Sept. 17, 1957 P. E. LOVE 2,806,237

LABEL REMOVING DEVICE FOR FIBER CONES

Filed Oct. 20, 1954

Fig. 1

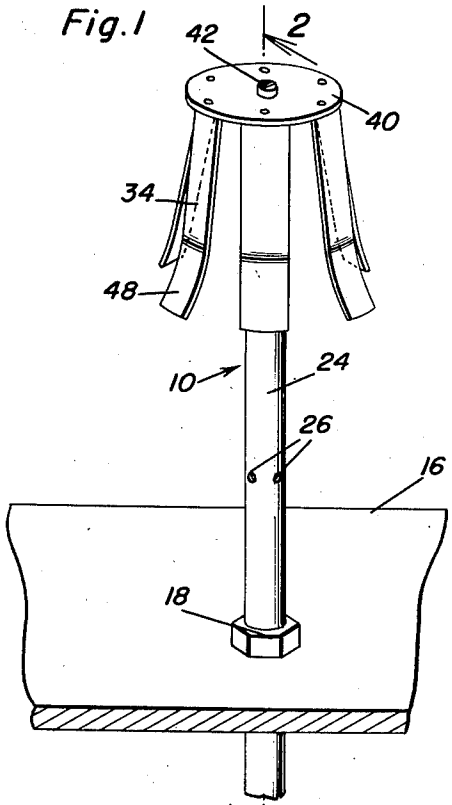


Fig. 2

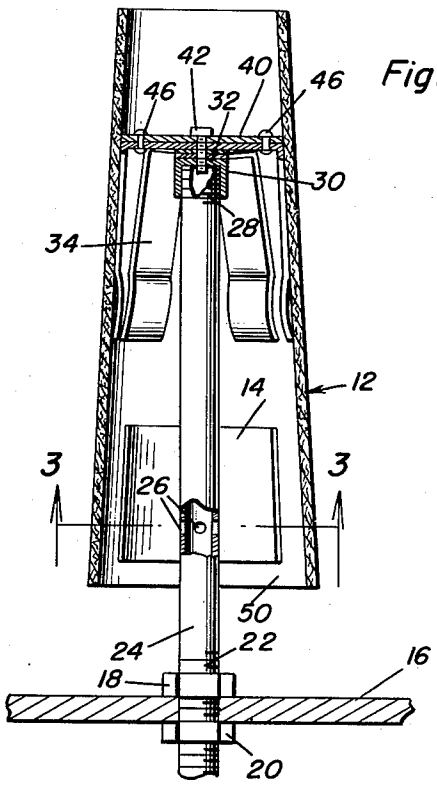


Fig. 4

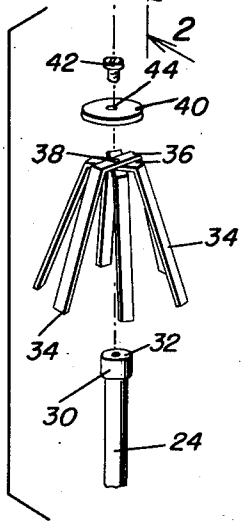
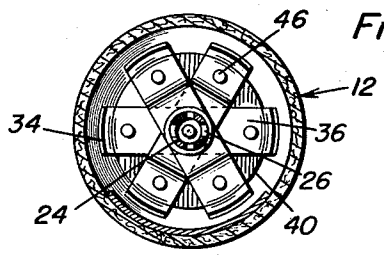


Fig. 3



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LABEL REMOVING DEVICE FOR FIBER CONES

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2 Claims. (Cl. 15—127)

This invention relates to a label removing device for use in removing labels from the inner surfaces of used yarn cones or the like and has for its primary object the provision of means for softening the mucilaginous adhesive fixing the label to the inner surface of the cone by means of steam and then by resilient fingers engaging the label and lifting the label away from the cone.

A further object of the invention resides in the provision of means wherein the adhesive holding the label onto the cone may be softened by steam and wherein the cone is not closed to the atmosphere thereby permitting the steam to be exhausted from the cone for the condensation thereof before most of the steam has become condensed thereby reducing the possibility of any substantial deterioration of the cone by the steam.

