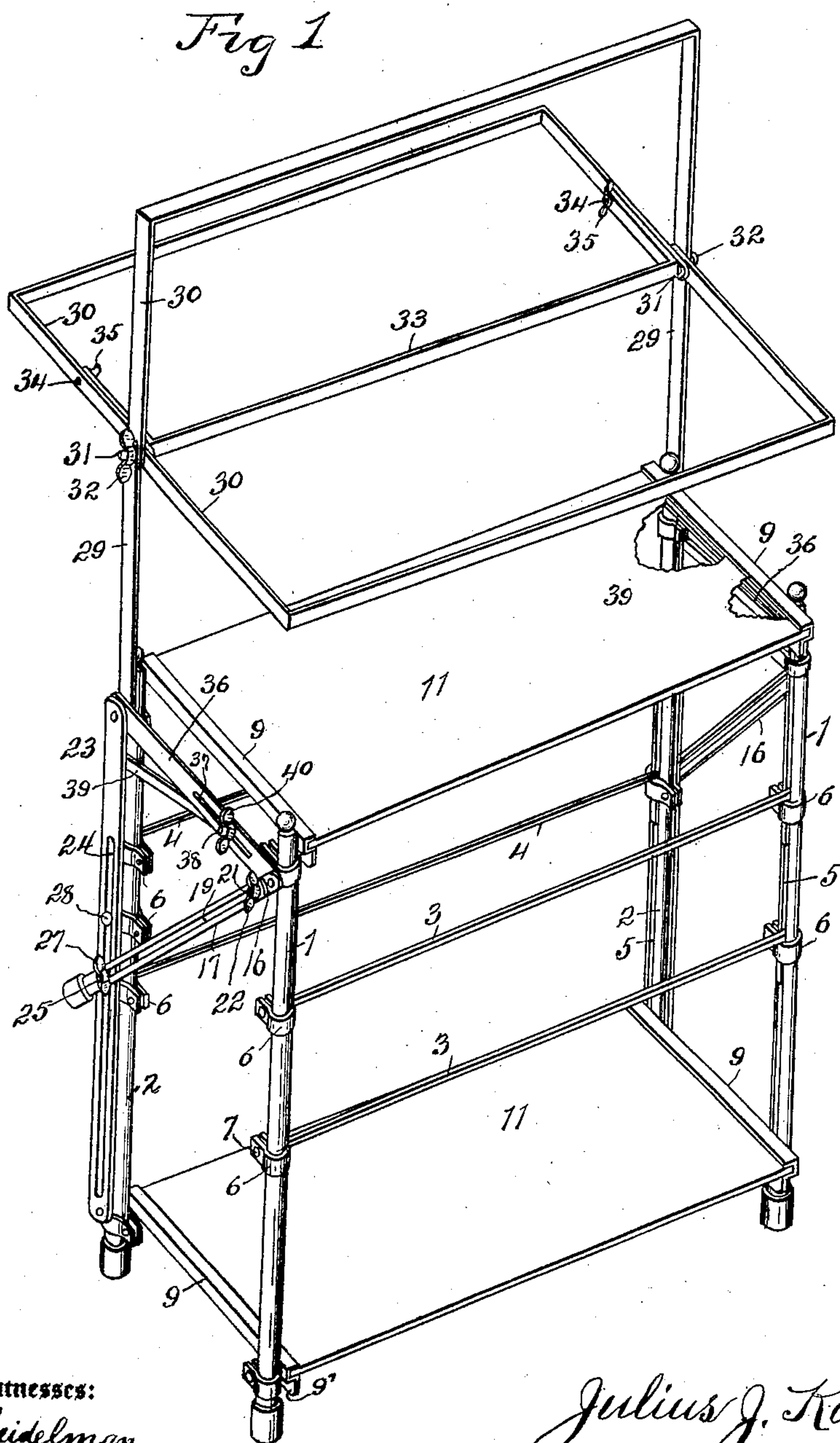


903,821.

J. J. KARGES.
DISPLAY RACK.
APPLICATION FILED DEC. 21, 1906.

Patented Nov. 10, 1908.

