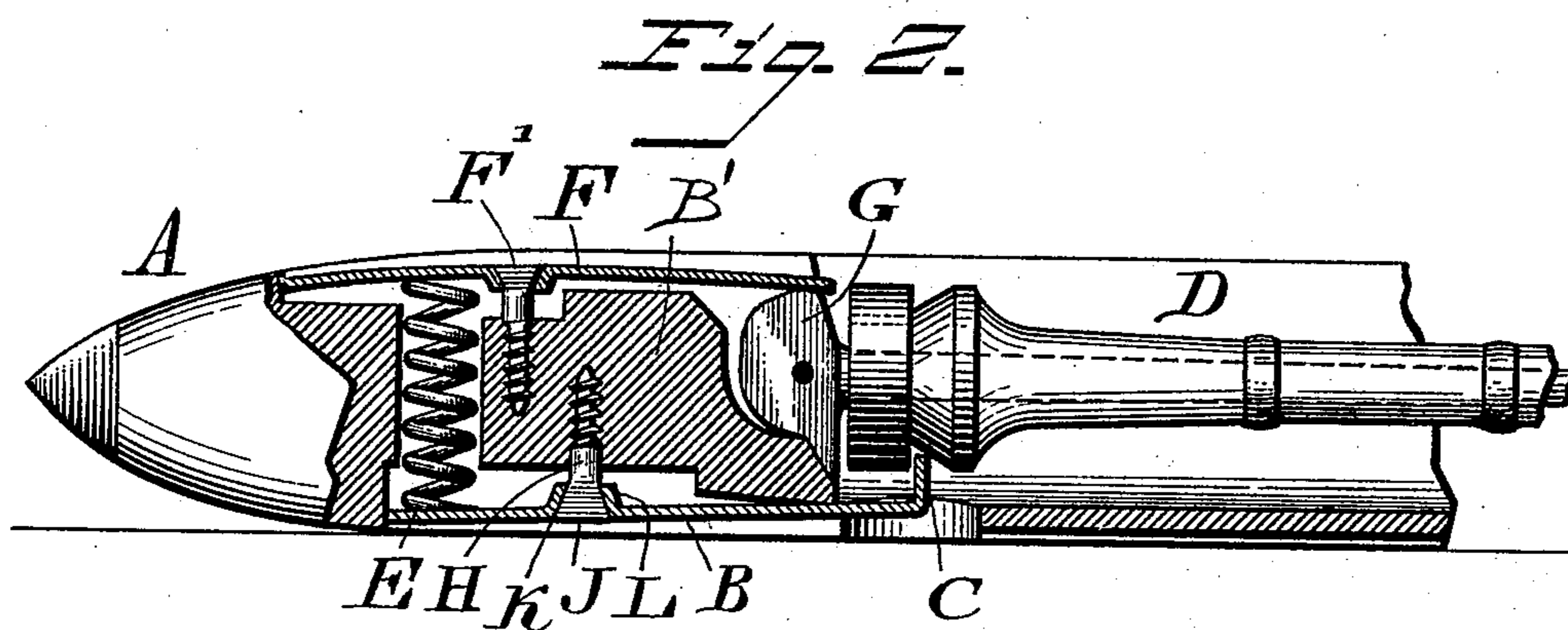
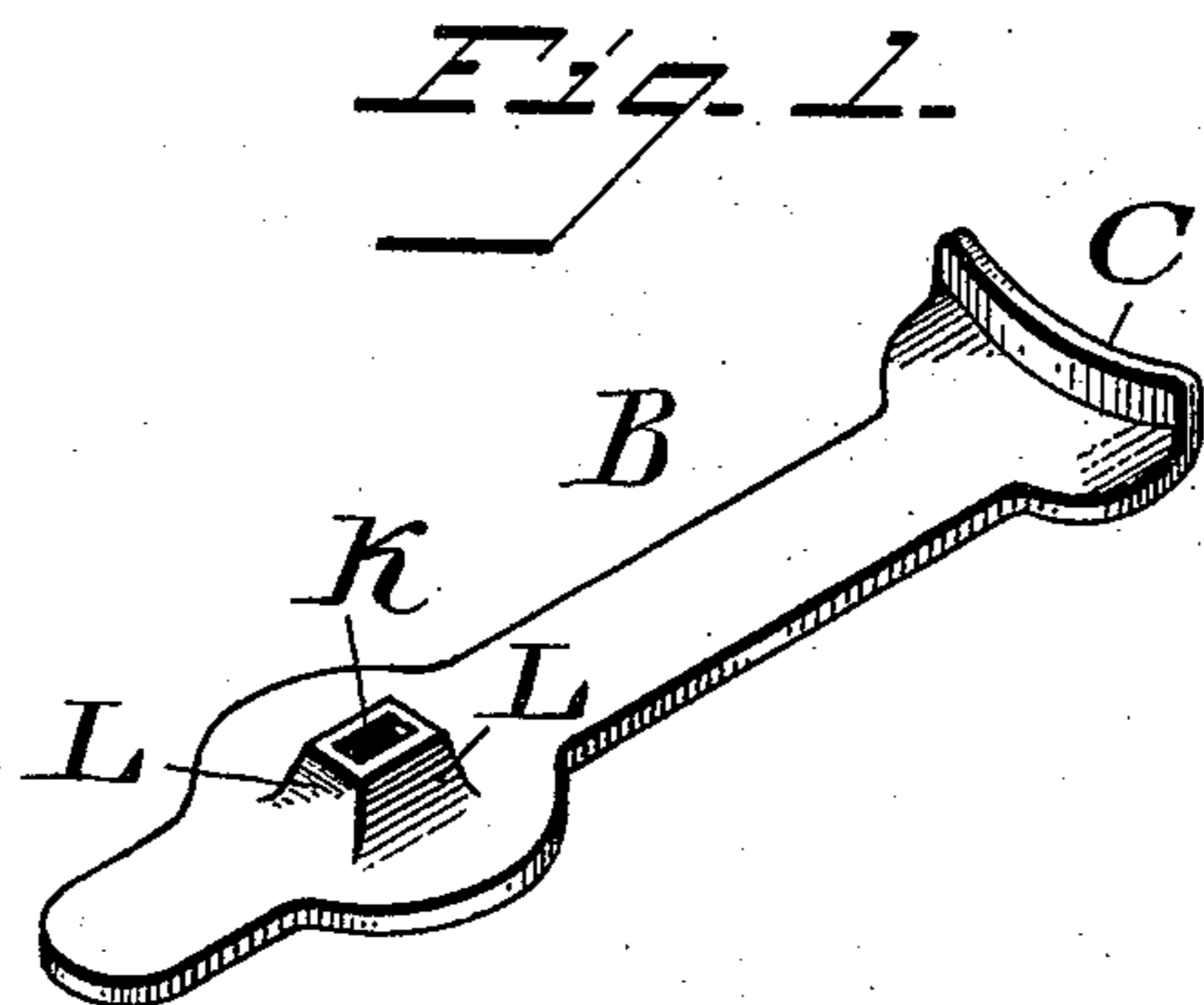


