Jan. 1, 1963 F. J. WALSH ETAL 3,071,253

CLOTHES SUPPORT

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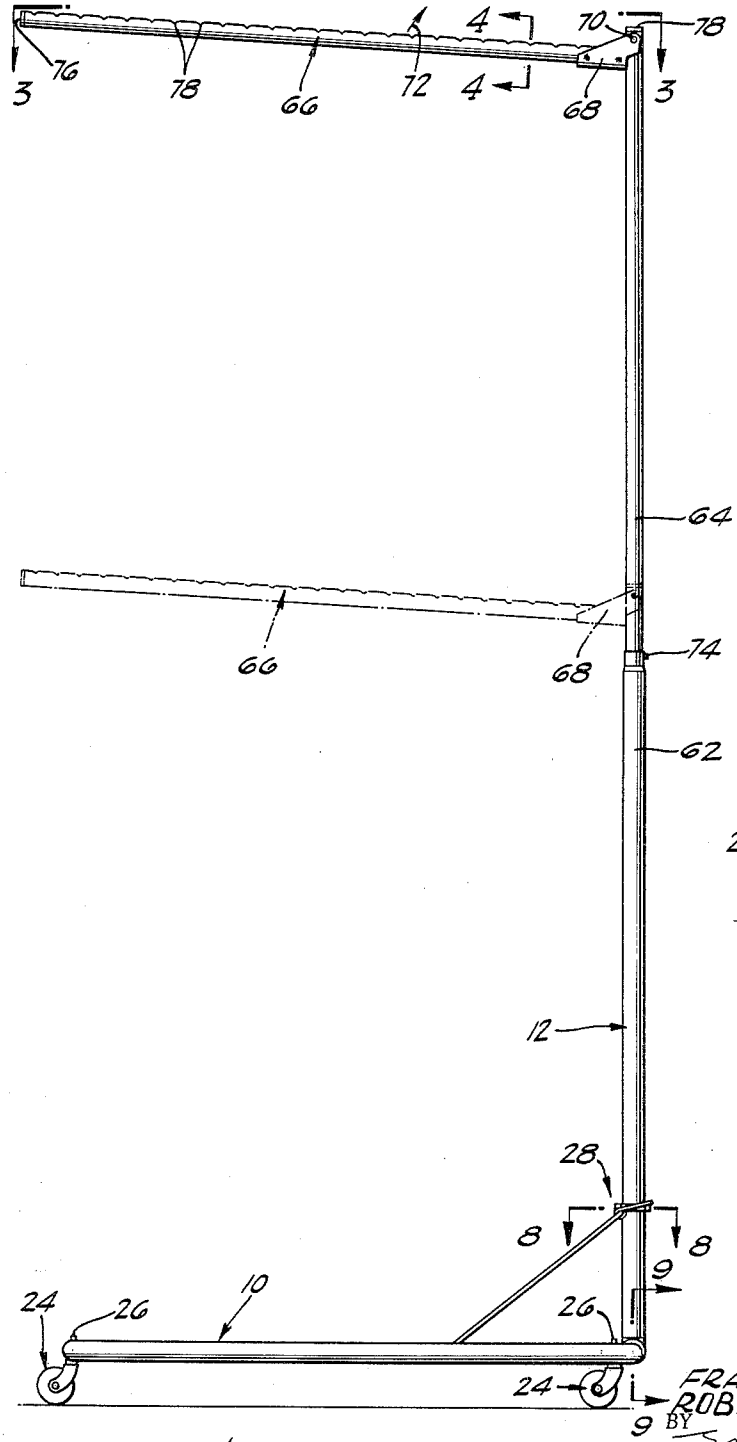


FIG. 1.

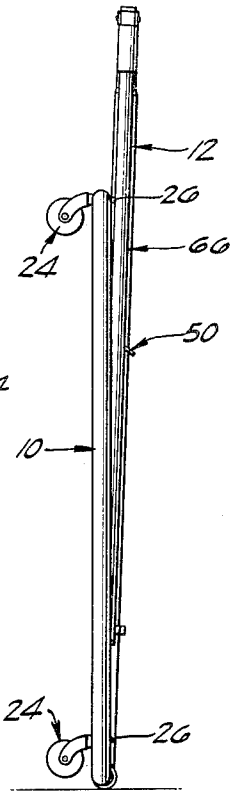


FIG. 2.

