Feb. 2, 1965 S. T. HEIFETZ 3,168,229

PLATE HOLDER

Filed July 28, 1961

Fig. 1.

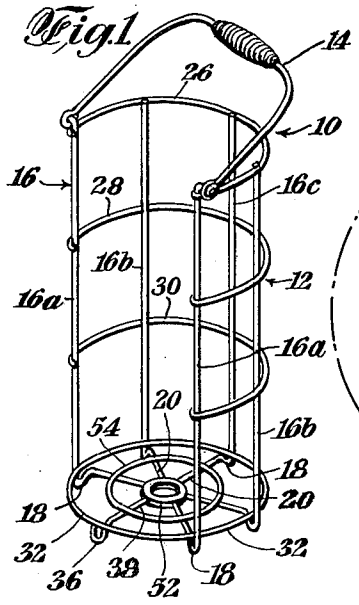


Fig. 3.

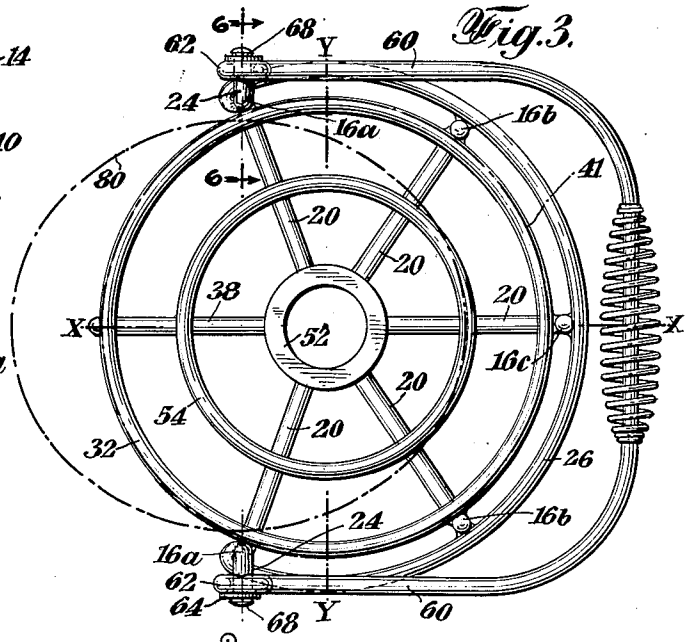


Fig. 2.

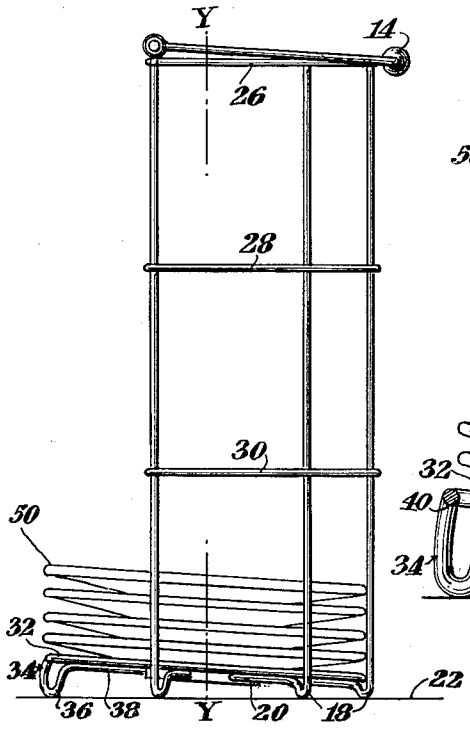


Fig. 4.

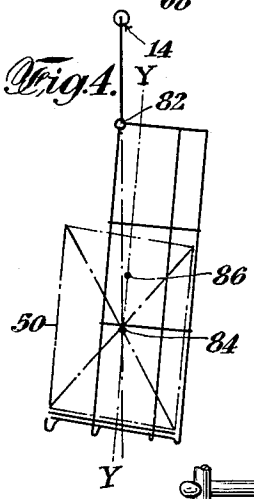


Fig. 6.

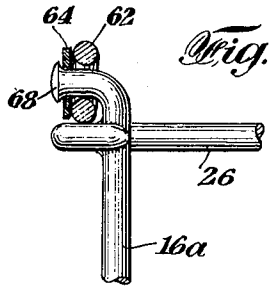
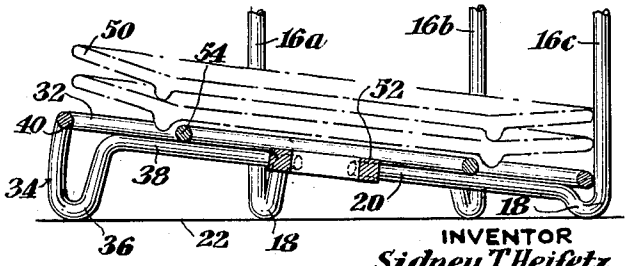


Fig. 5.





