

H. L. HASTINGS.

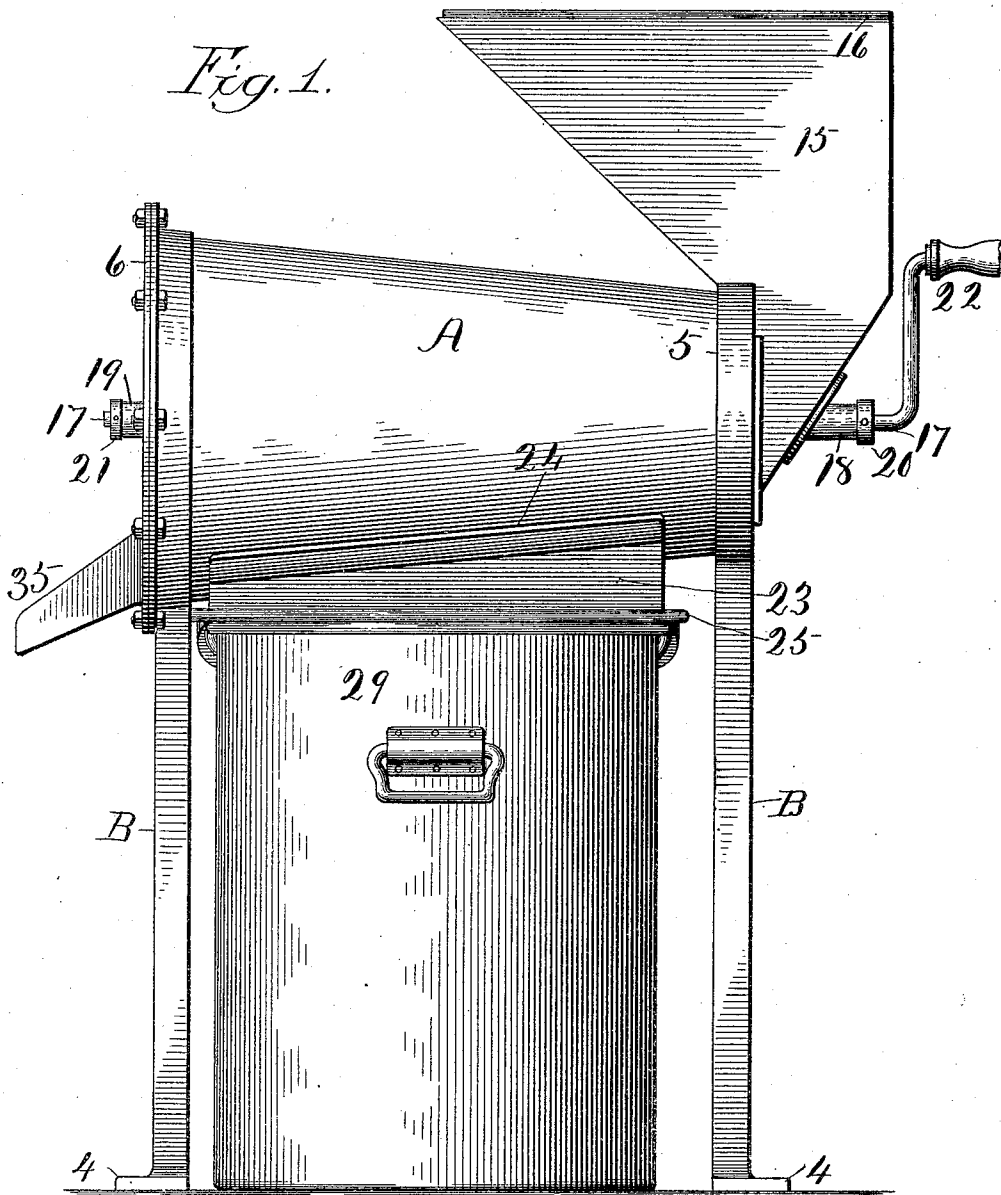
ASH SIFTER.

APPLICATION FILED NOV. 21, 1907.

937,799.

Patented Oct. 26, 1909.

