Feb. 13, 1940. F. D. GRIFFIN 2,190,065

DISPLAY RACK

Filed Jan. 7, 1939

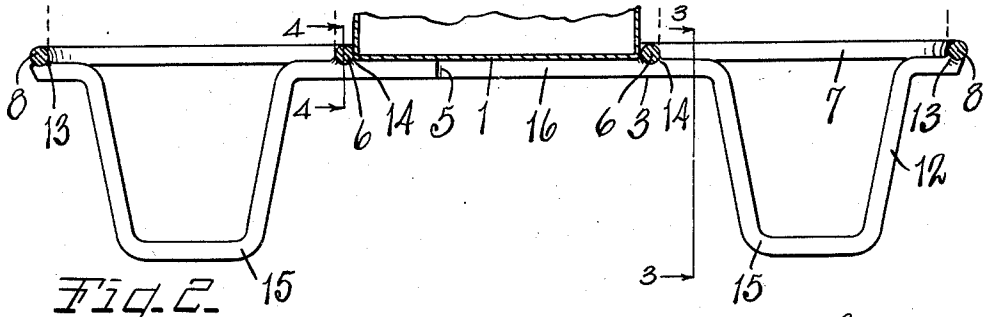


Fig. 2.

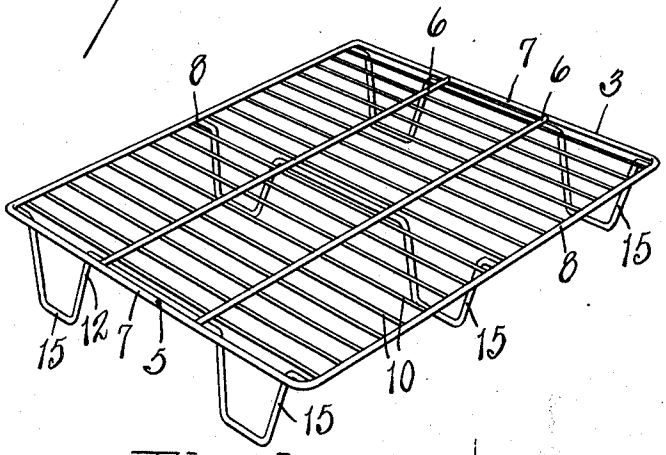


Fig. 1.

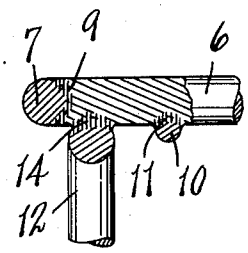


Fig. 4.

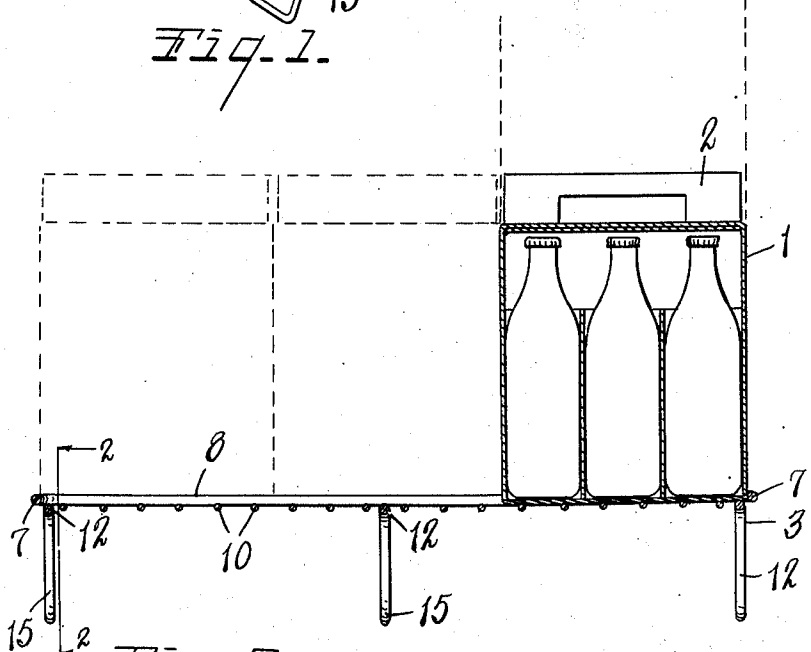


Fig. 3.

INVENTOR.
Francis D. Griffin
BY Earl & Chappell
ATTORNEYS

Patented Feb. 13, 1940 2,190,065

UNITED STATES PATENT OFFICE

2,190,065

DISPLAY RACK

Francis D. Griffin, Battle Creek, Mich., assignor to United Steel & Wire Company, Battle Creek, Mich.

Application January 7, 1939, Serial No. 249,676

2 Claims. (Cl. 211—71)

This invention relates to improvements in display racks.

The main objects of this invention are:

First, to provide a display rack for supporting and sorting packaged goods.

Second, to provide a rack of the type described, having provision for supporting a plurality of packaged units in spaced relation to a supporting surface.

Third, to provide a rack for supporting display units of the type described and having particular provision for permitting a pyramided arrangement of the said units without loss of stability.

Fourth, to provide a rack of the type described having the foregoing advantages which is exceedingly simple in construction and economical of production.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a perspective view illustrating the rack of the invention.

