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LINE TIGHTENER

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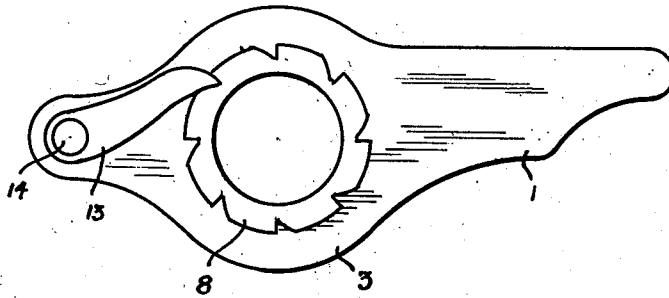


Fig. 1.

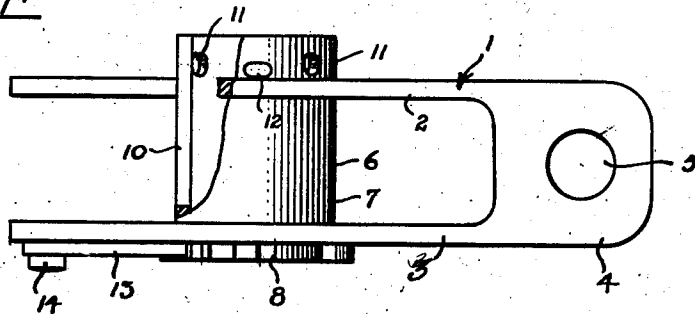


Fig. 2.

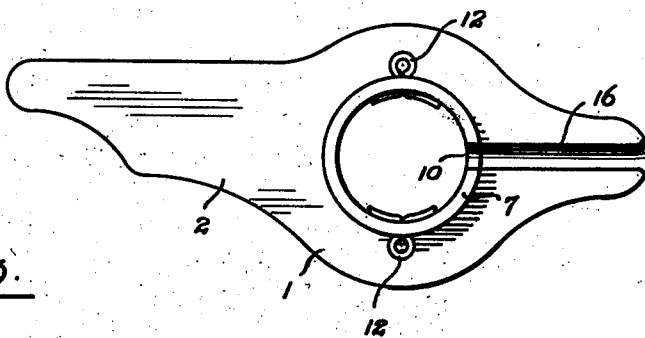


Fig. 3.

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LINE TIGHTENER

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2 Claims. (Cl. 254—161)

Our invention relates to improvements in line tighteners which are particularly adapted for household use in tightening clothes lines.

Hitherto devices have been provided for tightening clothes lines which were cumbersome and frequently left a length of line hanging from the device after taking up the slack from the line, such an end of the line which is usually a light galvanized or tinned cable is not easily severed with ordinary household equipment. Difficulty was usually encountered in prior drum type devices in attaching the cable to the drum.

The object of the present invention is to provide means whereby connecting the line to the drum of the device can be done expeditiously and with ease without removing or dismantling any part of the device.

The invention consists of a tightener having a hollow drum rotatable within a frame, said drum and frame being slotted to permit the line to be slipped sidewise into engaging contact with the drum, as will be more fully described in the following specification and shown in the accompanying drawing, in which—

Fig. 1 is a side elevational view of the invention.

Fig. 2 is a plan view partly broken away to show the line receiving slot of the drum.

Fig. 3 is an elevational view taken from the side opposite to that shown in Figure 1.

In the drawing like characters of reference indicate corresponding parts in each figure.

The numeral 1 indicates generally a frame having spaced side plates 2 and 3 connected together at their forward end by transverse member 4 having an eye 5 formed therein for the attachment of one end of the clothes line, not shown.

Extending transversely through the side plates 2 and 3 is a winding drum 6 which consists of an open ended cylinder 7 having a ratchet wheel 8 at one end which serves also as a collar to prevent endwise movement of the drum in one direction. The cylinder 7 is provided with a longitudinal slot 10 extending inwardly from one end and a plurality of opposed openings 11 adjacent the outer side of one of the plates, see Figure 2. One or more cotter pins 12 are passed through the wall of the cylinder 7 to prevent inadvertent endwise movement of the drum from the frame 1. A pawl 13 is pivotally mounted upon a pin or rivet 14, which pawl is adapted to engage the ratchet wheel 8 and hold it against reverse rotation. The plate 2 of the frame 1 is provided with a slot 16 which is radial to the

cylinder 7 and of such width as to pass the clothes line therethrough.

In attaching the tightener to a clothes line, one end of the line is passed through the eye 5 and spliced back or knotted upon itself in the usual manner, the opposite end of the line is then passed around the clothes line pulleys and the free end drawn tightly to the device to determine its approximate required length, a knot is made in the line at the desired place. The drum 6 is then turned until its slot 10 is aligned with the slot 16 of the plate 2, then the knot is slipped into the open end of the cylinder and along the slot 10 and the line immediately behind the knot is slipped through the slot 16 in the plate, when the drum 6 may be turned by means of a large nail or other tool inserted through opposed openings 11. It will be noted that there is no obstruction whatever to the entry of the knot of the line into the cylinder or the line into the slot 10 and through the slot 16 and that no dismantling is necessary.

It will also be understood that as soon as the line has been tightened up one-quarter of a turn or to any position where the line is sufficiently taut for use, it will assume a sharp bend at the outer periphery of the drum and tangentially thereto, so that that portion of the line will never again come into alignment with the slot 16, thus rendering it impossible for the line to become detached from the drum when taking up further slack or at any time until it is deliberately straightened for the purpose of replacement.

What we claim as our invention is:

1. A line tightener comprising a frame having spaced side plates, a drum journaled in the plates, a one way clutch means for holding the drum against rotation in one direction, said drum having a slot extending inwardly from one end to receive the end of a line and one of said plates having a corresponding slot adapted to be brought into register with the slot in the drum.

2. A line tightener comprising a frame having spaced side plates, a drum journaled in the plates, a one way clutch means for holding the drum against rotation in one direction, said drum having a slot extending inwardly from one end to receive the end of a line and one of said plates having a corresponding slot adapted to be brought into register with the slot in the drum, the slot in the side plate extending radially from the drum to the outer edge of said plate.

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