Jan. 15, 1935. C. O. STOCKMAN 1,988,095

TRAMMEL DEVICE

Filed Sept. 16, 1931

Fig. 1.

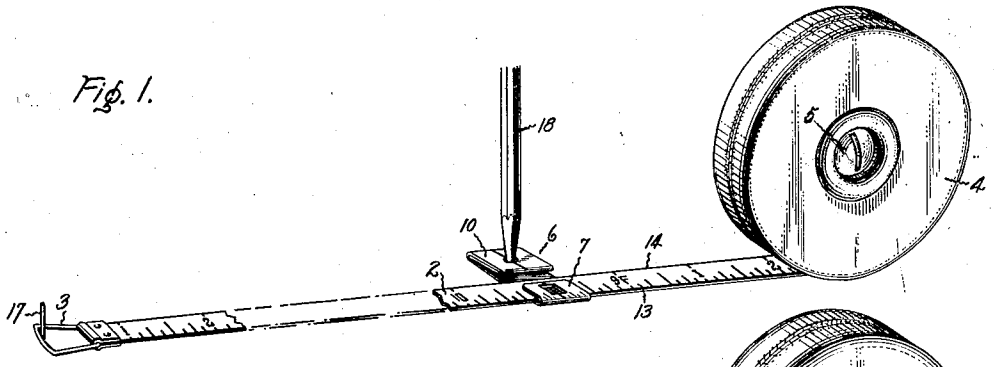


Fig. 2.

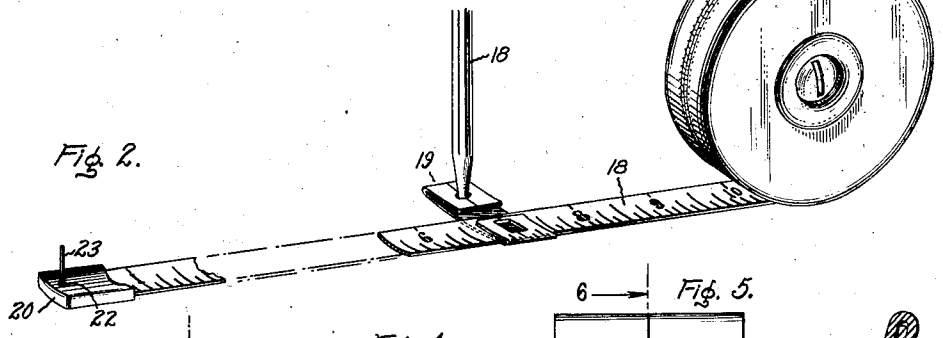


Fig. 3.

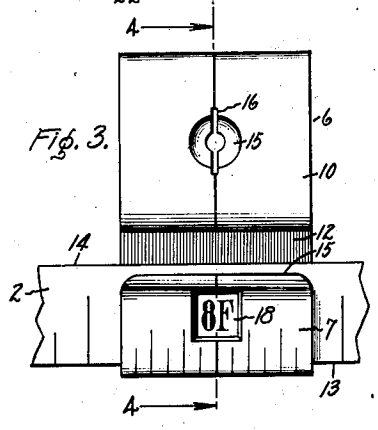


Fig. 4.

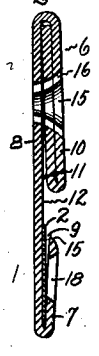


Fig. 5.

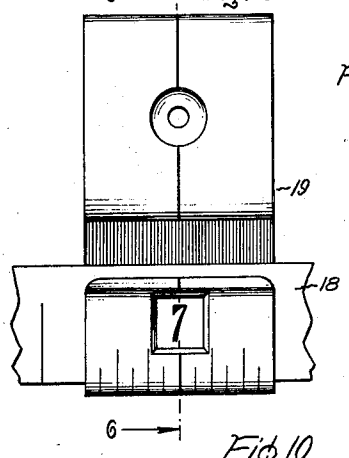


Fig. 6.

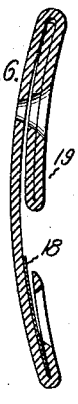


Fig. 7.

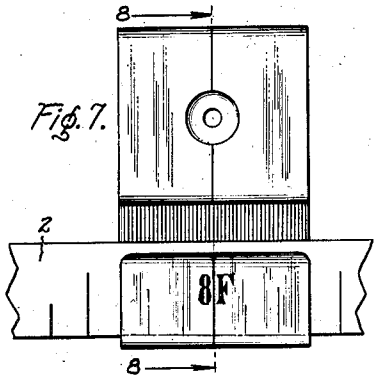


Fig. 8.



Fig. 9.

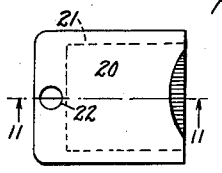


Fig. 10.

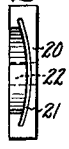


Fig. 11.



Inventor:
Carl O. Stockman,
by Edward D. Fales.
His Attorney.

