Dec. 1 1925 1,563,722

B. A. CARLSON ET AL

SIFTER

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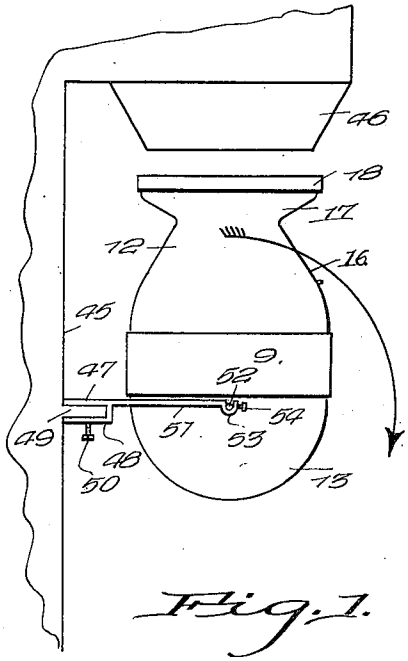


Fig. 1.

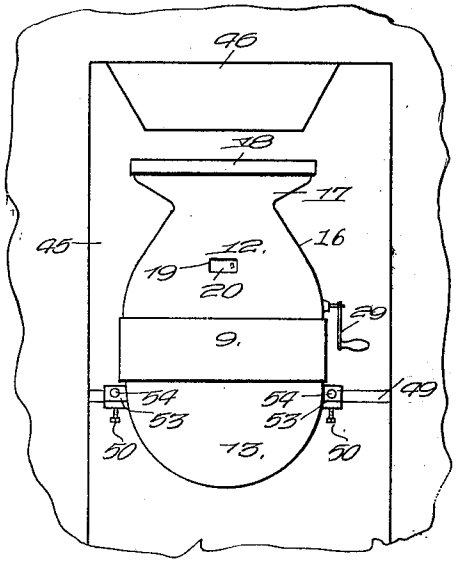


Fig. 2.

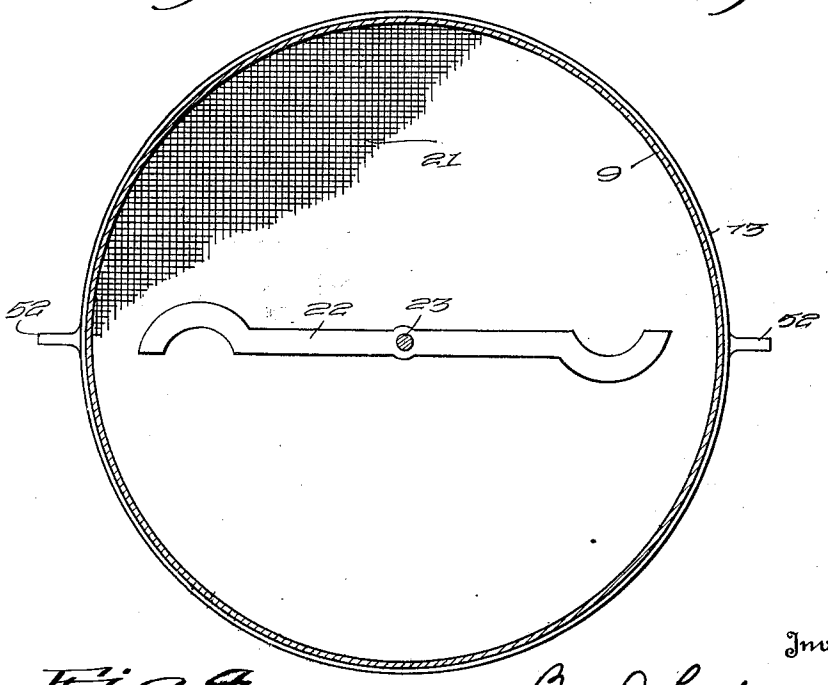


Fig. 3.

