J. P. BUZZELL.
Bobbin for Loom-Shuttle.

No. 202,929. Patented April 30, 1878.

Fig. 1.

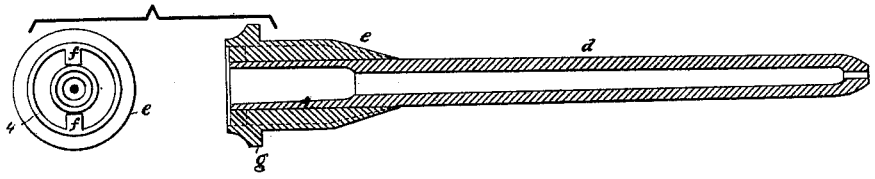
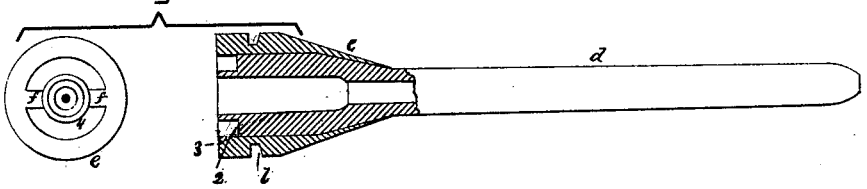


Fig. 2.



Witnesses.
E. C. Perkins
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UNITED STATES PATENT OFFICE.

JOHN P. BUZZELL, OF CLINTON, MASSACHUSETTS, ASSIGNOR TO BIGELOW CARPET COMPANY, OF SAME PLACE.

IMPROVEMENT IN BOBBINS FOR LOOM-SHUTTLES.

Specification forming part of Letters Patent No. **202,929**, dated April 30, 1878; application filed December 7, 1877.

To all whom it may concern:

Be it known that I, JOHN P. BUZZELL, of Clinton, in the county of Worcester and State of Massachusetts, have invented an Improvement in Bobbins for Loom-Shuttles, of which the following is a specification:

This invention relates to an improvement in bobbins for loom-shuttles; and consists in a bobbin, as a new article of manufacture, it having a metallic head or base and a wooden barrel, projections within the base entering grooves in the barrel, and serving as the uniting means between them, and also as the stop-pins for the revolution of the bobbin in the spinning-machine, as hereinafter described.

Figure 1 represents the bobbin in a longitudinal section and end view, and Fig. 2 a modified form of bobbin.

In the manufacture of carpets and some other heavy goods it is necessary to place the weft in the shed when wet, in order that it may be properly beaten up. The weft is commonly wound upon a wooden bobbin provided with an annular groove about its large end, to be engaged by a spring-hook at the bottom of the shuttle, such hook being adapted to be bent and moved into and out of such groove as the spindle is turned into or out from the shuttle, as is well understood. This arrangement is adopted in most loom-shuttles now made.

These bobbins, being sometimes wet and sometimes dry, swell, warp, and crack, and, owing to variations in size and shape, give much trouble. Special trouble is caused by the swelling of the head or base of the bobbin, for the hook of the bobbin-holding spring does not then properly enter the annular groove in the bobbin-head, and the bobbin, besides having its wooden head cut and injured by the hook, is not held in a central position in the shuttle, as is necessary for the even unwinding of the yarn thereon.

The bobbin is composed of a barrel, *d*, of wood, fitted into a metallic base-piece, *e*, having longitudinally within it projections *f*, which, as the barrel is driven into the base-piece, enter grooves or notches in the barrel, thereby holding the latter firmly in place. The portion 2 of the end of the bobbin is permitted to extend into the base beyond its lower end 3, and beyond the lower ends of the projections, which leaves projections *f f* standing as it were in the annular space 4 at the end of the bobbin.

This construction obviates the necessity of driving or screwing pins into the wood at the base of the bobbin, as now common, to serve as stops, against which the usual bobbin-rotating pin of the spindle rests when spinning yarn on the bobbin. In bobbins which carry wet yarn, as described, and often very heavy loads, as for carpet-weaving, it is difficult to retain the usual pins in the base of the bobbin, and they work loose, even though provided with threads and screwed into the bobbins, and they are frequently the cause of splitting the bobbin.

The metallic bobbin-base *e* will preferably have a shoulder or collar, *g*, the front portion or face of which will, when the spindle is closed into the shuttle, pass behind the bobbin-holders *h h*, they being made as arms, each with lips. These bobbin-holders do not yield as the spindle is turned, and, being located at the sides of the shuttle, they do not act as a stop to prevent the descent of the spindle and bobbin into the shuttle. These holders, having their lips beveled or inclined, are made practically to fit the sides of the base and maintain the bobbin in central position in the shuttle, and the lips prevent it from moving longitudinally on the spindle.

In carpet-weaving it is frequently necessary to weight or load down one end of the shuttle, to keep it in place when moving over a number of warps left down in a shed. This metallic base is found advantageous for this purpose, and it gives to the shuttle at that end sufficient weight to move in the proper line.

It is obvious that the shape of the outside of the base may be varied to correspond with the bases or enlarged portion of other well-known wooden bobbins, and, instead of the collar *g*, I may groove the base, as at *l*, Fig. 5.

The bobbin-holders connected with the shuttle herein referred to will form the subject of another application.

I claim—

The metallic base *e*, provided with the projections *f*, in combination with the wooden barrel secured in such base, the projections thereof serving to unite the barrel and base, and to act as stop-pins for driving the bobbin, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN P. BUZZELL.

Witnesses:
W. J. PRATT,
G. W. GREGORY.