Nov. 16, 1954 P. N. BRAUN 2,694,532

MOUNTING FOR ROLLS OF TAPE

Filed Sept. 15, 1951

FIG. 1.

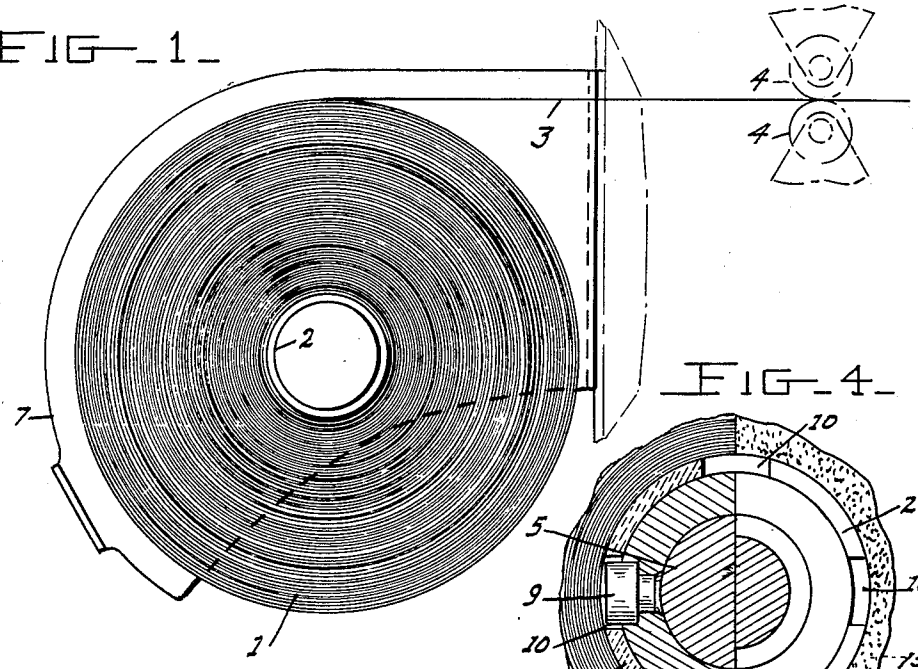


FIG. 4.

FIG. 2.

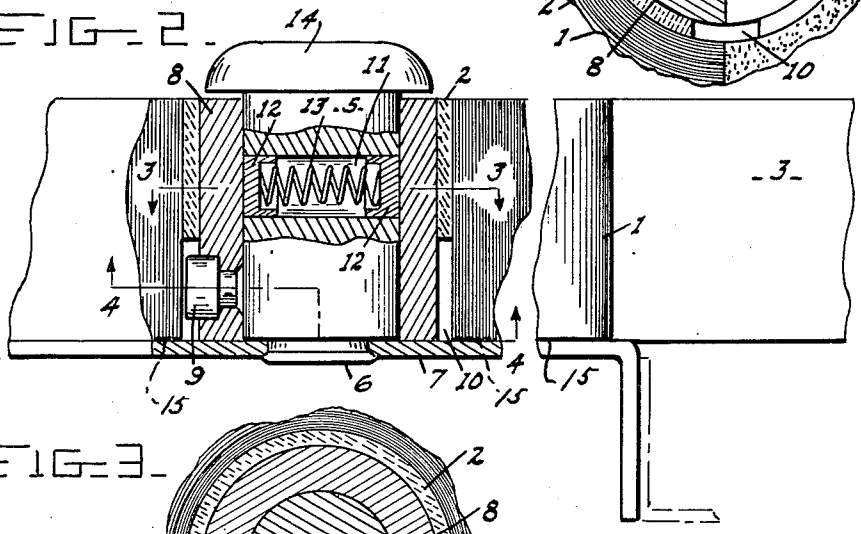
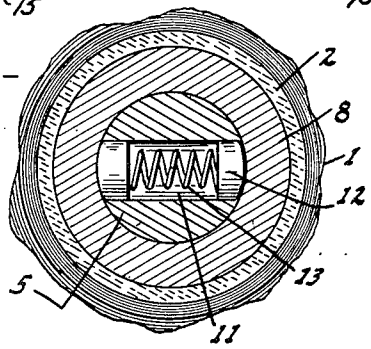


FIG. 3.



