J. KOMOROUS.

TAPE MEASURE.

APPLICATION FILED JULY 7, 1919.

1,320,767.

Patented Nov. 4, 1919.

Fig. 1.

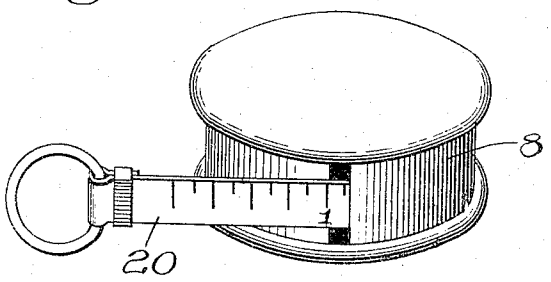


Fig. 4.

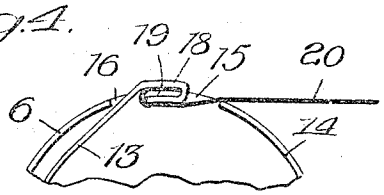


Fig. 5.

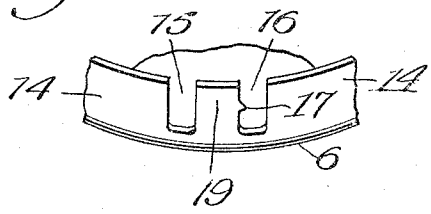


Fig. 2.

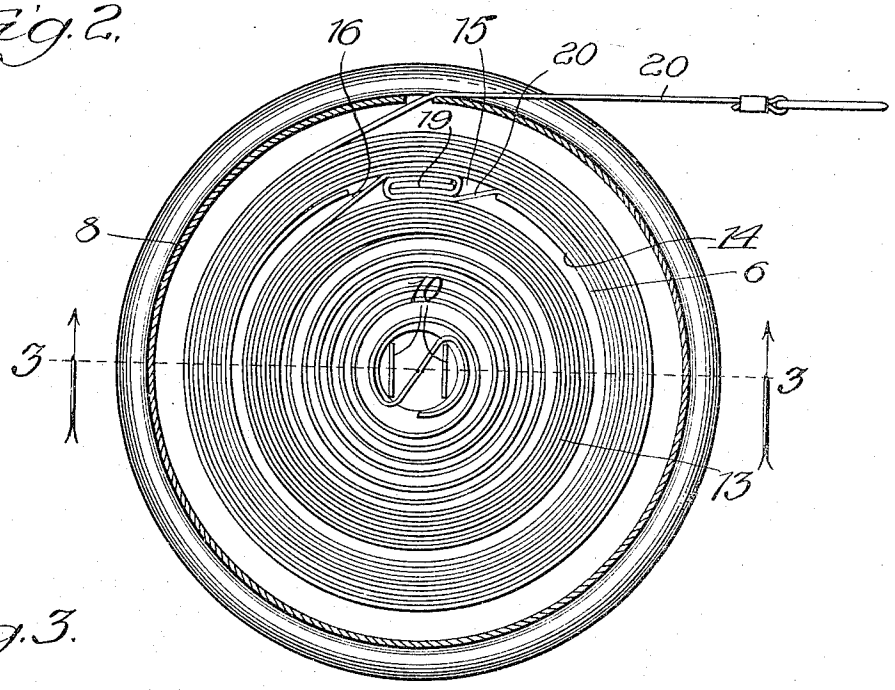


Fig. 3.

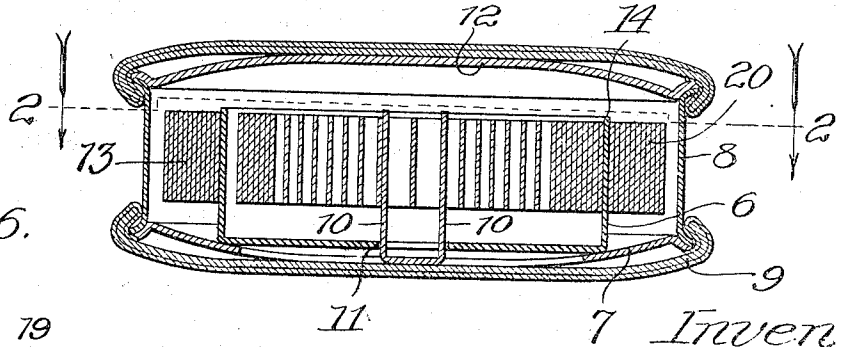
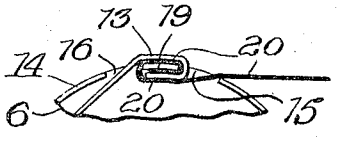


Fig. 6.



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UNITED STATES PATENT OFFICE.

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TAPE-MEASURE.

1,320,767. Specification of Letters Patent. Patented Nov. 4, 1919.

Application filed July 7, 1919. Serial No. 309,097.

To all whom it may concern:

Be it known that I, JOSEPH KOMOROUS, a citizen of the United States, residing at Riverside, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tape-Measures, of which the following is a specification.

My invention relates, more particularly, to improvements in self-winding tape-measures.

