Dec. 22, 1942. R. A. MAGNUSON 2,305,629

COLLAPSIBLE WARDROBE RACK

Filed Oct. 12, 1938 2 Sheets-Sheet 1

Fig. 1.

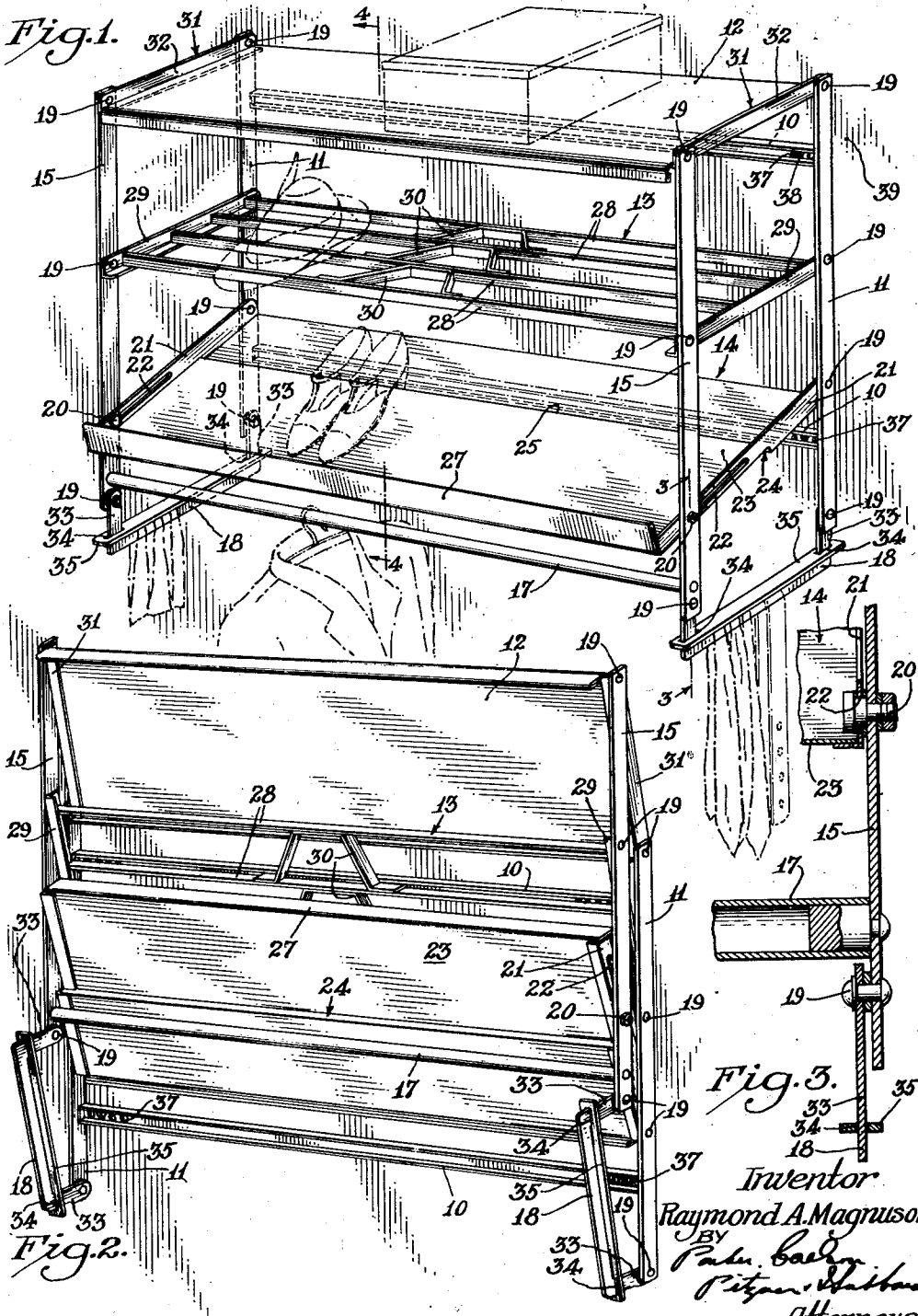


Fig. 2.

