Sept. 25, 1962 M. G. ROBBINS 3,055,509

WET CLOTHING DRYING RACK

Filed May 4, 1961

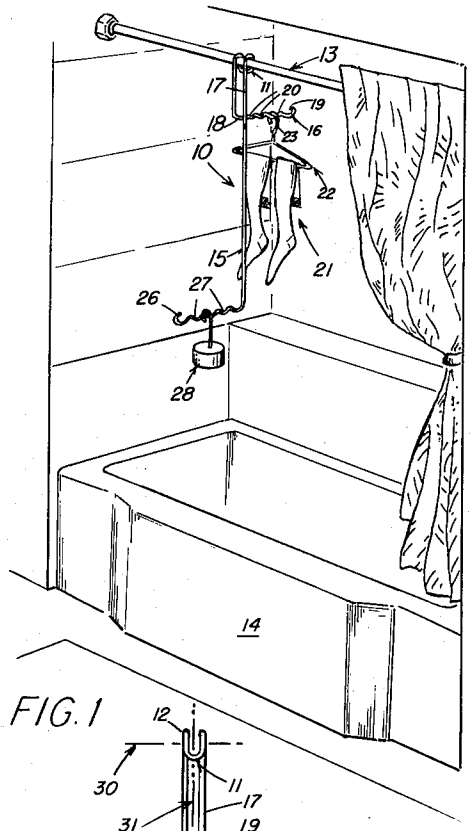


FIG. 1

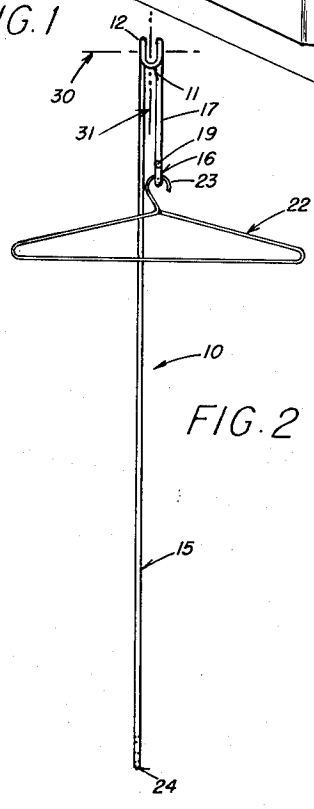


FIG. 2

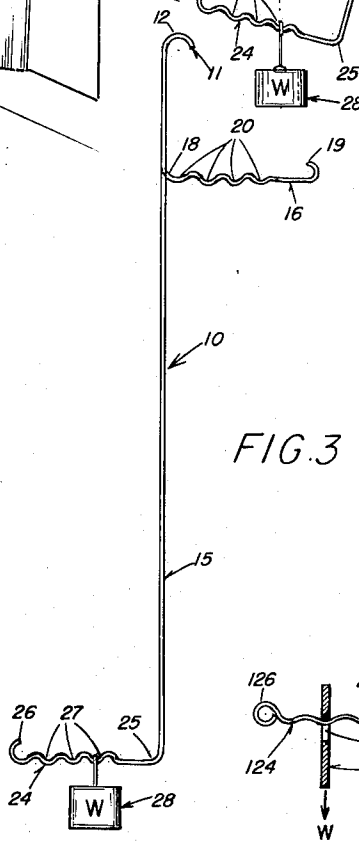


FIG. 3

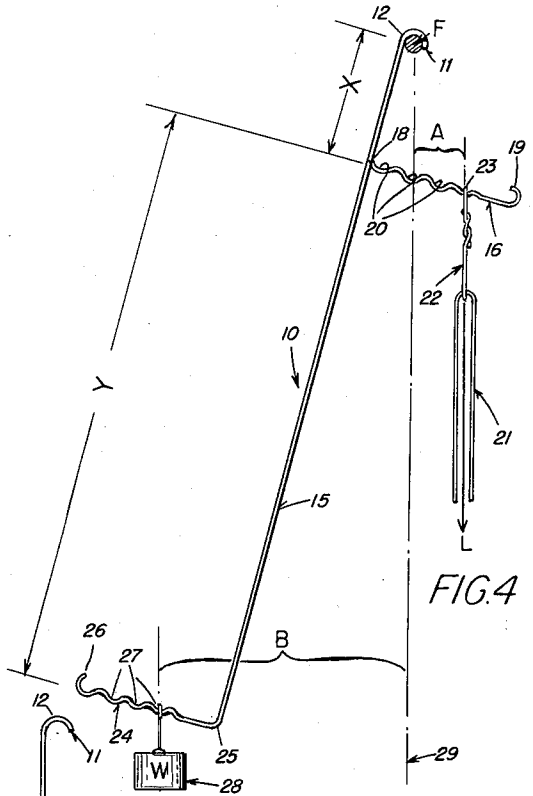
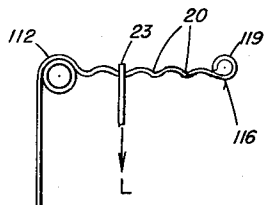


