Dec. 17, 1957 N. A. HAINES 2,816,808

CUP AND SAUCER DISPENSER

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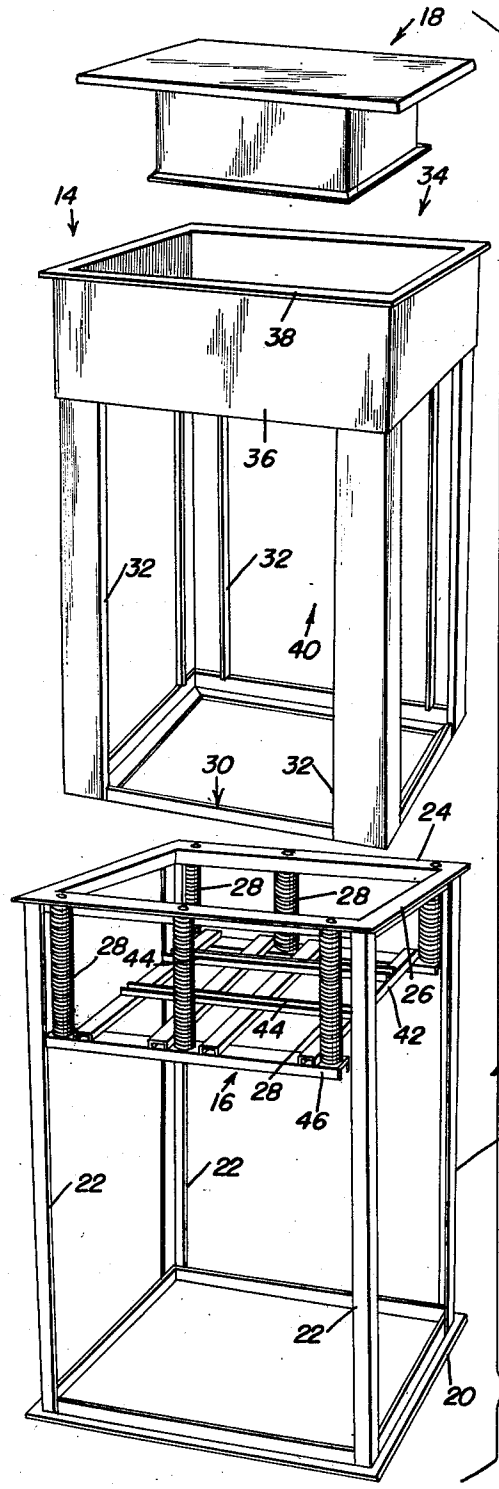