Fig. 3.

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Fig. 4.

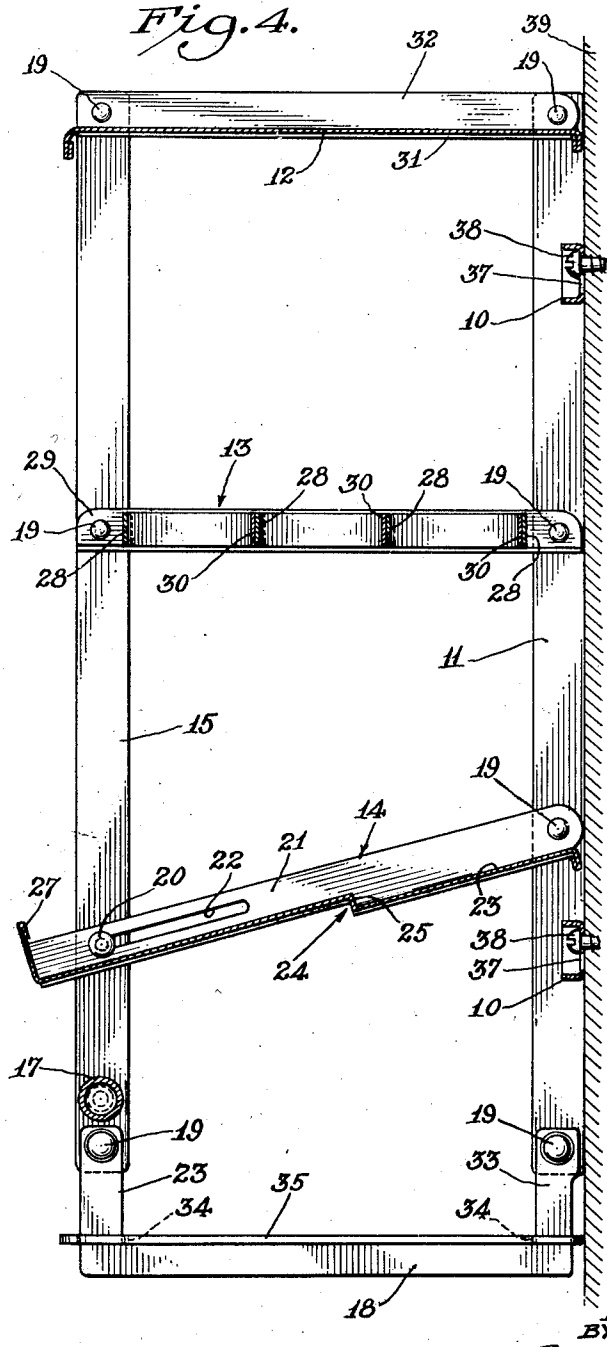
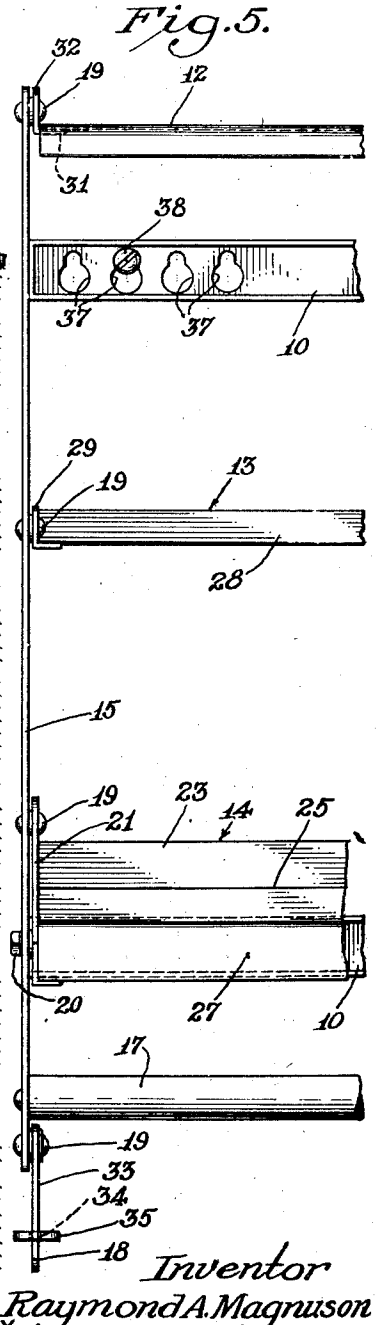


Fig. 5.



