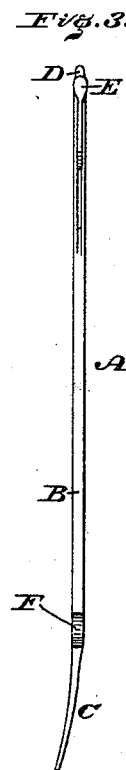
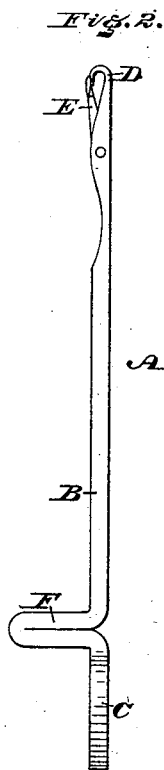
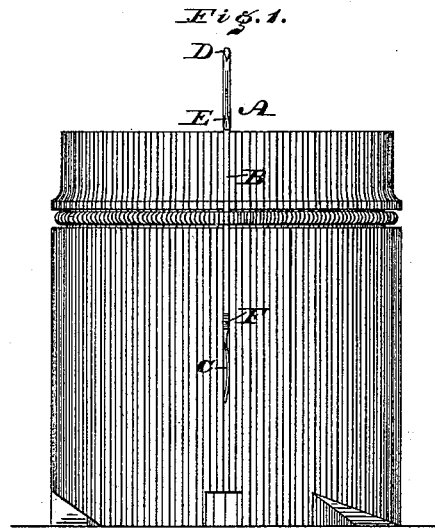


(No Model.)

J. C. EGLY.  
KNITTING MACHINE NEEDLE.

No. 345,126.

Patented July 6, 1886.



WITNESSES:

*L. P. Grant*  
*H. F. Kircher*

INVENTOR:  
*John C. Egly*  
BY *John D. Schum* ATTORNEY.

# UNITED STATES PATENT OFFICE.

JOHN C. EGLY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THOMAS  
A. PEARCE, OF SAME PLACE.

## KNITTING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 345,126, dated July 6, 1886.

Application filed November 21, 1885. Serial No. 183,480. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. EGLY, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Knitting-Machine Needles, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a knitting-machine needle embodying my invention, and of a needle-cylinder to which it is applied. Figs. 2 and 3 represent side elevations of the needle on an enlarged scale.

Similar letters of reference indicate corresponding parts in the three figures.

My invention consists of a knitting-machine needle formed with a straight shank and a spring below the foot thereof, as hereinafter described, whereby the said needle is securely retained in position.

Referring to the drawings, A represents a knitting-machine needle, the same being formed with a shank, B, and a spring, C, said needle having also a hook, D, a latch, E, and a foot, F. The spring C is an integral part of the needle at the lower end thereof, and in the present case formed by thinning the metal of the needle at said bottom and bending the same laterally or in a direction at right angles to that of the direction of the foot. When the needle is within the groove of the needle-cylinder, the opposite side faces of the spring come in contact with the sides of the groove and press against the same, the friction created causing the needle to remain in the position in

which it is placed, preventing improper motion of the same. It will also be seen that the shank B is straight, thus avoiding the usual bend in the needle above the foot F, whereby the needle having a spring portion below the foot, as described, may be more quickly and cheaply constructed, moves more easily and rapidly in the cylinder, and is more durable than the bent needle heretofore made. Furthermore, as the needle retains its position, owing to the action of the spring, which is in a direction at right angles to the direction of the foot and against the sides of the cylinder-grooves, should the thread break or the bobbin run out, the needle will be relieved of the stitches and prevented from flying up or down and being broken, avoiding breaking of the machine or injury to the parts thereof.

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

1. A knitting-machine needle having a straight shank, a foot, and a spring below said foot, said parts being of a continuous piece, and the spring being bent in a direction at right angles to the direction of the foot, substantially as and for the purpose set forth.

2. A knitting-machine needle having its lower end thinned and bent, forming a spring, substantially as described.

JOHN C. EGLY..

Witnesses:

THOS. A. PEARCE,

JOS. KNIGHT, Jr.