

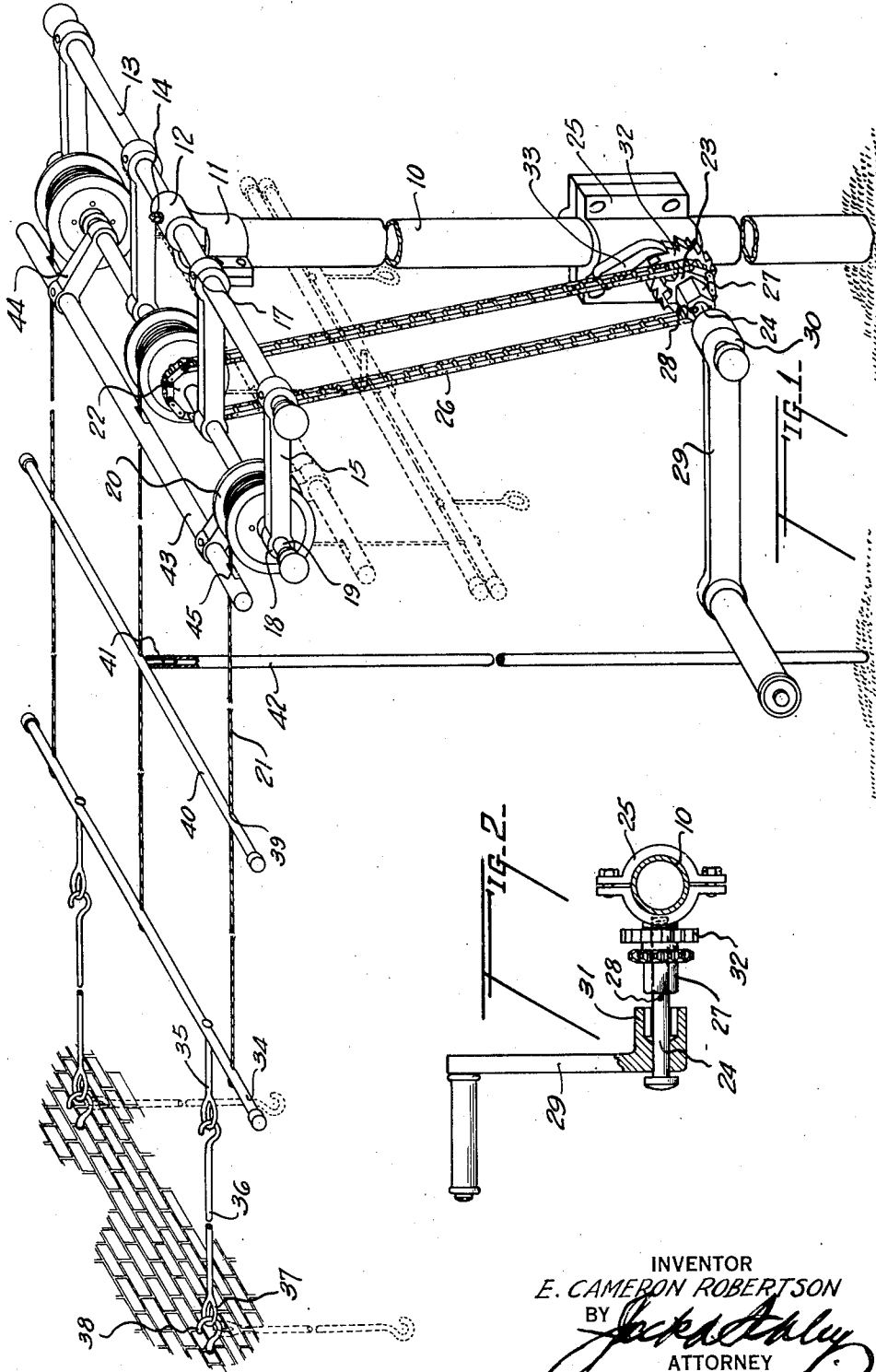
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CLOTHES HANGING APPARATUS

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CLOTHES HANGING APPARATUS

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This invention relates to new and useful improvements in clothes hanging apparatus.

