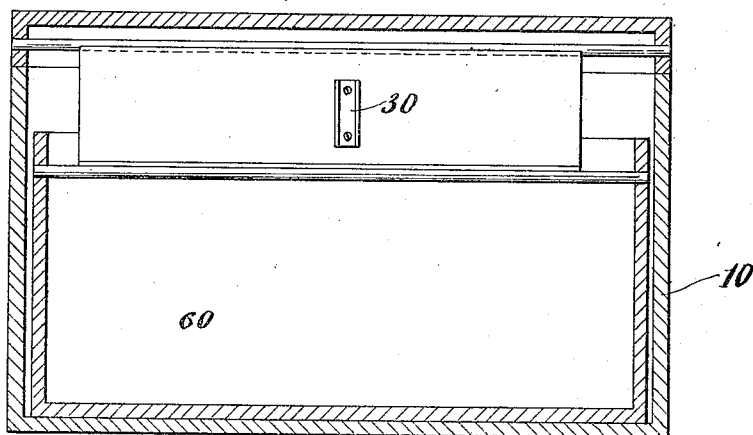


Fig. 4.



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UNITED STATES PATENT OFFICE.

ABRAHAM ELKINS, OF BRIDGEPORT, CONNECTICUT.

ASH-SIFTING DEVICE.

1,351,631.

Specification of Letters Patent. Patented Aug. 31, 1920.

Application filed June 27, 1919. Serial No. 307,066.

To all whom it may concern:

Be it known that I, ABRAHAM ELKINS, a citizen of the United States, residing at Bridgeport, in the State of Connecticut, have invented new and useful Improvements in Ash-Sifting Devices, of which the following is a specification.

This invention relates to new and useful improvements in ash sifting devices, and pertains more particularly to household devices of this character.

The primary object of the present invention is to provide a device of this character which is neat in appearance, simple in construction, and capable of operation by hand.

Referring to the drawings:—

Figure 1 is a transverse sectional view of the device.

Fig. 2 is a detail view of a portion of the device.

Fig. 3 is a detail view.

Fig. 4 is a longitudinal sectional view.

Fig. 5 is a detail view of the operating shaft and handle in the form shown in Fig. 4.

Fig. 6 is a longitudinal sectional view of a still further modified form.

Referring more particularly to the drawings, the reference character 10 designates a box-like receptacle, the top of which is open and is adapted to be closed by a hinged cover 11, which cover is retained in place by hinges 12, and secured in its closed position by the latches 13.

The front wall of the receptacle 10 is cut away as at 14 and adapted to be received within said cut away portion is a drawer or the like 15.

Extending longitudinally of the box like receptacle 10 and arranged in spaced relation are two guides or tracks 17, which are circular in cross section, and are secured in place by having their ends passed through the end walls of the box 10.

Extending longitudinally of the cover 11 are two guides or tracks 18 which are adapted to overlie the tracks 17, and said guides or tracks are likewise secured in place by having their ends secured in the end walls of the cover 11.

Mounted for sliding movement on the tracks or guides 17 is a sifting screen which is provided with side walls 19 and a mesh bottom. The end walls of the sifting member are each provided with guides 20 formed

as shown by taking a strip of sheet metal and bending it intermediate of its ends as at 21 to conform in shape to the shape of the tracks or guides 17, and these members 20 form the means by which the sifter is supported in the box 10. These members are provided with projecting members 22 perforated as at 23 for the reception of screws by which they are secured in place.

The top edges of the end walls are cut out as at 24 to receive the curved portion 26 of the metal members 27. These members 27 are also provided with projecting portions 28 which are perforated as at 29 to provide means for securing the members 27 in place.

Secured to the front face of the sifting element is a guide 30, and projecting into said guide is a roller 31 which is mounted on a crank arm 32. This crank arm 32 is an integral projection of a shaft 33 mounted for rotation in a bearing 34 in the front wall of the box 10. Mounted in the front wall of the box 10 adjacent the shaft 33 is a second shaft 35 on which is mounted a gear wheel 36 and carried by the shaft 35 is a handle 37 which is rigidly secured to the outer end thereof.

