June 9, 1931. W. RASTER 1,809,602

KNOCKDOWN SECTIONAL RACK

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Fig. 1.

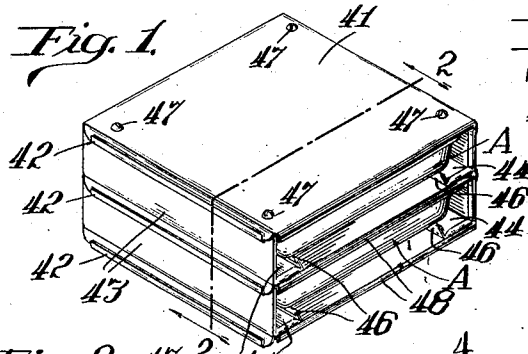


Fig. 5.

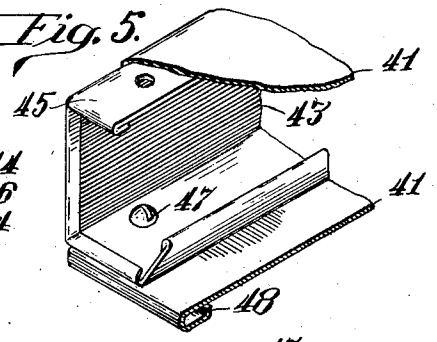


Fig. 2.

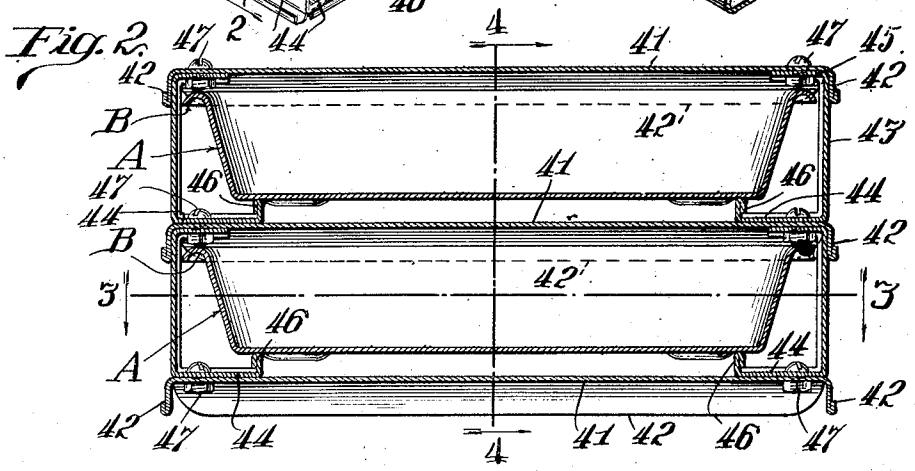
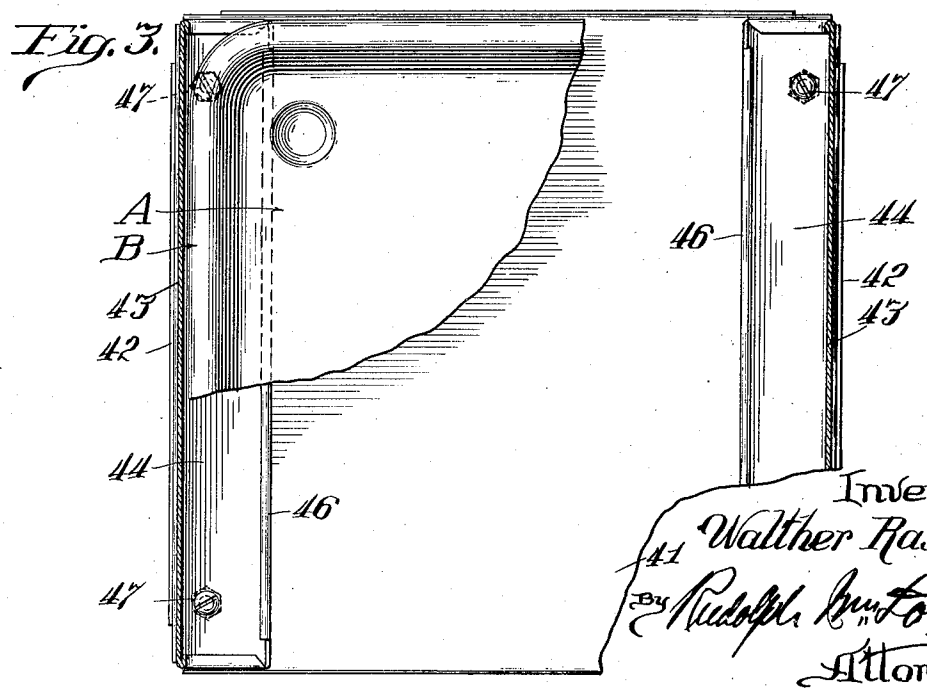


