A. J. HARE.

WINDING REEL.

APPLICATION FILED JULY 17, 1919.

1,340,712. Patented May 18, 1920.

FIG. 1

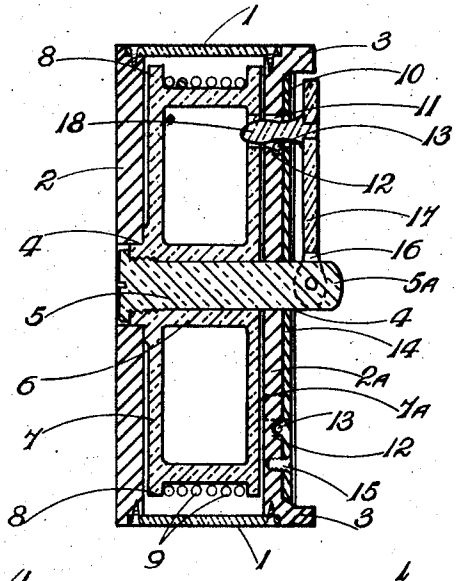


FIG. 2

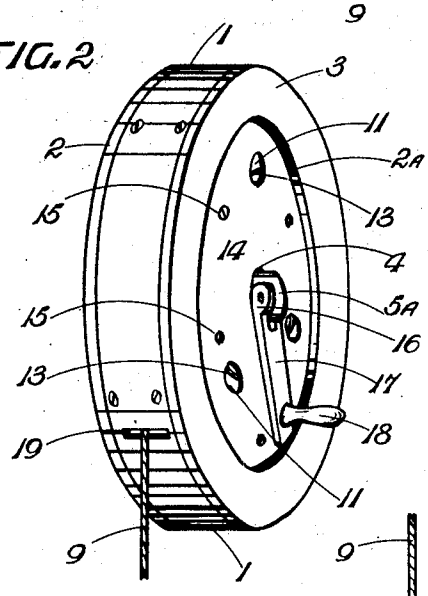


FIG. 3

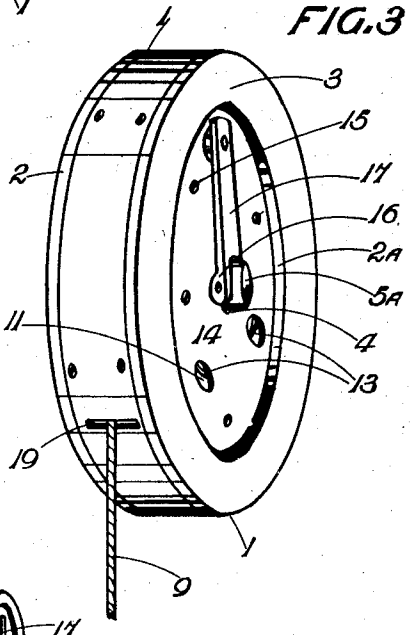
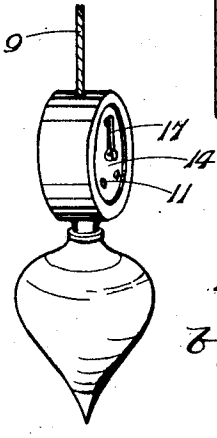


FIG. 4



Inventor
A. J. Hare
by Jno. Smart
his Atty.

UNITED STATES PATENT OFFICE.

ARTHUR JOHN HARE, OF DUNEDIN, NEW ZEALAND.

WINDING-REEL.

1,340,712. Specification of Letters Patent. Patented May 18, 1920.

Application filed July 17, 1919. Serial No. 311,440.

To all whom it may concern:

Be it known that I, ARTHUR JOHN HARE, a subject of the King of Great Britain, residing at 40 Dowling street, Dunedin, in the Dominion of New Zealand, have invented certain new and useful Improvements in Winding-Reels, of which the following is a specification.

This invention relates to reels upon which a fabric or cord is wound or unwound frequently, and especially to the winding reels of chalk lines, tape measures and plumb bob cords.

The object of the invention is to provide a reel so constructed that when the required length of cord is unwound, the reel and cord may be secured against further unwinding.

