

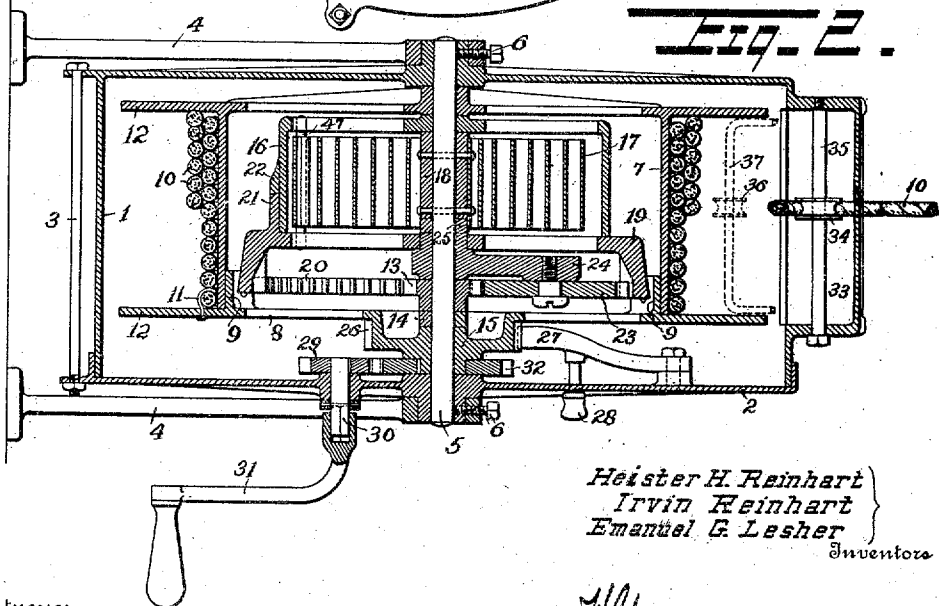
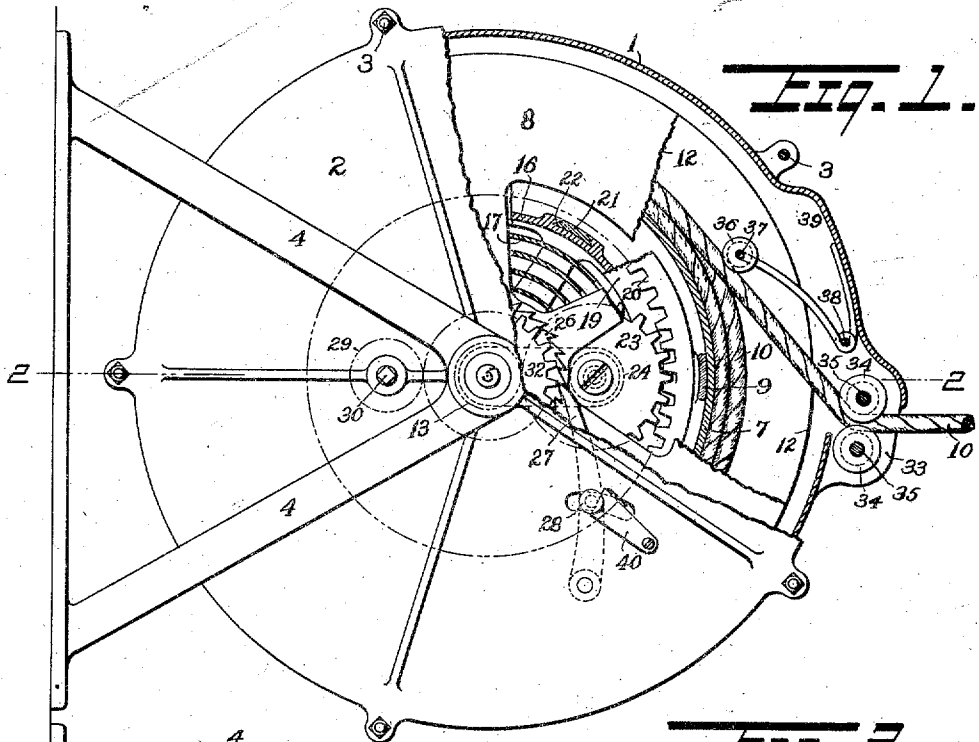
H. H. & I. REINHART & E. G. LESHER.

CLOTHES LINE REEL.

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962,099.

Patented June 21, 1910.



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UNITED STATES PATENT OFFICE.

HEISTER H. REINHART AND IRVIN REINHART, OF MOSELEM, AND EMANUEL G. LESHER, OF READING, PENNSYLVANIA.

CLOTHES-LINE REEL.

962,099.

Specification of Letters Patent. Patented June 21, 1910.

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To all whom it may concern:

Be it known that we, HEISTER H. REINHART and IRVIN REINHART, both residents of Moselem, Berks county, Pennsylvania, and EMANUEL G. LESHER, resident of Reading, Berks county, Pennsylvania, all citizens of the United States, have invented certain new and useful Improvements in Clothes-Line Reels, of which the following is a specification.

Our invention relates to clothes line reels of the class in which the winding drum is actuated by a coiled spring to automatically wind the rope thereon, and our object is to provide a neat and compact structure in which a large amount of line may be stored and freely withdrawn therefrom, the re-winding thereof being quickly and automatically accomplished and the rope being laid in accurate and tight coils upon the drum, all as fully described in the accompanying specification, the novel features being specifically set forth in the subjoined claims.

