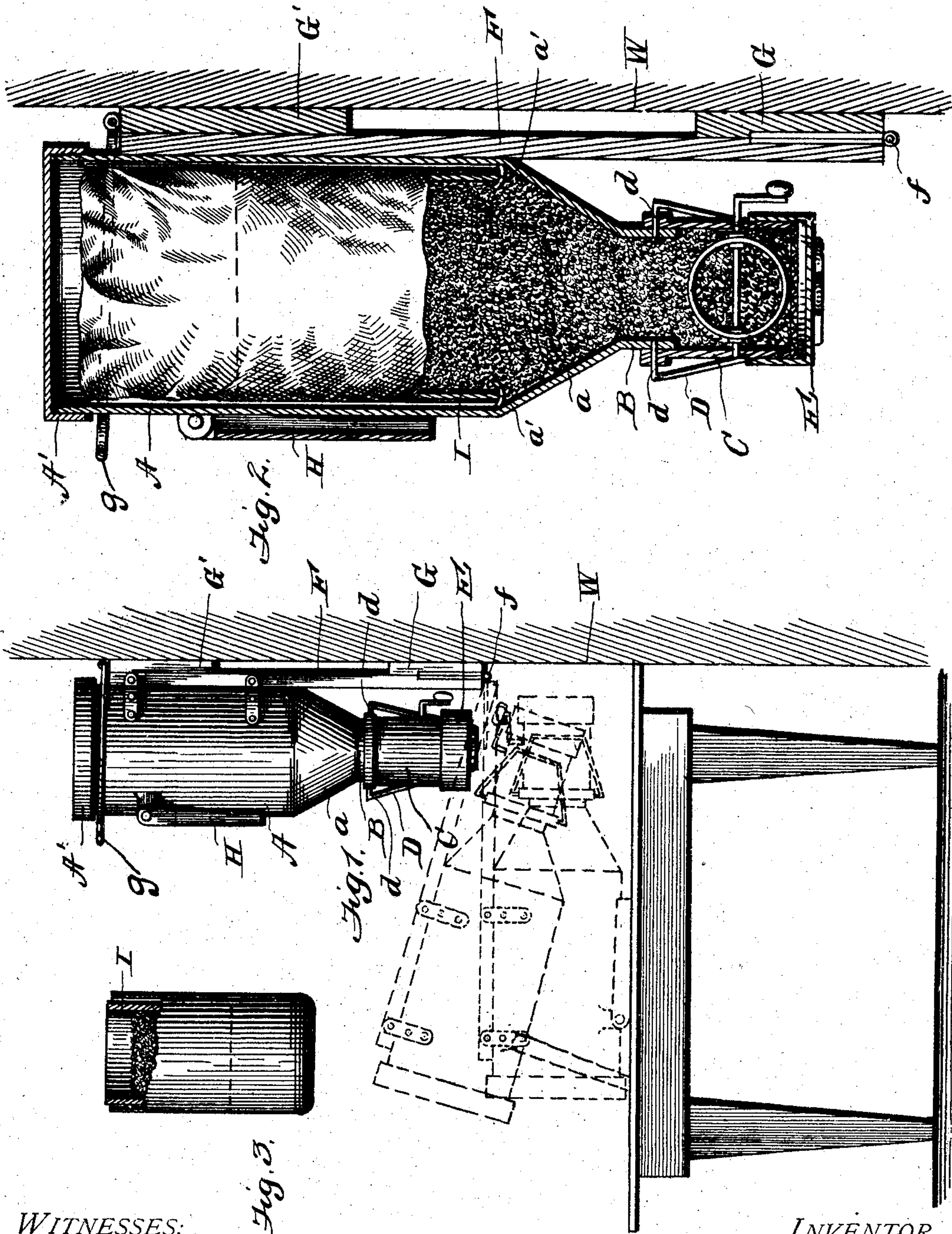


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R. CLARKE.  
FLOUR BIN.

APPLICATION FILED MAR. 31, 1904.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ROBERT CLARKE, OF MOUNT VERNON, OHIO.

## FLOUR-BIN.

SPECIFICATION forming part of Letters Patent No. 780,938, dated January 24, 1905.

Application filed March 31, 1904. Serial No. 201,002.

*To all whom it may concern:*

Be it known that I, ROBERT CLARKE, of Mount Vernon, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Flour-Bins; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in domestic bins for flour, meal, and other like substances; and its object is to facilitate the filling of the bin with less labor and less waste of material.

To this end the invention comprises a bin hinged near its lower end or attached to a support hinged at its lower end to the wall or other upright part of the building so that said bin can be swung or lowered to a substantially horizontal position, its top cover removed, and the material slipped therein endwise, the top replaced, and the bin swung back to vertical position.

The invention further includes novel means whereby the flour or material can be placed in the bin in the original packages, for which purpose I provide a bag-distender consisting of a cylinder adapted to be placed in the mouth of the bag before it is inserted in the bin and which will prevent closure of the mouth of the bag when inverted by the return of the bin to vertical position.

