No. 694,329. Patented Feb. 25, 1902.

R. J. SMEETON.

TAPE HOLDER.

(Application filed July 24, 1901.)

(No Model.)

Fig. 1.

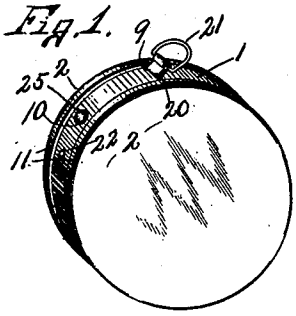


Fig. 3

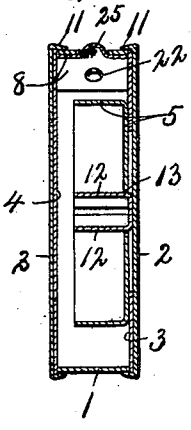


Fig. 2.

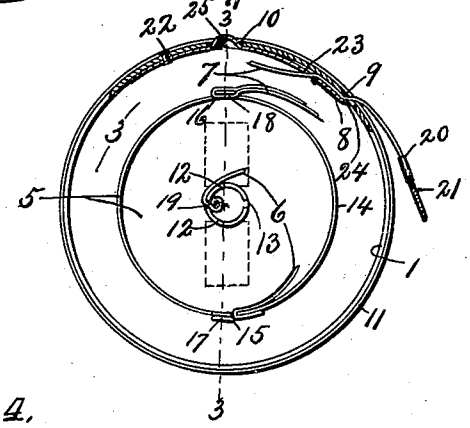


Fig. 4.

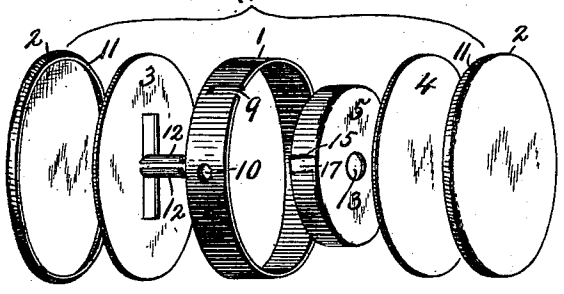
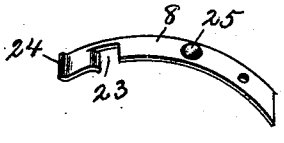


Fig. 5.



WITNESSES:
F. E. Arthur,
H. E. Chase

INVENTOR
Richard J. Smeeton
BY
Smith & Benson
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD J. SMEETON, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE WHITEHEAD & HOAG COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

TAPE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 694,329, dated February 25, 1902.

Application filed July 24, 1901. Serial No. 69,569. (No model.)

To all whom it may concern:

Be it known that I, RICHARD J. SMEETON, of Newark, in the county of Essex, in the State of New Jersey, have invented new and useful Improvements in Tape-Holders, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in tape-holders, having more particular reference to devices for holding spring-wound measuring-tapes.

The object of this invention is to produce a simple, light, and durable device for holding measuring-tapes which may be manufactured at a minimum cost and readily assembled by ordinary labor.

A further object is to provide means substantially concealed within the inclosing shell of the tape-holder whereby the tape may be held in its extended position at any desired graduation and released by a light pressure upon a suitable finger-piece.

To this end the invention consists in the combination, construction, and arrangement of the component parts of a tape-holding device, as hereinafter fully described, and pointed out in the claims.

Referring to the drawings, Figure 1 is an isometric perspective view of a tape-holder embodying my invention. Fig. 2 is a face view of the tape-holder seen in Fig. 1, one of the end caps being removed for disclosing the interior mechanism, the rewinding-spring and inner portion of the tape being broken away and the spring-actuated catch being shown in section. Fig. 3 is a sectional view taken on line 3 3, Fig. 2. Fig. 4 represents the several parts of the inclosing shell and the spring-actuated drum for supporting the tape. Fig. 5 is a perspective view of the detached spring catch or holder.

Similar reference characters indicate corresponding parts in all the views.

This tape-holder is designed more especially to be carried in the pocket, and it is therefore desirable to construct the same with as few projections or uneven surfaces as possible and to also make the device as light as may be consistent with its perfect operation.

