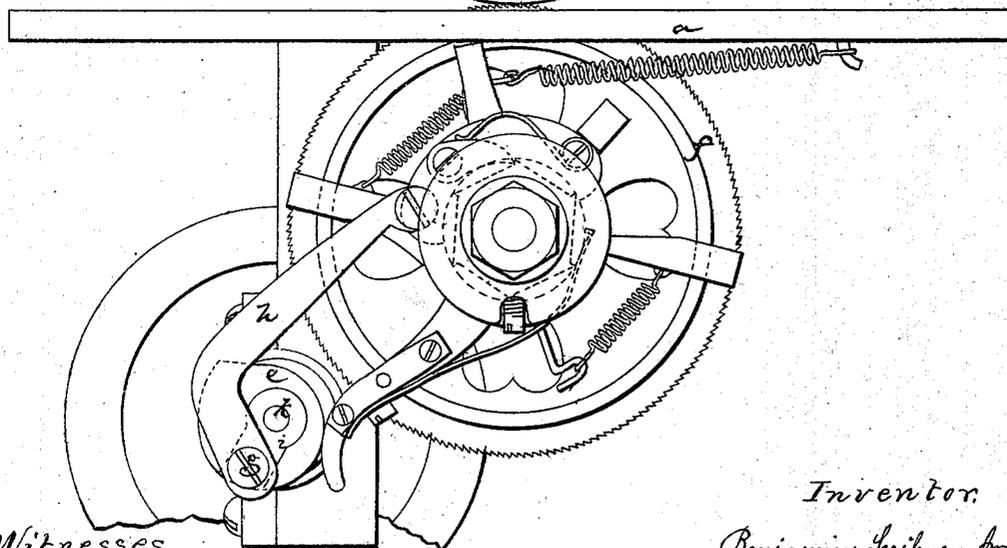
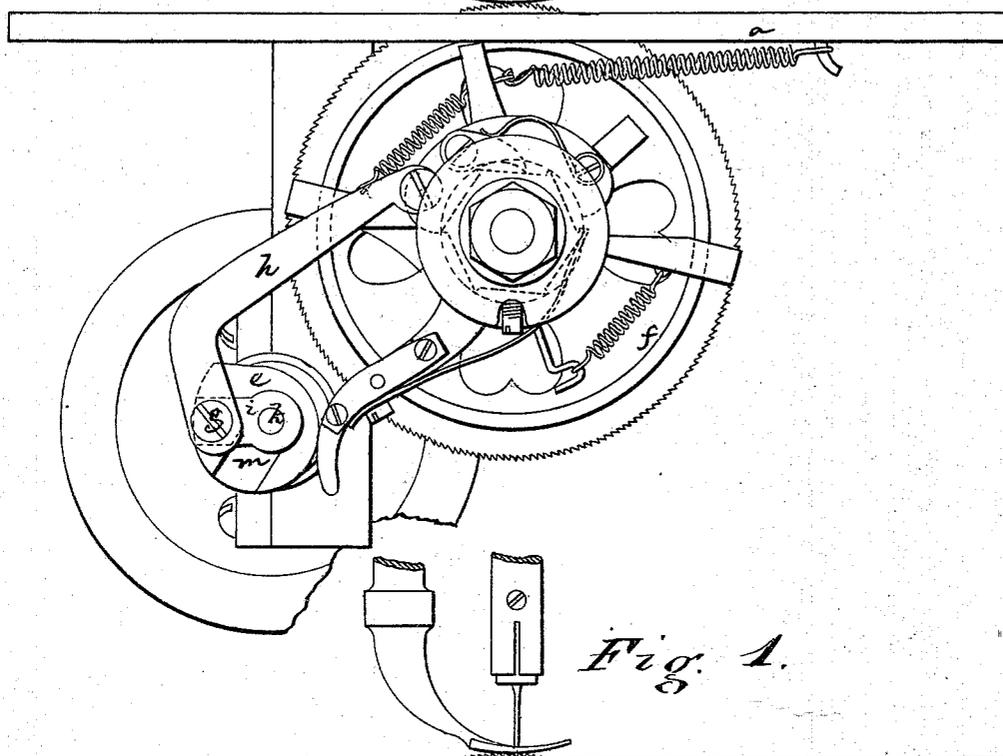
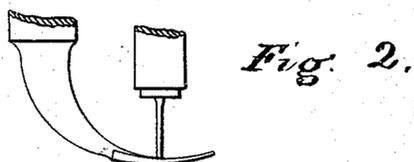


B. SCRIBNER, Jr.
Sewing-Machines.

No. 146,483.

Patented Jan. 13, 1874.



Witnesses.