3 SHEETS—SHEET 1.



Witnesses:
E. E. Aidelman
E. B. House

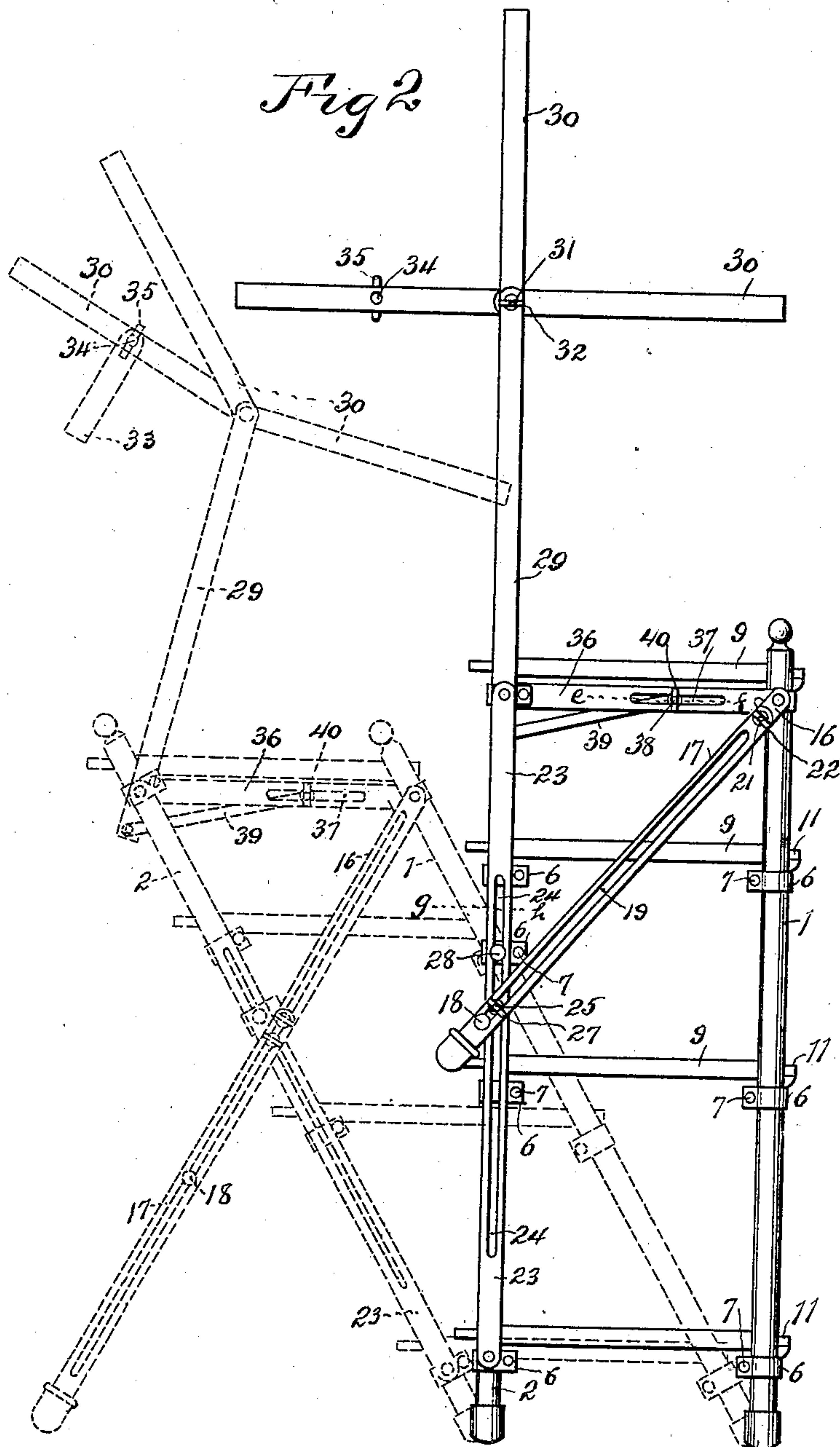
Inventor
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By His Attorney *Warren D. House*

903,821.

J. J. KARGES.
DISPLAY BACK.
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3 SHEETS—SHEET 2.



Witnesses:
R. Hamilton
E. Seidelman.