Fig. 2 is a view in transverse section on line 2—2 of Fig. 3 illustrating the rack with a portion of a carton or container for merchandise thereon.

Fig. 3 is a view in section on line 3—3 of Fig. 2, illustrating the rack and the manner in which cartons may be supported thereon stacked in tiers or in pyramided arrangement.

Fig. 4 is an enlarged fragmentary view in section on line 4—4 of Fig. 2.

My invention relates to an all metallic rack for supporting merchandise, being particularly desirable for supporting containers for bottled goods such as soft drinks or the like for storage or merchandising.

There is at the present time a large distribution of bottled goods in cardboard containers of the general type illustrated in Figs. 2 and 3 and designated by the reference numeral 1, each adapted to contain six bottles and provided with a carrying handle 2. It is desirable to support such units for display or for storage in an elevated position above the floor to prevent deterioration or soiling of the cartons as well as damage which would be likely to result from inadvertent kicks or impacts to which they are likely to be subjected when the containers are stacked upon a floor.

Further, by reason of the positioning of the handles 2 centrally of the cartons it is necessary, if a number of cartons are to be stacked upon a rack, to arrange the same in pyramid form, that is, with the base of a given superimposed carton resting between the handles of the cartons upon which it rests. This results in a substantial lateral force being exerted on the supporting packing units or cartons which acts to tend to slide them along on the support.

One of the objects of this invention is to provide means for supporting a stack of containers at the desired elevation above the floor, insuring the same against damage and preventing their sliding off the rack.

In the embodiment of my invention illustrated in the accompanying drawing, the numeral 3 designates the rack generally. My rack comprises a rectangular frame made of light rod or heavy gauge wire stock, the end 7 and the sides 8 of the rack being preferably formed integrally, the ends of the stock forming the parts being butt-welded together as indicated at 5.

The cross rods 6 are arranged in the plane of the frame members with their ends in abutting relation to and butt-welded to the end members of the frame as shown at 9 in Fig. 4. These cross members are arranged in parallel relation to the side members of the frame and uniformly spaced relative to each other and to the side members of the frame.

The bottom slats 10 are disposed in suitably spaced relation on the undersides of the cross members 6 and the side members of the frame and welded thereto as shown at 11.

The leg or standard members 12 are also formed of rod stock having U-shaped bends therein providing legs or standards 15. These leg members are arranged on the undersides of the side members of the frame and the cross members thereof as clearly shown in the drawing and welded to the side members of the frame as shown at 13 and to the cross members thereof as shown at 14. A pair of these leg members are arranged adjacent to the end members of the frame and it will be noted that the middle or reach portion 16 supports the longitudinal members close to their points of attachment to the end members of the frame. The structure illustrated has three leg members, one being arranged at each end and the other intermediate the ends.

The slats provide a bottom on which the articles to be supported, as the container 1, can be arranged, the frame members and the cross members effectively supporting the bottom series of articles stacked on the rack against lateral movement.

The structure is very strong and rigid even when made of comparatively light stock and is capable

of supporting a very substantial load. It is of course an advantage to provide racks which are comparatively light in weight not only for convenience in handling but also this enters into the cost of production. The elements of the rack disposed as they are serve to brace and reinforce one another. If desired, a series of the racks may be arranged in side by side or end to end relation and the goods to be stored stacked thereon in a substantially solid continuous relation—that is, it is not necessary to confine the stacking to the individual racks. For display purposes of the usual store merchandising, a single rack is all that is required.

The racks may also be used in stacking goods in freight cars, keeping them from contacting with the floor which is usually soiled and frequently wet which results in at least destroying the appearance of the goods and where cellular board or boxboard is used for the container, the bottom frequently becomes wet from moisture so that when a container is picked up its contents drops out and is frequently broken. The same advantage of course results in warehouse storage. The articles supported on the racks are elevated sufficiently so that moisture on the floor cannot contact therewith and mopping and sweeping operations can be carried on without soiling the containers mounted on the tracks. Other advantages will be apparent.

I have illustrated and described my improvements in an embodiment which is very practical. I have not attempted to illustrate or describe other embodiments or adaptations as it is believed this disclosure will enable those skilled in the art to embody or adapt my improvements as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A rack for storing bottle cartons and the like comprising an endless rectangular border frame comprising side and end members, cross members disposed in the plane of the frame and having their ends in abutting relation to the inner sides of the end members of the frame and butt-welded thereto, said cross members being uniformly spaced relative to each other and to the border frame side members and parallel therewith, cross slats disposed on the undersides of said cross members and the side members of the frame and welded thereto providing a bottom on which cartons may be disposed between said frame side and cross members, and a plurality of leg members having U-shaped bends therein constituting legs disposed on the undersides of said frame side and cross members and welded thereto, there being leg members positioned adjacent but at the inner side of the end members of the frame, such leg members constituting supports for said cross members adjacent their points of attachment to the frame end members.

2. A rack for storing bottle cartons and the like comprising an endless rectangular border frame comprising side and end members, cross members disposed in the plane of the frame and having their ends in abutting relation to the inner sides of the end members of the frame and butt-welded thereto, cross slats disposed on the undersides of said cross members and the side members of the frame and welded thereto providing a bottom on which cartons may be disposed between said frame side and cross members, and a plurality of leg members having U-shaped bends therein constituting legs disposed on the undersides of said frame side and cross members and welded thereto.

FRANCIS D. GRIFFIN.