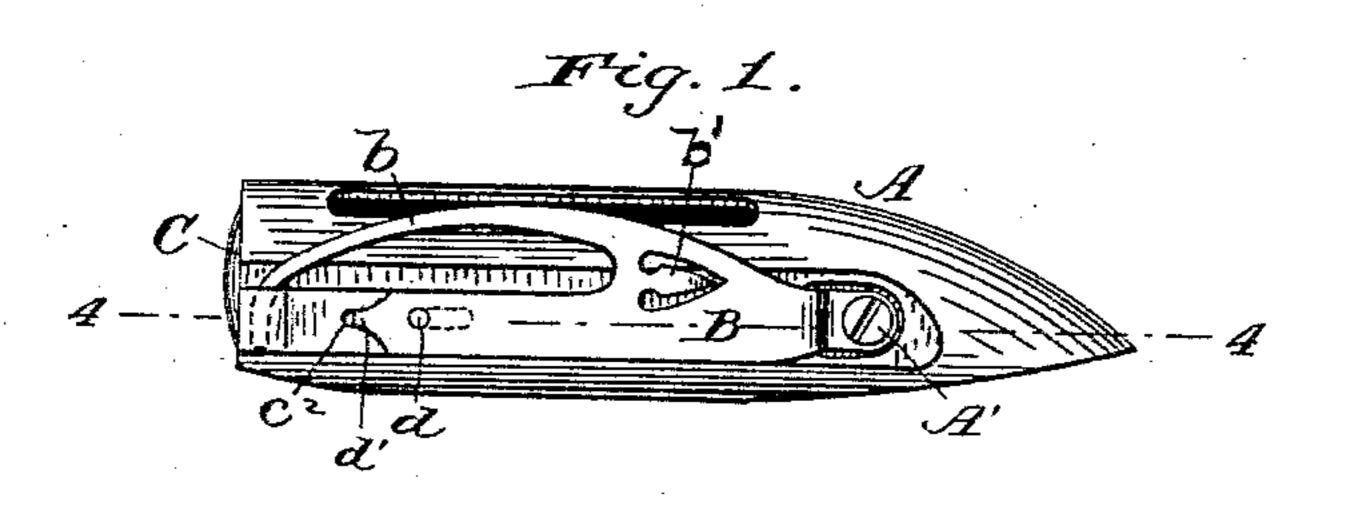
(No Model.)

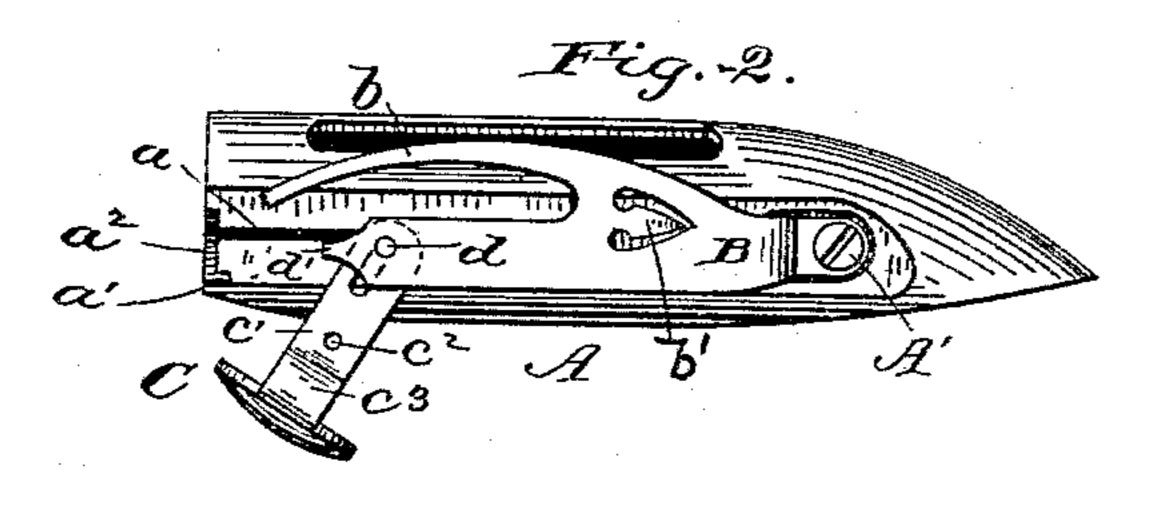
## J. H. OSBORN.