Fig. 3.



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Fig. 4.

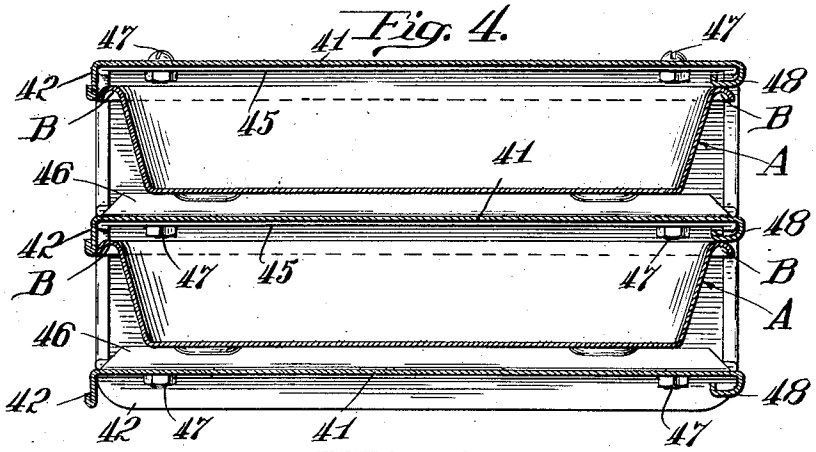


Fig. 6.

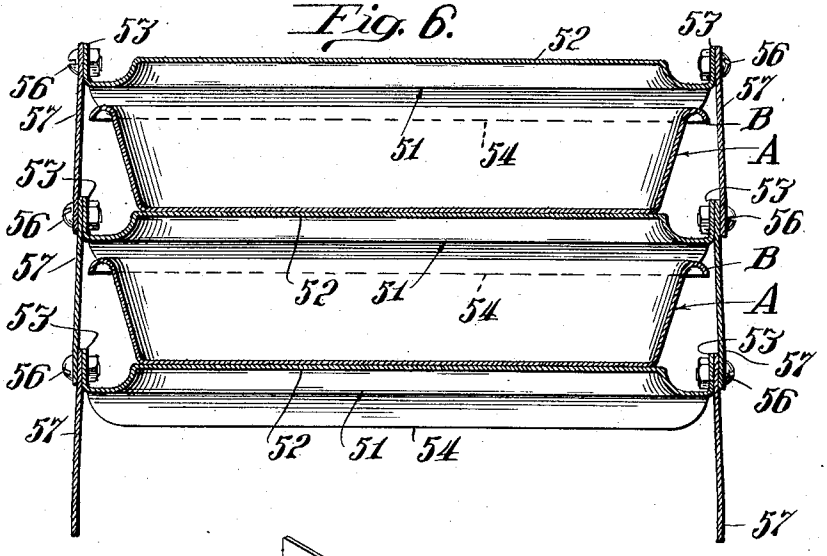
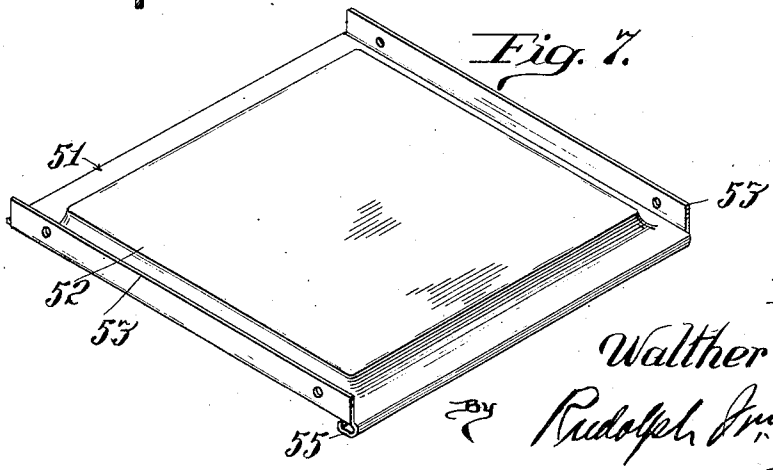