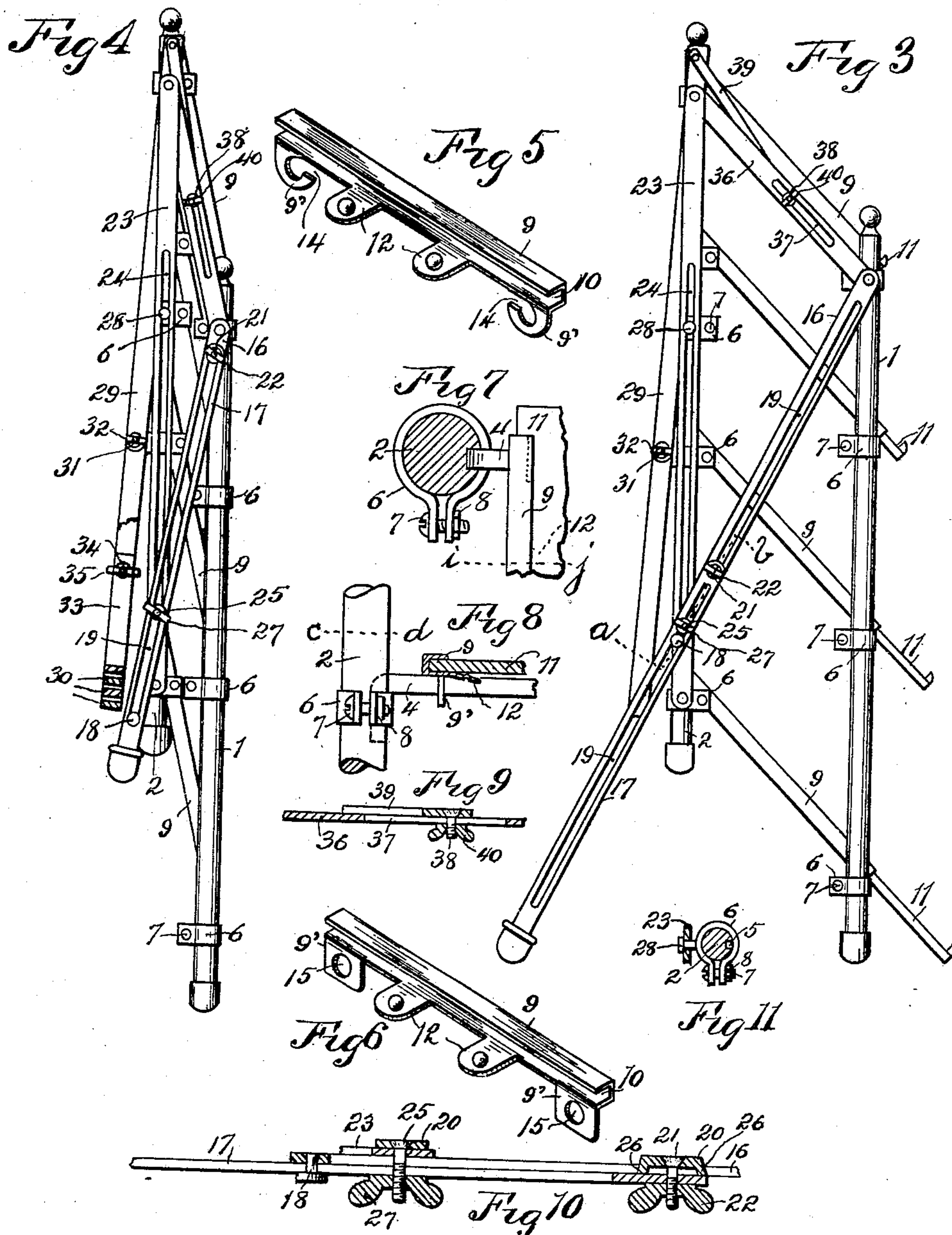
Inventor
Julius J. Karges,
By His Attorney
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3 SHEETS—SHEET 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JULIUS J. KARGES, OF KANSAS CITY, MISSOURI.

DISPLAY-RACK.

No. 903,821.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed December 21, 1906. Serial No. 348,952.

To all whom it may concern:

Be it known that I, JULIUS J. KARGES, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Display-Racks, of which the following is a specification.