As a preface to the following description it may be said that it is common practice to mount in the container, or casing, of the tape-measure, a revoluble shell, commonly called a can, in which the propelling spring is confined, one end of the spring being secured to the container or casing of the tape-measure and the other end of the spring interlocked with slotted portions of the wall of the shell; and to provide separate slots in the wall of the shell for attachment of the fixed end of the tape thereto, the tape winding upon the circular wall of the shell in the rewinding movement of the spring.

My object is to provide for the attachment of the spring and tape to the revoluble shell in such a way that the number of operations required to be performed to permit of such attachment will be reduced and the tape will be more firmly secured in position, and the structure may be produced more economically.

Referring to the accompanying drawing; Figure 1 is a perspective view of a tape-measure embodying my improvements. Fig. 2 is an enlarged plan section of the device of Fig. 1, the section being taken immediately below the lower edge of the flange of the top cover, as indicated at the line 2—2 on Fig. 3 and viewed in the direction of the arrows. Fig. 3 is a section taken at the line 3—3 on Fig. 2 and viewed in the direction of the arrows. Fig. 4 is a broken plan view of the rotatable shell, showing the measuring tape unwound therefrom to the fullest extent; Fig. 5 is a perspective view of the portion of the revoluble shell at which the tape and spring are attached; and Fig. 6, a view like Fig. 4 of a modification.

Referring more particularly to Figs. 1 to 5, inclusive, in the particular construction shown, the revoluble shell, or can, is represented at 6 and, as shown, is rotatably supported on a disk 7 interlocked at its peripheral portion between the circular side-wall 8 of the container portion of the tape-measure and a cover section 9. The disk 7 has upwardly extending arms 10 shown as cut from the metal of this disk, which extend upwardly through a central opening 11 in the shell 6 and operate as a pivot for the latter. The top of the container portion of the device is represented at 12.

The spring by means of which the tape, hereinbefore referred to, is automatically rewound upon the shell 6, is represented at 13, the inner end of this spring being interlocked with the arms, 10, as shown in Fig. 2, for holding this end of the spring against displacement, the spring 13 being located within the rotatable shell 6, and interlocked at its outer end with the circular wall 14 of the shell 6. To provide an attachment of this end of the spring to the shell 6 in the desired relation to the tape for likewise securing the latter to the shell, I provide in the circular wall 14, preferably, two slots 15 and 16, a prong 17 on the wall 14 of the shell 6, extending into the slot 16, this prong being preferably formed in the wall of the slot 16. The outer end of the spring 13 is bent, as indicated at 18, to extend through the slots 15 and 16 and partially embrace the portion 19 of the wall 14, between these slots. The tape having graduations thereon, is represented at 20, this tape extending through the slot 15, thence through the slot 16, where it is engaged by the prong 17 and thence between the portion 19 of the wall 14 and that part of the spring which extends at the outside of this wall.

According to the particular arrangement shown in Figs. 1 to 5, inclusive, the securing of the tape in fixed relation at one end to the shell 6 by the engagement therewith of the prong 17, is augmented by the binding action of the superposed portion of the spring 13, whereby the tape is firmly held to the shell, it being understood that the tape 20 winds upon the circular wall 14 of the shell, under the action of the spring 13 when the operator, after drawing the tape from the container, as for example to the position shown in Fig. 4, discontinues pulling on the same.

In the construction shown in Fig. 6 the prong 17 may be omitted and the attachment of the spring 13 and tape 20 with the member 6 be effected by the wrapping of the end of the tape 20 around the portion 19 of the shell-wall 14 as shown and overlapping

it by the spring-end 18 as illustrated, which firmly interlocks the tape in position, the tape and spring extending into the slots 15 and 16.

While I have illustrated and described a particular construction embodying my invention, I do not wish to be understood as intending to limit it thereto as the same may be variously modified and altered without departing from the spirit of my invention, it being my intention to claim my invention as fully and completely as the prior state of the art will permit.

What I claim as new and desire to secure by Letters Patent is:

1. In a spring-operated automatically-rewinding tape-measure, the combination of a container, a rotatable member in said container, a tape connected at one end with said member, and a spring connected with said container and with said member for rewinding the tape on said member, the connections of said spring and tape with said member involving slots in a wall of said member into which said spring and tape extend, with said tape interposed between said wall and spring.

2. In a spring-operated automatically-rewinding tape-measure, the combination of a container, a rotatable member in said container, a tape connected at one end with said member, and a spring connected with said container and with said member for rewinding the tape on said member, the connections of said spring and tape with said member involving slots in a wall of said member into which said spring and tape extend, said wall having a projection engaged by the tape, with said tape interposed between said wall and spring.

3. In a spring-operated automatically-rewinding tape-measure, the combination of a container, a rotatable member in said container, a tape connected at one end with said member, and a spring connected with said container and with said member for rewinding the tape on said member, the connections of said spring and tape with said member involving slots in a wall of said member into which said spring and tape extend, and a projection extending into one of said slots and engaged by said tape, with said tape interposed between said wall and spring.

JOSEPH KOMOROUS.