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K. F. L. NORSTRÖM

SLEEVE ADAPTED TO SERVE AS CORE FOR PAPER ROLLS

Filed March 31, 1922

Fig. 1.

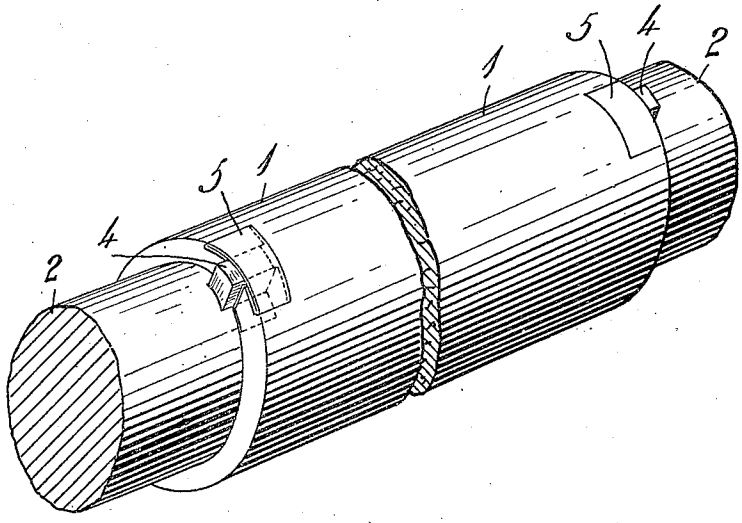
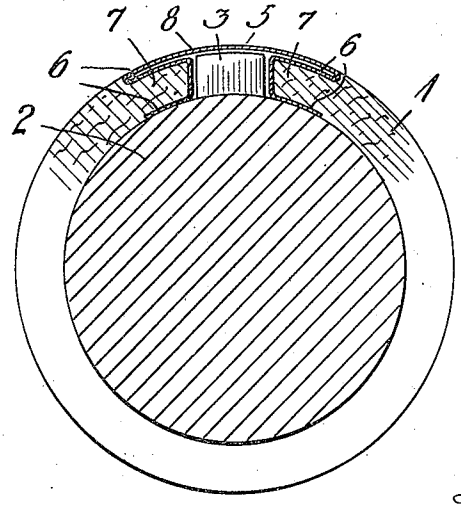


Fig. 2.



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KARL FREDRIK LENNART NORSTRÖM, OF SKONVIK, SWEDEN.

SLEEVE ADAPTED TO SERVE AS CORE FOR PAPER ROLLS.

Application filed March 31, 1922. Serial No. 548.472.

To all whom it may concern:

Be it known that I, KARL FREDRIK LENNART NORSTRÖM, residing at Skonvik, in the Kingdom of Sweden, have invented certain new and useful Improvements in Sleeves Adapted to Serve as Cores for Paper Rolls; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention has for object a sleeve adapted to serve as a core for paper rolls for instance such as are intended for printing in continuous lengths.

When printing newspapers and the like the paper to be printed is wound up in the shape of rolls rotatably arranged in the printing machine in such a manner as to allow the paper rolls to rotate during the printing operation while the paper to be printed is unwound according to the progress of the printing.

Usually the paper roll is mounted on a hollow core or sleeve made of mill-board or other material fit for the purpose in question. The roll is inserted in the machine in such a way that said sleeve together with the paper roll wound on the same is put on a shaft arranged in the machine in a manner suitable for the purpose aimed at.

When unwinding the paper from the roll the rotation of the latter should be braked or counteracted in a proper manner so as to impart to the paper—which is being unwound a tension suitable for the purpose.

For this purpose the ends of the sleeve have at their ends been provided with longitudinal recesses adapted to be engaged by projections or the like arranged on the said shaft so as to lock the paper roll to the shaft, which shaft then is braked in a suitable manner. This arrangement, however, involves the inconvenience that, on account of the torsional stresses, the sleeve and sometimes also the paper rolls have been damaged or destroyed at their end parts where the recesses engage said projections on the shaft.

The present invention has for its object a device for obviating said inconvenience. To this effect the recesses arranged in the ends of the sleeve are provided with plates—or reinforcements for instance consisting of metal sheets or any other material suitable for the purpose.

In order to make clear the invention the annexed drawing shows by way of example an embodiment of said plate or reinforcement fit for the purpose in question.

Fig. 1 is a perspective view of the sleeve and a part of the shaft.

Fig. 2 is a cross-section of the sleeve and the shaft through the recess and the plate or reinforcement arranged therein.

1 is the sleeve (shown without the paper rolls) and 2 the shaft, by which it is carried in the printing machine. 3 is the recess or recesses provided at the ends, said recess engaging, when the sleeve is put on the shaft, with projections, wedges or the like 4 attached to the shaft, the sleeve or the paper roll wound on the sleeve being locked to the shaft by said projections. 5 is the reinforcement or fittings arranged according to the present invention in the said recesses.

According to the embodiment shown on the drawing said fittings are made of metal sheet and shaped in the manner clearly shown in Fig. 2, (seen in the axial direction) so as to form two U-shaped portions 6, each grasping one edge of the recess 3 while the ends of the outer branches of said U-shaped portions 6 are connected by means of a portion 8 integral with said U-shaped portions, said portion 8 being curved in a corresponding manner to the cylindrical portion of the sleeve so as to coincide with the outer circumference of the sleeve. Thus, according to the embodiment shown on the drawing the fittings are made out of one piece or strip of metal whereby the manufacturing costs will considerably be reduced and the application of the fittings into the recess will only cause very little work or trouble.

Besides the portion 8 unites the U-shaped portions 6 so as to permit the fittings or reinforcement to protect, in a very effective manner, the sleeve from being damaged by the engagement with the projections 4. The portion 8 will, besides, prevent the inner layers of the paper in the paper rolls from penetrating into the recesses 3 or from engaging with the projections or wedges 4 which would damage the paper.

It is, however, not absolutely necessary

that the portion 8 be integral with the cylindrically bent portions 6, but it may also be, in any other manner suitable for the purpose united with the same or it may possibly be omitted.

Having thus described my invention I declare that what I claim is:

1. A sleeve or sleeve-shaped core for paper rolls having recesses in its ends adapted to engage with projections on the shaft on which the roll is carried, the edges of said recesses being provided with fittings or reinforcements of sheet metal consisting of two U-shaped portions adapted to fit on the edges of the recesses and a strip overlaying said recesses at the circumference of the sleeve and connected with the branches of the U-shaped portions.

2. Device according to claim 1, characterized by the fact that the portion connecting the U-shaped portions is curved in such a manner that it corresponds to the outer circumference of the cylindrical sleeve and is at its end portions connected with the ends of the outer branches of the U-shaped portions and made integral with said portions.

In testimony whereof I affix my signature.

KARL FREDRIK LENNART NORSTRÖM.

Witnesses:
INEZ BOENSON,
L. BENGOM LINDE.