

No. 846,686.

PATENTED MAR. 12, 1907.

B. McANEANY.
LOOM SHUTTLE.

APPLICATION FILED APR. 2, 1906.

Fig. 1.

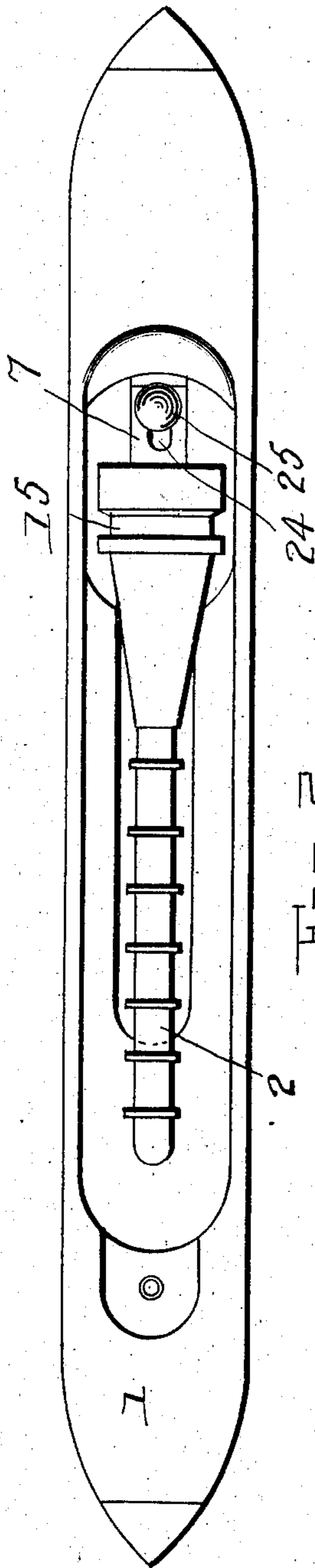


Fig. 2.

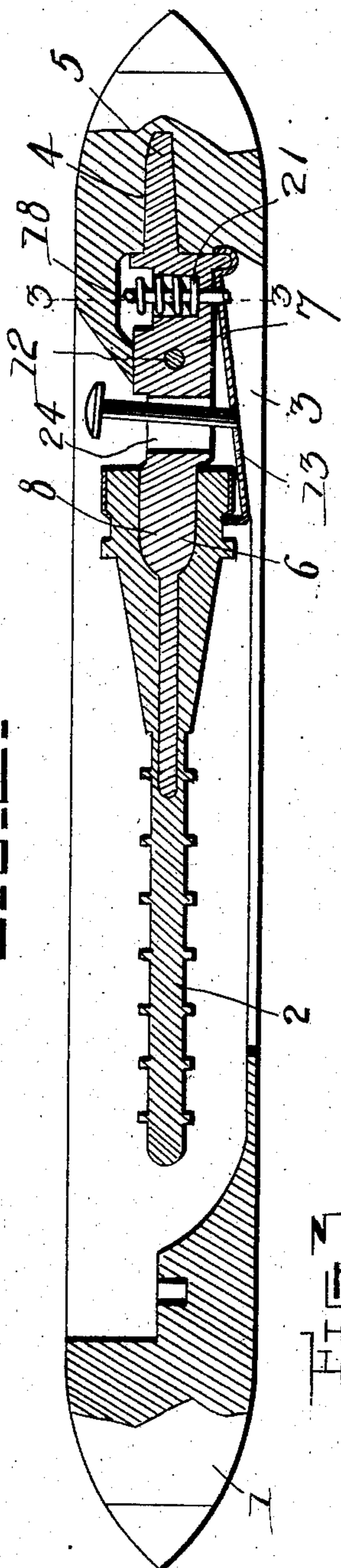


Fig. 3.