One object of the invention is to provide an improved apparatus wherein a plurality of lines for the hanging of clothes and other apparel, are provided, with means for maintaining said lines taut at all times.

An important object of the invention is to provide an improved clothes hanging apparatus which is arranged so that its lines may be located at any desired elevation from the ground and which is so constructed that said lines may be readily displaced from their suspended position, whereby they are completely out of the way when not in use.

Another object of the invention is to provide an improved apparatus of the character described wherein a plurality of lines are wound on reels, with manually operated means for rotating the reels to wind or unwind said lines, whereby the apparatus may be quickly and easily set up or taken down.

A further object of the invention is to provide an improved clothes hanging apparatus which is so arranged that its lines may be readily placed by a person of normal height, notwithstanding the fact that the lines, when tightened and in clothes supporting position, are above such person's head.

A construction designed to carry out the invention will be hereinafter described, together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing, in which an example of the invention is shown, and wherein:

Figure 1 is a perspective view of an apparatus, constructed in accordance with the invention, and

Figure 2 is a horizontal, cross-sectional view, taken through the crank and operating shaft.

In the drawing, the numeral 10 designates an upright post or standard which has its lower end preferably embedded in the ground or other support. The post may be of any desired height and has a split clamping collar 11 secured to its upper end. The collar is split so as to facilitate its removal from the post and one section of said collar is formed with a bearing sleeve 12 extending upwardly therefrom. A cylindrical supporting bar or rod 13 extends through the sleeve 12, and has its central portion secured within said sleeve by a suitable set screw 14.

A plurality of supporting arms or brackets 15 are mounted on the supporting rod 13 and

extend radially therefrom. Each arm or bracket has a collar 17 at one end thereof and each collar surrounds the rod and is fastened thereto by a screw which passes through the collar and engages the supporting rod. The outer end of each arm or bracket is formed with a similar collar 18 which surrounds an elongate shaft 19. It is pointed out that the shaft extends substantially parallel to the supporting rod since all of the arms or brackets 15 are substantially the same length, and said shaft is rotatable within the collars 18 provided on the end of the arms 15. Four supporting arms or brackets have been shown and said arms are spaced equal distances apart throughout the length of the supporting rod 13 and the shaft 19, however, any desired number of supporting arms may be employed and the invention is not to be limited to any particular number.

A plurality of reels 20 are mounted on the shaft 19, being preferably located in space relation on said shaft. A clothes line 21 is wound on each reel and has its outer end supported as will be hereinafter explained. Since the reels 20 are mounted on the shaft 19, it will be evident that a rotation of said shaft will impart rotation to the reels to wind or unwind the lines 21 from said reels.

For imparting a rotation to the shaft 19, a driven sprocket wheel 22 is keyed or otherwise fastened on said shaft, being disposed as closely to the central portion of the shaft as is possible. The invention is not to be limited however, to the particular location of the sprocket 22 as obviously, it could be mounted on the end of shaft if desired. A drive sprocket 23 is mounted on a stub shaft 24, which shaft extends outwardly from one side of a split clamp 25. The clamp 25 is secured on the post or standard 10 at any point thereon but preferably nearer the lower end thereof. An endless chain 26 passes over the sprockets 22 and 23 to connect the sprockets together, whereby a rotation of the sprocket 23 will impart rotation to the sprocket 22 and the shaft 19 on which the latter sprocket is mounted.

For imparting a rotation to the sprocket 23, an angular nut 27 is preferably made integral with the sprocket 23 and has the stub shaft 24 extending therethrough. A pin 28 extends transversally through the shaft 24 and is located adjacent the outer end of the nut 27, whereby lateral movement of the nut and sprocket on the shaft is prevented. A crank 29 having a collar 30 at its inner end through which the shaft 24 extends, is provided for facilitating the manual rotation of the shaft

24 in sprocket 23. The collar 30 of the crank is formed with an angular socket 31 which is adapted to engage over the angular nut 27 whereby a connection between the crank and said nut is had. With such arrangement, it will be manifest that when the socket 31 is engaged with the nut and the crank 29 is rotated, the sprocket 23 will be rotated to impart a rotation to the sprocket 22 through the chain 26. A rotation of the sprocket 22 will of course rotate the shaft 19 and the reels 20 mounted thereon to wind or unwind the line 21 therefrom.

