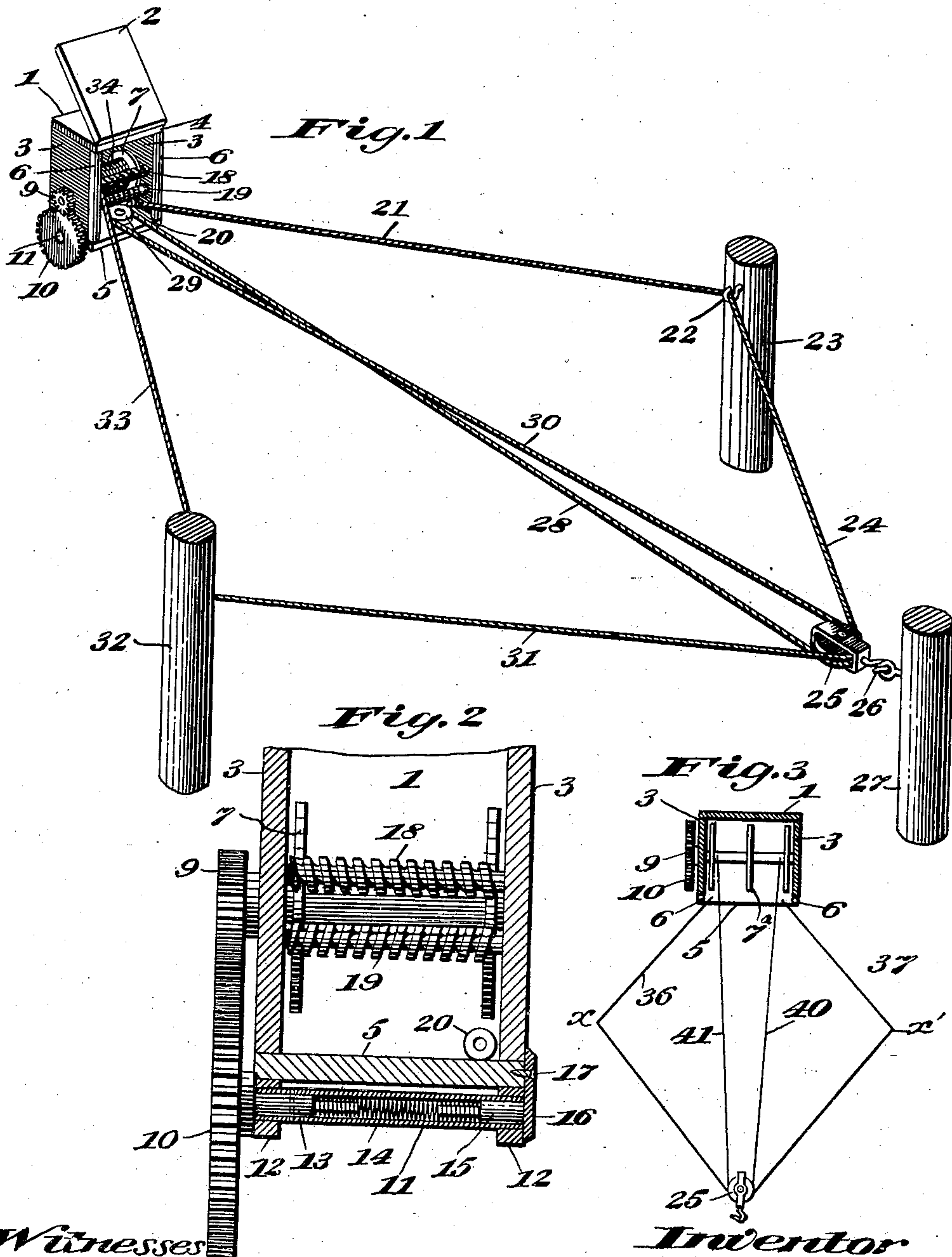


No. 859,808.

PATENTED JULY 9, 1907.

N. ERZIG.  
CLOTHES LINE REEL.  
APPLICATION FILED JULY 16, 1906.



Witnesses  
C. S. Kelley  
W. J. Moore

Inventor  
N. Erzig  
By J. H. Sappington  
Attorney.



# UNITED STATES PATENT OFFICE.

NICKOLAUS ERZIG, OF CHICAGO, ILLINOIS.

## CLOTHES-LINE REEL.

No. 859,808.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed July 16, 1906. Serial No. 326,360.

*To all whom it may concern:*

Be it known that I, NICKOLAUS ERZIG, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Clothes-Line Reels, of which the following is a specification.