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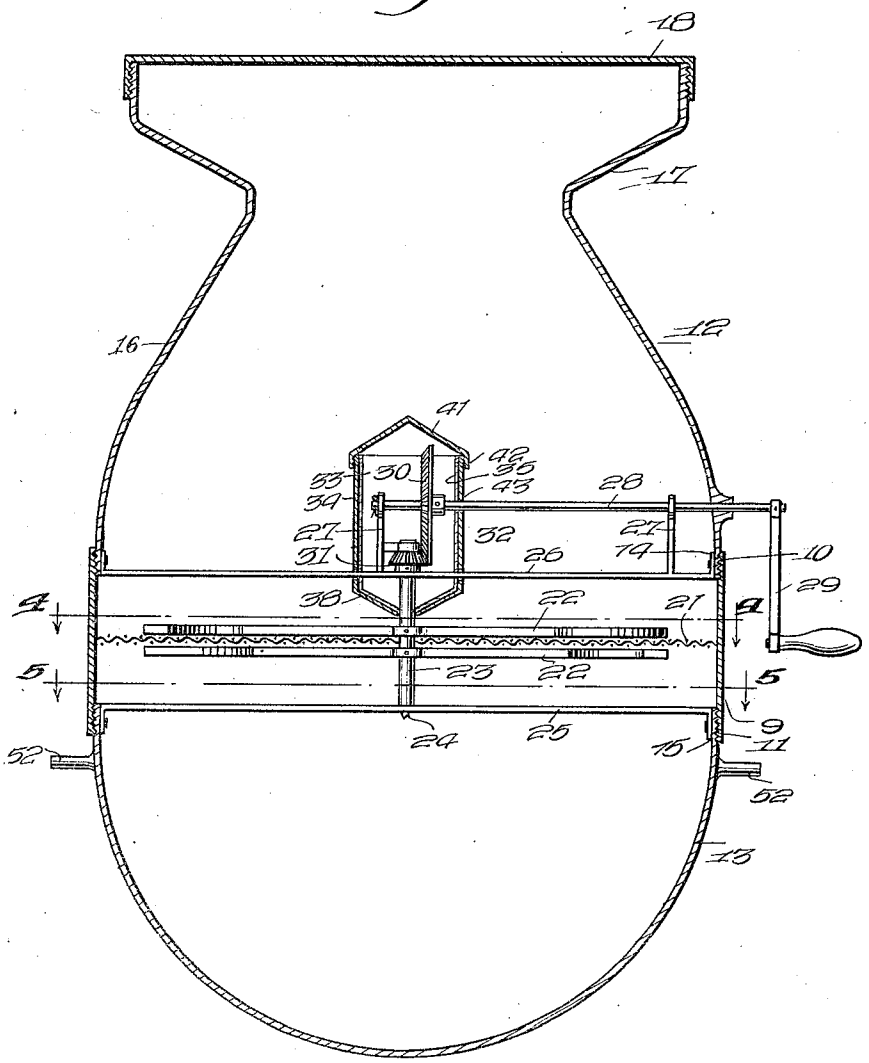
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SIFTER

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Fig. 3.



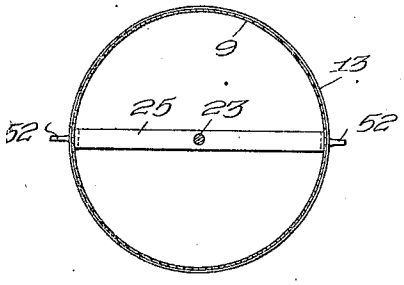


Fig. 5.

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SIFTER

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Fig. 6.

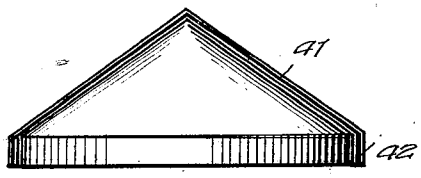


Fig. 7.

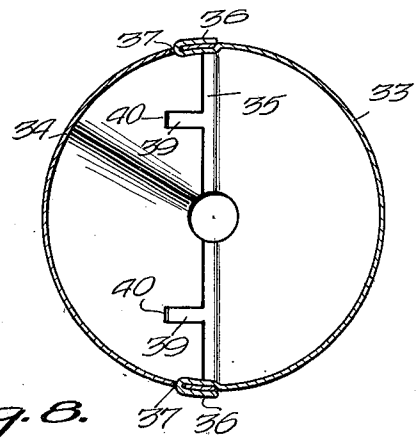


Fig. 8.

Inventors

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Attorney

Patented Dec. 1, 1925. 1,563,722

UNITED STATES PATENT OFFICE.

BESSIE A. CARLSON AND OLIVER R. SNOW, OF NEWCASTLE, WYOMING, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, OF THREE-FOURTHS TO SAID BESSIE A. CARLSON AND ONE-FOURTH TO MARY B. CARLETON, BOTH OF NEWCASTLE, WYOMING.