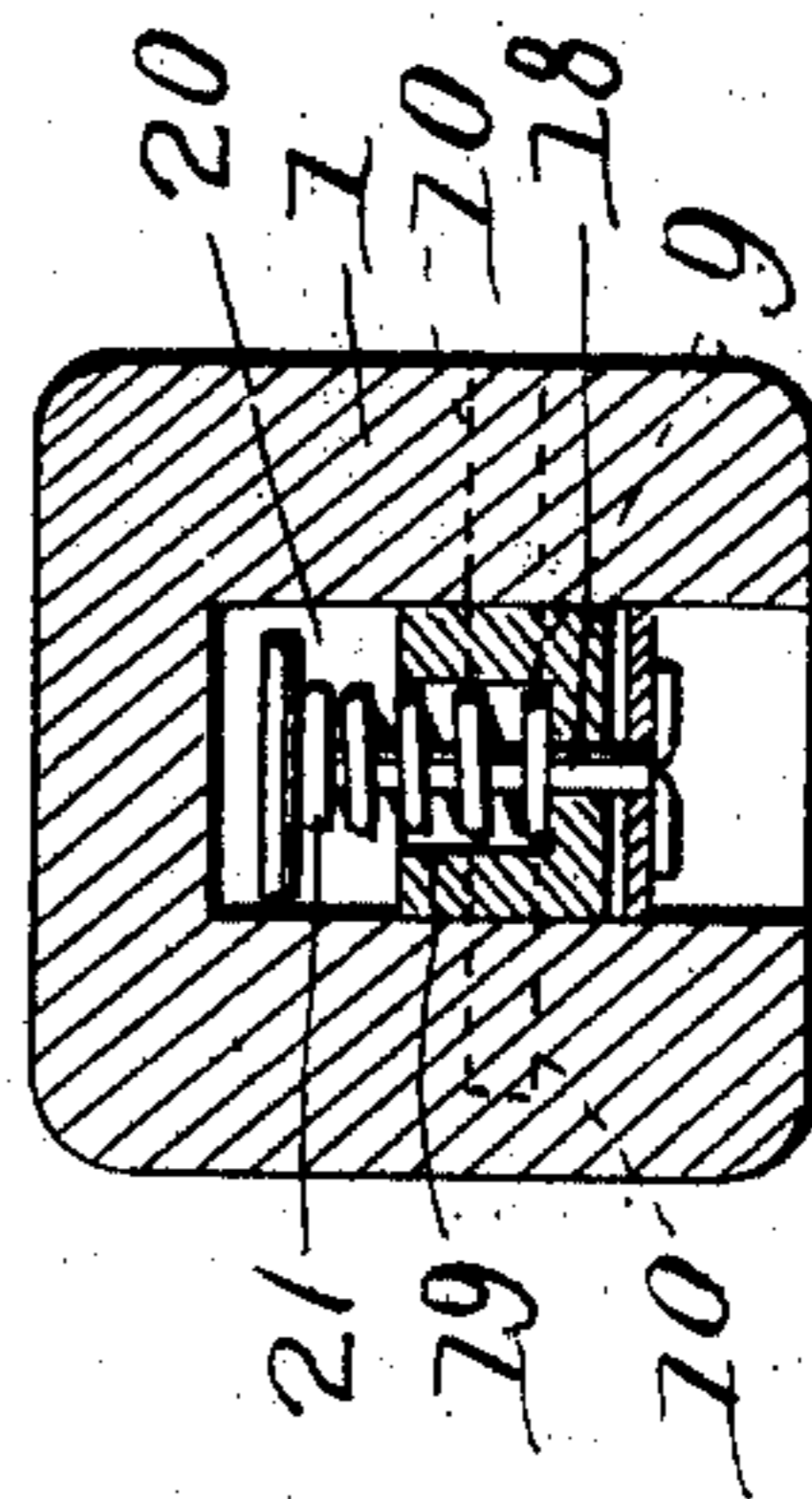
