No. 671,690. Patented Apr. 9, 1901.

S. E. CREASEY.

TAPE MEASURE.

(Application filed Apr. 27, 1900.)

(No Model.)

Fig. 1.

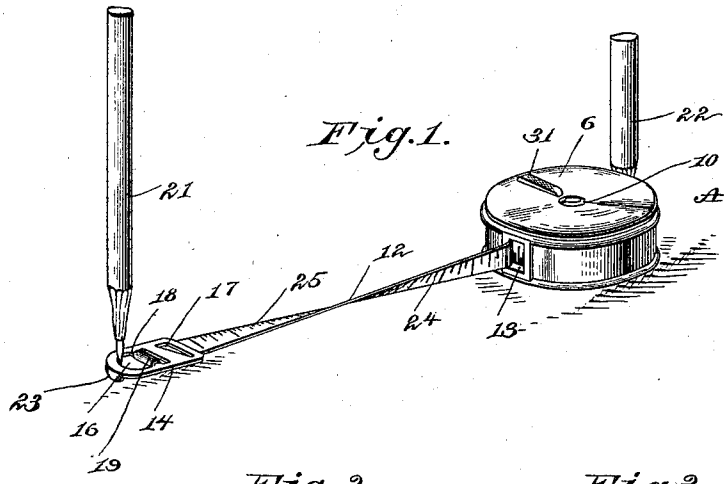


Fig. 2.

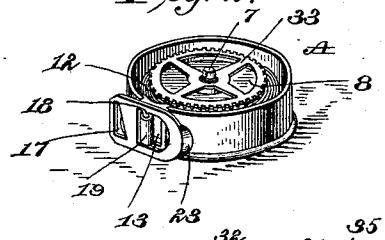


Fig. 3.

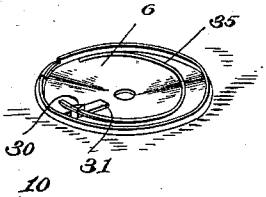


Fig. 4.

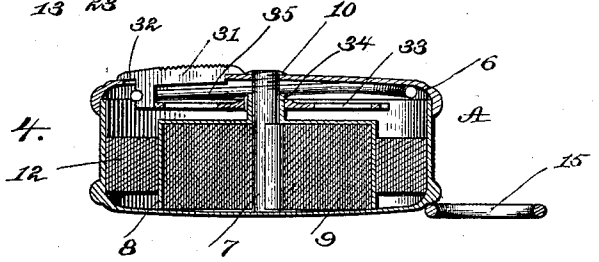
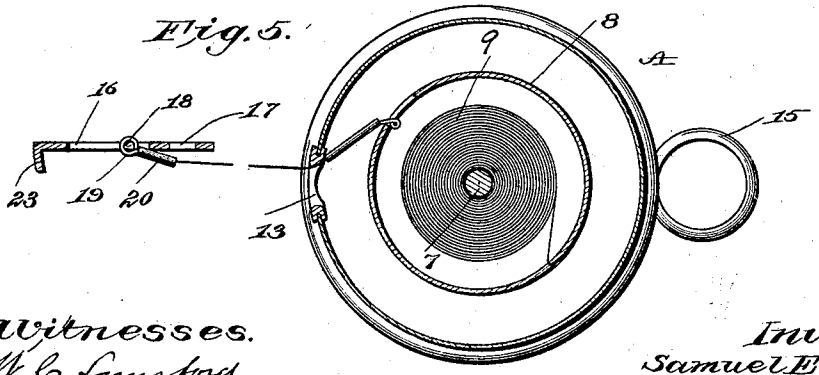


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

SAMUEL E. CREASEY, OF SANFORD, MAINE.

TAPE-MEASURE.

SPECIFICATION forming part of Letters Patent No. 671,690, dated April 9, 1901.