2 SHEETS—SHEET 1.



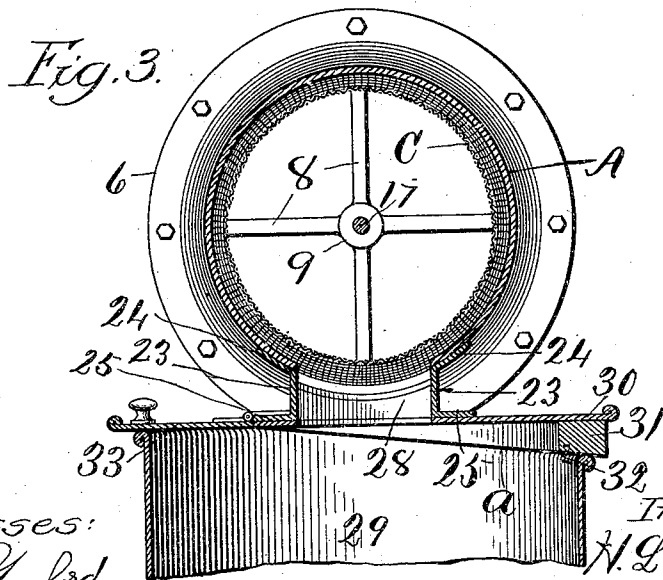
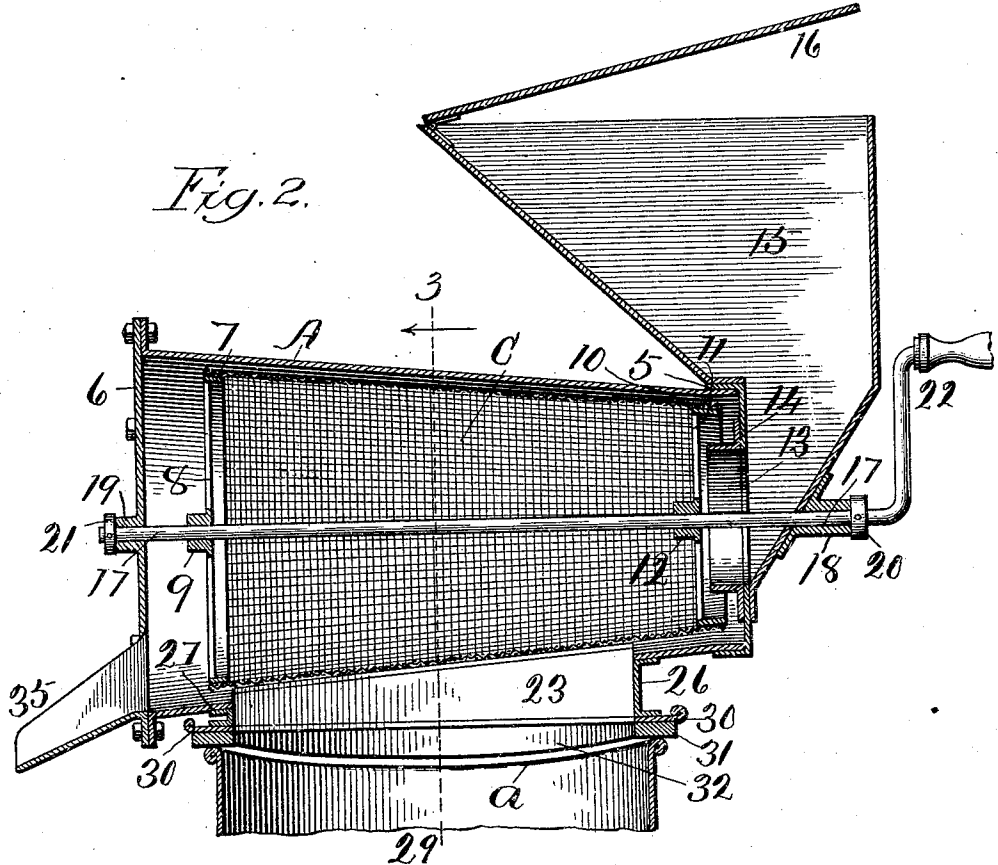
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UNITED STATES PATENT OFFICE.

HARRY L. HASTINGS, OF CHICAGO, ILLINOIS.

ASH-SIFTER.

937,799.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed November 21, 1907. Serial No. 403,157.

To all whom it may concern:

Be it known that I, HARRY L. HASTINGS, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ash-Sifters, of which the following is a specification.

This invention relates to ash-sifters of the revolving cylinder type, and has for its object to provide an arrangement of this character which will greatly facilitate the operation of separating the unconsumed portion from that of the waste matter and prevent escape of the dust particles.

Figure 1 is a side elevation of an apparatus embodying the improved features. Fig. 2 is a vertical section. Fig. 3 is a transverse section on line 3, Fig. 2, looking in the direction indicated by the arrow.

