G. E. DEAN.

METAL SHELF OR RACK.

APPLICATION FILED JAN. 3, 1920.

1,334,293.

Patented Mar. 23, 1920.

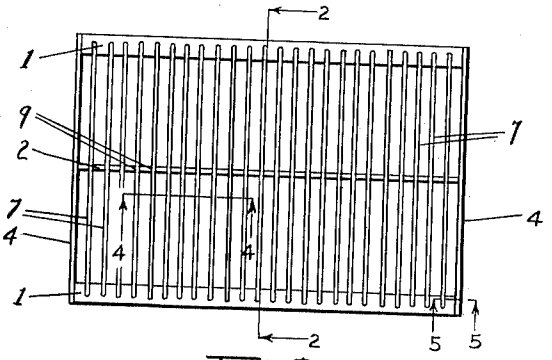


Fig. I.



Fig. II.

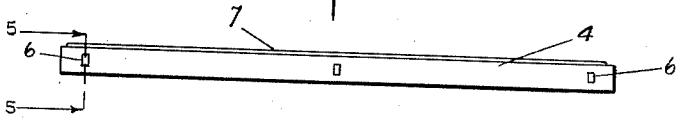


Fig. III.

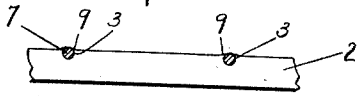


Fig. IV.

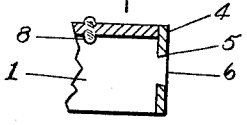


Fig. V.

Witnesses

Lenn Gilman

Fred Ullrich

Inventor

George E. Dean

By Chappell & Carl

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE E. DEAN, OF ALBION, MICHIGAN, ASSIGNOR TO UNION STEEL PRODUCTS COMPANY, LTD., OF ALBION, MICHIGAN.

METAL SHELF OR RACK.

1,334,293. Specification of Letters Patent. Patented Mar. 23, 1920.

Application filed January 3, 1920. Serial No. 349,310.

To all whom it may concern:

Be it known that I, GEORGE E. DEAN, a citizen of the United States, residing at Albion, county of Calhoun, State of Michigan, have invented certain new and useful Improvements in Metal Shelves or Racks, of which the following is a specification.

This invention relates to improvements in metal shelves or racks.

My improved shelf or rack is especially designed by me for use where a strong rigid rack is desired, such as bakers' racks, refrigerator racks and the like, although advantageous for use in other relations.

The main object of this invention is to provide an improved metal shelf or rack which is very strong and rigid and at the same time quite economical to produce.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing forming a part of this specification, in which:

Figure I is a plan view of a structure embodying the features of my invention.

Fig. II is an enlarged transverse section on a line corresponding to line 2—2 of Fig. I.

Fig. III is an end view.

Fig. IV is a longitudinal section on a line corresponding to line 4—4 of Fig. I.

Fig. V is a detail vertical section on a line corresponding to line 5—5 of Figs. I and III.

In the drawing similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, my improved rack comprises angle iron side bars 1 disposed with their angles facing outwardly and downwardly. The intermediate side bar 2 is flat and has recesses 3 in its upper edge. The end bars 4 are also flat and provided with holes 5 to receive the rivet extensions or tongues 6 on the ends of the side and intermediate bars, such ends or extensions being upset in the holes thereby securing the end bars in position.

Cross bars 7 are formed of wire and have their ends 8 arranged through holes in the side bars and clamped in the angles thereof, as shown in Fig. II. If desired, the clamped ends of the cross wire may be spot welded although this is not found necessary for general use. These cross bars 7 are arranged in the recesses 3 of the intermediate bar 2 and retained therein by upsetting or swaging the bar thereon as at 9. The cross bars are thus rigidly secured to the frame and constitute bracing members therefor.

With the parts thus arranged and assembled, the rack is very rigid even when made of large dimensions and of comparatively light material and it is capable of sustaining heavy loads without distortion or injury.

The structure has the further advantage of having no parts which are likely to engage with the objects placed thereon or in handling the rack. It is also, as stated, quite economical to produce.

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

1. In a rack, the combination of a pair of angle iron side bars disposed with their angles facing outwardly and downwardly, the upper arms of said bars having spaced holes therein, a flat intermediate bar having recesses in its upper edge alined with said holes in said side bars, said side and intermediate bars having tongues on their ends, end bars disposed at the ends of said side and intermediate bars and having holes in which said tongues are upset, and cross bars having their ends arranged through the holes in said side bars and clamped under the same, said cross bars being arranged in said recesses in said intermediate bar which is upset or swayed to clamp the bars in said recesses.

2. In a rack, the combination of a pair of angle iron side bars disposed with their angles facing outwardly and downwardly, the upper arms of said bars having spaced holes therein, a flat intermediate bar having recesses in its upper edge alined with said holes in said side bars, said side and

intermediate bars having tongues on their ends, and cross bars having their ends arranged through the holes in said side bars and clamped under the same, said cross bars being arranged in said recesses in said intermediate bar which is upset or swaged to clamp the bars in said recesses.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

GEORGE E. DEAN. [L. S.]

Witnesses:
H. H. CLIFFORD,
M. B. MILLER.