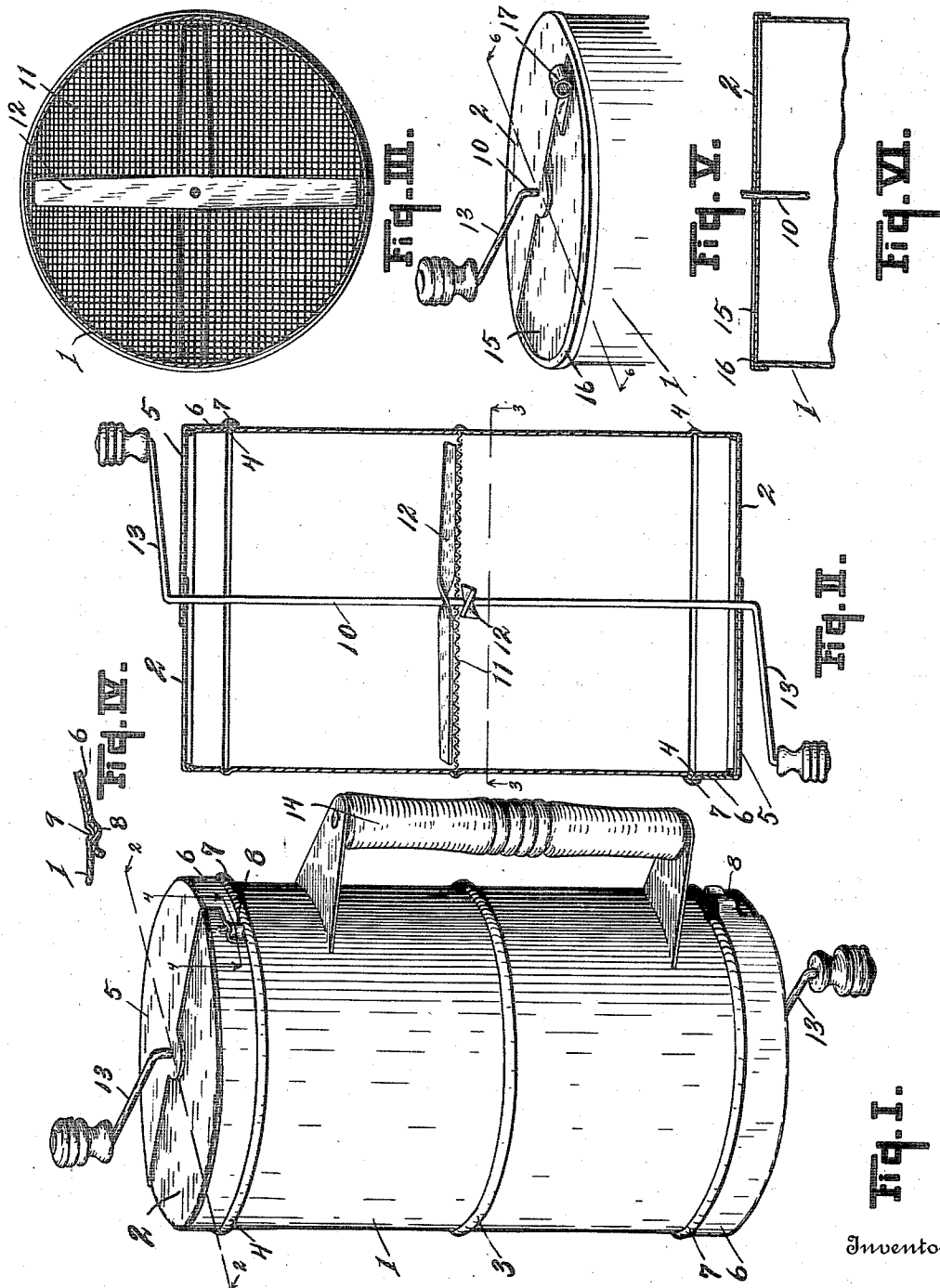


C. E. GRAY.
 FLOUR SIFTER.
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1,018,822.

Patented Feb. 27, 1912.



Witnesses

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FLOUR-SIFTER.

1,018,822.

Specification of Letters Patent.

Patented Feb. 27, 1912.

Application filed October 12, 1911. Serial No. 654,248.

To all whom it may concern:

Be it known that I, CORA ELLEN GRAY, a citizen of the United States, residing at the city of Battle Creek, county of Calhoun, and State of Michigan, have invented certain new and useful Improvements in Flour-Sifters, of which the following is a specification.

This invention relates to improvements in flour sifters.