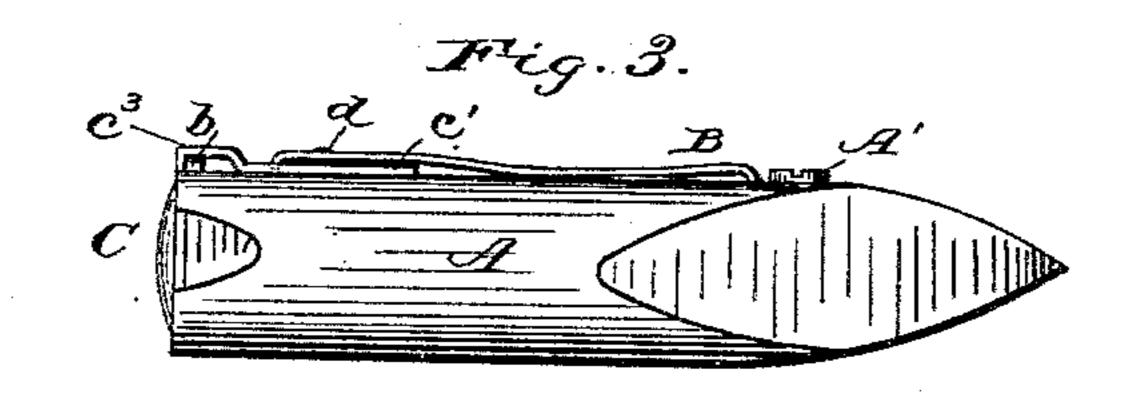
## SEWING MACHINE SHUTTLE.

No. 321,381.

Patented June 30, 1885.







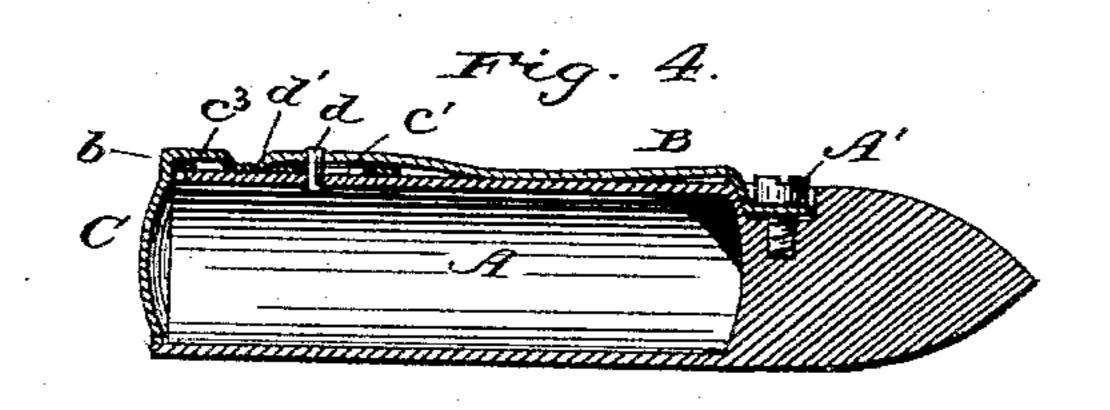


Fig. 5.

witnesses!

How.

Inventor:

of Care

## United States Patent Office.

JOHN H. OSBORN, OF CLEVELAND, OHIO, ASSIGNOR TO THE LEADER SEW-ING MACHINE COMPANY, OF SAME PLACE.

