

July 7, 1931.

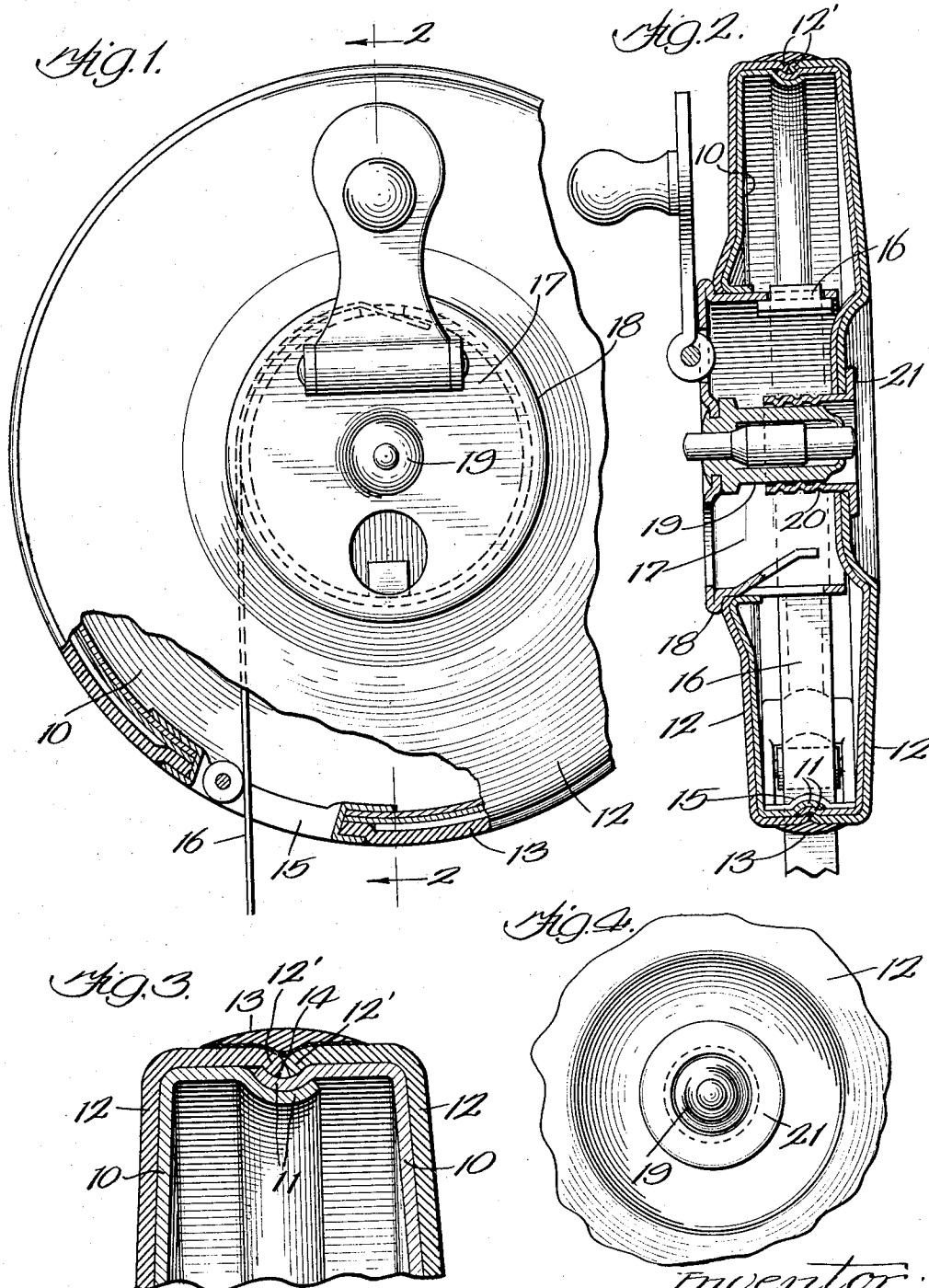
A. LANGSNER

1,812,965

MEASURING TAPE

Filed Nov. 7, 1927

2 Sheets-Sheet 1



Inventor:
Adolph Langsner
By Cheever & Cox Attys.

