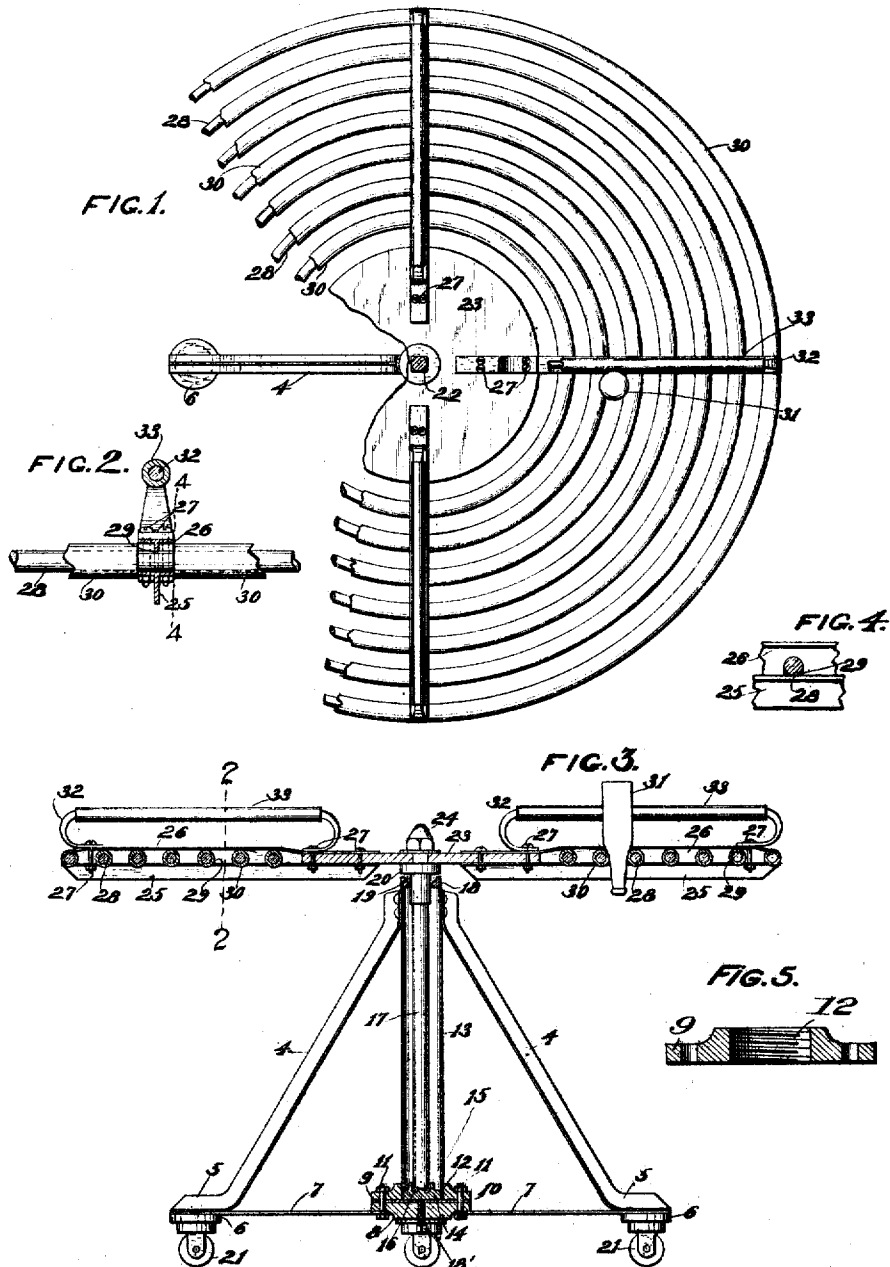


S. VOLZ.
 RECEPTACLE HOLDING AND CARRYING DEVICE.
 APPLICATION FILED OCT. 28, 1907.

995,992.

Patented June 20, 1911.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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RECEPTACLE HOLDING AND CARRYING DEVICE.

995,992.

Specification of Letters Patent. Patented June 20, 1911.

Application filed October 28, 1907. Serial No. 399,545.

To all whom it may concern:

Be it known that I, SIMON VOLZ, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Receptacle Holding and Carrying Devices, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in receptacle holding and carrying devices, more particularly to devices for holding and carrying bottles.

