

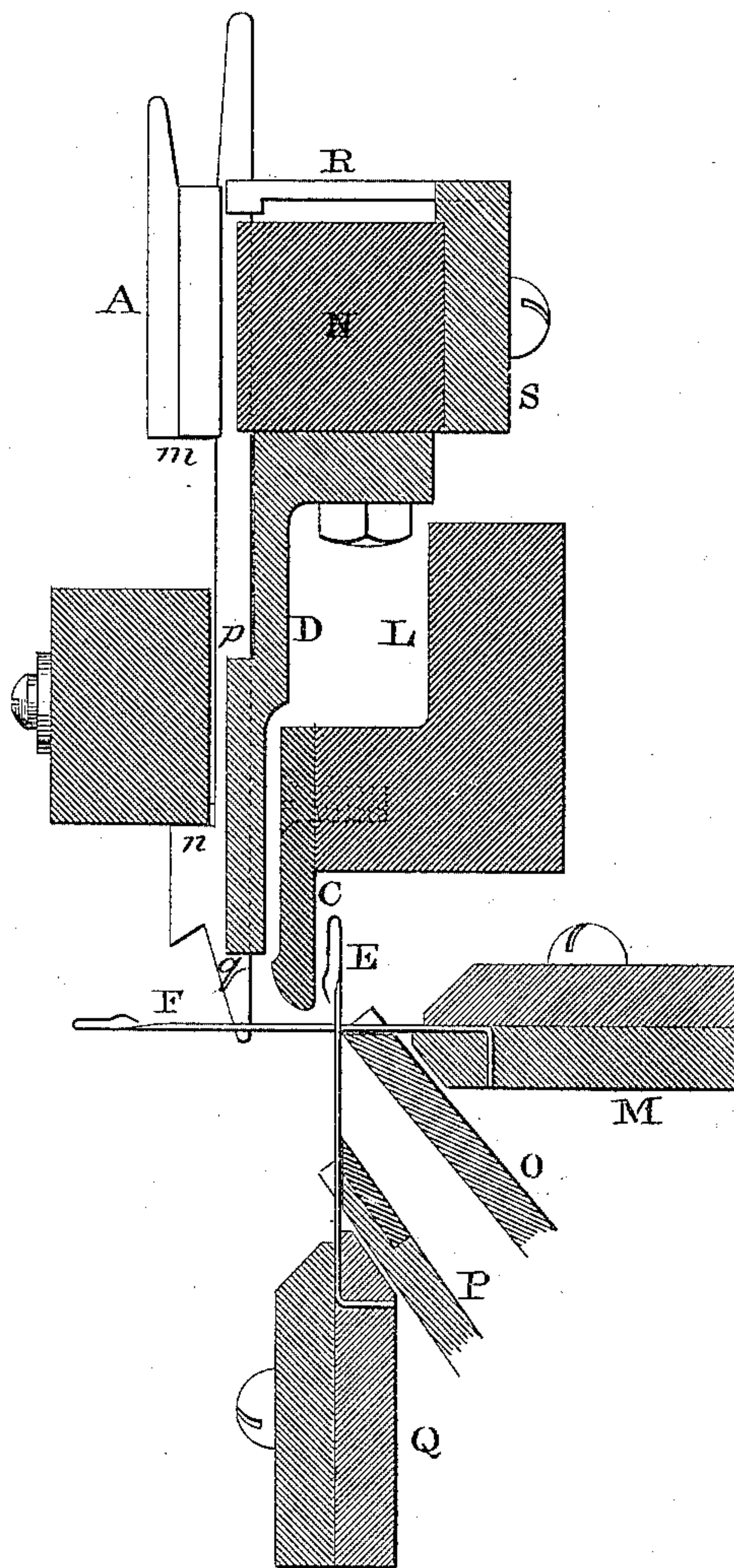
(No Model.)

E. TIFFANY.

SINKER SUPPORTING DEVICE FOR STRAIGHT KNITTING MACHINES.

