

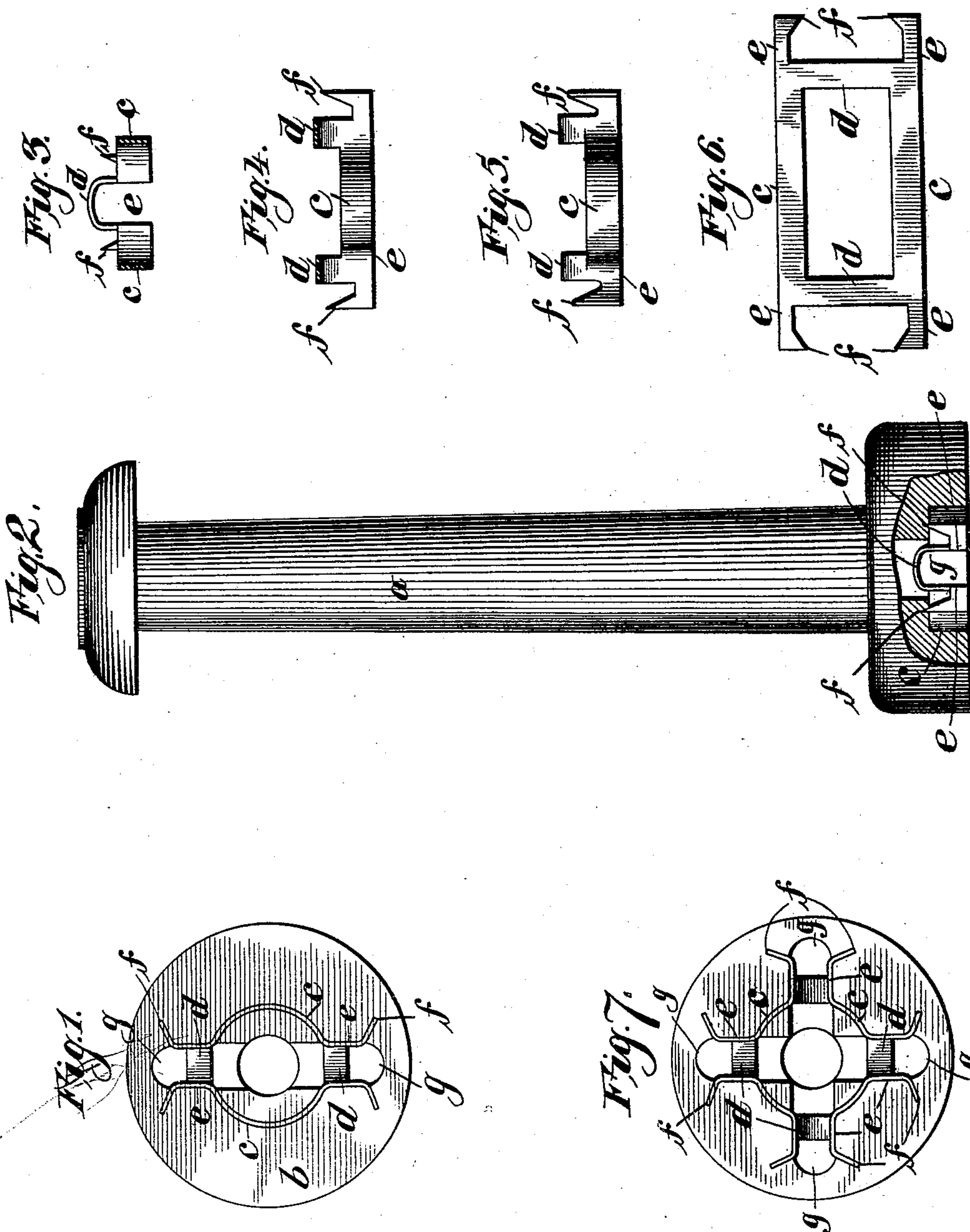
(No Model.)

J. H. WILSON.

BOBBIN USED IN SPINNING AND TWISTING FRAMES.

No. 488,045.

Patented Dec. 13, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSHUA HENRY WILSON, OF TODMORDEN, ENGLAND.

