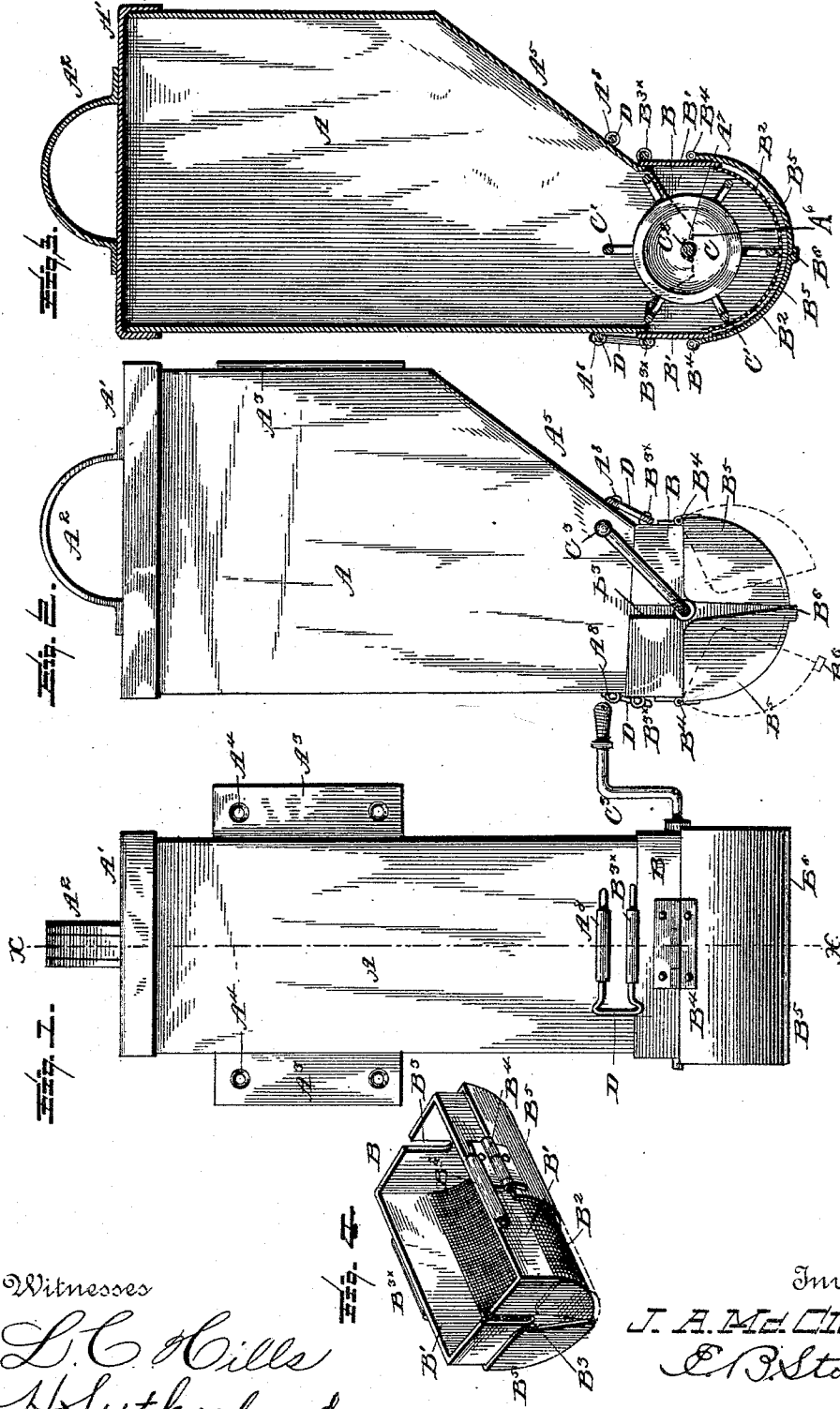


(No Model.)

J. A. McCLELLAN.
FLOUR BIN AND SIFTER.

No. 411,671.

Patented Sept. 24, 1889.



UNITED STATES PATENT OFFICE.

JOHN A. McCLELLAN, OF HICO, TEXAS.

FLOUR BIN AND SIFTER.

SPECIFICATION forming part of Letters Patent No. 411,671, dated September 24, 1889.

Application filed May 25, 1889. Serial No. 312,084. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. McCLELLAN, a citizen of the United States, residing at Hico, in the county of Hamilton, State of Texas, have invented certain new and useful Improvements in Flour Bins and Sifters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to a combined flour or other cereal bin and sifter, the main object of the invention being the provision of a combined bin and sifter, the former being adapted to hold a sack or more of flour, and when it is desired to obtain for use a finely-screened quality of flour it is only necessary to open the doors on the under side of the screen-frame and operate the sifter.

