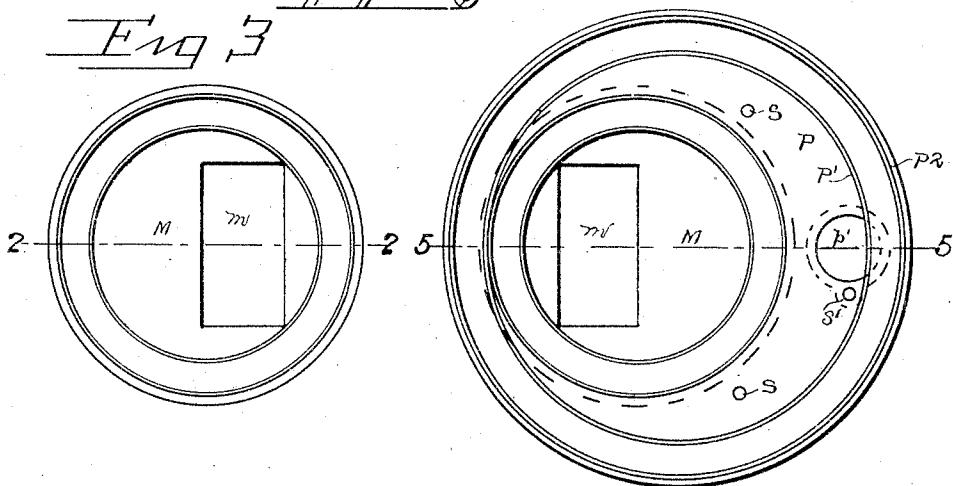
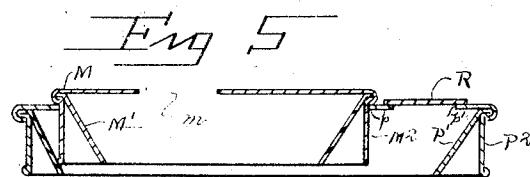
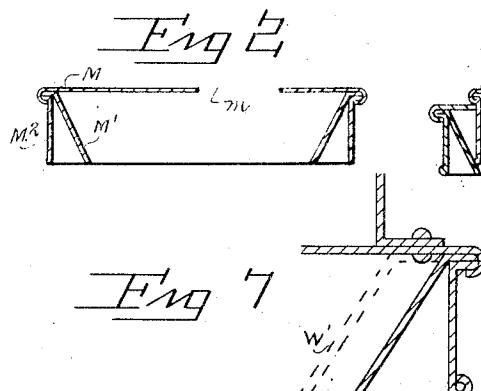
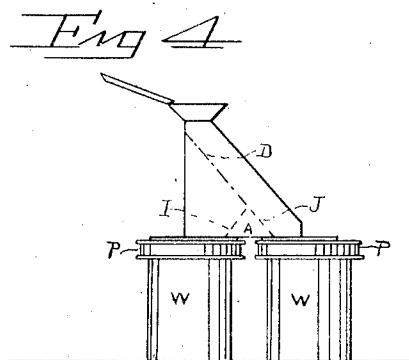
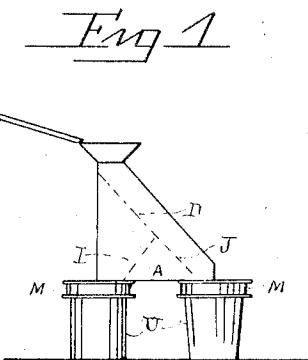


J. S. BROWN.  
ASH SIFTER OR ANALOGOUS DEVICE.  
APPLICATION FILED JAN. 7, 1910.

1,028,537.

Patented June 4, 1912.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES S. BROWN, OF HARRISON, NEW YORK.

## ASH-SIFTER OR ANALOGOUS DEVICE.

1,028,537.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed January 7, 1910. Serial No. 536,849.

To all whom it may concern:

Be it known that I, JAMES S. BROWN, a citizen of the United States, residing in Harrison, Westchester county, State of New York, and doing business in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Ash-Sifters or Analogous Devices, of which the following is a full and 10 complete description.

I have found that in transferring material from one receptacle to another for the purpose of sifting, or treating in any other manner is often accompanied by an undesirable scattering of dust, and I have found that a construction which presents an ordinary loose joint around the junction of the sifter or conveyer with a bucket or other cylindrical vessel, can be made to serve with 20 practical tightness by extending two sheets of metal past the joint.

I have devised a construction and arrangement of a sifter, the two discharge passages of which utilizes this invention, and it is 25 thereby adapted to serve without change on a considerable range of the receiving vessels. I provide further a nearly annular part to be applied on each base, when required, which adapts the same apparatus to 30 serve on receiving vessels of larger diameters.

The following is a description of what I consider the best means of carrying out this invention.

35 The accompanying drawings form a part of this specification.

Figure 1 is a side view of two receiving vessels and of my improved ash-sifter. The two receiving vessels are each round and approximating the size of an ordinary bucket. Figs. 2 and 3 show portions of the same on a larger scale. Fig. 2 is a central vertical section on the line 2-2 in Fig. 3, and Fig. 3 is a view from below with the 45 receiving vessels omitted. Fig. 4 is a side view corresponding to Fig. 1, showing the same ash-sifter, with an addition applied at will, which adapts it to serve on vessels of greater diameter, as ordinary ash-cans.