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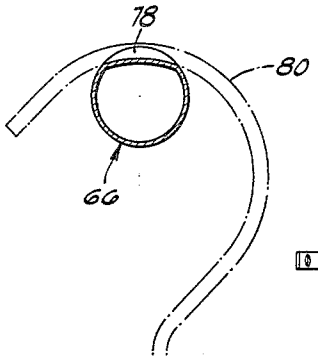


FIG. 4.

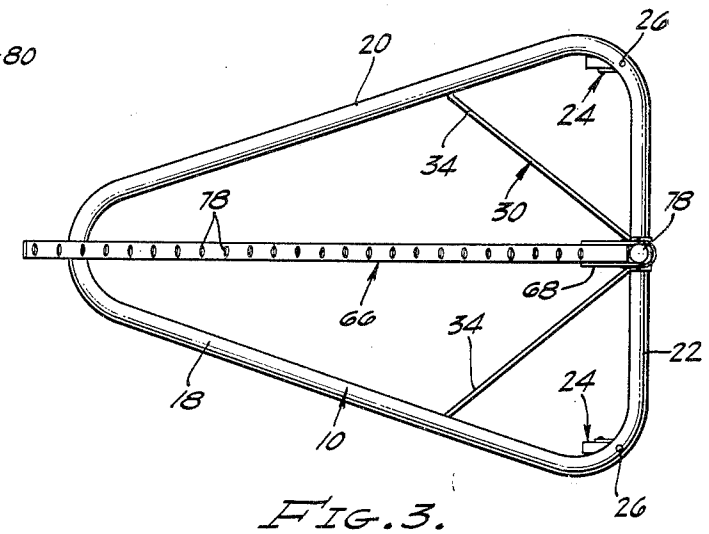


FIG. 3.

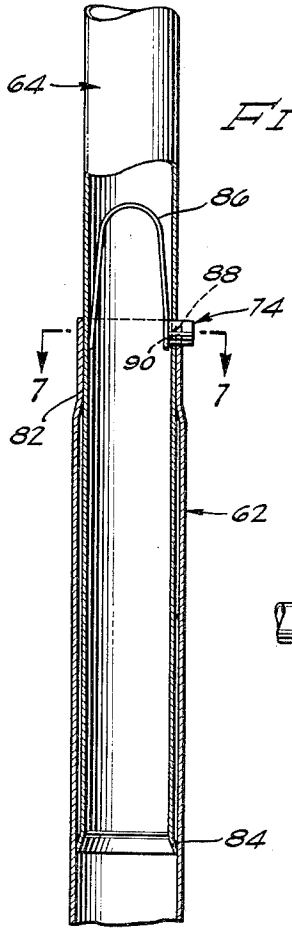


FIG. 5.

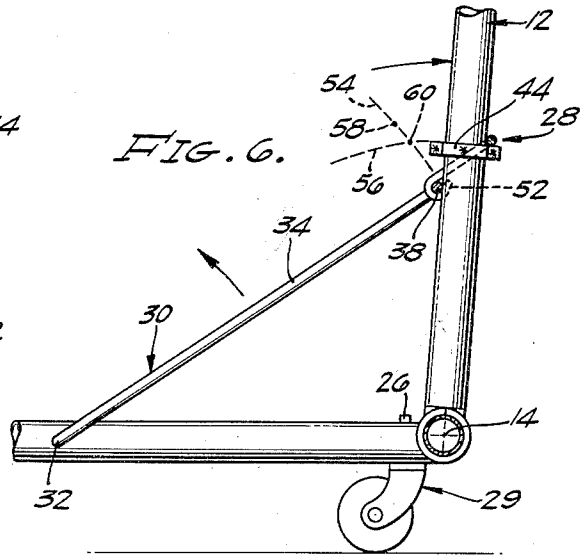


FIG. 6.

