

(No Model.)

J. W. CUMNOCK & E. SKILLINGS.

SPOOL.

No. 370,121.

Patented Sept. 20, 1887.

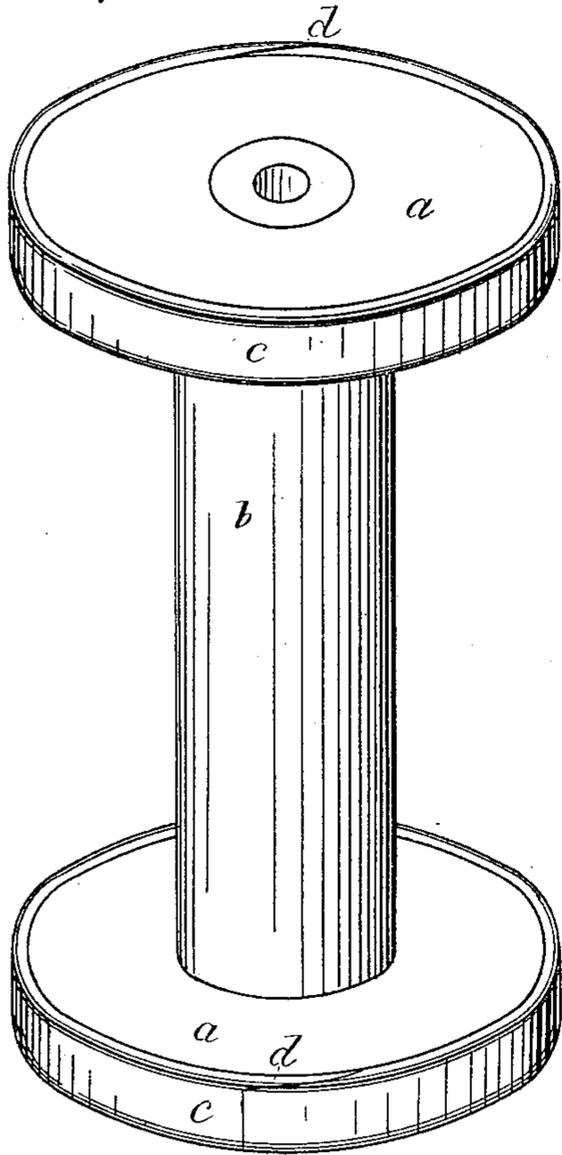


Fig. 1 -

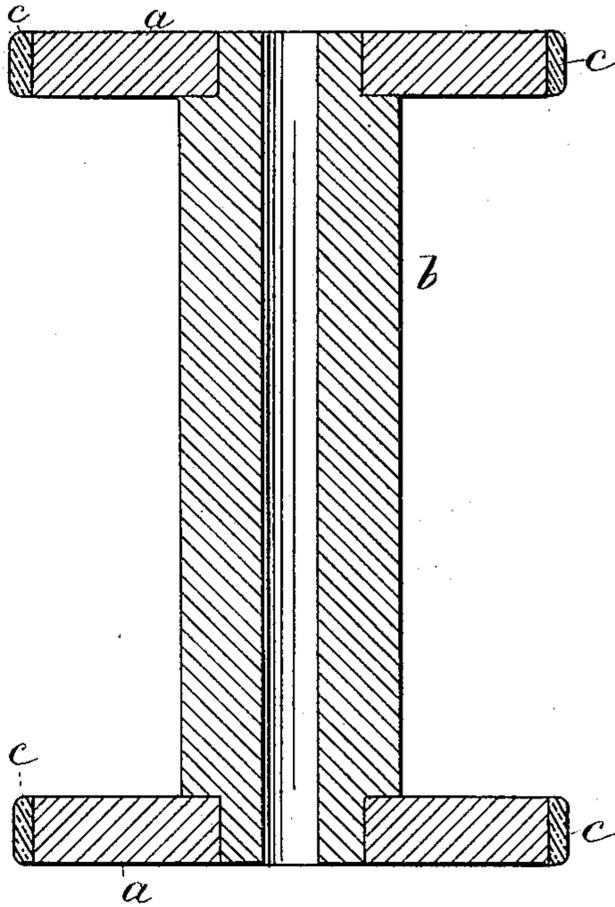


Fig. 2 -

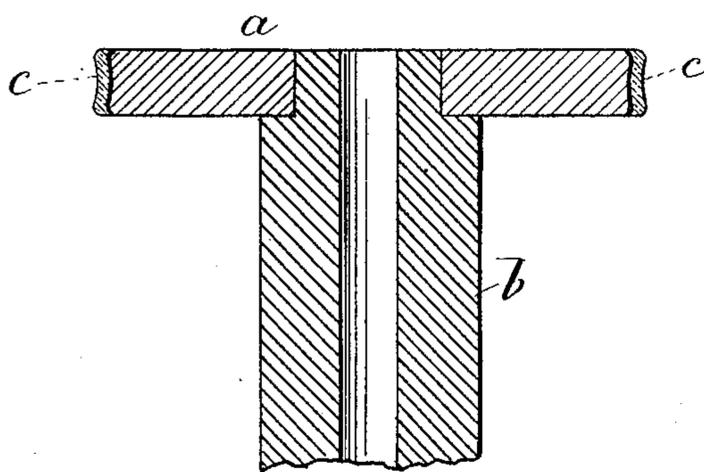


Fig. 3 -

WITNESSES

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# UNITED STATES PATENT OFFICE.

JAMES W. CUMNOCK AND ENOCH SKILLINGS, OF CHICOPEE, MASSACHUSETTS, ASSIGNORS TO THE GREAT FALLS SPOOL AND BOBBIN COMPANY, OF GREAT FALLS, NEW HAMPSHIRE.

## SPOOL.

SPECIFICATION forming part of Letters Patent No. 370,121, dated September 20, 1887.

Application filed December 22, 1884. Serial No. 150,910. (No model.)

*To all whom it may concern:*

Be it known that we JAMES W. CUMNOCK, and ENOCH SKILLINGS, both of Chicopee, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Spools, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a perspective view of a spool containing our invention. Fig. 2 is a vertical central section thereof, and Fig. 3 illustrates a slight modification.

It is well known that the spools commonly used in certain classes of machinery usually used in the manufacture of cotton and woolen yarns are almost invariably made of wood, and that, on account of the hard usage to which they are subjected, the edges of the heads become worn, abraded, and split, and that the spools, therefore, become valueless before they are in other respects worn out. Various means have been employed to protect the edges of spool-heads from these results, but with indifferent success. The most common method has been to bind the edge of the spool-head with rawhide, or with a wood band, or with composition, but, so far as we are aware, these devices have not overcome the difficulties—that is, they have not provided a good practical wearing spool. The principal trouble or difficulty with the rawhide edge is that it is quite subject to atmospheric influences and very easily extends and expands when at all moist, so that however well it may be originally fitted or secured to the edge of the spool there is no guarantee that it will so continue. In fact, the probabilities are, and experience has shown, that it will very shortly pucker up and become detached from the head. The employment of a wooden protecting-band does not overcome the difficulty, because, while it may be an improvement upon the old form of head, still it is liable to the same defects which make the old form objectionable. Moreover, it is