The foregoing features of the invention and other subsidiary features thereof will be explained in detail in the following description of the bin illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the bin, showing it in working upright position in full lines and in lowered position in dotted lines. Fig. 2 is a vertical central section through the bin. Fig. 3 is a detail showing the mode of inserting the distender in a bag.

The bin is preferably made in the shape of a cylinder A, having a conical lower end  $\alpha$  terminating in a reduced cylindrical neck B, to which is attached a sifter C, that telescopes therewith and is retained on the neck by the upper inwardly-bent ends  $d$  of a bail-shaped wire D, said ends projecting through corre-

sponding apertures in the walls of the neck and sifter and can be disengaged therefrom when it is desired to remove the sifter. A removable cup E is fitted over the lower end of the neck B and closes the lower end of the bin when in place. The upper end of the bin is closed by a cover A'.

The bin A, as shown, is secured to a board or support F in any suitable manner, and said board F is secured by a hinge  $f$  at its lower end to a plate or bracket G, which may be securely attached to the wall W. The support and bin may be held in a vertical position by means of a suitable catch. As shown, a spring-catch  $g$  is attached to a plate G', secured to the wall, and passes around the upper portion of bin, and thus retains the bin in vertical position. By disengaging the catch the bin may be lowered, with the support, to the position indicated in dotted lines in Fig. 1, in which position the bin can be upheld by any suitable means provided for that purpose. As shown, the bin is provided with a leg or rest H, hinged or pivoted at its upper end to the front upper part of the bin, said leg lying flat against the bin when the latter is in raised position and swings out, maintaining a vertical position below the bin as the latter is lowered, so as to rest upon the floor or, as shown, upon a table below the bin, thus supporting the outer end of the bin at an angle while in its lowered position and during the filling thereof, if desired. While in this lowered position, the bin is filled by removing its cover A'. The bin shown is especially designed for flour, and to enable bags of flour to be bodily inserted therein without emptying the bags I provide a bag-distender consisting of a cylinder I, which is of less diameter than the bin and slightly less than the diameter of the ordinary sized bag of flour which the bin is designed to hold. This cylinder is slipped into the opened mouth of the bag of flour and pressed down therein (see Fig. 3) until its upper edge is about flush with the top edge of the bag. Then (the bin being in lowered position) the bag and cylinder are slipped into the bin, the top A' replaced, and the bin raised to vertical position, thus inverting the bag, so that its contents can escape into the lower part  $\alpha$  of



the bin. The sides of this bin A may be provided with radial ribs or flanges *a'* to keep the lower end of the distender I from direct contact with the part *a* and leave a space there-  
 5 between through which the flour between the walls of the distender and the bag can pass down. The distender I prevents the bag-mouth doubling up or collapsing, so as to choke the bin.

10 Obviously the invention is not restricted to the particular forms and dimensions of parts shown in the drawings.

My improved bin is simple, economical, and labor saving. It does not necessitate empty-  
 15 ing the sacks into the bins nor the lifting of weighty sacks up to the top level of the bin when in its working position, and it therefore saves waste of material, time, and labor in re-filling the bin.

20 Having thus described my invention, what I therefore claim as new, and desire to secure by Letters Patent thereon, is—

1. In combination, a flour-bin, hinged near its lower end, means for retaining the bin in  
 25 vertical position when raised, and a gravital or swinging rest attached to the bin for upholding the outer or free end thereof when it is lowered to filling position, substantially as described.

30 2. In combination, a support hinged to the wall at its lower end, a bin or receptacle attached mouth downward to said support, and open at both ends, a sieve attached to the lower end of the bin and closures for the  
 35 upper and lower ends of the bin; with means for fastening the bin and support in vertical

position when raised, and means for uphold-  
 ing the outer or free end of the bin when it is lowered to filling position, substantially as  
 40 described.

3. In combination with a flour-bin, having its lower end provided with internal radial ribs or flanges, and adapted to contain a sack of flour, of a distender adapted to be placed  
 45 within the bag and together therewith inserted in the bin, said distender resting upon said flanges, substantially as described.

4. The combination of a hinged flour-bin, having its lower end provided with a neck, and a closure therefor, and an open upper end  
 50 provided with a cover, a catch adapted to hold the bin in vertical position, and a rest pivoted to the bin adapted to support its outer part when in filling position, substan-  
 55 tially as described.

5. The combination of a bin having a neck on its lower end, and a closure therefor, and an open upper end provided with a cover, a support for said bin, hinged at its lower end, spring-catches adapted to retain the bin and  
 60 support in vertical position, and a leg or rest pivoted to the bin adapted to support the outer part of the bin when the latter is in lowered position, substantially as described.

In testimony that I claim the foregoing as  
 65 my own I affix my signature in presence of two witnesses.

ROBERT CLARKE.

In presence of—

ROBERT CLARKE, Jr.,  
 ELLA C. LITTLE.