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MOUNTING FOR ROLLS OF TAPE

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7 Claims. (Cl. 242—55.2)

This invention relates to rolls of tape of paper, or analagous material, from which rolls the tape is usually unwound by pulling on the outer run or convolution of the roll, and has for its object a mounting for the roll which prevents overthrow or over-running and hence, unfurling of the roll when the force tending to turn the roll is discontinued.

The rolls are of the general character used, for instance, in commercial laundries and dry cleaning establishments to print identification characters on tags cut from the roll and affixed to the articles of laundry, or dry cleaning.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a plan view of the roll when in position on the base plate of the machine in which the roll is installed.

Figure 2 is an enlarged fragmentary sectional view taken diametrically of the roll, the contiguous portion of the base on which the roll is mounted being also shown.

Figure 3 is a cross sectional view on line 3—3, Figure 2.

Figure 4 is a sectional view on line 4—4, Figure 2.

1 designates the roll of tape, this having a tubular core 2, usually of fiber board material, or the like. The inner end of the tape is secured, as by glue, to the core 2 so that the core rotates when a pulling force is applied to the outer end run 3 of the tape. Usually the pulling force is applied to the tape by a pair of feed rolls 4, to one of which power in some form is intermittently applied. The mounting for the roll 1 comprises a stud 5 which is fixed at one end, as by riveting at 6 to a suitable base plate or bracket 7 which is part of the machine in which the roll is used.

The mounting further includes a sleeve 8 rotatably mounted on the stud 5 and having means for interlocking with the core 2 so that the sleeve is rotated by the roll. The mounting further includes a friction brake means between the stud 5 and the sleeve 8, the brake means having faces spring pressed, as here shown, against the inner face of the sleeve 8. The sleeve 8 is interlocked with the core 2 in any suitable manner, as by a peripheral key or pin 9 located to interlock in any one of a plurality of lengthwise slots 10 formed in one end of the core 2 and opening through the adjacent end edge of the core so that the sleeve is rotated by the core.

As here shown, the friction brake means is carried by the stud and, for the most part, within the stud and coacts with the inner face of the sleeve 8. As here shown, the stud is formed with a transverse bore 11 opening through diametrically opposite portions of the peripheral surface thereof, and the brake shoes 12 are slidably mounted in opposite ends of the bore and have their outer ends projecting slightly beyond the peripheral face of the stud. The shoes 12 are pressed outwardly by a loaded compression spring 13 within the bore 11 and thrusting at its opposite ends against the opposing inner faces of the brake shoes 12. The stud 5 is here shown as provided with a head 14 which holds the sleeve 8, after being assembled on the stud, from displacement. However, this head 14 is not of sufficient diameter to

also overhang the end of the core 2, but is of less diameter than the core 2, so that the roll with the core therein can be readily slipped over the sleeve and one of the slots 10 receive the key 9.

As these rolls are changed frequently when only partly used and are again subsequently reinstalled for re-use, the roll is made so that it will not unfurl while it is being handled, and as here shown the edge of the convolutions on one side only of the roll are adhesively secured together in the same way that the sheets of a paper pad are secured together at one edge until the sheets are torn off one by one. The heavy line 15 designates the location of the adhesive for gluing the like edges only of the convolutions together.

It might be explained that establishments where these rolls are used have different systems of identification and the tape is supplied in various colors. For instance, there may be a different color, or different colored markings, for each day of the week. For instance, a red tape may designate that a batch of goods received are promised for delivery on Wednesday afternoon. Another colored tape may mean that the batch is promised for delivery on Thursday afternoon, etc.

