Feb. 8, 1938. R. A. MAGNUSON 2,107,640

WARDROBE RACK

Filed Jan. 16, 1935 2 Sheets-Sheet 1

Fig. 1.

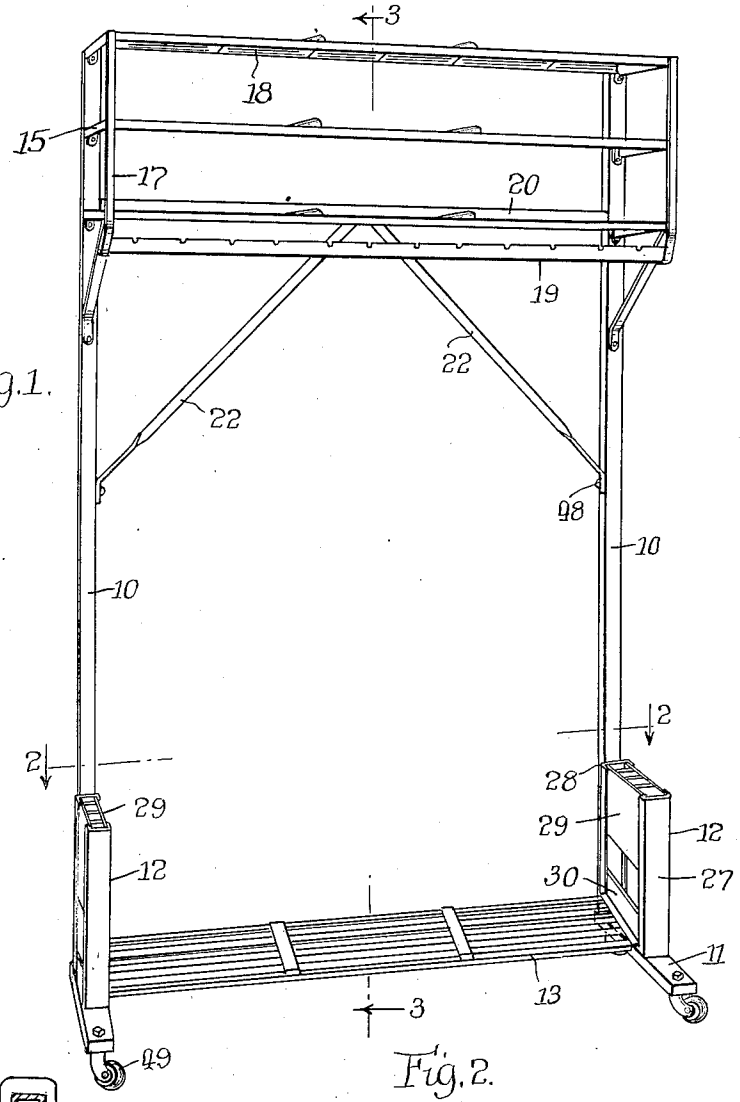
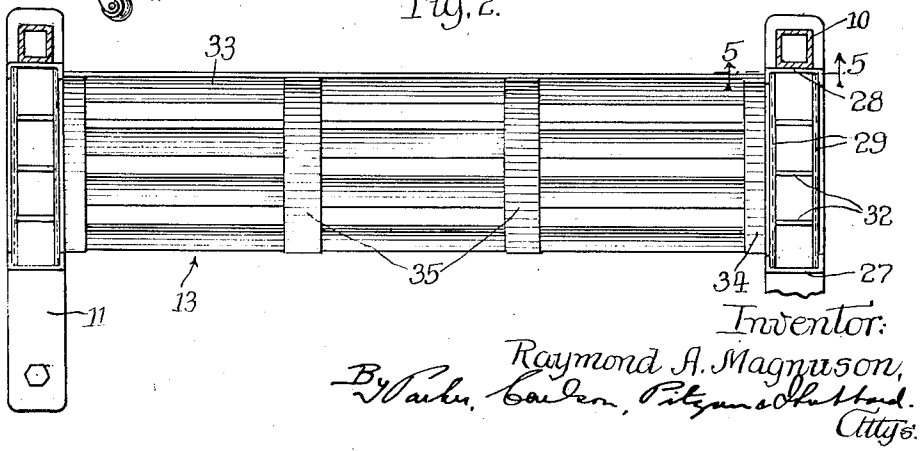


Fig. 2.



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Fig. 3.

