Oct. 23, 1951 A. J. ROCHOW 2,572,665

FOLDING CLOTHES RACK

Filed Jan. 13, 1948

FIG. 1.

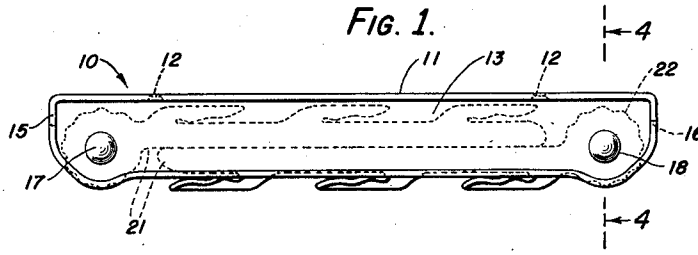


FIG. 4.

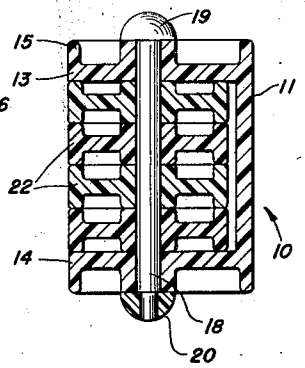


FIG. 2.

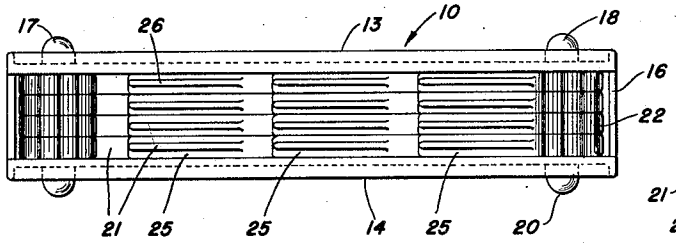


FIG. 5.

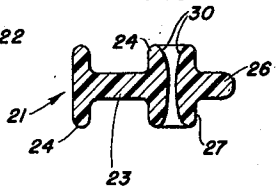
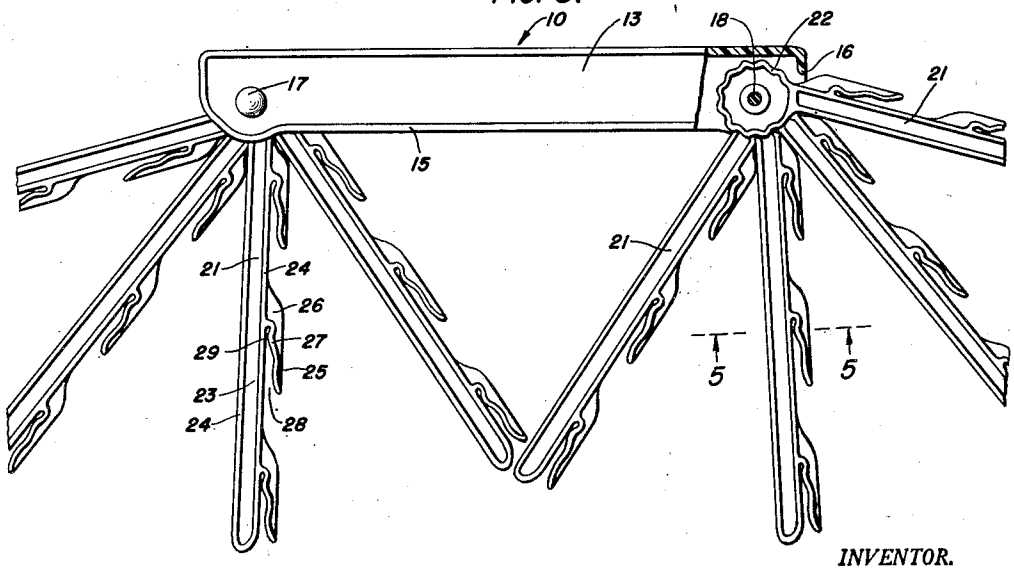


FIG. 3.



INVENTOR.
ARTHUR J. ROCHOW

BY Edward A. Cumpston

ATTORNEY

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FOLDING CLOTHES RACK

Arthur J. Rochow, Pittsford, N. Y.

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3 Claims. (Cl. 211—96)

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This invention relates to folding clothes racks and, more particularly, to the variety thereof having a plurality of extensible arms and adapted to be secured to and supported by a wall or other vertical indoor surface, one object of the invention being to provide an improved clothes rack of the above character having a more practical, convenient and inexpensive type of construction.

