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IDENTIFYING MEANS FOR TEXTILE MATERIALS

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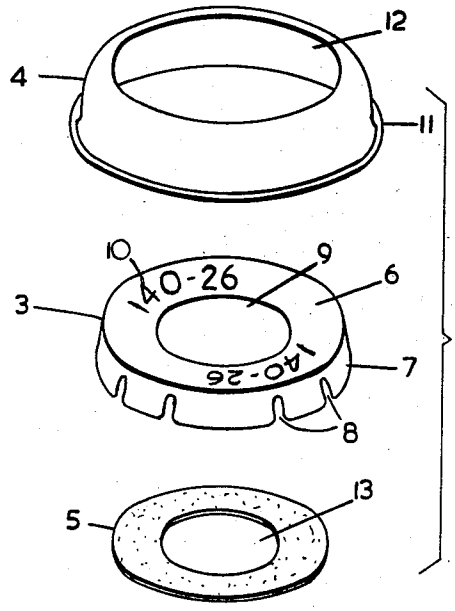


FIG. 1

FIG. 3

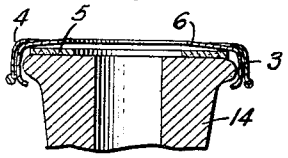


FIG. 4

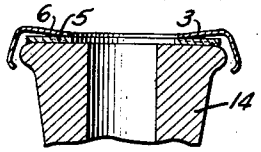
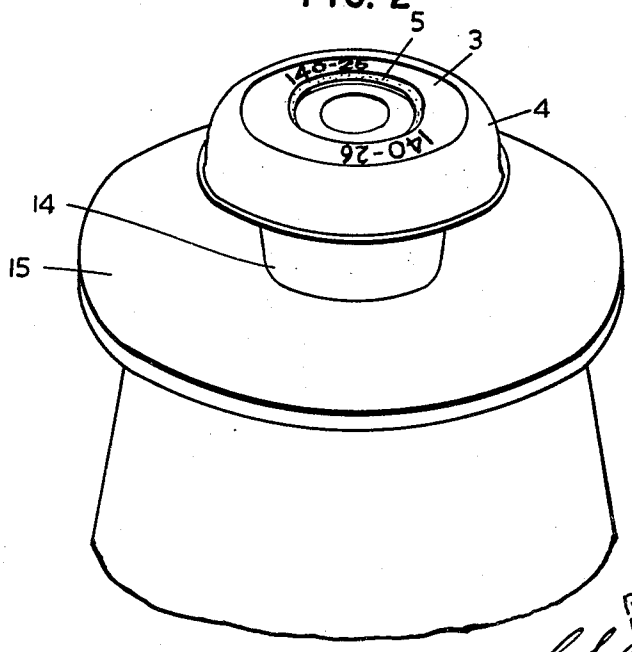


FIG. 2



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IDENTIFYING MEANS FOR TEXTILE MATERIALS

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3 Claims. (Cl. 40—20)

This invention relates to identifying means for textile materials and particularly to means suitable for identifying the nature of yarns wound into yarn packages on central yarn package supports.

Since it is impossible to tell from the mere appearance of the outside of the yarn package the nature of the yarn wound thereon, it is important to provide, on or attached to the yarn package or the yarn package support, suitable indicia identifying the nature of the yarn, in order to ensure that yarn of the required kind is shipped in response to a particular order or applied to a particular use. To minimise the chance of error, the indicia should be applied at the earliest possible moment, preferably when or immediately after the yarn is wound into the package, and should remain as long as there is any useful yarn left on the package. It is a common practice to paint or print suitable indicia on the package support, in accordance for example, with a prearranged colour code or letter code. The markings must be sufficiently permanent not to be accidentally wiped off before the yarn is used, which conflicts with the requirement that they should be capable of being easily cleaned off after the yarn is used to prepare the package support to receive fresh yarn. Even where the fresh yarn to be wound is the same as that previously carried by the bobbin, it is found desirable to remove the indicia and mark the bobbin afresh, in order to maintain an orderly routine for ensuring correct identification. As an alternative to this practice, the yarn may be identified by means of an attached label, tied, glued or otherwise affixed to the package support. Such labels, however, are very liable to be rubbed or torn off. It is an object of the present invention to provide a form of label for identifying the yarn in a yarn package, which can be firmly attached to the yarn package and retained thereon without danger of accidental removal, but can be easily removed when it is desired to do so.

