H. KARP.

BIN.

APPLICATION FILED JAN. 8, 1914.

1,156,294. Patented Oct. 12, 1915.

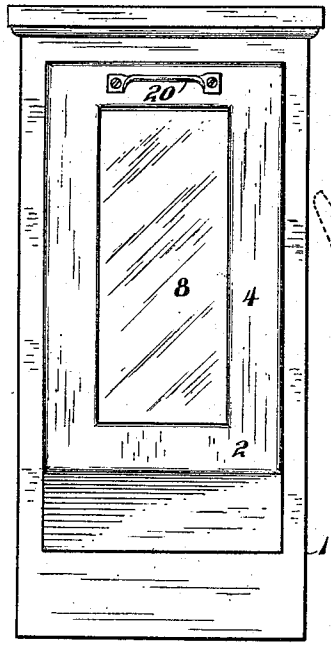


Fig. 1.

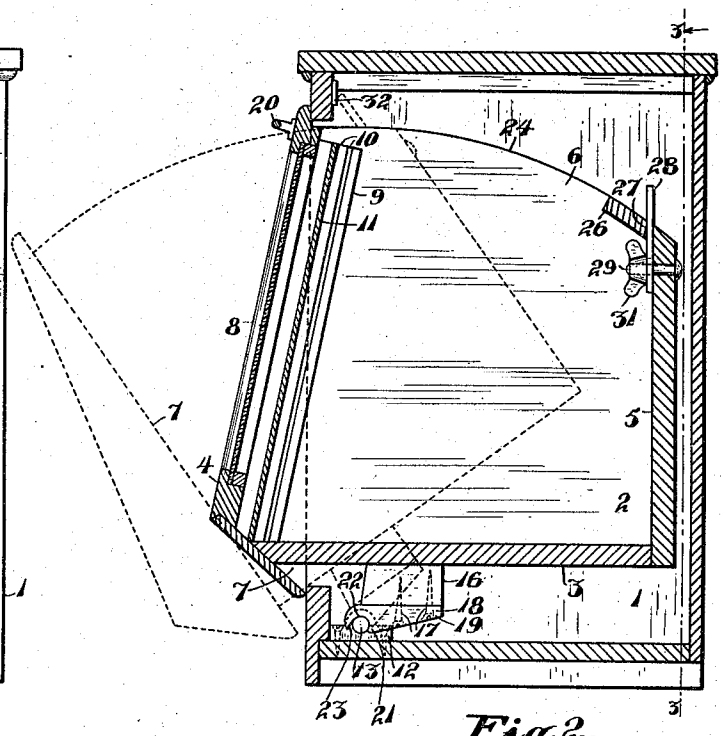


Fig. 2.

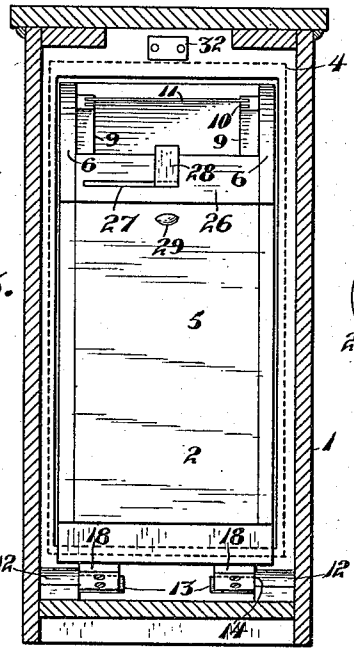


Fig. 3.

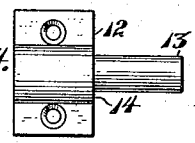


Fig. 4.

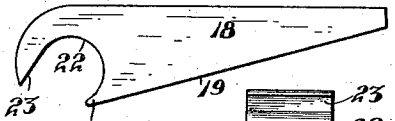


Fig. 6.

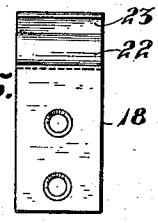


Fig. 5.

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BIN.

1,156,294. Specification of Letters Patent. Patented Oct. 12, 1915.

Application filed January 8, 1914. Serial No. 810,914.

To all whom it may concern:

Be it known that I, HENRY KARP, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Bins, of which the following is a specification.

The present invention relates to improvements in bins, the object of the invention being to provide a bin, which will swing outward and downward at the front end of its casing, and which can, when desired, readily be removed for cleaning and replaced in the casing.

My invention is applicable to one or any number of bins contained in a single casing, but I shall herein show and describe my invention as applied to a single bin in a casing.

In the accompanying drawing, Figure 1 is a front view of a casing having my improved bin therein; Fig. 2 is a vertical longitudinal section of the same, the open position of the bin being shown in dotted lines; Fig. 3 is a vertical transverse section on the line 3—3 of Fig. 2; Fig. 4 is a detail plan view of a pivot block; Fig. 5 is a bottom plan view of a cope-hinge; Fig. 6 is an enlarged side view thereof.