A represents a cylindrical casing rigidly mounted on the supporting legs B provided with a base-flange 4 so that the apparatus may be secured in a stationary position when necessary. This casing gradually increases in diameter from the receiving end to the discharge end and is closed at each end by caps 5 and 6. A rotatable wire screening-cylinder C is located on the inside of the casing and is completely inclosed thereby with sufficient annular space between the two to permit of the screening-cylinder turning freely. The screening-cylinder gradually increases in diameter like that of the inclosing casing and is secured at the larger end to a spider-ring 7 having arms 8 joined to a central hub 9, as best shown in Fig. 3. The smaller end is secured to a spider-ring 10 provided on the inner edge with spider-arms 11 joined to a central hub 12, as shown in Fig. 2.

The cap 5, closing the smaller end of the casing, is provided with a central opening 13, (Fig. 2) which is surrounded by a flanged-ring 14 rigidly secured to the inner side of cap 5. This ring 14 extends far enough inside of the spider-ring 10 to guide and deliver the ashes gravitating from the hopper 15 into the adjacent end of the screening-cylinder. The hopper 15 is rigidly secured in place and is provided with a cover 16. The screening-cylinder is rigidly mounted on a shaft 17 fixed in the hubs 9 and 12. This shaft is provided at its front end with a journal-bearing 18 secured to the outer lower part of the ash receiving-hopper. The opposite end of the shaft is provided with a bear-

ing 19 forming a part of cap 6. The companion collars 20 and 21 mounted on the respective ends of the shaft 17 prevent an endwise movement thereof so that the screening-cylinder is always retained in its proper working position against possible displacement. The shaft 17 has an extended bent end forming a hand-crank 22 by which the screening-cylinder is manually rotated. The companion angle-plates comprising a web 23, the top curved flanges 24 and the bottom flanges 25 (Figs. 1 and 3) are secured to the underside of the casing and extend longitudinally thereof. These angle-plates have their respective ends closed by transverse plates 26 and 27, as shown in Fig. 2. The longitudinal angle-plates stop short of the respective end of the casing and inclose an opening 28 which opens up through the casing in the underside and down through which the ashes and dust escape into the ash-pan or receptacle 29 from the screening-cylinder. A cover 30 is secured to the bottom flanges 25 of the companion angle-plates. This cover is in turn provided around a part of its circumference with a beveled wedge member 31 presenting the inclined rim-edge 32. The top-edge of the ash-receiving can is cut down correspondingly at one side on the line *a*, so that when the can is slipped in under, these surfaces wedge together and form a tight joint so that the finest ash dust cannot escape from the receptacle in the operation of sifting, and which does away with the most unpleasant and annoying feature of the work. The cover 30 has a hinged part 33, on the opposite side from the beveled part, which may be raised out of the way when removing or slipping the ash-receptacle into place. The rotating shaft passing through the center of the inflowing matter has a tendency to keep it loosened up so that there is no danger of the mass clogging.

As the screening-cylinder is rotated in the operation, the larger particles gradually work along toward the opposite end from which they enter by reason of the inclined surface of the cylinder and escape therefrom into the space 34 between the ends of the cylinder and the casing and are finally discharged therefrom through a spout 35 into any suitable receptacle provided. The movement of the heavier particles is so gradual that all the waste and fine dust escape into the proper receptacle and not out into the

atmosphere. In the larger buildings it is usually found convenient to sift the ashes in the basement instead of outside, as it saves the time and labor of carrying the portion 5 saved out and back again. Then again where it is built up solid there is not the room to go outside for the purpose, and therefore making a dust proof apparatus a necessity.

Having thus described my invention, what 10 I claim is—

1. In a device of the character described, the combination with a casing, of a screen rotatively mounted therein, manually operable means for actuating said screen, a hopper, a connection between the hopper and one end of the casing, a discharge spout leading from the opposite end of the casing, a receptacle, a closure for said receptacle carried by the casing, there being an elongated opening formed through said closure, a hinged door forming a part of said closure, said hinged door lying outside of said cas-

ing, said receptacle having inclined upper edges, and a wedge member mounted upon the under side of the cover and adapted to 25 form a wedge connection between said cover and said receptacle.

2. In an ash-sifter, a casing provided in the underside with a longitudinal opening, a screening-cylinder rotatably inclosed in 30 said casing, the angle-plates inclosing said opening and extending downward therefrom, a cover secured to said angle-plates and provided on the underside with a beveled wedge member, an ash receiving can 35 presenting a corresponding inclined edge and engaging said beveled flange with a wedging action in forming a tight joint.

In testimony whereof I affix my signature, in presence of two witnesses.

HARRY L. HASTINGS.

Witnesses:

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G. E. CHURCH.