March 22, 1949. H. B. STUART 2,464,832

CLOTHESLINE REEL

Filed May 9, 1945

FIG.2.

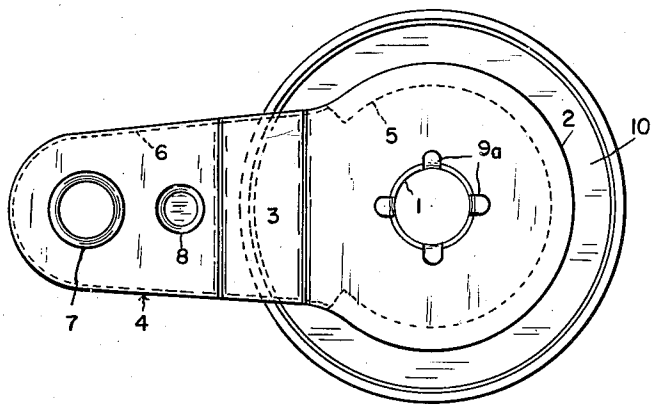
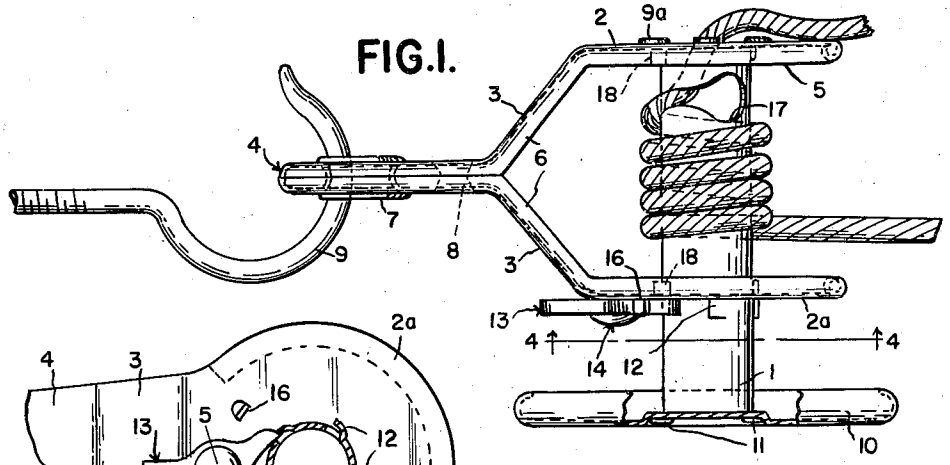



FIG.1.



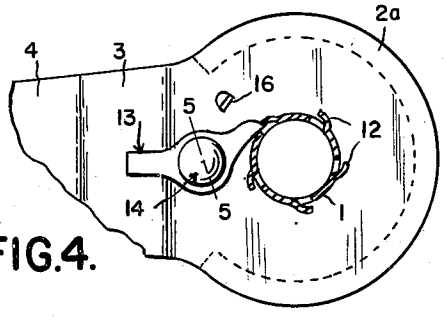




FIG.4.

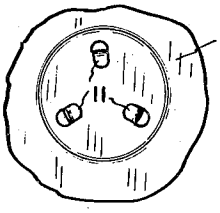



FIG.6.

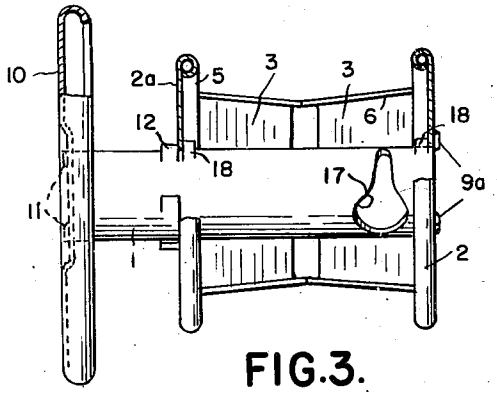



FIG.3.

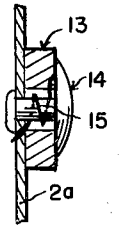



FIG.5.

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# UNITED STATES PATENT OFFICE

2,464,832

## CLOTHESLINE REEL

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7 Claims. (Cl. 242—100)

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This invention relates to clothes line reels and an object of the invention is to adapt a reel for convenient use in stretching a clothes line and holding it taut, to eliminate undue sagging under the weight of clothes.

Other objects are to afford a considerable mechanical advantage in winding a line on said reel and to adapt a line to be secured quite simply and quickly to the reel, preliminary to winding.

These and various other objects are attained by the construction hereinafter described and illustrated in the accompanying drawing, wherein:

Fig. 1 is a side elevational view of the improved reel in use.

Fig. 2 is a top plan view of the reel.

Fig. 3 shows the reel in end elevation.

Fig. 4 is a cross sectional view taken on the line 4—4 of Fig. 1.

Fig. 5 is a sectional detail of a pivotal pawl, taken on the line 5—5 of Fig. 4.

Fig. 6 is a fragmentary end view of a knob for rotating the reel.

In these views, the reference character 1 designates a winding arbor formed preferably by a tube which is centrally journaled in a pair of spaced parallel sheet metal plates 2 and 2a, between which a line may be confined on said tube. Said plates are similarly formed with extensions which are bent toward each other as indicated at 3 and are then extended contiguously and in parallelism to jointly form a supporting arm 4. Thus the plates 2 and 2a form bearings to receive the arbor 1 and said plates, with the arm 4, comprise a hanger for mounting said arbor. The margins of the plates 2 are rolled over upon the inner faces of said plates to form reinforcing beads 5 and the extensions 3, 4 are marginally flanged inward as indicated at 6, the flanges of said extensions mutually abutting in the arm 4. The free end portion of said arm is formed with an opening traversing the abutting members of the arm and an eyelet 7 fitted in said opening has its ends expanded to hold it in the opening and to hold said members in their abutting relation. To further rigidly interconnect said members they have portions 8 indented into mutual engagement and welded together. The eyelet 7 adapts the hanger to be slipped over a clothesline hook 9 or some other suitable line support.