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UNITED STATES PATENT OFFICE

2,305,629

COLLAPSIBLE WARDROBE RACK

Raymond A. Magnuson, Chicago, Ill., assignor, by mesne assignments, to R. A. Magnuson, A. Magnuson, and Evelyn Peterson, Chicago, Ill., co-partners, doing business under the firm name of Vogel-Peterson Co.

Application October 12, 1938, Serial No. 234,524

7 Claims. (Cl. 211—1)

This invention relates to an improved wardrobe rack and more particularly to a rack which is adapted to be collapsed into a relatively small space when not in use, and which is especially adapted for use in closets, wardrobes, etc.

A general object of the invention is to provide an improved wardrobe rack which is made from simple, readily available and inexpensive parts that can be assembled quickly by ordinary shop methods; which is strong and substantial in construction although compact and light in weight so that it can be easily handled; which is unusually commodious and conveniently arranged for handling effeciently various kinds of wearing apparel and provides substantial storage space for packages, hat boxes and the like; and which is withal of an attractive and pleasing design that will be in harmony with the other furnishings of a dressing room or closet where the structure is in particular adapted to find its greatest utility.

Another object of the invention is to provide a wardrobe rack as thus generally characterized which can be collapsed into a relatively small package for shipment and which is adapted to be mounted removably upon a wall where it can be collapsed close to the wall when not in use.

Still another object of the invention is to provide a novel wardrobe rack adapted to be mounted on a vertical wall and which does not require special reenforcing braces or struts to prevent sagging but in which the article carrying members are cooperatively related in a unique manner to attain ample overall strength for supporting maximum loads.

A further object of the invention resides in the provision of a wardrobe rack including a shoe shelf which serves as the principal bracing means to avoid sagging of the structure and which is located above a hanger rail but is so constructed that dust and dirt from the shoes cannot drop down upon garments hanging from the rail.

A still further object of the invention is to provide a wardrobe rack including a hat shelf constructed to be practically free of dust-collecting surfaces and to permit free air circulation therethrough for the supported hats, and upon which the hats are substantially protected from dust.

An additional object of the invention is to provide a wardrobe rack having novel belt or tie holders which may serve as parts of the rack frame work.

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

Figure 1 is a perspective view of a wardrobe rack embodying the principles of the invention.

Fig. 2 is a perspective view similar to Fig. 1 but showing the rack in collapsed condition.

Fig. 3 is a fragmentary vertical sectional detail view taken substantially along line 3—3 of Fig. 1.

Fig. 4 is a transverse vertical sectional view through the rack taken substantially in the plane of line 4—4 of Fig. 1.

Fig. 5 is a front elevational view of substantially that portion of the rack shown in Fig. 4.

While the invention is susceptible of various modifications and alternative constructions, I have shown in the drawings and will herein describe in detail a 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.

A wardrobe rack embodying the present invention will preferably have accommodations for supporting various articles of wearing apparel such as hats, shoes, garments, ties and belts; and also provide room for storing hat boxes or other packages or articles. For this purpose the rack has suitable hat, shoe, and storage shelves, a hanger rail, and tie or belt bars, all of which are connected together into a preferably portable and collapsible unit. Thus constructed the rack can be shifted readily from one location to another and when it is not in use can be collapsed into a relatively flat bundle for storage or shipment in a minimum of space. Where the rack is mounted in a narrow or restricted closet space it can be collapsed to enable greater freedom of movement as, for example, when cleaning the space.

