Feb. 2, 1932. J. H. KJELLSTROM 1,843,235

SPOOL FOR ADHESIVE TAPE

Filed Sept. 18, 1930

Fig. 1.

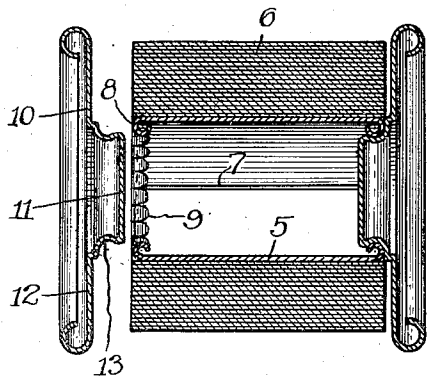


Fig. 2.

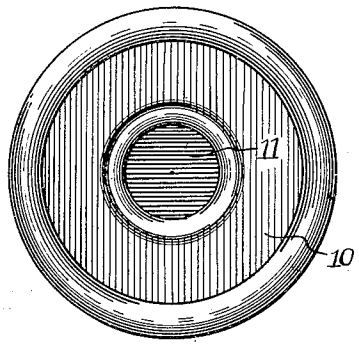


Fig. 3.

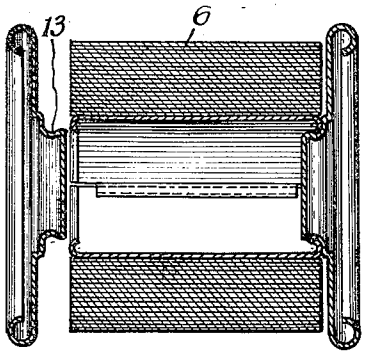
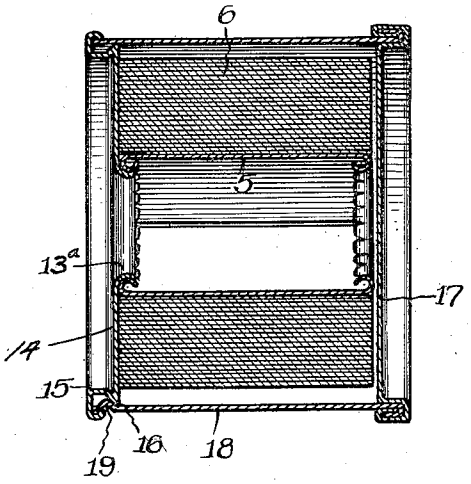


Fig. 4.



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Patented Feb. 2, 1932 1,843,235

UNITED STATES PATENT OFFICE

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SPOOL FOR ADHESIVE TAPE

Application filed September 18, 1930. Serial No. 482,685.

The invention relates to improvements in spools especially designed as containers for adhesive tape, and has more especial reference to a spool in which the heads are adapted to be applied to opposite ends of a tubular body after a roll of adhesive tape has been applied to the body.

The object of the invention is to provide an improved construction for the spool facilitating the application of the heads to the ends of a tubular body forming a metallic core for the spool, and insuring a firm connection therewith and free from sharp or rough edges.

A further object is to provide a spool of the character referred to which is capable of economical manufacture.

In the accompanying drawings I have illustrated a preferred embodiment of the invention. Of these drawings:

Figure 1 is a central longitudinal sectional view through the heads and body of the spool, the latter forming the core of a roll of adhesive plaster and one of the heads being shown in position before assembly with the body.

Fig. 2 is an end elevational view of one of the heads.

Fig. 3 is a view similar to Fig. 1 but showing another embodiment of the invention.

Fig. 4 is a central sectional view of a spool combined with a container for enclosing the same.

Referring first to Fig. 1, my improved spool comprises a tubular body 5 constituting a core for a roll 6 of adhesive plaster. The core is formed from a flat sheet of metal bent into tubular form, with its opposite edges meeting in a butt joint 7. The ends of the body or core are provided with inturned curls 8 and preferably the end edges of the sheet from which the body is formed are serrated as indicated at 9 to facilitate the inwardly curling thereof. It will be observed that the curls 8, thus formed, provide relatively large annular shoulder portions of substantially circular cross section terminating just within the ends of the roll 6 of adhesive tape, the latter being of a width substantially equal to the width of the core.

In the construction shown in said Fig. 1, an end member in the form of a head 10 is applied to each end of the core 5, and for the purpose of securing each of the heads in position on the core an axial anchoring plug 11 is pressed out of a sheet metal disk 12 forming the head proper. Thus the plug 11 projects axially from the disk and in order that it may effectually engage with the annular shoulder formed by the curl 8, the annular side wall 13 of the plug is circumferentially enlarged slightly at its inner terminus so as to form with the disk 12 an annular groove adapted to receive the curl 8.