This invention relates to certain improvements in that class of reels which are adapted for use in connection with clothes lines for holding said lines in position ready to be wound upon the reels when not required for use and the object of the invention is to provide a device of this character of a simple and inexpensive nature and of a compact, strong and durable construction, not likely to become deranged or broken during use and which shall be adapted for ready operation to wind or coil the clothes or other line up within a small and compact compass when not required for use while at the same time said line is readily accessible and may be conveniently withdrawn from the reel when desired.

The invention consists in certain novel features of the construction and combinations and arrangements of the several parts of the improved clothes line reel, whereby certain important advantages are attained and the device is rendered simpler, cheaper and otherwise better adapted and more convenient for use all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings which serve to illustrate my invention—Figure 1 is a perspective view showing a clothes line reel constructed according to my invention, the line being partly withdrawn from the reel in position for use; Fig. 2 is a fragmentary sectional view taken vertically through the improved reel and showing certain features of the actuating mechanism to be hereinafter referred to; and Fig. 3 is a view drawn to a small scale and showing a modified formation of the improved clothes line reel constructed according to my invention.

As herein shown the improved clothes line reel comprises a casing 1 of rectangular form and which may be made of wood or other material, being herein shown as provided with side walls 3, 3, spaced apart to produce between them a chamber in which certain elements of the improved reel are located as will be presently described. The rectangular casing 1 is closed at its back wall and has imperforate top and bottom walls, the bottom wall being represented at 5 and being designed to support certain operative parts of the reel.

2 indicates a door hinged at its upper edge along the front of the top of the casing 1 and adapted, when raised, as shown in Fig. 1, to give free access to the interior chamber of the casing but also adapted to be closed down tightly over the front thereof when the reel is not required for use.

The front or forward edge portions of the top and bottom walls 4 and 5, respectively, are arranged to extend or project beyond the forward edges of the side walls 3, 3 of the casing and 6, 6 represent vertically extended rollers or idlers held to turn at their upper and lower ends in said forwardly extended edge portions of said top and bottom walls and extended between the same along the front edge portions of the side walls 3, 3 so as to be designed for rolling contact with the clothes line when the same is drawn out from or retracted within the casing. In this manner unnecessary wear upon said line during use of the device is prevented.

In the hollow of casing 1 is horizontally extended a drum or spool 7, the shaft of which is held to turn in the side walls 3, 3, and carries a pinion 9 outside one wall 3 and in mesh with a spur gear wheel 10 held on one end of a hollow shaft 11 journaled in bearings 12, 12 pendent on the bottom 5 of the casing. Said shaft 11 is reinforced at the end whereon wheel 10 is held by means of a plug or filling 13, inserted in its hollow and pinned or otherwise held in place. The opposite end of shaft 11 is also provided with a plug or filling 15 held in its hollow, but not secured to turn with the shaft, said plug or filling 15 being carried on a plate 16 extended on the side of casing 1 over the bearing 12 wherein the shaft 11 turns, and held to said casing by means of a screw 17 or the like. The adjacent ends of the plugs 13 and 15 have projections within and of less diameter than the hollow of shaft 11 and upon said projections are held the opposite ends of a spiral spring 14, of suitable tension. The plug 15 being held to plate 16 which is secured upon the casing it will be evident that the tension of spring 14 is exerted to turn shaft 11 after the fashion of a shade roller, and the rotatory movement thereby imparted to said shaft is transmitted through gears 10 and 9 to turn the drum or spool 7 through an increased number of rotations owing to the difference in diameter of the gears.

The drum or spool 7 is transversely extended at about the central part of the casing 1, and in front of said drum or spool are upper and lower rollers 18 and 19, held to turn freely in the side walls 3, 3 and having oppositely inclined spiral grooves produced in their perimeters. These upper and lower rollers 18 and 19 are spaced apart from each other for the free passage between them as shown in Fig. 1, of one end portion 33 of the clothes line, said end portion 33 being attached to the drum or spool 7 and being adapted to be wound up thereon when the spool or drum is turned in unison with shaft 11 as above described, by the tension of the spring 14. When the spool or drum is so turned to wind up the end portion 33 of the clothes line within casing 1, it will be evident that by resting said end portion of the line upon the lower roller 19, said line will be guided transversely of the casing by engagement in the spiral groove of the roller, so that the line will be neatly