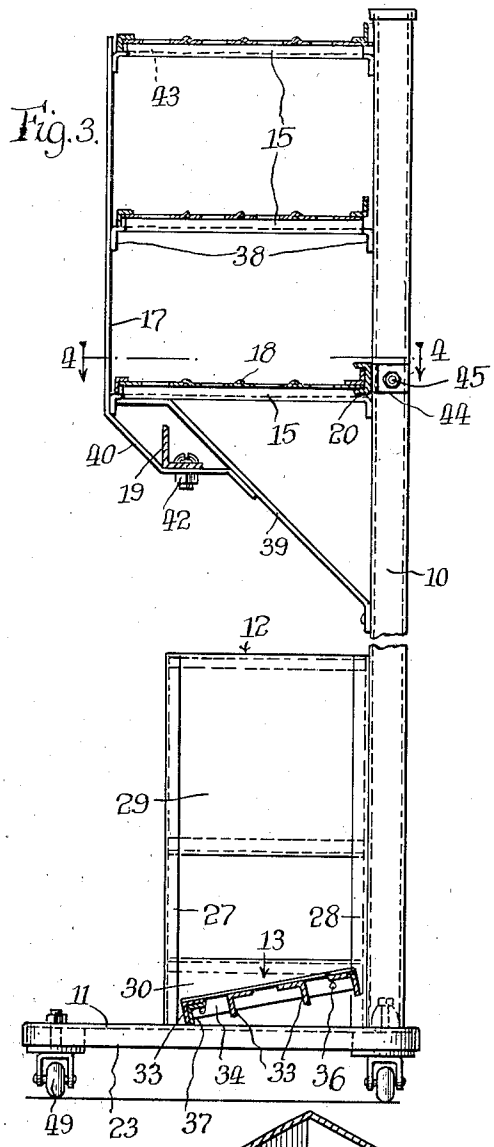


Fig. 4.

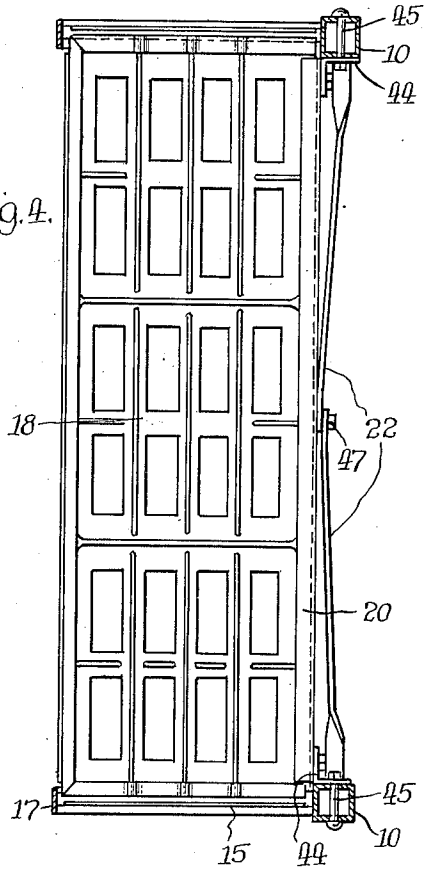


Fig. 5.

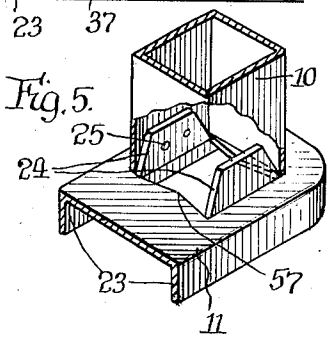


Fig. 6.

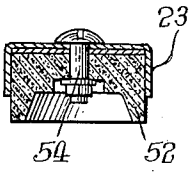


Fig. 7.

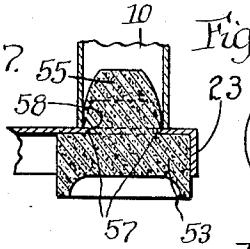
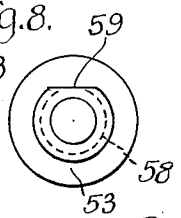


Fig. 8.



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Patented Feb. 8, 1938 2,107,640

UNITED STATES PATENT OFFICE

2,107,640

WARDROBE RACK

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Application January 16, 1935, Serial No. 1,989

9 Claims. (Cl. 211—1)

This invention concerns improvements in wardrobe racks and relates more particularly to a rack of this type embodying in a unitary, portable device, various means contributing directly to the structural unity and adapted for supporting the usual items of outdoor wearing apparel.