BOBBIN USED IN SPINNING AND TWISTING FRAMES.

SPECIFICATION forming part of Letters Patent No. 488,045, dated December 13, 1892.

Application filed September 5, 1892. Serial No. 445,125. (No model.) Patented in England May 14, 1891, No. 8,268.

To all whom it may concern:

Be it known that I, JOSHUA HENRY WILSON, a subject of the Queen of Great Britain, residing at Cornholme, Todmorden, in the county of Lancaster, England, have invented certain new and useful Improvements in Bobbins Used in Spinning and Twisting Frames, (for which I have obtained Letters Patent in England, dated May 14, 1891, No. 8,268;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The invention relates to bobbins used in spinning and twisting frames, and more especially to that class of frames in which the bobbins are driven by radial lugs or pins secured to or formed on the spindles and catching in corresponding grooves or recesses formed in the lower end or flange of the bobbin. It is well known that when the bearings or recesses for the pins on the driving-spindle are left unprotected they wear rapidly under the action of the metallic pin or pins on the wood of the bobbin.

My invention has for its object the provision of means whereby this rapid wear is avoided by providing the bearings for the pins on the spindle—that is to say, the grooves or recesses formed in the lower face of the bobbin or its flange in which the said pins catch—with a lining or bushing of metal acting as a protector for the said bearings.

To these ends the invention consists in the peculiar construction of the protector lining or bushing whereby it may be readily secured to the bobbin, and in forming such protector lining or bushing of a single piece of sheet metal, as will now be fully described, reference being had to the accompanying drawings, in which—

Figure 1 is an end view of a bobbin provided with a protector lining or bushing constructed according to my invention. Fig. 2 is a sectional elevation thereof. Figs. 3 and 4 are transverse and longitudinal sections, respectively, of the protector lining or bushing detached. Fig. 5 is a side view thereof;

Fig. 6, a top view of the protector before being pressed or stamped into the shape as shown in Fig. 1; and Fig. 7 is a view similar to Fig. 1, illustrating a protector for four bearing grooves or recesses instead of two, as shown in the other figures of the drawings.

Similar letters indicate like parts wherever such may occur in the figures of drawings above described.

Referring to Figs. 3 to 6, inclusive, the protector as stamped out of a sheet of metal consists of a substantially-polygonal frame, the sides *cc* of which extend beyond the ends *dd*, the projecting arms *ee* so obtained having at their outer end a tooth *f*, adapted to be driven into the lower end or face of the flange *b* of the bobbin *a*, as shown in Figs. 1 and 2. The protector, Fig. 6, is stamped or pressed into the shape shown in Figs. 1 to 5, the sides *c* being curved and encompassing the bore of the bobbin, while the ends of the arms *e* are bent outwardly, so as to diverge from each other, as more clearly shown in Fig. 1. In this manner two open-ended bearings are formed by the extended sides *c*—that is to say, by the projecting arms *e* between the tooth *f*, the curved portion *c*, and the bridge *d*, that connects the sides *cc* for the projections or pins on the spindles to catch and work in—the protector being seated in a suitable recess formed in the end or face of the flange *b* of the bobbin *a* around its bore, the open-ended bearings *e* fitting into and forming a lining for the radial recesses or grooves *g*, usually formed in said end or flange *b* of the bobbin in which the projections or pins on the spindle catch, thus effectually protecting the same against wear.

In Fig. 7 I have shown a construction of protector having four open-ended bearings serving as a lining or bushing for four radial catch-grooves *g*.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. A bushing for bobbins, made from a blank consisting of two side strips *cc*, having a tooth *f* at their outer end and two cross-strips *dd*, connecting the side strips some distance in rear of the toothed end thereof, substantially as set forth.

2. The combination, with a bobbin pro-

vided in its under face with a circular recess encompassing its bore and two or more grooves or recesses *g*, radiating from the bore and extending through said recess, of a bushing
5 comprising a substantially-circular body seated in the corresponding recess and arms radiating from said body and extending into the radial grooves of the bobbin to form a bushing or lining therefor, said radial arms

having a vertical tooth at their outer end adapted to penetrate into the bobbin and hold the bushing in place, substantially as and for the purpose set forth.

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Witnesses:

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