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J. H. LENG

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COLLAPSIBLE DISPLAY RACK

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2 Sheets-Sheet 1

FIG. 1

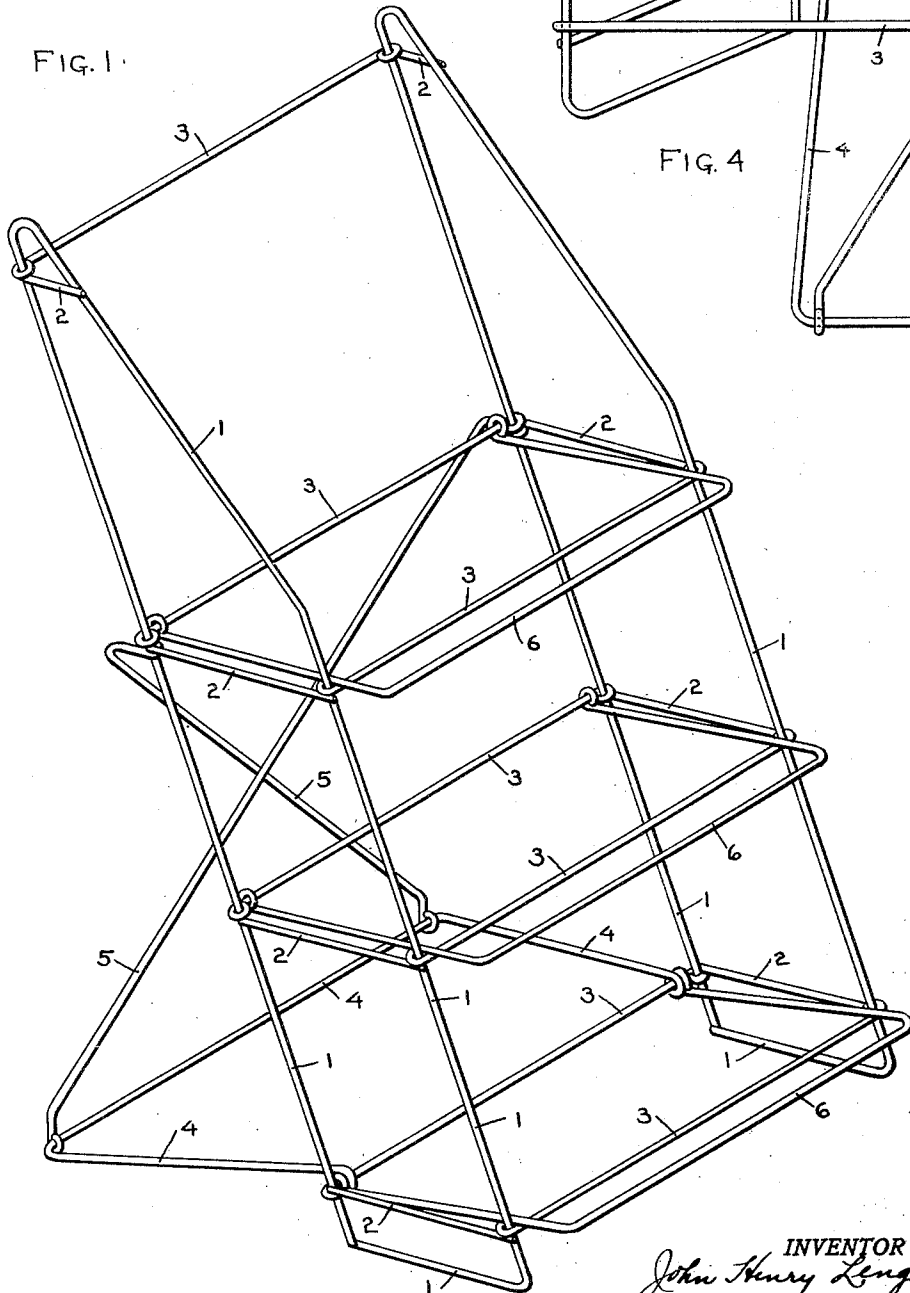
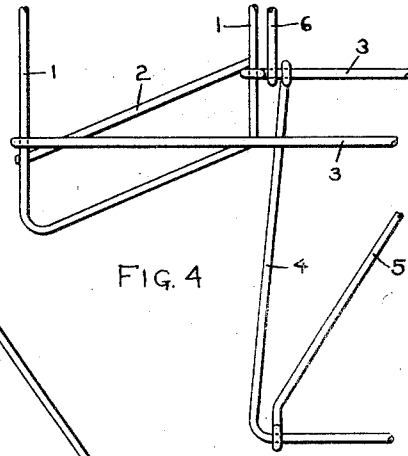


FIG. 4



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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE DISPLAY RACK.

