Jan. 12, 1926. 1,569,358

C. C. CROSS

GARMENT RACK

Filed March 24, 1923 2 Sheets-Sheet 1

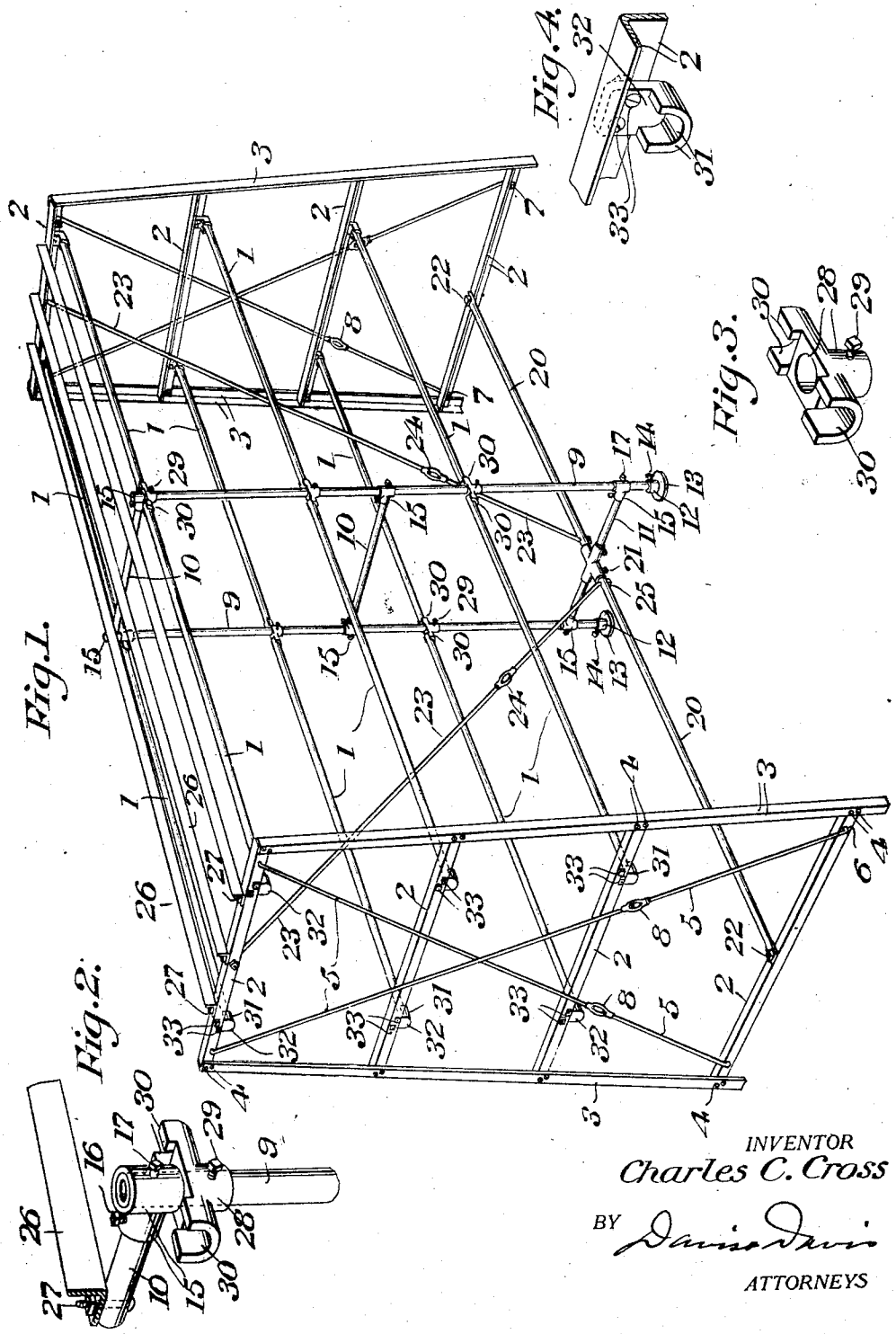


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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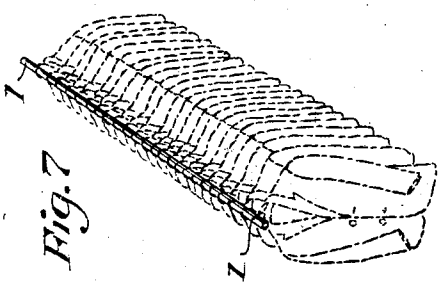


Fig. 7

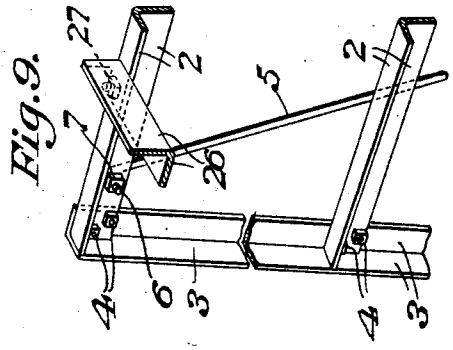


Fig. 9.