For utmost utility wardrobe racks must provide for receiving in an orderly manner a maximum number of articles in a minimum of occupied space. In construction, the device must be rugged and substantial so as to withstand long, hard usage; and yet it should be light enough in weight to be portable and should be capable of economical manufacture from a minimum of material in order to sell at low cost.

The principal object of the present invention, therefore, is to provide a device embodying all of these desirable characteristics, and constructed preferably of few standardized, unitary parts requiring no special skill for assembly into a complete rack structure.

Another object is to provide a wardrobe rack of the foregoing nature adapted for supporting the heavy load imposed by an accumulation of numerous articles and characterized by its light weight, its evenly balanced structure embodying few parts neatly arranged and braced to secure maximum rigidity, and by its open construction permitting unrestricted air circulation.

Another object is to provide such a wardrobe rack constructed as a complete, upright, individual unit which may readily be disassembled and collapsed into a small space for storage or transportation; and which is adapted to be united with parts of one or more similar units for creating a multiple unit of increased capacity.

Various specific objects reside in the manufacture of all parts of light weight metallic members; in the provision of an improved base structure including simplified means for the attachment of an upright frame element and supporting a rigidly secured umbrella receptacle which functions as a brace or truss for strengthening the parts; in the provision for equipping the rack optionally with stationary floor rests or roller means adapting the rack for easy shifting; in the provision of a convenient footwear support which serves also as one of the principal connecting members between the parts of the unit; and in the provision of simple truss and frame means at the upper part of the rack, connected together and forming a support for removable shelving.

Other objects and advantages will become apparent from the following description and from the accompanying drawings, in which:

Figure 1 is a perspective view of a complete wardrobe rack unit.

Fig. 2 is a sectional plan view taken substantially on line 2—2 of Fig. 1.

Fig. 3 is an enlarged transverse sectional view partly in elevation taken substantially along line 3—3 of Fig. 1.

Fig. 4 is a sectional plan view taken substantially along line 4—4 of Fig. 3.

Fig. 5 is a fragmentary perspective view partly in section showing the preferred manner of joining the end of the upright to the base member, taken substantially along line 5—5 of Fig. 2.

Figs. 6 and 7 show a preferred form of stationary floor rest means for the front and rear, respectively, of the rack.

Fig. 8 is a plan view of the rear floor rest.

While the invention is susceptible of various modifications and alternative constructions, I have shown in the drawings and will herein describe in detail, the preferred embodiment, but it is to be understood that I do not thereby intend to limit the invention to the specific form disclosed, but intend to cover all modifications and alternative constructions falling within the spirit and scope of the invention as expressed in the appended claims.

In the embodiment of the invention shown in the drawings by way of example, the structure is arranged as a framework including a pair of uprights 10 supported vertically upon forwardly extending, parallel base bars 11. Rigidly secured in the angle thus formed in each instance, is an umbrella receptacle 12 serving as truss means between the upright and base bar. Between the parallel umbrella receptacles is secured a footwear support fashioned as a shelf 13, strongly constructed and serving as the sole lower connection between the side structure of the framework. Adjacent the upper ends, the uprights 10 carry article supporting means, comprising forwardly extending horizontal shelf bars 15 and a connecting framework bar 17, providing support for spaced horizontal shelves 18. Parallel relationship of the shelf supporting structure is maintained rigidly by a hanger rail 19 and a connecting bar 20, diagonal struts 22 between the connecting bar in the uprights serving to prevent side sway. All parts of the portable rack unit are preferably constructed of simple metallic elements designed for maximum strength and rigidity while requiring a minimum amount of material, creating a light weight structure of great capacity and attractive appearance.

In selecting suitable material for constructing

the present wardrobe rack, I aim to secure the greatest possible structural strength while keeping the weight of the rack as a whole as low as possible. To this end the uprights 10 are preferably one-piece, hollow tubular members of narrow cross section resting at their lower ends adjacent the rear ends of the base bars 11. Desirably, the latter are elongated channel-shaped elements arranged flat side uppermost and having depending strengthening flanges 23 (Fig. 5) connected together at their ends to provide a continuous skirt. Near the rear end of each base bar is formed a pair of upstanding parallel flanges 24 of such length and spacing as to fit within the tubular end of the respective uprights. In this manner, the upright is exactly located as to position and by a suitable expedient may be secured rigidly to the flanges. Satisfactory results have been obtained by spot welding the flanges to the upright base as at 25.

