Dec. 24, 1940. T. SMITH 2,226,024

YARN PACKAGE HOLDER

Filed Sept. 8, 1939

Fig. 1.

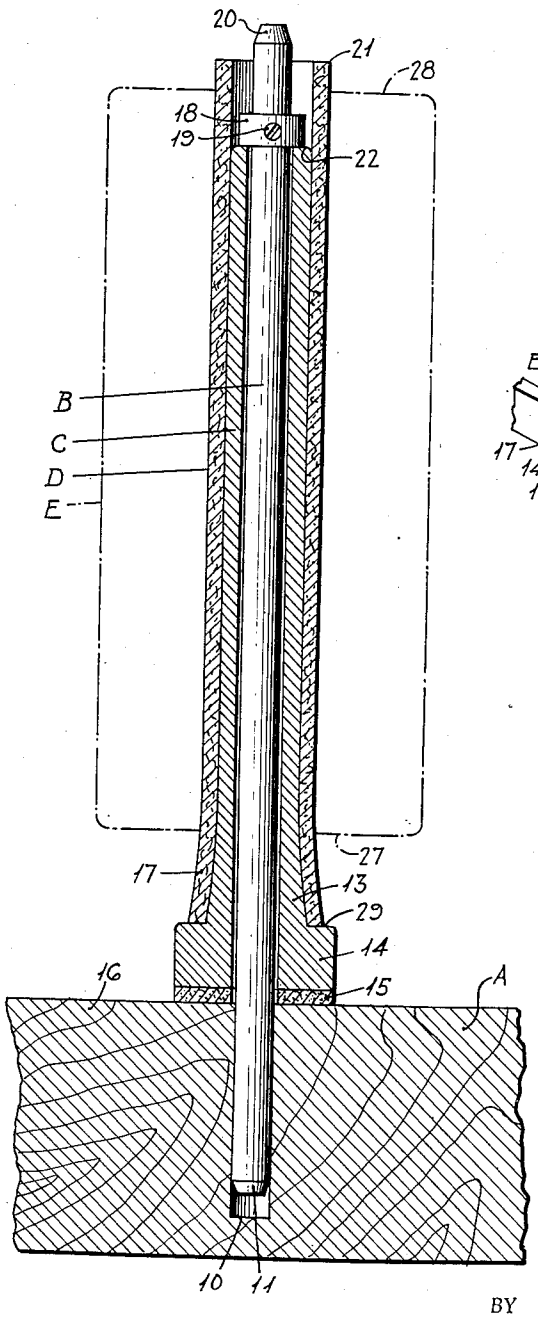
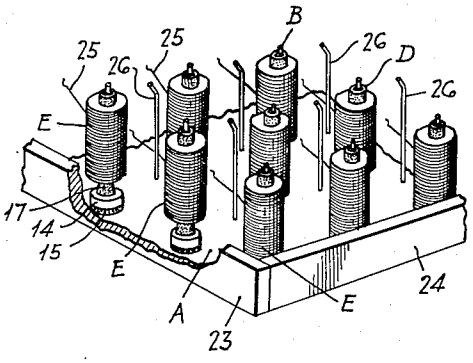


Fig. 2.



BY

INVENTOR.
THOMAS SMITH
Richards & Geier
ATTORNEYS.

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YARN PACKAGE HOLDER

Thomas Smith, Clarks Summit, Pa., assignor to The Scranton Lace Company, Scranton, Pa., a corporation of Pennsylvania

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2 Claims. (Cl. 242—130)

The present invention relates to a yarn package holder and particularly relates to a yarn package holder which may be utilized in connection with Nottingham lace machinery although not restricted thereto.

In the Nottingham looms now utilized in weaving curtains and other similar fabrics the filler or weft is supplied from a large number of spools or bobbins which are positioned upon a carrier or shelf at the rear of the machine.

The yarn or filling upon these spools is usually wound upon flanged spools from relatively large masses of yarn which are received at the particular weaving plant.

This rewinding is quite laborious, takes up considerable time increasing the amount of time between the receipt of the yarn and its manufacture into the final curtain and in addition relatively large installations and machinery are required for this rewinding operation.