Application filed July 8, 1926. Serial No. 121,093.

This invention relates to an improved form of display rack.

It is an object of the invention to provide a device of this character which, while being itself inconspicuous, will support attractively goods to be displayed and which, if desired, may be of such size that it may be utilized upon a counter.

It is a further object of the invention to provide an article of this character the parts of which will be inexpensively constructed and economically assembled.

A still further object is that of constructing a display rack which may be collapsed to occupy a minimum of space during storage and shipment but which may be readily set up, and when in this latter condition will occupy a comparatively small amount of space and will support a number of articles, the body of the rack in such condition being rigid and the parts of the same being maintained in extended condition, with no danger of the rack collapsing.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

With these and further objects in mind, the invention accordingly comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Figure 1 is a perspective view of the rack in erected condition;

Fig. 2 is a side elevation of the rack as shown in Fig. 1, with boxes or cartons placed on the same;

Fig. 3 is a sectional plan view taken on line 3—3 of Fig. 2, and in the direction indicated by the arrows, the device being shown in partly folded position; and

Fig. 4 is an enlarged fragmentary view of a detail of the rack, the device being shown in partly folded position.

Referring to Figure 1 of the drawings, this display rack consists, in the embodiment illustrated, of two side members 1 made of a single strand of wire and having the shape of a trapezoid, and serving as uprights for the

rack. In order to stiffen these members, cross wires 2 or braces are welded or soldered to the two parallel wire members of these uprights and preferably have their bodies extending parallel to the base members thereof. The uprights are spaced apart a distance corresponding to the width of the articles to be supported. To connect them to each other in such relationship, two series of wire spacers 3 are employed, one series having their bodies extending between, and their ends coiled around, the forward wire members of the two uprights, the second series being similarly associated with the rear wires thereof; it being understood that the effective length of these spacers is just sufficient to permit of the accommodation of an article to be supported between the uprights.

In order to hold the upright members in an inclined position a rest or easel is provided. This member, as shown, embraces two parts, the bottom part 4 consisting of a wire bent to a U shape, with its free ends looped around the lowermost rear spacer member 3. The second part consists of two diagonally-extending crossed wires 5, having their lower free ends looped around the base of the U-shaped member 4, and their upper ends looped around the rear parts of the upright members 1, and below one set of the top braces 2, in this case the second pair. The construction of the easel will permit the U-shaped member 4 to be swung downwardly, using the lowermost spacer member 3 as a journal, until the easel, on account of the sliding movement of the diagonally-spaced wires 5 in the uprights will lie flat against the rear parts of the uprights 1.

Shelf members are provided by bending wires to a U shape, as at 6, the length of the base of each of the members thus provided being substantially equal to the distance between the uprights of the rack, the arms of these members being of a length in excess of the length of the braces 2, and the ends of these arms being coiled around the spacer members 3 of the rear series.

Thus, the upright members may have their base-ports resting upon a supporting surface, in which position they will be maintained by means of the easel, a movement of the uprights being prevented by the shelf members, which extend between the same and bear against the upper edges of the forward series of spacer members. With the rack in

extended condition, it is obvious that a number of cartons may be placed one upon each shelf member, as indicated in dotted lines in Fig. 2, in which position their rear surfaces bear against the forward and rearward spacing member, displacement from this position being prevented by the forward edge of the carton resting against the base of one of the shelf members.

As will be noted, the rack illustrated and described is constructed to hold three boxes or cartons, but any amount desired can be placed in a rack of this character, merely by increasing the length of the side bars and the number of spacers or holders.

In order to fold a rack set up according to the rack shown in Fig. 1, the U-shaped wire members 6 may be swung around their pivot points until they are lying flat and in the same plane as the rear parts of the upright members 1. These side members or uprights 1 are thereafter swung in the looped ends of the spacers 3 until the front part of one of these side members will rest against the rear spacers 3, the easel members 4 and 5 being thereupon swung downwardly until they will lie on the same plane as the side uprights.

