

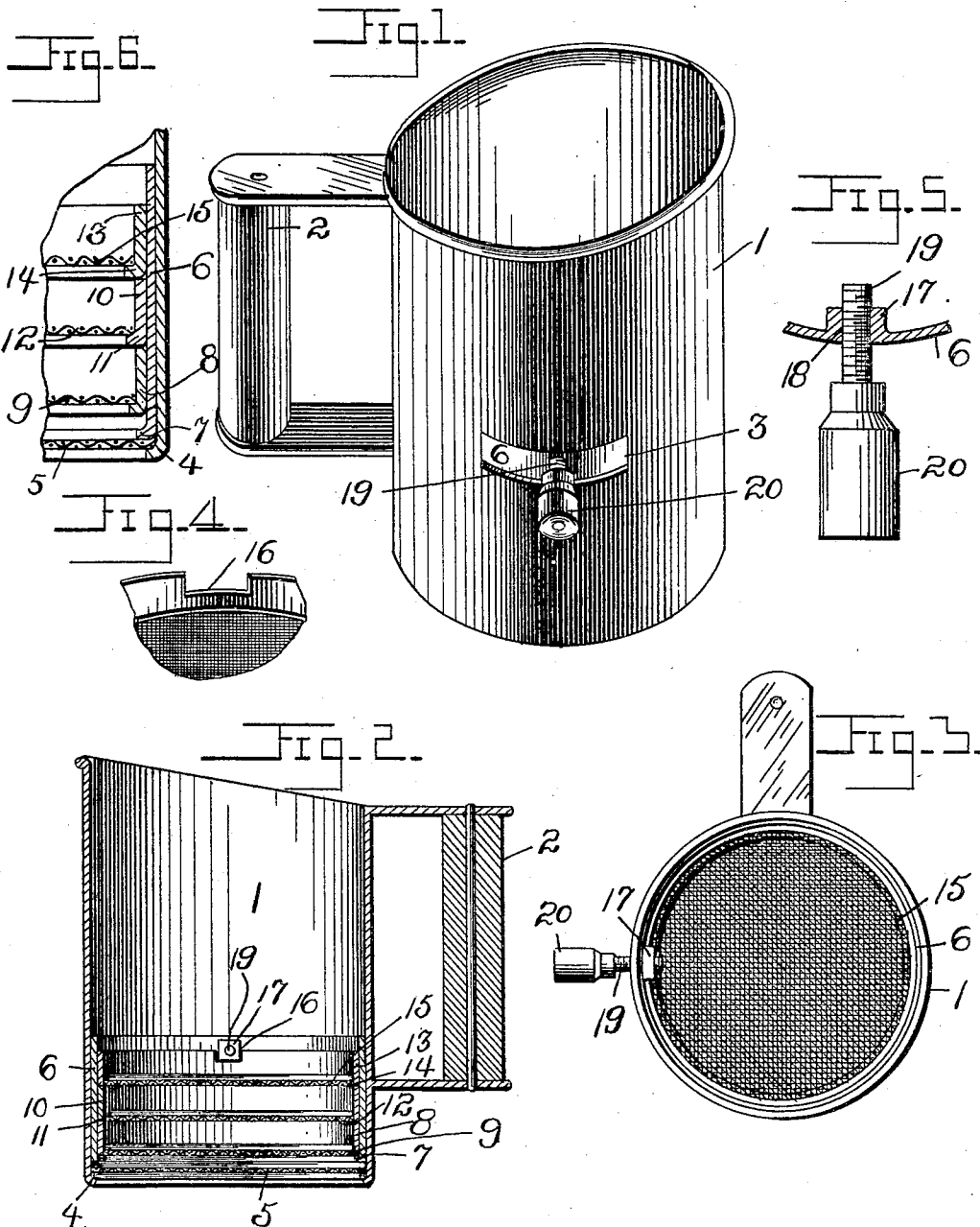
F. E. BOYLE.

SIFTER.

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935,354.

Patented Sept. 28, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

FAY E. BOYLE, OF CENTERVILLE, IOWA.

SIFTER.

935,354.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, FAY E. BOYLE, a citizen of the United States, residing at Centerville, in the county of Appanoose and State of Iowa, have invented certain new and useful Improvements in Sifters, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to household sifters especially adapted for sifting or screening flour, sugar, salt, etc., and the principal object of the invention is to provide a series of screens arranged one above the other in such a manner that there is no danger of any of the material passing through the sifter without being thoroughly sifted.

