H. B. Lawton,

Bobbin Winder.

No. 110,980. Patented Jan. 17, 1871.

Fig. 1.

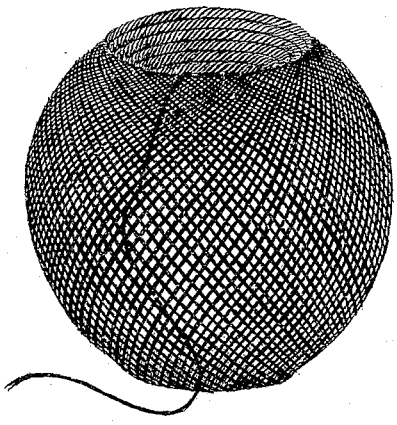
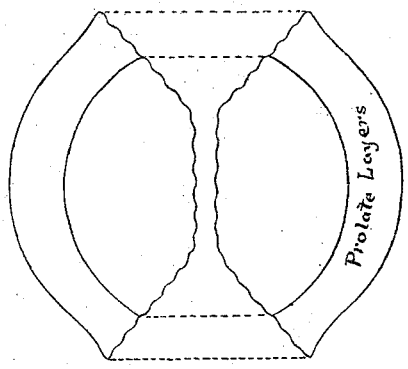


Fig. 2.



WITNESS:

Ira H. Lawton.
J. Butler.

INVENTOR:

Hamilton B. Lawton

United States Patent Office.

HAMILTON B. LAWTON, OF CROPSEYVILLE, NEW YORK.

Letters Patent No. 110,980, dated January 17, 1871.

IMPROVEMENT IN THE MODES OF FORMING BALLS OF TWINE AND CORD.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HAMILTON B. LAWTON, of Cropseyville, county of Rensselear, State of New York, have invented a new and useful Mode of Forming or Winding Balls of Twine, Thread, Yarn, Wicks, &c., of all fibrous materials; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2 is a sectional view in outline.

I use the common balling or winding machine, having the usual angular and rotary motion to the spindles to form my balls with.

I let them work in the usual manner until the balls are about one-half the spherical size required is obtained, then I stop the angular motion of the spindles and continue to wind the balls until they reach the required size, with only the rotary motion of the spindles resting in a diagonal position, thereby forming a regular series of uniform prolate layers for the outside finishing walls of the balls, and by these means changing the shape of the same from a spherical to an oblate-spheroidal form with permanent open ends, as represented by the accompanying drawing.

The advantages of my new mode of putting up twines, thread, wicks, &c., of all fibrous materials, are obvious.

First, by these means a concave or open-ended ball is produced, allowing free access to the inside end of the thread whenever it is desirable to draw from the inside of the ball.

Second, by thus combining the spherical with the oblate-spheroidal formation, as above described, they are enabled to retain their shape better and longer than if of the cylindrical form alone, and are not so liable to break up and snarl or become wasted as several months' use has fully demonstrated.

I do not claim the spheroidal ball as such, but the manner of producing it.

Claim.

What I claim is—

The herein-described mode of forming a ball of twine, wicking, cord, &c., having a spherical interior and an exterior shell of prolate layers, constituting an oblate spheroid, as shown and described, and for the purpose set forth.

HAMILTON B. LAWTON.

Witnesses:

IRA H. LAWTON,

J. BUTLER.