quite expensive to make and apply. No composition, so far as we are aware, has yet been used which thoroughly and effectually protects the edge of spool-heads and wears well. It is therefore obvious from what we have above stated that the material for properly covering and protecting the edges of spool-heads must be strong and tenacious, must not fray or abrade easily, must not be subject to atmospheric influences or changes, and must, when applied to the edges of the spool, retain its original shape thereon; and there is, so far as we know, but one material which will answer all the necessary requirements, and that is leather which has been so well seasoned that there is no liability of its stretching or being subject to ordinary atmospheric conditions, and we have found especially desirable for this purpose the worn-out leather clothing of cards, old leather belting, and the like. We prefer to use the worn-out leather of cards. This we cut into strips of suitable width, thickness, and length to cover the exterior edges of the spool-heads, and we fasten these strips thereto by fish-glue, or with any other desirable uniting material. We prefer that the joint between the two edges be an overlapping one rather than a straight abutting one. The spool-head edge is prepared to receive the protecting-strip when finished or shaped in the ordinary way.

Referring to the drawings, *a* represents the spool-heads fitted with our invention. *b* is the barrel of the spool; *c*, the old leather protecting-strip. *d* represents the overlapping joint.

In Fig. 3 we have represented the edge of each spool-head as slightly concave, to receive the leather protecting-strip. We have learned by experience that spools having their heads thus protected have long life and are all that can be desired.

We would state that ordinary green leather cannot be used for the purpose, because it is as liable to stretch as rawhide and is substantially no better than it.

Having thus fully described our invention,

we claim and desire to secure by Letters Patent of the United States—

5 A spool having the barrel *b* and the heads *a*, the outer edges of which are covered or bound with a protecting-strip of hard seasoned leather, such, for instance, as obtained from old leather belting or worn-out clothing or

cards, all substantially as and for the purposes described.

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ENOCH SKILLINGS.

Witnesses:

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N. WHITTIER.