INVENTOR
Sidney T. Heifetz
BY Benjamin Kahn
ATTORNEY

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3,168,229

PLATE HOLDER

Sidney T. Heifetz, New York, N.Y.
(1430 Parkchester Road, Bronx, N.Y.)

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2 Claims. (Cl. 224—45)

This invention relates to improvements in magazine type plate holders adapted for handling flatware en-masse and for presenting same for subsequent use.

More particularly, this invention relates to a type of plate holder adapted for stacked batch-transportation and stacked presentation for dispensing operations, of plates, saucers and the like, as is required in restaurants and similar places where such dishes are used in abundance.

One of the principal objects of the invention is the provision of a holder of the above mentioned character that is adapted for top and side loading of such dishes singly or plurally at one station, for example, a washing station; for securely retaining such dishes during transportation and deposit to another station, such as a "dishing-out" station; and for presenting a substantially full holder of dishes in a manner permitting convenient and expeditious manual removal of contents through the top and/or through the side of the holder.

Another object of the invention is to present dishes at the "dishing out" station in a stacked vertically upright columnar manner convenient for grasping most sanitarily.

A further object is the production of a design, which in addition to the accomplishment of the above objectives, is simple and attractive in structure; light, practical, and easy to clean; efficient in use; and economical in manufacture.

Other objects and advantages will become apparent, and still others will be pointed out in the following detail description of one preferred form of the invention shown in the drawing, in which:

FIG. 1 is a perspective view of a principal form of the invention.

FIG. 2 is a side elevation, in "dishing-out" mode.

FIG. 3 is an enlarged plan view.

FIG. 4 is a schematic side elevation in transport mode.

FIG. 5 is an enlarged fragmentary sectional side view of the lower portion of the holder in normal use showing the relative disposition of the plates in "dishing-out" mode.

FIG. 6 is a fragmentary sectional detail of the bail hinge employed.

Referring to the drawing, the holder **10** is comprised of rod like elements bent and welded and otherwise formed into two principal components; a cylindrical cage-like basket member **12**, and a bail-like handle member **14**. The two members are hingedly joined together at the top of the basket at points off-set from a normal vertical center plane of the basket, the purpose of which will be more fully described hereinafter.

The basket **12** is adapted to support and embrace a column of plates and is formed by a multiplicity of substantially parallel and vertical cage rods **16** disposed within a substantially cylindrical form and disposed more than half way around such form. These rods are bent to provide a toe portion **18** at their bottom and radial portions **20** along their bottom but above the virtual resting plane **22** at the very bottom of the toe portions, as best seen in FIGS. 2 and 3.

Referring more particularly to FIG. 3, these vertical rods, of which there are five shown in this preferred form, are substantially alike in general contour and function, except that two of such rods **16***a*, each on opposite sides of a vertical central plane X—X are provided with outturned pintle portions **24** for attachment to the bail

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member **14**. Another pair of vertical rods **16***b*, spaced from rods **16***a* are also disposed on opposite side of the plane X—X. These rods terminate at the top of the basket as does the vertical rod **16***c* disposed in the plane X—X.

All of the rods **16***a*, **16***b* and **16***c* are embraced by and are welded to a ring-segment **26** at the top of the basket. Likewise, an intermediate ring-segment **28**, similar in form, disposition and extent to the ring segment **26**, and a similar lower ring-segment **30** are welded to the upright portions of the vertical rods **16** to stiffen same against bowing. A complete ring **32** is disposed inside the vertical rods near their bottoms and above the toe portion thereof.

Contiguous with the rod **16***c* and in the plane X—X and along the bottom, is a foot member **34** which is bent to form a toe portion **36** and a radial portion **38**. This latter mentioned toe portion is similar to the other mentioned toe portions of the mentioned vertical rods and is larger than the toe portion of the rod **16***c* with respect to which it is directly opposite. This foot member **34** terminates at the ring **32** to which it is welded to same at **40**. There is no vertical rod counter-part at this point leaving a vertically open arcuate space between the vertical rods **16***a*. The chord of this space is, however, less than the diameter of the containable plates, as shown by the dot and dash circle **41**, FIG. 3, thus preventing the removal of plates horizontally between these bars **16***a*.

As seen best in FIGS. 2 and 3, the toe **36** is higher than the toe **18**, and the radial portions of the rods are arranged to lie in the same plane immediately below the plane of the ring **32** which, being inclined, requires that the toes of the rods **16***b* and **16***a* be proportionally larger than the toe **18** depending upon the inclination prescribed by the height of the toes **18** and **36** and their disposition with respect thereto. With this arrangement the plates are urged to repose in the direction opposite to the arcuate space.

The radial portions **20** of the upright rods **16** and the radial portion **38** of the foot member **34** may be joined together at their inner ends as by welding to each other or they may be welded to a central ring **52**. An intermediate ring **54**, disposed between the inner ring **52** and the outer ring **32**, is welded to the radial portion to stiffen the bottom structure of the basket upon which the weight of contained plates is subject.

