No. 791,759. PATENTED JUNE 6, 1905.

J. G. EDDY.

WINDING HANDLE FOR TAPE MEASURES.

APPLICATION FILED FEB. 17, 1905.

Fig. 1.

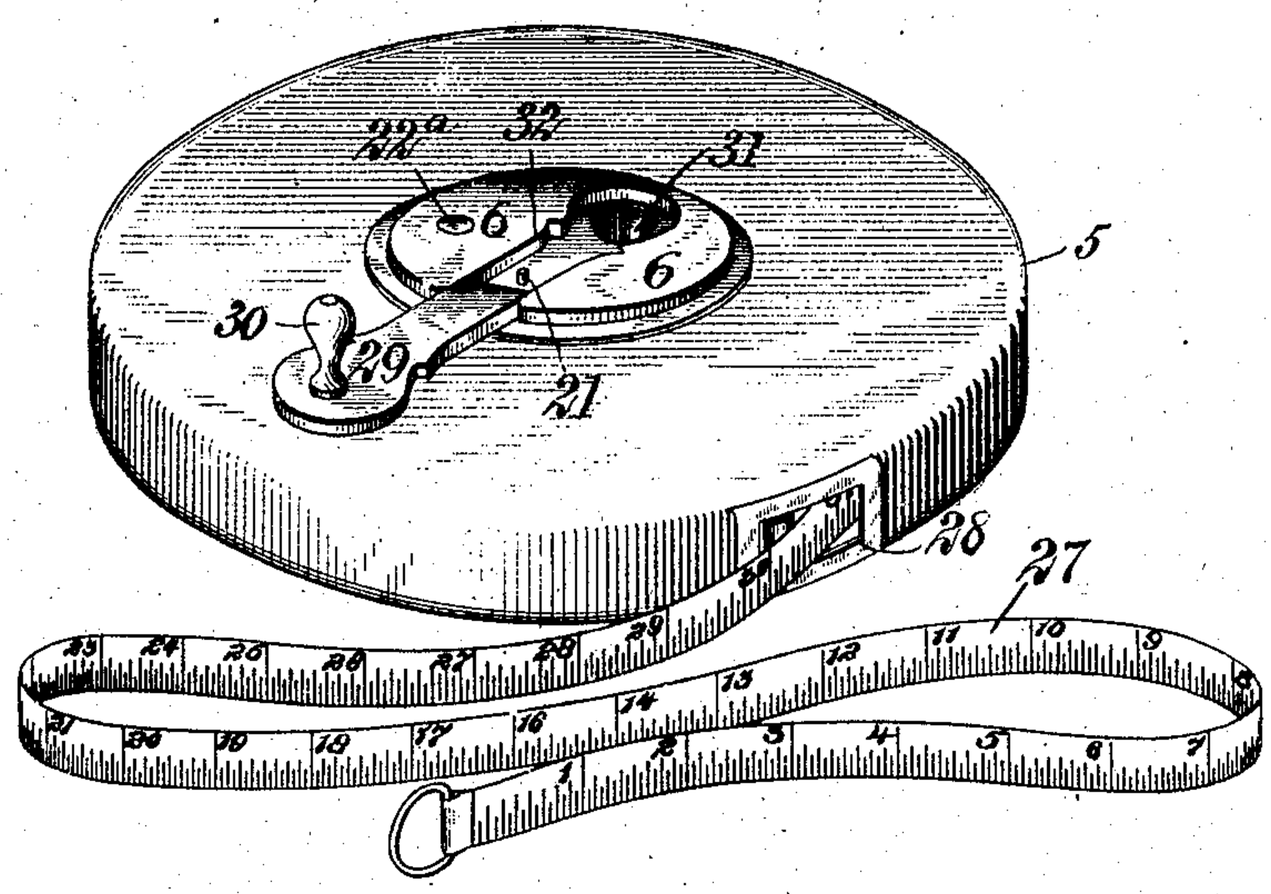


Fig. 2.