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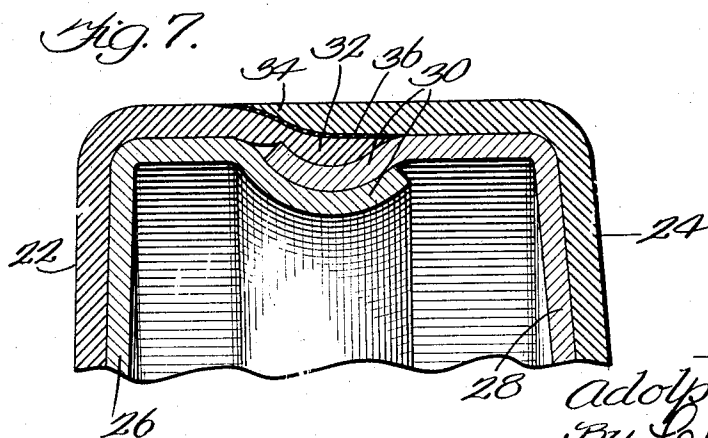
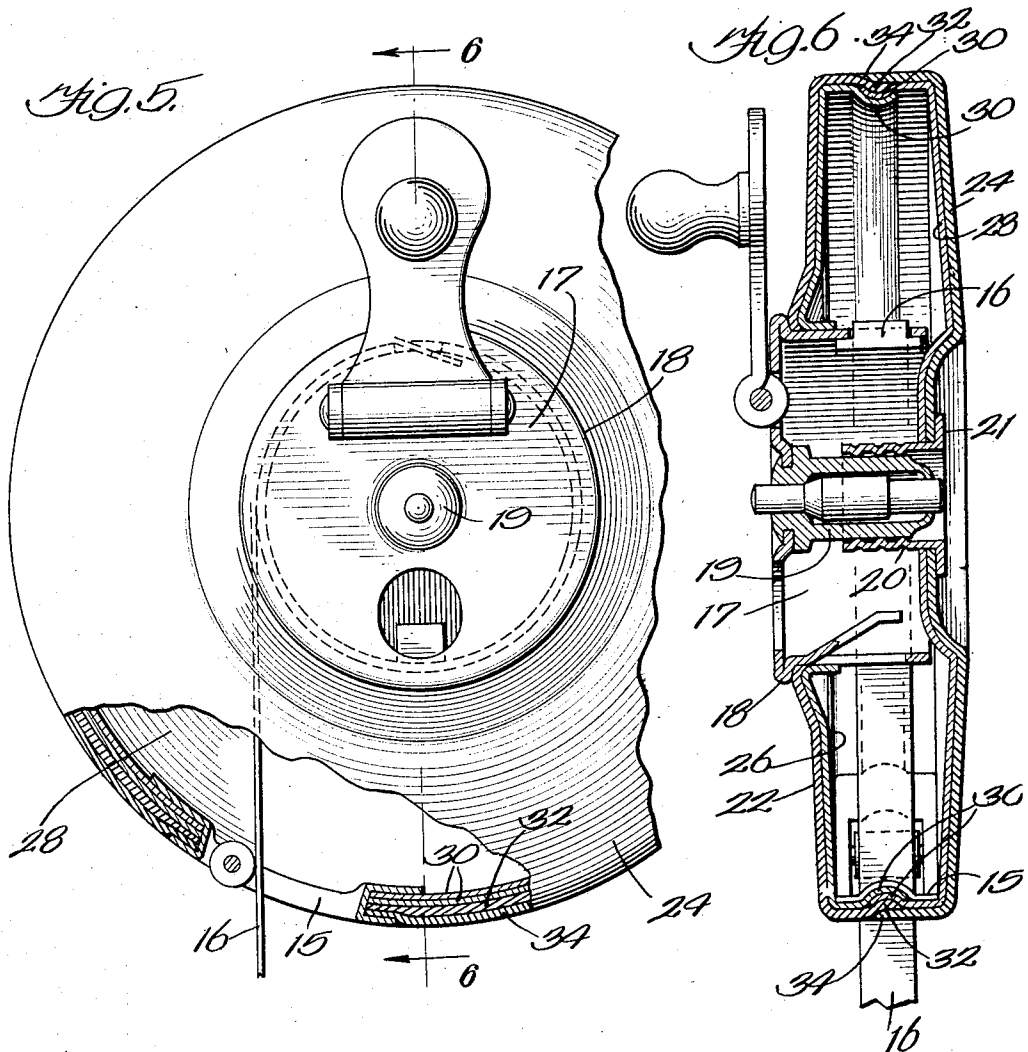
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Adolph Langsner
By Cheever & Cox
Attys.