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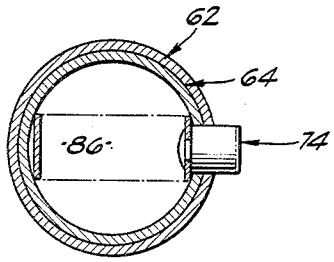


FIG. 7.

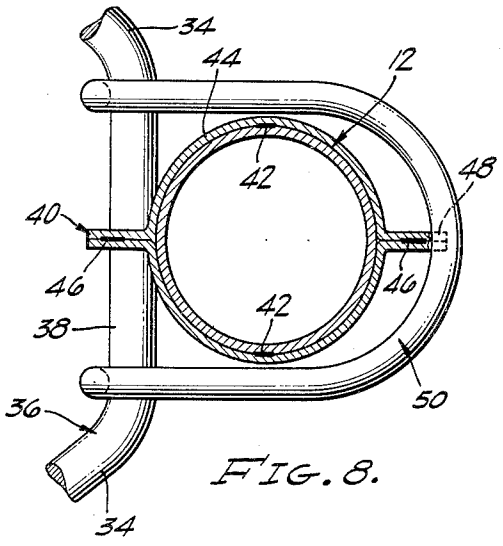
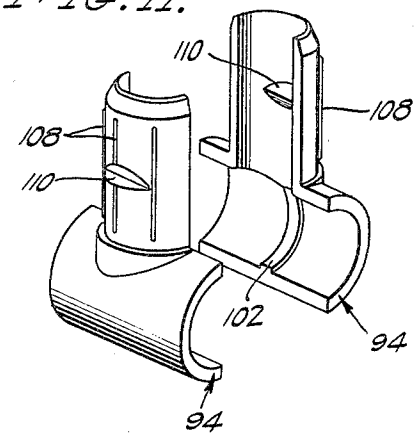


FIG. 8.

FIG. 11.



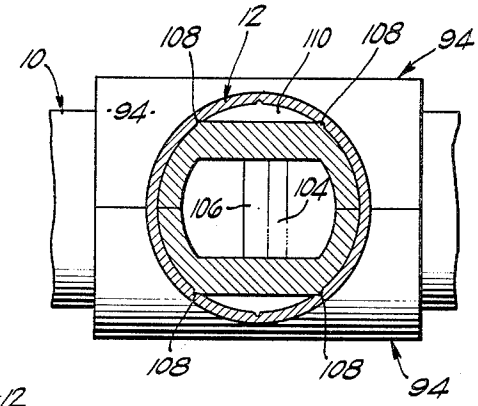


FIG. 10.

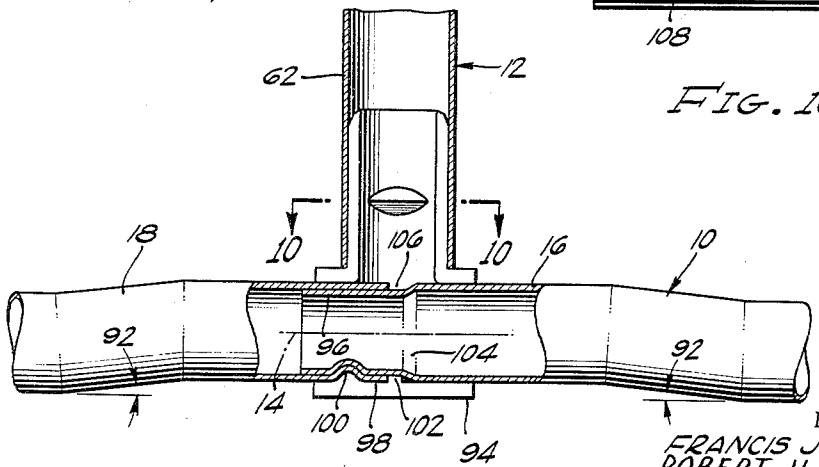


FIG. 9.

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United States Patent Office 3,071,253 Patented Jan. 1, 1963

3,071,253

CLOTHES SUPPORT

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Filed July 2, 1957, Ser. No. 669,541
12 Claims. (Cl. 211—178)

This invention relates to portable structures from which clothes may be hung on clothes hangers, and more particularly to a collapsible clothes support for use in the home to hold ironed clothes.

