

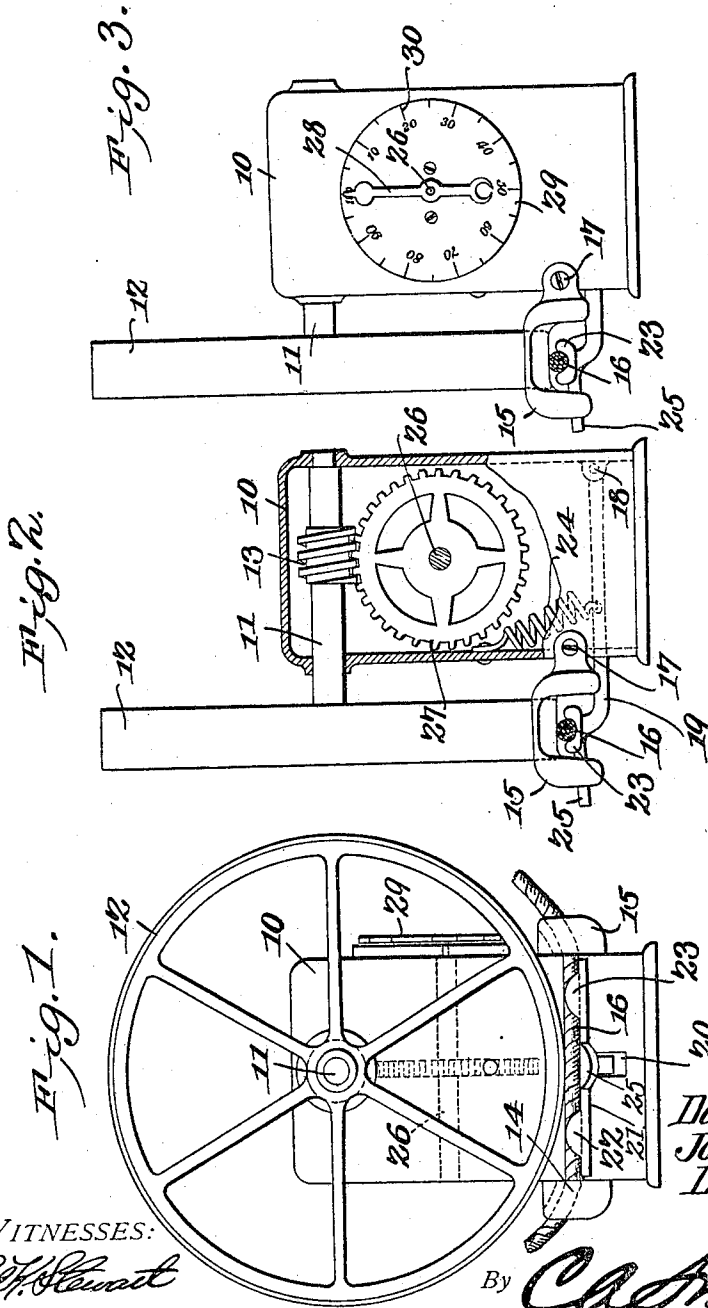
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PATENTED DEC. 25, 1906.

D. H. LITTLETON, J. W. HUDSON & L. W. FOLLIS.

ROPE MEASURING DEVICE.

APPLICATION FILED MAR. 22, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DAVID H. LITTLETON, JOHNSTON W. HUDSON, AND LEE W. FOLLIS, OF
HUMBOLDT, TENNESSEE.

ROPE-MEASURING DEVICE.

No. 839,490.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed March 22, 1906. Serial No. 307,452.

To all whom it may concern:

Be it known that we, DAVID H. LITTLETON, JOHNSTON W. HUDSON, and LEE W. FOLLIS, citizens of the United States, residing at Humboldt, in the county of Gibson and State of Tennessee, have invented a new and useful Rope-Measuring Device, of which the following is a specification.

This invention relates to devices for measuring rope and similar products or material, and has for its object to improve the construction and increase the efficiency and utility of devices of this character.

With this and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a front elevation. Fig. 2 is a side elevation, partly in section; and Fig. 3 is a side elevation of the improved device.