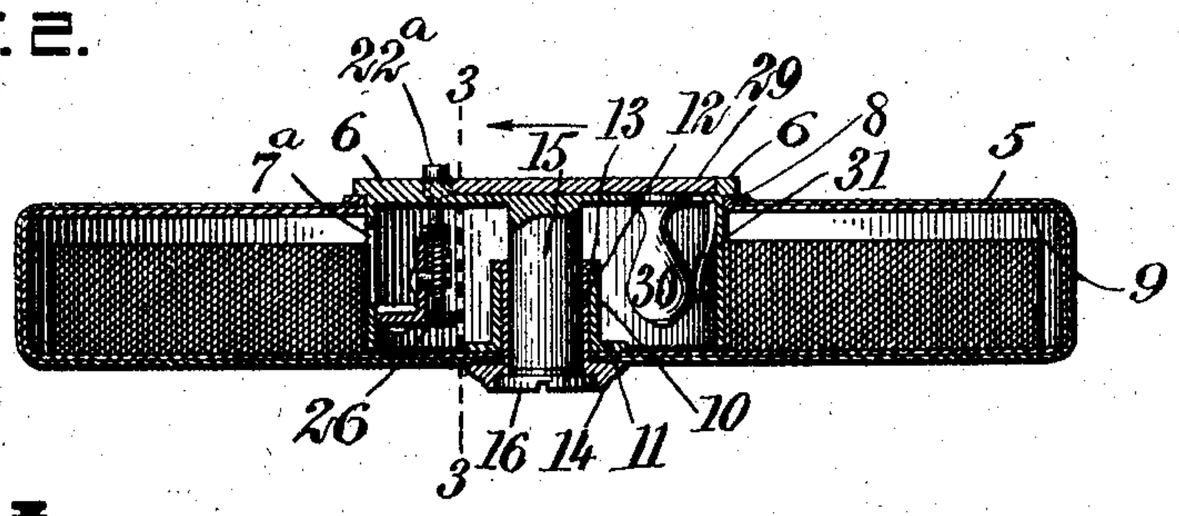


Fig. 3.

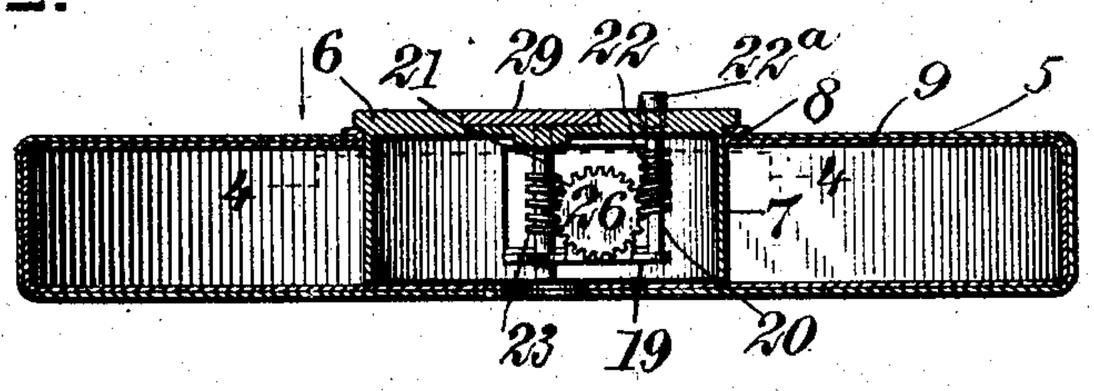
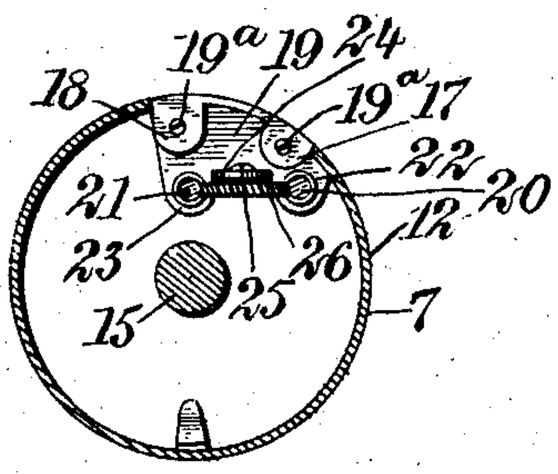


Fig. 4.



WITNESSES:

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No. 791,759. Patented June 6, 1905.

UNITED STATES PATENT OFFICE.

JOHN G. EDDY, OF NEW YORK, N. Y.

WINDING-HANDLE FOR TAPE-MEASURES.

SPECIFICATION forming part of Letters Patent No. 791,759, dated June 6, 1905.

Application filed February 17, 1905. Serial No. 246,075.

To all whom it may concern:

Be it known that I, JOHN G. EDDY, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Winding-Handle for Tape-Measures, of which the following is a full, clear, and exact description.

My invention relates to tape-measures and admits of general use, but is of peculiar value in connection with tape-measures of the kind rolled into a coil and adapted to be wound and unwound at will.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a tape-measure embodying my invention. Fig. 2 is a vertical cross-section through the same in a direction coincident with the general direction of the handle. Fig. 3 is a vertical cross-section taken upon the line 3 3 of Fig. 2 looking in the direction of the arrow, and Fig. 4 is a horizontal section through the winding-drum removed from the casing and taken upon the line 4 4 of Fig. 3 looking in the direction of the arrow.

The casing is shown at 5 and is hollow, being preferably of the usual construction.