Although the invention will have other applications, it has become especially useful to housewives and those persons engaged to iron clothes in the home. The invention has been directed primarily to the problem of providing a temporary but convenient place to hang clothes during the time that hand ironing is being performed. The clothes support of the invention is collapsible in addition to a compact size in order that it may be easily and conveniently stored out of sight when not in use.

To the present time, a collapsible clothes support has already been developed which has been rather popular. This clothes support is described and claimed in U.S. Patent No. 2,677,518, issued May 4, 1954, to R. E. Happy et al. The clothes support of the Happy patent includes a base made of a hollow tube, a longitudinal tubular member to be rotatably mounted from the base to rotate from a horizontal to a vertical position, means to hold the tubular member in the vertical position, an arm on which to hang clothes mounted on the upper end of the longitudinal member in a position to extend outwardly in a direction to overhang the base, and means to mount the longitudinal or tubular member rotatably on the base.

The general shape and construction of the Happy clothes support serves its purpose very well; however, it has been found very advantageous to incorporate several modifications in connecting linkages for the major structural members of this clothes support.

For example, the Happy patent shows a clothes support in which the holding means is provided with a free end and a fixed end rotatably mounted on the base at a distance spaced from the rotatable mounting of the longitudinal member. Loop means are then hinged to the free end of the holding or brace means and extend around the longitudinal member. A first projection is fixed to one side of the longitudinal member adjacent the base means. The brace means is then provided with a transverse portion to rest under the first projection to support the longitudinal member in its vertical position. Still further, the base member is generally U-shaped and has two wheels at the outer end of the U. It has been found that generally three or more wheels to support the base member completely above the floor are desirable or no wheels at all. That is, the use of two wheels does not satisfactorily make it easier to move the clothes support around when it is loaded with clothes

Although the use of three or four wheels on the base member makes it easier to move the clothes hanging on it from the ironing board, for example, in one room to a clothes closet, the fact that the base can be easily moved out from under the vertical member unfortunately permits the longitudinal member to fall over backwards in the same direction that it is unfolded from its collapsed position.

The present invention overcomes this problem by providing a second projection on the longitudinal member and fixed to it on a side opposite said first projection, the first projection being short and the loop means at the same time being sufficiently long to permit simultaneous rotation of the longitudinal member and the brace means in

the same direction from its collapsed position to its set-up position. This is true in the case of the Happy clothes support. However, in accordance with the present invention, the second projection is made sufficiently large to prevent the loop means from falling below it and thereby prevents the longitudinal member from falling over in that direction.

According to a feature of the invention, the first and second projections are also provided in a most economical manner including the use of two metal strips extending around and fixed to opposite sides of the longitudinal member and extending beyond it in opposite directions, the extensions of each of the metal strips on the opposite sides of the longitudinal member also being fixed together, for example, by spot welds.

In the preferred embodiment of the invention, wheels are mounted on a tubular base member by means of casters having vertical shafts to extend upwardly through the tube providing the base of the clothes support of the invention. The structural configuration of the hollow tube providing the base thus provides a secure means of maintaining the casters in place. According to an aspect of the invention, special means are employed to mount the longitudinal member rotatably on the base, this means being quite easily assembled and being economical to manufacture for this and other reasons. In this case, the base is also a tubular member formed in a plane or loop having one end reduced in size and extending through it into the interior of its opposite end. The mounting means then includes two means in the shape of an inverted pipe T split vertically and having horizontal portions to encircle the mutually adjacent ends of the base period. The two means or individual structures are also provided with vertical portions to be swaged into the lower end of the interior of the lower end of the longitudinal member.

According to a special feature of the invention, the one end of the base tube extending into the interior of its opposite end is upset and also spaced from its opposite end to provide a circumferential groove around it. In this case, the lower portions of an inverted pipe T structures are then also provided with corresponding lips to extend into the groove between the upset and opposite ends of the base tube to maintain the mounting means in a fixed axial but rotatably angular position about the tube of the base.

According to other features of the invention, a dimple is provided in the lapping ends of the base tube to stake them together. Still further, hanger grooves transverse to the axis of the arm above mentioned are provided to locate hangers in spaced relative positions on the arm.