50 Figs. 5 and 6 belong with Fig. 4. They are on the same scale as Figs. 2 and 3 and partly correspond therewith. Fig. 5 is a central vertical section on the line 5-5 in Fig. 6, and Fig. 6 is a view from below with the re-

ceiving vessels omitted. Fig. 7 is a cross section of a small portion on a still larger scale, showing what I esteem the preferable mode of joining the parts. It is on the line 2-2 in Fig. 3.

Similar letters of reference indicate corresponding parts in all the figures where they appear.

Referring to the figures, the receiving vessels, which may be ordinary buckets, are indicated at U, they may be of any convenient depth or general shape. The device which I may term a conveyer is supported by the receiving vessels and the parts of the device which form the back, front and sides are a portion of the more or less permanent structure. Over the part D, and in a correspondingly inclined position I hinge a door, which allows easy access for cleaning if such becomes necessary. The part D forming the main deflector may be of fine or coarse mesh 75 so as to separate and deflect into other channels a part of the material passing over the deflector. A greater portion of the material upon leaving the part or deflector D passes into one of the receptacles U, through a 80 portion that has been separated will fall upon the inclined plate J to be directed thereby into the other receptacle.

I will designate as "small bottoms" the provisions I make for guiding the material 85 down from the conveyer into the receptacle and for the preventing the escape of dust. I provide two small bottoms for each conveyer of a size to serve with buckets, these two bottoms may be alike and I will so describe them. Each is composed of three parts, permanently joined together, and to the conveyer with which they serve by riveting or otherwise. At M, I indicate the top of each of these "bottoms," of bases. It is 90 a disk with a large rectangular hole m. Two receptacles being placed proper distances apart, the two bottoms M, M are applied one on each and serve as a cover therefor. A firm and close bearing upon each receptacle is secured through the intervention of a conical lip M', which is riveted or otherwise strongly secured to the under side of each of the bottoms M.

My device has, besides the conical lip M', 105 a cylindrical lip M'', exterior to the conical one and extending down a little farther. In use, this outer lip extends downward on the

exterior of the vessel, upon which the device is supported.

In Figs. 5 and 6 I show additional parts intended to be used with larger receiving vessels. These parts are portable and may be removed when not actually in use, but when it is required to sift into much larger vessels, one of these additional parts is applied under and forced up on each of the 10 lips  $M^2$ . An unsymmetrical, but substantially ring-shaped piece of metal  $P$ , is constructed of the same material as the smaller rings. A large circular hole  $p$  slightly out of the center is produced in the plate  $P$ , and 15 is of such a size as to fit easily upon the cylindrical lip  $M^2$ . A conical lip  $P'$  extends down as shown, and a cylindrical lip  $P^2$  outside of the conical lip extends down slightly lower than the conical lip  $P'$  and has its 20 lower edge wired. This lip  $P^2$  serves the same functions in relation to a larger vessel as does the lip  $M^2$ , on the kisk  $M$ . I employ fastening button  $Q$ , each turning on a loose rivet  $S$  to hold the two disks  $M$  and  $P$  25 in operative relation. The eccentric placing of each outer ring  $P^2$ , relatively to the corresponding inner ring  $M'$  gives room for a hole  $p'$  in the position shown, which performs the important function of allowing 30 the quantity and distribution of the material in the receiving vessel to be inspected. At  $R$ , I have shown a cover loosely secured by the rivet  $S'$  and which closes the hole  $p'$ .

In use there are always two sheets of 35 metal extending down, one within and the other without each receiving vessel, and the escape of dust through the junction of the receiving vessel and the conveyer is so restrained that I consider it practically prevented.

Having carefully and fully described my

invention what I claim and desire to secure by Letters Patent is:—

1. A device of the character described comprising a stationary casing, means within said conveyer for deflecting and retarding material during its passage through said casing, a base for said casing, comprising a plurality of disks, each disk being provided with an opening and a plurality of downwardly extending rims, one within another, and arranged to receive the upper edge of a receptacle between them, the innermost rim disposed at an angle to the outer rim and adapted to perform the double functions of fitting snugly upon receptacles of different diameters and receiving and deflecting material passing through said base from the deflectors of said casing as specified. 45 50 55 60

2. A device of the character described, comprising a casing, means within said casing for deflecting and retarding material during its passage through said casing, a base for said casing comprising a plurality 65 of disks in pairs one within the other, each disk being provided with an opening and a plurality of downwardly extending rims arranged to receive the upper edge of a receptacle between them, one of said rims disposed at an angle to another rim and coöperating therewith to perform the double 70 function of fitting snugly upon receptacles of different diameters and receiving and deflecting material passing through said base 75 from the deflectors of the casing as specified.

Signed at New York city N. Y. this 4 day of January 1910.

JAMES S. BROWN.

Witnesses:

THOMAS DREW STETSON,  
F. A. CHICKERING.