Fig. 7.



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Patented June 9, 1931

1,809,602

UNITED STATES PATENT OFFICE

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KNOCKDOWN SECTIONAL RACK

Application filed May 17, 1930. Serial No. 453,338.

This invention relates to improvements in sectional racks providing spaces wherein to receive receptacles and more particularly a certain type of receptacle, the main object of the invention being to provide a device of this character which may be easily built up to any desired height by purchase of sections thereof and wherein the component sections are so constructed as to permit assembly thereof by bolts so arranged and disposed as to be out of the path of inserted receptacles.

A further object of the invention is to provide a simple, cheap and efficient sectional rack structure presenting certain features of advantage as hereinafter particularly set forth.

Suitable embodiments of the invention are illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a sectional rack constructed in accordance with the invention.

Fig. 2 is a vertical transverse section of the same on the line 2—2 of Fig. 1.

Fig. 3 is a plan section of the same on the line 3—3 of Fig. 2.

Fig. 4 is a vertical longitudinal section of the same on the line 4—4 of Fig. 2.

Fig. 5 is a fragmentary detail sectional perspective view showing a corner portion of the structure.

Fig. 6 is a vertical transverse sectional view of a modified form of construction of the rack.

Fig. 7 is a perspective view of a receptacle supporting plate thereof.

The said structure is preferably made of a suitable sheet metal and is mainly intended for shop and store uses to receive receptacles adapted to contain nails, screws, bolts and the like.

The receptacles A to be received in the rack-structure are rectangular, preferably square, and are bordered along the upper peripheral edges of the walls thereof by an outwardly extending substantially semi-cylindrical continuous flange B having a nether concave face affording an easily digitally engageable formation for the withdrawal of the receptacles from the rack and the digital support there when so removed.

The rack as shown in Figs. 1 to 5 inclusive, comprises a plurality of sections each consisting of a bottom plate 41 equipped with peripheral downwardly projecting flanges 42, and side plates 43 each having parallel inwardly projecting flanges 44 and 45, respectively, the flanges 44 thereof being provided along their free edges with upwardly extending flanges or ribs 46 preferably folded to provide rounded supporting edges upon which the receptacles A are adapted to slide. The flanges 45 of said side plates support the next higher plate 41 constituting the top wall of a lower section and the bottom wall of the next higher section.

The said plates 41 and flanges 44 and 45 are provided with registering perforations to receive the bolts 47 which secure the bottom plate 41 to the flanges 44 of two side plates 43 of a lower section and, in successively higher sections, secure the plates 41 to the supporting flanges 45 of side plates 43 and to the supported flanges 44 of other side plates 43.

The side flanges 42 of the plates 41 overlap the outer side faces of the side plates 43, the free edges of said flanges being preferably folded to relieve them of sharp edges and better prevent distortion thereof. The flanges 42 of the rear edges of said plates 41 constitute stops to limit the inward movement of the receptacles A.

The inner edge flanges or ribs 46 of the flanges 44 of the side plates coact with the latter to form channels in which the heads or nuts of the bolts 47 are received. The distance between the receptacles supporting edges of said ribs or flanges 46 and the lower faces of the flanges 45 is sufficiently greater than the depth of the receptacle A to allow for the heads or nuts of bolts 47 as shown.

