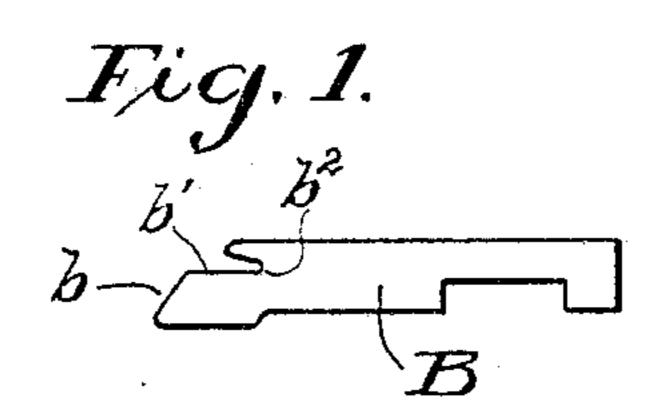
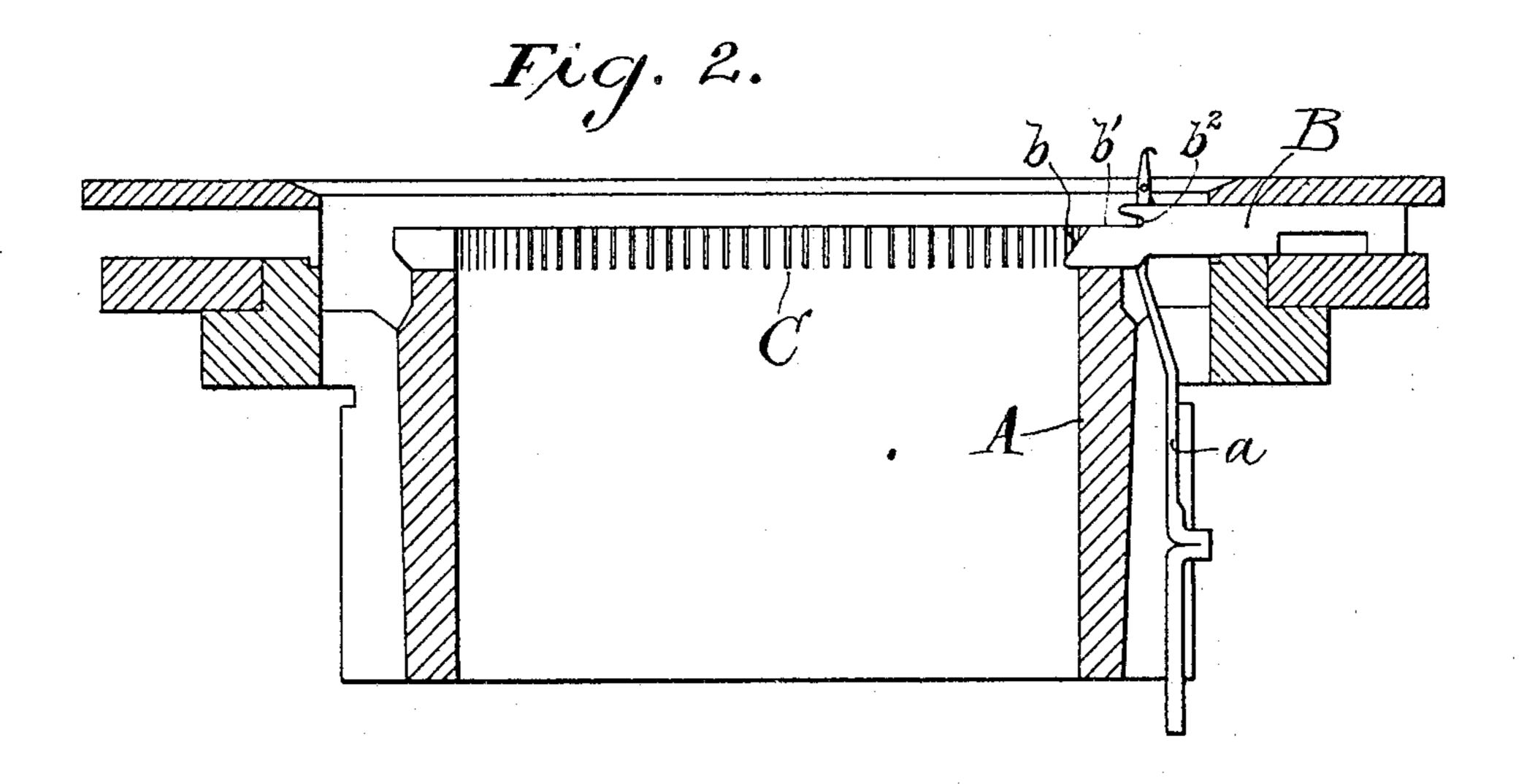