Thus, among others, the objects of this invention have been accomplished, and since certain changes may be made in the above construction, and different embodiments of the invention could be made, without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

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

1. A rack, including a pair of uprights forming side members, spacing members having their ends swingingly connected thereto and maintaining said uprights in spaced position, said side members being swingable on said spacing members in a lateral direction, and shelf members swingingly associated with said rack and swingable to a position between said uprights to normally prevent movement of the same with respect to the spacing members.

2. A rack, including a pair of uprights forming side members, spacing members having their ends swingingly connected adjacent the rear edge of each side member and maintaining said uprights in spaced position, said side members being swingable on said spacing members in a lateral direction, and shelf members swingingly secured to said spacing

members and swingable to a position between said uprights to normally prevent movement of the same with respect to the spacing members.

3. A rack, including a pair of uprights, a forward and rearward series of spacing members having their ends swingingly connected thereto and maintaining said uprights in substantially rigidly spaced position, and shelf members swingingly secured to the rear series of spacing members, their bodies being swingable to points between said uprights to normally prevent movement of the latter with respect to the spacing members, said shelf members in such position bearing against the forward series of spacing members.

4. A rack, including a pair of uprights forming side members, a series of spacing members adjacent the rear edges thereof and having their ends swingingly connected thereto, said side members being swingable on said spacing members in a lateral direction, shelf members swingingly secured to said spacing members and movable toward a horizontal position between said uprights to prevent movement of the latter with respect to said spacing members, and means for limiting the movement of said shelf members.

5. A rack, including a pair of uprights forming side members, spacing members having their ends swingingly connected thereto and maintaining said uprights in spaced position, said side members being swingable on said spacing members in a lateral direction, said spacing members being arranged adjacent the forward and rear edges of said uprights, shelf members swingingly secured to the spacing members adjacent the rear edges of said uprights, the depth of said shelf members being in excess of the width of said uprights, and said latter members being movable to a position between said uprights to normally prevent movement of the same with respect to said spacing members.

6. A rack, including a pair of uprights, each embracing a wire extending to provide base, forward and rear portions for said uprights, spacing members extending between and swingingly connected to the rear portions, said uprights being swingable on said spacing members in a lateral direction, and shelf members connected to said spacing members and movable to a position between said uprights to normally prevent a movement of the latter with respect to said spacing members.

7. A rack, including a pair of uprights, each embracing a wire extending to provide base, forward and rear portions for said uprights, spacing members extending between and swingingly connected to the rear portions, said uprights being swingable on said spacing members in a lateral direction, and shelf members each including a wire bent to U shape and having the ends of its arms

coiled around said spacing members, said shelf members being movable to a position between said uprights to normally prevent movement of the latter with respect to said
5 spacing members.

8. A rack, including a pair of uprights, each embracing a wire extending to provide base, forward and rear portions for said uprights, spacing members extending between
10 and swingingly connected to the forward and rear portions of the two uprights, said uprights being swingable on said spacing members in a lateral direction, shelf members, each including a U-shaped body having its ends
15 coiled around a rear spacing member, the depth of such body being in excess of the distance between the forward and rear portions of the uprights, said shelf member being movable to a position at which it extends between
20 the uprights and bears against one of the forward spacing members to prevent movement of said uprights with respect to said spacing members.

9. A rack, including a pair of uprights,
25 each embracing a wire extending to provide base, forward and rear portions for said uprights, means for maintaining the uprights in spaced position, said uprights being swingable on said spacing members in a lateral direction, means for supporting articles upon
30 said uprights, and an easel connected with said rack, said easel including a wire extending in U shape, and a pair of wires connected to the

body of said latter wire and slidably engaging and slidable on the rear portions of said
35 uprights.

10. A rack, including a pair of uprights, each embracing a wire extending to provide base, forward and rear portions for said uprights, spacing members extending between
40 the rear portions of said uprights and being swingingly connected thereto, article-supporting means associated with said rack, and an easel including a U-shaped wire having its ends swingingly connected with one of said
45 spacing members, and wires having their upper ends slidably encircling the rear portions of said uprights, their lower end being connected to said U-shaped member.

11. A rack, including a pair of uprights,
50 each embracing a wire extending to provide base, forward and rear portions for said uprights, spacing members extending between the rear portions of said uprights and being swingingly connected thereto, said uprights
55 being swingable on said spacing members in a lateral direction, article-supporting means associated with said rack, and an easel including a U-shaped wire having its ends swingingly connected with one of said spacing
60 members, and wires having their upper ends slidably encircling the rear portions of said uprights, their lower ends being connected to said U-shaped member.

In testimony whereof I affix my signature.

JOHN HENRY LENG.