Figure 1 is a side elevation of a clothes line reel embodying our invention, parts of the inclosing casing, winding drum and spring casing being broken away to more clearly indicate the construction thereof. Fig. 2 is a section substantially on the line 2—2 of Fig. 1.

As shown in the drawings 1 is an inclosing casing having a lid 2 secured thereto by clamping bolts 3, the whole being mounted on brackets 4. 5 is an axle centrally located in said inclosing casing and locked against turning by set screws 6 holding the casing to the brackets as shown.

7 is a winding drum loosely mounted on the shaft 5 within the casing 1, one side 8 of said drum being preferably made removable for easy assembling of the parts and secured to the drum by bolting lugs 9. Upon this winding drum 7 the rope 10 is wound in neat and tight coils between the annular flanges 12, 12 as hereafter described, the end of the rope being secured to the drum in any convenient manner, as by a clamp 11. Operatively connected to the drum 7 is a pinion 13 loosely mounted on axle 5 and rotatively engaged with the end-hub 15 of the winding drum as shown. Within the winding drum 7 is a spring casing 16, inclosing a spring 17, one end of which is fixed to said casing as shown by post 47, and the other end to the fixed axle

5 preferably as shown through a spacing sleeve 18 secured to said axle. The spring casing is provided with the internally toothed wheel 20, said wheel being preferably connected to said casing by means of projections 21 engaging beveled openings 22 therefor on the outer surface of the spring casing so as to operatively connect them as shown.

An idler gear 23 is mounted on an arm 24, which latter is held in engagement with the rigid axle sleeve 18, as indicated, by coacting projections 25 on the annular meeting faces; and said idler gear, meshes with the internally toothed wheel 20 and pinion 13 and serves to operatively connect them.

A ratchet wheel 26 is formed on the hub 15 of winding drum 7 and a pawl 27, pivoted to the inclosing casing is operated by a handle 28 projecting through a slotted opening in said lid to engage or disengage said ratchet. And in the lid 2 of the casing 1 is also mounted a crank pinion 29, the crank stem 30 of which projects through said lid and may be turned by crank 31, said pinion 29 meshing with a gear 32 secured to the hub 15 of winding drum 7, as shown.

The free end of the rope 10 passes from the drum 7 through an opening 33 in the inclosing casing 1 as shown between guide rollers 34, 34 therefor, said rollers being mounted on posts 35 fixed in said opening and free to slide across the width of the winding drum. And an additional guide roller 36 within the inclosing casing 1 is slidably mounted as shown on a spring pressed rod 37 pivoted at 38, and normally presses the rope 10 against the winding drum 7 as shown, a recess 39 being provided in the casing 1 into which the roller 36 enters when the winding drum 7 is filled to its full capacity.

The operation of our improved clothes line reel will be readily understood in connection with the foregoing description. We have found it desirable in practice to have the spring under slight winding tension even when the rope is fully wound upon the reel, and to this end the rope 10 is wound upon drum 7 and the spring 17 given proper tension either by turning crank 31 or else winding the rope upon the drum when the spring is partly under tension. When the rope is withdrawn from the reel by drawing same from drum 7 through guide pulleys 34, the

pinion 13 is driven with the turning drum and turns the spring casing 16 through idler 23 and gear 20 on said casing to wind up the spring, the pawl 27 being moved to engage ratchet 26 and hold the drum against rewinding when enough rope is withdrawn. To rewind the rope upon the drum, the pawl 27 is released from engagement with ratchet wheel 26 when the spring 17 unwinding drives the freed drum 7 through the train of gears 20—23—13, the rope passing between the guide rollers 34 which slide upon rods 35 so as to wind the rope in even coils upon the drum, and roller 36 pressing against the coil just winding on the drum tightly lays it in even rows upon the drum between the annular flanges 12. To lock the pawl in engagement with the ratchet a latch 40 may be employed as shown. The crank 31 is provided only for emergencies and to place spring 17 under proper tension, the winding being automatically done by the coiled spring.

The device is neat and convenient and carefully preserves the clothes line in convenient and ready position for immediate use.

What we claim is:—

1. In a clothes line reel the combination with an inclosing casing having an opening therein, and a winding drum within said casing, of a spring pressed rod bearing

against said drum and a guide roller slidably mounted on said rod.

2. In a clothes line reel the combination with a winding drum having an inclosing casing therefor, of an opening in said casing, posts mounted in said opening and having guide rollers slidably mounted thereon and adapted to ride across the width of the drum, and an additional guide roller within said casing spring pressed against the drum and slidable across the width of the same,

3. In a clothes line reel, an inclosing casing secured upon brackets, an axle fixed thereto, a winding drum within said casing mounted on said axle and carrying a pinion, a spring casing within said drum having an internally toothed gear wheel thereon, an idler gear meshing with said pinion and internally toothed gear carried by an arm fixed to said axle, a spring within said spring casing one end being secured to the same and the other end to the fixed axle, substantially as set forth.

In testimony whereof, we affix our signatures, in the presence of two witnesses.

HEISTER H. REINHART.

IRVIN REINHART.

EMANUEL G. LESHER.

Witnesses:

D. M. STEWART,

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