UNITED STATES PATENT OFFICE

ADOLPH LANGSNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO EUGENE DIETZGEN CO., OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE

MEASURING TAPE

Application filed November 7, 1927. Serial No. 231,442.

This invention relates generally to measuring tapes and particularly to the construction of the cases thereof, and has for its object the simplifying of the construction and the cheapness of the cost of manufacture thereof.

It is also contemplated to provide a simplified measuring tape case that may be quickly and easily assembled and yet have all of the strength and durability of the more complicated prior constructions.

Among its other objects the present invention has in view the provision of an outer or finishing cover for the measuring tape case that may be quickly placed on the case and there be held without the use of stitching, clamping or other similar fastening means, or without the unprotected edges of the covering becoming loose.

Another object of my present invention resides in the construction whereby the outer or finishing covering material for the case is mounted upon the case and held in position thereon by the use of the mounting element of the drum upon which is wound the tape line.

With the above and other objects in view as will be apparent this invention consists in the construction, combination and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein

Fig. 1 is a side elevation, with parts broken away, of a measuring tape case constructed in accordance with my present invention;

Fig. 2 is a vertical section taken along line 2-2 of Fig. 1;

Fig. 3 is a similar fragmentary section, enlarged to illustrate the joint between the parts of the measuring tape case and the securing of the outer covering thereon;

Fig. 4 is a view of the central part of the case looking from the right side of Fig. 2;

Fig. 5 is a side view of a modified form of my construction;

Fig. 6 is a vertical section taken through line 6-6 of Fig. 5 showing the modified construction;

Fig. 7 is an enlarged view showing the manner in which the overlapping sheets of finishing material meet at the junction of the two

case members and cover the joint therebetween.

The present invention is a continuation in part of my patent application, Serial #130,219, filed August 19, 1926.

Heretofore it has been customary to telescope the two parts of a measuring tape case over the drum and other parts of the device and hold these parts in such positions by means of additional or other elements. The present invention contemplates providing the overlapping or telescoped portions of the case with beads, which when the parts of the case are telescoped snap into self-holding interlocking engagement. Thus the case is assembled and held by a means forming a part of the case itself and the necessity of other elements functioning for this purpose is done away with.

Where the case has been provided with an outer cover of leather or other material it has been the practice to form such outer cover in two sections and to stitch the adjoining edges of these sections one to the other. This has been unsatisfactory because of its expense as a manufacturing operation and the fact that it does not present a finished or attractive appearance. This invention, while utilizing a cover made in two sections, does not require the stitching thereof. It provides a cover which is placed on the case as a part of the assembling thereof, but which is so held in place that there are no exposed edges to become loosened, and a pleasing and finished appearance is presented. This is accomplished by means of a finishing strip secured over the adjoining edges of the cover and held at its ends by the eyelet or frame carrying the roller over which the tape line passes when removed from the case.

Reference being had more particularly to the drawings, 10 designates the two telescoping parts of a measuring tape case. The portions of these parts that are designed to telescope are provided at or adjoining their edges with inward beads or grooves. When the parts 10 of the case are telescoped these beads 11 snap into interlocking self-holding engagement and retain the casing assembled.

This construction produces a groove in the rim of the case which is utilized for holding the cover 12 on the casing. As shown in the enlarged view Fig. 3 the adjoining edges 12' of the cover 12 are curved and seated in the groove formed by the outer bead 11. In order to retain the edges 12' of the cover 12 in this groove a finishing strip 13 is glued or cemented to the cover 12 over the edges 12' thereof.

The outer surface of the strip 13 is convexed while the inner surface is generally flat except in the center where it is provided with a ridge 14. This ridge 14 projects toward the groove created by the outer bead 11 and covers or hides the edges 12' of the cover 12.

