March 1, 1927. 1,619,259

C. H. JARVIS

RACK

Filed March 5, 1926 2 Sheets-Sheet 1

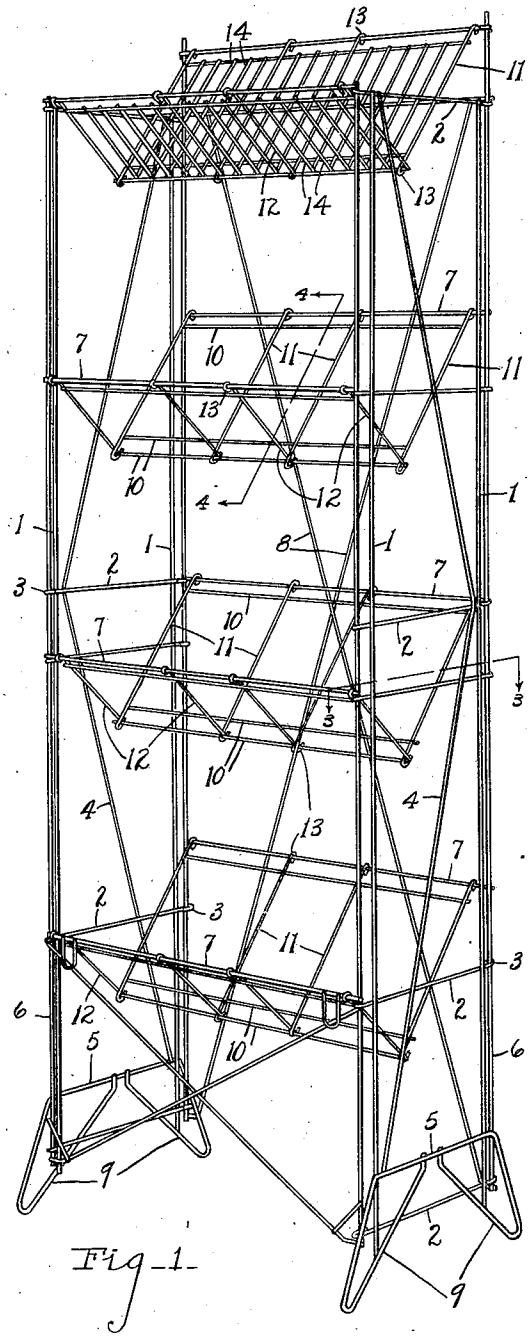


Fig. 1.

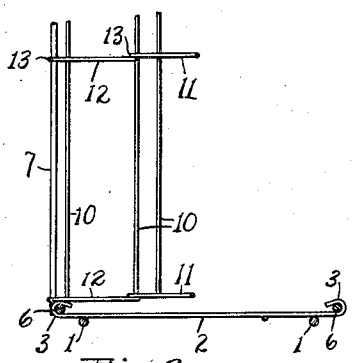


Fig. 3.

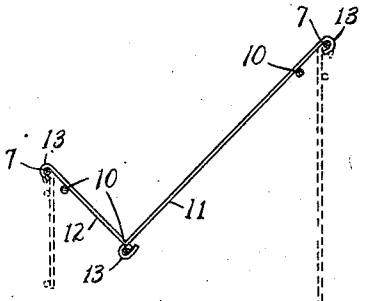


Fig. 4.

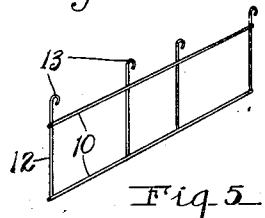


Fig. 5.