The primary object of the invention is to provide an improved construction of such character that a maximum holding capacity is obtained, and at the same time danger of breakage of the fragile receptacles, particularly bottles, is reduced to the minimum.

With the above primary, and other incidental, objects in view, the invention consists of the devices and parts, or their equivalents, as hereinafter set forth.

In the accompanying drawing, Figure 1 is a plan view of the device, part broken away; Fig. 2 is a section on the line 2—2 of Fig. 3; Fig. 3 is a vertical central sectional view; Fig. 4 is a cross section on the line 4—4 of Fig. 2; and Fig. 5 is a detail view of a portion of the device on an enlarged scale.

The supporting frame work for the receptacle holder may be of any desirable construction, but I prefer to employ the specific construction shown on the drawing, wherein is provided a plurality of legs 4, preferably four in number. These legs are converged toward each other upwardly, and their lower diverged ends are provided with outwardly extending flat feet 5. Clamped between the under sides of these feet and the upper sides of blocks 6 are the outer ends of flat arms 7. These arms extend inwardly, and are connected to the under side of the lower member of a two-part supporting device, the said lower member of the supporting device being indicated by the numeral 8, and the upper member thereof by the numeral 9. Interposed between the two members is a plate 10, and the said two members, the plate, and the arms 7 are secured together by means of bolts 11. The upper member 9 of the

supporting device is provided with a central screw threaded opening 12, and connected to the threads is the lower threaded end of an upright tubular column 13. Within the lower end of this tubular column and seated on the plate 10 is a ball bearing cup 14, having an upwardly extending ring 15 which forms a pocket for antifriction balls 16. To the upper end of the tubular column is securely connected the upper converged ends of the legs 4.

It is desirable that the receptacle holder hereinafter specifically described should be capable of rotation. In order to provide for this I employ an upright shaft 17 which is surrounded by, but not in contact with, the tubular column 13. The lower end of this shaft extends into the ring 15 and rests on the antifriction balls 16. In order to provide for adjusting the antifriction balls as they wear away, a screw 18 is turned through the lower member 8 of the supporting device, and the upper end of this screw bears against the plate 10. It is obvious that by turning the screw upwardly the plate 10 is raised at a central portion, and consequently the ball bearing cup is raised therewith, whereby the balls are brought into closer bearing contact with the lower end of the shaft. It may also be desirable to employ antifriction balls near the upper end of the shaft. I therefore show a shouldered ball bearing cup 18, the shoulder thereof being seated on the upper end of the tubular column 13. This cup carries antifriction balls 19 which take the bearing of an enlargement or collar 20 formed on the shaft near the upper end thereof.

In devices of the character of the present invention, it is frequently necessary to move the holder from one position to another. I therefore show in connection with the device casters 21, which are preferably ball bearing, and are swiveled to the under sides of the blocks 6, so as to be capable of turning freely in both directions.

The upper extremity of shaft 17 is in the form of a squared tenon 22. This tenon passes through a square opening in a plate 23, preferably of disk form, and the end of the tenon takes thereon a nut 24 which is turned down against the plate and thereby clamps said plate to the collar 20 of the shaft 17.

Secured to the under side of the plate, and radiating outwardly therefrom are arms 25, preferably four in number, and in the form of T-irons, the heads of the T's being uppermost. Parallel with arms 25 and secured to and extending outwardly from the upper side of the plate, are other arms 26, also preferably in the form of T-irons. Each pair of arms 25 and 26 are secured to the plate 23 by means of bolts 27. The stems of the T-irons 26 extend downwardly and rest on the heads of the T-irons 25.

A series of rings 28, preferably of metal and round in cross section, are arranged in succession concentrically around the circumference of the plate 23. These rings are spaced a desired distance apart, and the stems of the upper arms 26 are provided each with a series of recesses 29 in order to permit of the passage therethrough of the rings. The rings, therefore, are clamped between the several pairs of arms 25 and 26, and the recesses 29 of the upper arms assist in retaining the rings spaced the proper distance apart.

In order to avoid danger of the rings 28 breaking the bottles, or other receptacles, the said rings are covered with a series of sections of flexible tubing 30, preferably composed of rubber. Each section covers that portion of the ring between two pairs of the arms 25 and 26, so that the portion of each ring which passes through the recesses 29 of the stems of the arms 26 is left uncovered, and this for the reason that the bottles do not come in contact with said portions of the rings (see Figs. 2 and 4).