In the exemplary form of the invention shown in the drawings, the rack includes a rigid rear frame of preferably rectangular outline which may be constructed of a pair of horizontal, vertically spaced parallel members 10 and a pair of parallel vertical members 11. The horizontal frame members 10 may be of channel bar shape for rigidity and are secured at their ends to the vertical members 11 which may be in the form of identical flat bars, face to face and projecting endwise upwardly and downwardly substantially beyond the upper and lower horizontal frame members.

Secured between the upper extremities of the

vertical frame members 11 is a forwardly projecting top shelf 12 and therebelow at predetermined spaced intervals are secured a hat shelf 13 and a shoe shelf 14. Connecting the forward corners of the shelves are a parallel pair of vertical front frame members 15 which may be counterparts of the vertical rear frame members 11. Horizontally below the shoe shelf 14 and serving as a spacing bar between the lower parts of the front frame members 15 is a fixedly attached hanger rail 17. Completing the side framework of the rack are bars 18 which are connected at their opposite ends to the extremities of the rear and front vertical frame members 11 and 15 at each side of the rack.

All of the connections between the shelves, as well as the side frame bars 18, and the vertical rear and front frame bars 11 and 15 are preferably pivotal so as to permit the rack to be collapsed upwardly and rearwardly in the manner shown in Fig. 2. For the most part rivets 19 will serve the purpose as connecter pivots, but if desired other means may be employed such as stud bolts 20 which herein connect the front frame members 15 and the shoe shelf 14 (Fig. 3).

According to the present invention, one of the shelves, herein the shoe shelf 14, is utilized as bracing means which will hold the rack fixedly against sagging in the extended or open position thereof. To this end, the shoe shelf is mounted to extend in a different plane from front to rear than the other shelves, as for example in a forwardly slanting plane (Figs. 1 and 4). As a result, the weight of the open or extended rack will be carried by the shoe shelf through the stud bolts 20 and no other bracing or supporting means is necessary, the rack being effectively held against sagging even under a maximum load.

If the stud bolts 20 were to connect the front frame member 15 and the shoe shelf 14 fixedly, the rack would be held against upward collapsing as well as sagging. Therefore, a suitable connection which may be of the pin and slot type is provided between the front frame members 15 and the opposite ends of this shelf which for this purpose are provided with vertical flanges 21 having longitudinal slots 22 providing ways for the connecting studs 20 (Figs. 1, 3 and 4). This will permit relative movement of the front frame bars 15 and the shoe shelf and allow the shelf to swing upwardly or downwardly for collapsing or opening of the rack. Although in the open condition of the rack the shoe shelf 14 slants forwardly, the described pin and slot connection enables this shelf to assume a substantially parallel position relative to the other shelves in the collapsed condition of the rack as shown in Fig. 2. In the extended or open condition of the rack the lower frame bars 18 serve to held the lower portions of the front frame bars 15 against a tendency because of said pin and slot connection to move toward the rear frame bars when rearward presure is applied to the front frame bars. It may be noted also that the hanger rail 17 serves to maintain a constant spacing of the front frame bars 15 so as to assure free and non-binding relative sliding movement between these bars and the ends of the shoe shelf 14.

In order to prevent dirt from dropping from shoes on the shoe shelf 14 onto garments supported by the hanger rail 17, this shelf is preferably constructed with an imperforate body 23 which may be formed of sheet metal. At the rear thereof, the shelf body 23 has a downward heel offset 24 providing a rearwardly facing heel-engaging shoulder 25. An upstanding flange 27 along the front of the shoe shelf serves not only as a curb to prevent shoes from accidentally sliding off of the shelf but also retains dirt that may be dislodged from the shoes.

Substantial freedom from dust catching surfaces, and unobstructed through ventilation for hats thereon characterizes the construction of the hat shelf 13. To this end it may be formed of a plurality of longitudinally extending, spaced parallel flat bars 28 supported vertically edgewise in a common hat-supporting plane by a pair of similar angle-shaped end members 29. Centrally connecting the longitudinal bars 28 are identical, substantially U-shaped reenforcing members 30 which are also preferably formed of flat bar stock disposed edgewise to the plane of the shelf. Thus, the edges of the bars constituting the body of the hat shelf, while affording ample support for hats placed thereon have such limited upper surfaces as to remain practically dust free. Moreover, the open bar framework of the shelf permits unobstructed ventilation therethrough.