Referring to the drawing, 1 indicates a rectangular casing, having in the front side a rectangular opening for the passage therethrough of a bin 2. Said bin is open at the top and closed by a bottom 3, front and rear walls 4, 5, and parallel side walls 6. The edges of the front wall 4 extend beyond the side walls, and on said side walls, outside the casing, and flush with the edges of the front wall, are secured triangular cheeks 7, the rear edges of which abut against the front wall of the casing and limit the rearward movement of the bin therein. The front side of the bin is provided with a glass window 8 for inspection of the contents, and to the inner surfaces of the sides of the bin, close to its front, are secured strips 9, having therein vertical grooves 10, in either pair of which may be placed a partition 11, the space between which partition and the glass window may be filled with the material in the bin, especially when there is insufficient material to completely fill the bin, so as to insure a better display thereof through said window.

Upon the bottom of the casing, at any desired distance from the front side thereof are secured pivot blanks 12, having pivot pins 13 extending inwardly or toward each other, and shoulders 14 at the outer end of said pivot pins. On the under side of the bin, at a corresponding distance from the front of the bin, is secured a transverse block 16, on the under side of which are secured by screws 17 cope-hinges 18. The form of these hinges constitutes an important feature of my invention. The main body of each cope-hinge is in the form of a wedge 19 tapering rearwardly so that the under surface of said main body slopes rearwardly upward, and the bottom of the front portion of each hinge extends first, as shown at 21, slightly rearward at an acute angle with said rearwardly sloping bottom and then continuous in a semi-cylindrical surface 22, terminating in a forwardly and downwardly extending plane surface 23. The semi-cylindrical surface of each hinge engages the corresponding pivot pin and the acute-angled portion 21 thereof serves as a hook to prevent a direct forward withdrawal of the bin, which can then only be withdrawn by turning it on the pivot pins as an axis by a handle 20, until the top of the rear side of the bin has been withdrawn through the front of the casing, and then raising the hinges from the pivot pins.

The feature of the rearwardly and upwardly sloping bottom surfaces of the cope-hinges is of importance, because they permit the device to readily engage said pivot pins at whatever distance from the front wall of the casing they are secured upon the bottom of the casing, for, if the pivot pins are secured at a considerable distance from the front wall of the casing, then in placing the bin in the casing after withdrawing it for the purpose of cleaning, the upwardly and rearwardly sloping bottoms of the cope-hinges first impinge upon the tops of the pivot pins and then slide thereon until the acute-angled portions thereof pass said pivot pins, whereupon the semi-cylindrical surfaces thereof engage said pivot pins and the device is in the proper position to be swung on said pivot pins.

The upper edges 24 of the sides of the bin are curved in arcs of circles with their centers on the axial line through the pivot pins. Consequently, when the pivot blocks are placed on the bottom of the casing at a dis-

tance more remote from the front wall of the casing, then the rear ends of said upper curved edges are made correspondingly higher, and conversely, if nearer, then lower.

To prevent any of the material in the bin from shaking out therefrom a too sudden rearward movement of the bin in the casing, there is secured between the upper portions of the side walls of the bin and flush therewith and with the top of the rear wall thereof a guard strip 26. Said guard strip on the rear side is cut out, as shown at 27, to form with the rear wall a slot through which can extend a stop 28 on a bolt 29 extending through the rear wall of the bin, and having screwed thereon a wing nut 31. The stop can be clamped between the wing nut and the wall in either of two positions, of which in one it is contained within the slot, and in the other it extends through the slot and projects above the bin, so that, as the bin is swung forward, the upper end of the stop impinges against a soft rubber pad 32 secured upon the rear surface of the front wall of the casing above the front side of the bin.

When it is desired to entirely withdraw the bin from the casing, the wing nut 31 is loosened and the stop 28 is turned so as not to extend beyond the slot, and the bin is then swung forward until the top of its rear edge extends outside the opening in the front wall thereof, whereupon the bin can be raised from its pivots.

I claim:—

In combination with a casing having a bottom, a front wall and an opening formed in the front wall above the bottom, a bin movable through said opening, spaced blocks secured to the casing bottom at the ends thereof and having lateral pivot pins which extend longitudinally of the casing and toward each other, a pair of hinge elements secured to the bottom of the bin in depending relation thereto, said hinge elements having substantially inverted U-shaped openings at their front ends and having their bottom faces extending upwardly at an incline from said openings to the rear ends of said elements whereby to form track surfaces which are located below the bin bottom and between the sides thereof to engage with and slide on the pins to cause the U-shaped openings to receive the pins, the hinge elements being received in the space between the blocks and having their outer side faces engaged with the inner side faces of the blocks.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY KARP.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."