According to the present invention a spring cap is used as a label for spring-attachment to a yarn package support to indicate the nature of the yarn wound thereon. Thus, a cap may be used, in the form of a dished disc capable of being sprung on either side of the plane of its edges and having a plurality of flange sections round the edge of the disc, which are turned inwards at their free edge and are adapted to grip a circular rim when the disc is sprung away from them and to release said rim when the disc is sprung towards them. Spring caps of this kind are very commonly employed as closures for jars and like containers, particularly those containing preserves and other food-stuffs, and such caps commonly carry indicia to show the nature of the contents of the container. The use of such caps in connection with yarn packages to carry an indication of the kind of yarn therein, however, in which context there is no question of the cap acting as a closure, is novel.

A label in the form of a spring cap as described above can be made of a diameter appropriate to clip to a suitable part of the yarn package support. Thus it may be arranged to clip over the edge of the flange of a flanged bobbin or preferably, where the bobbin is provided with a gripping knob at the top to facilitate handling, over the gripping knob. For cheeses and cones of yarn, the cap may be arranged to grip over the end of the tubular former on which the yarn is wound. Labels bearing the appropriate indicia can be easily applied immediately after the winding operation, or even, if convenient, at the beginning of the operation, and remain in place without danger of accidental removal until the yarn is wound off and the package support is returned empty. They can then be easily detached and stored for further use, while the package support, clear of any indication of the yarn previously wound on it, can again be filled with the same or different yarn.

In order to avoid any danger of yarn catching between the flange sections during winding-off especially from a cheese or cone, a shroud may be provided for covering the flange sections of the spring cap label, in the form of an externally smooth cap of such dimensions as to be a press-fit on the spring cap when the flange sections are sprung inwards. The shroud not only prevents yarn from catching in the gaps between the flange sections but also prevents the cap from springing off should end-pressure be applied to the spring cap during packaging or transportation. It may be fitted to a package and left on until the yarn and the identifying cap are removed or, and preferably, it may be used only during unwinding.

By way of example a label according to the present invention will now be described in greater detail with reference to the accompanying drawings in which:

Figure 1 is an exploded view of the spring cap and associated parts,

Figure 2 a perspective view of the end of a bobbin provided with a label according to the invention.

Figure 3 is a section through the knob **14** of Figure 2, and

Figure 4 is a similar view with the shroud ring removed and the spring cap about to be removed.

The label comprises a metal spring cap **3**, a shroud **4** and an identifying paper disc **5**. The spring cap comprises a dished disc **6** capable of being sprung on either side of the plane of its edges and a plurality of flange sections **7** separated by gaps **8**, round the edge of the disc. The flange sections are turned inwards at their free edge and are adapted to grip or release a circular rim presented by the bobbin or other yarn package support to which it is to be applied when the disc is sprung away from or towards them. The dished disc **6** is formed with a central hole **9** so as to leave open the bore of the yarn package to which it is to be attached. The disc **6** of the cap **3** is printed with a code number **10** indicating the characteristics of a given type of yarn. The shroud **4** is in the form of an externally smooth cap of aluminum of such dimensions as to be a press-fit on the spring cap **3** when the flange sections **7** are sprung inwards. Its lower edge is folded back outwards to form a strengthening lip **11** and an annular hole **12** is cut out of its centre, the diameter of the hole being slightly less than the cap diameter, and large enough to allow a clear view of the identifying means on the disc of the spring cap **3** when the shroud is pressed on the spring cap. The identifying paper disc **5** is coloured according to a code to indicate the nature of the yarn wound on the package. It is also formed with an aperture **13** having a diameter smaller than the diameter of the hole **9** in the cap disc **6**. The cap **3** can be used by itself, clipped on the rim of the knob **14** of a bobbin **15**, the markings **10** indicating the nature of the yarn wound on the bobbin or it may be used to secure the identifying paper disc **5** to the knob of the bobbin to augment or stand in place of such markings.

Having described our invention, what we desire to secure by Letters Patent is:

1. A spring cap label for attachment to a yarn package support to identify yarn wound thereon, said label comprising a dished disc and a plurality of flange sections round the edge of said disc projecting out of the plane of said edge and turned inwards at their free edges, said disc being capable of being sprung on either side of said plane whereby said flange sections are flexed inwards and outwards, to grip a circular rim when said disc is sprung away from them and to release said rim when said disc is sprung toward them.

2. An identifying label assembly for a yarn package support to identify yarn wound thereon, said assembly comprising a spring cap label according to claim 1, the dished disc of said label having a central opening therein, and a plane identifying disc adapted to be secured beneath the dished disc and to show through within at least the margins of the central opening therein.

3. An identifying label assembly for a yarn package support to identify the yarn wound thereon, said assembly comprising a spring cap label according to claim 1 and an externally smooth cap which is a press fit on said spring cap label when the flange sections thereof are flexed inwards, said cap having a central opening adapted to expose the middle portion of the dished disc.

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