My invention relates to improvements in display racks.

10 The object of my invention is to provide a display rack adapted to attractively display a variety of articles, and for which purpose the rack may be readily adjusted to suitable positions, the rack when not in use, being
15 collapsible and occupying small space.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings illustrating my invention—Figure 1 is a perspective
20 view showing the rack with the supports vertically disposed and with the shelves in the horizontal position. Fig. 2 is an end elevation view of the rack, shown in solid lines with the standards vertically and the shelves
25 horizontally disposed. In this view the rack is shown in dotted lines with the standards inclined and the extensible brace extended so as to serve as a leg for supporting the standards in the inclined position. In Figs.
30 1 and 2 the supplemental rack is shown with its members disposed in positions suitable for displaying goods. Fig. 3 is an end elevation view of the rack, the rear standards being elevated and the shelves shown inclined and some of them partly withdrawn
35 from their supports. Fig. 4 is an end elevation view of the rack shown in the collapsed position. In Figs. 3 and 4 the supplemental rack is shown collapsed. Figs. 5 and 6 are
40 respectively perspective views of the two forms of transverse members employed to support the shelves and which pivotally connect with the front and rear supports. Fig. 7 is a horizontal section taken on the dotted
45 lines *c—d* of Fig. 8 and showing one of the split clamping rings mounted upon one of the standards, a portion of which is shown, together with a portion of one of the shelves, a shelf support, and a portion of the hori-
50 zontal rod supporting the shelf support and supported by the clamping ring. Fig. 8 is a vertical sectional view taken on the dotted line *i—j* of Fig. 7. Fig. 9 is a horizontal sectional view taken on the dotted line *e—f*

of Fig. 2, showing the mechanism for ad- 55 justably clamping one of the supplemental rack braces to the principal rack. Fig. 10 is a sectional view taken on the dotted line *a—b* of Fig. 3 and showing the mechanism for clamping one of the extensible braces to 60 the adjacent guide and the mechanism for clamping together the two members of the extensible brace. Fig. 11 is a cross section taken on the dotted line *g—h* of Fig. 2 and showing the adjustable stop connected with 65 one of the guides secured to one of the rear standards.

Similar characters of reference denote similar parts.

The principal rack is provided with front 70 and rear supports. The front support comprises preferably, two vertical parallel standards 1, connected by a set of horizontal parallel rods 3. The rear support comprises preferably, two vertical standards 2 75 connected by a set of horizontal, parallel rods 4 disposed one above the other and parallel with the rods 3. Each of the standards 1 and 2 is provided with a longitudinal groove 5 disposed on the inner side of the 80 standard and adapted to receive therein the adjacent ends of the adjacent rods 3 or 4, the ends of which are turned downward at right angles. On each standard 1 and 2 are mounted a plurality of vertically adjustable 85 split rings 6, each having two radial parallel projections at its ends, which projections are provided with transverse openings in which is mounted a horizontal screw 7, one end of which is screw threaded and has mounted 90 thereon a nut 8 which bears against the outer side of one of the radial projections of the ring, the head of the screw bearing upon the outer side of the other projection. By properly turning the nut 8 the ring 6 may be 95 tightly clamped on the standard, 1 or 2 as the case may be. Under each of the horizontal rods 3 and 4 on each standard is mounted one of the clamping rings 6 which embraces the adjacent downwardly turned 100 end of said rod. A plurality of transverse members 9 each provided on its inner side with a longitudinal groove 10, is provided at opposite ends with downwardly extending projections 9'. The transverse members 105 9 are disposed in pairs the grooves in the members of each pair facing each other and having slidably mounted therein a shelf 11.

A plurality of the shelves 11 is provided said shelves being disposed one above the other. Each transverse member 9 is provided on its inner side with one or more horizontal resilient projections 12 disposed as shown in Fig. 8 so as to press tightly on the under side of the shelf 11 mounted in the groove 10 of the said transverse member 9. The projections 9' of the upper and lower pairs of transverse members 9 are provided with transverse holes 15 through which extend respectively the adjacent horizontal rods 3 and 4. The projections 9' on the intermediate pairs of the transverse members 9 are provided respectively with slots 14 through which extend the adjacent horizontal rods 3 and 4. The members 9 having the slots 14 are removable from the rods 3 and 4. All the transverse members 9 pivotally connect with the rods 3 and 4, whereby the standards 1 and 2 may be swung to and from the vertical position. The transverse members 9 are also adjustable lengthwise of the rods 3 and 4 for any desired purpose, such as employing shelves of different lengths, or when shelves are not used, for supporting goods suspended therefrom.