It is therefore an object of the invention to provide a structurally strong and stable collapsible clothes support.

It is another object of the invention to provide a clothes support which may be easily assembled and economically manufactured.

These and other objects and advantages of the present invention will be better understood when considered with the following description taken in connection with the accompanying drawings made a part of this specification, wherein several embodiments are illustrated by way of example. The device of the present invention is by no means limited to the specific embodiments illustrated in the drawings since they are shown merely for purposes of description.

FIG. 1 is a side elevational view of the clothes support of the invention;

FIG. 2 is a side elevational view of the clothes support in its collapsed position;

FIG. 3 is a plan view of the clothes support shown in FIG. 1;

FIG. 4 is a sectional view of a clothes hanger arm taken on the line 4—4 shown in FIG. 1;

FIG. 5 is a broken-away view partly in section of the longitudinal member of the clothes support of the invention shown in FIG. 1;

FIG. 6 is a broken-away view partly in section of brace means employed with the longitudinal member of the invention shown in FIG. 1;

FIG. 7 is a sectional view of the longitudinal member taken on the line 7—7 shown in FIG. 5;

FIG. 8 is a sectional view of the brace means constructed in accordance with the invention taken on the line 8—8 shown in FIG. 1;

FIG. 9 is a broken-away rear elevational view partly in section taken on the line 9—9 shown in FIG. 1;

FIG. 10 is a transverse sectional view of the longitudinal member and rotational mounting means taken on the line 10—10 shown in FIG. 9; and

FIG. 11 is an exploded view of the connectors used between the base and the longitudinal member.

The clothes support of the invention in FIG. 1 includes a base 10 to support a longitudinal member 12 which is rotatably mounted on the base 10 about an axis 14. As can be best seen in FIGS. 3 and 9, base 10 includes a hollow tube 16 having longitudinal portions 18 and 20 and a transverse portion 22 from which longitudinal member 12 is rotatably mounted. Casters 24 are suspended from base 10 by vertical shafts 26.

Although as shown in FIG. 3, base 10 is triangular in shape, this need not be in accordance with the invention. For example, the U-shape employed in the Happy patent invention previously may be employed.

Holding means 28 are provided to maintain the longitudinal member 12 in a substantially vertical position. Holding means 28 includes a member 30 having extensions 32 extending into the hollow tube of longitudinal portions 18 and 20 of base 10 and thus is rotatably mounted about this end. Brace 30 is also provided with converging longitudinal extensions 34 to a free end 36 including a transverse portion 38 to underlie a first projection 40 spot-welded to opposite sides of longitudinal member 12 at 42 as indicated in FIG. 8. Projection 40 simply includes extensions of two strips of metal 44 which are spot-welded to longitudinal member 12 which is also hollow, as indicated in FIG. 8. Strips 44 are spot-welded at 46 on opposite sides, a second projection being provided at 48. In the position shown in FIG. 1, projection 40 in longitudinal member 12 rests on top of the transverse portion 38 of brace 30 to prevent longitudinal member 12 from rotating to the left as viewed in FIG. 1, and collapsing. Loop means or a loop of wire 50 is then hinged at the transverse portion 38 of brace 30 at two hook means 52, as shown in FIG. 6. It is to be noted that loop means 50 extends around longitudinal member 12, but as shown in FIG. 6, is sufficiently long to permit brace 30 to be rotated to the left as viewed in FIG. 6 without interfering with projection 40. This is necessary in order that longitudinal member 12 may be collapsed to the left as shown in FIG. 6. Longitudinal member 12, in fact, collapsed by rotating it to a position shown in FIG. 6 and then lifting upwardly on brace 30 to make it rotate in an arc indicated at 54 while longitudinal member 12 is rotated in an arc 56. However, the relative speeds of rotation place the center longitudinal portion 38 at a point 58 while the position of projection 40 will only lie at 60. Hence, longitudinal member 12 may be collapsed to the left. However, regardless of the position, projection 48 as shown in FIG. 8, extends a distance sufficiently far to the rear of longitudinal member 12 and loop means 50 is sufficiently short to prevent loop means from falling below projection 48. This means that under no circumstances can longitudinal member 12 collapse to the right as viewed in either FIG. 1 or FIG. 6. Longitudinal member 12 includes a base portion 62 into which an upper portion 64 is telescoped. An arm 66 is then fixed to the top of portion 64 by means of a bracket 68 which is spot-welded to arm 66. Bracket 68 is pivoted from portion 64 at a point indicated at 70.