One end of the tube 1 terminates substantially at the plate 2 being formed with several tongues 9a upset against the outer face of said plate. The tube projects some distance beyond the other plate 2a and terminally rigidly carries a large

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circular sheet metal actuating knob 10, secured on the tube by tongues 11 terminally formed on the latter and upset against the outer face of the knob.

In exterior proximity to the plate 2a, a circular series of tongues are struck tangentially out of the arbor 1 to form ratchet teeth 12 coacting with a pawl 13 pivoted at 14 on said plate. These teeth furthermore coact with the tongues 9a to prevent any relative movement of the hanger and arbor endwise of the latter. Coiled on the pivot pin 14 within the pawl is a spring 15 urging the pawl against the tube and a lug 16 struck out of the plate 2a prevents any greater swinging of the pawl than is necessary to disengage it from the teeth 12.

Between the plates 2 and 2a and adjacent to the former, a line-receiving perforation 17 is formed in the tube 1 and is elongated circumferentially of the tube, said opening having one end proportioned to readily accommodate a clothes line, and being progressively reduced toward its other end. The direction in which said perforation extends toward its reduced end is reversed to that in which the tube turns for winding on a line. Interiorly adjacent to each plate 2 and 2a, tongues 18 are struck out of the tube, serving to maintain a proper spaced relation of said plates.

In use of the described reel to tighten a clothes line, such line is secured at one end and extended on suitable hooks or the like (not shown) in the customary manner to form such spans as are required. To anchor the final span, the line extremity is thrust into the perforation 17 and out through the open end of the tube, until the slack in the span or spans is at least loosely taken up. The arm 4 is now engaged with the hook 9 and the arbor 1 is rotated by its knob 10 in a clockwise direction with reference to Fig. 4. This rotation draws the line into the reduced end of the perforation 17, so that it will not slip. As the line is thus wound on the arbor, its span or spans are drawn taut, the leverage afforded by the large knob being such that a very considerable tension may be applied, if desired. Upon release of the knob 10, the line will remain tensioned, since the described pawl and ratchet teeth will not permit reverse rotation of the arbor. When the line is to be taken down the pawl may be readily released from the ratchet teeth, whereupon tension of the line will quickly unwind it.

The described appliance is quite simple and inexpensive and will largely eliminate need for

the props now commonly used to prevent sagging of clothes lines.

What I claim is:

1. In a line reel, a hanger comprising a pair of spaced bearings, a tubular winding arbor journaled in said bearings and projecting beyond one of said bearings, a handle for rotating the arbor mounted on the arbor at one side of the hanger, a circular set of ratchet teeth struck out of the arbor adjacent to the hanger and between the hanger and handle, said teeth coacting with the hanger to resist endwise movement of the arbor in the hanger, and a detent pivoted on the hanger and coacting with the ratchet teeth to resist unwinding rotation of the arbor.

2. In a line reel, a tubular arbor, a hanger forming a pair of spaced bearings for said arbor and having a supporting arm projecting oppositely to said bearings, a set of ratchet teeth struck out of said arbor in exterior proximity to one of said bearings, a detent pivoted on the last-mentioned bearing for engagement with said ratchet teeth, and an actuating handle on one end of the arbor, the other arbor end being open and a circumferentially elongated aperture being formed in the arbor between its bearings through which aperture a line may be passed through the open end of the arbor, said aperture being relatively restricted in one of its end portions to afford wedging of the line in such end portion.

3. In a line reel, a tubular arbor, a hanger forming a pair of spaced bearings for the arbor and formed with a supporting arm, a set of ratchet teeth carried by the arbor, a detent pivoted on the hanger for engagement with said teeth, an actuating handle on one end of the arbor, the other arbor end being open and a circumferentially elongated aperture being formed in the arbor between its bearings, through which aperture a line may be passed through the open end of the arbor, said aperture being relatively restricted in one of its end portions to afford wedging of the line in such end portion.

4. In a line reel, the combination with a tubular winding arbor, of a circular sheet metal knob abutting an end of said arbor, the arbor being terminally formed with a plurality of spaced tongues extended through the knob and upset against the outer face of the knob.

5. In a line reel, a hanger comprising a pair of spaced bearings, a tubular winding arbor journaled in said bearings and formed with struck-out tongues between and adjacent to the bearings, and further formed with a struck-out set of ratchet teeth adjacent to the outer face of one of the bearings, a detent pivoted on the hanger and coacting with said ratchet teeth to resist unwinding rotation of the arbor, and an actuating handle on the arbor.

6. A hanger for a clothes line reel comprising a pair of spaced substantially parallel plates, similarly formed with extensions which are bent toward each other and are further bent to jointly form a supporting arm, marginal portions of said plates being rolled to form a reinforcing bead and marginal portions of said extensions being bent toward each other to form reinforcing flanges, said flanges mutually abutting on the arm-forming portions of said extensions, and an eyelet set into the arm and holding together the extensions forming said arm.

7. In a reel, a tubular winding arbor, open at an end thereof to accommodate a line to be wound on such arbor and formed in proximity to said open end with an aperture elongated circumferentially of the arbor and having a relatively restricted end portion to further receive and wedgingly retain said line.



HOMER B. STUART.


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