A. C. SLATER & T. C. BALL.

BOBBIN-HOLDER FOR SPOOLING-MACHINES.

No. 193,290. Patented July 17, 1877.

Fig. 1.

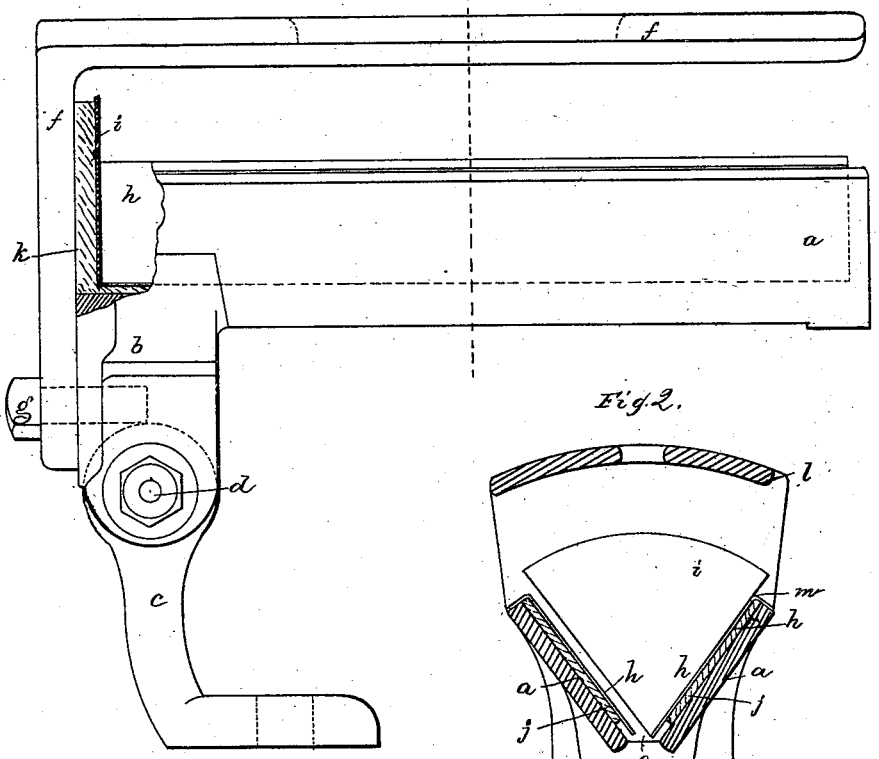


Fig. 2.

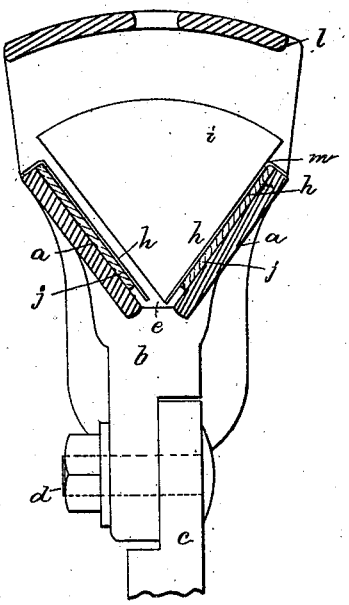
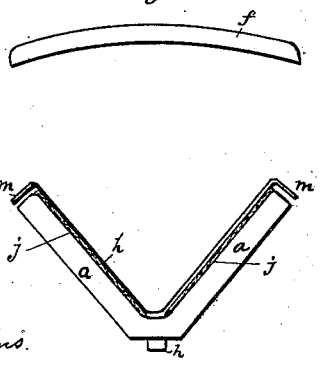


Fig. 3.



Witnesses.

E. G. Perkins.

W. J. Pratt.

Inventor

Arta Covel Slater and Theophilus C. Ball

per Crosby & Gregory Attys.

UNITED STATES PATENT OFFICE.

ARBA C. SLATER, OF UXBRIDGE, AND THEOPHILUS C. BALL, OF NORTHBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN BOBBIN-HOLDERS FOR SPOOLING-MACHINES.

Specification forming part of Letters Patent No. **193,290**, dated July 17, 1877; application filed May 19, 1877.

To all whom it may concern:

Be it known that we, ARBA COVEL SLATER, of Uxbridge, in the county of Worcester and State of Massachusetts, and THEOPHILUS CONSTANTINE BALL, of Northbridge, in said county and State, have invented an Improvement in Bobbin-Holders for Spooling-Machines, of which the following is a specification:

This invention relates to improvements in bobbin-holders for spooling-machines.

In the bobbin-holders now commonly made the bobbins are laid in metal troughs singly, and the yarn, as it is being unwound, causes the bobbins to jump very considerably, and this latter difficulty is augmented by the rebound of the bobbin when striking the trough.

To overcome this jumping, and thereby hold the bobbins steadier, so as to deliver yarn more evenly, and also to reduce noise, we line the trough with thin elastic metal, or other thin material equivalent in its action, and between such lining and the trough we interpose a yielding medium, as cloth, leather, india-rubber, &c., to deaden the blows of the bobbin on the lining.

Our invention in bobbin-holders consists in a lined trough, provided with an interposed packing.

Figure 1 represents one of our improved bobbin-holders in side elevation; Fig. 2, a cross-section thereof, and Fig. 3 an end view.

This bobbin-holder is adapted to be placed near or upon a spooling-machine, to hold the bobbins, as is well understood.

The trough *a*, in this instance of our invention, is composed of two inclined plates projected forward from a head, *b*, supported on a stand, *c*, by a set-screw, *d*.

Between the inclined under edges of the plates is a space, *e*, for the passage of dust, dirt, &c. A top plate or cover, *f*, extended horizontally forward over the trough, is supported and adjusted by means of the screw or bolt *g*. The rounded edge *l* of the top plate *f* serves as a friction device for the yarn.

Inside this trough, preferably of cast metal, is placed a lining or shell-rest, *h*, having preferably connected with it an end piece, *i*. The lining, made in this instance of tin, is detached from the cast-metal trough and placed loosely therein, and between the two are placed pieces of packing, *j k*, of fibrous material; but they might be of india-rubber, leather, or other soft or elastic substance. The bobbins are laid in the trough upon the surface *h*, the head of the bobbin resting against the end piece *i*.

As the bobbin is moved and its sides strike the lining *h*, it yields to the blow, and the bobbin is not caused to rebound and jump, as heretofore common. This results in enabling the yarn to be delivered under more uniform and equal strain. The lining is also opened at bottom for the passage of lint or dirt. The lips *m* of the lining serve to support it on the trough.

The maximum speed of a spooling-machine is determined by the strength of the yarn, and it is, therefore, a great desideratum to equalize the friction upon the bobbin, and so retain it that it may be revolved easily, so as to deliver the yarn at a uniform strain.

With a holder constructed as herein described, the speed of the spooling-machine can be greatly increased.

It is not absolutely necessary that the packing come in contact with the lining *h* from end to end, for it may be otherwise interposed.

The main object of the invention is to so support the lining that it shall not come in contact with the trough at the parts where the bobbin rests against the lining.

We claim—

1. The combination, with the bobbin-holding trough, of a lining supported therein to prevent its direct contact with the trough opposite that portion of the lining where the bobbin rests, substantially as described.

2. The combination, with a bobbin-holder, of a lining and an interposed packing, to operate substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ARBA COVEL SLATER.
THEOPHILUS C. BALL.

Witnesses:
GEO. W. KNIGHT,
GEO. A. DRAPER.