A substantial dust shield for the hat shelf 13 is provided by the top or storage shelf 12, the body of which is for this purpose preferably constructed of imperforate sheet metal. At its opposite ends, the top shelf 12 preferably has angular end bars 31 which have upstanding vertical flanges 32 to receive the pivots 19 by which the shelf is connected to the vertical frame members 11 and 15. These upstanding flanges 32 serve as curbs to prevent articles upon the top shelf from being pushed off at the opposite ends thereof.

Herein the side frame bars 18 are utilized effectively as tie or belt racks or hangers. For this purpose the bars 18 are preferably formed of substantially U-shape so as to provide upstanding ends or legs 33. These upstanding legs 33 are adapted to extend through slots 34 adjacent to the opposite ends of suitable respective clamping bars 35 which are preferably movably associated with the legs and adapted to rest upon the bars 18 to clamp or hold the articles interposed therebetween against accidentally slipping off of the bars. When the rack is collapsed as seen in Fig. 2, the frame bars 18 assume an upwardly slanting position substantially like that of the shelves thereabove. In this slanting position the clamping bars 35 continue their article-holding function. It is impossible to jam the clamping bars 35 by improper manipulation thereof because they are confined to a relatively short range of movement away from the frame bars 18 by engagement with the lower ends of the respective front and rear vertical frame members 11 and 15.

In order to permit the rack to be portably mounted, the horizontal rear frame bars 10 are preferably located with the rear faces of their webs flush with the rear edges of the vertical frame bars 11 and may be provided with vertical key-hole slots 37 (Fig. 5). These slots 37 are adapted to receive suitable hangers such as screws 38 which may be fastened into a supporting surface for the rack such as a wall 39. Since the spacing between the studs into which the screws 38 must be secured within the wall 39 may vary in different locations, the key-hole slots 37 are preferably provided in spaced series adjacent to each end of the respective horizontal frame bars 10 to accommodate such vari-

able spacing of the studs. The rack can be easily inserted upon or lifted off of its hangers and when in place will be held firmly and positively.

From the foregoing it will be apparent that the present invention provides a novel wall rack construction of unusually large and comprehensive capacity and which is of simple, inexpensive and efficient construction and pleasing appearance. The rack is adapted to be mounted portably and to be collapsed into a small space when not in use. The structural lines of the rack are primarily utilitarian but require no artificial shaping to improve the attractiveness of the design. Moreover, any suitable finish may be given the parts of the rack to harmonize with the decorative scheme of the environment in which the rack will be used.

I claim as my invention:

1. A rack of the character described comprising, in combination, a pair of vertically spaced shelves, shelf-connecting front and rear uprights pivotally connected adjacent to the ends of said shelves, the rear uprights being adapted to be fixedly supported, one of said shelves being adapted to lie in a horizontal plane when in use and the other shelf being adapted to lie in a slanting plane and having a slidable connection with the front uprights to enable relative movement between the latter shelf and said uprights, and means connecting between the front and rear uprights operable in cooperation with said one shelf to maintain the uprights in parallel relation to enable said slanting shelf to hold the rack against sagging while permitting collapsing thereof by upward movement of the front uprights to swing the shelves upwardly about the rear pivots thereof.

2. A rack of the character described comprising, in combination, rear supporting means, vertically spaced shelves pivotally connected to said supporting means to be collapsed thereagainst, a pair of uprights pivotally connected between the fronts of said shelves and projecting below the lowermost of said shelves, said lowermost shelf being forwardly inclined and having slots in the ends thereof permitting sliding movement of the respective pivots of the lowermost shelf longitudinally therein as an incident to collapsing or opening movements of the shelves, a hanger rail connected between the lower end portions of said front uprights, said hanger rail maintaining a definite spaced relationship between said front uprights to assure free relative movement and to avoid binding between said lowermost shelf and said front uprights during said movements, and other means cooperating with the uppermost shelf to maintain a parallel relationship between said uprights and said supporting means.