FIG. 4



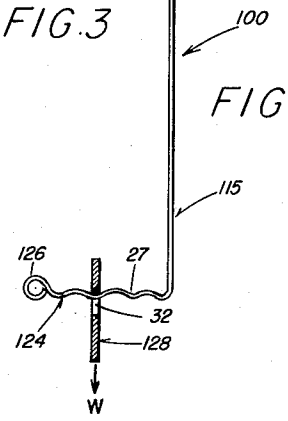


FIG. 5

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WET CLOTHING DRYING RACK

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The present invention relates to supports of the suspended type in a form specifically designed for use in drying wet clothing, and the like, which may be used to advantage in a bathroom.

A general object of the present invention is to provide such a clothes drying suspending device in a form which is of simple and economical construction and readily produced by mass production procedure, which may be readily stored in luggage and transported by a traveler for use in the bathrooms of hotel quarters, and which permits efficient use for suspension above bathtubs for drip drying of wet clothing loads without hazard of the dripping wash water falling on the floor.

A more specific object of the invention is to provide such a clothes drying suspending device equipped with a suitable supporting hook that may be engaged over the curtain rod above a bathtub, a lateral load-supporting arm in the general vicinity of this hook, an elongated depending shaft means and a counterbalancing lateral arm on the latter located appreciably below the load-supporting arm with the arms extending in opposite directions to permit effective counterbalancing by a relatively small weight thereby assuring suspension of the wet clothing load over the bathtub.

A further object of the present invention is to provide such a device in forms which tend automatically to swing the wet clothing load further inward over the bathtub as drying progresses, so as to retract the outwardly-extending counterbalancing arm progressively and thus decrease the projection thereof out into the room to reduce tendency for accidental bumping by a person moving about in the bathroom, which might otherwise cause disengagement of the load and attendant soilage or wetting.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the constructions hereinafter set forth, and the scope of the invention will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawing, in which:

FIG. 1 is a perspective view of a portion of a bathroom showing a tub and lateral curtain rod constituting a conventional installation, with an embodiment of the present device suspended by the curtain rod to support in proper position a wet clothing load for drying;

FIG. 2 is an enlarged rear elevational view of the clothes drying bathroom suspending device illustrated in FIG. 1, the counterbalancing weight associated therewith being omitted;

FIG. 3 is a side elevational view of the embodiment of the device illustrated in FIG. 2;

FIG. 4 is a side elevational view of the embodiment of the device depicted in FIG. 2, illustrating an unbalanced condition thereof for a ready understanding of the lever arm principles by which desired disposition of the device may be readily attained; and

FIG. 5 is a side elevational view of a further embodiment of the device, with parts broken away and in section.

It will be seen from the drawing that the clothes drying suspending device of the present invention, in the various forms illustrated and disclosed herein, as well as further equivalent variations which may readily occur to one skilled in the art, includes elongated depending shaft means having a hook at its top end to engage over a lateral support member with the general plane of the hook being substantially normal to the support member. The device also includes a lateral load supporting arm of appreciable length extending from one side of this shaft means in a direction generally parallel to the plane of the hook and located relatively close to the latter, this arm being intended for suspension of a wet clothing load. The device further includes a lateral counterbalancing arm extending from the opposite side of the shaft means in a direction also generally parallel to the plane of the hook at a point appreciably below the lateral load supporting arm, so as to receive and support thereon at a selected point along its length counterbalancing weight means that will cause the shaft means to depend from the support member in a generally vertical direction when the lateral support arm carries a certain wet clothing load.

Referring more particularly to the various views in the accompanying drawing, in which like numerals identify similar parts throughout, it will be seen that one embodiment of the invention, which is illustrated at **10** in FIGS. 1 to 4 incl., preferably is formed from an elongated piece of wire. This one-piece wire element is bent intermediate its ends to provide a reversely-turned bight at **11**, which is then shaped to the form of a hook **12** to permit engagement of the latter over a lateral curtain bar or rod **13** conventionally located above and near the front side of a conventional bathtub **14**. The device includes an elongated depending shaft **15** which extends from one side of the hook-shaped bight **11**. A lateral support arm **16** is provided by a terminal end of the one-piece wire element. This end of the wire extends first downwardly at **17** from the other side of the hook-shaped bight **11** a short distance substantially parallel to the elongated depending shaft **15** and is then bent at **18** to provide the lateral load supporting arm **16**, which may be, if desired, terminated in a hook **19**. Preferably the lateral load supporting arm **16** is of sinusoidal shape so as to provide a series of successive notches **20** arranged along its length which permit suspension of a wet clothing load from a selected one thereof by conventional means. For example, the wet clothing load, illustrated at **21** in FIG. 1, may be draped upon a conventional clothes hanger **22** with the hook **23** of the latter engaged into a selected one of the notches **20**.