The following is a description of the means for bracing the front and rear supports; and holding them in the positions to which they may be adjusted:—Two braces are preferably employed, one at each end of the principal rack, and said braces are preferably extensible so that they may be employed as shown in dotted lines in Fig. 2, to serve as legs for supporting the front and rear supports in the inclined positions. Each brace preferably comprises two parallel bars 16 and 17. The inner bars 16 of the two braces are pivoted at their upper ends to the outer sides of the standards 1 respectively. Each bar 16 has secured to it, adjacent its lower end, an outwardly extending horizontal pin 18 disposed in a longitudinal slot 19 provided in the outer bar 17 and registering with a similar slot 19 provided in the bar 16. On the inner side of each bar 16 is slidably mounted a plate 20 having secured to it one end of a screw 21 which extends through the slot 19 of the bar 16, the outer end of said screw being threaded and having mounted thereon a thumb nut 22 adapted to bear against the outer side of the bar 17, which bar is provided with a transverse hole through which extends the screw 21. On the outer side of each rear standard 2 is provided a longitudinal guide comprising preferably a longitudinal plate 23, provided with a longitudinal slot 24, through which extends a horizontal screw 25, the inner end of which is secured to a plate 20, similar to the plate 20 already described, and disposed on the inner side of the guide plate 23, as shown in Fig. 10. Each of the plates 20 is provided with one or more

projections 26 located respectively in the slots 19 and 24 of the bar 16 and plate 23. The screw 25 extends through the slots 19 of the bars 16 and 17 and has mounted on its outer threaded end a thumb nut 27, adapted to bear against the outer side of the bar 17 for clamping the bars 16 and 17 together and to the guide plate 23. By loosening the thumb nuts 22 and 27 the standards 1 and 2 may be inclined, as shown in dotted lines in Fig. 2, and the bar 17 slid lengthwise downward so as to serve as a leg for supporting the standards 1 and 2, the nuts being turned so as to clamp the bars 16 and 17 together and to the guide plate 23 for retaining the parts in this position. In order that the lengthwise movement of the braces may be adjustably limited, each standard 2 has mounted on it a split ring 6 vertically adjustable on the standard and having secured to its outer side a horizontal stud 28 which extends through the slot 24 of the guide plate 23 and limits the upward swinging movement of the bars 16 and 17 and thereby limiting the forward swinging movement of the standards 1 and 2. When it is desired that the standards 1 and 2 shall not swing forward of the vertical position the split rings 6 having the studs 28 are adjusted on the standards 2 so that when the standards 1 and 2 are in the vertical position the bars 16 and 17, when swung upward, will strike the studs 28. When it is desired that the standards 1 and 2 be forwardly inclined the studs 28 are disposed in the guides 23 as shown in the drawings.

I will now describe the supplemental rack:—Pivoted at their lower ends to the standards 2 respectively are two bars 29 having their upper ends pivoted respectively to the arms of a plurality of U-shaped members 30, the horizontal portions of which lie in the same plane and parallel with each other when the said members are swung to the collapsed position shown in Figs. 3 and 4. For the purpose of pivoting the said members 30 and the bars 29 together, the upper end of each bar 29 is provided with a transverse hole through which extends a screw 31 which also extends through holes provided in the adjacent arms of the members 30. On the threaded outer end of each screw 31 is mounted a thumb nut 32 which bears against the outer side of the adjacent bar 29 for the purpose of clamping the members 30 in the positions in which they may be adjusted. The arms of a U-shaped member 33 are provided with holes through which extend screws 34 and also extend through holes provided in the arms of one of the members 30. The member 33 is disposed on the inner side of said member 30 and is so disposed that it may be swung with its horizontal or transverse portion in alinement with the pivotal points of the members 30. As shown in Fig. 130