Referring to the drawings accompanying this specification,

Figure 1 is a sectional view through a reel locked to prevent further unwinding.

Fig. 2 is a perspective view of a reel free to be unwound.

Fig. 3 is a perspective view of a reel locked as in Fig. 1.

Fig. 4 illustrates one form of application of the invention to plumb bobs.

Describing now the invention:

There is a cylindrical casing member 1 having ends 2 and 2^A, let into the casing member, one of the ends 2^A is dished by the provision of flanges 3 on its outer surface, providing a sunk portion to accommodate a handle, as hereinafter described. There is a central bearing 4 in each of the ends 2 and 2^A for the purpose of carrying a spindle 5 and a reel 6 mounted thereon inside the casing member 1; the reel has disk sides 7 and 7^A, and is flanged as at 8 to contain a cord or tape 9.

One of the sides 7^A of the reel 6 has a hole 10 therein at a determined distance from its center, and the adjacent dished end 2^A has a series of similar concentric holes 11 of the same radial distance from the center of the spindle. The dished end 2^A has formed on its outer sunk surface a groove 12 to house a retaining spring 13 of such a diameter that it will engage a handle member as will be hereinafter described, which passes through the holes 11.

A thin cover plate member 14 is provided in the dished portion of the casing member end, and retains in position the retaining spring 13. Small screws 15 attach the cover plate member 14 to the dished end 2^A, holes being made through the said cover plate member to correspond with those in the dished end 2^A.

One end 5^A of the spindle 5 projects through the bearing 4 in the dished end 2^A and has pivotally mounted near its outer extremity the forked end 16 of a reversible lever member 17, having on its free end a projecting knob 18, the whole forming the conventional measuring tape handle when open. When winding or unwinding the cord or tape, the knob 18 will project away from the dished end 2^A as in Fig. 2. The position of the knob 18 on the lever 17 is such that when the lever 17 is turned over toward the dished end 2^A, the said knob 18 will pass through one of the holes 11 therein and also through the hole 10 in the side 7^A of the winding reel 6, thus preventing any rotation thereof. The retaining spring 13 engages lightly with the knob 18 in this position, and prevents it from disengaging freely. This position is shown in Figs. 1, 3 and 4.

The usual aperture 19 is provided in the casing member to admit of the passage of the cord or tape to and from the winding reel. When used in connection with a plumb bob as illustrated in Fig. 4 of the drawings, the invention is attached directly to the plumb bob itself, or may be placed at any convenient position on the cord.

The operation will be understood from the following description.

When it is desired to wind or unwind the cord, the handle of the apparatus is placed with its knob projecting from the dished end of the casing member, so that the reel is free to rotate. When the desired amount of tape or cord is unwound, the handle is turned over so as to enable the knob thereon to engage with one of the holes in the dished end of the casing member, and with the hole in the reel, this prevents any movement of the handle and so locks the reel to prevent rotation.

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

1. In a winding reel apparatus, the combination of a central spindle carrying a double sided reel in a cylindrical casing, one of the sides of the double sided reel being pierced by a hole, bearings in the ends of the said cylindrical casing member carry-

ing the said spindle which projects through an end of the cylindrical casing, having a series of holes therein of the same radial distance as the hole in the adjacent side of the reel, a reversible lever pivoted to the projecting end of the spindle, and carrying a knob provided at the free end of the lever at a radial distance from the center of the spindle equal to the radial distance therefrom of the hole in the reel side, and a retaining spring housed in the casing member, so as to engage with the knob when the lever is reversed and the knob entered through the hole in the casing member end.

2. A winding reel apparatus having a locking device, consisting in the provision of a hole in the side of the reel, corresponding holes in the adjacent end of a reel casing member, a spindle carrying the said reel and pivotally mounting a knobbed reversible lever, and a retaining spring carried on the end of the casing member and passing across each of the holes therein.

3. The provision on the end of the casing member of a winding reel of a reversible lever mounted thereon so that, when desired, a projection from the said lever may simultaneously enter a hole in the casing member end and a hole in the side of the winding reel.

In testimony whereof I affix my signature.

ARTHUR JOHN HARE.

Witnesses:
THOMAS CONLY,
ROBERT PARK, Jr.