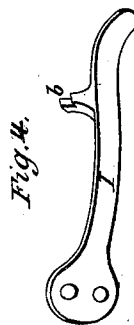
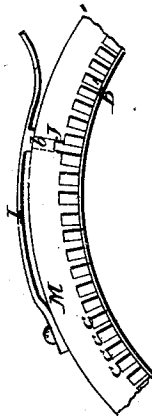
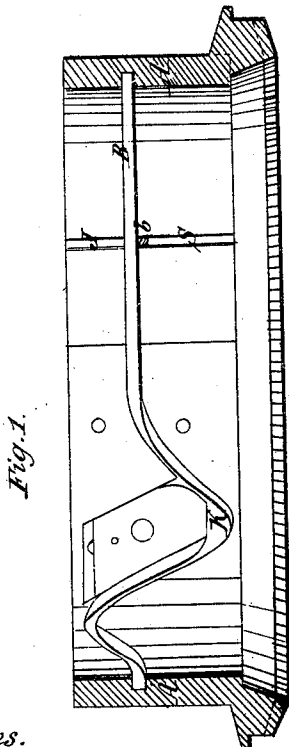
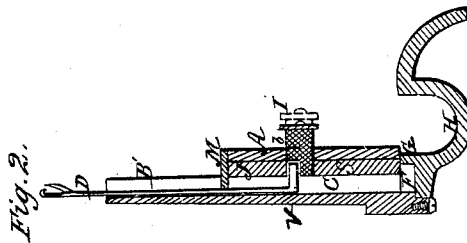
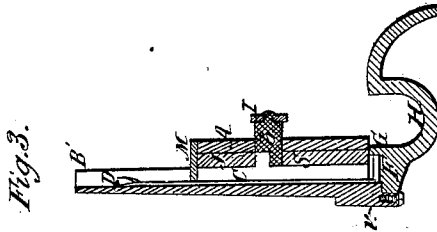


G. W. FOLTS & J. L. BRANSON.
KNITTING MACHINE.

No. 112,027.

Patented Feb. 21, 1871.



Witnesses.

G. L. Chapin
C. C. Gibson.

Inventors.

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United States Patent Office.

G. W. FOLTS, OF BOSTON, MASSACHUSETTS, AND JAMES L. BRANSON, OF CHICAGO, ILLINOIS.

Letters Patent No. 112,027, dated February 21, 1871; antedated February 11, 1871.

IMPROVEMENT IN KNITTING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, G. W. FOLTS, of Boston, in the county of Suffolk and State of Massachusetts, and JAMES L. BRANSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Knitting Machines; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing with letters marked thereon making a part of this specification, in which—

Figure 1 represents one-half of the inner periphery of the rotating cylinder used in Bickford's patent, dated September 10, 1868, and also shows a part of our device.

Figure 2, a vertical section of one-half of the machine, representing a needle as it is when in use.

Figure 3, the same section, representing the needle as it is dropped down into one of the vertical grooves in the stationary cylinder.

Figure 4, a perspective view of the spring device which closes the upper end of the vertical groove, and prevents the needle from falling out of the cam-groove.

The nature of our invention consists in a particular construction and arrangement of devices, as will be hereinafter fully described, whereby any of the needles upon which it is desired not to operate may be lowered out of operation.

To enable others to fully comprehend the construction and operation of our invention, we have marked like parts with like letters, and will now give a detailed description.

A, figs. 1, 2, and 3, represents the rotating cylinder of an ordinary knitting-machine, in which is now made a cam-groove, B K, in the usual manner; and

B' represents the inner or stationary cylinder, in which are now cut the vertical grooves C, C, &c., for supporting and guiding the needles D.

But, as both of these parts are now in use, no claim of novelty is made to them, or to the functions which they now perform.

In the inner periphery of the cylinder A, and extending from its lower end to the cam-groove B, is made a vertical groove, S, which has a depth corresponding to the depth of the ordinary needle-groove J, which is used to put the needle in the machine.

This groove S permits the needle to drop down below the top of the cylinder B', and the lugs V on their lower ends to rest in a recess, F, fig. 2, at the bottom of said cylinder.

A flange, G, projecting upward from the bed-plate H of the machine, holds the needles to or near the back of the grooves C.

I represents a spring, which is rigidly attached to the rotating cylinder A, and has a stop, b, projecting inwardly and through said cylinder, the latter having a suitable hole through it for this purpose. This stop so closes the upper end of the groove S as to make the cam-groove K B continuous when the machine is in operation; but it can be so drawn out, as shown at fig. 2, as to permit the needle to rest in the groove F, as shown at fig. 3.

The operation is very simple, requiring only that the groove J be brought opposite to any one of the grooves C, and the spring I drawn out far enough to permit the needles to pass down, as shown at fig. 3.

To those skilled in this particular art no further description is necessary.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent of the United States, is—

The combination of the cylinders A B', bed-plate H, grooves F S, and stop device I b, all constructed and operating substantially as [and for the purpose set forth.

G. W. FOLTS.
JAMES L. BRANSON.

Witnesses:

G. L. CHAPIN,
E. GIBSON.