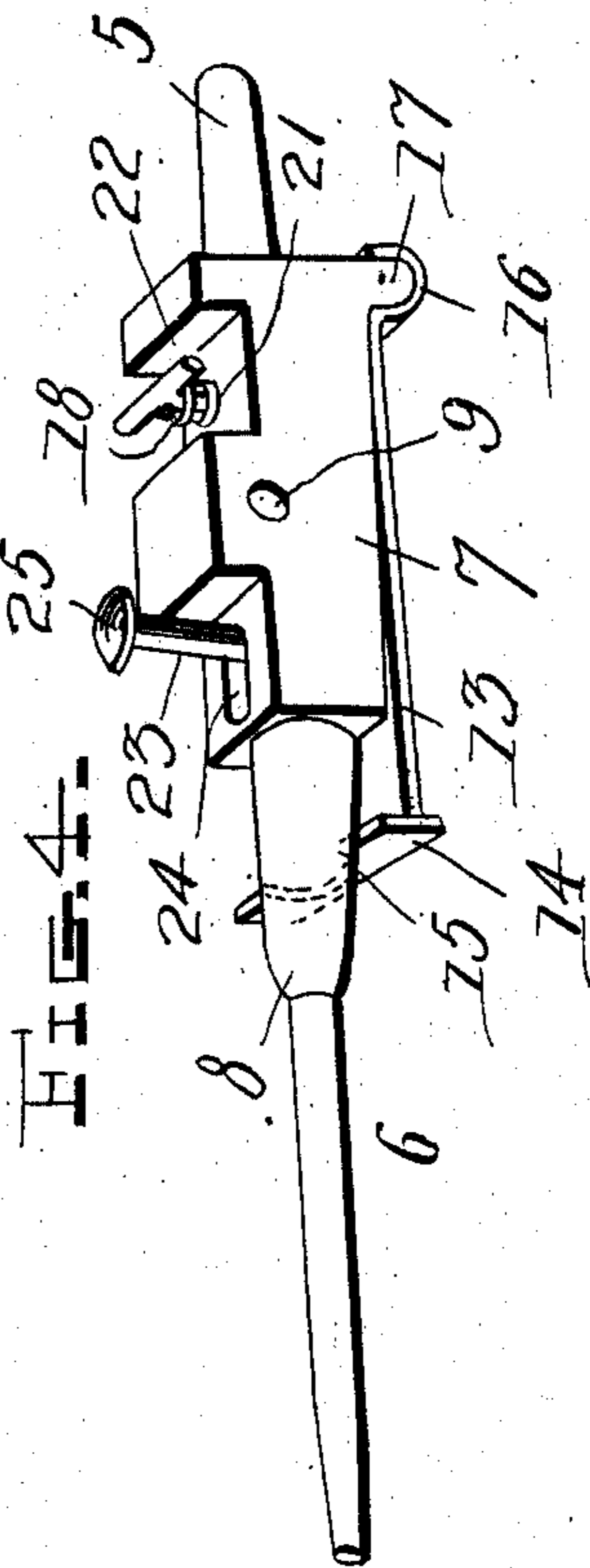


