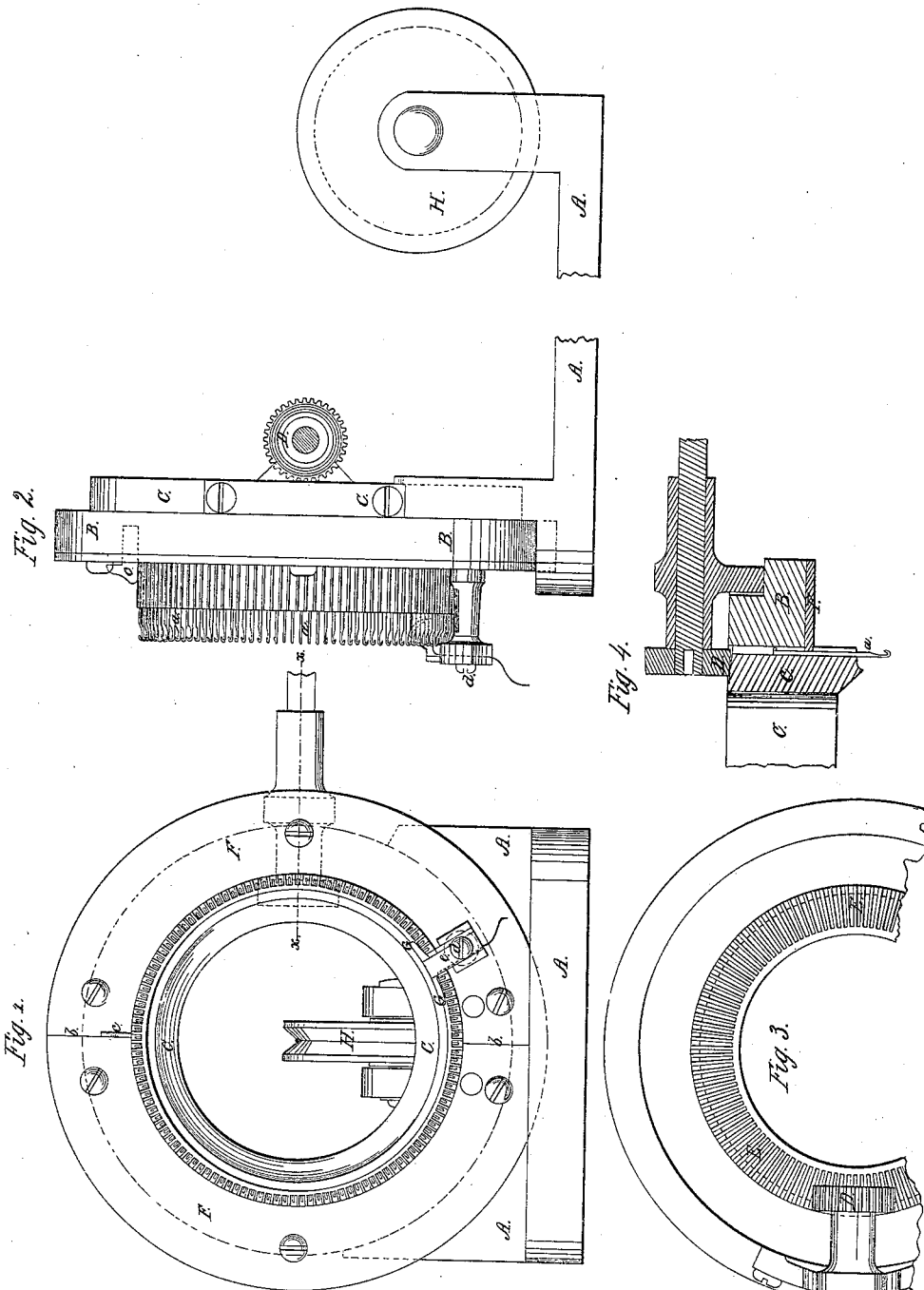


*J. Pepper.*  
*Circular Knitting Mach.*

*N<sup>o</sup> 51,618.*

*Patented Dec. 19, 1865.*



*Witnesses,*

*John D. Parker*  
*N. W. S. S. S.*

*Inventor,*

*John Pepper*  
*By atty. W. B. Slaughter.*

# UNITED STATES PATENT OFFICE.

JOHN PEPPER, OF LOWELL, MASSACHUSETTS.

## IMPROVEMENT IN KNITTING-MACHINES.

Specification forming part of Letters Patent No. 51,618, dated December 19, 1865.

*To all whom it may concern:*

Be it known that I, JOHN PEPPER, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Knitting Machinery; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a front view of the machine. Fig. 2 represents a side view. Fig. 3 represents a view of a portion of the rear of the cylinder and its frame. Fig. 4 represents a section through the cylinder, taken at the dotted line *xx* of Fig. 1.

Similar letters of reference, where they occur in the separate figures, denote like parts of the machine in all the drawings.

My invention consists, first, in the use of the divided plate fitting into a groove in the cylinder, for the purpose of holding both the cylinder and the needles in place.

It further consists in making the thread-guide, in whole or in part, in the same piece or part that constitutes the presser.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents the base of the machine, at one end of which is placed a stationary circular rim-frame, B, in which a cylindrical ring, C, is caused to revolve by means of a bevel-pinion, D, working in a gear, E, formed in said revolving cylinder or ring.

The ring C carries the needles *a* in grooves made in its perimeter for that purpose, and these needles are projected from and withdrawn back into their grooves by means of turned-up shanks thereon, which are operated upon by cams or cam-grooves.

The cylinder or ring C is held in its place by means of the plate F, which sets in a groove formed in said cylinder, (better seen in Fig. 4,) and said plate is fastened, when in place, to the stationary frame B. That the plate may be readily put in place in its groove, it is made in two or more sections, as shown by the lines *b b*.

There is a key, *c*, which, when withdrawn, leaves an opening, through which the needles may be inserted or withdrawn, as the case may be, and when the key is inserted the needles cannot, by any possibility, come out of their grooves.

The pusher or presser G is held in place by means of a set-screw, *d*, and the stem *e* of this pusher has a groove or grooves in it, through which the thread or yarn, as shown in red, passes, so that it performs the double duty of pusher and thread-guide.

At the opposite end of the base A from where the knitting machinery is placed there is a pulley-wheel, H, over which a cord having a weight attached to it passes. This cord has a hook or other device attached to it, by which it is fastened to the knitted fabric, and as the fabric is knit the weight draws it away from the knitting-point.

In knitting stockings by this machine the ribbed portion of the stocking is knit in another machine, and then the stitches are hooked onto the needles of this machine and the cylinder continued in plain work.

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

1. The plate F, for holding the cylinder and needles both in their proper places, said plate fitting into a groove in the cylinder, substantially as described.

2. The making of the thread-guide, in whole or in part, in the same piece or part that constitutes the pusher, substantially as described.

JOHN PEPPER.

Witnesses:

JABEZ MANN,  
JOSEPH FARLEY.