SIFTER.

Application filed March 27, 1924. Serial No. 702,425.

To all whom it may concern:

Be it known that we, BESSIE A. CARLSON and OLIVER R. SNOW, citizens of the United States, residing at Newcastle, in the county of Weston and State of Wyoming, have invented certain new and useful Improvements in Sifters, of which the following is a specification.

The present invention relates to domestic sifters and mixers, and particularly those employed for sifting flour and mixing it with other materials.

As is well known, it is highly desirable that materials of this kind be passed through a screen several times, in order to secure an even consistency and thorough mixing of the ingredients.

The primary object of the present invention is to provide an apparatus of this character, by which the results can be quickly and completely effected.

In the accompanying drawings:

Figure 1 is a side elevation of one embodiment of the invention,

Figure 2 is a front elevation of the same,

Figure 3 is a vertical sectional view on an enlarged scale,

Figures 4 and 5 are cross sectional views, respectively on the lines 4—4 and 5—5 of Figure 3, Figure 5 being on a smaller scale,

Figure 6 is a side elevation on an enlarged scale of the gear housing, with the parts thereof separated,

Figure 7 is a similar view of the gear housing in assembled condition,

Figure 8 is a sectional view on the line 8—8 of Figure 7.

In the embodiment disclosed, a body ring 9 is employed, having its end portions threaded, is illustrated at 10 and 11. Oppositely disposed receptacles 12 and 13 have their open ends also threaded, as illustrated at 14 and 15, and respectively screwed into the ends of the body ring 9. The receptacle 12 has an outwardly tapered portion 16 terminating in a flared mouth 17 closed by a detachable cap 18 that may be threaded thereto. In one side of the receptacle 12 is an outlet opening 19 normally closed by a sliding plate 20. The other receptacle 13 is semi-spherical in form.

Extending across the body ring 9 is a screen 21. Rotatable sweeps 22 operate over the opposite faces of said screen and are carried by a shaft 23 passing through the center of the screen. This shaft has a step-bearing 24 in a brace bar 25 that extends across the open end of the receptacle 13. The shaft 23 also has a rotatable bearing in a brace bar 26 extending across the inner open end of the receptacle 12. Said brace bar 26 is provided with standards 27, in which is journaled a driving shaft 28 that projects from one side of the receptacle 12, and has on its projecting end suitable driving means. In the form shown a handle crank 29 is provided for the purpose. The inner end of the shaft 28 has a beveled gear 30 meshing with a beveled pinion 31 on the shaft 23. It will thus be evident that upon the operation of the shaft 28, the shaft 23 will be driven and the sweeps 22 rotated over the opposite surfaces of the screen 21.

The gearing 30—31 is enclosed in a housing designated generally by the reference numeral 32 illustrated in detail in Figures 6, 7 and 8. The housing consists of two semi-cylindrical walls 33 and 34. The margins of one section or member, as 33, shown at 35 are inset so as to underlie the margins of the other section or member 34, and said margins 35 are provided with tongues 36 adapted to pass through openings 37 in the other member 34 and be bent so as to hold the sections together. These sections are also provided with semi-conical bottom portions 38 and the section 33 is provided with tongues 39 passed through openings 40 in the other bottom member and bent outwardly, thereby holding the housing in assembled relation. This housing is further provided with a conical top 41 having a threaded flange 42 screwed upon the top end of the assembled housing body. Said housing body is provided with a transverse opening 43 through which the shaft 28 passes and with slots 44 through which extend the bar 26, these openings being preferably formed in the cooperating margins of the two sections 33 and 34.

The sifter may be supported in any desired manner. In the present embodiment it is shown as mounted on a portion of a kitchen cabinet, designated 45, and beneath

the discharge end 46 of a flour container. To this end a bracket 47 is employed having a clip portion 48 that embraces a supporting flange 49 on the cabinet, and is held thereto by a set screw 50. The bracket is bifurcated and the arms 51 thereof extend on opposite sides of the receptacle 13, said receptacle having trunnions 52 journaled in seats 53 formed in the outer ends of the arms. Set screws 54, passing through the seats, are adapted to engage and hold the trunnions.