The crank 29 is adapted to be rotated in a clockwise direction to wind the lines 21 on their respective reels or spools 20 and to prevent a counter-clockwise rotation of the sprocket 23, a ratchet wheel 32 is journaled on the stub shaft 24, being preferably made integral with or suitably fastened to the sprocket 23. Rotation of the sprocket 23 will of course, rotate the ratchet 32, and a gravity operated pawl or dog 33 has its lower end engaging the teeth of said ratchet. The upper end of the pawl is pivoted on a pin which is secured on the clamp 25. As is clearly shown in Figure 1, the teeth of the ratchet wheel 32 are so arranged that a clockwise rotation of the sprocket wheel 23 may be accomplished, the pawl merely riding over these ratchet teeth as the same rotate. Obviously, the pawl or dog 33 will prevent a counter-clockwise rotation of the sprocket, and in order to permit such counter-clockwise rotation, said dog must be lifted or raised so as to disengage the ratchet teeth.

From the above, it will be evident that the crank 29 controls the rotation of the reels or spools 20 on which the lines 21 are wound. The free or outer end of each line 21 is secured to an end rod 34 and this rod is provided with outwardly extending eye bolt 35. The eye bolts 35 are adapted to be engaged by elongate hooks 36 which hooks have eyes 37 at their opposite ends. The eyes 37 are engaged over wall hooks 38 which are fastened at any desired height on the wall of a building or other support. With such arrangements, the lines 21 extend between the reels or spools 20 and the hooks 36 and by rotating the crank 29, said lines may be tightened whereby they will be taut at all times. The distance between the hooks 36 and the reels or spools may of course vary depending upon the length of lines desired.

For spacing the lines 21 an equal distance from each other at their mid-portion, said lines extend through openings 39 provided in a spacer rod 40 which is slidable along said lines. The spacer bar 40 is formed with a depending pin 41 which may be engaged in the upper end of a tubular supporting pole 42 whereby the intermediate portion of the lines 21 may be readily supported.

To allow free spooling of the lines 21 and to prevent fouling thereof as the same are wound or unwound from their respective reels, a guide bar 43 is provided. This bar may be cylindrical in cross-section and is supported by arms 44 which have one end secured to said bar and their opposite end journaled on the shaft 19. The bar 43 is provided with elongate slots 45 through which the lines 21 extend and obviously as said lines are unwound from their respective spools or reels 20, the slots act to guide the movement of said lines and prevent fouling thereof. The bar 43 is preferably made of wood or some other light material as its weight is borne or carried by the lines 21.

When the device is not in use, the eye bolts 35 are of course detached from the elongate hooks 36 and the reels or spools 20 have been rotated so as to wind substantially all of the lines 21 thereon. The bar will assume the position shown in dotted lines in Figure 1 with the guide bar 43 suspended from the shaft 19 by its supporting arms 44. The spacer rod 40 will of course fall downwardly on the lines 21 and will rest on the end rod 34. In such position, the lines 21 are completely out of the way and the device takes up a minimum amount of space.

When it is desired to use the device, the elongate hooks 36 are normally hanging in the position shown in dotted lines are raised upwardly to a horizontal position. It is pointed out that the length of the hooks 36 may vary and at all times are of sufficient length that a person of normal height may reach the same when they are suspended from the wall hooks 38. The pawl 33 is then disengaged from the ratchet wheel 32 to permit a counter-clockwise rotation of the sprockets 23 and 22, which accomplishes an unwinding of the lines 21 from their respective reels 20. After this is done, the eye bolts 35 are engaged with the hooks 36 after which the pawl 33 is lowered so as to again engage the teeth of the ratchet 32. The crank 29 is then rotated so as to impart a clockwise rotation to the sprocket 23. Such rotation of the sprocket 23 imparts a similar rotation to the sprocket 22, shaft 19 and reels 20, whereby the lines 21 are rewound on to said spools or reels until said lines are taut. The spacer rod 40 is then moved to an intermediate position between the reels 20 and the end bar or rod 34 so that the pole 42 may be positioned beneath said spacer bar. It is noted however, that the pole 42 is movable and that the spacer rod 40 may be located at any point along the lines 21. The provision of the ratchet wheel 32 and pawl 33 acts to hold the lines 21 taut while the device is in use.