and evenly wound in spiral arrangement along the length of the drum or spool 7, and when the end of said spool or drum shall have been reached, the line may be elevated out of contact with the lower roller and into engagement with the upper roller 18, the reverse spiral groove whereof will act to lay the line in even and uniform but reversed spiral arrangement upon the drum or spool. The alternate use of these spirally grooved rollers permits of evenly and compactly winding a considerable length of clothes line upon the drum or spool and admits of making the casing 1 considerably smaller than would otherwise be needful. The opposite end portion 21 of the clothes line is secured to an eye 20 or the like at the bottom of the casing and the central portion of the line is passed around a grooved sheave 29 held to turn on the casing bottom near the central part thereof, as seen in Fig. 1. By this arrangement it will be evident that the portions 21 and 33 of the line at opposite sides of the centrally arranged sheave 29 may be drawn outwards from casing 1 simultaneously as shown in Fig. 1, and may be held to suitable posts or supports in position to receive clothes to be dried in the usual way. By means of the said central sheave 29, at the bottom of casing 1, the end portions of the line at opposite sides of said sheave are formed into loops or bights the outer ends of which are passed around the respective sheaves of a double block 25 having a hook 26 to be engaged in an eye of a post or other support 27. When this is accomplished, the outer runs or strands of the respective loops or bights at opposite sides of sheave 29 may be carried laterally in opposite directions as shown in Fig. 1 and may be engaged on hooks 22 on posts or supports 23 and 32 at opposite sides of the post 27. By this arrangement a very considerable extent of line for clothes drying purposes may be secured, the end portion 21 extending at an angle from casing 1 to post 23, whence a portion 24 of the line extends at a reverse angle to the central post 27, passing around the lower sheave of the double block 25 and thence back to casing 1 as shown at 28 and around central sheave 29, whence another outwardly extended portion 30 of the line is carried to and around the upper sheave of the block 25 at post 27, thence laterally at an angle to post 32 as seen at 31 and thence at a reverse angle as shown at 33 to the drum or spool 7 within casing 1.

In operation, as the line is drawn out from the casing, and is unwound from the drum or spool 7, rotative movement of said spool or drum ensues and such movement is transmitted to shaft 11 by means of the interposed gearing and serves to place spring 14 under tension. When the line, after having been thus drawn out from the casing for use, is released from the supports or posts, the tension of spring 14 is exerted to reversely move shaft 11 and drum or spool 7, to wind up the line on said spool or drum so that when the line is not in use it is automatically retracted within the casing and is thereby protected from the weather and also from dust, soot and the like. The tension of spring 14

also operates to automatically take up any slack which may be in the line after the same has been drawn out of the casing and secured to its supports.

From the above description of my improvements, it will be seen that the improved clothes line reel is of an extremely simple and inexpensive nature and is especially well adapted for use by reason of the operation in automatically winding up the line, whereby a material saving in time and increased convenience are attained and it will also be obvious from the above description that the device is susceptible of considerable change without material departure from the principles and spirit of the invention and for this reason I do not desire to be understood as limiting myself to the precise form and arrangement of the several parts of the device as herein shown in carrying out my invention in practice. For example, in some case, the construction shown in Fig. 3 may be employed. As seen in this view, the double spool or drum 7<sup>a</sup> is provided whereon the ends 40 and 41 of two clothes lines are secured so that said lines are wound in unison upon the drum or spool when the same is turned. The outer parts of the lines are formed in bights passed around the sheaves of a double block 25 as above described and the ends 36 and 37 of the lines opposite to the ends 40 and 41 have attachment to the opposite sides of the casing bottom in a way similar to the attachment of the end portion 21 above referred to. Thus the two separate lines in this form of the device correspond to the two loops at opposite sides of sheave 29 in the preceding construction, and when said lines are extended from the casing, their outer strands or runs may be drawn laterally and supported in any way as at *x x'* so as to give an extent of line for drying purposes equal to that of the preceding form of the device, while the spring 14 is permitted to be made in much less length by reason of the simultaneous winding of the two lines upon the double drum or spool 7<sup>a</sup>.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A clothes line reel comprising a casing, a drum or spool held to turn in the casing and having a shaft extended outside of the same, a gear wheel on said shaft, bearings mounted on the casing, a sleeve held to turn in said bearings and provided with a gear wheel meshing with that on the shaft of said drum or spool, a spring in the sleeve with one end connected thereto, and a plug having connection with the other end of said spring and also having adjustable connection with the casing.

2. In a clothes line reel, the combination of a casing, a drum or spool held to turn therein, and rollers held to turn at opposite sides of the casing and extended transversely across the same and spaced apart and provided with oppositely inclined spirally grooved peripheries for engagement with the line connected with the drum or spool.

In testimony whereof I have hereunto signed my name at Chicago, Illinois, this 7th day of July 1906, in the presence of two subscribing witnesses.

NICKOLAUS ERZIG.

Witnesses:

J. D. CAPLINGER,  
W. F. MOORE.