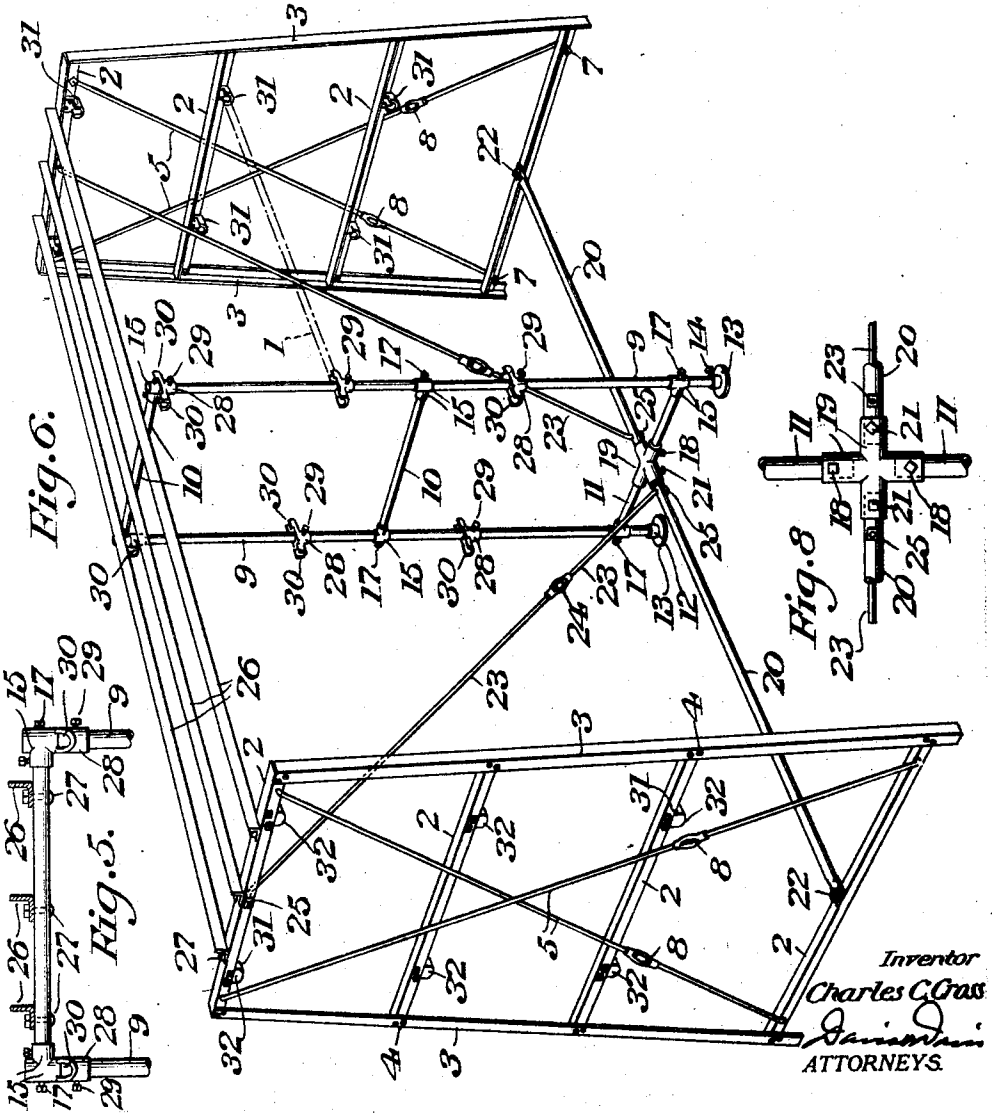


Fig. 6.

Fig. 5.

Fig. 8

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UNITED STATES PATENT OFFICE.

CHARLES C. CROSS, OF BROOKLYN, NEW YORK, ASSIGNOR TO UNIVERSAL FIXTURE CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

GARMENT RACK.

Application filed March 24, 1923. Serial No. 627,475.

To all whom it may concern:

Be it known that I, CHARLES C. CROSS, a citizen of the United States, and resident of the borough of Brooklyn, in the county of Kings, city and State of New York, have invented certain new and useful Improvements in Garment Racks, of which the following is a specification.