Since the uprights 10 are long and slender and must withstand the principal load which the rack will be called upon to carry, rigid bracing between the base bars and the uprights is desirable. In the present instance this is part of the function of the umbrella receptacles 12. These are preferably of a size adapted for receiving several umbrellas and are constructed of suitable sheet metal welded or otherwise secured into a compact rigid unit. Thus, each receptacle 12 may be fashioned of several easily fabricated pieces, herein shown as comprising similar upright front and rear channels 27 and 28 (Figs. 2 and 3) joined in spaced parallel relationship by side plates 29 and a shallow channel-shaped drip pan 30. Equally spaced parallel spacer strips 32 are secured between the upper edges of the side plates 29 for defining individual umbrella compartments.

In order to protect from damage the umbrella fabric, all exposed edges of the component receptacle parts are preferably finished smooth. I have preferred to accomplish this by doubling over the edges, thus also reinforcing the individual sheet metal parts and strengthening the receptacle unit as a whole. The receptacle unit thus formed is secured in the angle between the upright 10 and the base bar 11 in any suitable manner, such as by spot welding the base of the drip pan 30 to the base bar and similarly welding the rear channel 29 to the front face of the upright. Thus, the lower part of the rack is provided with parallel side frame means comprising the angularly joined upright and base bar and the rigidifying truss connection provided by the receptacle 29.

Securing the lower parts of the end frame members in spaced parallel relation is the footwear shelf 13 which is preferably of reinforced construction in order to withstand hard usage. To this end the shelf may be formed of a plurality of longitudinal angle bars 33 connected in spaced parallel relation by transverse angle end strips 34 and intermediate flat strips 35. The end strips are suitably apertured to receive screws 36 for connecting the same to the side frame units. Thus, the end strips may conveniently be secured to the opposed faces of the umbrella receptacles 12, herein shown as the sides of the drip pans 30. Since the footwear shelf 13 is adapted for receiving overshoes and the like which may be wet at the time they are deposited on the shelf, the latter is preferably secured slantingly, as best seen in Fig. 3, to permit ready drainage. The shelf makes a convenient foot-rest and in order to strengthen the same for the loads imposed by any such usage, I have preferably reinforced the forward edge of the shelf by securing a reinforcing angle 37 within the angle of the front angle bar 33. Thus, the footwear shelf is capable of withstanding any usage to which it may be put and will allow ready drainage of wet articles placed thereon so that water will not accumulate.

Preferably the umbrella receptacles are secured in accurate median alignment with the base bars 11 and the uprights 10 so that the side frame units may be used interchangeably on the left or right side of the rack.

The upper part of the present device may embody the improved features of the shelf supporting brackets and shelving disclosed in the co-pending application of George Peterson and R. A. Magnuson, entitled "Garment racks", Serial No. 731,400 filed June 20, 1934. Thus, the shelf supporting bars 15 may comprise upwardly opening channels having attachment flanges 38 at their ends secured as by spot welding to the parallel upright 10 and the frame bar 17 (Fig. 3). A diagonal brace 39 is secured between the forward edge of the lowermost shelf bar 15 and the upright 10, and the lower end of the frame bar 17 is bent inwardly to form a bracket 40 the free end of which is attached to the brace 39. In this manner a rigid shelf supporting framework is secured, and the hanger rail 19 is supported at its ends by the brackets 40, being removably secured thereto as by means of bolts 42. The shelves 18 are of reinforced unit construction having depending end flanges 43 fitting within the channels provided by the shelf bars 15.

Preferably, the connecting bar 20 is of channel-shape facing forwardly of the device and arranged in a plane to receive the rear edge of the lowermost shelf 18. For securing the connecting bar 20 in place, angles 44 connected at its opposite ends abut the sides of the uprights 10 and are detachably secured thereto as by means of bolts 45.

The struts 22 may be in the form of flat bars diagonally connecting the uprights 10 and the connecting bar 20. Thus, the upper converging ends of the struts 22 are detachably secured to the bar 20 as by a bolt 47 (Fig. 4). At their lower ends, the struts may be suitably twisted and bent to provide flanges 48 (Fig. 1) connected detachably to the uprights in any suitable manner. Thus, the upper part of the rack is secured into a rigid unit which will withstand heavy loads without side sway. Moreover, the position of the hanger rail 19 is such that the center of weight when loaded will be evenly balanced relative to the base of the device so that the same will stand solidly and will not tip over under any normal circumstance.

