F. H. ELWERT.

FLOUR BIN HOLDER.

APPLICATION FILED MAY 19, 1919.

1,430,960. Patented Oct. 3, 1922.

Fig. 1.

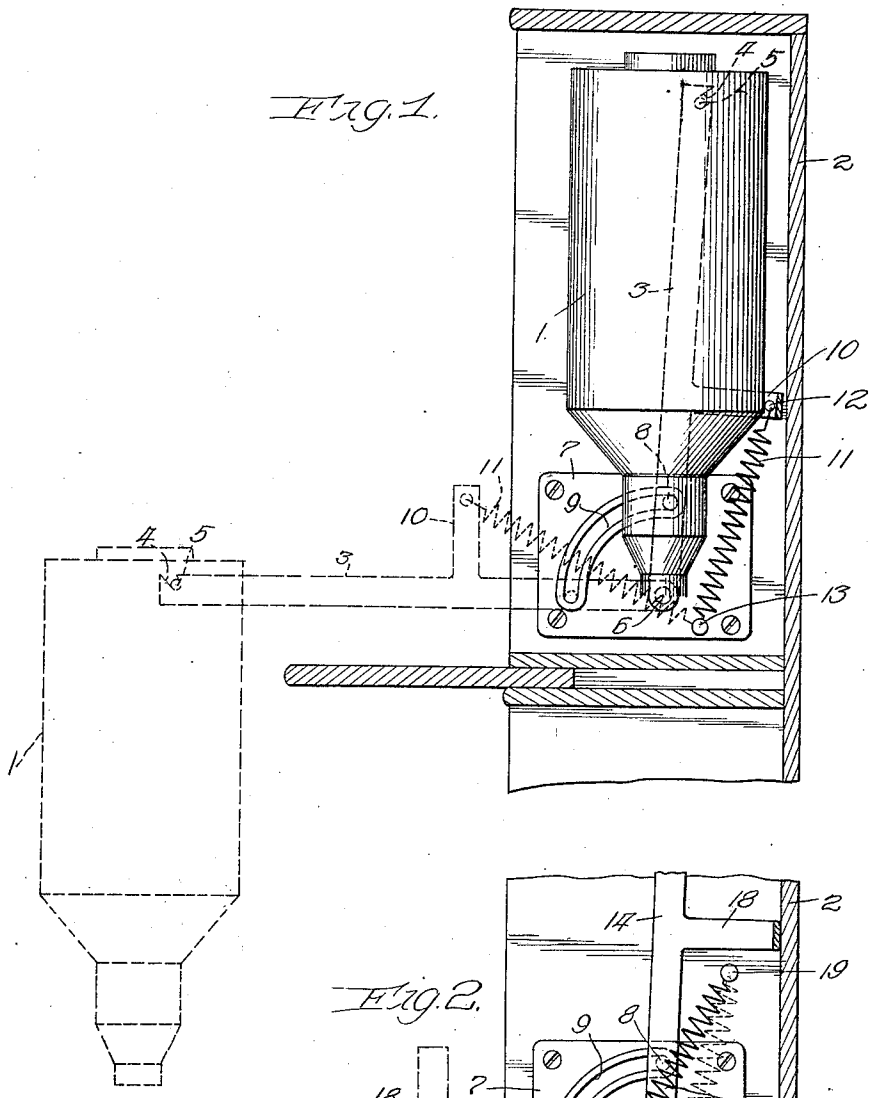


Fig. 2.

Witness:
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UNITED STATES PATENT OFFICE.

FREDERICK H. ELWERT, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SENG COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FLOUR-BIN HOLDER.

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To all whom it may concern:

Be it known that I, FREDERICK H. ELWERT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Flour-Bin Holder, of which the following is a specification.

This invention relates to kitchen cabinets, but more particularly to a flour bin holder thereof of the type in which the bin is supported in the upper part of the cabinet and can be moved downwardly for filling it. The principal object of the invention is to provide means for holding the bin both in a raised and a lowered or filling position, and to assist in raising the bin from the filling position. The invention consists in the novel construction and arrangements of the parts.

In the accompanying drawing Fig. 1 is a side elevation partly in section of a bin and holder constructed in accordance with the principles of the invention; and Fig. 2 illustrates a modification thereof.

A bin 1 for flour or other materials is supported in an upper compartment of a cabinet 2 for swinging movement forwardly and downwardly therefrom by means of side supports 3 each of which has an angular slot 4 at the upper end thereof for receiving a supporting pivot 5 projecting from the bin 1 and these supports 3 are each mounted on a pivot 6 at the lower end which may be carried by a plate 7 secured on the insides of the compartment. Each support is commonly provided with a pin 8 at some distance from the pivot 6 which moves in a curved slot 9 formed in the plate 7 for guiding and holding the support and also for constituting a stop for the support at each end of its travel.

Extending rearwardly from the two parallel supports 3 is a connecting brace 10 to embrace the rear side of the bin 1 and to connect the supports 3 for operation together. One end of a spring 11 is attached by means of a perforation 12 in the brace 10, at each side of the bin and the other end of this spring is attached to a pin 13 behind and below the pivot 6 and preferably supported by the plate 7.

In operation it will be seen that the bin 1 is normally held in its upright position by the spring 11 which is under tension when the bin is in this position. By reason of the location of the pin 13 behind and below the pivoting point 6 of the supports 3 to the extension of which the other end of the spring 11 is connected, the lowering movement of the supports 3 causes the spring to be moved to the other side of the center or pivot 6, so that the action of the spring when in this position will tend to draw the supports 3 further in a downward direction. This of course, is prevented by the engagement of the pins 8 in the slots 9 of the plate 7. Thus it is evident that the springs 11 serve the triple function of holding the bin in the upper position, to hold the bin and the supports in their lowermost position, and to assist in raising the bin from its lowered position as soon as the spring is moved by the supports so that its center passes the axis of the pivot 6.

Approximately the same result can be obtained by the structure shown in Fig. 2; this consists in providing a support 14 corresponding to the support 3 with a laterally projecting arm 15 adjacent the pivot and in attaching one end of a spring 16 to a perforation 17 at the end of this arm, and attaching the other end of the spring not to a brace 18 but to a support 19 in the side of the cabinet. When this construction is rotated to a forward or filling position as shown in broken outline the spring 16 will be moved past the pivot 6 so that the spring will tend to pull the support downward, thereby holding it in place in this position, and as soon as the spring is moved past the pivot 6 in the other direction, it will assist in raising the supports and the bin attached thereto, and will hold the supports in their uppermost position.

I claim:

A kitchen cabinet including an upright container, a pair of supports pivoted to the upper end of the container, a pair of plates fixed in the cabinet to which the lower ends of the supports are pivoted, a projection from each support and a curved slot therefor in the corresponding plate to limit the

movement of the support, a brace connecting the supports around the rear of the container, and a spring connected to the brace at one end and to the plate at the other end at a point behind and below the pivot point of the support and on a line therewith which extends transversely of the slot intermediate the ends thereof so that the spring will pass over the center on that line and will draw and hold the supports at either limit of the slots and the container within or extended from the receptacle.

FREDERICK H. ELWERT.