Another object is to provide means attached to the sifter by which it may be secured to a wall or other place, thereby placing it out of reach of rats, roaches, &c.

Still another object is that the sifter can be quickly and easily put together and taken apart when it is desired to be cleaned, the whole being capable of manufacture at a minimum cost.

Other objects and advantages of the invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a front elevation of a bin and sifter combined constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section on the line *x x* of Fig. 1, and Fig. 4 is a perspective of the screen-frame and its doors.

Like letters of reference refer to like parts in all the figures of the drawings.

A is a bin or receptacle, preferably constructed of sheet metal, and is provided with the lid or cover *A'*, the same in turn having a suitable bail or handle, as *A²*. Soldered or otherwise suitably attached to the rear wall of the bin are the flanges or wings *A³*, which are perforated, as at *A⁴*, for the reception of screws or other fastenings by which the bin may be attached to the wall or other place where it is desired to be used. About midway the bin the rear wall thereof is sloped at a suitable angle or incline, as at *A⁵*. The bottom of the bin in this case is dispensed with

and the side walls thereof are extended downwardly to nearly a point, as at *A⁶*, and are recessed, as at *A⁷*, the function of which will be hereinafter apparent. On the front and rear sloping walls of the bin there are suitably attached sleeves *A⁸*.

B is the screen-frame, the end walls of which are at their lower ends rounded or curved and connected by the side walls *B'*, said frame being adapted to receive the concave screen *B²*, which is suitably secured therein. The end walls of the frame B are recessed, as at *B³*, to form a suitable bearing for the journal of the sifter and to permit them to embrace the lower end of the bin. Suitably attached to the side walls *B'* are sleeves *B^{3x}*, similar to those *A⁸* on the bin A.

Hinged, as at *B⁴*, to the screen-frame are the quarto-cylindrical doors *B⁵*, one of which preferably overlaps the other or is provided with a flange *B⁶*, to prevent the escape of flour or the entrance of dust and dirt when the device is not in use. The doors *B⁵* are represented by dotted lines in Fig. 2 as partly opened.

Within the screen-frame B and at a suitable distance apart are arranged the two disks C, which are connected by the bars *C'*, the whole forming what may be termed a "skeleton cylinder." The disks C are further secured to and connected by the shaft *C²*, which is extended at both ends, so as to be journaled in the recesses *B³* in the screen-frame B. On one end of the shaft *C²* the same is further extended to form a suitable crank *C³*, by which the cylinder is rotated. When in place the shaft of the sifter is further engaged by the recesses *A⁷* on the bin A, the whole forming a free and easy bearing. The rods *C'* are projected slightly beyond the periphery of the disks C, and should abut freely against the screen *B²*.

The frame B is fastened to the bin A by the two-pronged pins D, the prongs of which pass through the sleeves *A⁸* and *B³* on the bin and screen-frame, respectively, the heads of the pins being preferably in opposite directions, so that the same cannot pull apart unless the pins are withdrawn. Any other suitable connecting device, however, may be used.

The operation of the invention is as follows: Flour or other cereal having been put into the

bin and a quantity of finely-screened flour is desired for household purposes, the flour is pressed downward by its own weight into the sloping end of the bin and into the screen-
 5 frame and within the skeleton cylinder. The doors of the screen-frame are then opened, the hand at the same time revolving the crank C³, thus screening the flour by the successive passage of the rods over the screen. The
 10 screened flour falls into a suitable receptacle placed there for its reception.

What I claim is—

1. A bin provided with a door or lid and having sleeves secured to said bin at oppo-
 15 site sides, and screening and sifting mechanism provided with similar sleeves, and two-pronged pins for connecting the screening and sifting mechanism to the bin, substantially as specified.

20 2. A bin having sleeves secured thereto at opposite sides and removable screening and sifting mechanism provided with similar sleeves, and two-prong pins engaging said sleeves for connecting the sifting and screen-

ing mechanism to the bin, the said pins being
 25 arranged with their heads in opposite directions, substantially as and for the purpose specified.

3. A screen-frame having recessed and curved end walls and quarto-cylindrical doors
 30 hinged thereto upon opposite sides thereof, with their adjacent edges overlapping, substantially as specified.

4. A screen-frame provided with recessed end walls connected by side walls having
 35 sleeves thereon, quarto-cylindrical doors hinged to said frame, and sifting and screening mechanism arranged within the screen, combined with a bin having like sleeves and
 40 removable prongs engaging said sleeves to detachably hold the screen-frame to the bin, substantially as specified.

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

JOHN A. McCLELLAN.

Witnesses:

W. P. KNIGHT,
 W. P. HAWKINS.