Application filed April 27, 1900. Serial No. 14,519. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. CREASEY, a citizen of the United States, residing at Sanford, county of York, State of Maine, have invented an Improvement in Tape-Measures, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to tape-measures; and the object of the invention is to provide, in combination therewith, means of a simple nature occupying but a small space for scribing circles or arcs after the manner of a pair of compasses or by which disks may be cut from wood, metal, glass, or other material, from which it will be understood that the article may be employed in connection with pencils, pens, knives, glass-cutters, and, in fact, many other marking and cutting devices or tools.

The device includes as one of its features a body and a tape and pivot and marker guides, one connected with one of said first-named parts and the other with the other of said parts, and the members comprising this organization may be of any suitable character.

In the embodiment of the invention illustrated the body includes in its construction a case having a spring-barrel therein upon which a tape is wound, and the tape is provided at its free or leading end with a marker-guide, while the body or case has a center or pivot guide.

A pencil or like device can be passed through the center guide and held fixedly, while a pencil, pen, or knife-blade can be entered in a slot in the marker-guide and moved around the pivot or center to mark a circle. Of course when a knife is employed a disk will be cut out from the material being worked upon.

In the case of glass-cutting I find that the rubber eraser upon an ordinary pencil when passed through the pivot-guide and placed upon the glass will hold the body or case from slipping as the glass-cutter is being moved around in a circle.

The invention involves as another of its features a body and a tape windable upon the body and means to prevent the tape from being pulled farther when a desired length is unwound from the body. In this manner I am enabled to secure accurate work.

In the drawings, Figure 1 is a perspective view of a tape-measure involving my improvements with a part of the tape drawn out. Fig. 2 is a similar view with the cap removed, showing the tape all wound on the spring-barrel. Fig. 3 is a similar view of the cap. Fig. 4 is a transverse central section, and Fig. 5 is a sectional plan view upon an enlarged scale.

The tape-measure involves in its construction a body, which may be of any suitable character. That represented is denoted by A, and it consists of a substantially cylindrical case A, having a detachable cap 6, the bottom of the case supporting approximately at its center the perpendicular pivot or stud 7 for the spring-barrel 8. The barrel 8 incloses a coiled spring, as 9, connected, respectively, thereto and to the pivot or stud 7. The pivot extends through the central aperture in the cap 6, fitting over the body of the case A, and receives upon its threaded end a nut 10, by which the parts are rigidly united.

The tape, which is windable upon the periphery of the drum 8 by the power of the inclosed spring 9, extends through the circumferential slot 13 in the case A and is furnished at its free end with a marker-guide, as 14, the body of the case at a point diametrically opposite the slot 13 being provided with a center or pivot guide, as 15. The guide 15 is shown as being in the form of a ring, and it may be secured to the casing in any convenient manner, said guide being preferably attached to the casing in the plane of one face thereof, so that when the device is used for scribing arcs or circles the body of the tape-measure will lie flat upon its face. The guide 14 is a frame-like device, it having at its opposite ends transverse slots, as 16 and 17, of different shapes and being pivotally connected with the tape 12, so that it may be reversed in such manner as to bring either of the slots into position to receive a marking or cutting device. By having the guide 14 reversibly mounted and provided with differently-shaped slots it is obvious that different forms of instruments may be used with the same marker-guide. The guide 14 has the cross-bar or pivot 18 intermediate its ends

adapted to enter the rolled or sleeve-like portion 19 of a metallic clip, as 20, connected with the extreme forward end of the tape 12. The slot 16 is in position to receive a marking device, as a pencil 21, (see Fig. 1,) while a centering device, as a pencil 22, is passed through the ring 15, with its point against the inner rear side of said ring. The pencil 22 being firmly held, the pencil 21 can be moved around in a circle, means of suitable kind being provided to prevent the tape 12 from being unwound from the drum during this operation.

Should it be desired to use the slot 17, it will be only necessary to turn the frame 14 to bring it into the desired position.

