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M. QUENOT
ARRANGEMENT FOR WINDING A YIELDING TAPE SERVING
FOR LINEAR MEASUREMENTS
Filed May 25, 1964

3,243,139

FIG. 1

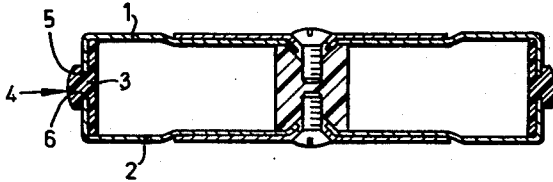


FIG. 2

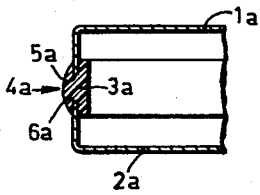


FIG. 3

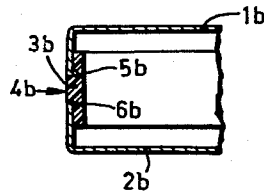


FIG. 4

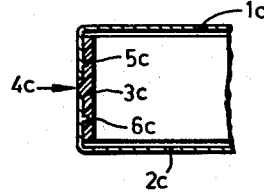


FIG. 5

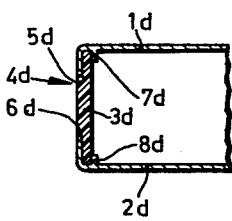


FIG. 6

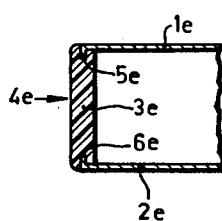


FIG. 7

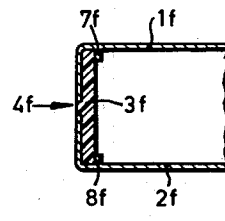
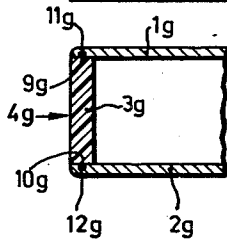


FIG. 8



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ARRANGEMENT FOR WINDING A YIELDING TAPE SERVING FOR LINEAR MEASUREMENTS

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5 Claims. (Cl. 242—84.8)

The arrangements for winding a yielding tape for linear measurements include generally a bottom and a cover forming two shells of which the peripheral edges engage each other and are retained in contacting relationship with a central mechanism ensuring the winding and unwinding of the tape. In order to prevent the introduction of any dirt inside the casing, there is generally provided a slight overlapping of one of the shells with reference to the other.

Careless handling, shocks or even a mere impact during transportation by rail between the producing plant and the stores of the distributor frequently lead to damage to the casing through a partial crushing. Generally, this results in a local overengagement between the two parts of the casing to one side thereof, which overengagement is compensated on the other side by the formation of a gap between the shells. Such a permanent deformation of the casing is obviously detrimental to its proper operation.

Solutions have already been proposed for reducing said drawback by increasing the thickness of the casing, but this solution is hardly practical since it is uneconomical and increases the weight of the casing.

Casings are already known which are constituted by a bottom and a cover in the shape of discs which are glued, moulded or otherwise secured together with the interposition of a peripheral sheath provided with inner grooves. Such an embodiment is not suitable for the execution of a disconnectable, rigid and elegant casing.

The present invention has now for its object to remove such drawbacks and it relates chiefly to this end to means for winding a yielding tape for linear measurements, said arrangement being of the type including a casing, a tape which is not illustrated, a mechanism for winding and unwinding the tape and means for guiding the tape between the inside and the outside of the casing; according to the invention, said casing includes a bottom and a cover assembled over a peripheral bead preferably through inturned peripheral flanges engaging said bead.

According to a particular feature of the invention, the folded edges of the cover and of the bottom are fitted to either side of the bead respectively inside an upper and a lower groove formed in said peripheral bead.

According to a still further feature of the invention, the inturned flanges of the bottom and of the cover engage at least one outwardly opening groove or recess in the outer surface of the peripheral bead.

The accompanying drawings illustrate by way of example and in a non-limiting sense an embodiment of the invention together with modifications thereof.

FIG. 1 is an axial sectional view of a casing according to the invention,

FIGS. 2 to 8 are partial views of modifications of the embodiments illustrated in FIG. 1.

In FIG. 1, the casing is constituted by the assembly of a cover 1 and of a bottom 2 to either side of a peripheral bead 3. The bead is constituted by an annulus having an inner cylindrical surface and including along its outer surface a peripheral projection 4 the upper and low-

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er surfaces of which are provided with peripheral grooves 5 and 6. The cylindrical section of the bead has a height equivalent to that of the chamber formed inside the casing. The bottom 2 and the cover 1 are fitted along the edges of their peripheral inturned surfaces engaging corresponding annular grooves in the bead. The bead may be rigid with an intermediate or false bottom cooperating with the mechanism which is not illustrated.

The bottom and the cover are held in position over the bead through at least one screw cooperating with the mechanism which is not illustrated, which screw is fitted centrally of the casing and includes a central stud round which the tape is wound. At a point of its outer periphery, the bead is provided with a reinforcement which is not illustrated and inside which is formed a slot guiding the tape between the inside and the outside of the casing. The tape passes out of the casing in the conventional manner, either through a radial opening or through a tangential opening.

