(No Model.)

O. ATWOOD.

SILK AND OTHER SKEINS.

No. 300,431. Patented June 17, 1884.

Fig2.

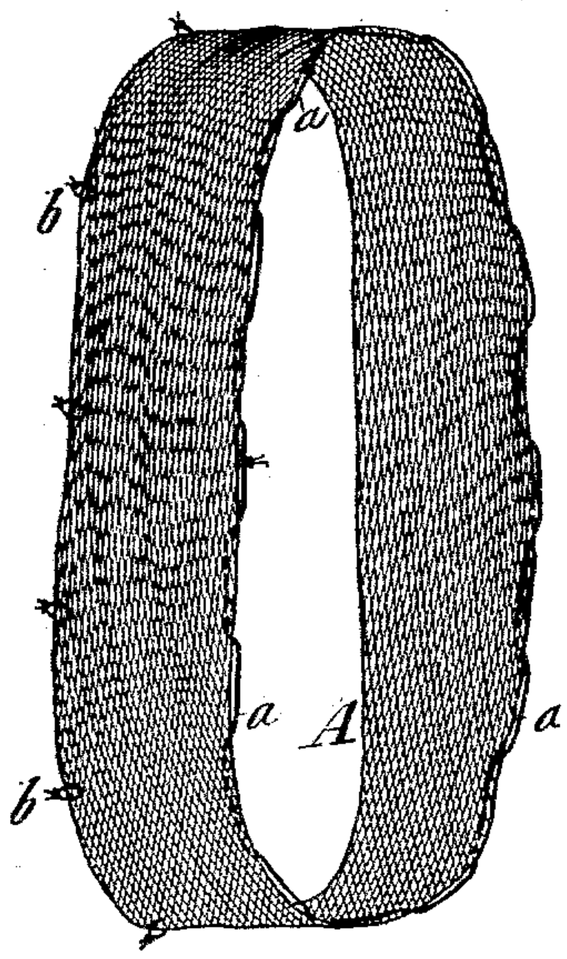


Fig1.