## SEWING-MACHINE SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 321,381, dated June 30, 1885.

Application filed August 13, 1884. (No model.)

To all whom it may concern:

Be it known that I, John H. Osborn, a citizen of the Dominion of Canada, residing at Cleveland, in the county of Cuyahoga and 5 State of Ohio, have invented certain new and useful Improvements in Sewing-Machine Shuttles, of which the following is a specification, reference being had therein to the ac-

companing drawings.

My invention relates more particularly to that class of sewing-machine shuttles in which the bobbin is inserted into and removed from the heel of the shuttle, which is closed by a sliding and swinging cap-piece when the 15 bobbin is in place, the object of my invention being to provide a shuttle of this kind which is simple in construction and convenient for use.

I have illustrated my invention in the ac-20 companying drawings, in which Figure 1 is a plan view of my shuttle with the cap-piece in position to close the heel thereof. Fig. 2 is a similar view, with the cap-piece swung aside and the thread-guard partly broken 25 away. Fig. 3 is a side elevation; Fig. 4, a longitudinal section on line 44, Fig. 1; and

Fig. 5 a rear end view with the cap-piece swung aside. A indicates an open-ended cylindrical shut-30 tle-shell, to which is attached, by a securing and regulating screw, A', a tension-spring, B, having a thread-guard, b, formed integral therewith. The shell A is provided with an open-ended threading-slot, a, a small notch, 35 a, for the downwardly-turned end of the thread-guard to hold the latter in place, and a larger notch, a2, in which fits the neck c of the sliding and swinging cap-piece C. A pin, d, passing through the rear end of the 40 tension-spring and through a slotted opening in the stock c' of the cap-piece, and screwed or riveted to the shuttle-shell, serves to connect said stock loosely to said shell. The rear end, d', of the tension-spring is pointed and turned downward slightly to fit in a recess or indentation, c2, in the stock of the cap-piece when the latter is in position to close the heel of the shuttle, the tensionspring thus serving to hold the cap-piece in 50 place. The stock of the cap-piece is provided at its rear end with a raised projection, c3, which in the present instance is formed as a bridge extending over the rear end of the thread-guard, said bridge being of sufficient

length to enable the stock to slide far enough 55 backward to let the cap-piece swing aside clear of the heel of the shuttle. The front of this projection or bridge affords a convenient bearing for the finger or thumb nail of the operator to press against in sliding the 60 cap-piece rearward to enable it to be swung aside when the bobbin is to be inserted or removed.

To thread the shuttle the bobbin-thread is drawn into the threading-slot a beneath the 65 tension spring and around the thread-finger b' thereof, whence it will pass rearward. The cap-piece C, which in the meantime has been swung aside, as in Fig. 2, to admit of the insertion of the bobbin, will then be brought 70 around and pressed forward until its neck enters the notch a2, when the downwardlyturned point d'at the rear end of the tension-spring will enter the recess  $c^2$  in the stock of the cap-piece and hold the latter in 75 place.

Having thus described my invention, I claim and desire to secure by Letters Patent-

1. The combination, with an open-ended shuttle-shell, of a sliding and swinging cap-80 piece for closing the same, said cap-piece having a stock provided with a raised projection, against which the operator may press in sliding the same rearward, substantially as set forth.

2. The combination, with an open-ended shuttle-shell, of a sliding and swinging cappiece having a stock provided with a recess, and a tension-spring having a downwardlyturned point at its rear end adapted to engage 90 said recess to hold the cap-piece in place, sub-

stantially as set forth.

3. The combination, with an open-ended shuttle-shell, and a tension-spring fixed thereto and having a thread-guard, of a sliding and 95 swinging cap-piece having a stock provided with a bridge extending over the rear end of said thread-guard, said bridge being raised above the main portion of said stock to form a projection against which the operator may ic press in sliding said cap-piece and stock rearward, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses. JOHN H. OSBORN.

Witnesses:

F. W. LOTHMAN, L. H. SEVERANCE.