E. E. LEEDY.

WIRE REEL.

APPLICATION FILED FEB. 23, 1921.

1,403,123. Patented Jan. 10, 1922.

2 SHEETS—SHEET 1.

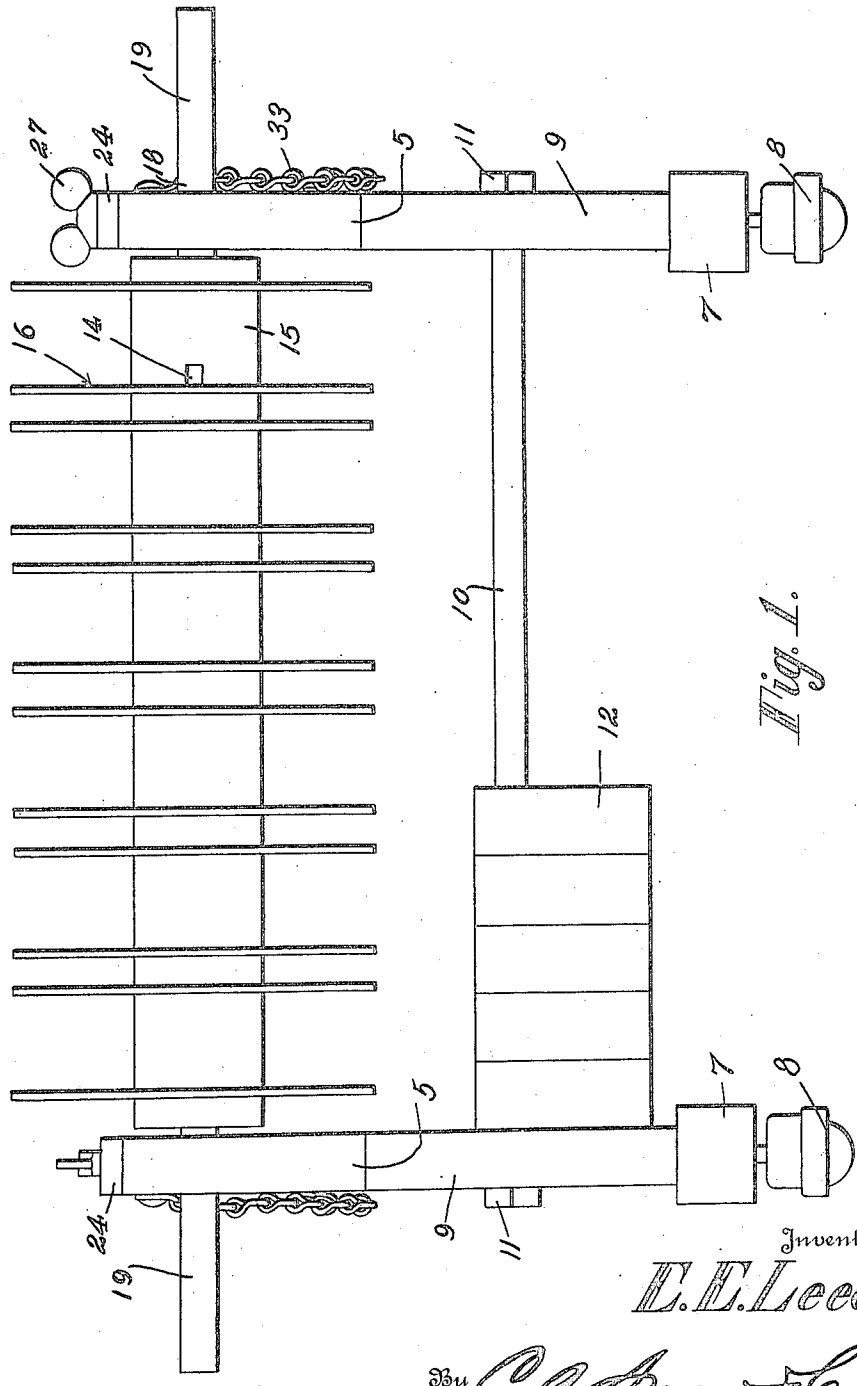


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

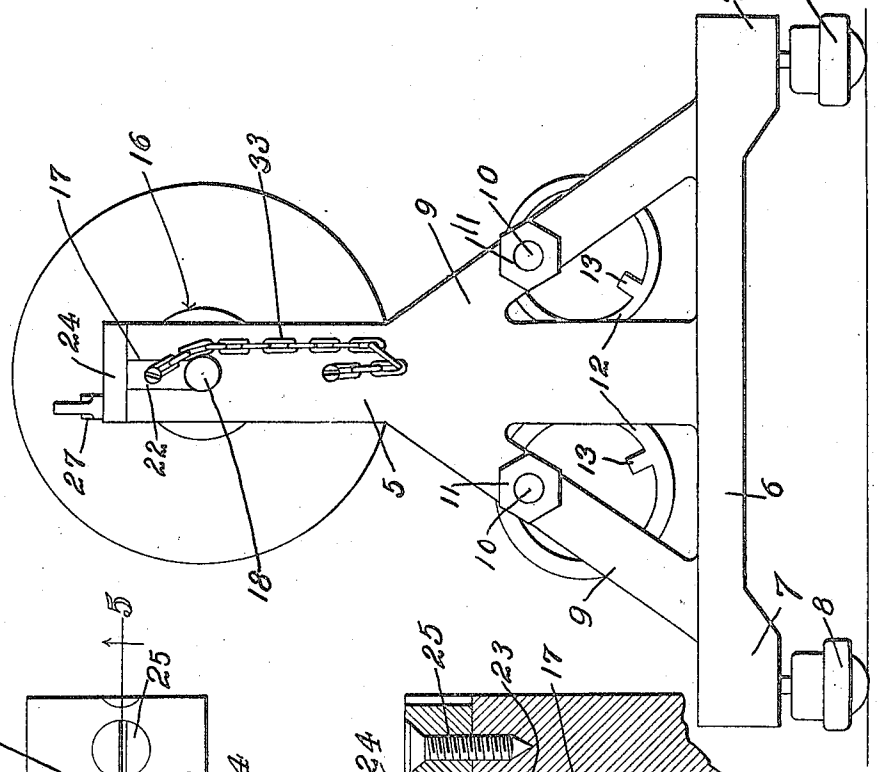


Fig. 4.

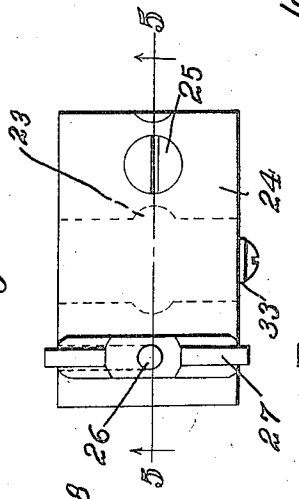


Fig. 5.

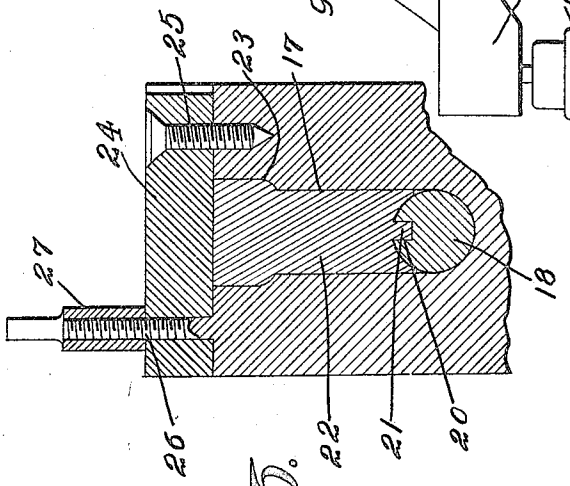
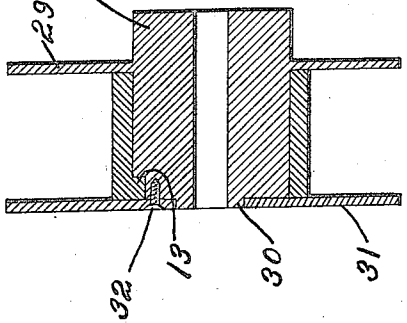


Fig. 3.



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By Attorneys.

UNITED STATES PATENT OFFICE.

ELMER ELSWORTH LEEDY, OF NEWARK, OHIO.

WIRE REEL.

1,403,123. Specification of Letters Patent. Patented Jan. 10, 1922.

Application filed February 23, 1921. Serial No. 447,120.

To all whom it may concern:

Be it known that I, ELMER E. LEEDY, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented a new and useful Wire Reel, of which the following is a specification.

This invention relates to a wire reel rack or stand designed for use in uncoiling insulated wires when the same are being threaded through conduits or the like.