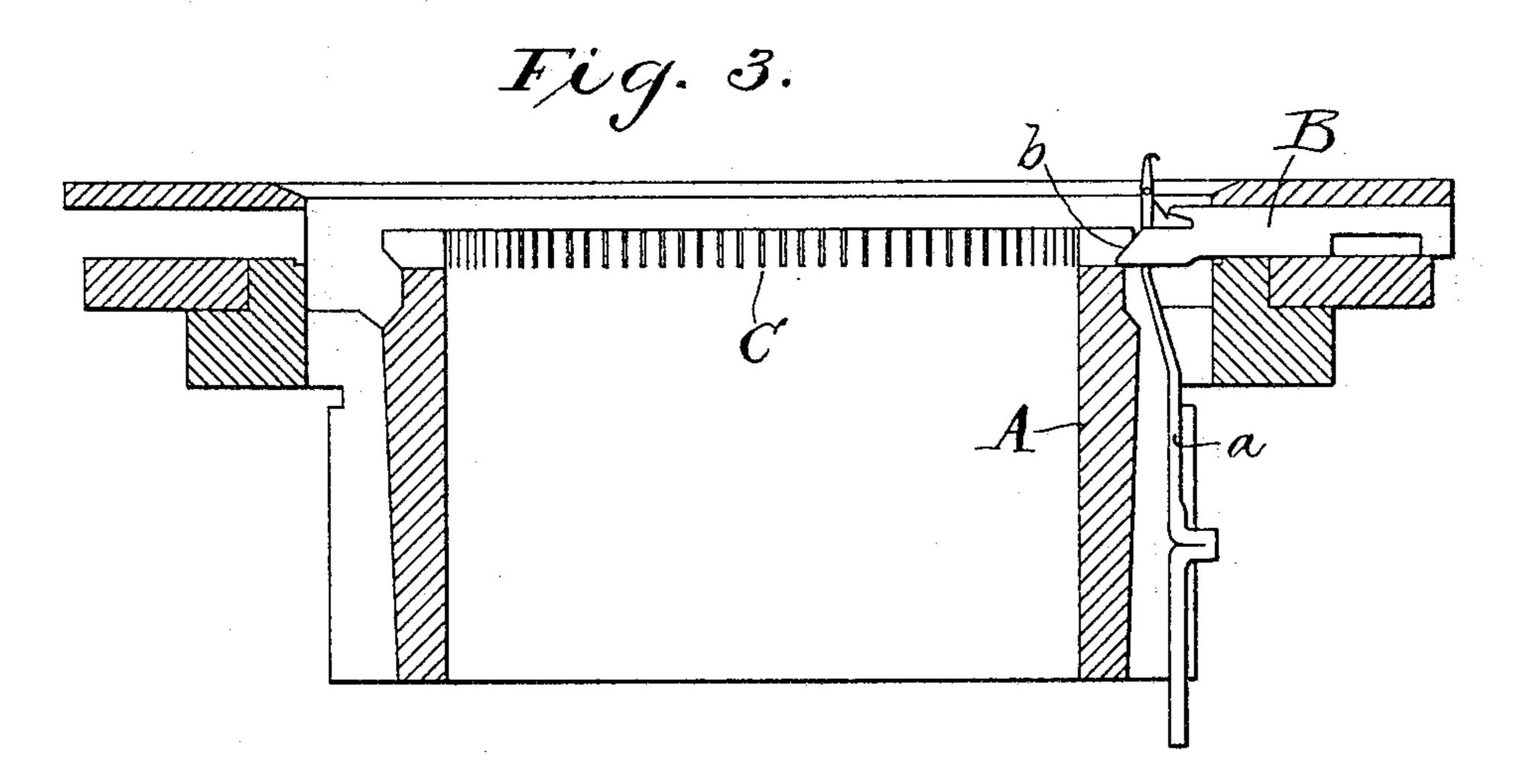
## H. A. HOUSEMAN.