4 the member 33 may also be swung so that it will lie in the same plane with the members 30. The bars 29 are adjustable to different radial positions and locked in the positions to which they may be adjusted by means of the following described mechanism:—Two transverse members or bars 36 are pivoted at their ends to the standards 1 and 2 respectively adjacent the upper ends of said standards. As shown in Fig. 9, each transverse bar 36 is provided with a longitudinal slot 37 through which extends a screw 38, the inner end of which is secured to a brace bar 39 having one end slidable longitudinally relative to the adjacent bar 36 and having its other end pivoted to the adjacent bar 29. On the outer threaded end of each screw 38 is mounted a thumb nut 40 adapted to bear against the outer side of the adjacent bar 36 so as to tightly clamp together the bars 36 and 39. On the inner ends of the screws 34 are mounted thumb nuts 35. By loosening the thumb nuts 32 and 35 the members 30 and 33 may be swung to any suitable position for the purpose of displaying goods and then securely held in position by properly turning said thumb nuts. By loosening the thumb nuts 40 the bars 29 may be swung to any desired angle relative to the standards 2 and then held locked in the adjusted position by properly turning said thumb nuts 40.

When it is not desired to display any goods on the supplemental rack the said rack may be collapsed and swung to the position shown in Figs. 3 and 4 by loosening the thumb nuts 40. In this position the bars 29 and arms of the members 30 and 33 will lie very nearly parallel with the standards 2, and will thus not interfere with the use of the principal rack for the display of goods. By also loosening the thumb nuts 22 and 27 the principal rack may be also collapsed, as shown in Fig. 4.

Various modifications of my invention may be made within the scope of the appended claims without departing from the spirit of my invention.

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

1. In a display rack, the combination with a suitable support, of two bars pivoted to said support, releasable means for locking said bars to said support, a plurality of U shaped members having their arms pivoted respectively to said bars and to each other, releasable means for locking said arms to said bars, a single U shaped member having its arms pivoted respectively to the arms of one of said members and adjustable to and from a position in which its transverse portion will be in alinement with the pivotal points of said members, and releasable means

for locking the arms of said single member in the position in which they may be adjusted.

2. In a display rack, the combination with a suitable support, of two bars pivoted to said support, a brace pivoted to one of said bars and slidably connected to said support, means for releasably locking said brace to said support, and a plurality of U shaped members having their arms pivoted respectively to said bars and to each other.

3. In a display rack, the combination with a suitable support, of two bars pivoted to said support, a brace pivoted to one of said bars and slidably connected to said support, means for releasably locking said brace to said support, a plurality of U shaped members having their arms pivoted respectively to said bars and to each other, and releasable means for locking said arms to said bars.

4. In a display rack, the combination with a suitable support having a slot, of two bars pivoted to said support, a brace pivoted to one of said bars, a bolt secured to said brace and slidable in said slot, a nut mounted on said bolt and adapted to clamp said support to said brace, and a plurality of U shaped members having their arms pivoted respectively to said bars and to each other.

5. In a display rack, the combination with a suitable support, of two bars pivoted to said support, releasable means for locking said bars to said support, a brace pivoted to one of said arms and slidably connected to said support, releasable means for locking said brace to said support, and a plurality of U shaped members having their arms pivoted to said bars respectively and to each other.

6. In a display rack, the combination with a suitable support, of two bars pivoted to said support, releasable means for locking said bars to said support, a brace pivoted to one of said bars and slidably connected to said support, releasable means for locking the brace to said support, a plurality of U shaped members having their arms pivoted respectively to said bars and to each other, and releasable means for locking said arms to said bars.

7. In a display rack, the combination with front and rear supports, of transverse members connecting said supports, two bars pivoted to one of said supports, bracing means pivoted respectively to said bars and slidably connected with said transverse members respectively, locking means connecting said transverse members with said bracing means, and a plurality of U shaped members having their arms pivoted respectively to said bars and to each other.

8. In a display rack, the combination with front and rear supports, of transverse members pivoted respectively to said supports, adjustable bracing means connecting said

supports, two bars pivoted to one of said supports, releasable means for locking said bars to the support to which they are pivoted, and a plurality of U shaped members having their arms pivoted respectively to said bars.

