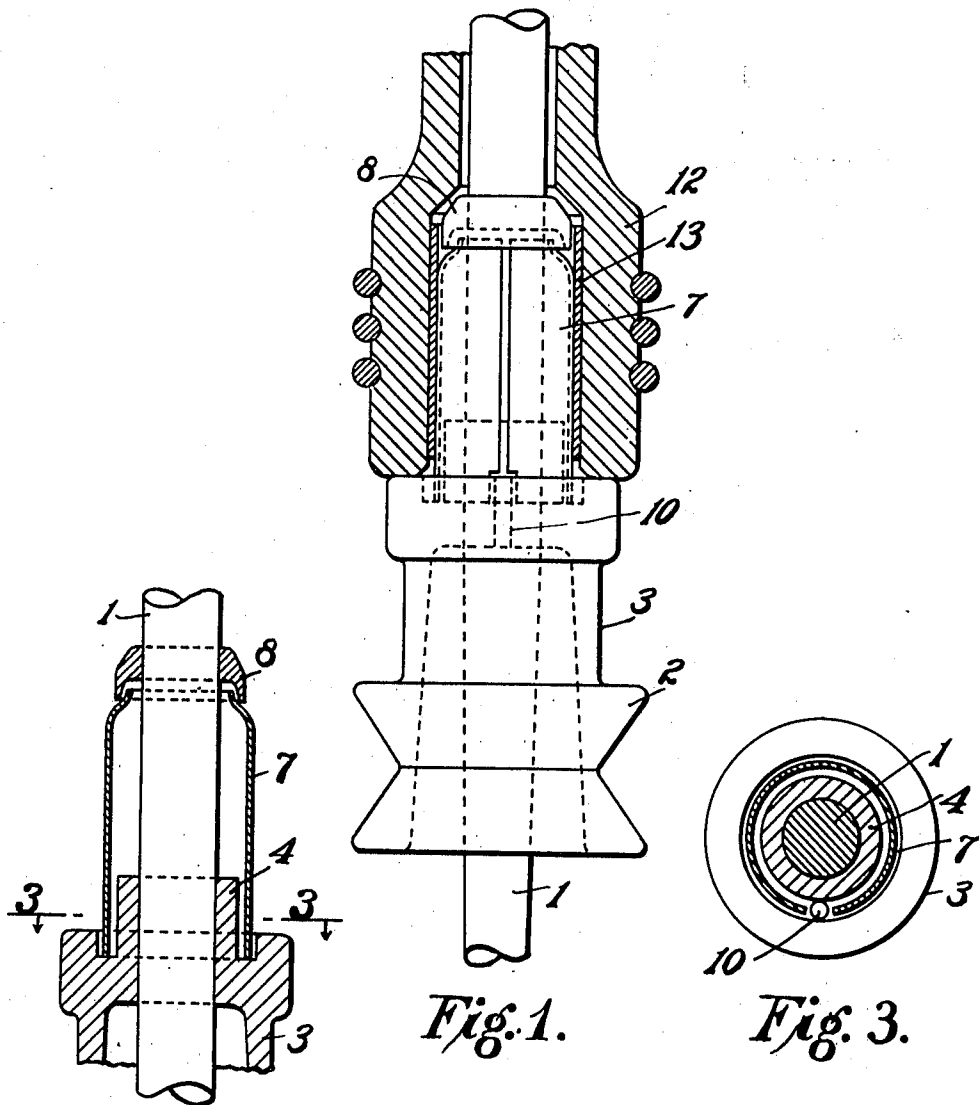


A. H. MORTON.
 SPINDLE FOR SPINNING, TWISTING, AND LIKE MACHINES.
 APPLICATION FILED MAY 31, 1912.

1,039,433.

Patented Sept. 24, 1912.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT H. MORTON, OF LOWELL, MASSACHUSETTS.

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Specification of Letters Patent.

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Application filed May 31, 1912. Serial No. 700,715.

To all whom it may concern:

Be it known that I, ALBERT H. MORTON, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Spindles for Spinning, Twisting, and the Like Machines; 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.

The present invention relates to spindles for spinning, twisting and the like machines, and more particularly to the bobbin clutching means which are employed in connection with such spindles.

The object of the present invention is to reorganize and improve the bobbin clutching means used for clutching bobbins in driving engagement with the spindles of spinning, twisting and the like machines.

To this end, the present invention consists in the improvement in bobbin and spindle connecting means hereinafter described and particularly defined by the claims.

In the accompanying drawings illustrating the preferred form of the invention;—Figure 1 is an elevation of a spindle embodying the invention in its preferred form and showing in section a bobbin applied thereto; Fig. 2 is a detail illustrating a sectional elevation of a portion of the spindle; and Fig. 3 is a section taken upon the line 3—3 of Fig. 2, looking in the direction of the arrows.

In the illustrated embodiment of the invention, the spindle blade 1, its whirl 2 and the whirl base 3 are, except as hereinafter pointed out, of any usual or preferred construction. The blade gripping portion 4 of the whirl base 3 embraces the spindle blade with a driving fit and rigidly secures the whirl to the blade. The upper face of the whirl base constitutes a bobbin rest for supporting and vertically positioning the bobbin on the spindle. The blade gripping portion 4 of the whirl base is extended above the bobbin rest and is adapted to be received in the opening in the lower end of the bobbin.

In accordance with the present invention the bobbin is tightly clutched to the spindle by a clutch member 7, which consists of a substantially cylindrical sleeve provided

with a longitudinal slot extending throughout its entire length. The upper edge of the sleeve is turned inwardly, as indicated clearly in Fig. 2, and projects beneath a guide 8 secured to the spindle blade 1. The guide 8 is provided with a beveled upper face and a depending flange and is arranged to guide the bobbin in its application to the spindle and to receive the upper edge of the bobbin clutch member preventing the removal of the clutch member. The clutch member 7 is loosely supported at its lower edge in an annular clutch-member-receiving recess formed in the bobbin rest and is locked against rotation relative thereto by a pin 10 secured in the bobbin rest and projecting into the slot formed in the clutch member 7. The bobbin 12 is of the usual form having an enlarged bore at its lower end and provided with a bushing 13. The cylindrical surface presented by the exterior of the clutch member is of a slightly greater diameter than the bore of the bobbin, thus causing the sleeve to be contracted and grip the interior of the bobbin positively when it is applied thereto.

The present invention is not limited to the illustrated embodiment thereof, as it may be embodied in other forms within the scope of the following claims.

The invention having been described, what is claimed is:

1. A spindle for spinning and the like machines, having, in combination, a spindle blade, a resilient slotted sleeve loosely supported by the whirl and arranged to be contracted when the bobbin is applied thereto, a guide secured to the spindle above the sleeve, and means for locking the sleeve against rotation relative to the spindle, substantially as described.

2. A spindle for spinning and the like machines, having, in combination, a spindle blade, a resilient slotted sleeve supported by the whirl and arranged to be contracted when the bobbin is applied thereto, a guide secured to the spindle blade above the sleeve, and a pin secured in the whirl and projecting into a recess in the sleeve to lock the sleeve against rotation relative to the spindle; substantially as described.

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Witnesses:

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