WEB HOLDER FOR CIRCULAR KNITTING MACHINES.

APPLICATION FILED NOV. 18, 1903.







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WITNESSES: M.M. Leanby M.M. Hamillon. Harry a Housewase BY Harding Harding ATTORNEYS.

## United States Patent Office.

HARRY A. HOUSEMAN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO STANDARD MACHINE COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

## WEB-HOLDER FOR CIRCULAR-KNITTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 781,653, dated February 7, 1905.

Application filed November 18, 1903. Serial No. 181,584.

To all whom it may concern:

Be it known that I, HARRY A. HOUSEMAN, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Web-Holders for Circular-Knitting Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

In circular-knitting machines the web-holders are placed in slots in the upper surface of the needle-cylinder, in which slots they are reciprocated. The function of the web-holder 5 is to force the cast-off stitch into the needlecylinder, and thus take it away from the line of the needles and hold down the goods to prevent them from rising with the needles. If the web-holder in its reciprocation extends > beyond the inner periphery of the needle-cylinder, the material as it passes from the needles strikes the end of the web-holder, which tends to damage the goods. The web-holders, however, must be given a sufficient movement 5 to enable them to perform their proper functions. The difficulty with the present construction of web-holders is that if the forward throw be such as not to project the web-holder beyond the inner periphery of the needle-cylinder and yet give sufficient throw to enable the web-holders to perform their function in the rearward movement there is a tendency for the web-holders to pass beyond the outer periphery of the cylinder and on the return 5 movement to strike the cylinder.

In my improved web-holder I construct the forward end of the web-holder on an incline or bevel, so that with the necessary throw while in the forward movement the lower end will pass beyond the inner periphery of the cylinder substantially all the remainder of the end will still be within the slot and not touch the goods, while in the rearward movement the lower end will not pass beyond the outer periphery of the needle-cylinder, and thus the web-holder reciprocates or moves with certainty without contacting with the goods.

I will now describe my invention as illustrated in the drawings, in which—

Figure 1 is a side view of my improved 50 web-holder. Fig. 2 is a sectional view of needle-cylinder, showing a needle and the web-holder in its forward position. Fig. 3 is a view similar to Fig. 2, showing the web-holder in the rearward position.

A is the needle-cylinder having the needles a. In the upper surface of the needle-cylinder are the slots c for the web-holder B. The web-holder B is provided with the forward inclined or beveled end b, terminating in the forward horizontal ledge b', having the slot end  $b^2$ . The stitch is drawn upon the ledge b' when the web-holder is in the position shown in Fig. 2 and is cast therefrom when the web-holder is in the position shown in Fig. 3.

Referring now to Fig. 2, it will be seen that with my improved web-holder the forward throw may be such as to project the lower forward end of the web-holder beyond the inner periphery of the needle-cylinder and 7° yet leave substantially all of the remainder of the end within the slot. In the rearward movement, Fig. 3, while the upper forward end of the web-holder B passes beyond the outer periphery of the needle-cylinder the 75 lower forward end is still within the slot, so that on the next forward movement of the web-holder it is properly guided and with no danger of the lower forward end in the rearward movement passing beyond the outer pe- 80 riphery of the needle-cylinder, and thus tending not to return to the slot in the forward movement.

Having now fully described my invention, what I claim, and desire to protect by Letters 85 Patent, is—

A web-holder having a projecting portion provided with upper and lower horizontal edges connected at their forward ends by an inclined or beveled edge.

In testimony of which invention I have hereunto set my hand, at Philadelphia, on this 13th day of November, 1903.

## HARRY A. HOUSEMAN.

Witnesses:

M. M. HAMILTON,

M. F. Ellis.