An eyelet or frame 15 embraces the telescoped portions of the parts 10 of the case at the opening through which the tape line 16 is removed from the case. The flanges of this eyelet 15 engage the terminals of the finishing strip 13 and not only hold them in place but protect and conceal them.

At its center the sides of the cover 12 are apertured for the mounting of the drum 17 upon which the tape line 16 is wound. This drum 17 is inserted for rotation in one side 10 of the case and is provided with a lateral lip 18 which bears upon the edges of the cover 12 surrounding the opening in the side 10. Thus the lip 18 of the drum 17 centrally secures one side of the cover 12 in place on the case.

A hub 19 forms the axle of the drum 17 and extends from one side 10 to the other side 10 of the case. Adjoining the outer face of the drum 17 the hub 19 is grooved for cooperation with the drum while the opposite end has a friction fit with the flanged bushing 20 inserted through the side of the case and cover 12. The flange 21 of this bushing 20 is located on the exterior of the case and cover 12 and bears firmly against the edges of said cover around the opening in the case through which the flanged bushing 20 passes. In this manner the other side of the cover 12 is securely held in place on the case.

In addition it will be seen that this washer 20 in the form of a cup is fastened over the leather or other finishing cover 12 holding the leather to the metal case. This cup 20 also serves as a bearing for the sleeve which is fastened to the center post and tightened to the case by friction fit.

By my foregoing construction it will be manifest that I propose to actually stretch the leather over the case in such a manner that the leather covering is brought from the bearing section of the reel or drum. Though I eliminate the usual ring washer on top and the usual cup bearing washer on the bottom, and in addition eliminate the labor of assembling the same, still at the same time I pro-

vide a smoother running and more durable reel or drum since the two bearing parts of the drum are running on leather.

In the construction of my invention shown in Figs. 5, 6 and 7 I show a modification of a casing in which the two sections 22 and 24 of the leather or cloth finishing cover for the metal casings 26 and 28 may be arranged to overlap at the cupped or dished flanges 30 and 32 of the casing sections 26 and 28 respectively. In this construction, as in Figs. 1 to 4, the sections 26 and 28 are provided with peripheral cupped or dished flanges which nestingly overlap circumferentially of the casing sections where they meet to provide a peripheral groove. The leather or cloth coverings 22 and 24 are stretched over these sections in the manner disclosed and the free edge 32 of the leather covering 22 lies snugly within this peripheral groove and is covered by the overlying scarfed edge 34 of the leather or cloth covering 24, the two overlapping portions being adhered together by cement or other adhesive 36. By means of this construction the peripheral groove of the metallic casing section is entirely filled and covered by the overlapping leather or cloth ornamental coverings 22 and 24 and there is no need for an additional finishing strip of leather or other material such as is shown in the drawings elsewhere in Figs. 1 to 4 inclusive.

In Fig. 7 it will be noted that the section 24 has its free end lying flush and glued to the adjacent leather section 22 thereby making a very neat annular joint for the covering of the metallic casing sections.

From the foregoing it will be clear that the present casing may be assembled and covered in what may be termed a single operation. No unprotected edges are present in the cover nor is there any unsightly stitching showing. Not only is the appearance of these devices improved by the present invention but the cost of manufacture is reduced without sacrificing any of its durability or strength.

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

1. A measuring tape having a case with center openings therein, a winding drum and support bushing rotatably mounted in said openings, and a cover on said case, one side of said cover being held to the casing in part by the drum and the other side being held by the bushing, said drum and bushing overlying and riding upon the cover.

2. A measuring tape having a case with center openings in its sides, a cover for said case, a winding drum and support bushing rotatably mounted in said openings, each being provided with a lateral flange on the exterior of the case, said flanges overlying and riding upon said cover.

3. A measuring tape casing comprising two casing sections, having interfitting annular flanges forming a hollow tape chamber, said casing sections being formed with opposed openings one of which is larger than the other, a drum in one of said sections, a bushing supported by the complementary section and an ornamental covering for said casing sections, said covering comprising a sheet of finishing material overlying the face of one of the casing portions and being held in place by a portion of the drum, and said other casing section being covered with a sheet of finishing material held in position by a portion of the bushing, said drum and bushing having overlying portions bearing upon and riding on the finishing material.