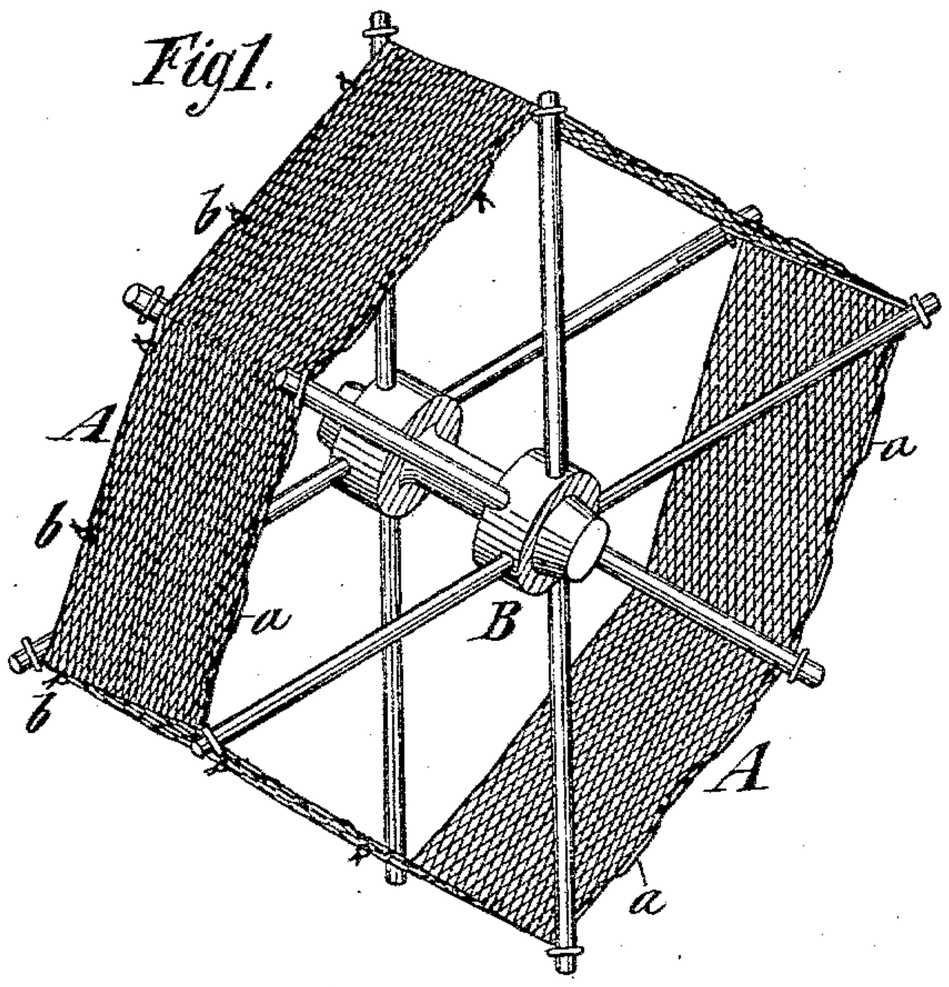


Fig3.

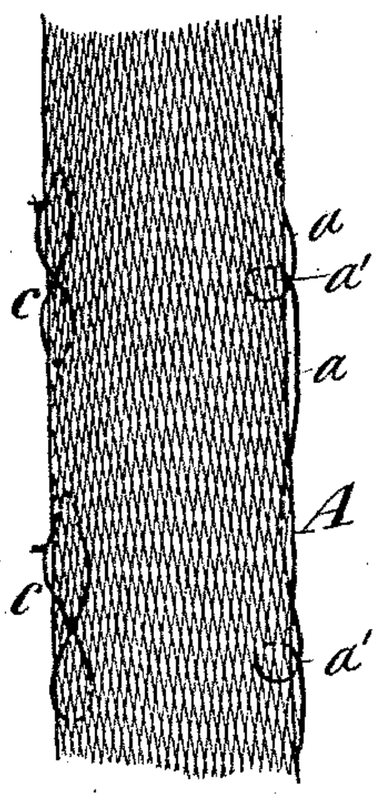
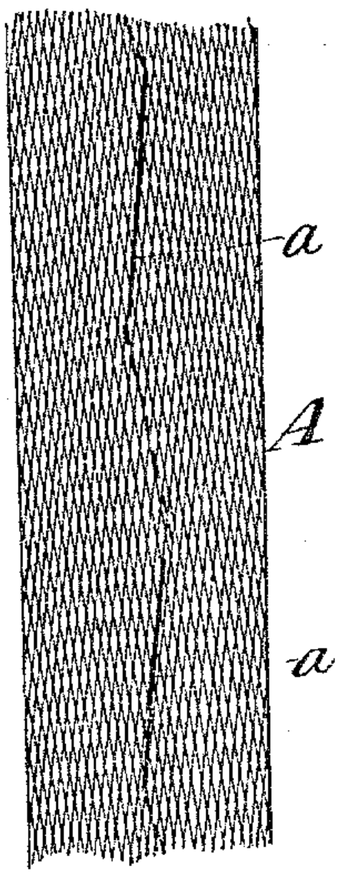


Fig4.



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ORLO ATWOOD, OF NEW LONDON, CONNECTICUT.

SILK AND OTHER SKEINS.

SPECIFICATION forming part of Letters Patent No. 300,431, dated June 17, 1884.

Application filed October 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, ORLO ATWOOD, of New London, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Silk and other Skeins, of which the following is a specification.

In manufacturing silk, a number of skeins are produced side by side upon a long reel, and each skein is tied by itself, after which the reel is taken down or collapsed, and the skeins when removed therefrom are ready for dyeing.

Heretofore it has usually been customary to make the skeins of small size, as in their dyeing and subsequent manipulation the skeins are apt to become entangled and have their traverse destroyed, so that it is difficult to rewind them.