In the drawings, several of the bottles, indicated by the numeral 31 are shown properly placed in the space between two of the rings, neck down. As the device is primarily intended for a bottle holding and carrying device, the spaces between the rings should be so graduated as to accommodate the necks of the particular size of bottles for supporting which the device is to be used.

If no means were provided to guard against it, the bottles would be apt to tilt sidewise and work out of position. To prevent this I secure to each upper arm 26 a guard rail 32. These rails are secured to said arms by bending down and under the ends of the rails to such position that the bolts 27 will also pass through said bent under portions. By reference the guard rails are also covered with a flexible tubing 33, preferably of rubber.

From the foregoing description, it will be seen that I provide a construction capable of accommodating the maximum number of bottles, or other receptacles, and that there is little or no danger of breakage of the bottles either during insertion of the same in place or in the moving of the holder from one point of location to another. The con-

struction is also such that the insertion of the bottles in place is attended with but the slightest difficulty, so that the work in that particular can be accomplished in the shortest possible space of time.

What I claim as my invention is:

1. In a receptacle holding device, the combination with a frame, of a holder mounted on the frame, said holder comprising a series of concentric rings spaced a distance apart to form a series of concentric circular spaces, the said spaces adapted for the accommodation therein of the receptacles to be held.

2. In a receptacle holding device, the combination of a frame, an upright shaft rotatable in bearings in the frame, a plate rigidly supported at the upper end of the shaft, concentric rings surrounding the plate and spaced a distance apart to form a series of concentric circular spaces, the said spaces adapted for the accommodation therein of the receptacles to be held, and means extending from the plate for supporting the concentric rings.

3. In a receptacle holding device, the combination of a frame, an upright shaft rotatable in bearings in the frame, a plate rigidly supported at the upper end of the shaft, arms extending outwardly from the plate, and concentric rings supported by the arms, said rings forming a series of concentric circular spaces, the said spaces adapted for the accommodation therein of the receptacles to be held.

4. In a receptacle holding device, the combination of a frame, an upright shaft rotatable in bearings in the frame, a plate rigidly supported at the upper end of the shaft, pairs of arms extending out from the plate, the two arms of each pair being parallel and extending out, respectively, from the upper and under sides of the plate, and the upper arms being of T-iron shape in cross section with the stems thereof extending downwardly and bearing against the heads or upper sides of the lower arms and provided with recesses, and concentric rings passing through the recesses of the stems of the upper arms and clamped between the two arms of each pair, said rings forming a series of concentric circular spaces, the said spaces adapted for the accommodation therein of the receptacles to be held.

5. In a receptacle holding device, the combination of upwardly converged legs, arms secured to the lower ends of said legs and extending inwardly, a supporting device secured to the inner ends of the arms, a tubular column connected to and extending upwardly from the supporting device and having the upper converged ends of the legs secured thereto, an upright shaft surrounded by the tubular column, the lower end of said shaft having its bearings in the supporting device, and the upper end of the

shaft extending through the tubular column, and a receptacle holding device rigidly supported at the upper end of the shaft.

5 6. In a receptacle holding device, the combination with a frame, of a holder mounted on the frame, said holder comprising a series of wires or rods, each successive outer wire or rod surrounding the next innermost
10 a series of spaces for the accommodation therein of the receptacles to be held.

7. In a receptacle holding device, the combination of a frame, a holder mounted on the frame, said holder comprising a series
15 of concentric rings spaced a distance apart, to form circular spaces for the accommodation therein of a plurality of the receptacles to be held, and guard rails placed at intervals apart and across said wires or rods.

20 8. In a receptacle holding device, the com-

bination of a frame, an upright shaft rotatable in bearings in the frame; a plate rigidly supported at the upper end of the shaft, pairs of arms extending out from the plate, concentric rings clamped between the
25 arms of each pair and spaced a distance apart to form circular spaces for the accommodation therein of a plurality of the receptacles to be held, and guard rails above the upper member of each pair of arms, said
30 rails having their ends bent downwardly and secured to the upper member of each arm.

In testimony whereof, I affix my signature, in presence of two witnesses.

SIMON VOLZ.

Witnesses:

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ANNA F. SCHMIDTBAUER.