This invention relates to improvements in garment racks, and has for its principal objects to provide an efficient and inexpensive rack especially adapted for supporting large numbers of garments; to provide a rack of large capacity which may be readily knocked down and assembled and which is of rigid skeleton structure; and to provide a rack constructed to facilitate the handling and storage of garments in quantities.

In the accompanying drawings,

Figure 1 is a perspective view of a rack illustrating the preferred embodiment of the invention;

Figs. 2, 3, 4 and 5 are detail views of parts of the rack hereinafter more fully described;

Fig. 6 is a perspective view of the rack with the suspension or hanger rods removed;

Fig. 7 is a perspective view illustrating the manner in which large quantities of garments may be carried to or from the rack upon the removal suspension rods; and

Figs. 8 and 9 are detail views of parts of the rack hereinafter more fully described.

The rack comprises generally two upstanding end frames and an upstanding intermediate frame suitably connected to form a rigid skeleton rack divided transversely into two sections in each of which a plurality of removable and interchangeable garment suspension rods 1 are supported. In the rack shown there are twelve suspension rods, six in each section of the rack and extending longitudinally of the rack. Three of the rods 1 in each rack section are arranged in vertically spaced relation adjacent one side of the rack, and the other three rods are arranged in vertically spaced relation adjacent the opposite side of the rack. Rods 1 are preferably formed of rigid metal tube stock.

Each end frame of the rack comprises four horizontally disposed, angle iron, cross-bars 2 and a pair of upstanding end bars 3 formed of commercial angle iron stock. Bars 2 are arranged with their horizontal webs extending toward the central frame member and bars 3 are arranged with one web against the outer faces of the vertical webs of bars 2, and said engaged webs of bars 2 and 3 are detachably secured to each other by bolt and nut fastenings 4. The remaining webs of bars 3 abut against the ends of both webs of bars 2. I prefer to employ two bolt and nut fastenings 4 for each end of each bar 2. Bars 2 preferably are progressively shorter from bottom to top of the end frames and bars 3 incline toward each other from their lower to their upper ends. Each end frame is preferably braced or stiffened by a pair of crossed, removable tie-rods 5 having laterally bent, screw-threaded end portions 6 passed through apertures in the vertical webs of the uppermost and lowermost bars 2, near the ends of bars, and removably held in place by nuts 7. Each metal tie-rod 5 is divided into two sections connected by a turnbuckle 8.

The intermediate frame is preferably formed of metal tube or pipe sections, and comprises two parallel vertical tubular rods 9, upper and intermediate transverse tubular rods 10 and a lower two-part, tubular, transverse rod 11. Rods 9 are seated at their lower ends in tubular sockets 12 formed on disk-like metal feet 13 and are detachably locked in said sockets by set-screws or clamping bolts 14. The outer ends of the rods 10 and 11 are removably engaged in the horizontal branches of tubular T-couplings 15 and are locked in place by set-screws or clamping bolts 16. Rods 9 extend through the vertical branches of couplings 15 and said couplings are detachably locked in place on said rods by set screws 17.

The inner ends of two-part rod 11 are detachably locked by set screws 18 in two transversely extending sockets of a tubular cross-coupling 19. The inner ends of two tubular rods 20 are detachably locked by set screws 21 in the other two sockets of coupling 19. Rods 20 are detachably connected at their outer ends by bolt and nut fastenings 22 to the top webs of the lower cross-bars 2 of the end frames at points midway the ends of the cross-bars. To increase the rigidity of the rack two tie-rods 23 are employed, each rod 23 being formed

in two sections connected by a turn buckle 224. The lower end of each rod 23 is passed through an aperture in one rod 20 near coupling 19 and the upper end of each of said rods is passed through an aperture formed in the vertical web of the upper cross-bar 2 of the adjacent end frame midway the ends of said bar 2. The ends of rods 23 are screw threaded and have nuts 25 screwed thereon to detachably connect the rods to bars 2 and rods 20. Three transversely spaced angle-iron bars 26 extend longitudinally of the rack and rest on upper bars 2 of the end frame and upper rod 10 of the intermediate frame, to which bars and rod they are detachably secured by bolt and nut fastenings 27.

