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A. QUENOT

3,304,021

WEB FASTENER

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FIG. 1

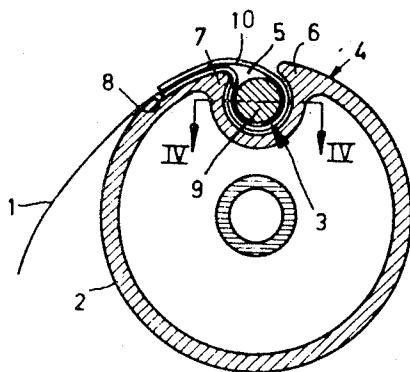


FIG. 3

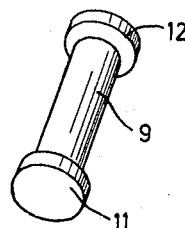


FIG. 2

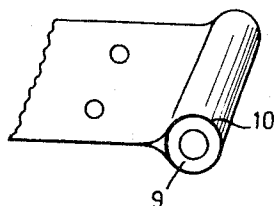


FIG. 4b

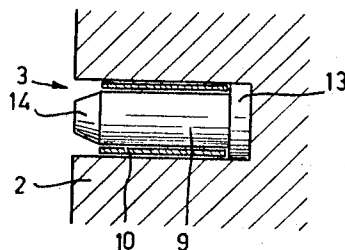


FIG. 5

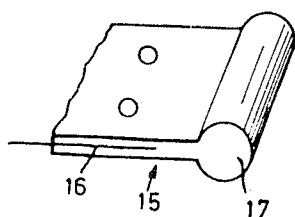
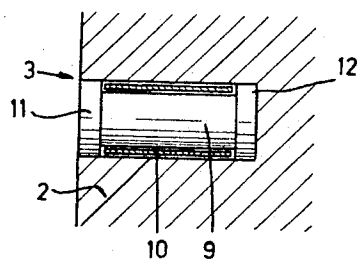


FIG 4a



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995,884

1 Claim. (Cl. 242—74.1)

The present invention relates to a device for fastening the extremity of a measuring-tape to its winding drum.

Up to the present, measuring-tapes were fixed to their winding drums by means of a loop formed at the extremity of the tape and into which was inserted a finger located in the vicinity of the periphery of the drum or directly on the axle of the drum. This is true both for steel-tapes which, to this end, are provided with a flexible end (of leather, plastic material, etc.) riveted to the tape, and for tapes of plasticized fiber glass or of cotton, provided at one end with a loop belonging to the tape itself or made of another material.

In the generally known case of stamped metal drums, the fixation finger is riveted to the drum, and, in the case of drums of moulded aluminium or zamac an alloy containing aluminium, copper, magnesium and a major proportion of zinc, said finger is cast in one piece with the drum, so that it is both firmly anchored and fairly strong. In modern manufacture, there is however a tendency to replace the above-mentioned drums more and more by injected drums, of metal or plastic material. Now, a fixation finger injected in one piece with a drum made of a pretty fragile material lacks strength, in view of its small cross-section.

One object of the present invention is precisely to provide a device for sharpening the extremity of a measuring tape to its winding drum, and which meets the above drawbacks.

According to a feature of the present invention, said device comprises jaws formed at the drum periphery, and means fixed to the extremity of the tape and adapted to be introduced and removably fixed between these jaws.

According to a further feature of the present invention, a cylindrical recess is tangentially formed at the inner surface of the drum and is connected to the outer portion of said drum by a slit appearing at the surface thereof and forming two jaws.

According to a still further feature of the invention, the above-mentioned means are constituted by a flat peg of a width corresponding to that of the tape, comprising, at one of its ends, a median slit into which is introduced the tape or a connecting piece attached to said tape, and, at its other end, a cylindrical bulge of the same width adapted to be introduced into said recess.

The features of the present invention will be disclosed hereafter, reference being had to the accompanying drawing in which

FIG. 1 is a cross-section of the device according to the invention,

FIG. 2 is a perspective view of a detail of FIG. 1,

FIG. 3 shows a variant of a detail of FIG. 2,

FIG. 4a is a cross-section of FIG. 1 along IV—IV with the variant of FIG. 3,

FIG. 4b is similar to FIG. 4a, but with another variant of FIG. 3, and

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FIG. 5 shows a second variant of FIG. 2.

FIG. 1 shows a device for fastening the extremity of a measuring-tape 1 to its winding drum 2. The tape can be of metal or of plasticized fiber glass or of cotton, and the drum is preferably injected and of light metal or plastic material.

The means for fastening the tape to the drum must meet two essential requirements. On the one hand, it must be removable but ensure a lasting fixation of the tape in use and, on the other hand, it must withstand the pulls exerted by the tape on the drum without hindering the winding of the tape.

To this end, a recess 3 is tangentially formed at the surface 4 of the drum so that a slit 5 is formed on that surface and the jaws 6 and 7 set apart the inner portion of the recess from the outer portion of the drum. A peripheral notch 8 can also be provided on the drum for housing the extra-thickness of the tape fastening means.

In FIG. 2, these means are shown as constituted by a peg 9 introduced into a loop 10 at the extremity of the tape. That loop can be formed by folding back the extremity of the tape itself or, when the latter is not flexible enough, as is in particular the case with metal tapes, the loop can be made of a material such as leather or a plastic material and fixed to the extremity of the tape.

In FIG. 3, another form of embodiment of the peg comprises two extreme ends 11 and 12 between which the loop can be introduced. FIG. 4a shows the mounting of that peg into the recess 3 of drum 2. In that form of embodiment, the tensile stress is exerted by the peg itself on the drum jaws and is divided at the two ends of that recess.

According to another form of embodiment shown in FIG. 4b, only one of the peg extremities is provided with a head 13, whereas the other extremity 14 is cone-shaped. The loop can thus be more easily mounted on the peg, but there is also the risk that it comes off. The distribution of tensile stresses is not so good.

Lastly, according to a still further embodiment of the fastening means shown in FIG. 5, peg 15 is flat and of a width corresponding to that of the tape. The peg is provided, at one of its extremities, with a median slit 16 into which the tape, or a connecting piece attached to it, is introduced and fixed by riveting or otherwise, and, at its other end, a cylinder bulge 17 of the same width and adapted to be introduced into the recess. In the latter case, the drum jaws are preferably thrown off center.

One of the main features of the present invention is related to the jaws 6 and 7 against which is applied the tensile stress exerted on the drum by the tape when it is unwound. The pull of the tape which, till now, was exerted on an axle manufactured in one piece with the drum and over-hanging is, in the present invention, distributed on the jaws on both sides along the slit, and it can thus reach high values with no risk of damaging the device.

What is claimed is:

A device for fastening the extremity of a measuring-tape to a winding drum having an inner surface and an outer surface, said device comprising a cylindrical recess tangential to said inner surface, a slit connecting said inner surface to said outer surface, two jaws formed by said slit on said outer surface and a flat peg of the same width as said tape and comprising, at one of its ends, a median slit for the fixation of said tape, and, at the

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other end thereof, a cylindrical bulge of the same width, adapted to be introduced into said recess.

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