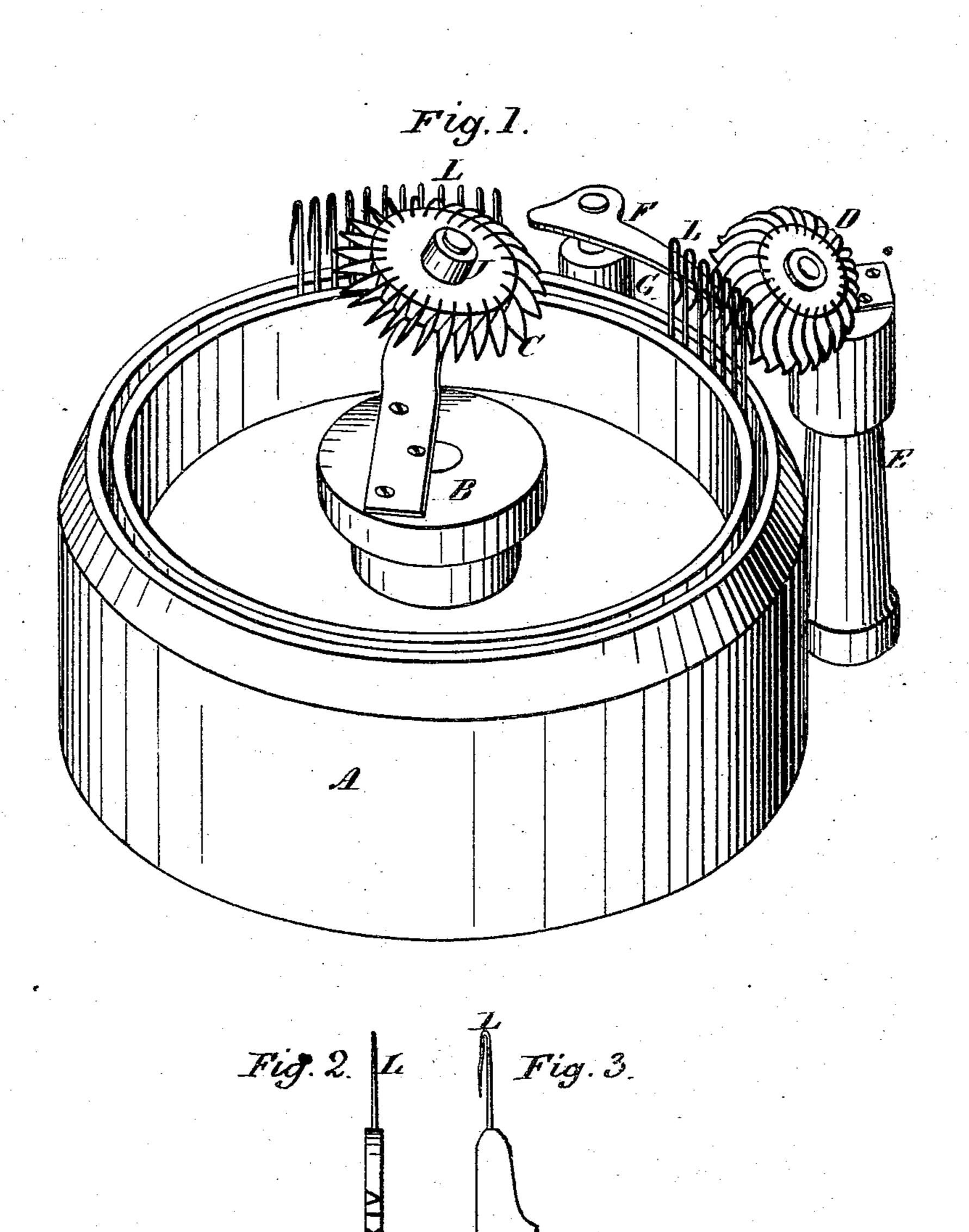
## B. WARD.

## Pressers for Knitting-Machines.

No.157,045.

Patented Nov. 17, 1874.



Witnesses at Norris All Hamilton dolmen Senjamin Ward. By James Lo. Norvis. Atty.

## United States Patent Office.

BENJAMIN WARD, OF DUNDAS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN YOUNG, OF HAMILTON, CANADA.

## IMPROVEMENT IN PRESSERS FOR KNITTING-MACHINES.

Specification forming part of Letters Patent No. 157,045, dated November 17, 1874; application filed April 10, 1874.

To all whom it may concern:

Be it known that I, Benjamin Ward, of the town of Dundas, in the county of Wentworth, Province of Ontario, Canada, have invented a certain new and useful Improvement in Spring-Needle Circular-Knitting Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

The object of my invention is to press the beards of the needles to prevent the yarn from dropping out immediately after the yarn has been supplied to the needles by the sinker-wheel, and continue the pressure until the stitch is raised by the landing-wheel.

The invention consists in combining, with a spring-needle circular-knitting machine, a longitudinal presser-arm arranged to press the barbs of the needles the entire distance from the sinker-wheel to the landing-wheel, as hereinafter described.

In the drawing, Figure 1 is a perspective view of a portion of a spring-needle circular-knitting machine having my invention applied thereto; Figs. 2 and 3, detached views of the needles.

A represents the cylinder of a spring-needle circular-knitting machine, and B the axis around which it revolves. D represents the sinker-wheel, attached to the vertical standard E so as to be adjustable thereon, and its ob-

ject is to supply the yarn to the needles. F is the presser arm, which consists of a metal plate, having one end attached to a standard, G, and its other end free, its operating face being shaped to correspond to the circular arrangement of the needles. This presser-arm extends from the sinking to the landing wheel, and its object is to press the barbs or beards of the needles immediately after the yarn has been supplied to them by the sinker-wheel, and keep them pressed until the stitch is raised above the points of the beards by the landing-wheel C, so as to prevent the yarn dropping out from the needles, which frequently occurs as the knitting-machines are now constructed.

By means of this construction of the presser-arm finer yarn can be worked on a machine of any given gage than by the ordinary means, thus enabling manufacturers to make a more durable class of goods.

I claim as my invention—

The combination, with a spring-needle circular-knitting machine, of the longitudinal presser-arm F, arranged to press the beards of the needles from the sinker-wheel to the landing-wheel, substantially as and for the purpose described.

BENJAMIN WARD.

Signed in the presence of— WM. BRUCE, WM. B. BRUCE.