It will be observed that the enlarged end of the plug 11 has a slightly rounded terminating end portion of somewhat greater diameter than the internal diameter of the curl 8, and in assembling the head on the end of the core, it is necessary to exert sufficient pressure to cause the plug to snap into interfitting relation with the curl. In this operation the rounded end portion of the plug 11 engages the rounded surface of the curl 8 with a cam-like action. Also the ends of the core yield slightly, this being facilitated by reason of the fact that the meeting edges of the ends of the core are unconnected. At the same time, the tape when wound upon the core provides a backing for the end portions of the core tending to maintain the interfitting relation.

As shown at 8^a in Fig. 3, the inturned ends of the core are curved inwardly without the use of serrations. In this form, the meeting edges of the sheet forming the tubular core are interlocked except at the extreme ends.

In the construction shown in Fig. 4, a head 14 is applied to one end only of the core 5. The manner of securing the head to the core is the same as in Fig. 1, except that the inner wall of the plug is cut away, thus leaving a grooved flange 13^a, but the peripheral edge of the head is shaped to form a hooked flange 15 for engagement in one end of a cylindrical casing 18, the opposite end of which is closed by an end wall 17. As shown, the inner end of the core does not in this instance have a head applied thereto. The head 14, it will be observed, forms a cover

or closure for the open end of the casing, and to retain the spool within the casing, the head 14 may be provided with an annular bead 16 projecting radially outwardly from the inner end of the flange 15 so as to engage with a snap fit projections or indentations 19 in the casing near the open end thereof.

It will be observed that the construction provided permits of the economical manufacture of adhesive plaster spools by rendering it possible to apply the plaster to its tubular core before applying the heads to the core, and at the same time the head or heads, as the case may be, may be readily applied to the core and when applied are firmly retained in position thereon.

I claim as my invention:

1. A spool comprising a tubular member formed from a flat sheet of metal to provide a metallic core for a roll of adhesive plaster, said core having one end curled inwardly to form an annular shoulder of substantially circular cross section, and a head comprising a disk having its central portion pressed axially to form a circular anchoring plug, the peripheral wall of said plug being shaped to provide an annular groove adapted snugly to receive the inwardly curled end portion of the core when the plug is forced into the core.

2. A spool comprising a tubular member formed from a flat sheet of metal to provide a metallic core for a roll of adhesive tape or the like, said core having one end curled inwardly to form an annular rounded shoulder portion and a head adapted to be secured to said end of the core and comprising a disk of sheet metal having a central portion pressed axially to form an integral annulus, said annulus being shaped to provide an annular groove for receiving the inwardly curled end portion of the core when the head is forced onto the core axially thereof.

3. A spool comprising a tubular member formed from a flat sheet of metal to provide a metallic core for a roll of adhesive tape or the like, the meeting edges of said sheet being unconnected at one end of the core to permit of circumferential expansion thereof, said end of the core having an inturned portion providing an annular shoulder, and a head having an annulus projecting axially therefrom having a terminating end portion of a fixed external diameter somewhat greater than the normal internal diameter of said inwardly turned end portion of the core, said head being adapted to be applied to the core by endwise pressure to force said annulus past said inturned end portion and into holding relation thereto.

4. A spool comprising a tubular member formed from a flat sheet of metal to provide a metallic core for a roll of adhesive tape or the like, one end of the core having an inturned portion providing a rounded annular shoulder, and a head having an annulus projecting axially therefrom having a rounded terminating end portion of a fixed external diameter somewhat greater than the normal internal diameter of said inwardly turned end portion of the core, said head being adapted to be applied to the core by endwise pressure to force said annulus past said inturned end portion and into holding relation thereto.

5. A spool comprising a tubular metallic core having an inwardly curled bead of substantially circular cross section, and an end member having an axially projecting flange grooved to receive said bead when the end member is forced endwise onto the core.

6. A spool comprising a tubular metallic core having at one end an inturned flange, and an end member having an axially projecting flange grooved to receive the flange on the end member when the latter is forced endwise onto the core.

7. A spool comprising a tubular metallic core having at one end an inturned flange, and an end member having an axially projecting flange grooved to receive snugly the flange on the core when the end member is forced endwise onto the core, one of said flanges being yieldable to permit the engagement of the two flanges.

8. An adhesive plaster spool comprising a tubular member formed from a flat sheet of metal to provide a metallic core and having wound thereon a roll of adhesive tape of a width substantially equal to the length of said core, one end of the core having within it a portion providing a shoulder, and a head comprising a flat circular plate and an annulus projecting axially therefrom of an external diameter somewhat greater than the internal diameter of said core at said shoulder, said head being adapted to be applied to the core by endwise pressure to force said annulus into engagement with said shoulder and position the head plate closely adjacent the end of said roll.

9. An adhesive plaster spool comprising a tubular member formed from a flat sheet of metal to provide a metallic core and having thereon a roll of adhesive tape of a width substantially equal to the width of said core, and a head comprising a flat plate and an annulus rigid therewith projecting axially therefrom, said annulus having an external diameter slightly greater than the internal diameter of the core at one end thereof, and said head being adapted to be applied to the core by endwise pressure to force said annulus into holding relation to said end of the core while positioning said head plate closely adjacent the end of said roll.

In testimony whereof, I have hereunto affixed my signature.

JOHN H. KJELLSTROM.