3. A collapsible rack of the character described, comprising in combination, shelf structure including a plurality of vertically spaced shelves, frame members pivotally connected to the rear portions of said shelves, front frame members pivotally connected to the ends of said shelves adjacent to the front corners thereof, means cooperating with one of said shelves to maintain the front frame members substantially parallel to the rear frame members, another one of said shelves being proportioned and mounted to extend at an angle in a different front to rear direction from the remaining shelf structure when the rack is in open condition and acting as a brace to hold the rack against sagging, and means providing a sliding connection between said last mentioned shelf and said front frame members adapted to swing the latter shelf upwardly into substantially parallel relation to the remaining shelf structure as an incident to collapsing of the rack.

4. A collapsible rack of the character described comprising, in combination, spaced front and rear upright frame members, a shelf pivotally connected at the rear thereof to the rear frame members for up and down swinging movement, means in addition to said shelf pivotally connected between the front and rear frame members for maintaining the frame members in predetermined spaced relation in the extended or open condition of the rack and permitting the frame members to be moved together toward collapsed condition, vertical end flanges upon said shelf having longitudinal slots in the front portions thereof, and studs providing connecting pins carried by the front frame members and extending through said slots to ride therein in the swinging movements of the shelf, said slots and said studs being so proportioned and located that in the open condition of the rack said shelf assumes a downward forwardly slanting plane and the studs engage at the forward ends of the slots to form a substantially solid sag-preventing interconnection between the shelf and front frame members.

5. A collapsible rack of the character described comprising, in combination, a pair of spaced upright rear frame members, a pair of companion front upright frame members spaced substantially forwardly from said rear frame members in the open or extended condition of the rack and adapted for combined longitudinal and rearward movement relative to said rear frame members in collapsing the rack, a shelf pivotally connected to said front and rear frame members and adapted to lie horizontally in the open condition of the rack, another shelf below said first mentioned shelf pivotally connected to said rear frame members above the lower ends thereof and arranged to lie in a forwardly slanting plane when the rack is open, means forming a pin and slot connection between said shelf and said front frame members arranged to guide the shelf for swinging movement about its rear pivots as an incident to the collapsing movement of the front frame members, and bars pivotally connected to the lower ends of the front and rear frame members arranged to hold the lower portions of the front frame members against a tendency because of said pin and slot connection to move toward the rear frame members when rearward pressure is applied to the front frame members while the rack is in the open condition.

6. A rack of the character described comprising, in combination, upright front and rear frame means spaced substantially apart in the open or extended condition of the rack, a shelf pivotally connected to said front and rear frame means and adapted to lie horizontally in the open condition of the rack, another shelf below said first mentioned shelf pivotally connected to said rear frame means and arranged to lie in a forwardly slanting plane when the rack is open, means forming a pin and slot connection between said slanting shelf and said front frame means, bars pivotally connected to the lower portions of the front and rear frame means arranged to hold the front frame means against a tendency because of said pin and slot connection to move rearwardly in the open condition of the rack, said front frame means having portions extending

below said slanting shelf, and means extending between said lower portions for maintaining a predetermined spaced relation therebetween to avoid binding of said pin and slot connection.

7. A collapsible rack of the character described comprising, in combination, a pair of upright rear frame members, a companion pair of front frame members, a pair of shelves each pivotally connected adjacent its rear edge to the rear members and adjacent its front edge to the front members, said shelves being spaced apart longitudinally of the members so as to maintain the respective front and rear members in parallel relation while permitting forward and backward movement of the front members between open and closed positions of the rack, a third shelf of substantially greater width than said first mentioned shelves pivoted adjacent its rear edge to the rear frame members, and means adjacent the front edge of said third shelf providing a sliding connection between that shelf and the front frame members, said connection permitting the collapse of the rack while limiting the forward or opening movement to a position in which the first mentioned pair of shelves are disposed substantially horizontally, said third shelf being forwardly and downwardly inclined when the rack is in the open position.

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