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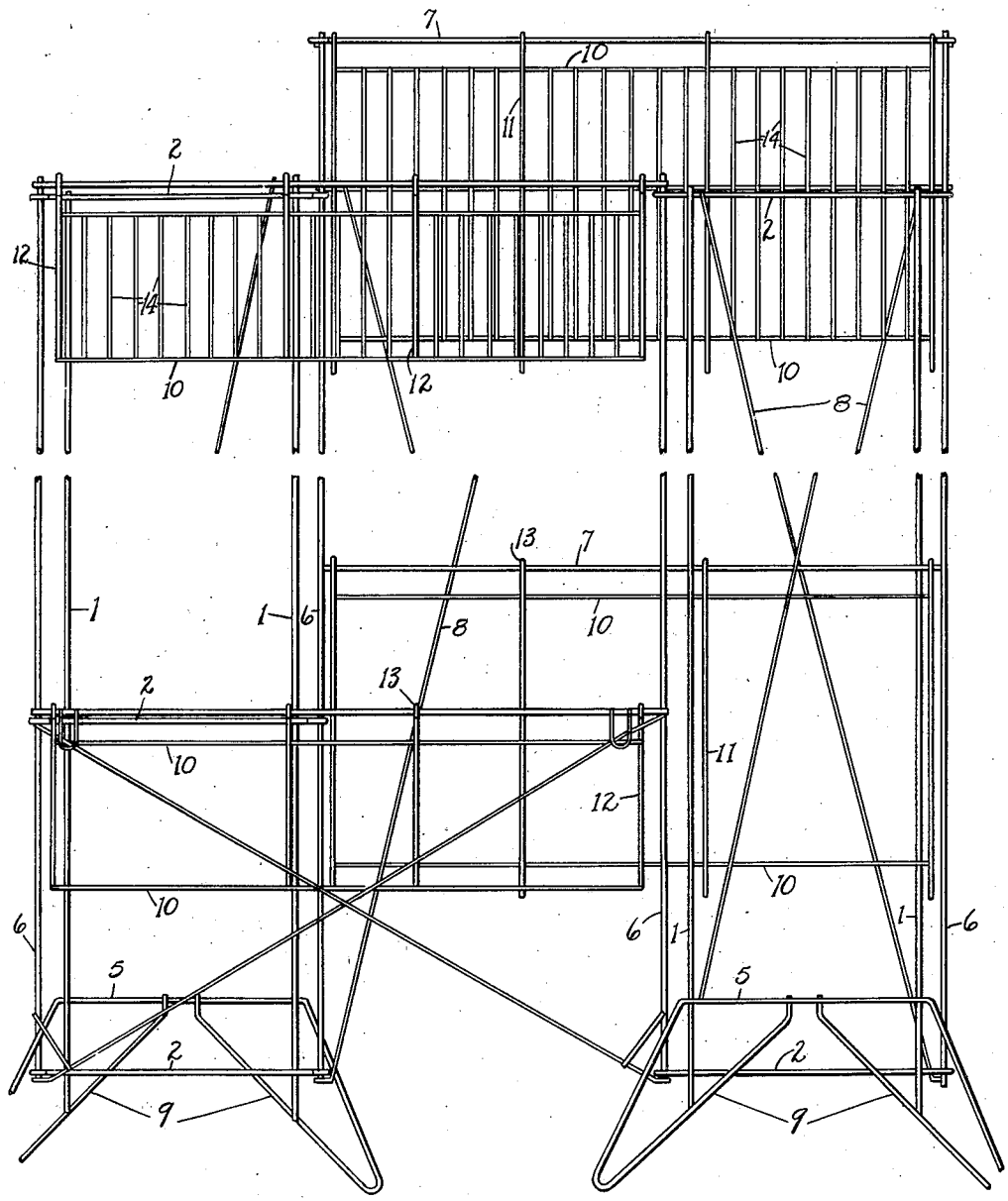


Fig. 2.

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Patented Mar. 1, 1927. 1,619,259

UNITED STATES PATENT OFFICE.

CHARLES H. JARVIS, OF BATTLE CREEK, MICHIGAN, ASSIGNOR TO UNITED STEEL AND WIRE COMPANY, OF BATTLE CREEK, MICHIGAN.

