Feb. 3, 1942. F. B. JAVERY ET AL 2,272,120

HOLDER FOR YARN PACKAGES

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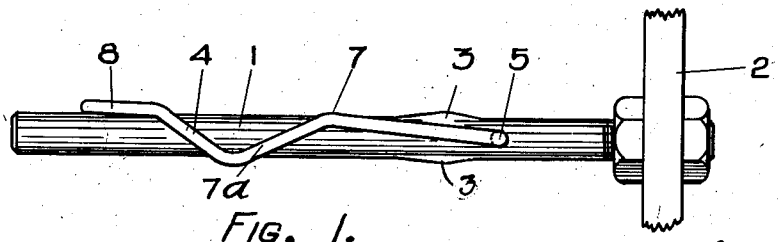


FIG. 1.

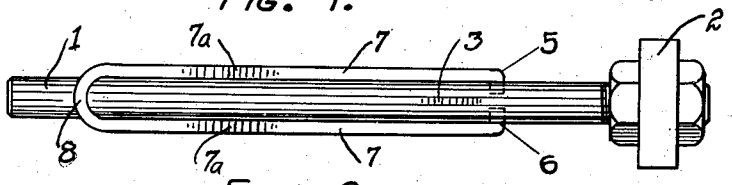


FIG. 2.

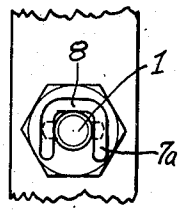


FIG. 3.

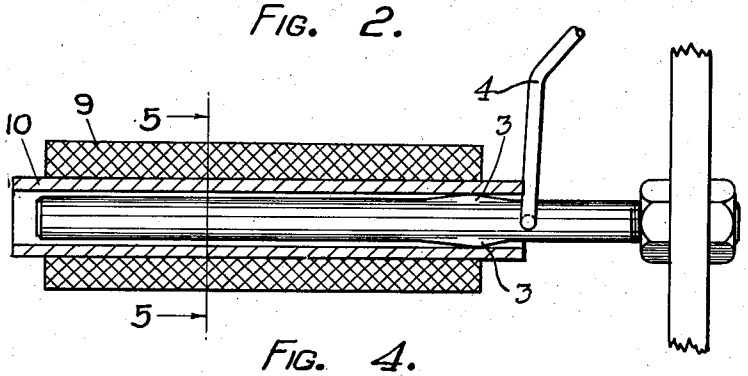


FIG. 4.

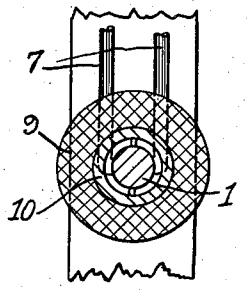


FIG. 5.

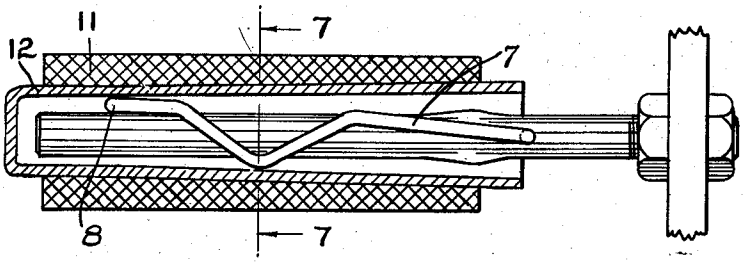


FIG. 6.

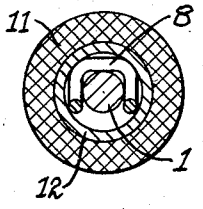


FIG. 7.

Inventors:
FRANK B. JAVERY
RAYMOND C. LONGVALL
By Owen W. Kennedy
Attorney

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HOLDER FOR YARN PACKAGES

Frank B. Javery and Raymond C. Longvall, Worcester, Mass., assignors to Warp Compressing Machine Company, Worcester, Mass., a corporation of Massachusetts

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4 Claims. (Cl. 242—130)

The present invention relates to an improved holder for yarn packages of the type that are wound on suitable carriers, either tubular or conical in form, so that the material thereon may be readily drawn off endwise from the packages.

The holder of the present invention is particularly adapted for use in connection with creels in which a plurality of yarn packages are arranged in rows, with their horizontal axes in parallel relation. In the use of such creels, it sometimes happens that the packages come wound on tubes or cones of different inside diameters, and when this difference is appreciable, spindles of a given diameter are incapable of properly supporting more than one type of yarn package.