What I claim and desire to secure by Letters Patent is:

1. A clothes line hanging apparatus including, an upright ground support, a transverse head bar rigidly mounted on said support, a transverse support rotatably mounted on said head bar, a plurality of laterally-spaced reels mounted on the transverse support, means mounted on the supports for rotating the reels in common, clothes lines wound upon said reels, a transverse bar to which the free ends of said lines are attached, and means for detachably connecting the last named bar to a fixed support to hold said lines in clothes-hanging position.

2. A clothes line hanging apparatus including, an upright ground support, a transverse head bar rigidly mounted on said support, a transverse support rotatably mounted on said head bar, a plurality of laterally-spaced reels mounted on the transverse support, means mounted on the supports for rotating the reels in common, clothes lines wound upon said reels, a transverse bar to which the free ends of said lines are attached, means for detachably connecting the last named bar to a fixed support to hold said lines in clothes-hanging position, and a swinging guide for laterally spacing the clothes lines and hinged to swing with said lines in their reeled and unreeled positions.

3. A clothes line hanging apparatus including, an upright ground support, a transverse head bar rigidly mounted on said support, a transverse support rotatably mounted on said head bar, a

5 rality of laterally-spaced reels mounted on the
 transverse support, means mounted on the sup-
 ports for rotating the reels in common, clothes
 lines wound upon said reels, a transverse bar to
 10 which the free ends of said lines are attached,
 means for detachably connecting the last named
 bar to a fixed support to hold said lines in clothes-
 hanging position, a transverse spacer rod slidably
 mounted on the lines intermediate said last
 15 named bar and the reels for laterally spacing said
 lines from each other, and means arranged to
 engage the underside of the spacer rod for sup-
 porting the intermediate portion of said lines.

4. A clothes line hanging apparatus including,
 15 an upright ground support, a transverse head bar
 rigidly mounted on said support, a transverse
 support rotatably mounted on said head bar, a
 plurality of laterally-spaced reels mounted on the
 transverse support, means mounted on the sup-
 20 ports for rotating the reels in common, clothes
 lines wound upon said reels, a transverse bar to
 which the free ends of said lines are attached,
 means for detachably connecting the last named
 bar to a fixed support to hold said lines in clothes-
 25 hanging position, and a guide bar having slots
 therein through which the lines extend for lat-
 erally spacing the same, said guide bar being
 hinged to the transverse support so as to swing
 with said lines in their reeled and unreeled posi-

tions, whereby spooling of the lines on the reels is facilitated and fouling thereof prevented.

5 5. A clothes line hanging apparatus including,
 a vertical post, a transverse head bar rigidly
 mounted on the post, a transverse shaft con-
 10 nected rotatably to the head bar, a plurality of
 reels carried by the shaft, means for rotating
 said shaft to impart rotation to the reels, clothes
 lines wound upon the reels, a transverse rod to
 which is secured the free end of each line in lat-
 15 erally spaced order, means for detachably con-
 necting the rod to a fixed support to hold said
 lines in clothes-hanging position, and a guide
 hinged to the shaft so as to swing with the lines
 in their reeled and unreeled positions for laterally
 spacing said lines.

6. A clothes line hanging apparatus including,
 a vertical post, a transverse head bar rigidly
 mounted on the post, a plurality of brackets car-
 20 ried by the head bar, a transverse shaft journaled
 on the brackets, a plurality of laterally spaced
 reels fixedly mounted on the shaft whereby rota-
 tion of said shaft rotates the reels, means for
 rotating the shaft, clothes lines wound upon said
 reels, a transverse rod to which the free ends of
 25 said lines are attached, and means for detachably
 connecting the rod to a fixed support to hold
 said lines in clothes-hanging position.

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