In order to collapse the clothes support of the invention, arm 66 is rotated 270° to the right, as indicated at arrow 72 in FIG. 1. A push-button 74 is then pushed inwardly of portion 64 of longitudinal member 12 and portion 64 is telescoped downwardly into lower or base portion 62 of longitudinal member 12. Longitudinal member 12 is then rotated to the left as viewed in FIGS. 1 and 6, as explained previously. After this has been done, the collapsible clothes support of the invention will collapse to a relatively compact size as indicated in FIG. 2. The position to which arm 66 is lowered is indicated in dotted lines. At the left end of arm 66, as shown in FIG. 1, a plastic cap 76 is provided which is conventional in the art of closing metal tubing. Similarly, a plastic cap 78 clothes the upper end of portion 64 of longitudinal member 12.

As indicated in FIGS. 1, 3 and 4, arm 66 is provided with transverse grooves 78. The use of these grooves in connection with a hanger 80 is illustrated in dotted lines in FIG. 4. It is to be noted that lower portion 62 of longitudinal member 12, as shown in FIG. 5, has a reduced diameter at 82 for cooperation with an upset lower end 84 of upper portion 64 to prevent upper portion 64 from being withdrawn completely outside of the interior of lower portion 62. A leaf spring 86 is then located inside of portion 64 to resiliently urge push-button 74 outwardly of a hole 88 in upper portion 64. Push-button 74 then rests in a slot 90 in the upper edge of lower portion 62 to prevent rotation of upper portion 64 relative thereto. This is again illustrated in FIG. 7. It is to be noted that the upper edge of lower portion 62 is substantially smooth around its circumference. Still further, it is to be noted that push-button 74 is substantially cylindrical out to its end to prevent portion 64 from telescoping inside portion 62 in the event that some slight force is exerted down upon member 64. That is, without positive depression of push-button 74, upper portion 64 will not telescope into lower portion 62 of longitudinal member 12.

Another outstanding feature of the invention relates to the method by which longitudinal member 12 is rotatably mounted from base 10. This is best illustrated in FIGS. 9, 10 and 11. It is to be noted that base 10 in FIG. 9 is bent slightly at 92. This is conventtional and is used in the Happy patent above mentioned. It is to be used especially in connection with a pair of individual structures as indicated at 94 in FIG. 11 which surround the continuous tube 18 providing the base 10. It is to be noted that one end 96 of the tube extends into the interior of the opposite end 98. A dimple 100 is then provided in the overlapping portions of the tube ends to stake them together. Individual structures 94 are then closed around the mutually-adjacent ends 96 and 98 of the tube 18, each of the structures having a rib 102 to fit in a space 106 between an upset portion 104 of the end of tube 96 and the opposite end of tube 98. This prevents longitudinal member 12 from moving to the right or left as viewed in FIG. 9. Individual structures 94 are also provided with ribs 108 to fit inside the lower end of longitudinal member 12 which is also a hollow tubular member, as can be seen in FIG. 9. Although it is not necessary, individual structures 94 are provided with grooves 110 which are provided in case it is desirable to stake the tube of lower portion 62 of longitudinal member 12 to the individual structures 94. It is to be noted that when individual structures 94 are put together they appear to be a pipe T split vertically.

Although only one specific embodiment of the invention has been shown and several features have been described together, it is to be understood that the invention is not limited thereto since many changes and modifications will suggest themselves to those skilled in the art. Still further, it is to be noted that some of the features

of the invention may be used without the others and that the true scope thereof is defined only in the appended claims.