In United States Letters Patent No. 267,192, dated November 7, 1882, is described a method of reeling and tying skeins, which enables larger skeins to be produced and dyed without danger of their being tangled and having their traverse destroyed, the said method consisting in winding the skeins diagonally from side to side or with a quick traverse, and in lacing the skein directly across and entirely from one side to the other, the lacing thread or cord being passed repeatedly through the skein. While this method of lacing tends to prevent the skein from being tangled and preserves the traverse, it is objectionable because the skein cannot be spread or drawn apart at the points where it is thus laced in order to thoroughly inspect it after dyeing, and the lacing cords or threads are apt to bind the thread or fiber so tightly at the several points where it is tied or laced that the dye cannot readily penetrate it at those points, and consequently the skein is liable to spot.

The object of my invention is to provide means for preventing the tangling of the skeins, which may be more quickly and cheaply applied than that above described, which will permit the skein to be spread or pulled apart at any and every point, so that it may be thoroughly inspected, and which will not bind the skein so tightly as to prevent dye from readily penetrating it at any point.

To these ends my invention consists in a skein of silk or other fibrous material wound upon a reel diagonally from side to side with a quick traverse, and secured at the edges only by lacing or ties, thereby leaving the skein free to be pulled apart or spread throughout its circumference.

The invention also consists in a skein of silk or other fibrous material wound upon a reel diagonally from side to side with a quick traverse, and having a lacing cord or thread passing in a circumferential direction and through it at intervals.

In the accompanying drawings, Figure 1 is a perspective view of a swift and a skein placed thereon for rewinding, and laced or secured according to my invention. Fig. 2 is a perspective view of the skein alone, and Figs. 3 and 4 represent portions of a skein embodying slight modifications of my invention.

Similar letters of reference designate corresponding parts in all the figures.

A designates the skein or a portion thereof, and B designates the swift on which the skein is placed for rewinding in the usual way. The skein is wound, with others, on a reel and diagonally from side to side of the skein with a quick traverse, as shown by the crossed lines in the drawings.

The skein shown in Figs. 1 and 2 has at one edge a cord, *a*, run along circumferentially and at long intervals passed through the skein, always from the same side and near the edge. The manner of inserting the cord or thread may be likened to overhand-sewing with a very long stitch. The other edge of the skein is tied at long intervals by ties of cord or thread *b*. In this way both edges of the skein are secured, while the skein, throughout almost its whole width, is free to be pulled apart or spread.

The skein, of which a portion is shown at Fig. 3, has at one edge a lacing cord or thread, *a*, which is applied like the cord or thread *a* in Figs. 1 and 2, save that it is overcast at the points *a'*, where it is passed through the skein. The other edge of this skein is secured by short cords or laces *c*, which are passed twice through the skein and have their ends tied. These cords or laces extend in the direction of the circumference of the skein.

The skein, of which a portion is shown in

Fig. 4, has a single lacing cord or thread, *a*, inserted at long intervals through the skein alternately from the inner and outer sides thereof, and extending alternately on the inner and outer sides of the skein.

It will be observed that in all examples of my invention here shown the skein can be pulled out or spread at any point, and the dye can readily penetrate it at all points.

I do not claim, broadly, as my invention a skein wound diagonally from side to side; nor do I claim such a skein laced back and forth across its width, as in the patent above referred to; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A skein of silk or other fibrous material wound upon a reel diagonally from side to side with a quick traverse, and secured at the edges only by lacing or tying, leaving the skein free to be pulled apart or spread throughout its entire circumference, substantially as herein described.

2. A skein of silk or other fibrous material wound upon a reel diagonally from side to side with a quick traverse, and having a lacing cord or thread passing in a circumferential direction and through it at intervals, leaving the skein free to be pulled apart or spread throughout its entire circumference, substantially as described.

ORLO ATWOOD.

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