The invention therefore consists of an inclosing shell having an annular band 1, end caps 2, reinforcing-plates 3 and 4, a revolving drum 5, actuated by a spring 6, a tape-measure 7, and a spring-actuated tape-holder 8. The annular band or ring 1 is provided with a transverse tape opening or slot 9 and an aperture 10, said aperture being adapted to receive a suitable projection formed upon the spring-catch 8. The caps 2 are substantially unbroken throughout their entire surface and inclose the opposite open ends of the annular band 1, being formed with annular flanges 11, lapped upon the adjacent peripheral edges of said band, being usually formed of celluloid or equivalent light material. The reinforcing-plates 3 and 4 are arranged, respectively, at the opposite ends of the annular band 1 and usually consist of circular metal plates interposed between the opposite end faces of the band 1 and the adjacent caps 2, said metal plates being usually held in position by crimping the flanges 11 upon their peripheries. The intermediate portions of the plate 3 is formed with inwardly-projecting tongues 12, cut from the body of the plate and bent inwardly in substantially the same direction and parallel with each other for forming a suitable bearing for the drum 5, said tongues 12 being curved transversely, thereby forming substantially semicircular bearing-faces. The drum 5 is arranged within the shell and preferably consists of a cup-shaped cylinder having a central aperture 13 for receiving the tongues 12, upon which said drum is journaled. This drum is provided with an annular flange 14, which is slit at 15 and 16 for forming suitable tongues 17 and 18, one of which, as 15, is arranged to receive one end of a coil-spring 6, and the other slit, as 16, is adapted to receive one end of the tape 7. The other end of the spring 6 is inserted between the adjacent faces of the arms 12 and is provided with a suitable loop 19 for holding the end of the spring in position. The outer end of the spring 6 is, as previously stated, inserted in the slit 15 and is folded backwardly upon the periphery of the drum for holding said outer end in operative position. The inner end of the tape 7 is inserted

in the slit 16 and is also folded backwardly around the tongue 18 for firmly securing said inner end of the tape to the drum. The tape is then wound around the periphery of the drum by the action of the spring 6, and its outer end is extended through the opening 9 in the annular band 1 and is provided with a suitable stop-shoulder 20 and handpiece or ring 21.

The catch 8 is preferably formed of metal and is arranged within the annular band 1, with its opposite ends extending on opposite sides of the aperture 10. One end of this catch is secured to the annular band 1 by a suitable rivet or other fastening means 22, and its opposite end is extended partially across the opening 9 and is provided with a transverse slot 23 and an outturned rib or shoulder 24, the opening 23 being adapted to receive the tape 7, and the rib or shoulder 24 is arranged to engage the inner face of the tape and to impinge said tape against the inner face of the annular band 1. The intermediate portion of this catch 8 is provided with a projection 25, extending outwardly through the aperture 10, and forms a suitable finger-piece, whereby the free end of the catch may be forced inwardly away from the inner surface of the annular band 1 for releasing the tape.

It is apparent from the foregoing description that the free end of the catch 8 is tensioned toward the inner periphery of the annular band 1, adjacent to the opening, and that the portion of the tape between the slot 9 and the opening 23 is impinged between the free end of the catch 8 and the adjacent inner face of the annular band 1, and that as the tape is drawn outwardly through the opening 9 the spring-catch 8 automatically impinges the tape against the inner face of the annular band and holds said tape in its extended position. When desired to release the tape, it is simply necessary to press inwardly upon the projection 25, whereupon the spring-holder actuates the drum 5 and automatically rewinds the tape thereon.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawing.

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

1. A tape-holder comprising an annular band having a tape-opening and an aperture, and a spring-clasp secured to the band and tensioned to impinge the tape against the band in proximity to the opening, said clasp having a pressure-piece projecting through the aperture.

2. In a tape-holder the combination with a band having a tape-opening and an aperture, of a clasp within the band and having a portion thereof projecting outwardly through the aperture, said clasp being secured to the band and tensioned to impinge the tape against the band in proximity to the opening.

3. The combination with a tape-holder shell having a tape-opening and an aperture, a spring-clasp secured to the shell and provided with a yielding portion extending partially across the opening for impinging the tape against the adjacent portion of the shell, said yielding portion having a finger-piece projecting through the aperture.

4. In a tape-holder, the combination of a cylindrical band and a spring-clasp normally tensioned toward its inner face, the band and clasp being provided with tape-openings out of alinement with each other, and means for depressing the clasp against its tension.

5. In a tape-holder, the combination with a cylindrical band having a tape-opening and an aperture, a spring-clasp within the band and secured at one end, its other end being tensioned toward the inner face of the band and provided with a tape-opening out of alinement with the former tape-opening, the intermediate portion of the clasp being depressed into the aperture for the purpose described.

6. In a tape-holder, the combination with a shell consisting of an annular band and caps inclosing the ends of the band, said band being formed with a tape-opening and an aperture, a spring-actuated drum for the tape, and a spring-clasp within the shell and secured at one end to the band, the opposite end of the clasp being extended partially across and into the tape-opening and formed with a slot for receiving the tape, the intermediate portion of the clasp being depressed into the aperture for the purpose set forth.

In witness whereof I have hereunto set my hand this 25th day of June, 1901.

RICHARD J. SMEETON.

Witnesses:

WM. A. JONES,

L. G. GREEN.