What is claimed is:

1. In a collapsible clothes support including a base, the combination comprising: a longitudinal member pivotally mounted at a predetermined point on the base; brace means having a free end and a fixed end rotatably mounted on the base at a point spaced from said predetermined point; loop means hinged to the free end of said brace means and extending around said longitudinal member; a first projection on one side of and fixed to said longitudinal member adjacent said brace means; and a second projection on the opposide side of and fixed to said longitudinal member, said brace means having a transverse portion to rest under said first projection to support said longitudinal member, said first projection being sufficiently short and said longitudinal member, at the same time, being sufficiently long to permit simultaneous rotation of said longitudinal member on said brace means in the same direction to a collapsed position substantially parallel with the base; said second projection being sufficiently long to prevent said loop means from falling therebelow and thereby permitting said longitudinal member to fall over.

2. The invention as defined in claim 1, wherein said first and second projections are end portions of two metal strips extending around and fixed to opposite sides of said longitudinal member, and extending beyond it in opposite directions, corresponding extensions also being fixed together.

3. The invention as defined in claim 1, wherein said base is supported by at least three wheels.

4. The invention as defined in claim 3, wherein said base is made of a hollow tube shaped in the form of a planar loop, and wherein said three wheels are mounted on casters having vertical shafts extending through said tube and maintained in fixed transverse positions relative thereto.

5. A collapsible clothes support comprising: a base made of a hollow tube formed in a planar loop and having one end reduced in size and extending into the interior of its opposite end; a hollow tubular member to be rotatably mounted from said base to rotate from a horizontal to a vertical position; means to hold said tubular member in said vertical position; an arm on which to hang clothes mounted at the upper end of said hollow tubular member in a position to extend horizontally outwardly in a direction to overhang said base; means to mount said hollow tubular member rotatably on said base, said mounting means including two individual structures in the shape of an inverted pipe T split vertically and having horizontal portions to encircle the mutually adjacent ends of the tube of said base and vertical portions swaged into the lower end of said tubular member, said one end of the tube of said base being upset and thereby spaced from the opposite end of the tube in which it is inserted to provide a circumferential groove therearound; and a circumferential lip on each of said individual structures to fit into said groove and thereby to prevent longitudinal movement of said structures along the tube of said base.

6. A collapsible clothes support comprising: a base; a longitudinal member pivotally mounted at a predetermined point on the base; base means having a free end and a fixed end rotatably mounted on the base at a point spaced from said predetermined point; a first projection on said longitudinal member, said base means having a transverse portion to rest under said first projection to support said longitudinal member against rotation in a predetermined direction; and a second projection on said longitudinal member to limit rotation of said longitudinal member relative to said base in a direction opposite said predetermined direction.

7. A collapsible clothes support comprising: a base made of a hollow tube; a longitudinal member; and means to mount said longitudinal member in a fixed axial but rotatable angular position on said base, said mounting means including two individual structures in the shape of an inverted pipe T split vertically and having horizontal portions to encircle the tube of said base and vertical portions swaged into the lower end of said longitudinal member, said vertical portions having vertically extending ribs exteriorly thereof to be swaged into said longitudinal member.

8. A collapsible clothes support comprising: a base made of a hollow tube; a hollow tubular longitudinal member; and means to mount said longitudinal member rotatably on said base, said mounting means including two individual structures in the shape of an inverted pipe T split vertically and having horizontal portions to encircle the mutually adjacent ends of the tube of said base and vertical portions swaged into the lower end of said tubular member, said tube having a circumferential groove, said individual structures having an inwardly extending circumferential lip to fit into said groove and thereby to prevent longitudinal movement of said structures along the tube of said base while permitting rotation of said longitudinal member relative thereto.

9. A collapsible clothes support comprising: a base made of a hollow tube; a hollow tubular longitudinal member; and means to mount said longitudinal member rotatably on said base, said mounting means including two individual structures in the shape of an inverted pipe T split vertically and having horizontal portions to encircle the mutually adjacent ends of the tube of said base and vertical portions swaged into the lower end of said tubular member, said tube having a circumferential groove, said individual structures having an inwardly extending circumferential lip to fit into said groove and thereby to prevent longitudinal movement of said structures along the tube of said base while permitting rotation of said longitudinal member relative thereto, said vertical portions of said individual structures having vertically extending ribs around the exterior thereof to be swaged into the lower end of said longitudinal member.