Three vertically spaced, duplex, suspension-rod supports are detachably secured on each rod 9 of the intermediate frame. Each of these duplex supports comprises a vertical tubular portion 28 adapted to slide on and off rod 9 and locked thereto by a set screw 29. The tubular or sleeve-like body 28 is formed with two oppositely disposed suspension-rod saddles, or semi-cylindrical horizontally extending sockets 30 having their open sides facing upward. Two suspension rod supports are detachably held to each of the three uppermost cross-bars 2 of each end frame, each of these supports comprising a semi-cylindrical rod-saddle 31 formed at its outer end with a vertical end wall 32 detachably held by two bolt and nut fastenings 33 to the vertical web of bar 2. The three saddles 31 adjacent one side of each of the end frames are arranged in a single vertical plane and in horizontal and vertical register with saddles 30 on one rod 9 of the intermediate frame, while the saddles 31 adjacent the opposite side of the end frames are arranged in register with saddles 30 on the other rod 9. Rods 20, and preferably also the rods 26, are arranged within the planes of the vertical rows of saddles 30—31 so that free access may be had to rods 1 supported in the saddles.

It will be noted that the parts shown in Fig. 6 constitute a rigid frame or skeleton rack for supporting removable garment suspension or hanger rods 1 and that said rack and the suspension means principally comprise detachably connected rod and bar elements which may be conveniently shipped in compact form, the remaining parts comprising bolt and screw fastenings and small coupling and socket members which may be conveniently packed for shipment. It will be noted that said rack is so constructed as to be especially useful for storage of large quantities of garments with economy of floor space, and that large numbers of garments may be carried on ordinary garment hangers on the suspension rods from a work room to the storage rack and from the rack to a shipping room.

What I claim is:

1. A knock-down article-supporting rack comprising a pair of upstanding end frame sections, an upstanding intermediate frame section, a pair of longitudinally aligned and horizontally disposed rigid frame-section connecting members located substantially midway between the side edges of the frame sections, means detachably connecting each of said aligned members at its inner end with the intermediate frame section adjacent the bottom of said section, means detachably connecting each of said aligned members at its outer end with the adjacent end frame section near the bottom of said section, a plurality of rigid connecting members each extending longitudinally of the rack from end to end of the rack at the top of the frame sections, means detachably holding each of said last-mentioned connecting members to the three frame sections, a pair of oppositely inclined tie-rods at opposite sides of the intermediate frame section, means detachably connecting each of the tie-rods at its outer end to the adjacent end frame section near the top of said section and substantially midway between the side edges of the section, means detachably connecting each of the tie-rods at its inner end to one of said aligned connecting members adjacent the intermediate frame section, a plurality of independent article-suspension rods arranged in superposed horizontal rows between each end frame section and the intermediate frame section and extending longitudinally of the rack, means on the intermediate frame section for detachably connecting the ends of the suspension rods arranged at opposite faces of said frame section with said section, and means on each end frame section for detachably connecting with said section the outer ends of the suspension rods arranged between said end frame section and the intermediate frame section.

2. A knock-down article-supporting rack comprising a pair of upstanding end frame sections, an upstanding intermediate frame section, a pair of longitudinally aligned and horizontally disposed rigid frame-section connecting members located substantially midway between the side edges of the frame sections, means detachably connecting each of said aligned members at its inner end with the intermediate frame section adjacent the bottom of said section, means detachably connecting each of said aligned members at its outer end with the adjacent end frame section near the bottom of said section, a plurality of rigid connecting members each extending longitudinally of the rack from end to end of the rack at the top of the frame sections, means detachably holding

each of said last-mentioned connecting members to the three frame sections, a pair of oppositely inclined tie-rods at opposite sides of the intermediate frame section, means detachably connecting each of the tie-rods at its outer end to the adjacent end frame section near the top of said section and substantially midway between the side edges of the section, means detachably connecting each of the tie-rods at its inner end to one of said aligned connecting members adjacent the intermediate frame section, a plurality of independent article-suspension rods arranged in superposed horizontal rows between each end frame section and the intermediate frame section and extending longitudinally of the rack, and a plurality of saddle members mounted on said end and intermediate frame sections having upwardly facing seats therein in which the ends of the article-suspension rods are loosely engaged.

3. A garment storage rack comprising a pair of spaced upstanding end frame sections, an upstanding intermediate frame section between the end sections, longitudinally extending connecting members arranged intermediate the opposite longitudinal sides of the rack and connecting the three sections together to form a rigid unitary frame structure, a plurality of independent garment suspension and conveying rods extending longitudinally from each end section to the intermediate section and transversely spaced outwardly at opposite sides of the said connecting members, and means carried by the end sections and the intermediate section to loosely support the suspension rods horizontally, whereby the rack frame is entirely open along its two longitudinal sides and the suspension rods and garments are freely removable outwardly from the frame at either side.

In testimony whereof I hereunto affix my signature.

CHARLES C. CROSS.