

A. WORMSER.

BOBBIN.

APPLICATION FILED DEC. 12, 1910.

1,030,219.

Patented June 18, 1912.

Fig. 1

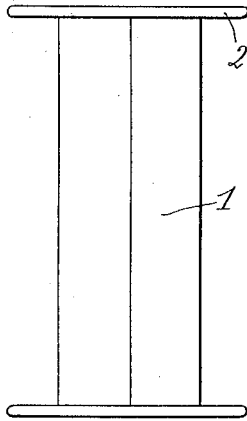


Fig. 3

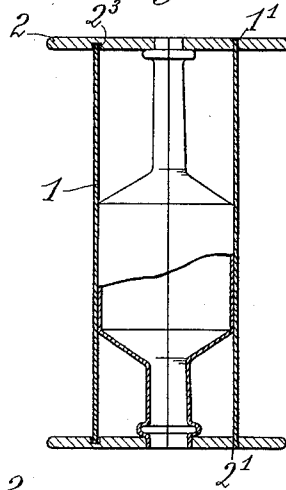


Fig. 2

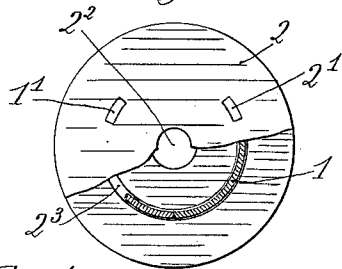


Fig. 4

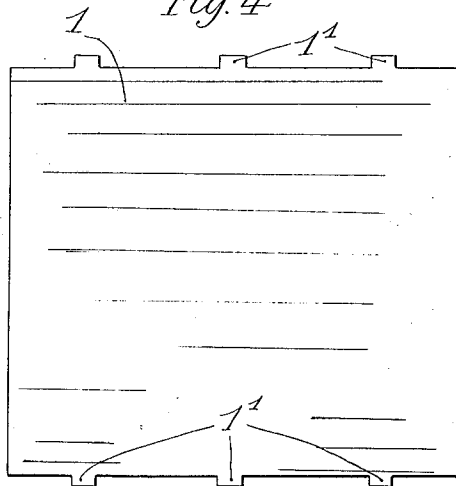
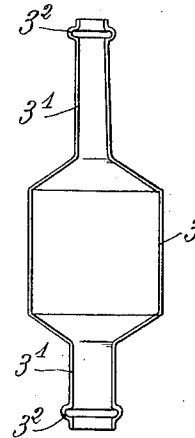


Fig. 5



Witnesses:

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UNITED STATES PATENT OFFICE.

ALFRED WORMSER, OF PARIS, FRANCE.

BOBBIN.

1,030,219.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALFRED WORMSER, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Bobbins, of which the following is a specification.

This invention relates to improvements in bobbins more especially intended for carrying thread and to be fitted on a spindle and retained by suitable springs.

The object of the invention is to provide a bobbin of reduced weight; of the same, if not greater, strength than bobbins heretofore employed; and in which the cost of manufacture is comparatively small.

An embodiment of the invention is illustrated in the accompanying drawings, wherein

Figure 1 is a view in elevation of a bobbin according to the invention; Fig. 2 is a plan view partly in section; Fig. 3 is a longitudinal sectional view partly in elevation; Fig. 4 is a developed plan view of the blank from which the body of the bobbin is constructed; and Fig. 5 is an elevation of one of the halves of the inclosed strengthening part.

Similar characters of reference designate corresponding parts throughout the several views.

The body of the bobbin is in the form of a tube, as 1, and is made from a rectangular blank which is rolled to the diameter required and which has, at its end edges, a number of tongues 1', for example three. The blank 1 is preferably of sheet aluminum and when formed as a tube is associated with end heads 2. These are also of aluminum and are of greater thickness than said blank. Said heads are provided on their inner faces with circular recesses or grooves 2³ in which the edge portions of the body 1 are received. The heads are also provided at suitable points and coincident with the grooves, with slots 2' through which the tongues 1' project. The ends of the said tongues are flattened so as to constitute, in effect, rivet connections between the body and the heads.

The improved construction includes an inclosed strengthening part which is preferably made in two counterpart halves 3, each half comprising a half cylindrical portion

terminating at its ends in half cones having extended stem portions 3'. The portions 3' are formed adjacent their extremities with beads 3². The heads 2 are formed with central openings 2² to receive the end portions of the inclosed strengthening part and the beads 3² bear against the said heads. The cylindrical portion of the strengthening part corresponds in diameter to the internal diameter of the body 1. It may be noted that one of the extended stem portions 3' is preferably of greater length than the other.

It will be apparent from the foregoing description that a bobbin in accordance with the present improvements being constructed entirely of sheet metal with an integral tongue connection between the body and the heads, the said tongues serving as rivets, provides for strength, simplicity and lessened cost and in these respects is greatly superior to the bobbins ordinarily employed.

Having fully described my invention, I claim:

1. A bobbin having its body constructed of a sheet metal blank rolled into the form of a cylinder and provided at its end edges with a plurality of integral projecting tongues, sheet metal heads having on their inner faces circular recesses to receive the edge portions of the body and having slots coincident with the recesses and through which the said tongues project, the ends of the tongues being flattened to provide a positive rivet-like connection between the body and the heads, and an inclosed reinforcing part which has a cylindrical portion corresponding to the internal diameter of the body and extended stem portions provided adjacent their ends with beads, the heads having central openings to receive the extremities of the extended stem portions and the said beads bearing against the heads.

2. A bobbin comprising a body constructed of a sheet metal blank rolled into the form of a cylinder and provided at its ends with projecting tongues, sheet metal heads having slots through which the tongues pass, the tongues serving to lock the heads and the body, the heads having central openings, and a hollow sheet metal reinforcing part inclosed in the body and comprising a cylin-

drical portion which corresponds to the internal diameter of the body and extended stem portions, the extremities of which pass through the central openings of the heads, 5 the said stem portions having beads which bear against the heads.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

ALFRED WORMSER.

Witnesses:

DEAN B. MASON,
PAUL BLUM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."