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LOOM-SHUTTLE.

No. 846,686.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed April 2, 1906. Serial No. 309,447.

To all whom it may concern:

Be it known that I, BERNARD McANEANY, a citizen of the United States, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Loom-Shuttles; and I do 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.

This invention relates to improvements in loom-shuttles.

The object of the invention is to provide a shuttle having a rigid spindle and means connected to said spindle by which a bobbin may be revolvably held in place in the shuttle.

Another object is to provide a spring-retracted bobbin-holding device for the spindles of loom-shuttles and means by which said holding device may be quickly released or disconnected from the bobbin to permit the removal thereof.

A further object is to provide a bobbin-holder which will be simple, strong, and durable in construction, efficient and reliable in operation, and well adapted to the purpose for which it is designed.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a shuttle constructed in accordance with the invention. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a transverse vertical sectional view on the line 3 3 of Fig. 2, and Fig. 4 is a detail perspective view of the bobbin-spindle removed from the shuttle.

Referring more particularly to the drawings, 1 denotes the shuttle-body, which may be of the usual or any suitable construction, and is here shown as being provided with a longitudinally-disposed recess formed in one side thereof to receive a bobbin 2. In one end of the shuttle-body on its lower side is formed a longitudinally-disposed recess 3, which communicates at its forward end with the bobbin-recess, as shown. In the end wall of the recess 3 is formed a longitudinally-disposed socket 4, in which is adapted to be inserted the shank 5 of a bobbin-spindle 6. Said spindle 6 is provided with a rectangular portion 7, adapted to snugly fit within the

recess 3. On the rectangular portion 7 of the spindle is formed a tapering longitudinally-disposed journal 8, upon which the bobbin 2 is revolvably mounted. In the rectangular portion of the spindle is formed a transversely-disposed bolt-hole 9, which communicates with aligned holes 10, formed in the adjacent side walls of the shuttle-body. Through the holes 9 and 10 is adapted to be inserted a bolt 12, by means of which the spindle is rigidly held in place in the shuttle.

In order to secure the bobbin 2 upon the journal 8 and to permit the same to revolve thereon, a suitable bobbin-holder is provided, said holder being here shown in the form of a plate 13, having at its outer end an upwardly-projecting lug 14, in which is formed a segmental recess. The recessed lug 14 is adapted to be engaged with an annular groove 15, formed in the end or head of the bobbin. The opposite end of the plate 13 is bent to form a curved or semicylindrical bearing 16, which is adapted to be engaged with a downwardly-projecting fulcrum-lug 17, formed on the lower side of the rectangular portion 7 of the spindle and by means of which the plate 13 is pivoted upon said spindle. In order to hold the plate 13 in pivotal engagement with the lug 17, a retaining-bolt 18 is provided, said bolt having on its upper end a head, and is here shown as being provided with a bifurcated or split lower end, which after being passed through a hole in the plate 13 is upset or has its split ends bent over upon the plate, as shown. The bolt 18 projects upwardly through a hole 19, formed in the spindle and through a recess or socket 20, arranged above and in line with said hole, as shown. Around the bolt 18 and between the head of the same and the lower wall of the recess 20 is disposed a coil-retracting spring 21, the tension of which is exerted to draw the plate upwardly and hold the same in engagement with the bobbin, as will be understood. The upper side of the rectangular portion 7 of the spindle is cut away, as shown at 22, to provide space for the movement of the head of the bolt 18.

In order that the holding-plate 13 may be quickly disengaged from the bobbin to permit the removal thereof, a releasing-bolt 23 is provided, said bolt being attached to the plate 13 substantially midway between the ends thereof and projects upwardly through a slot or elongated opening 24 through the spindle and has formed on its upper end a

head or thumb-piece 25. The position of said bolt is such that the head 25 may be conveniently engaged by the thumb of the operator to depress the holding-plate 13 and thereby release the bobbin.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

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

1. A bobbin-spindle for loom-shuttles having a body portion provided with a rearwardly-extending shank and a forwardly-extending tapering journal, a plate fulcrumed at one end to said body and having an upturned flange at its other end to engage the bobbin, a headed bolt secured to said plate and extending through said body, a retracting spring on said bolt, and a releasing-bolt

secured to said plate and extending loosely through said spindle-bobbin.

2. A shuttle for looms comprising a hollow body, a bobbin-spindle having a rearwardly-projecting shank adapted to engage a socket in said shuttle-body, a transversely-disposed pin or bolt adapted to be inserted through said shuttle-body and spindle thereby rigidly securing the latter in place, a fulcrum-lug formed on the under side of said spindle, a bobbin-holding plate fulcrumed on said lug, a retaining bolt or pin connected to said holding-plate, said bolt projecting upwardly through an aperture and a recess formed in said spindle, a coiled retracting spring arranged around said bolt in said recess, a bobbin-releasing bolt arranged in a slot in said spindle and connected at its lower end to said holding-plate and a thumb-piece or head formed on the upper end of said bolt, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BERNARD McANEANY.

Witnesses:

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M. ALICE CROTTY.