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TRAMMEL DEVICE

Carl O. Stockman, Albany, N. Y.

Application September 16, 1931, Serial No. 563,011

6 Claims. (Cl. 33—27)

My invention relates in general to trammel devices. More in particular it relates to a trammel with attachments adapting the device for use by draftsmen, artisans and the like.

It is an object of my invention to provide a device of the above character comprising a tape and attachments that are simple, practical, and inexpensive to manufacture. It is also an object to provide attachments that are easily and securely attached, adjusted or removed and to provide other features as will more fully appear herein.

For the purposes of this specification I have prepared a sheet of drawing as a part thereof, in which I have shown devices embodying the features of my invention. It will be understood however, that I do not wish to be limited to the specific forms of devices shown, inasmuch as the features of the invention pointed out by the claims may be embodied in other forms.

Referring to this drawing:—

Fig. 1 shows in perspective a steel tape with a slide attachment.

Fig. 2 shows in a similar manner a steel tape rule with a slide attachment and a sheath attachment on the end thereof.

Fig. 3 shows a section of the device of Fig. 1 enlarged, showing the slide attachment.

Fig. 4 is a section taken on line 4—4 Fig. 3.

Fig. 5 is a section of the device of Fig. 2 enlarged.

Fig. 6 is a section taken on line 6—6 Fig. 5.

Fig. 7 is a modification of the attachment of Fig. 3.

Fig. 8 is a section taken on line 8—8 Fig. 7.

Fig. 9 is a top view of the sheath attachment, at the end of Fig. 2 enlarged.

Fig. 10 is an end view of the same.

Fig. 11 is a section taken along line 11—11 Fig. 9.

Referring more in detail to the drawing, the device Fig. 1 comprises a flat steel tape 2 of the ordinary type provided with any suitable standard scale, such as one of feet and inches, one end of which tape terminates in a link 3, and the other terminates inside the reel case 4, in which latter the tape may be wound, on a reel of the usual and well known type.

The slide attachment element 6 is preferably constructed as indicated in detail in Figs. 3 and 4. As here shown it is made of a single piece of metal which may be more, or less flexible, one end of which, the lower end, is folded once to form a wing 7 between which and the main body section 8 there is a tapered crevice 9 in which the tape is wedged. The upper wing 10 is folded, preferably twice, leaving a crevice 11 to facilitate the removal of the slide attachment from the tape. The two wings are separated by a channel 12 through which the tape passes to reach the position shown in Fig. 4.

I find that when the slide is to be attached to the tape, the most convenient method is to pass the upper edge 14 of the tape, Fig. 3, through the channel 12 into the crevice 11 until the lower edge 13 of the tape clears the lip 15 whereupon the lower edge of the tape is moved inwardly, parallel with the back 8 of the slide. The tape is then slid down carrying the lower edge into the crevice 9 until it is wedged therein sufficiently securely to hold the slide in place. The same results may be obtained by holding the tape stationary and moving the slide, first to receive the upper edge in crevice 11, and then the lower edge in crevice 9. To remove the slide I find that the most convenient way is to raise the tape and carry the upper edge 14 into the upper crevice 11 until the lower edge 13 clears the level of the lip 15 of this flange 7, whereupon the slide is tilted away from the edge 13 until the edge 13 clears outside of the lip 15 after which the tape is withdrawn over said lip and from the crevice 11 through the channel 12. The thickness of the material of which the slide is made and the material itself is such that there is sufficient resilience to enable the tape to be tightly wedged in the crevice 9. The degree of resilience may be varied as desired.

The slide, as clearly indicated in Fig. 4, is provided with a perforation 15 which is preferably tapered. This perforation extends through the upper wing 10 and through the body section 8 of the slide. This perforation is adapted to receive a pencil, or other marking implement or even a pointed steel device for scratching, or an implement for cutting, such as the point of a pen knife. In order to more conveniently receive a knife or other cutting implement, a slot 16 may be formed in the perforation 15 as indicated in Fig. 3. A similar slot may, if desired, be formed in the slides shown in Figs. 5 and 7.

It will be seen therefore that after the slide is attached to the tape, Fig. 1, the link may be anchored to the pin 17 which may be driven into any suitable base or support. A pencil or other marking implement may then be inserted in the perforation 15 of the slide (see Fig. 4) and a circle or segment thereof drawn about the pin 17 as a center. If it is desired, instead, to cut out about the pin 17 as a center, a pattern or templet from any suitable material such as paper, pasteboard or the like, such material is spread out under the trammel and the point of a cutting implement, such as a pocket knife, is substituted for the pencil in the perforation 15 or more particularly in the slot 16 therein. The radius of the curve described by the pencil or other implement is readily established by the position of the slide on the tape. To facilitate

the adjustment of the slide I provide the wing 7 with an aperture 18 through which the scale of the tape may be seen. On the wing 7 I also provide a vernier to make it possible to adjust the slide more closely than with the scale of the tape.