Still another object of the invention resides in the provision of a novel device of the character described in which the cone may be held in an adjusted position by means of a suitable disk-shaped guide plate which carries the resilient fingers.

Still further objects and features of this invention reside in the provision of a device for removing labels from yarn cones which is simple in construction, strong and durable, and highly efficient in operation.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this label removing device, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a perspective view of the invention;

Figure 2 is a vertical sectional view of the label removing device illustrating the manner in which a yarn cone is positioned on the device;

Figure 3 is a horizontal view as taken along the plane of line 3—3 in Figure 2; and

Figure 4 is a partial exploded perspective view illustrating the construction of the various component elements of the invention.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral **10** generally designates the label removing device comprising the present invention which is adapted to be utilized in removing old labels from used yarn cones which are generally indicated by reference numeral **12**. The removal of the old labels such as are indicated at **14** from the yarn cones is necessary since the labels identify the grade and amount of yarn upon the cones as well as the manufacture thereof. For winding other yarn on these cones it is necessary that a separate and distinct label be applied and that the old label be removed so that confusion as to the identification of the yarn on the cone will be eliminated.

The label removing device **10** is adapted to be mounted on a table **16** or other suitable supporting surface by means of a pair of nuts **18** and **20** which threadedly engage the threaded sections **22** of a conduit **24** which is of

tubular construction and which is provided with annularly spaced apertures as at **26** therein.

The upper end of the conduit **24** is threaded as at **28** for threaded reception of a cylindrical fitting **30** which is internally threaded and provided with a top closure **32**. Positioned on the fitting **30** are substantially U-shaped members formed of a resilient spring-like material which form resilient fingers **34** pairs of which are interconnected by the upper connecting portions **36**. The upper connecting portions **36** are apertured as at **38**.

A guide plate **40** of a suitable selective diameter positioned in overlying relationship relative to the upper connecting portions **36** and overlies the conduit **24** and is secured to the fitting **30** and the conduit **24** by a fastener **42** which is threadedly secured in the fitting **30** and which extends through the apertures **38** in the upper connecting portions **36**.

The fastener **42** extends through an aperture **44** in the disk **40**. Rivets as at **46** are utilized to hold the fingers **34** to the disk **40** and it is noted that the lower portions of the fingers **34** are outwardly turned for engagement with the cone **12** and the label **14**.

The disk **40** is of a selected size so that the cone of the type having the labels **14** removed therefrom will be supported at a particular desired distance above the table **16** so that steam which is introduced through the conduit **24** and out of the apertures **26** will be directed against the label **14** in a manner so that the steam can be exhausted through the open end **50** of the cone **12**. This will prevent undue condensation within the cone and subsequent deterioration of the cone. The steam so introduced will soften the mucilage or adhesive holding the label **14** on the inner surface of the cone **12** and upon the raising of the cone relative to the fingers **34**, the lower portions **48** of the fingers will engage the label and strip it from the interior surface of the cone.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A label removing device comprising a tubular conduit carried by a supporting table, said tubular conduit having a threaded upper end, a fitting threadedly secured on said upper end closing said conduit, a guide plate of disk shape disposed on said fitting substantially at right angles thereto and adapted to form a seat for the upper end of a cone, a fastener securing said guide plate to said fitting, circumferentially spaced apertures in said conduit, and a plurality of circumferentially spaced angularly downwardly and outwardly divergent fingers secured to said plate and depending therefrom.

2. A label removing device comprising a tubular conduit carried by a supporting table, said tubular conduit having a threaded upper end, a fitting threadedly secured on said upper end closing said conduit, a guide plate of disk shape disposed on said fitting substantially at right angles thereto and adapted to form a seat for the upper end of a cone, a fastener securing said guide plate to said fitting, circumferentially spaced apertures in said conduit, and a plurality of circumferentially spaced angularly downwardly and outwardly divergent fingers secured to said plate and depending therefrom, said fingers being formed of substantially U-shaped elements each U-shaped element including a pair of fingers and an upper connecting portion underlying said plate, the upper con-

necting portions being disposed between said plate and said fitting, said fastener extending through said upper connecting portions, said apertures being spaced below said fingers, said conduit being vertically adjustably secured to said table.

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