The main objects of this invention are, first, to provide an improved flour sifter in which the flour can be repeatedly sifted without discharging from the sifter receptacle. Second, to provide an improved flour sifter embodying these advantages which is very convenient to use and one which is simple and economical in structure.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a perspective view of my improved flour sifter. Fig. II is a central longitudinal section taken on a line corresponding to line 2—2 of Fig. I, the shaft 10 and the blades or arms 12 thereon being shown in full lines. Fig. III is a transverse section on the line corresponding to line 3—3 of Fig. II. Fig. IV is a detail section on the line corresponding to line 4—4 of Fig. I, showing the details of one of the closure catches. Fig. V is a detail perspective of a slightly modified structure, the modifications being in the form and arrangement of the closure. Fig. VI is a detail longitudinal section taken on a line corresponding to line 6—6 of Fig. V.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the body or receptacle 1 is preferably cylindrical and provided with end walls 2 partially closing its ends. These end walls are disposed so as to provide diagonally opposite end open-

ings. The body in the structure illustrated, has a central annular bead 3 and an annular bead 4 at each end. The closures 5 are provided with flanges 6 embracing the ends of the body, the flanges having beads 7 engaging the end beads 4. The flanges are extended into tongue-like catches 8 which coact with lug-like keepers 9 struck up from the wall of the receptacle (see Figs. I and IV). The shaft 10 is arranged longitudinally through the body, the shaft being journaled in the end walls 2. The closures 5 are pivoted on this shaft.

By flanging and beading the closures to embrace the end beads 4 of the receptacle, the closures are supported on their pivots so as to form very close joints, which is particularly desirable in order to prevent the flour escaping as it is sifted from one end of the receptacle to the other, through the sieve 11. The sieve 11 is arranged with its edges in the bead 3 and is supported thereby. On the shaft 10 at each side of this sieve, I arrange blades or arms 12. These blades or arms are preferably formed of strips of sheet metal which are twisted so that the faces of the arms are at an angle to the plane of the sieve. The arms or blades are transversely disposed relative to each other so that they do not clog or interfere with the passage of the flour through the sieve. The shaft 10 is provided with a crank 13 at each end. The handle 14 is centrally disposed on the receptacle so that the receptacle may be reversed, that is held with either end up. The openings at the end being disposed diagonally opposite are in the same relative position with the sifter either end up.

In use, the flour is placed in one end of the receptacle which can be done by dipping it into the bin with the closure open. The closures are closed and the flour sifted into the opposite end, the receptacle reversed, and the operation repeated as desired.

In the modification shown in Fig. V, the closure 15 is arranged on the inside of the end walls, the end wall being provided with a retaining flange 16 for the closure. The finger piece 17 is disposed to serve as a stop for the closure.

I have illustrated and described my improved flour sifter in detail in a simple and practical embodiment thereof. Modifications other than that illustrated will be obvious to those skilled in the art to which this invention relates.

I desire to be understood as claiming my improvements specifically in the form illustrated as well as broadly within the scope of the appended claims.

5 Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a flour sifter, the combination of a cylindrical receptacle having fixed end walls partially closing its ends, the said end walls being disposed to provide diagonally opposite end openings, said receptacle being provided with a central annular bead and an annular bead at each end; segmental end closures flanged to embrace the ends of the receptacle, the flanges being beaded to embrace the end beads of said body, and being extended to provide tongue-like catches, the receptacle having lug-like coacting keepers struck up therefrom; a handle disposed centrally on said receptacle so that it may be reversed; a sieve arranged with its edges in the said central bead; a shaft having a crank at each end arranged longitudinally through said receptacle and journaled in its said fixed end walls, said shaft being the pivot for the said end closures; and arms arranged on said shaft at each side of said sieve, said arms being transversely disposed relative to each other.

2. In a flour sifter, the combination of a cylindrical receptacle having fixed end walls partially closing its ends, the said end walls being disposed to provide diagonally opposite end openings; segmental end closures flanged to embrace the ends of the receptacle, said flanges being provided by the receptacle having lug-like coacting keepers struck up therefrom; a handle disposed centrally on said receptacle so that it may be reversed; a sieve arranged centrally within said receptacle; a shaft having a crank at each end

arranged longitudinally through said receptacle and journaled in its said fixed end walls, said shaft being the pivot for the said end closures; and arms arranged on said shaft at each side of said sieve, said arms being disposed transversely of each other.

3. In a flour sifter, the combination of a receptacle having fixed end walls partially closing its ends, the said end walls being disposed to provide diagonally opposite end openings; end closures flanged to embrace the ends of the receptacle, said flanges being provided by the receptacle having lug-like coacting keepers struck up therefrom; a handle disposed centrally on said receptacle so that it may be reversed; a sieve arranged centrally within said receptacle; a shaft having a crank at each end arranged longitudinally through said receptacle and journaled in its said fixed end walls, said shaft being the pivot for the said end closures; and arms arranged on said shaft at each side of said sieve, said arms being disposed transversely of each other.

4. In a flour sifter, the combination of a receptacle having fixed end walls partially closing its ends; end closures; a sieve arranged centrally within said receptacle; a shaft having a crank at each end arranged longitudinally through said receptacle and journaled in its said fixed end walls, said shaft being the pivot for the said end closures; and arms arranged on said shaft at each side of said sieve, said arms being disposed transversely of each other.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

CORA ELLEN GRAY. [L. S.]

Witnesses:

J. B. SPERRY,
W. H. FINLAY.