According to a first modification illustrated in FIG. 2, the bottom 2a and the cover 1a are assembled over a peripheral bead 3a of a reduced height provided as precedingly with an outer projection 4a and with annular grooves 5a and 6a.

According to a second modification illustrated in FIG. 3, the bead 3b lies inside the casing and is covered partly by the bottom 2b and by the cover 1b. The latter are provided to this end with lateral surfaces which are bent towards the inside of the casing whereby they may engage the outwardly opening peripheral grooves 5b and 6b respectively of the bead. Only the projecting surface 4b of the bead registering with the lateral surfaces of the cover and of the bottom appear to view.

According to the third modification illustrated in FIG. 4, the bead 3c is executed in a manner similar to that illustrated in FIG. 1, but the bottom 2c and the cover 1c engage outwardly opening peripheral grooves 6c and 5c formed in the bead by means of shoulders formed along the inner peripheral surfaces of the flanges of the cover and of the bottom.

In the fourth embodiment illustrated in FIG. 5, the peripheral bead 3d forms the lateral wall of the casing. The bottom 2d and the cover 1d cap the lower and upper edges of said wall and engage corresponding grooves 6d and 5d formed along the edges of said wall. The cover and the bottom are also provided with shoulders, respectively at 7d and 8d, adapted to hold the bead fast against the action of outer pressure. As seen from the outside of the casing, the surface 4d of the bead appears laterally as forming the periphery of the casing.

FIG. 6 illustrates a fifth modification wherein the peripheral bead 3e covers completely the lateral surface of the casing through its outer surface 4e. In said case, the bottom 2e and the cover 1e are fitted to either side of the bead in the corresponding lower and upper grooves formed in the edges of the bead, respectively at 6e and at 5e.

FIG. 7 shows a sixth modification including a peripheral bead 3f similar to that illustrated in FIG. 5. However, in FIG. 7, the bottom 2f and the cover 1f extend completely over the outer surface 4f of the bead. Shoulders 7f and 8f are provided optionally for the centering of the bead. Lastly, in FIG. 8, illustrating a seventh embodiment, the bead 3g forms as in the case of FIG. 6 the sidewall of the casing. The bead is provided along its upper and lower edges with a peripheral shoulder, respectively at 9g and 10g, said shoulder or rib engaging the corresponding grooves 11g and 12g of the cover 1g and of the bottom 2g, which cover and bottom are constituted in this case by flat members.

In the embodiments illustrated in FIGS. 1 to 5 and

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7, the reinforcement of the side wall of the bead with a view to guiding the tape between the inside and the outside of the casing cooperates with a corresponding opening formed in registry with said reinforcement in the sidewalls of the bottom and in the cover, so as to allow the tape to slide outwardly, the height of said tape being substantially equal to that of the space remaining free in the casing. In the embodiment illustrated in FIG. 6 in contradistinction, and more particularly also in the case of FIG. 8, there is no problem concerning the outlet of the tape since the free height of the bead between the inside and the outside of the casing corresponds substantially to that of the tape or is slightly larger.

In the casings executed in accordance with FIGS. 1, 2 and 5 to 8, the components of the casing are secured together as already mentioned hereinabove by at least one screw cooperating with the mechanism of the arrangement. In contradistinction, in the case of the embodiments illustrated in FIGS. 3 and 4, the bottom and the cover are held over the bead under the action of the elasticity of the latter and they may be readily disconnected. In all cases, the advantages of the various embodiments illustrated may obviously be associated.

Generally speaking, the casing executed according to the invention may be round or polygonal. The material resorted to is metal or plastic material, the components of the casing being of the same or of different materials.

The present invention provides thus a casing for winding a yielding tape serving for linear measurements, which casing is extremely simple, dust-tight, mechanically resistant and economical, while its aesthetic appearance may vary by a suitable selection of the materials forming it and their colours.

Obviously, many modifications are possible within the scope of the accompanying claims.

What I claim is:

1. A casing for a tape measuring comprising:
 - (A) a cover having an inturned edge;

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(B) a bottom having an inturned edge facing said inturned edge on said cover;

(C) a peripheral bead between said cover and said bottom, said bead being adapted to receive said edges, said bead forming at least a part of the side wall for said casing;

(D) a stud member centrally positioned intermediate said cover and said bottom around which a tape measure can be wound; and

(E) means for securing said cover and said bottom to said stud member.

2. A casing according to claim 1, wherein said bead has a peripheral projection along its outer surface and peripheral grooves along its upper and lower surfaces adapted to receive the inturned edges of said cover and said bottom, respectively.

3. A casing according to claim 1, wherein said edges cover at least a part of the outer periphery of said bead.

4. A casing according to claim 1, wherein said inturned edges have shoulders along their inner peripheral surfaces and said bead has outwardly opening peripheral grooves along its outer surface, said grooves being adapted to receive said shoulders therein.

5. A casing according to claim 1, wherein said cover and said bottom are provided with shoulders spaced apart from the inturned edges, and toward the center of said cover and bottom, said shoulders and said edges cooperating to hold fast said bead therebetween.

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