Jan. 5, 1960 J. D. CLEGG ET AL 2,919,818

FOLDING CLOTHES AIRER

Filed June 25, 1957 2 Sheets-Sheet 1

FIG. 1.

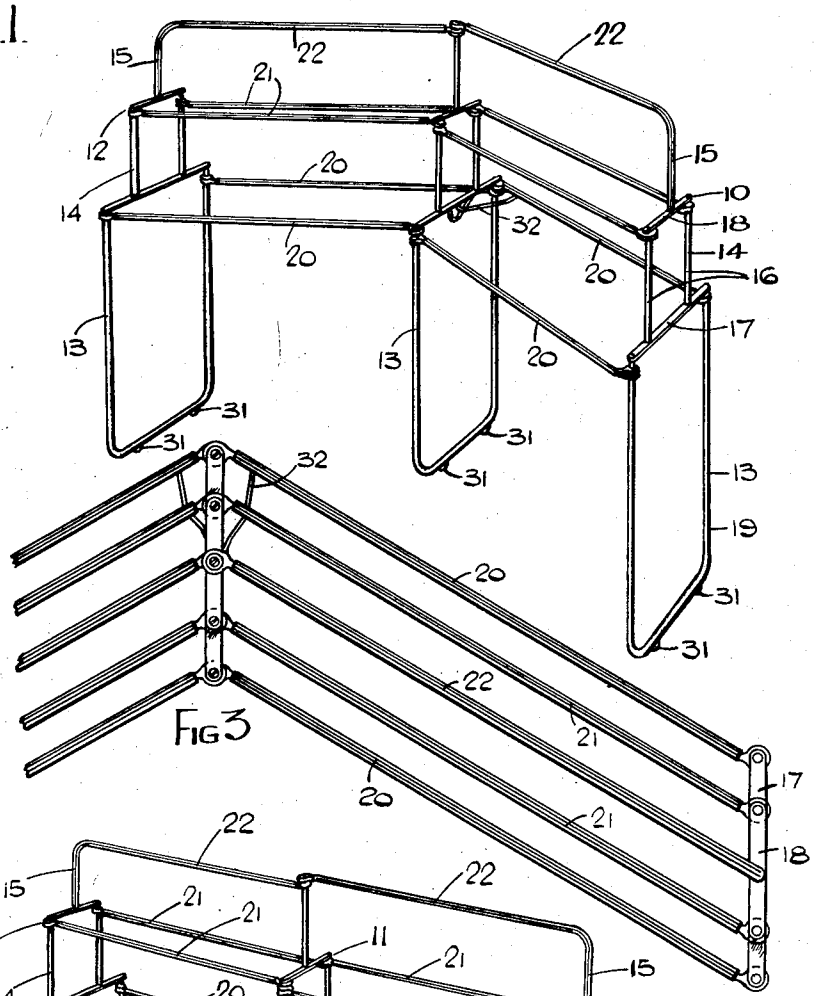


FIG 3

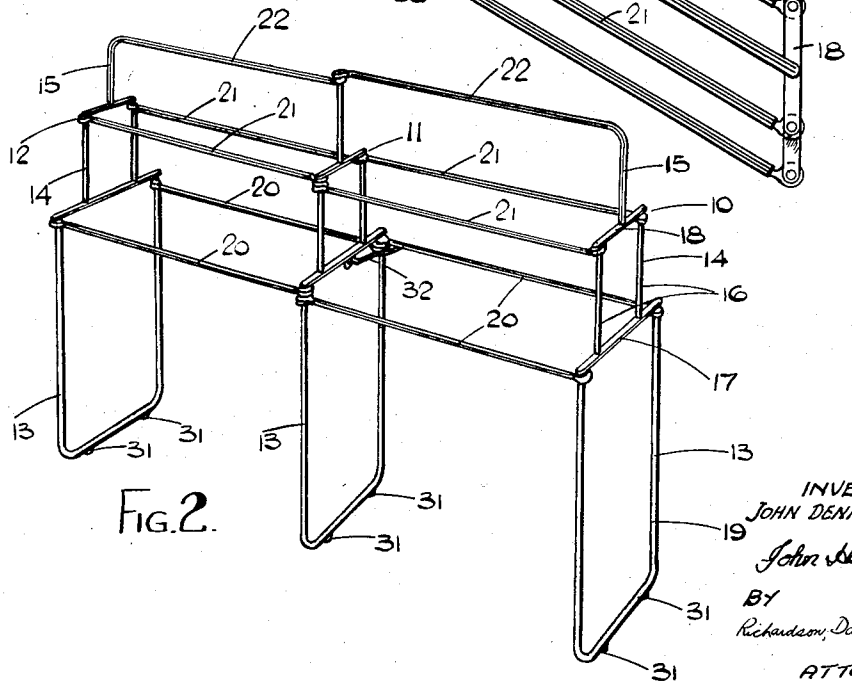


FIG. 2.

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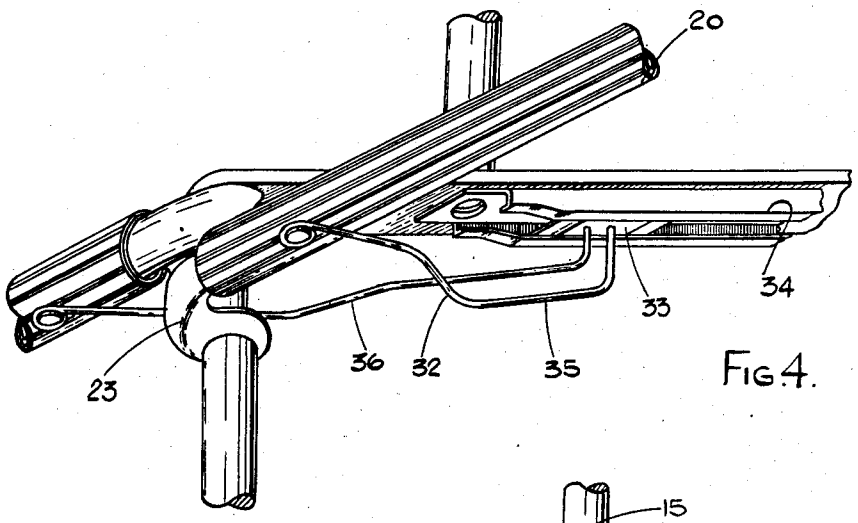


FIG. 4.

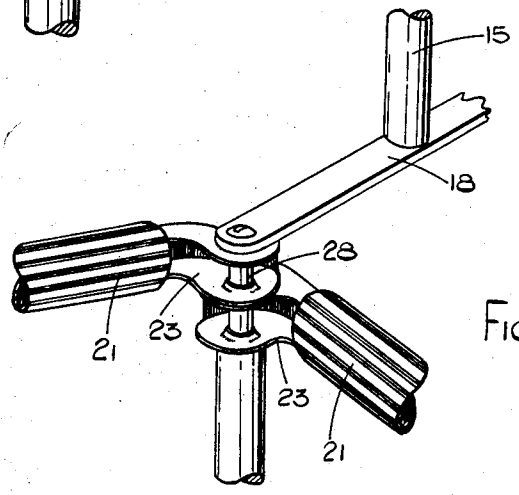


FIG. 5.

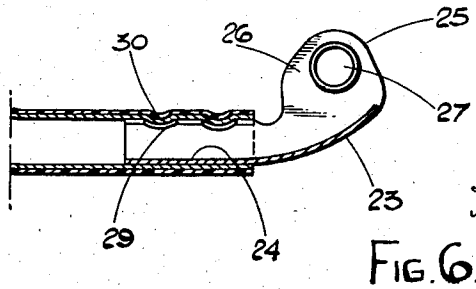


FIG. 6.

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FOLDING CLOTHES AIRER

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Application June 25, 1957, Serial No. 667,895

Claims priority, application Great Britain July 3, 1956

1 Claim. (Cl. 211—178)

This invention relates to clothes airers of the kind which are adapted to be stood upon a floor or like surface, the airer including a plurality of upright members, there being disposed between adjacent upright members a plurality of horizontally disposed rails, each rail serving to support the clothes which are to be aired and the arrangement being such that the airer can be folded into a substantially flat condition for storage.

The object of the present invention is to provide an improved construction.