In carrying out the object of the invention generally stated above it will, of course, be readily understood that the essential features thereof are susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of the improved sifter. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a top plan view. Fig. 4 is a detail view of the upper edge of the sifting cylinder. Fig. 5 is a detail view of the handle for imparting a sifting movement to said cylinder. Fig. 6 is a fragmentary sectional view showing the supports for the various screens.

Like characters of reference designate corresponding parts in the several figures of the drawing.

Referring to said drawings, 1 designates the body of the sifter which may be of a cup, or other shape, and provided with a handle 2 to facilitate the holding and handling of the same during the sifting or screening operation. Said body 1 is provided at one side with a horizontally arranged elongated slot 3, said slot 3 being preferably formed at a point below the central portion of the body, and at its bottom, the body has its edge intumed as indicated at 4 to form a seat for a screen 5 which may be soldered or otherwise permanently seated thereon. A sifting cylinder 6 which is of a size to permit of a snug fit within the body of the sifter, has its bottom edge intumed to form a seat 7 for an upstanding collar flange 8 of a screen 9, which when seated on said intumed edge in said cylinder 6, is in a plane closely adjacent to the screen 5 car-

ried by the bottom of the body 1 so that when a sifting movement is imparted to said screen 9 the material that falls on the screen 5 will be agitated and cause it to be sifted again by said screen 5, as will be obvious. The said collar 8 fits snugly within the cylinder 6, and its upper edge forms a seat for a flange collar 10 which also fits snugly within the cylinder 6 and has its bottom edge intumed to form a seat or rest 11 for a screen 12. The top edge of the flange collar 10, in turn, forms a seat or rest for a flange collar 13 also fitting snugly within the cylinder 6 and having its bottom edge intumed to form a seat or support 14 for a screen 15. The upper edge of the flanged collar 13 is provided with a notch 16 that surrounds one portion of a nut shaped lug or protuberance 17 carried by, or formed adjacent to the upper edge of the cylinder 6 and which has a threaded opening 18 formed through it for the reception of a screw 19 that engages with the opening 18 and projects through the slot 3 for the reception of a handle, or finger hold 20, through the medium of which the sifting cylinder may be oscillated to sift the material in the body 1, in an obvious manner.

While the accompanying drawings show, and the foregoing description describes, the use of three screens within the sifting cylinder, it will, of course, be readily understood that more or less may be used, as desired, and as the same are readily removable from said cylinder, it is a very simple matter to insert an additional one, or remove one.

From the foregoing description it will be understood that an oscillatory movement of the handle 20 will impart a similar movement to the sifting cylinder 6, and the screens fitted therein, with the result that the material will be thoroughly sifted several times before it reaches the bottom sifter carried by the body, and although the said bottom sifter is a stationary one relative to the body, the material that falls thereon will be thoroughly sifted thereby owing to the agitation imparted to the material by the screen closely adjacent thereto.

A distinctive feature of the invention is in the snug or wedging fit of the screens within the cylinder 6, which, while assuring of the same at all times being retained in proper sifting positions, yet they can be readily removed therefrom for cleaning or other purposes. And also the cylinder 6 can be re-

5 moved from the body 1 by disengaging the screw therefrom, thereby permitting access to all parts of the sifter so that the same can be readily cleaned and sterilized when desired.

10 By arranging the sifting mechanism within the lower part of the body 1, the major portion of said body is adapted for a large amount of the material to be sifted, which is of a great saving both of labor and time. And it will also be understood that as all parts of the screens which are exposed to the material are protected by the different screen collars, there are no edges left for the material to fall behind, thereby assuring of

15 thoroughly sifted.
Claims:—
20 1. A household sifter comprising a body provided with an intumed bottom portion, a screen permanently seated on said intumed bottom portion, a sifter cylinder fitted within said body, a plurality of screens arranged one above the other within said cylinder and
25 each being provided with a flange collar the upper edge of which forms a seat for the screen above it, and means for imparting an oscillatory movement to said cylinder.

2. A household sifter comprising a body, a screen carried by the bottom thereof, a sifter cylinder fitted within said body, a plurality of screens arranged one above the other within said cylinder and each being provided with a seat for the screen above it, and means for oscillating the said cylinder.

35 3. A sifter comprising a body provided with a bottom screen, a sifting cylinder mounted therein, means for oscillating said cylinder, and a plurality of screening collars superimposed within said cylinder and each forming a support for the outer edge of a screen.

40 4. A sifter comprising a body provided with a bottom screen, a sifting cylinder mounted within said body and having its bottom resting upon said screen, a plurality of superimposed screens within said cylinder, the bottom one of which is retained adjacent the screen of the body, and means for oscillating said sifting cylinder.

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

FAY E. BOYLE.

Witnesses:

W. M. SPEERS,
A. P. SPEERS.