Mounted on the outer free end of the shaft 33 is a gear wheel 40 which is adapted to mesh with the gear wheel 36 and receive its rotary movement therefrom.

From the foregoing, it will be apparent that when the handle 37 is rotated, the gear wheel 36 will also be rotated which in turn will serve to rotate the gear wheel 40. Upon rotation of the gear wheel 40 the crank arm 32 will like-wise be rotated and will thereby reciprocate the ash sifting element longitudinally of the box 10 to perform the sifting operation.

In Fig. 5, I have shown a construction by means of which the gear wheels 36 and 40 are eliminated, the sifting element being operated directly by the crank.

In this form, of the invention, the bearing member 50 is secured to the front wall of the box 10 by means of screws or bolts 51, which pass through apertures 52 in an annular flange 53 which is integral with said bearing member 50. Passing through said bearing member 50 is a shaft 54 on the inner end of which is suitably mounted a roller 56. This roller is adapted to be received in a guide 30 and secured to the shaft at its outer end is an operating handle 57.

Thus it will be seen that upon rotation of the operating handle 57, the sifting element will be reciprocated longitudinally of the box 10 by means of a direct drive, the gear wheels 36 and 40 being entirely dispensed with.

In this type of device as shown in Fig. 4, the drawer may be eliminated, and an inner receptacle used, and to provide for the removal of the inner receptacle, the shaft 54 is movable longitudinally of the bearing to provide the necessary clearance to permit of the ready removal of the ash receptacle 60. The shaft 54 is also provided with a continuous groove 61 and adapted to lie within said groove is a ball 62 which is maintained in said groove by means of the coil spring 63. By this arrangement it will be seen that when the roller 56 is in engagement with the guide 30, it is maintained in operative engagement therewith against accidental displacement, and at the same time, the shaft 54 may be moved longitudinally of the bearing member 50 for the purpose above mentioned.

In the form shown in Fig. 6, the sifting element is adapted to be supported on a rectangular frame 70 which is supported within the receptacle or box 10 by means of a plurality of links 71, the upper end of each of which is pivotally connected to the cover of the box as at 72, the lower ends of said links being pivotally connected to the rectangular frame as at 73. In this form of the invention the operating crank is mounted in the upper section of the receptacle 10 and the guide member 30 is carried by the rectangular frame. The receptacle 10 is also of slightly different structure, it being made of two substantially half sections which are locked together in their operative position by means of latches or the like 74.

In this form of the invention, when the top section of the receptacle 10 is removed, the rectangular frame is also removed thus leaving the bottom receptacle free to be dumped or permitting of the removal of a

separate ash receptacle if it is desired to use one in the box 10.

While I have described my invention in its preferred forms, I do not wish to be limited to the exact structure shown and described, as certain changes and modifications may be made without in any way departing from the spirit of the invention.

Having thus described the invention, what is claimed is:—

1. An ash sifting device comprising a receptacle, a cover hinged thereto, a plurality of guide rods extending longitudinally thereof, a sifting element mounted for reciprocal movement on said guide rods, means for reciprocating said sifting element, and means carried by the hinged cover for guiding the sifting element in its reciprocal movement.

2. An ash sifting device comprising a receptacle, a cover for said receptacle, a plurality of guide rods, a sifting element mounted for reciprocal movement on said guide rods, and means carried by said cover for reciprocating said sifting element.

3. An ash sifting device comprising a receptacle, a cover hinged to said receptacle, a plurality of guide rods extending longitudinally of said receptacle, a sifting element mounted for reciprocal movement on said guide rods, means for reciprocating said sifting element, and a plurality of guide rods carried by the hinged cover for guiding the sifting element in its reciprocal movement.

4. An ash sifting device comprising a receptacle, a cover hinged thereto, a plurality of guide rods extending longitudinally thereof, a sifting element mounted for longitudinal movement on said sifting element, and a plurality of guide rods carried by the cover and overlying the guide rods carried by the box for guiding the sifting element in its reciprocal movement.

In testimony whereof I have affixed my signature.

ABRAHAM ELKINS.