(No Model.)

W. A. FRIES.

SPOOL

No. 335,692. Patented Feb. 9, 1886.

Fig. 1.

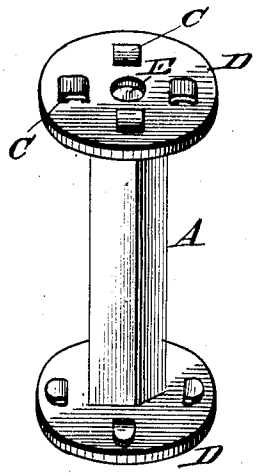


Fig. 1. b.

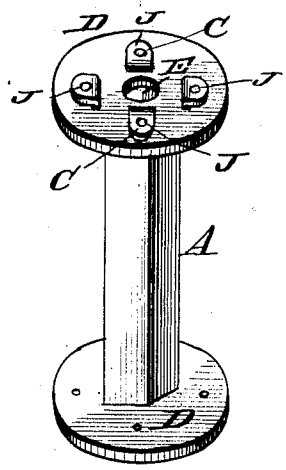


Fig. 1. a.

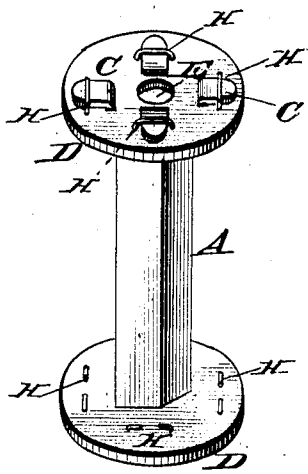


Fig. 2.

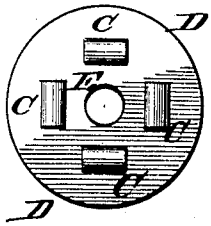


Fig. 3.

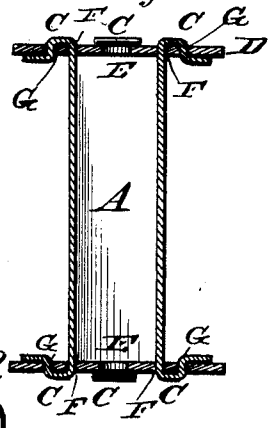


Fig. 4.

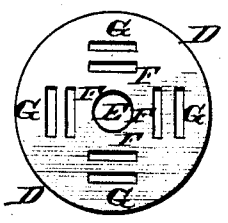


Fig. 5.

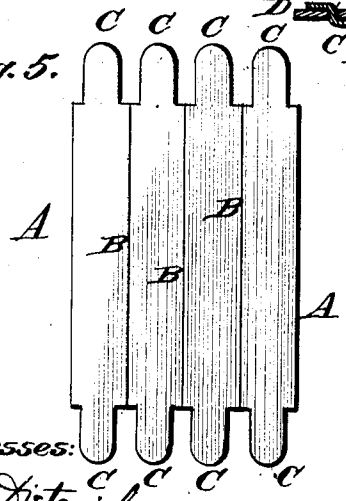
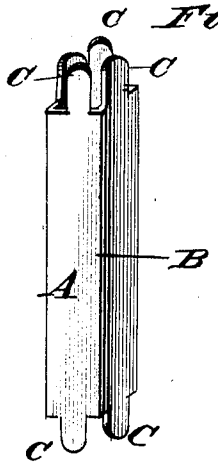


Fig. 6.



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Inventor
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atty

UNITED STATES PATENT OFFICE.

WILLIAM ARMSTRONG FRIES, OF BROOKLYN, ASSIGNOR TO THE H. W. JOHNS MANUFACTURING COMPANY, OF NEW YORK, N. Y.

SPOOL.

SPECIFICATION forming part of Letters Patent No. 335,692, dated February 9, 1886.

Application filed January 31, 1883. Renewed July 17, 1885. Serial No. 171,921. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ARMSTRONG FRIES, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Spools for Winding Asbestus and other Threads or Yarns during the Process of Spinning and Twisting, and for the handling, transportation, and consumption of such yarns and threads; and I do hereby declare the following to be a full, clear, and exact description thereof, to enable others skilled in the art to make and use the said invention.

This invention relates to spools useful in the spinning of fibrous substances, and for the handling of such yarns in subsequent operations, as twisting or braiding, or in transportation, and in keeping them on sale in small quantities.

The nature of the said invention consists in forming spools having a prismatic barrel made of a veneer of wood, and having tenons of its own material bent and inserted in slots made in the heads of the spools, which heads may also be of such veneer or of other suitable material. The spool-barrels are preferably steamed so as to render them flexible, and are then bent and the tenons passed into the slots cut into the spool-heads. The heads may be secured to the barrel by cementing, gluing, nailing, riveting, or by wire staples.

I will now proceed to particularly describe the mode of making this invention, referring in so doing to the drawings annexed and the letters of reference marked thereon.

Figures 1, 1ª, and 1ᵇ show elevations of the spool, Fig. 1 showing the tenons passed through two slots, Fig. 1ª showing the tenons passed through one slot and secured by staples, and Fig. 1ᵇ showing the tenons passed through one slot and secured by rivet; Fig. 2, a plan thereof; Fig. 3, a section thereof made lengthwise; Fig. 4, a spool-head as cut out and detached; Fig. 5, a barrel-blank as cut out; Fig. 6, a barrel as formed ready to attach to the head.

The same letters of reference apply to the same parts in the several figures.

A represents a blank cut lengthwise with the grain of a wooden veneer, having scores formed therein (marked B) and tenons C upon the ends thereof.

D is a head, preferably of circular form, having a central aperture, E, of a size to fit to the spindle on which the spools are to be wound.

F are slots cut in the head D. Near the central opening, E and G, are other slots, cut parallel with the slots F farther from the aperture E.

The parts having been made as described, the barrel-blank shown in Fig. 5 is preferably steamed or soaked, so as to render it flexible, although such treatment is not always necessary, and then folded on the score-marks B into the form shown in Fig. 6. The tenons C are then passed through the slots F in the head D, forming the spool, as shown in Figs. 1, 2, and 3.

The drawings show the spool-barrel as rectangular; but any number of sides may be employed with a corresponding number of tenons and of slots in the spool-heads.

Instead of passing the tenons through the slots F and G in the head D, they may be passed through the slots F only and fastened by staples H, as shown in Fig. 1ª, or by nails J, clinched or riveted, as in Fig. 1ᵇ, or by glue or cement.

Spools so made are extremely cheap, and for their purpose abundantly strong, and avoid the trouble of unwinding or reducing the yarns to skeins, and in the manufacture of asbestus yarn avoid the great waste incident to winding and rewinding, and can be used in the same manner as the paper spools described in my application for patent, No. 71,418, filed September 19, 1882.

Having described my invention and the manner of making and carrying into effect the same, what I claim is—

1. A spool for winding fibrous substances, formed of a prismatic barrel of wooden veneer, combined with heads secured thereto, in the manner set forth, shown, and described.

2. A blank for a barrel for spools for winding fibrous substances, consisting of wooden veneer scored on the desired lines and bent into shape, substantially as and for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 16th day of July, A. D. 1885.

WM. ARMSTRONG FRIES.

Witnesses:
JOHN H. IVES,
JOHN J. CAULDWELL.