Fig. 2

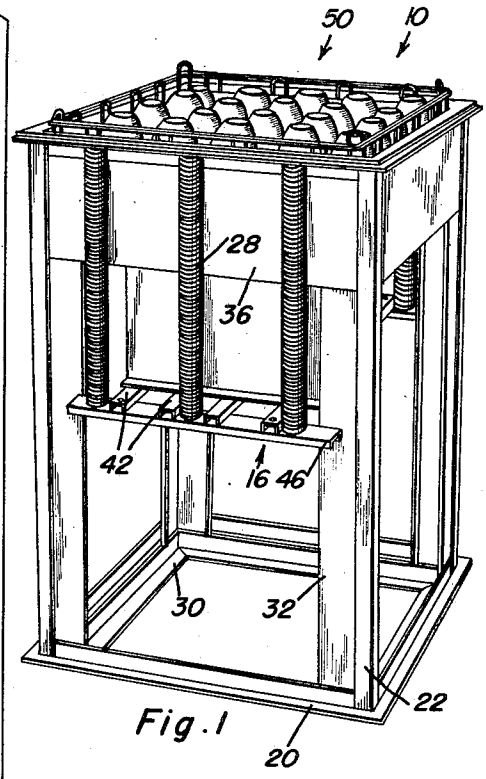


Fig. 1

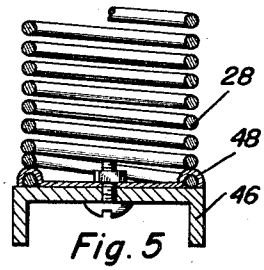


Fig. 5

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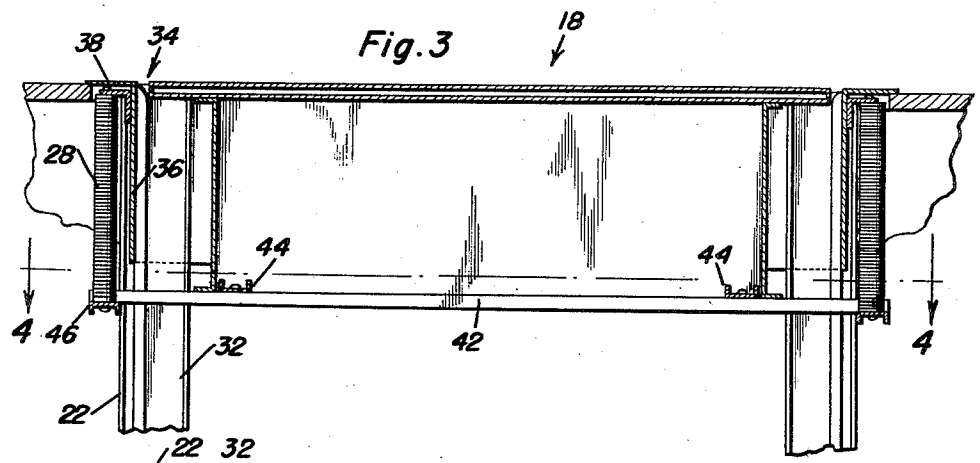
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Fig. 3



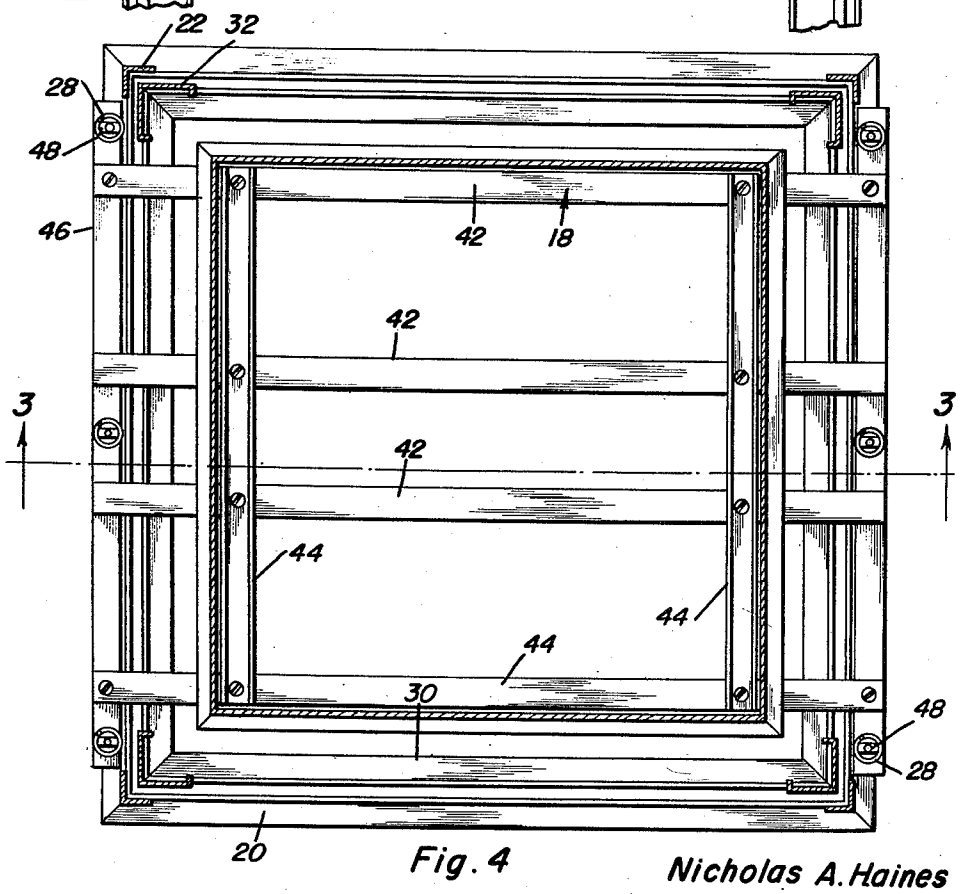


Fig. 4

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CUP AND SAUCER DISPENSER

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Application June 22, 1954, Serial No. 438,476