According to the present invention, we provide a clothes airer, wherein each upright member is constituted by a frame, each said frame varying in width from top to bottom thereof, adjacent rails being secured to their respective frames at points of differing widths, whereby the rails are disposed in different vertical as well as horizontal planes, so that when the airer is in its erected position, the clothes hanging on an upper rail do not rest on those which are on a lower rail.

Preferably three upright frames are provided and each frame may consist of a number of superposed elements each of different width.

For example, each frame may consist of a lower element which is of rectangular form, an intermediate element of inverted U-shape, the free ends of the limbs of the U being secured to the upper member of the rectangular element and an upper pillar which is secured centrally to the base of the intermediate U-shape member.

A pair of rails may extend between adjacent lower elements and between adjacent intermediate elements of the frame, whilst a single rail may extend between adjacent pillar elements of the frames.

The ends of the rails may be pivotally secured to the elements of the frame whereby when the airer is moved into its folded state, each outer frame and the intermediate frame, together with their associated rails, fold with a parallelogram linkage motion.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a perspective view illustrating the airer in a partially open position.

Figure 2 is a perspective view illustrating the airer in a fully open position.

Figure 3 is a partial plan view illustrating the airer in a partially open position.

Figure 4 is a detail illustrating the connection between the two sections of the airer.

Figure 5 is a detail illustrating the connection of the horizontal rails to a frame member of the airer, and

Figure 6 is a detail illustrating the method of attachment of the horizontal rails to the attachment member.

In the form of our invention illustrated in the accompanying drawings, the airer includes three upright frame members, **10**, **11** and **12** which are adapted to occupy a vertical plane when the airer is in its open-out or operative position. Each of these frames **10**, **11** and **12** is made up of three elements consisting of a lower element **13** which is of rectangular form, an intermediate element **14** of an inverted U-shape and an upper element **15** in the form of a single pillar. Each intermediate element **14** has the free ends of the two limbs **16** thereof secured to the upper end **17** of its associated rectangular lower element **13**, the intermediate elements **14** being of approximately half the width of the lower elements **13** and being secured centrally thereto. Each upper pillar-like element **15** is secured centrally to the base of the corresponding intermediate element **14** by means of a screw or like fastening which will permit of relative pivotal movement between the two elements.

Thus, each frame has three portions of differing widths.

The upper transverse member **17** of each lower element **13** and the base **18** of each intermediate element may conveniently be made of metal bar of rectangular section, whereas each upper element **15** and the remaining portions of the intermediate and lower elements are made of tube. Thus each lower element consists of a U-shaped portion of tube **19** with the fourth side of the rectangle completed by the metal bar **17**.

With the clothes airer in its operative or open position, as seen in Figure 2, the one frame is disposed intermediate the other two frames so that the airer can be regarded as being composed of two pairs of frames with the intermediate frame common to both pairs.

Associated with each pair of frames are five horizontal rails which are adapted to support the clothes. Two of these rails **20** are secured between the lower elements **13** of a pair of frames, while a further two rails **21** are secured between the intermediate elements **14** and the remaining rail **22** is secured between the upper elements **15**.

Each of the rails **20** and **21** which are secured to the intermediate **14** and lower **13** elements of the frames is of tubular form with the ends thereof adapted to receive an attachment member **23** whereby the rails can be engaged with the tubular side members **16** and **19** respectively of the intermediate **14** and lower **13** elements of the frame. Each attachment member **23** is in the form of a knuckle and comprises a hollow spigot **24** which is adapted to engage in the end of a rail **20** or **21** and a laterally offset head portion **25** which comprises a pair of spaced plate-like members **26** each of which is provided with a through aperture **27**. The head **25** of each attachment member **23** is adapted to engage a tubular side member **16** or **19** of an intermediate or lower element of the frame so as to provide a pivotal connection between the rails and the frame to enable the airer to be folded and unfolded. The attachment members **23** may be secured to the frame through the medium of a peg **28** adapted to seat in the tubular side members of the frame or the tubular side members themselves may be swaged or otherwise worked to provide a stop to locate the ends of the rails against axial movement.