The slide of Fig. 3 may be made of steel or other opaque material. Or it may be made of transparent material such as celluloid or the like, as indicated in Figs. 7 and 8 and when so made there is provided no aperture such as aperture 18 of Fig. 4 for the reason that the markings on the tape may be seen through the slide itself. However, if desired, vernier markings, as in Fig. 3, may be provided thereon.

The device of Fig. 2 represents a steel tape rule. It comprises a concavo-convex steel tape 13 of the usual type and length. I provide a slide attachment 19 similar to that of Fig. 4 but made concavo-convex as indicated in Fig. 6. This attachment is secured to or removed from the tape in substantially the same way as the slide 8 is to or from its tape 12. Steel tape rules on the market usually do not have any attachment on the end, as I have indicated in Fig. 1; the end of these steel tape rules conform in shape to the dotted lines in Fig. 9, therefore they have no means for anchoring as for example to the pin 17 Fig. 1. I therefore provide a sheath attachment 20, Figs. 2–9, 10 and 11, which may be plano-convex as indicated in Fig. 9 or concavo-convex as indicated in Fig. 2 and has a hollow tapering crevice 21. Also near the end, it is provided with a perforation 22 for receiving an anchoring pin such as the pin 23 Fig. 2 similar to pin 17 of Fig. 1 and for the same purpose. This sheath element 20 is secured to the tape by inserting the end of the latter in the crevice 21 and pressing it until it is wedged sufficiently tight in the crevice. The sides of the crevice are closed and its width is just sufficient to allow the tape to readily slip into place. This snugness insures against any side play of the tape and minimizes the liability of the sheath element becoming disengaged from the end of the tape.

It will be seen therefore that I provide an improved means adapted for describing or cutting materials along curves and therefore for making patterns, templets and for drawing. This means comprises articles of manufacture that are inexpensive to make and that can very easily and readily be attached to tapes of standard design in the art and trade.

What I claim is:—

1. In a device adapted for use with a steel tape, a strip of material with one terminal region thereof folded over upon itself to form a crevice with sloping sides, the other terminal region being also folded over upon itself and a perforation extending entirely through the overlapping portions of said last terminal region, said crevice being adapted to receive one edge of said tape wedged between the sides thereof, said first overlapping portion having a width such that the tape extends beyond the fold thereof with the outer edge of the tape clearing both folds.

2. As an article of manufacture a strip of material with one terminal region thereof folded over once upon itself to form a crevice with sloping sides, the other terminal region of said strip being folded over upon itself twice to form a crevice, and there being the overlapping portions of said last terminal region being perforated along a given axis, the folded portions of both of said regions extending toward each other on the same side of the article and forming a space between them, the side of one of said folded terminal regions along said space being tapered toward said space whereby said tapered side shall present a thin lip along said space to facilitate a steel tape being inserted in and removed from the said crevices laterally.

3. As an article of manufacture an attachment for a steel tape in the form of a strip of material with one terminal section thereof folded over to overlap the section of the strip adjoining and forming a crevice between said sections, another terminal section of said strip being also folded over to overlap a section of said strip adjoining the last mentioned folded section, said last mentioned overlapped and overlapping sections being perforated along a given axis whereby an implement may be inserted from one side of the said article to the opposite side and the terminal sections being so shaped and disposed that the tape may be inserted in said crevice laterally.

4. As an article of manufacture an attachment for a measuring steel tape in the form of a strip of material with one terminal section thereof folded over to overlap the section of the strip adjoining and forming a crevice between said sections said crevice being adapted to receive a steel tape, another terminal section of said strip being also folded over to overlap a section of said strip adjoining the last mentioned folded section, said last mentioned overlapped and overlapping sections being perforated along a given axis whereby an implement may be inserted from one side of the said article to the opposite side, said first mentioned overlapping section being provided with a window whereby the scale on the tape may be read.

5. As an article of manufacture an attachment for a steel tape in the form of a strip of material with one terminal section thereof folded over to overlap the section of the strip adjoining and forming a crevice between said sections, said crevice being adapted to receive a steel tape, another terminal section of said strip being also folded over to overlap a section of said strip adjoining the last mentioned folded section to form a crevice, said last mentioned overlapped and overlapping sections being perforated along a given axis whereby an implement may be inserted from one side of the said article to the opposite side, the walls of said crevices formed being curved whereby a curved tape may be inserted in the article.

6. In a device for use with a steel tape, an attachment element therefor, the latter having a crevice extending entirely across the width thereof, a slot on one side of said element extending over said crevice entirely across the width of the said element, said slot being narrower than said tape, one of the lips of said slot being tapered toward said slot to permit said tapes being inserted in said crevice sidewise, the crevice under said tapered lip being so formed that the tape may be wedged to said element between said tapered lip and the back wall of said crevice, the opposite side of said element with respect to said tapered lip and to said slot being perforated through and through.

CARL O. STOCKMAN.