Should it be desired to increase the capacity of the rack, several individual units may be joined together to form one unit of multiple capacity. This may be accomplished by building onto each end of one unit so that one end frame may serve as the end for two sections of the device. Thus, the bolts 45 may serve to connect oppositely extending connecting bars 20; the hanger rail 19 may be made of multiple length to extend between all of the alined brackets 40; and footwear shelves 13 may be connected to both sides of the intermediate umbrella receptacle 12. Hence, it will be seen that the present invention is readily adapted for expansion as desired, and the cost of a multiple unit will be marterially less than the

cost of as many individual units due to the elimination of one end frame member in each instance of multiplication.

Ordinarily, it is desirable to provide means in connection with the base of the device for raising the base substantially from the floor in order to facilitate cleaning thereunder, or in order to render the device readily shiftable. To this end, I may secure casters **49** at the front and rear of the base bars **11** for rendering the rack easily shiftable from place to place. However, where it is not necessary to have the device readily shiftable, I may provide the base bars with front and rear stationary resting devices having limited engagement with the floor. Desirable means for the latter situation comprises vacuum-cup rubber blocks **52** and **53** for the front and rear ends, respectively, of the base bar **11** (see Figs. 6 and 7). The front cup **52** may be secured in place by means of a bolt **54**, but for securing the rear cup **53** in place, I utilize the aperture resulting from the formation of the flanges **24**. In the present instance, the cup **53** has a node **55** on its upper face adapted to project into the base of the upright **10**. For holding the cup **53** against dislodgement when moving the rack, I may provide opposed projections **57** restricting the aperture size in one dimension and adapted to fit into a suitable groove **58** at the base of the node **55**. These projections **57**, as will be apparent from an inspection of Fig. 5, may be formed as a result of cutting the flanges **24** in trapezoidal form.

In order to permit ready insertion or removal of the cup **53**, the node is flattened at one or at opposite sides **59** to fit between the projections **57**. A slight turning of the placed cup will thus cause the groove **58** to overlap the projections and lock the cup in place. Preferably, also, the cup is of a size to fit snugly between the base flanges **23** so that there will be litttle tendency for the cup to turn out of locked position except when manually forced.

From the foregoing, it will be evident that the present invention provides a simple, durable and efficient construction which may be fabricated in standardized units at the factory, and which may be assembled for use without special skill. In assembling the device, the end frame member units may be connected quickly at the top by means of the connecting bar **20** and the hanger rail **19**, and at the bottom by the footwear shelf **13**. After these simple steps, the shelves **18** are placed in position and the rack is ready for use. Where more capacity is desired than is provided by any one standard unit assembly, a plurality of units may be secured together without altering the construction of any individual part of the structure.

I claim for my invention:

1. A wardrobe rack having in combination a plurality of laterally spaced vertical supports comprising horizontal base members, uprights secured to the rear ends of the base members, elongated top members extending forwardly from the uprights and rigidly secured in overhanging relation to said base members, article supporting means at the upper ends of said supports including a cross rail for heavy articles such as coats extending laterally between said uprights and supported by said forwardly extending top members in forwardly spaced relation to said uprights, and hollow brace members secured in the angles formed by said base members and uprights so as to restrain forward tilting of the uprights upon their base members when said cross rail is subjected to a heavy load, said hollow brace members being open at their upper ends to form receptacles for umbrellas and the like.

2. In a wardrobe rack construction of the character described, an end frame member comprising an elongated upright, spaced parallel shelf supporting bars secured to the upper end of said upright and projecting forwardly from one side thereof, a frame bar connecting the outer ends of said shelf supporting bars and having its lower end formed to provide a hanger rail bracket, a diagonal brace connected to said upright and in engagement with the end of said bracket for receiving and transmitting to said upright the weight of a load supported by said hanger rail, a base member for supporting the lower end of said upright and projecting forwardly similarly as said bars, and reinforcing means secured into the angle formed by said base member and said upright to maintain the upright against tilting when a load is imposed thereon through said bars or hanger rail bracket, said reinforcing means including a rigid hollow frame structure open at the top for receiving and supporting in upright position elongated objects such as umbrellas.