It will be understood that the articles of each customer in the batch of goods to be processed have the same identifying number printed on a tag cut from the tape and attached to the article, and that the articles of each customer have tags printed with a different number. The tape for the tags of articles of all customers promised for delivery at the same time, are of the same color. Hence, in many cases it is necessary to remove a roll of one color before the roll is exhausted, and mount a full roll, or a partly used roll, of another color.

What I claim is:

1. A mounting for a roll of tape of the class described, the roll having a tubular core about which the tape is wound and to which the inner end of the tape is secured, the mounting comprising a fixed non-rotatable stud, a sleeve encircling the stud and rotatable about the same for fitting into the core of the tape roll, the sleeve having a peripheral key for interlocking with said core whereby the sleeve rotates with the core, and friction brake means located between the inner face of the rotatable sleeve and the stud to restrain unwinding of the roll under momentum when the pulling force applied to the outer end of the tape to turn the roll is discontinued.

2. A mounting for a roll of tape of the class described, the roll having a tubular core about which the tape is wound and to which the inner end of the tape is secured, the mounting comprising a fixed non-rotatable stud, a sleeve on the stud and rotatable about the same for fitting the core of the tape roll, the sleeve having means on its periphery for interlocking with the core, and friction brake means carried by the stud and coacting with the sleeve to restrain unwinding of the roll under momentum when the pulling force applied to the outer end of the tape to turn the roll is discontinued.

3. A mounting for a roll of tape of the class described, the roll having a tubular core about which the tape is wound and to which the inner end of the tape is secured, the mounting comprising a fixed non-rotatable stud, a sleeve encircling the stud and rotatable about the same for fitting into the core of the tape roll, the sleeve having a peripheral key for interlocking with said core whereby the sleeve rotates with the core, the stud having spring pressed brake means exposed on its periphery and engaging the inner face of the sleeve.

4. A mounting for a roll of tape of the class described, the roll having a tubular core about which the tape is wound and to which the inner end of the tape is secured, the mounting comprising a fixed non-rotatable stud, a sleeve encircling the stud and rotatable about the same for fitting into the core of the tape roll, the sleeve having a peripheral key for interlocking with said core whereby the sleeve rotates with the core, the stud having a transverse bore opening through its periphery, a spring pressed friction shoe in said bore and having its outer face pressing on the inner face of the sleeve.

5. A mounting for a roll of tape of the class described, the roll having a tubular core about which the

tape is wound and to which the inner end of the tape is secured, the mounting comprising a fixed non-rotatable stud, a sleeve encircling the stud and rotatable about the same for fitting into the core of the tape roll, the sleeve having a peripheral key for interlocking with said core whereby the sleeve rotates with the core, the stud having a transverse bore opening through diametrically opposite portions of its peripheral face, sliding brake shoes in opposite end portions of said bore and engaging the inner face of the sleeve, and a loaded compression spring between the inner sides of the brake shoe.

6. A mounting for a roll of tape of the class described comprising a base plate, a stud fixedly mounted on the base plate, a sleeve mounted for rotation on said stud, said stud having means cooperable to restrain axial movement of said sleeve, a friction brake means mounted in the stud and acting to yieldingly restrain rotation of the sleeve relative to the stud, and said sleeve having a key fixedly secured to its periphery for interlocking with the roll of tape.

7. A mounting for a roll of tape of the class described comprising a base plate, a stud fixedly mounted at one

end to the base plate and being provided at its opposite end with an enlargement, a sleeve mounted for rotation on said stud between the base plate and said enlargement, the periphery of said enlargement terminating inwardly from the periphery of said sleeve, said stud being formed with a bore extending diametrically thereof, a friction brake means mounted in said bore and acting on said sleeve to yieldingly restrain rotation thereof, and said sleeve having a key fixedly secured to its periphery for interlocking with the roll of tape.

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