RACK.

Application filed March 5, 1926. Serial No. 92,444.

The main objects of this invention are to provide an improved wire rack for the display of merchandise and the like which is strong and rigid when erected and may be collapsed into a compact form for shipment or storage.

A further object is to provide an improved rack which is well adapted to support a plurality of boxes so that they may be individually opened without removing from the rack and so that their contents are effectively displayed.

Objects relating to details and economies of construction and operation of my invention will definitely appear from the detailed description to follow.

The invention is clearly defined and pointed out in the claims.

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

Fig. 1 is a front perspective view of a display rack embodying the features of my invention.

Fig. 2 is a fragmentary view of the rack shown in Fig. 1 collapsed, showing the shelf members in engaged or erected position in full lines and in collapsed position by dotted lines.

Fig. 3 is a detail horizontal section on a line corresponding to line 3—3 of Fig. 1.

Fig. 4 is a detail vertical section on a line corresponding to line 4—4 of Fig. 1.

Fig. 5 is a perspective view of one of the shelf members.

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, in the embodiment illustrated, my improved rack comprises a pair of end members and a pair of side members pivotally connected to be collapsed one upon the other. The end members comprise uprights 1 formed of wire or light rods of suitable gauge and cross pieces 2, these cross pieces being secured to the uprights by spot welding and with their ends projecting beyond the ends of the uprights and formed into inwardly-turned eyes 3.

The diagonally disposed braces 4 are secured to the cross pieces 2, the lower end of the brace being secured to the cross portion 5 of the foot or base members, the braces being welded to the parts across which they are arranged.

The side members comprise uprights 6 and longitudinal pieces 7 connected by spot welding, the uprights 6 being engaged in the eyes 3. The diagonally disposed cross braces 8 connect the uprights of the side members, being secured thereto by spot welding and being also secured to the horizontal members 7 at the crossing points.

The base members are also formed of wire, the pieces of wire being bent to a bail or yoke shape with the ends of the arms turned inwardly and secured to the cross pieces 5 providing braces 9, these parts being disposed against the outer sides of the uprights 1 of the end members and spot welded thereto at the crossing points, providing a pair of downwardly diverging feet, the purpose of which is to add to the stability of the structure as well as to provide a suitable base.

I provide a series of coacting shelf members consisting of longitudinal pieces 10 and cross pieces 11 and 12. The cross pieces 11 and 12 have eyes 13 at their upper ends pivotally engaging the longitudinal pieces 7 of the side members while the cross pieces 11 have downwardly facing hooks 13 at their lower ends engageable over the bottom longitudinal piece 10 of the coacting shelf member, thereby providing a V-shaped shelf when the shelf members are engaged, as shown in Figs. 1, 3 and 4, and permitting the shelf members to swing to a vertical position as shown by full lines in Fig. 2 and by dotted lines in Fig. 4 so that the rack may be collapsed as shown in Fig. 2. When the shelf members are engaged they constitute a locking or bracing means for maintaining the rack in erected position.

In the embodiment illustrated, the shelf members of the top shelf are provided with additional cross pieces or slats 14 spaced between the cross pieces 11, thereby providing a shelf adapted to support smaller articles than the other shelves.

My improved rack is especially designed by me for holding boxes such as the well known packages employed in displaying cookies, cakes and the like, the boxes being supported in an inclined position so that the contents are effectively displayed and so that they are accessible without removing

the box from the rack. My improved rack is, however, adapted for a great variety of uses and while it is strong and rigid when erected it may be readily knocked down or collapsed and is very compact when collapsed. The structure is also economical in the matter of material and assembling of the parts.