No. 408,270.

Patented Aug. 6, 1889.



WITNESSES:

Jno St Essex
J. W. Olin

INVENTOR:

Eli Tiffany
by *Franklin Scott, Atty.*

UNITED STATES PATENT OFFICE.

ELI TIFFANY, OF BENNINGTON, VERMONT.

SINKER-SUPPORTING DEVICE FOR STRAIGHT-KNITTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 408,270, dated August 6, 1889.

Application filed February 1, 1887. Serial No. 226,148. (No model.)

To all whom it may concern:

Be it known that I, ELI TIFFANY, of the town of Bennington, in the county of Bennington and State of Vermont, have invented certain Improvements in Sinker-Supporting Devices for Straight-Knitting Machines, of which the following description, in connection with the accompanying single sheet of drawings, constitutes a specification.

This invention relates to provisions connected with the sinker-bar of a straight-knitting machine for more effectually holding, guiding, and supporting the sinkers of such machines in the various positions they assume while in operation.

The drawing fully illustrates the invention, which is shown by a vertical section taken transversely through the sinker-bar, falling, presser, and needle bars of a straight-knitting machine.

These improvements are specially applicable to the knitting-machines patented by me May 1, 1860, No. 28,133, and well known as the "Tiffany and Cooper Rib-Knitting Machine," in which sinkers are used of the general configuration shown in the drawing at A. These sinkers slide in vertical slots cut therefor in bars, one of which, called a "sinker-bar," is seen at N. On the back side of bar N a spring-bar S is attached by screws, and is provided with as many springs R as there are sinkers in each section of the machine. These springs press sidewise against the sinkers and tend to support or sustain them in any stage of elevation in the process of knitting when they are not otherwise supported. As these springs form the subject-matter of a separate patent, being No. 374,280, dated December 6, 1887, I do not here enter into details of their construction and action farther than as above stated. When the sinkers are depressed to their lowest limit, it is essential that there should be no backward edgewise - yielding movement of their lower ends. Heretofore this tendency has been met and counteracted by the presser-bar C, which was provided with a longitudinal piece on its front bottom edge, which was transversely grooved, so as to allow the sinkers to have vertical play in such grooves; but the support thus afforded only sustained the sinkers against lateral displacement flatwise, and did not materially

aid to prevent their being pressed backwardly or edgewise out of adjustment. To secure the last-named support, I have provided the bar D, of the shape shown in cross-section in the drawing, which is bolted or otherwise secured to the under side of sinker-bar N and detachable therefrom. The lower front portion of bar D from *p* to *q* is vertically grooved for the reception of the sinkers, which play vertically through such grooves, the back edge of the sinker riding in the bottom of the groove in which it plays. The bar D is long enough to support all the sinkers used in knitting a web.

By the use of the grooved bar D in connection with the other grooved bars through which the sinkers work, the same in their movements have a positive definite stroke, and at each end of the stroke are firmly held in position by the springs R until either the shir-cock or falling-bar comes into action to change such position.

I therefore claim—

1. The combination, with sinkers A, of the springs R and bar D, having the vertical grooves *p q*, substantially as described, and for the purposes specified.

2. A back guiding and supporting grooved bar for sinkers in straight-knitting machines attached to the main sinker-bar, in combination with a series of sinkers and supporting-springs arranged above said sinker-bar and adapted to sustain the sinkers in position when elevated, substantially as described, and for the purposes specified.

3. The combination, with a series of sinkers in a straight-knitting machine, of a horizontal grooved sinker-bar, a series of springs arranged above said bar adapted to impinge against and support the sinkers when elevated, and a back support for the lower ends of said sinkers grooved for their reception and attached to the under side of said sinker-bar and detachable therefrom, substantially in the manner described, and for the purpose specified.

In testimony whereof I have hereto subscribed my name, at Bennington, Vermont, this 10th day of January, A. D. 1887.

ELI TIFFANY.

In presence of—

FRANKLIN SCOTT,
F. W. OLIN.