The structure above described is light, cheap, easily assembled and is amply rigid and strong to be built up to receive a very appreciable number of heavy loaded receptacles A. The front edges of the plates 41 are provided with the flanges 42 having their free edge portions 48 turned in as shown in Fig. 5 to provide rounded edges of less depth

than the flanges 42 so as to admit the receptacles A. The side and rear edge flanges of the lowermost plate 41 constitute supports for the entire rack structure.

In the structure of Figs. 6 and 7, the bottom or partition plates 51 are provided with central, rectangular upwardly projecting dished portions 52 and have upwardly projecting side flanges 53 and downwardly extending inwardly overturned front and rear edge flanges 54 and 55.

The side flanges 53 are spaced from the dished portion 52 and are provided with perforations to receive the bolts 56 securing the side plates 57 to said plates 51. The side plates 57 consist of plane flat strips of sheet metal provided with perforations adapted to receive the bolts 56, said plates being overlapped where the lower edge portions of one pair thereof are secured to the side flanges 53 of the same plate 51 as are the upper edge portions of the next lower pair of said side plates.

The structure of Figs. 6 and 7 is cheaper than that of Figs. 1 to 5, inclusive, but lacks certain obvious advantages of the latter. In the structure of Figs. 6 and 7, the heads or nuts of the bolts 56 are also contained in the channels between the dished portion 52 and side flanges 53.

I claim as my invention:

1. A sectional rack comprising a bottom plate for each compartment, receptacle supporting means disposed at a higher elevation than the plane of the lowermost surface portion of said member, side plates associated with said bottom plates and supporting the latter in spaced relation to each other, there being channel formations between said receptacle supporting means and said side plates, and both associating said side plates with said bottom plates and having projecting portions disposed in said channel formations.

2. A sectional rack comprising a series of horizontally disposed plates, a series of vertically disposed side plates, one of said series of plates being provided with receptacle supporting formations, each disposed in a plane at a higher elevation than the lowest portion of the horizontal plate, there being channel formations between the side plates and said receptacle supporting formations, bolts connecting said respective series of plates with each other and having projecting portions disposed in said channel formations, and downwardly projecting flanges at the front and rear edges of said horizontally disposed plates.

3. A sectional rack comprising a series of horizontally disposed plates, a series of vertically disposed side plates, one of said series of plates being provided with receptacle supporting formations, each disposed in a plane at a higher elevation than the lowest portion of the horizontal plate, there being channel formations between the side plates and said receptacle supporting formations, bolts connecting said respective series of plates with each other and having projecting portions disposed in said channel formations, and downwardly projecting flanges at the front and rear edges of said horizontally disposed plates, the rear edge flanges of said plates arranged to constitute stops for limiting inward movement of receptacles.

4. A sectional rack comprising a series of horizontally disposed plates equipped with downwardly extending flanges along their side and rear edges, side plates interposed between said first-named plates and equipped with inwardly extending parallel flanges along their upper and lower edges, the lower flanges of said side plates provided with upwardly extending receptacle supporting formations spaced from said side plates and coacting with the latter to form channels, said flanges of said side plates and said first-named plates being provided with registering perforations, and bolts engaging in said formations and having projecting portions disposed in said channels.

5. A sectional rack comprising a series of horizontally disposed plates equipped with downwardly extending flanges along their side and rear edges, side plates interposed between said first-named plates and equipped with inwardly extending parallel flanges along their upper and lower edges, the lower flanges of said side plates provided with upwardly extending receptacle supporting formations spaced from said side plates and coacting with the latter to form channels, said flanges of said side plates and said first-named plates being provided with registering perforations, and bolts engaging in said formations and having projecting portions disposed in said channels, the side flanges of said first-named plates overhanging and engaging the outer faces of said side plates and the rear edge flanges thereof constituting stops to limit the inward movement of receptacles inserted into compartments of said rack.

In testimony whereof, I have hereunto set my hand this 8th day of May, 1930.

WALTHER RASTER.