2 Claims. (Cl. 312—71)

The present invention relates to a dispenser for stacked articles and is a continuation-in-part of my copending application, Serial No. 243,803, filed August 27, 1951, and now abandoned, for Cup and Saucer Dispenser.

The primary object of the invention is to provide a dispenser for stacked articles, such as cups and saucers, comprising a novel guide frame and housing forming a well in which there is resiliently supported a removable platform.

A highly important object in the invention, ancillary to the primary object, is in the provision of a novel resiliently suspended platform and platform guide structure for the dispenser.

A further object of the invention is in the provision of a dispenser for stacked articles wherein all of the resilient suspension means and the guiding means for the stacked article dispensing platform are disposed exteriorly of the well formed in the dispenser so that the entire well cross sectional area may be utilized to support stacked articles for vertical movement within the dispenser.

A last object of the invention to be mentioned specifically is in the provision of an exceedingly simple and economical stacked article dispenser utilizing a novel cooperating guide arrangement between the movable platform and the dispenser housing, the entire assembly being readily discerptible, all moving parts being available for quick and simple replacement, and which dispenser is exceptionally strong and durable in use.

These, together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the stacked article dispenser constituting the present invention;

Figure 2 is an exploded perspective view of the elements of the dispenser;

Figure 3 is a cross-sectional view of the upper portion of the dispenser on an enlarged scale taken substantially along the plane of section line 3—3 of Figure 4;

Figure 4 is a cross-sectional view of the dispenser taken substantially along the plane of section line 4—4 of Figure 3; and

Figure 5 is an enlarged detailed view in cross-section of the attachment of the springs to the movable platform of the dispenser.

In the drawings and particularly in Figure 2 of the drawings, the stacked article dispenser constituting the present invention is seen to consist essentially of a skeleton frame 12, housing 14 and resiliently suspended platform 16. When necessary or expedient, a stacked article supporting rack base 18 may be disposed on the resiliently suspended platform 16. The assembled stacked article dispenser, as shown in Figure 1, is designated in its entirety by the numeral 10.

The skeleton frame 12 is comprised of an open, rectangular base 20 to each corner of which is secured the lower

end of a vertical corner post 22. Each of the corner members 22 is preferably angle shaped in cross section and may conveniently comprise an angle iron. An open frame rectangular top 24 is secured at its corners to the tops of the corner posts 22 of the skeleton frame. The top 24 of the skeleton frame is provided with an outwardly extending, flat, peripheral flange 26.

Suspended from the underside of the peripheral flange 26 on opposite sides of the top frame 24 at longitudinally spaced intervals along each of these sides are a plurality of resilient, coil springs 28. Initially, prior to the assembly of the device, the lower ends of the springs are free.

The housing 14 is of generally the same construction as the skeleton frame 12 comprising a rectangular base 30 and vertical corner posts 32 rising from the corners of the base. The corner posts 32 are angle shaped in cross section. The top 34 of the housing 14 is received over the upper portions of the corner posts 32 and provides side walls 36 surrounding the upper portion of the housing. The remaining portion of each side of the housing is open between the corner posts 32.

Housing 14 is telescopically received within the skeleton frame 12, the top 34 of the housing being formed with an outwardly extending flat peripheral flange 38 seating against the top surface of the peripheral flange 26 of the skeleton frame.

When the skeleton frame 12 and housing 14 are so assembled, they conform generally to the showing in Figure 1 with the exception that the platform 16 has not yet been applied.

The hollow interior of the housing 14 forms a vertical well 40 through the housing. The top 34 of the housing constituting an open rectangular frame, provides a top opening communicating with the well 40.