M. W. Crothingham,
L. H. C. Atimer

Inventor,

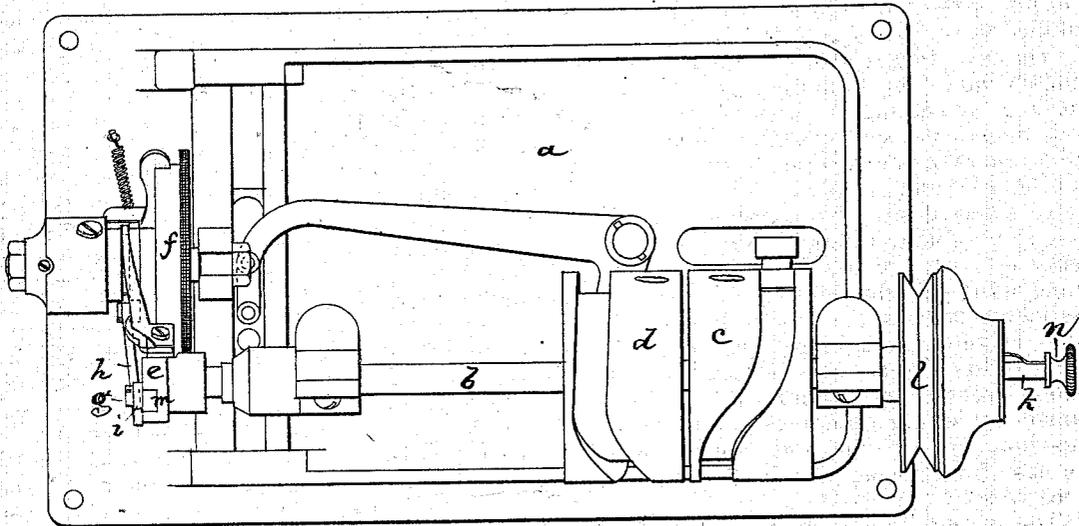
Benjamin Scribner Jr.
By his Attys.
Crosby & Gould.

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Fig. 3.



Witnesses.
W. W. Frothingham.
L. H. D. Atimer.

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UNITED STATES PATENT OFFICE.

BENJAMIN SCRIBNER, JR., OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 146,483, dated January 13, 1874; application filed November 26, 1873.

To all whom it may concern:

Be it known that I, BENJAMIN SCRIBNER, Jr., of Lynn, in the county of Essex and State of Massachusetts, have invented an Improvement in Sewing-Machines; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates to that class of sewing-machines for forming zigzag stitches or sewing, by making a series of stitches upon one line, then a series of stitches on a line angular thereto, then a series of stitches parallel to the first, and so on.

It is very desirable in effecting such stitching to be able to intermit the angular line of stitches with stitches formed in a straight line, or in straight lines in the plane of the series of stitches, or in or parallel to the angles of the zigzag lines; and my invention has for its object such an organization, or modification of an organization, of the mechanism for zigzag stitching as will enable the machine at any time, and without stopping, to pass from zigzag to straight stitching, or vice versa.

The invention consists in an organization of mechanism, as hereinafter described, by which zigzag and straight stitching may be intermittently effected, and without arresting the machine.

The drawing represents a mechanism embodying my construction.

Figure 1 shows the mechanism in end view, in position for zigzag sewing. Fig. 2 is a similar view, but showing the mechanism in position for straight sewing. Fig. 3 is a reversed plan of the mechanism.

The drawing shows only the parts directly connected with my invention, all the mechanism, except as changed by my invention, being the same as may be found in the common machine for forming zigzag stitching.

a denotes the bottom of the table or work-plate; *b*, the driving-shaft, which is shown as having the cam-wheel *c*, that works the

shuttle in the usual manner. Said shaft also carries a hub or cam, *e*, that operates a pawl mechanism for intermittently turning the feed-wheel *f* in the usual manner. To the face of this cam is jointed, by a crank-pin, *g*, a link, *h*, which, by connection with a collar mechanism upon the feed-wheel shaft, is made, by its reciprocation, to intermittently turn such mechanism, and to impart to the feed-wheel at each reciprocation a lateral movement, the successive lateral movements being first in one direction, and then in the opposite direction, and the wheel, by being thus moved laterally for each stitch, effects the zigzagging in the line of stitches. This lateral movement, or succession of lateral movements, is or may be produced by means of a collar of unequal thickness intermittently turned upon the feed-wheel shaft, said collar bearing against an inclined face on the end of the wheel-hub; but, as the zigzagging mechanism is not of my invention, I need not further describe it. Instead of jointing the link *h* directly to the cam *e*, I joint it to an arm, *i*, extending from the end of a slide shaft or rod, *k*, that passes through the shaft *b*, the shaft *b* being made tubular, the outer end of this rod extending through the driving-wheel *l*. The cam is made with a slot, *m*, into which the arm fits, and, by pressing the end of the rod *k* inward, the arm is pushed from the slot, while, by drawing it out, the arm is drawn into the slot. When in the slot, the arm and cam are one, the shaft *b*, rod *k*, cam *e*, and arm *i* turning as one piece; but, by pressing the arm from the slot, the shaft *b* will rotate alone, the arm *i* and link *h* remaining stationary. Being thus stationary, the feed-wheel receives no lateral movement, and consequently feeds the work straight forward, so that the stitches are in one straight line, free from the zigzag angles. The arm *i* may be dislodged from the cam-slot, or drawn into said slot, at any time while the machine is at work, the dislodgment being effected by a sharp push upon the knob *n* of the rod *k*, and the engagement by drawing out the rod, the arm springing into the slot as soon as the slot comes into line with the arm.

It will be obvious that by this provision for change in the stitches a monotonous zigzagging of the stitch-line may be relieved by the skillful introduction of straight work, and that the machine may be readily used for either kind of stitching.

I claim—

The combination, with a feed-wheel having intermitting lateral movements, of the longi-

tudinally-movable rod *k*, arm *i*, rotating slotted hub *e*, and link *h*, constructed and operating substantially as described, to interrupt the lateral movement of the feed.

BENJAMIN SCRIBNER, JR.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.