10. A collapsible clothes support comprising: a base made of a hollow tube formed in a planar loop and having one end reduced in size and extending into the interior of its opposite end; a hollow tubular member to be rotatably mounted from said base to rotate from a horizontal to a vertical position; an arm on which to hang clothes mounted at the upper end of said hollow tubular member in a position to extend horizontally outwardly in a direction to overhang said base; means to mount said hollow tubular member rotatably on said base, said mounting means including two individual structures in the shape of an inverted pipe T split vertically and having horizontal portions to encircle the mutually adjacent ends of the tube of said base and vertical portions swaged into the lower end of said tubular member, said one end of the tube of said base being upset and thereby spaced from the opposite end of the tube in which it is inserted to provide a circumferential groove therearound; and a circumferential lip on each of said individual structures to fit into said groove and thereby to prevent longitudinal movement of said structures along the tube of said base, said individual structures having vertically extending ribs on the exterior thereof to be swaged into the lower end of said longitudinal member.

11. The invention as defined in claim 5, wherein at least one dimple is provided in the tube of said base to stake the ends of it together; wherein longitudinal ribs are provided on the portions of said individual structures extending into the lower end of said tubular member, said ribs thereby causing said individual structures to fit tightly in the interior of the lower end of said tubular member; wherein spaced-apart transverse grooves are provided on the top of said arm to locate hanger hooks in a spaced-

apart relationship; and wherein said holding means comprises: brace means having a free end and a fixed end rotatably mounted on said base at a point spaced from said individual structures, loop means hinged to the free end of said brace means and extending around said tubular member, a first projection fixed to one side of said tubular member adjacent said brace means; and a second projection fixed to the opposite side of said tubular member, said brace means having a transverse portion to rest under said first projection to support said tubular member, said first projection being sufficiently short and said loop means, at the same time, being sufficiently long to permit simultaneous rotation of said tubular member and said brace means in the same direction to a collapsed position substantially parallel with said base, said second projection being sufficiently long to prevent said loop means from falling therebelow and thereby preventing said tubular member from falling over, said first and second projections being provided by two metal strips extending around and fixed to opposite sides of said tubular member and extending beyond it in opposite directions, said extension also being fixed together; and wherein the following is additionally provided: at least three wheels having casters and vertical shafts extending upwardly through and maintained in fixed transverse positions relative to the tube of said base.

12. A collapsible clothes support comprising a base made of a hollow tube formed in a planar loop and having two longitudinal portions, a longitudinal member to be rotatably mounted from said base to rotate from a horizontal to a vertical position, a wire-like brace means including two appendages to fit inside longitudinal portions of said base to rotate about the same axis as said longitudinal member, said brace means including a pair of members to extend upwardly towards said longitudinal member and a transverse portion, a loop of wire to extend around said longitudinal member, said loop of wire having hooking ends to extend around a transverse portion of said brace means and thereby be hinged about an axis parallel to the other of said axes, an arm on which to hang clothes mounted at the upper end of said longitudinal member in a position to extend horizontally outwardly in a direction to overhang said base, means to mount said tubular member rotatably on said base, a first projection fixed to one side of said longitudinal member adjacent the transverse portion of said brace means, and a second projection fixed to the opposite side of said longitudinal member, the longitudinal portion of said brace means being adapted to rest under said first projection to support said longitudinal member, said first projection being sufficiently short and said longitudinal member, at the same time, being sufficiently long to permit simultaneous rotation of said longitudinal member and said brace means in the same direction to a collapsed position substantially parallel with the base, said second projection being sufficiently long to prevent said loop of wire from falling therebelow and thereby preventing the longitudinal member from falling over.

References Cited in the file of this patent

UNITED STATES PATENTS

216,621	Mallette	June 17, 1879
373,781	Martincourt	Nov. 22, 1887
387,444	Poulson	Aug. 7, 1888
1,310,638	Summers	July 22, 1919
1,322,801	Lewis	Nov. 25, 1919
1,563,186	Haller	Nov. 24, 1925
2,604,214	Fussell	July 22, 1952
2,665,922	Bard	Jan. 12, 1954
2,677,518	Happy et al.	May 4, 1954

FOREIGN PATENTS

860,901	France	Oct. 7, 1940