Another object is to provide such a clothes rack comprising a plurality of extensible arms adapted to have quickly applied thereto and to securely hold a relatively large number of articles and to support the same in separated relation for quick drying.

A further object is to provide a clothes rack of the nature described in a construction adapted for holding articles made of delicate fabrics, such as those woven with silk and nylon fibers, without snagging the fibers thereof, discoloring or otherwise injuring the same.

Still a further object is to provide a clothes rack having the above advantages in a construction capable of being readily manufactured and assembled and at a relatively low cost.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Fig. 1 is a top plan view of a clothes rack embodying the present invention and showing the parts in folded arrangement;

Fig. 2 is a front elevation thereof;

Fig. 3 is an enlarged top plan view with parts broken away and showing the arms extended in position for use;

Fig. 4 is an enlarged, sectional view on the line 4—4 in Fig. 1, and

Fig. 5 is an enlarged sectional view on the line 5—5 in Fig. 3.

The embodiment of the invention herein disclosed by way of illustration comprises, preferably, a supporting frame, indicated generally at 10, of horizontally elongated shape having a rear or back wall 11 formed with openings 12 for the reception of screws or other means for fastening the frame to a wall, door or other vertical indoor surface. Rear wall 11 has a pair of vertically spaced, top and bottom flanges 13 and 14, respectively, projecting horizontally forward therefrom and each formed with a marginal strengthening flange, as 15. This frame is advantageously constructed integrally of moldable material, preferably of one of the known, readily moldable plastic materials, such, for example, as polystyrene, which can be molded with a smooth and polished surface at relatively low cost.

Connecting the flanges 13 and 14, at each end

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of the frame are vertical pivot pins, 17 and 18, each mounted at its ends in the upper and lower flanges, as shown. These pins also may be conveniently molded of plastic material with heads 19 at their upper ends and caps 20 frictionally or adhesively secured to their lower ends to secure the pins in place.

A plurality of folding rack arms 21 are pivotally mounted in superposed arrangement on each of the pins 17 and 18. That is, each arm has at one end an enlarged hub or disk 22 formed centrally with an opening closely but loosely fitting the corresponding pin and the periphery of each hub is preferably formed with coarse knurling, as shown, for a purpose hereafter described. The thickness of these hubs and the vertical spacing of the flanges 14 are so proportioned that a desired number of arms, in the present instance four, is closely received on each pin between the inner faces of the flanges 13 and 14, as shown.

The delicate fabrics used in some articles of clothing, such as silk and nylon fabrics, are woven with exceedingly fine filaments or fibers which tend to become snagged or caught by surface projections of even minute proportions on supporting or other surfaces with which they come in contact, so as to injure or even destroy the fabric. This is true of surfaces of metal or wood, which may also tend to injure the fabric by staining caused by corroded metal, or wood treated with a varnish or other finishing coat. I have found that for freedom from such defects, as well as for the desirable qualities of lightness, strength and economy of space and material, the supporting frame and particularly the article holding arms of such a clothes rack, may be advantageously constructed of moldable material and especially one of the known synthetic plastic materials such, for example, as polystyrene, since these plastic materials are readily molded in desired shapes with a highly polished and exceedingly smooth surface containing no projections capable of snagging the finest textile fibers and having no tendency to discolor or stain the fabrics.

Accordingly, the arms 21 are preferably molded integrally of a moldable material, such as polystyrene, with a transverse cross section shape of I-bar shape, as best shown in Fig. 5, having its web portion 23 arranged horizontally and its flanges 24 vertically, as shown, thus affording a light and strong sectional shape which is economic of space and material requirements.

Each arm, for receiving a number of separated articles, is preferably molded with a plurality of laterally extending, integral fingers 25 spaced longitudinally along one side of each arm, each finger extending longitudinally of its arm and preferably toward the free end thereof. Each finger comprises a central web portion 26 pro-

jecting laterally or horizontally from one flange of its arm, as shown, and each finger has at one side thereof a vertical flange **27** arranged in juxtaposed relation with the flange of the arm, so as to form therebetween a clothes receiving throat **28**. The flange of the finger is shaped to give to the throat an inwardly decreasing width adapted to frictionally grip and releasably hold an article of clothing. That is, each throat is wider at its outer end and decreases to a narrow width at its inner end as at **29**, so that an article may be pressed into the throat at such a distance, depending upon its thickness of material, until it is effectively gripped and held in suspended arrangement from the arm. The adjacent flange surfaces forming the opposite sides of the throat are preferably somewhat curved or rounded away from each other, as at **30** (Fig. 5), to facilitate the insertion and gripping of the fabric. A larger number of fingers may obviously be provided on each arm, if so desired.