It is among the objects of the present invention to provide an improved spool or bobbin arrangement which will permit the yarn as received to be immediately placed upon the spindles on the shelf of a Nottingham lace machine without intermediate rewinding operations and with increased economy and decreased time lapse between the receipt of the yarn and its manufacture into the final curtain.

Still further objects and advantages will appear from the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the invention.

In accomplishing the above objects it has been found most satisfactory to provide the yarn upon paper cylinders with the body of the yarn being wound substantially cylindrically therein and terminating short of the edges of the paper cylinder.

Desirably this paper cylinder is mounted upon a wooden sleeve the lower portion of which is flared so as to grip and extend the paper and this wooden sleeve is in turn mounted upon a rod terminal mounted on said shelf or back board of the Nottingham machine.

Desirably, the lower part of the wooden cylinder is flanged outwardly so as to abut the lower end of the sleeve and said wooden sleeve element rests upon a felt washer.

Referring to the drawing which illustrates several of the various embodiments of the present invention but to which the present invention is by no means restricted since the drawing is merely by way of illustration and not by way of limitation,

Figure 1 is a transverse longitudinal sectional view upon approximately full scale of a spindle with a spool or bobbin thereon.

Figure 2 is a top perspective view of a bank of said spools or bobbins upon spindles upon a backboard or shelf at the rear of a Nottingham lace machine.

Referring to Figure 1, the backboard A has a series of openings 10 into which may be forced the spindles B, each spindle is provided with a bevelled lower end 11 to enable more ready insertion in the opening 10 and each of the spindles B is designed to receive the wooden sleeve or cylinder C which flares outwardly adjacent its lower portion at 13 and has a flange 14.

The flange 14 rests upon the felt disk or ring 15 which contacts with the upper face 16 of the board A.

The paper cylinder D upon which the yarn body E is wound preferably by universal winding is forced outwardly as indicated at 17 by the flare 13 and closely fits and turns with the wooden sleeve or cylinder C.

The wooden sleeve or cylinder C is held down against the felt washer 15 by the collar 18 and the set screw 19 on the rod B.

The upper end of the rod B is bevelled as indicated at 20 and extends above the upper edge 21 of the paper tube C.

It will be noted that the upper edge of the paper tube C encloses the collar 18 and is substantially above the upper end 22 of the wooden sleeve or cylinder C.

When these devices, as shown in Figure 1, are assembled upon the backboard A, as shown in Figure 2, having the side flanges 23 and 24, the thread or yarn 25 (see Fig. 2) is drawn off of each of them and then around the upstanding wires 26 into the Nottingham machine to form a weft.

It is apparent the applicant has provided a simple inexpensive device for use with Nottingham lace machines which will eliminate the rewinding of the yarn upon flanged spools and which will lessen the cost of manufacture.

It will be noted that the body of yarn which terminates at 27 at the lower end and 28 at the upper end is spaced substantially inside the lower end 29 of the tube D and the upper end 21 of the tube D.

It is apparent the specific illustrations shown above have been given by way of illustration and

not by way of limitation and that the structures above described are subject to wide variation and modification without departing from the scope or intent of the invention all of which variations and modifications are to be included within the scope of the present invention.

What is claimed is:

1. The combination of a yarn package and a holder therefor mounted on the backboard of a Nottingham lace machine or similar machine, said yarn package comprising a paper cylinder and a mass of yarn wound thereon, the paper cylinder extending substantially beyond the ends of the mass of yarn, said holder including a spindle, a sleeve rotatable on said spindle, said sleeve being outwardly flared adjacent the lower portion thereof and shouldered beyond said flare, the internal diameter of the paper cylinder being substantially the same as the external diameter of the upper portion of the sleeve, and said paper cylinder being forced onto the sleeve so that the portion projecting beyond the yarn is expanded outwardly by the flared portion.

2. The combination of claim 1, in which a felt washer is positioned on said spindle below said sleeve and between said sleeve and the backboard.

THOMAS SMITH.