Each attachment member **23** may conveniently be formed as a sheet metal pressing and in order to enable the attachment members **23** to be secured to the horizontal rails of the airer each spigot portion **24** is formed with a pair of apertures **29** into which the metal of the end portion of the horizontal rail can be deformed by a suitable pressing operation, this deformation being indicated by the reference numeral **30** in Figure 6. Instead of forming each attachment member **23** as a metal pressing, they may be formed as a plastic moulding in which case, the spigot **24** and the head **25** would be solid, but would be provided with recesses similar to the apertures **29** and with a through aperture **27** in the head for attachment to the frame members.

In order to facilitate the folding of the airer into a flat condition, the attachment members **23** at the outer ends of a set of rails are disposed so that their heads pro-

ject in the opposite direction to those at the other end, as will be seen from Figure 3.

The two rails 20 which are secured between the lower elements 13 of each pair of frames and the two rails 21 which are secured between the intermediate elements 14 of each pair are each displaced vertically with respect to one another, so that they do not abut one another when the airer is in its folded position.

The upper rail 22 associated with each pair of frames is preferably of elongated L-shape and is formed of tube, the free end of the shorter limb which constitutes the upper element 15 of the outer frame of each pair being secured to the base 18 of the intermediate element 14 of the outer frame of each pair, whilst the other end of each upper rail 22 is provided with an attachment member 23 as described above and secured to the upper element 15 of the intermediate frame.

Each rail is covered with polythene or like tubing so as to enhance the appearance and so as to enable the surface of the rail to be kept clean so that the clothes hanging thereon will not inadvertently become marked. The polythene tubing is preferably provided with longitudinal ribs, so as to prevent wet clothes from slipping off the rails, and is applied to the rails in any suitable manner so that it is an interference fit therewith.

The airer rests on the floor or other supporting surface with the lower ends of the three frames in contact therewith so that the airer is extremely stable and it can be folded from an out-of-use or flat condition into the normal wide angle or narrow angle V as may be desired, or it can be folded so that the two pairs of frames are in alignment to provide a straight airer. In order to increase its stability, the lower end of each frame may be provided with rubber feet 31.

In order to ensure that the two sections of the airer pivot in unison with respect to the intermediate frame, a coupling member 32 is provided. As will clearly be seen from Figure 4 this coupling member 32 comprises a slide 33 which is mounted in a guide 34 secured to the underside of the upper transverse member 17 of the intermediate frame, this slide 33 having pivotally secured thereto two swing arms 35 and 36 whose other ends are secured to one of the lower rails 20 of each section of the airer.

Instead of providing an airer which consists of two sections, each folding as a parallelogram and the two parallelograms folding with respect to one another, the airer may be in the form of a single section consisting of two end frames and five horizontal rails, such an airer folding upon itself with a parallelogram action. Such a single unit is particularly suitable for use in flats and such like confined dwelling-places. Alternatively, an airer may consist of three or more sections.

Such a clothes airer as is described above is extremely stable, has an attractive appearance, and is of particular value with the present day tendency towards "drip-dry" articles of clothing, for the airer can be stood in a bath without danger of damage to the bath and without danger of the airer falling over.

What we claim then is:

A clothes rack having a central frame member, a pair of end frame members disposed one on either side of the central frame member, each frame member being adapted to stand on a floor or like supporting surface and decreasing in width from the bottom to the top thereof, one set of clothes supporting rails extending between the one end frame member and the central frame, a second set of clothes supporting rails extending between the other end frame member and the central frame, each set of rails including a pair of lower rails extending between the widest parts of the respective frames, a pair of intermediate rails extending between narrower parts of the respective frames and a single upper rail extending between the tops of said respective frames, the ends of each of said pairs of rails being pivotally connected to their associated frames and one end of each upper rail being pivotally connected to the central frame whereas the opposite end of each said upper rail is formed with an upper part of each end frame, the said upper parts of the end frames being pivotally secured to said end frames, whereby each set of pairs of rails and its associated frame members forms a parallelogram linkage so that in the operative position of the rack all of the rails may extend at right angles to their respective frames, whereas in the inoperative position of the rack all of the rails and frames may be folded so that they are substantially co-planar, and a coupling member carried by the central frame member, said coupling member including a slide mounted for sliding movement in a guide secured to the central frame member and a pair of swing arms each having one end thereof pivotally connected to the slide and the other end thereof pivotally connected to the corresponding rail of the lower pair of each set of rails, so that each set of rails and their associated end frame member fold in unison about the central frame member.

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