The winding-drum is shown at 6 and is provided with a barrel portion 7, which is protected by a bead 8, formed by turning up the inner lining 9 of the casing.

Mounted rigidly upon the casing is a sleeve 10, provided with a flange 11, whereby it is secured in position. Mounted within this sleeve 10 is another sleeve 12, provided at its inner end with a flange 13 and terminating at its outer end in a head 14. A pin 15 is free to rotate loosely within the sleeve 13, and this pin is provided with a head 16 and is rigidly secured to and virtually forms a part of the winding-drum 6. During the rotation of the drum, therefore, the pin 15 virtually acts as a journal, and the sleeve 12 serves as a bearing therefor.

The drum 6 is partially cut away and the edges thereof bent inward, so as to form supporting-ears 17 18. Mounted upon these ears is a plate 19, secured thereto by means of screws 19ª.

Pins 20 21 are movable longitudinally in the direction of their axes, but incapable of rotating, and are slidably mounted, as shown in Fig. 3. The pin 20 passes through the portion 7 of the winding-drum and also passes through the plate 19. Similarly, the pin 21 passes loosely through the plate 19 and also through the portion 7 of the winding-drum. These sliding pins are provided, respectively, with spiral cogs 22 23, which mesh directly with a spur-wheel 26, the latter being revolubly mounted upon a pivot 25, rigidly connected with a supporting-lug 24, the latter being rigid upon the plate 19. The pin 20 is provided at its outer end with a comparatively large head 22ª, a portion of which is sunken in the drum 6, as indicated by dotted lines in Figs. 2 and 3.

The tape is shown at 27 and is threaded through an aperture 28, so as to be wound upon the drum.

The winding-arm is shown at 29 and is provided with a handle 30. The pin 21 projects slightly into the path of the winding-arm 29, as will be understood from Fig. 1. When the winding-arm is closed, as indicated in Fig. 2, the handle 30 bears against a leaf-spring 31 and is thus held in position. A groove 32 completely hides the arm 29, which is flush therewith when closed, as will be understood from Fig. 2. The closing of the arm 29 pushes the pin 21 downward and causes a slight rotation of the spur-wheel 26. As above explained, the pin 20 does not turn. It has no function as a worm-wheel, but is rather a gear member. When, therefore, the pin 21 is moved longitudinally by the motion of the arm 29 in closing, the spur-wheel 26 raises the pin 20, as will be understood from Fig. 3, so that the head 22ª of this pin projects slightly. If now it be desired to open the arm 29, the operator presses his finger upon the head 22ª. This causes the spur-wheel 26 to rotate a slight distance in a direction opposite to that in which it rotated when the arm 29 was closed, and the rotation of the wheel 26 raises the pin 21, and

if the movements be tolerably sudden it throws the arm 29 open or into the position indicated in Fig. 1. It follows, therefore, that when with the tape-measure in the position indicated in Figs. 2 and 3 the operator desires to make a measure or from any other cause wishes to render the handle 30 accessible he merely presses upon the head 22^a, and the parts immediately assume the position indicated in Fig. 1. It will also be noted that when the arm 29 is closed, as indicated in Figs. 1 and 2, the entire upper surface of the winding-drum is smooth, with the exception that the head 22^a is elevated a very slight distance above the upper surface of the drum. It will also be noted that the upper end of the pin 21, while protruding slightly, is down in the groove 32, where it can do no harm, and that it never protrudes except when the parts are in the position indicated in Fig. 1.

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

1. In a winding-drum for tape-measures and the like, the combination of a revoluble hollow member, a handle pivotally mounted thereupon and adapted to assume folded and unfolded positions respectively, a revoluble gear member disposed adjacent to said handle, a pin connected with said gear member and adapted to press upon said handle for the purpose of releasing the same from one of said positions, and mechanism controllable by pressure of the finger for actuating said revoluble gear member.

2. In a winding-drum for tape-measures, the combination of a revoluble member, an arm pivotally mounted thereupon and adapted to be folded, a sliding pin mounted within said revoluble member and adapted to press upon said arm for the purpose of releasing the same, a gear member revolubly mounted within said winding-drum and adapted to actuate said pin, and another pin provided with a portion meshing with said gear member and with another portion to be depressed by the finger.

3. In a winding-drum for tape-measures, the combination of a revoluble member provided with a channel, an arm pivotally mounted upon said revoluble member and adapted to disappear within said channel, a sliding pin mounted within said revoluble member and adapted to engage said arm for the purpose of unfolding the same, said sliding pin being provided with an articulate surface, a spur-wheel provided with teeth for engaging said articulate surface, and means controllable at will for partially rotating said spur-wheel.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN G. EDDY.

Witnesses:
WILLIAM H. EDDY,
GEO. E. EDDY.