The operation of the embodiment of the sifter is as follows: If the cap 18 is removed flour can be delivered directly from the discharge end 46 of the container into the upper receptacle 12, and baking powder or other materials may be also placed in said receptacle. The cap 18 is then replaced and the sweeps operated, so as to sift the flour into the lower receptacle 13. The set screws 54 are then released and the sifter may then be removed from the bracket, the opening 19 uncovered and any lumps that fail to pass through the screen can be removed through said opening 19. The sifter is then replaced in the bracket and its position reversed. The sweeps are again operated and the material thus sifted back into the receptacle 12. This operation may be readily repeated as many times as desired, after which the cap 18 is removed and the contents discharged.

From the foregoing it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is:

1. A sifter comprising oppositely related receptacles, one of which has a rounded closed outer end, the other having an open end and a detachable closure therefor, a pivotal mounting for the sifter carried by the first mentioned receptacle, and sifting means interposed between the receptacles.

2. A sifter comprising oppositely related receptacles, one of which has a rounded closed outer end, the other having an open end and a detachable closure therefor, a pivotal mounting for the sifter carried by the first mentioned receptacle, a screen interposed between the receptacles, and a sweep operating over the screen.

3. A sifter comprising a tubular body having threaded margins, oppositely disposed receptacles having threaded margins screwed to the margins of the body, a screen across the body, sweeps operating on opposite sides of the screen, a support, trunnions on one of the receptacles engaged with the support and located nearer one end of the sifter than the other, and operating means for the sweeps projecting from the other receptacle.

4. A sifter comprising a support, oppositely related receptacles, a screen interposed between the receptacles, a pivot mounting between one of the receptacles and the support that permits the swinging of the receptacles to reversed relation, agitator means operating on the screen, and means projecting from the other receptacle for operating the agitator means.

5. In a sifter, the combination with a bracket having spaced arms, of a reversible body comprising an intermediate threaded ring and a screen across the same, and oppositely disposed receptacles screwed to the ring, sweeps operating over the faces of the screen, operating means for the sweeps projecting from one of the receptacles, and trunnions on the other receptacle journaled on the arms of the bracket.

6. In a sifter, the combination with a body and a screen thereon, of a rotary sweep operating over the screen, an operating shaft in the body geared to the sweep, and a housing for the gearing comprising semi-tubular sections joined at their side margins, and a cap detachably mounted on the ends of the assembled sections.

7. In a sifter, the combination with a body and a screen thereon, of a rotary sweep operating over the screen, an operating shaft on the body geared to the sweep, and a housing for the gearing comprising semi-tubular sections having their side margins provided respectively with openings and holding tongues passed through the openings, and a cap detachably mounted on the ends of the assembled sections.

8. In a sifter, the combination with a body and a screen thereon, of a rotary sweep operating over the screen, an operating shaft on the body geared to the sweep, and a housing for the gearing comprising semi-tubular sections joined at their side margins, the ends of said sections having screw threads, and a cap threaded on said ends.

9. In a sifter, the combination with a body and a screen thereon, of a rotary sweep operating over the screen, an operating shaft on the body geared to the sweep, and a housing for the gearing comprising semi-tubular sections having their side margins overlapped, certain of said margins having openings and the coacting margins having holding tongues passed through said openings, the upper ends of the sections being threaded, and a cap closing said ends and screwed thereto.

10. A sifter, comprising a body ring section and oppositely disposed receptacles

mounted thereon, a screen across the ring, a shaft passing through the screen, sweeps on the shaft operating on opposite sides of the screen, a shaft in one of the receptacles projecting therefrom and also geared to the first shaft, a housing for the gearing located in the receptacle carrying the second shaft, a supporting bracket, and trunnions on the other receptacle journaled in said bracket.

In testimony whereof, we affix our signatures.

BESSIE A. CARLSON.
OLIVER R. SNOW.

Certificate of Correction.

It is hereby certified that Letters Patent No. 1,563,722, granted December 1, 1925, upon the application of Bessie A. Carlson and Oliver R. Snow, of Newcastle, Wyoming, for an improvement in "Sifters," were erroneously issued, by direct and mesne assignments of three-fourths, to Bessie A. Carlson and one-fourth to Mary B. Carleton, both of Newcastle, Wyoming, whereas said Letters Patent should have been issued *three-fourths* to said Bessie A. Carlson and *one-eighth* to Mary B. Carleton, both of Newcastle, Wyoming, as assignee, by mesne assignments, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 19th day of January, A. D. 1926.

[SEAL.]

WM. A. KINNAN,
Acting Commissioner of Patents.