April 15, 1930. J. H. KJELLSTROM 1,754,274

SPOOL END

Filed Sept. 3, 1927

Fig. 1.

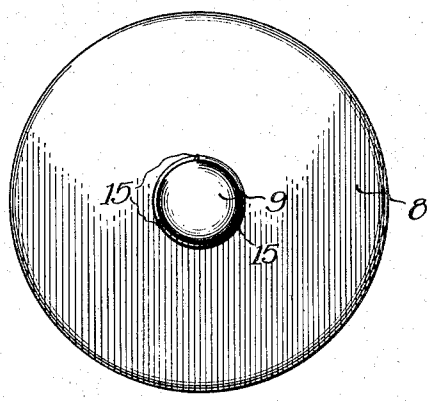


Fig. 3.

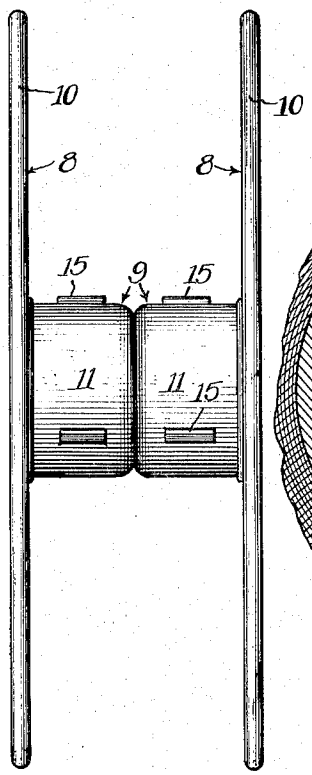


Fig. 4.

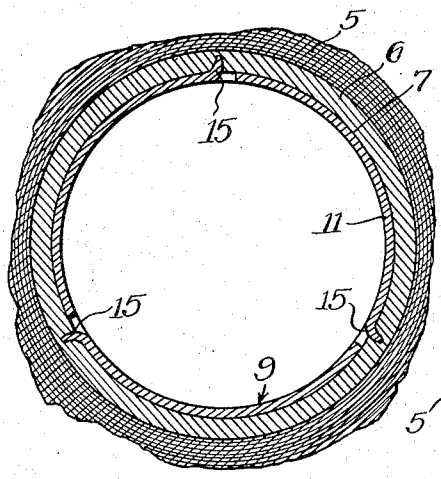
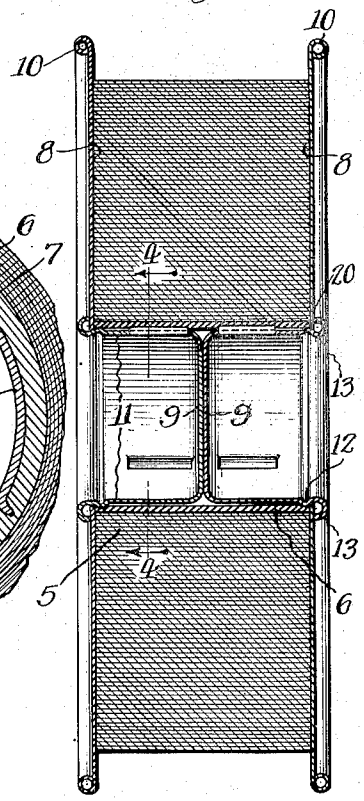


Fig. 2.



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UNITED STATES PATENT OFFICE

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SPOOL END

Application filed September 3, 1927. Serial No. 217,321.

The invention relates generally to spool ends and more particularly to spool ends which are adapted to be formed from sheet metal.

The primary object of the invention is to provide spool ends which may be readily applied to a roll of adhesive tape or the like after the material has been wound on a cardboard or composition core and which will serve to support the core throughout its entire length.

Another object is to provide a spool end adapted to be applied to such cores and with means formed thereon to prevent relative rotation of the core and spool end.

Another object is to provide such a spool end which may be readily attached to a wooden cardboard or composition spool core.

Other objects and advantages will become apparent from the following description and from the accompanying drawings, in which:

Figure 1 is an elevational view of the inner side of a spool end embodying the preferred form of my invention.

Fig. 2 is an enlarged central sectional view showing a pair of spool ends applied to a roll of adhesive tape.

Fig. 3 is an elevational view of the pair of spool ends shown in Fig. 2, before being applied to the material.

Fig. 4 is an enlarged fragmentary sectional view taken along the line 4—4 of Fig. 2.

With the preferred embodiment of the invention which is disclosed herein a roll 5 of adhesive tape has been formed on a tubular cardboard core 6 having an axial bore 7. The spool ends which are associated with the core 6 to complete the spool are preferably similar to each other and are formed from sheet metal.

Each of the spool ends illustrated comprises generally a sheet metal disk 8 having a tubular thimble 9 projecting from one side thereof. The outer peripheral edge of the disk 6 may be stiffened by forming a roll 10 thereon.

The thimble 9 which is herein shown as being formed separately from the disk 8 is of a cup shape and has a cylindrical wall 11. The top or free edge of the wall 11 is fastened within an aperture 20 in the disk 8 by any preferred means, such as a bead 12 and an end flange or roll 13 formed in the wall 11 of the thimble 9 so as to engage the opposite sides of the disk 8. In order that the core 6 may be properly supported the thimbles 9 on the two spool ends used are preferably of such a size as to fit snugly with the core 6 and of such a length that they support the core throughout substantially its entire length.

Means is provided on the thimble 9 to engage the core 6 so as to prevent the relative rotation of the parts. As shown herein this means is formed integral with the thimble 9 and comprises a plurality of vane-like projections 15 which are formed from metal which is struck up from the wall 11 of the thimble so as to extend outwardly therefrom. The projections 15 preferably extend longitudinally of the thimble throughout a substantial portion of the length thereof so that the thimble may be inserted into the bore 7 of the core 6 by a straight pressing or stamping operation. It should be noted that when the thimble 9 is inserted into the core 6 these vane-like projections 15 will cut with a knife-like action into the sides of the core 6 to retain the thimble 9 therein and that after being thus embedded the projections present a long and comparatively broad surface to resist relative rotation of the two parts.

It will be apparent from the foregoing description that I have provided a spool end of simple construction which may be readily applied to a cardboard or composition core so as to strengthen and support the core. It will also be apparent that the provision of vane-like projections on the thimble of the spool end will serve to prevent the relative rotation of the spool end with respect to the core and permit of ready manipulation of the material thereon.

I claim as my invention:

1. A spool end adapted to be attached to a tubular core, said end comprising a disk, a separately formed cylindrical thimble having bottom and side walls and having its open end attached to said disk centrally thereof and extending axially therefrom, said thimble being adapted to fit snugly within the bore of said core and to extend substantially half

way therethrough, and a plurality of vane-like projections struck outwardly from the side wall of said thimble and extending longitudinally thereof so as to be embedded in the core when the thimble is placed therein.

2. A spool having, in combination, a tubular core, an apertured end disk coaxially positioned at the end of said core, and means securing said disk on said core comprising a thimble having a cylindrical side wall fitting snugly within said core and an end wall closing and reinforcing the inner end of said wall, a flange at the outer end of said side wall engaging the outer side of said disk, and projections struck from said side wall and extending into said core to hold said thimble and end wall in position thereon.

In testimony whereof, I have hereunto affixed my signature.

JOHN H. KJELLSTROM.