The platform 16 is composed of a plurality of spaced, parallel, rigid channels of a length greater than the width of the well 40. Intermediate the ends of these strips or elements 42 they are connected by transverse cross members 44.

In this condition, the platform 16 is inserted through the top opening into the well 40 so that the end portions of the channel elements 42 project through the opposite side openings of the housing 14. Then, end cross members 46 are attached to the free ends of the elements 42, these end cross members being each disposed exteriorly of the housing 14 in position to respectively slidably bear against the outside surfaces of corner posts 32. These cross members 46 overlie the sides of the housing formed by the corner post legs on opposite sides of the vertical openings defined by the corner posts to guidingly retain the platform 16 for vertical sliding movement within the housing well 40.

Clamping plates 48, secured to the end cross members 46, engage the lower convolutions of the springs 28 and clamp them on the cross members 46.

The stacked article dispenser as thus assembled is ready for use and the rack supporting base 18 may be simply disposed on the platform 16 and a rack of cups or saucers, or the like, as designated at 50 in Figure 1 may be placed on this rack supporting base 18.

The guide arrangement of this dispenser assembly for the platform provides a smooth, even motion to the platform even when the load is unbalanced since the spacing of the end members 46 exteriorly of the well in engagement with the corner posts 32 of the housing obviates any tendency for longitudinal rocking movement and enables the continuation of the sliding movement of the platform even should such longitudinal imbalance tilt the platform. Further, it will be noted that because the cross members 46 bear against the outside surfaces of corner posts 32, the platform is adequately guided even though unbalanced loads may tend to depress one side of the platform some-

what more than the other side. Further, the coil springs are exteriorly of the housing and the skeleton frame where they may be easily replaced, serviced, and repaired.

Also, with this construction, the skeleton frame may be initially placed in the counter opening, or the like, in fixed relation thereto so that the housing may be easily removed without disturbing the surrounding building structure, such as the counter, for replacement or complete removal.

The above description and the drawings illustrate clearly the manner in which the major parts of my cup and saucer dispenser are assembled. Exteriorly, there is the skeleton frame **12** to which the upper ends of the springs **28** are secured. The housing **14** is then telescopically inserted within the skeleton frame and assumes its position as shown in Figs. 1 and 3 to form the well and to provide side walls **36** to conceal and guard the springs from the cups, saucers, or other pay load carried by the platform. It will be obvious that when, for any reason, springs are to be removed or replaced, the housing **14** may be telescopically removed from the skeleton frame so as to expose the springs and their mountings for ready access. Furthermore, the exposure of these working parts by the removal of the housing **14** facilitates cleaning and inspection as to sanitation in the event that leakage has occurred at the point of assembly of my dispenser in the counter as shown.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A dispenser for stacked articles comprising a housing having a top, a base, vertically extending guide elements interconnecting said top and base and peripheral side walls depending from said top, said guide elements being disposed in spaced parallel relation to one another, said top having an opening therethrough communicating with the space bounded by said guide elements, a carrier for stacked articles vertically reciprocable in said housing, said carrier having end portions projecting between said guide elements and terminating exteriorly of said housing, a skeleton frame shaped to telescopically receive said housing therein and having a flat, peripheral, top flange, resilient springs depending from said flange in guarded position relative to said side walls when the skeleton frame and housing are in telescopic assembly, transverse cross members across said carrier end portions and slidably engaging said guide elements, each of said springs being attached to one of said cross members resiliently suspending said carrier within said housing.

2. A dispenser for stacked articles comprising a hollow housing having a top and a base and a vertical well therein, said top having an opening therein communicating with said well, a skeleton frame shaped to telescopically receive said housing and having a top flange around the periphery thereof, said top flange abutting the underside of said housing top, said housing having vertical openings in opposite sides thereof, a platform slidably disposed in said housing well, said platform having end portions extending through said vertical openings, cross members on said end portions extending transversely across said end portions and slidably overlying the sides of said housing on opposite sides of said openings, resilient springs suspended from the underside of said skeleton frame top flange and attached at their free ends to said cross members, the sides of said housing adjacent the top thereof being provided with complete side walls in protective relation to the springs.

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