The object of the present invention is to provide a holder for yarn packages, so constructed that it is adapted to receive and firmly support yarn packages wound on carriers of different diameters, the improved arrangement being such that the change-over from one type of package to another, can be readily made for an entire creel, without requiring any adjustments, or the removal of parts. The above and other advantageous features of the invention will hereinafter more fully appear from the following description, considered in connection with the accompanying drawing, in which—

Fig. 1 is a view in side elevation, of a yarn package holder embodying the invention.

Fig. 2 is a plan view of the parts of Fig. 1.

Fig. 3 is an end view of the parts of Fig. 1.

Fig. 4 shows a yarn package wound on a tube mounted on the holder of Fig. 1.

Fig. 5 is a transverse section view along the line 5—5 of Fig. 4, looking in the direction of the arrows.

Fig. 6 shows a yarn package wound on a cone, mounted on the holder of Fig. 1.

Fig. 7 is a sectional view along the line 7—7 of Fig. 6, looking in the direction of the arrows.

Referring to the drawing, the improved holder consists of a spindle 1 mounted on a support 2, with the spindle providing a pair of enlargements or ears 3, formed by a flattening of the spindle near its base. Each spindle also provides an adapter 4, in the form of a wire bent to provide a continuous loop, with its end portions 5 turned inwardly, and pivotally received in an opening 6 extending through the spindle adjacent to the ears 3.

The adapter 4 provides spaced parallel arms 7, which are first inclined upwardly, and then downwardly with respect to the axis of the spindle, with the downwardly bent portions 7a extending below the surface of the spindle. The arms 7 are bent upwardly again beyond the portions 7a, with the arms uniting to form an end portion 8 extending across the top of the spindle near its free end. Consequently, the adapter 4 presents an overall outline of considerably larger diameter than the spindle itself, as is evident from a consideration of Fig. 3.

When a yarn package 9 wound on a tube 10 is to be mounted, the adapter 4 is swung upwardly, as shown in Fig. 4, with the end portions 5 serving as pivots. This exposes the spindle 1 for the major portion of its length, so that the tube 10 may be placed on the spindle, with the ears 3 snugly engaging the inside of the tube 10 to firmly hold the package 9 in position. With the package 9 so mounted, the adapter 4 is entirely out of the way, and the end of the tube 10, by engagement with the adapter, prevents it from turning back.

Should it be desired to mount a yarn package 11, wound on a cone 12 of considerably larger inside diameter than the tube 10, the adapter 4 is swung downwardly to the position of Fig. 1. The package 11 is then placed in position, with the arms 7 and end portion 8 providing a more or less continuous support for the inside of the cone 12, so that the latter is firmly held in position on the spindle. As best shown in Fig. 7, the inner wall of the cone 12 engages the adapter 4 at a number of points equally spaced from the axis of the spindle, due to the manner in which the adapter extends on opposite sides of the spindle axis.

From the foregoing, it is apparent that by the present invention there is provided an improved holder for yarn packages, characterized by its ability to firmly support packages wound on carriers, such as tubes or cones, having different inside diameters. It is evident that the adapter 4 is so constructed that it may be readily applied to spindles of existing creels, thereby permitting such creels to operate with different style yarn packages, without requiring any adjustments or structural alterations in order to effect a change-over from one style package to another.

We claim:

1. A holder for yarn packages comprising a spindle and an adapter pivotally mounted thereon about an axis extending transversely of the spindle for movement into different positions, said spindle being adapted to receive and support a yarn package wound on a carrier of a given

diameter in one position of said adapter, and being adapted to support a yarn package wound on a carrier of a different diameter from the first-named carrier, in another position of said adapter, with respect to its pivotal axis.

2. A holder for yarn packages comprising a straight spindle and an adapter in the form of a wire bent to provide a loop, with its end portions turned inwardly and pivotally received in an opening extending transversely to the axis of the spindle.

3. A holder for yarn packages comprising a straight spindle and an adapter in the form of a loop embracing said spindle, with side arms extending along said spindle and with its ends pivotally mounted thereon, said arms being adapted to receive and support a yarn package wound on a carrier of a given diameter when said adapter embraces said spindle, and said spindle being adapted to receive and support a yarn package wound on a carrier of smaller diameter than the first carrier, when said adapter is turned back to position its arms away from said spindle.

4. A holder for yarn packages, comprising a spindle and an adapter pivotally mounted thereon about an axis extending transversely of the spindle for movement into different positions, said spindle being capable of supporting a yarn package wound on a carrier having an opening of given size, in one position of said adapter, and being capable of supporting a yarn package wound on a carrier having an opening of a size different from that of the first-named carrier, in another position of said adapter, with respect to its pivotal axis.

FRANK B. JAVERY.
RAYMOND C. LONGVALL.