A lateral counterbalancing arm **24** is provided by bending the lower end of the shaft **15** at **25** substantially normal in the opposite direction, so as to extend from the opposite side of the depending shaft in a direction generally parallel to the lateral support arm **16**, and this counterbalancing arm may also terminate in a hook **26**. The lateral counterbalancing arm **24** preferably is also of sinusoidal shape so as to provide in similar fashion a series of successive notches **27** arranged along its length, thereby permitting hanging from a selected one thereof of a counterbalancing weight, such as that illustrated at **28** in FIGS. 1, 3 and 4. It is to be understood that the counterbalancing weight **28** may be of any suitable form, and in certain cases may even be a load of articles or accessories, or even a bath towel looped over the counterbalancing arm **24**.

In use of the embodiment of the device illustrated in FIGS. 1 to 4 incl. one may engage the hook-shaped bight **11** over the curtain rod **13**, as is illustrated in FIG. 1. After washing out some articles of clothing they may be hung or draped in the usual fashion upon a clothes hanger **22** and the hook **20** thereof engaged over the lateral support arm **16**, preferably rather close to the elongated depending shaft **15**. Then a counterbalancing weight may be hung upon the opposed counterbalancing arm **26** at a selected point which may be at an appreciable distance from the depending shaft **15**. This may

cause the depending shaft **15** to swing inwardly. The user may then relocate the wet clothing load by sliding the hanger hook **23** out along the support arm **16** until the counterbalancing weight **28** substantially counterbalances the wet load **21**, so that the depending shaft **15** hangs substantially vertically. As a result, the wet clothing load **21** hangs over the tub **14** a substantial distance inward of its front wall so that water dripping from the load will fall into the tub.

FIG. 4 illustrates the lever arm principles which are utilized to advantage in the present device. It will be seen therein, for example, that the fulcrum point F is determined by the engagement of the hook **12** over the curtain rod **13** with the force of gravity acting at this fulcrum point in the direction of the vertical dot-dash line **29**. Let it be assumed that the load **21** is located a substantial distance out along the load supporting arm **16** and that the counterbalancing weight **28** is located only a short distance out along the counterbalancing arm **24**, so that balanced condition of the device **10** is attained only when the depending arm **15** is swung outwardly, as is illustrated in FIG. 4. In this condition the lever arm for the load **21** is the distance A from the vertical line **29** to the point of engagement of the load (L) at **21** on the load supporting arm **16**. The lever arm for the counterbalancing weight (W) at **28** is the distance B from the point of engagement of the counterbalancing weight to the vertical line **29**.

This balanced condition may be expressed by the formula $L \times A = W \times B$. It will thus be seen that it is important to have the elongated depending shaft extend appreciably below the lateral support arm **16** and with the latter located in the near vicinity of the hook **12**, so that a minimum sized counterbalancing weight may be employed. The lever arm for the counterbalancing weight is, as will be seen from FIG. 4, the sum of the transverse dimensions of the inward portion of the counterbalancing arm **24** and the elongated shaft **15**. Thus, embodiments of the present device may be provided in forms which include a relatively small counterbalancing weight, the transportation of which is facilitated by the relatively small weight and size thereof. Also, one need not transport such a weight, since common equipment of a hotel room or its bath may be employed for the counterbalancing weight, such as the bath towel. Such equipment which may be employed as a counterbalancing weight may have relatively small weight while the intended wet clothing load may be of appreciable weight, and in such a case the device of the present invention readily solves such a problem. It is to be understood that dimensions of parts of an embodiment of the present invention are not critical but, for example, the distance between the hook **12** and the lateral load supporting arm **16** (X in FIG. 4) may be about three inches; and the distance between this load supporting arm and the counterbalancing arm **24** (Y in FIG. 4) may be about eighteen inches.

It will be seen from FIG. 1 that the axis of the support means for the device, such as the curtain rod **13**, is indicated by the dot-dash line **30**. The general plane of the hook **12**, indicated by the dot-dot-dash line **31** extends transversely to or is substantially normal to the support means axis **30**.