(No Model.)

J. C. SERGESON.  
LOOM SHUTTLE.

No. 539,238.

Patented May 14, 1895.



WITNESSES:

L. Dowville,  
O. H. Bagle.

INVENTOR

James C. Sergeson,  
BY John A. Diersheim,  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

JAMES C. SERGESON, OF PHILADELPHIA, PENNSYLVANIA.

## LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 539,238, dated May 14, 1895.

Application filed May 1, 1893. Serial No. 472,512. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. SERGESON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Loom-Shuttles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a shuttle having  
10 a catch plate for engagement with the bobbin, formed with an angular and tapering opening, and a screw which is provided with an angular and tapering head, said plate having on its inner face a boss which is continuous of the wall thereof, and having its opening coinciding with that of the plate, whereby the screw is prevented from rotating itself loose, it having a broad bearing on said plate, and its hold on the body is firm and secure  
20 without the employment of a nut for such purpose.

Figure 1 represents a perspective view of the inner face of the bobbin catch-plate of a shuttle embodying my invention. Fig. 2 represents a longitudinal section of a portion of the shuttle embodying my invention.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings: A designates  
30 the body of a shuttle which excepting the features of my invention, is of ordinary construction.

B designates the catch or catch plate which is connected with the part B' of the body of the shuttle, and has at one end a nose C for engagement with an annular groove on the head of the bobbin D, whereby the latter is held in operative position, the other end of said catch plate being pressed outwardly by the spring E, which bears against said catch, and the opposite spindle-holding plate F on the heel ends thereof, said plate F exerting pressure on the pivoted head G of the spindle.

The plate F is adapted to bear upon one  
45 face of the spindle head to hold the spindle in proper alignment in the shuttle, and upon another face of the head when the spindle is raised to hold it in position to change the bobbin.

50 H designates the bolt or screw which connects the catch plate with the body of the shuttle, the same having an angular head J,

the latter freely occupying a counter-sunk opening K in said plate, whereby the latter is permitted to rock or oscillate lightly on said head as the bobbin engages with and disengages from the nose C. The walls of the opening K are extended inwardly, forming the boss L, whose opening is continuous of said opening J, and whose wall is both angular  
60 and tapering, like a truncated pyramid. The head of the screw coincides in its angle and taper with the walls of said opening and boss, and occupies the openings of both the plate and boss, whereby it has an increased holding surface on the catch plate, and the material of said catch around said opening K is vastly strengthened at a place where the plate is subjected to considerable strain, the screw being also prevented from rotating in reverse  
70 direction, as its head is controlled by the wall of the opening K and the boss L.

When the plate B is forced inwardly against the spring E, the head J of the screw H is uncovered, when the same may be engaged by  
75 a suitable key and rotated to remove the screw H, and consequently said plate, the same provision existing when said plate is to be restored to position, the head being caused to register with the opening K, the plate then  
80 being let go, whereby the wall of said opening and the boss L again embrace the head of the screw. The plate F has a boss similar to that of the plate B, and the screw F' is formed with an angular-head similar to the  
85 screw H.

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

A shuttle body provided with the bobbin-  
90 catch and spindle-holding plates, each formed with a boss having an opening of angular and tapering shape, securing screws having angular and tapering heads which occupy the bosses of said plates and on which said plates  
95 are adapted to oscillate, and a single spring bearing against the heel ends of said plates, the parts being combined substantially as described.

JAMES C. SERGESON.

Witnesses:

JOHN A. WEIDERSHEIM,  
A. P. JENNINGS.