The improved device comprises a supporting casing or frame 10, having a main shaft 11 journaled through its upper part and carrying a measuring drum or wheel 12 exteriorly of the casing and with a worm-pinion 13 within the casing. Extending from the casing 10 are guide members 14 15, spaced apart and disposed in alinement with the rim of the drum 12, or so arranged that the rope being measured, a portion of which is represented at 16, when passed beneath the guides will extend in a straight line between the guides and also bear against the adjacent face of the drum. The guide members are attached at 17 to the casing 10 and bear over the rope 16, which is being measured, and are inclined outwardly and upwardly on their lower faces so that the rope will freely "ride" beneath them and not be obstructed thereby.

Pivoted at 18 within the casing 10 is a lever-arm 19, extending through an aperture 20 in the front of the casing and with a transversely-disposed plate 21 at its outer free end, the plate bearing beneath the rope

16 and extending nearly to the guide members 14 15. The bearing arm or plate 21 is also provided with upturned spaced lips 22 23, which partly inclose the rope and prevent the rope from moving laterally. The lever member 19 is held yieldably, with its plate 21 in contact with the rope, by a spring 24, disposed within the casing 10, as shown in Fig. 2. The plate 21 is also provided with a forwardly-extending lip or lug 25 to provide a finger-grip to enable the operator to readily depress the plate 21 when it is desired to release the rope from engagement with the measuring-drum.

Mounted for rotation through the casing 10 is a shaft 26, carrying a worm-gear 27 for engagement by the worm-pinion 13 and extending at one end through the casing 10 and provided upon its extended end with an index or pointer 28. Attached to the casing 10 and surrounding the projecting end of the shaft 26 is a dial 29, having spaced graduations 30 suitably numbered, as shown in Fig. 3. The drum 12 is of a certain predetermined circumference, preferably thirty-six inches or one yard, and the graduations on the dial 29 will denote feet and inches or yards or other dimensions, as may be required.

The diameters of the worm-pinion 13 and the worm-gear 27 will be so proportioned that the indicator 28 in moving over the dial will correspond to and denote the length of the rope 16 which is caused to pass in contact with the measuring-drum, as will be obvious, so that the operator may "read" the amount of rope measured upon the dial. Thus any desired amount of the rope or other similar material may be measured, and the exact amount thus measured will be indicated upon the dial.

The arrangement whereby the rope is held in a straight line between the guides 14 15 is an important feature of the invention and adds materially to the value and efficiency of the device, as the rope is thereby drawn straight forward and contacts with the measuring-drum uniformly and insures accurate measurement of the rope. The rope being held by the relatively long tension member in a straight line while in contact with the measuring-wheel cannot be deflected out of its straight line, no matter how great the pressure may be. Consequently the measurement will be uniform and accurate.

The relatively long plate 21, with its guards 22 23, holds the rope in position against the measuring-drum and prevents all tendency to deflection or displacement while the measuring action is proceeding.

The device is simple in construction, accurate and certain in its action, and may be inexpensively manufactured and employed for measuring all sizes of ropes and similar products.

Having thus described the invention, what is claimed as new is—

1. A measuring device comprising a casing, a worm-shaft journaled for rotation within the casing and projecting beyond the side thereof, a measuring-wheel attached to said worm-shaft and being located exterior of the casing, a gear-wheel meshing with the worm of said shaft, a shaft journaled in the casing and supporting said gear-wheel, an indicator-dial located upon the exterior of the casing, an indicator-pointer attached to the gear-wheel shaft and operating over said dial,

a lever fulcrumed within the casing, a spring engaging said lever, said lever having an end which projects beyond the casing and which terminates below the measuring-wheel.

2. A measuring device of the character indicated comprising a measuring-wheel journaled for rotation and an indicator mechanism operatively connected with the same, a spring-actuated lever terminating adjacent the periphery of said wheel and having spaced guides disposed toward the wheel, guides supported adjacent the end of said lever and disposed in the opposite direction to the guides carried by the lever.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

DAVID H. LITTLETON.
JOHNSTON W. HUDSON.
LEE W. FOLLIS.

Witnesses:

C. W. ROOKS,
G. F. TATUM.