9. In a display rack, the combination with front and rear supports, of transverse members pivoted respectively to said front and rear supports, adjustable bracing means connecting said supports, two bars pivoted to one of said supports, brace bars pivoted respectively to said pivoted bars and slidable relative to said transverse members, means for locking said brace bars to said transverse members, and a plurality of U shaped members pivoted respectively to the bars pivoted to said supports.

10. In a display rack, the combination with front and rear supports, of transverse members pivoted respectively to said supports, an extensible brace pivoted to one of said supports and adjustable lengthwise of the other support, two bars pivoted to one of said supports, means for releasably securing said bars to said support to which they are pivoted, and a plurality of U shaped members having their arms pivoted to said bars respectively.

11. In a display rack, the combination with front and rear supports, of transverse members pivoted respectively to said supports, an adjustable brace connecting said supports, two bars pivoted to one of said supports, two brace bars pivoted respectively to said bars and slidable relative to said transverse members, releasable means for locking said brace bars to said transverse members respectively, and a plurality of U shaped members having their arms pivoted respectively to said bars pivoted to said support.

12. In a display rack, the combination with front and rear supports, of transverse members pivoted respectively to said supports, an extensible brace pivoted to one of said supports and adjustable lengthwise of the other support, two bars pivoted to one of said supports, releasable means for locking said bars to the support to which they are pivoted, a plurality of U shaped members having their arms pivoted to said bars respectively, and releasable means for locking said arms to said bars.

13. In a display rack, the combination with front and rear supports, of a plurality of shelves disposed one above the other, means pivoted respectively to said supports for supporting said shelves, adjustable bracing means connecting said supports, two bars pivoted to one of said supports, releasable means for locking said bars in the position to which they may be adjusted, and a plurality of U shaped members having their arms pivoted respectively to said bars.

14. In a display rack, the combination with front and rear supports, of a plurality of shelves disposed one above the other, means pivoted respectively to said supports for supporting said shelves, an extensible brace pivoted to one of said supports and adjustable lengthwise of the other support, two bars pivoted to one of said supports, releasable means for locking said bars in the position in which they may be adjusted, and a plurality of U shaped members having their arms pivoted respectively to said bars.

15. In a display rack, the combination with front and rear supports one of which has a longitudinal guide, of a brace pivoted to the other support and longitudinally adjustable on said guide, transverse members pivoted respectively to said supports, two bars pivoted to one of said supports, releasable means for locking said bars to said support, and a plurality of U shaped members adjustably pivoted to said bars respectively.

16. In a display rack, the combination with front and rear supports, of a brace pivoted to one support and adjustable lengthwise of the other support, transverse members pivoted respectively to said supports, two bars pivoted to one of said supports, a plurality of U shaped members having their arms adjustably pivoted to said bars respectively, two brace bars pivoted respectively to said bars and slidable relative to said transverse members, and releasable means for locking said brace bars to said transverse members respectively.

17. In a display rack, the combination with front and rear supports, of a plurality of transverse members pivoted respectively to said supports, each transverse member having a longitudinal slot, adjustable bracing means connecting said supports, two bars pivoted to one of said supports, a plurality of U shaped members having their arms adjustably pivoted to said bars respectively, two brace bars pivoted respectively to said bars, two bolts secured respectively to said brace bars and located respectively in the slots of said transverse members, and nuts mounted on said bolts and adapted to clamp said transverse members.

18. In a display rack, the combination with front and rear supports, of a plurality of shelves disposed one above the other, means pivoted to said supports respectively and upon which the shelves are respectively slidably mounted, adjustable bracing means connecting said supports, two bars pivoted to one of said supports, releasable means for locking said bars in the positions in which they may be adjusted, and a plurality of U shaped members having their arms adjustably pivoted respectively to said bars.

19. In a display rack, the combination with front and rear supports, of an extensible brace connecting said supports, a plu-

ality of transverse members pivoted respectively to said supports, a plurality of shelves disposed one above the other and slidably mounted on said transverse members, two
5 bars pivoted to one of said supports, releasable means for locking said bars in the positions in which they are placed, and a plurality of U shaped members having their arms adjustably pivoted respectively to said
10 bars.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

JULIUS J. KARGES.

Witnesses:

E. B. HOUSE,
G. C. LA MOUNTAIN.