The guide 14 in proximity to the slot 16 has a flange or offset, as 23, adapted to bear against the paper or other material as the guide is traveling in a circle, and this flange will hold a writing or drawing pen a sufficient distance from such paper or other material that no smearing or spattering of the ink can result.

The faces 24 and 25 of the tape 12 are graduated or scaled, the graduations upon the face 24 being of the usual kind—*i. e.*, inches or other standards of measure—while the markings upon the face 25 are so proportioned that when opposite a wall of the slot 13 any one of them will indicate in inches or otherwise double the distance from the outer wall of the slot 16 or 17, as the case might be, and the point of the centering device, thereby to obtain the diameter of the circle to be formed. From this it will be understood that the tape has two kinds of graduations.

It is desirable in making circles to positively lock the tape against withdrawal when a desired length has been unwound, and for this purpose I have illustrated a locker, as 30, in the nature of an angular tooth extending inward from a slide or actuator, as 31, movable in a radial slot 32 in the cap 6, the slide 31 being in the nature of an actuator for the tooth to move it in a direction to effect the release of the tape. The tooth 30 engages between the teeth of a pinion, as 33, rotative with the barrel 8, said toothed wheel or pinion being shown as keyed or otherwise fixed to a central boss 34 upon the barrel. The locker or tooth 30 is apertured to receive the free end of a parti-annular torsional spring 35, the opposite end of which is rigidly secured to the inner face of the cap 6. The spring 35 holds the tooth 30 normally between two of the peripheral teeth of the pinion 33.

The slide or actuator 31 projects from the face of the cap 6, and its upper side may be milled or roughened, as indicated in Fig. 1. By forcing the actuator 31 radially outward the locker or tooth 30 can be disengaged from the wheel 33, so as to permit any desired length of the tape 12 to be unwound from the drum, and when the desired length is reeled off the actuator 31 will be released and can be forced into its effective position by the power of the spring 35.

I use the word "tape" as a generic term to include within its scope all devices of a kind capable of performing a similar function like that hereinbefore set forth.

The invention may be modified within the scope of the accompanying claims.

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

1. In a tape-measure, a case, a pivot-guide connected thereto, a spring-barrel in said case, a toothed wheel rotating with said barrel, a tape windable on said barrel and provided at its free end with a marker-guide, a tooth adapted to engage between the teeth of said toothed wheel to lock said wheel against rotation in either direction, and an actuator connected with the tooth for operating the same.

2. In a tape-measure, a case, a spring-barrel in said case, a toothed wheel rotating with said barrel, a tape windable on said barrel, a tooth adapted to engage between the teeth of said toothed wheel to lock said wheel against rotation in either direction, and an actuator directly connected with the tooth for operating the same.

3. In a tape-measure, a body and a tape, the body having a pivot-guide and a frame pivotally connected with the tape and having a plurality of differently-shaped slots, said slots being located at either side of the pivot of the frame.

4. In a device of the class specified, a body having a circumferential slot and a tape extending through the slot, a ring connected with the body diametrically opposite the slot, and a slotted marker-guide connected with the tape and having an inturned flange.

5. In a device of the class specified, a case, a spring-barrel in said case, a toothed wheel rotative with the spring-barrel, a tape windable upon the spring-barrel, a tooth adapted to engage between the teeth of said toothed wheel to lock said wheel against rotation in either direction, a spring connected with the tooth, and an actuator for operating the tooth, extending through a slot in the case.

6. In a device of the class specified, a case, a spring-barrel therein, a tape windable upon the spring-barrel, a toothed wheel rotative with the spring-barrel, a tooth to engage between the teeth of the toothed wheel to lock said wheel against rotation in either direction, a parti-annular torsional spring in the case acting against said tooth to hold it normally in effective position, and an actuator projecting through a slot in the case, to operate said tooth.

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

SAMUEL E. CREASEY.

Witnesses:
EDWARD E. HUSSEY,
GEO. G. EMERY.