J. T. BLAUVELT & B. MORTIMER.

BOBBINS.

No. 179,510. Patented July 4, 1876.

Fig: 1.

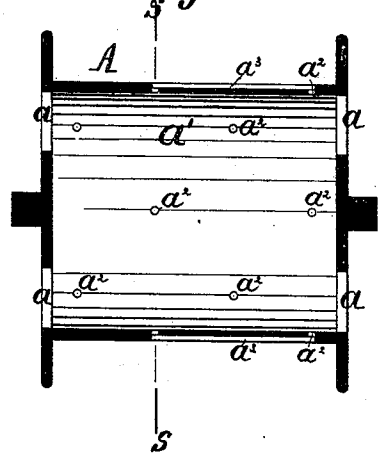
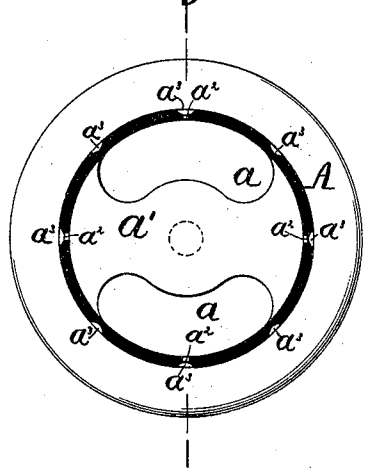


Fig: 2.



Witnesses:

W. Lowry Gardner

C. C. Leeson

Inventors:

Jacob T. Blauvelt
and Benjamin Mortimer
by their attorney
Thomas D. Stetson

UNITED STATES PATENT OFFICE.

JACOB T. BLAUVELT AND BENJAMIN MORTIMER, OF PATERSON, NEW JERSEY, ASSIGNORS TO THE DANFORTH LOCOMOTIVE AND MACHINE COMPANY, OF SAME PLACE.

IMPROVEMENT IN BOBBINS.

Specification forming part of Letters Patent No. **179,510**, dated July 4, 1876; application filed February 16, 1876.

To all whom it may concern:

Be it known that we, JACOB T. BLAUVELT and BENJAMIN MORTIMER, of Paterson, Passaic county, New Jersey, have invented certain new and useful Improvements Relating to Bobbins, of which the following is a specification:

Our improved bobbins are intended more particularly for receiving silk, which requires to be steamed, and in which manufacture, in consequence of the value of the textile material, the loss from any derangement thereof is particularly serious. The bobbins ordinarily used, formed in whole or in part of wood, are liable to change their dimensions, and to split under the severe changes of temperature and moisture to which they are exposed. When formed with metallic ends they are liable to open a joint between the body and the ends, and the ends, being made of sheet metal, are liable to bend when the bobbin is dropped on the floor.

We make a bobbin of a single casting of hard brass, peculiarly adapted to fulfill all the conditions.

The accompanying drawings form a part of this specification, and represent what we consider the best means of carrying out the invention.

Figure 1 is a central longitudinal section through a full bobbin. Fig. 2 is a cross-section on the line S S in Fig. 1.

Similar letters of reference indicate like parts in both the figures.

A is a single casting, preferably of brass. It is adapted to revolve on short, nicely-turned extensions, forming part of the same casting. Apertures a, in each end, communicate with a large cylindrical cavity, a^1, into which are bored holes a^2, from narrow longitudinal grooves a^3, milled or otherwise produced along the exterior of the body. When the bobbin is immersed in steam the fluid enters through these passages, and, finding access thereby to the inner surface of the silk, permeates the mass almost as rapidly and thoroughly from the inner as from the outer face.

The metal should be sufficiently hard and stiff, and the rims sufficiently thick, to withstand the fall of a bobbin, loaded or empty, upon a hard floor.

We find that the interior of the cavity a^1, and the large end apertures a, may be formed by what is sometimes called "green sand-coring." The holes a^2 we produce by drilling.

The device may be used with some success without the longitudinal grooves a^3; but the steam finds access more rapidly and evenly by reason of their introduction.

We claim as our invention—

As a new article of manufacture, the herein-described bobbin, formed of metal cast in one piece, recessed, and perforated, as shown, for the purposes set forth.

In testimony whereof we have hereunto set our hands this 8th day of February, 1876, in the presence of two subscribing witnesses.

JACOB T. BLAUVELT.
BENJAMIN MORTIMER.

Witnesses:
ROBERT M. TAGGART,
JACOB VAN WINKLE.