The primary object of the invention is to provide a rack of this character which will support the reels and coils of wires in spaced relation with each other, while the wires are being uncoiled, thereby eliminating any possibility of the wires becoming tangled during the threading operation.

A further object of the invention is to provide novel means for reducing or enlarging the diameters of the hubs of the spools or reels, to adapt the device for use with coils of wires having various sized openings.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

Referring to the drawings:—

Figure 1 illustrates a side elevational view of a stand constructed in accordance with the present invention.

Figure 2 illustrates an end elevational view of the same.

Figure 3 illustrates a vertical sectional view through a spool, showing an auxiliary ring as applied.

Figure 4 illustrates an enlarged detail view of the upper end of one of the standards of the stand; and

Figure 5 illustrates a sectional view taken on line 5—5 of Figure 4.

Referring to the drawings in detail the stand or rack is shown as including the standards 5, which are disposed at the respective ends of the rack, each standard having connection with a horizontal base bar 6 which has enlargements 7 at its respective ends to accommodate the friction rollers 8, which may be of any desired design, but which in the present drawings are of the ball type.

Connecting the standards 5 with their base bar 6, are the angularly disposed bars 9 that are provided with openings to accommodate the ends of the horizontal rods 10 which connect the standards 5, there being provided nuts 11 on the respective ends of the horizontal rods 10 to secure the rods 10 to the standards 5, and eliminate movement thereof. These rods 10 provide supports for the auxiliary hubs or rings 12, each of which being provided with an inwardly extending lug 13 to be positioned in the cut out portions 14 formed in the hubs 15 of the spools 16, so that the auxiliary hubs will be held stationary with respect to the hubs of the spools to which the same are applied.

Each of the standards 5 is cut away as at 17 to provide a seat for the shaft 18 that extends throughout the length of the stand and connects the end sections thereof, there being portions of the shaft 18 extending beyond the end sections 5 to provide handles 19 by means of which the shaft and the spools supported thereon may be readily removed or replaced.

Formed in the shaft 18 at points adjacent to the ends thereof are the openings 20 which openings accommodate the lugs 21 formed on the blocks 22, there being provided a block for each of the cut out portions of the standards 5 for eliminating movement of the shaft 18, during the unwinding of the coils supported therein. In order that these blocks 22 will be held in their locking positions, each block is provided with lateral ribs 23 which move in suitable cut out portions or grooves formed in the walls of the cut out portions 17 of the standards 5.

Disposed at the upper end of each standard 5, is a pivoted locking element 24 which is connected to its standard as by means of the screw 25, which passes through the locking element 24 adjacent to one end thereof, the opposite end of the locking element being provided with a cut out portion extending from one edge thereof and terminating at a point intermediate the side edges, the cut out portion being designed to accommodate the pin 26 carried by the standard 5 associated therewith, and as shown a winged nut 27 is mounted on the respective pins 26 for locking the element 24 against movement, when the same has been moved to secure the block 22 associated therewith. Each spool comprises a hub 28, an integral

flange 29 and an extension 30, the extension 30 being constructed to extend through an opening in the flange 31 which is the removable section of the spool, there being provided a screw 32 passing through the flange 31 for securing the removable flange 31 to the hub 28.

If it is desired to change the diameter of the hub of a spool to enlarge the same, it is only necessary to remove one of the auxiliary hubs or rings 12 from its supporting rod, remove the flange 31 of the spool, whereupon the auxiliary hub or ring 12 may be slid onto the hub of the spool, the lug 13 thereof being positioned in the cut out portion 14 of the spool hub. It follows that the flange 31 may now be replaced and secured to its hub.

It might be further stated however that a chain 33 is provided to secure each of the blocks 22 to its standard and prevent the same from becoming misplaced.

From the foregoing it will be seen that with the spools arranged on a rack as heretofore described, and the wires which are being threaded through the conduits, placed thereon, the wires may be readily and easily removed, eliminating all possibility of the wires becoming tangled or twisted during the threading operation.

It is believed that in view of the foregoing description, a further detailed description of the operation of the device is unnecessary.

Having thus described the invention, what is claimed is:—

A stand comprising end sections, each of said end sections having a cut out portion, a shaft disposed in the cut out portions, a securing block movable in each cut out portion, the walls of the cut out portions having recesses, lateral ribs formed on each block, said ribs adapted to move in the recesses, means carried by the blocks for restricting rotary movement of the shaft, and means for securing the blocks within the cut out portions.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ELMER ELSWORTH LEEDY.

Witnesses:

JAY H. BUTLER,

A. N. EVANS.