In FIG. 5 is illustrated at **100** a modified form of the invention in which the one-piece wire element may be bent intermediate its ends to provide a curved hook means or hanging loop **112**, with the end of the wire element therebeyond being extended laterally to provide the load bearing arm **116**, the latter preferably being of sinusoidal shape to define the successive notches **20** and terminated in an enlargement or curled eye **119**. From the other end of the depending shaft section **115** is extended laterally the counterbalancing arm **124**, also preferably of sinusoidal shape and terminated in an enlargement or curled eye **126**. The counterbalancing weight **128** may be in the form of a body or relatively heavy washer having a through hole **32** through which is received the sinusoidal counterbalancing arm **124** before the formation of the eye **126** thereon, with the weight being readily slidable along the arm from one notch to another. If it is desired to lower the load bearing arm **116** the connection between the latter and the support loop **112** may be in the form of a vertical section of limited length.

It is to be understood that embodiments of the present invention need not be made from a single piece of wire bent to a formation providing the essential elements thereof. For example, an elongated piece of wire may provide the depending section **15** with the ends thereof being suitably shaped to incorporate a top hook and a bottom lateral counterbalancing arm. The load supporting arm, which may be similar to that indicated at **16** in FIGS. 1 to 4 incl. or **116** in FIG. 5, may then be suitably fastened either to the depending shaft or the hook by any suitable means, such as by welding. It is also to be understood that no appreciable spacing between the elongated depending shaft **15** and the support section **17** for the load supporting arm **16**, of the FIGS. 1 to 4 incl. embodiment, need be provided, and in fact these sections may be securely connected together at various points, such as at **18** by welding or by encircling band means.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A clothes drying suspending device for bathrooms comprising, in combination, elongated depending shaft means having a hook at its top end to engage over a lateral support member, such as a horizontal curtain rod conventionally mounted above and substantially parallel to the front edge of a bathtub, with the general plane of said hook being substantially normal to said support member, a lateral support arm of appreciable length extending only from one side of said shaft means in a direction generally parallel to the plane of said hook and located at a point relatively close to the latter to extend laterally inward appreciably over such bathtub for suspension of a wet clothing load from said arm wholly over the bathtub back of its front edge to assure that all drippage is into the bathtub, said lateral support arm extending at least approximately at a right angle to said depending shaft means and being rigidly connected thereto for substantial maintenance of the angle, and a lateral counterbalancing arm rigidly connected to and extending only from the opposite side of said shaft means in a direction generally parallel to the plane of said hook at another point appreciably below said lateral support arm to receive and support thereon at a selected point along its length counterbalancing weight means which together with the suspended wet clothing on said support arm will cause said shaft means to depend from the bathroom support member in a generally vertical direction with the lateral support arm suspending the wet clothing wholly over the bathtub inward of its front edge.

2. The hanging device as defined in claim 1 characterized by said lateral suppport arm having a series of successive notches arranged along its length to permit

suspension from a selected one thereof of a conventional clothes hanger for suspension of the wet clothing load by the latter in a position wholly inward of the front edge of the bathtub.

3. The suspending device as defined in claim 1 characterized by said lateral counterbalancing arm having a series of successive notches arranged along its length to permit hanging from a selected one thereof of a counterbalancing weight.

4. A clothes drying bathroom suspending device comprising a one-piece wire element bent intermediate its ends to provide a reversely-turned bight shaped in the form of a hook to engage over a lateral curtain bar of a bathtub and an elongated depending shaft extending from one side of said hook-shaped bight, a lateral support arm provided by a terminal end of said wire element extending from the other side of said hook-shaped bight in a direction generally parallel to the general plane of said hook for suspension of a wet clothing load from said arm, said lateral support arm being of sinusoidal shape to provide a series of successive notches arranged along its length to permit suspension of the wet clothing load from a selected one thereof by means of a conventional clothes hanger, a lateral counterbalancing arm provided by bending the lower end of said shaft to extend from the opposite side of the latter in a direction generally parallel to said lateral support arm with said lateral counterbalancing arm also being of sinusoidal shape to provide a series of successive notches arranged along its length to permit hanging from a selected one thereof of a counterbalancing weight, and a counterbalancing weight slidably supported on said lateral counterbalancing arm.

5. A clothes drying bathroom suspending device comprising a one-piece wire element bent intermediate its ends to form a curved hook section to engage it over a lateral curtain bar of a bathtub, an elongated depending shaft section extending downwardly from one end of the hook section, a lateral support arm provided by a terminal end of said wire element extending from the other end of said hook section in a direction generally parallel to the general plane of said hook and generally normal to the elongated depending shaft section for suspension of a wet clothing load from said arm, said lateral support arm being of sinusoidal shape to provide a series of successive notches arranged along its length to permit suspension of the wet clothing load from a selected one thereof by means of a conventional clothes hanger, and a lateral counterbalancing arm provided by bending the lower end of said shaft to extend from the opposite side of the latter in a direction generally parallel to said lateral support arm with said lateral counterbalancing arm also being of sinusoidal shape to provide a second series of successive notches for hanging a counterbalancing weight from a selected one thereof.

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