I have illustrated and described my improvements in an embodiment specially adapted for stores and 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. In a collapsible rack, the combination of end members comprising uprights and cross pieces secured to said uprights with their ends projecting beyond the same and provided with horizontally disposed eyes and diagonally disposed braces secured to said cross pieces, side members comprising end uprights pivotally engaged in said eyes and longitudinal pieces connecting said uprights, and diagonally disposed crossed braces connecting said side member uprights and secured to said longitudinal pieces at the crossing points thereof, and shelf members arranged in coacting pairs, said shelf members comprising longitudinal pieces and cross pieces, the cross pieces having eyes at the outer ends thereof pivotally engaging the longitudinal pieces of the side members, the cross pieces of one of the coacting pairs of shelf members being provided with downwardly facing hooks engageable with a longitudinal piece of the coacting shelf member providing a V-shaped shelf when erected, said shelf members constituting a bracing means for preventing the collapsing of the rack when engaged and being adapted to swing to an approximately vertical position when disengaged permitting the collapsing of the side and end members upon each other.

2. In a collapsible rack, the combination of end members comprising uprights and cross pieces secured to said uprights and provided with horizontally disposed eyes, side members comprising end uprights pivotally engaged in said eyes and longitudinal pieces connecting said uprights, and shelf members arranged in coacting pairs, said shelf members comprising longitudinal pieces and cross pieces, the cross pieces having eyes at the outer ends thereof pivotally engaging the longitudinal pieces of the side members, the cross pieces of one of the coacting pairs of shelf members being provided with downwardly facing hooks engageable with a longitudinal piece of the coacting shelf member providing a V-shaped shelf when erected.

3. In a collapsible rack, the combination of end members comprising uprights and cross pieces secured to said uprights and provided with horizontally disposed eyes, side members comprising end uprights pivotally engaged in said eyes and longitudinal pieces connecting said uprights, and coacting shelf members pivotally mounted on the longitudinal pieces of the said side members to collapse between them and provided with detachable connecting means at their lower ends providing a V-shaped shelf when erected, said shelf members constituting a bracing means for preventing the collapsing of the rack when engaged, being adapted to swing to an approximately vertical position when disengaged permitting the collapsing of the side and end members upon each other.

4. In a collapsible rack, the combination of end members comprising uprights and cross pieces secured to said uprights and provided with horizontally disposed eyes, side members comprising end uprights pivotally engaged in said eyes and longitudinal pieces connecting said uprights, and coacting shelf members pivotally mounted on the longitudinal pieces of the said side members to collapse between them and provided with detachable connecting means at their lower ends providing a V-shaped shelf when erected.

5. In a collapsible rack, the combination of side and end members comprising uprights and horizontal pieces secured thereto, the side and end members being pivotally connected to permit the collapsing of the rack, and coacting shelf members comprising longitudinal pieces and cross pieces, the cross pieces being pivotally engaged with longitudinal pieces of the side members to collapse between them, certain of the shelf member cross pieces being provided with hooks engageable with the coacting shelf member for supporting the shelf members in erected position.

6. In a collapsible rack, the combination of end members and side members pivotally connected to permit collapsing upon each other, and coacting shelf members pivotally mounted on said side members to collapse between them and provided with detachable co-engaging parts at their swinging ends whereby the shelf members may be connected providing a V-shaped shelf or swung to the approximate planes of the side members when disengaged, said shelf members coacting to provide a bracing means preventing the collapsing of the rack when the shelf is erected.

7. In a collapsible rack, the combination of end members and side members pivotally connected to permit collapsing upon each other, and coacting shelf members pivotally mounted on said side members to collapse

between them and provided with detachable co-engaging parts at their swinging ends whereby the shelf members may be connected providing a V-shaped shelf or swung to the approximate planes of the side members when disengaged.

8. In a collapsible rack, the combination of end members and side members pivotally connected to permit collapsing upon each other, and V-shaped shelves comprising co-acting pairs of shelf members pivotally hinged to the side members to swing down against the side members to permit the collapsing of the rack.

In witness whereof I have hereunto set my hand.

CHARLES H. JARVIS.