The dishes **50** are substantially of the same diameter or preferably slightly smaller than that of the outer ring and, due to the inclination or pitch of the bottom structure and the vertical disposition of the upright vertical rods **16**, a plurality of dishes placed within the basket becomes faired or askewed as seen in FIG. 5 where this pitch is shown slightly exaggerated for clarity of this feature. This enables easier fingering of the plates in the course of manual removal from the basket.

As seen in FIG. 3, the upright rods **16***b* are disposed approximately 50 degrees away from the rod **16***c* and the rods **16***a* are disposed approximately 50 degrees away from the vertical rods **16***b*. This places the rods **16***a* in the second, and third quadrant, slightly and equally away from the central Y—Y plane, substantially coincident with the center of gravity of a loaded basket.

The bail **14** is substantially semi-arcuate and may be composed of bent rod of the same character as that of which the basket is made and is of such size as to lie outside of the confines of the projected area of the stacked plates when the device is in "dishing-out" use as seen in FIG. 2.

The ends **60** of the bail are looped as at **62** to form eyes embracing the pintles **24**. The ends of the pintles on the outside of the loops, are provided with washers **64** which are retained in place against the loops by rivet-

ing as at **68** at the ends of the pintles, as seen in FIG. 6.

Referring to FIG. 3, it will be noted that the rings **32**, **54** and **52** are drawn circularly but actually in a true plan view they are slightly elliptical, with only a very small difference between their major axes along Y—Y, and their minor axes along X—X, because of the very slight inclination of their plane in projected view. The rods are, therefore, disposed in an elliptical cell of bars but, inasmuch as the diameter of the plates were somewhat smaller than the minimum confines of the vertically barred barriers of such an elliptical cell, they may be manually inserted and lowered one or more at a time, or likewise raised into and removed out of the basket in substantially horizontal disposition.

When resting on the bottom, circular plates would also appear similarly elliptical due to their inclination with respect to top viewing.

However, despite this manner of illustration, circular or other shaped plates cannot be withdrawn from the basket directly sidewise while in a horizontally disposed manner since the chordal distance between the vertical bars **16***a* is smaller than the diameter or breadth of the plates, but, by twisting of the wrist of one or more grasped and raised plate or plates to the orientation as shown at **80**, their diameters or breadth distance are foreshortened in the Y—Y direction, whereupon they can be removed horizontally and directly sidewise from the confines of such caged cell having such vertically disposed confining cage bars **16***a*.

With this construction and arrangement the plates cannot slide out of the basket under intentional or accidental tilting as may occur in the normal handling of the basket from station to station as aforementioned.

As seen in FIG. 4, when the basket is manually carried by its bail handle, the basket hangs in a leaning mode and the pivot at **82** is vertically aligned with the center of gravity as at **84** of the illustrated partially loaded basket.

With a full load of plates the amount of leaning increases slightly clockwise since the vertical plane would pass through the points **82** and **86**, the latter being the approximate center of gravity of a full basket of plates.

Having thus described my invention with respect to a preferred embodiment thereof it is apparent that minor changes in form may be had without departing from the principles embraced.

What I desire to claim is:

1. In a carryable magazine-type dish holder of the character described adapted for top loading and unloading of plates, and for containing said plates in a vertical columnar stack with the plates in contact, one upon another, the combination of a basket having an open circular top, the containing passageway outlines of said basket and said open top being of such size and shape as to closely conform to the outline of said plates, said basket having an opening in the side communicative with said top opening, said side opening being of

width slightly less than the width of the containable plates whereby a chordal portion of the stacked plates project therefrom, and a bail-like handle pivotally attached to the basket outward of the chordal attachment points substantially where the sides of the side opening meet the top opening, said handle being adapted to be supported across the top of said basket and to lie substantially horizontally and entirely outside the projected confines of said containing passageway outlines, whereby an uninterruptable passage of the plates through the top opening is afforded when the said handle is in said non-carryable horizontal position.

2. In a carryable magazine-type dish holder of the character described, adapted for top loading and unloading of circular plates, and for containing said plates in a vertical columnar stack with the plates in contact one upon another, the combination of a basket having an open top, said open top being of the shape of the plates contained and having an opening in the side of the basket communicative with the said top opening, said side opening being of width slightly less than the diameter of the containable plates, and a bail-like handle pivotally attached to the basket at points along a chord across the top of the basket, substantially where the sides of the side opening meet the top opening, said pivotal points being disposed in the chordal plane of the side opening and outward of the ends of the said chord, said handle in the non-carryable position being substantially horizontally disposed above and across the top of the basket and across the diameter parallel to said pivots, said handle being of such size and configuration whereby all parts thereof including its pivot portions are adapted to lie outside the projected area of the top opening, whereby an uninterrupted passageway above and substantially beyond the basket top for rapid hand loading and hand unloading of grasped plates is afforded.

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HUGO O. SCHULZ, *Primary Examiner.*

MORRIS M. FRITZ, MORRIS TEMIN, *Examiners.*