Where the rack includes two sets of folding arms as herein disclosed, they may all be molded uniformly from the same mold, each arm being connected in somewhat offset or eccentric relation to its hub **22**, with the result that one set of arms may be arranged to fold through the open front side of the frame **10** and closely against its rear wall **11**, as shown in Fig. 1, while the other set may be arranged to fold and compactly nest against the first set, when not in use, mainly within the outlines of the frame. The arms of each set are easily rotated to unfold and extend or spread them fan-wise for use, as shown in Fig. 3, by applying a thumb or finger to the hubs **22**, which are knurled for that purpose and left accessible at the ends of the frame which are left open as at **16** for that purpose. As shown, the arms may be spread out through a relatively wide angle in use and folded, when not in use, into the compact position shown in Fig. 1.

By means of its series of fingers **25**, each arm is adapted to receive a number of articles and the arms, altogether, hold a large number of articles which are separately supported in spaced relation with each other to facilitate contact with the air and rapid drying. The arms, especially when made of one of the plastic materials described above, may be integrally molded with highly polished and exceedingly smooth surfaces free from any tendency to snag the fibers of or stain or otherwise injure the finest fabrics. Such construction affords a supporting frame and rack arms of a light and strong construction with economy of space and of materials, and the parts may be readily manufactured and assembled at a minimum of cost.

It is contemplated that the rack herein disclosed may be conveniently attached to a vertical wall, or door, or to furniture, or other surfaces indoors, as by means of screws inserted through the openings **12** in the rear wall, or other fastening means which will readily occur to those skilled in the art, and while a clothes rack so constructed is particularly advantageous for indoor use, it may obviously be supported out of doors, as occasion may require.

It will thus be seen that the invention accomplishes its objects and while it has been herein disclosed by reference to the details of a preferred embodiment, it is to be understood that such disclosure is intended in an illustrative, rather than a limiting sense, as it is contemplated that various modifications in the construction and arrangement of the parts will readily occur to those skilled in the art, within the spirit of the invention and the scope of the appended claims.

I claim:

1. In a clothes rack, a supporting frame having thereon a vertical pivot pin, a plurality of arms pivotally mounted in superposed arrangement on said pin, each of said arms having a transverse cross section of I-bar shape arranged with its web horizontal and its flanges vertical, and a plurality of laterally extending, integral fingers spaced longitudinally along each of said arms, each of said fingers extending longitudinally of its arm and having thereon a flange in juxtaposed relation with a flange of said arm to form therebetween a clothes receiving throat of inwardly decreasing width adapted to frictionally grip and releasably hold an article of clothing.

2. In a clothes rack, a frame integrally composed of moldable plastic material and having thereon a vertical pivot pin, a plurality of arms integrally composed of moldable plastic material and pivotally mounted in superposed arrangement on said pin, each of said arms having a transverse cross section of I-bar shape arranged with its web horizontal and its flanges vertical, and a plurality of laterally extending, integral fingers spaced longitudinally along each of said arms, each of said fingers extending longitudinally of its arm and having thereon a flange in juxtaposed relation with a flange of said arm to form therebetween a clothes receiving throat of inwardly decreasing width adapted to frictionally grip and releasably hold an article of clothing.

3. In a folding clothes rack, a horizontally elongated frame having an open front and a back adapted for attachment to a vertical supporting surface, said frame being integrally constructed of moldable plastic material with a pair of vertically spaced, horizontally projecting flanges, a vertical pivot pin at each end of said frame with its ends mounted in said flanges, a plurality of arms integrally constructed of moldable plastic material and pivotally mounted in superposed arrangement on each of said pins, said arms being pivotally foldable into nested arrangement in said frame, and each of said arms having a transverse cross section of I-bar shape arranged with its web horizontal and its flanges vertical, and a plurality of laterally extending, integral fingers spaced longitudinally along each of said arms, each of said fingers extending longitudinally of its arm and having thereon a flange in juxtaposed relation with a flange of said arm to form therebetween a clothes receiving throat of inwardly decreasing width adapted to frictionally grip and releasably hold an article of clothing.

ARTHUR J. ROCHOW.

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