3. A portable wardrobe rack having in combination a plurality of laterally spaced vertical supports including horizontal downwardly facing channel-shaped base members, upstanding flanges on the rear ends of the base members, uprights in engagement at their lower ends with said flanges, elongated article supporting members extending forwardly from the uprights and rigidly secured in overhanging relation to said base members, hollow brace members secured in the angles formed by said base members and uprights so as to restrain forward tilting of the uprights upon their base members when said article supporting members are subjected to a heavy load, said hollow brace members being open at their upper ends to form receptacles for umbrellas and the like, and means carried within the channels of said base members for maintaining the rack in spaced relation above a floor and permitting the rack to be easily moved.

4. A wardrobe rack having in combination a plurality of laterally spaced vertical supports comprising horizontal base members, uprights secured to the rear ends of the base members, forwardly extending means carried between the upper parts of said uprights and adapted to support the major weight of garments placed on the rack during use, hollow brace members of substantial height and depth secured rigidly in the angles formed by said base members and uprights so as to restrain forward tilting of the uprights upon their base members when said forwardly extending means is subjected to a heavy load, said hollow brace members being open at their upper ends to form receptacles for umbrellas and the like, and connecting means of substantial width fitting between and secured to the inner side walls of said brace members for maintaining the lower parts of the uprights against spreading and in fixed parallel relationship regardless of the load carried by said forwardly extending means, the width of said connecting means being such as to enable the same to support footwear and the like.

5. A wardrobe rack having in combination a plurality of laterally spaced vertical supports, comprising horizontal base members, uprights of substantial height secured to the rear ends of the base members, means connecting the upper parts of the uprights in spaced parallel relation, for-

wardly extending members near said connecting means and rigidly secured in overhanging relation to said base members, article supporting means including a hanger rail for heavy articles such as coats extending laterally between said uprights and supported by said forwardly extending members in forwardly spaced relation to said uprights, hollow brace members secured rigidly in the angles formed by said base members and uprights so as to restrain forward tilting of the uprights upon their base members when said rail is subjected to a heavy load, said hollow brace members being open at their upper ends to form receptacles for umbrellas and the like, and means extending between said brace members and connected thereto at spaced front and rear points, whereby to maintain the lower parts of the uprights and said base members in fixed spaced relation and prevent any tendency to spread due to the weight imposed by a heavy load carried by said rail.

6. In combination in a wardrobe rack, a vertical supporting unit including an upright for supporting shelf carrying means, a base member supporting the lower end of said upright and extending forwardly for maintaining said upright against forward tilting, and a hollow brace member having parallel sheet metal side and vertical front and rear walls secured into a rigid unit, the lower end and the rear wall of said brace member being secured to respectively said base member and said upright along the median line thereof to maintain the same permanently against relative movement, said sides providing connector surfaces for the attachment of means by which another similar vertical supporting assembly may be secured in spaced parallel relation on either side of the unit to form a complete rack.

7. In combination in a wardrobe rack a plurality of laterally spaced vertical supporting units comprising horizontal base members, uprights secured to the rear ends of the base members, forwardly extending means carried between the upper parts of said uprights and adapted to support the major weight of garments placed on the rack during use, brace members secured rigidly in the angles formed by said base members and uprights for restraining forward tilting of the uprights upon their base members when said forwardly extending means is subjected to a heavy load, and a rack fitting between and secured to opposed lower portions of said units adjacent said base members for maintaining the lower parts of the uprights against spreading and in fixed parallel relationship regardless of the load carried by said forwardly extending means.

8. In a wardrobe rack construction of the character described, a tubular upright, a flat metallic base member for supporting said upright, integral spaced flanges extending upwardly out of the plane of said member adjacent one end thereof and interfitting snugly with and being connected to the lower end of said upright, said base member having between said flanges an aperture remaining after formation of the flanges, a projection in the plane of said base member extending into said aperture and means fitting within said aperture and said lower end of said upright serving to space said base member from the floor and having a part including a recess complementary to said projection to engage the latter for retaining the spacing means against displacement.

9. In combination in a vertical end frame member for a portable wardrobe rack of the character described, a horizontal elongated base bar, an upright secured rigidly to the rear end of said base bar for supporting forwardly overhanging shelf and coat rail carrying structure upon the upper end thereof, the axis of said upright being in the vertical longitudinal median plane of said base member, and means extending rigidly above and longitudinally of said base bar forwardly of said upright for supporting umbrellas and the like vertically, the vertical longitudinal median plane of said means substantially coinciding with the vertical longitudinal median plane of said base bar, and said means forming together with said base and upright a rigid standardized unit to serve interchangeably as the left or right side end frame of a completed rack.

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