4. A tape reel having a casing, a drum rotatably mounted within the casing for supporting the tape, means for rotating the drum, and an ornamental cover for the exterior face of the casing, said drum having an externally projecting part overlying and riding directly upon the central parts of the cover whereby to hold same in position.

5. A tape reel having a casing for the tape, an ornamental cover of resilient material for said casing a drum rotatably mounted within the casing for supporting the tape, means for rotating the drum, a hub arranged axially at the center of the drum and attached to the front of it and a sleeve attached to the rear of the hub for supporting it, said casing and its cover having openings for receiving said drum and sleeve, said drum and sleeve having flanged portions overlying said cover at the said openings and bearing upon said cover whereby to cushion the rotatable drum and sleeve in the casing.

6. A tape reel having a casing formed of two parts and having centrally located opposed apertures, a drum seated in one of said apertures and having an overlying shoulder extending over the edges of the opening in said casing, a sleeve axially carried by said drum and having a flanged portion overlying the edges of the opening in said other section, and cover portions for said casing sections having their inner edges covered and held in position by the overhanging portions of said drum and sleeve, said drum and sleeve being thus resiliently supported in place by riding upon the inner edges of the covering.

7. A tape reel having a casing formed of two sections, one of which has an annular, centrally located, outwardly extending boss forming an opening, the other having a centrally disposed cup-shaped depression, said cup-shaped depression having a central opening registering with the opening in the other section, cover material stretched across said sections, the inner edges of the covering material terminating substantially at the edges of the opening in the boss and depression and

a winding drum mounted in the opening of said boss and having an external shoulder overlying and riding upon the cover material, said winding drum carrying a sleeve having a corresponding shoulder overlying and riding upon the edge of the cover material in the depression.

8. A measuring tape having a case with central openings therein, said openings being arranged in registration in opposite sides of the case, a cover for the sides of the case having central openings conforming with the center openings in the case, a bushing having an outwardly extending flange arranged in one of said central openings with the flange overlying and riding directly upon an inner edge of the cover, a winding drum comprising a piece of sheet metal, suitably configured to provide an outwardly extending flange, rotatably mounted in the casing and connected to the bushing and arranged to fit within the remaining central opening of the case with the outwardly extending flange overlying and riding upon the inner edge of the cover to hold the same in place.

9. A tape measuring case comprising two casing sections having laterally extending peripheral flanges configured to provide hollow beads and adapted to interlock to provide a peripheral groove in the casing when the members are interlocked, covering members for said casing portions having their free ends secured in said peripheral groove, a finishing strip overlying the edges of the covering members and rotatable means mounted in the case and having portions arranged to overlies the covering members to secure same to the casing portion at points spaced from said peripheral groove.

10. A measuring tape casing comprising a case having central lateral openings and a peripheral groove therein, a rotatable member mounted in said openings, cover pieces for the case having their edges secured in the peripheral groove and held to the sides of the casing adjacent said central openings by said rotatable member, said member having shoulders overlying portions of said cover pieces at said openings whereby to provide a resilient support for said rotatable member in the casing.

11. A measuring tape casing comprising a case having a central opening, a rotatable member mounted in said opening and a cover piece for the case, said cover piece having its peripheral edge secured to the case at the periphery thereof, and held to the sides of the case adjacent said central opening by said rotatable member, said member having outwardly extending portions overlying and riding upon the edges of said cover piece at said central opening, whereby the same is cushioned in said casing by the resilience of said cover piece.

12. A measuring tape casing comprising a

case having central lateral openings and a peripheral groove, a rotatable winding member mounted in said openings, cover pieces for the casing, said pieces having their edges secured in the peripheral groove and being held to the sides of the case by said rotatable member, said member having outwardly extending portions overlying and riding upon the edges of said cover piece at said central opening, whereby the same is cushioned in said casing by the resilience of said cover piece, and a finishing strip overlying the edges of said cover pieces in said peripheral groove.

15 In witness whereof, I have hereunto subscribed my name.

ADOLPH LANGSNER.

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