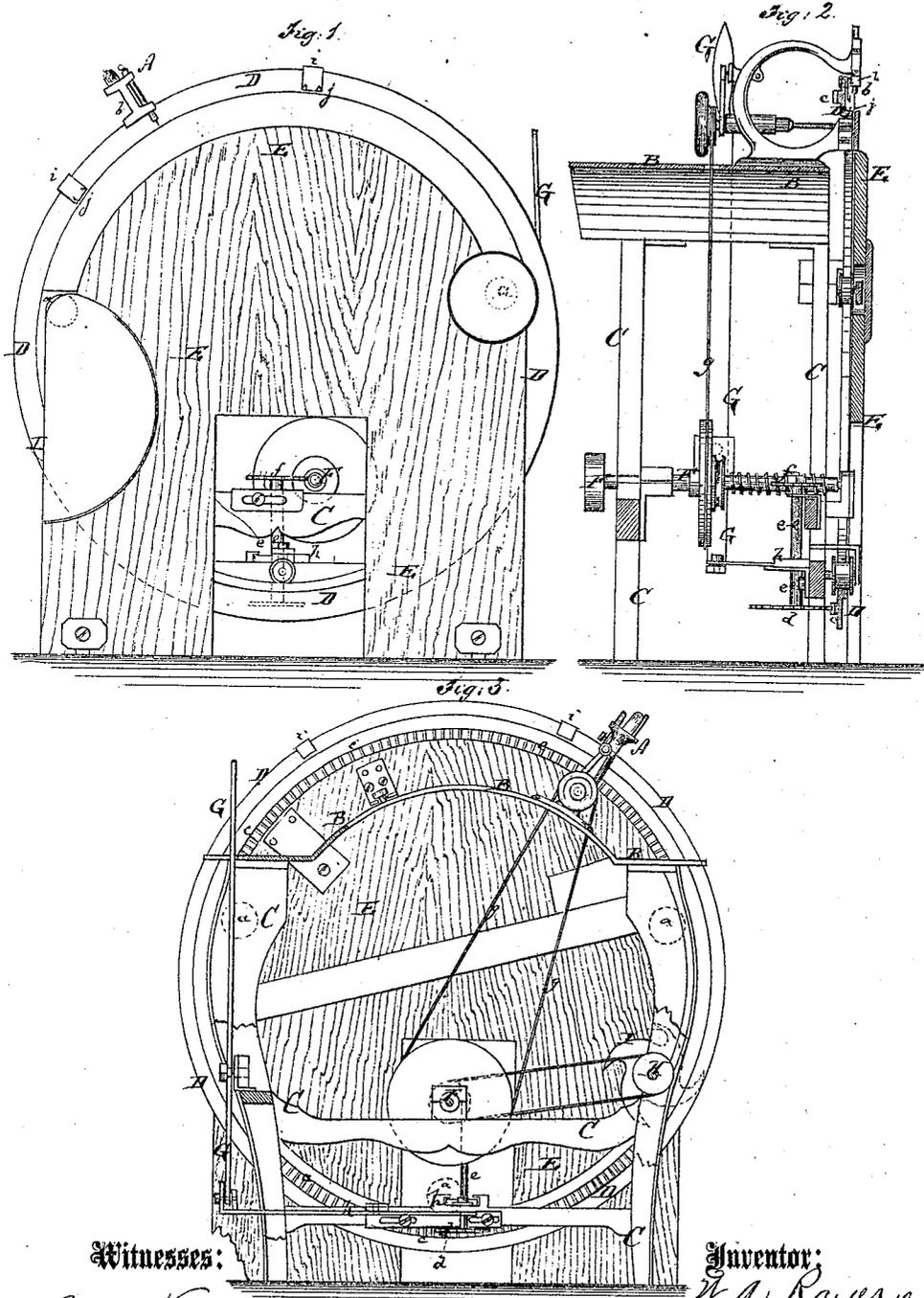


W. A. RAYER & W. S. LINCOLN.  
SEWING MACHINE.

No 108,827.

Patented Nov. 1, 1870.



Witnesses:

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# United States Patent Office.

WILLIAM ANDERSON RAYER AND WILLIAM STILLWELL LINCOLN, OF BOSTON, MASSACHUSETTS, ASSIGNORS TO THEMSELVES AND ABIJAH B. LINCOLN, OF SAME PLACE.

Letters Patent No. 108,827, dated November 1, 1870.

## IMPROVEMENT IN SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, WILLIAM ANDERSON RAYER and WILLIAM STILLWELL LINCOLN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and improved Sewing-Machine Attachment; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a front elevation of our improved sewing-machine attachment.

Figure 2 is a vertical transverse section of the same.

Figure 3 is a rear elevation, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

Our invention relates to sewing-machines, and consists in certain improvements by which they are adapted to sew the ends of pieces of goods of the same width, one pair of pieces after another continuously.

The object of our invention is to stitch all kinds of goods where long continuous seams are required.

We will first describe the invention in connection with all that is necessary to a full understanding thereof, and then clearly specify our features of improvement in the summary or claim.

A in the drawing represents a sewing-machine of suitable construction and size.

It is supported by a table, B, which rests on a frame, C, as shown.

D is an annular plate, supported in a vertical position by rollers *a a*, that are hung to the frame C.

The plate D is so set that its upper edge is behind the presser-foot and needle-arm *b* of the sewing-machine, as shown.

In front of the plate D is affixed to the frame C, a shield, E, which covers all but the upper part of the said plate D.

A toothed ring, *c*, is secured to the back of the annular plate D, and meshes into the teeth of a gear-wheel, *d*, as shown in fig. 2.

The wheel *d* is mounted upon an arbor, *e*, which receives motion by gear-wheels and worm *f*, or otherwise, from the driving-shaft F.

The shaft F is hung in the frame C, and may serve also to impart the required motion to the sewing-machine by means of a belt, *g*, or otherwise.

The arbor *e* is hung in a sliding frame, *h*, which can be moved by means of a lever, G, to throw the plate D in or out of gear.

Upon the edge of the plate D are hung a series of

hooks, *i i*, which lay flat against the face of said plate, and are provided with upward-projecting prongs or teeth at their lower ends.

The hooks can, on the edge of the plate D, be shifted any suitable distance apart from each other, according to the width of the fabric to be sewed.

The articles to be sewed together are, with their ends, hung upon the hooks *i* so that they rest upon a shoulder, *j*, that projects from the plate D and upon the upper edge of the shield E.

While the machine is in operation the plate or guide D is revolved with the requisite velocity to carry the fabric along.

When two pieces have been nearly connected, two more pieces can be hung upon the hooks *i* close against the former, so that the operation of sewing need not be interrupted.

H is a horizontal shaft hung in the frame C. It projects forward against the shield E, and has a winged wheel, I, hung upon its front end.

This wheel works in front of the rotary guide D close to the same, and serves, when it is revolved, to throw the fabric off the hooks *i* after the said fabric has been sewed. The danger of having the fabric carried down under the shield is thus avoided.

When the machine has started, the annular plate D moves correspondingly with the feed thereof.

The fabric is placed on the shifting point *i*, and carried forward to and past the sewing devices, when, the first two pieces being nearly connected, another pair of pieces are placed upon succeeding points *i*.

When the pieces that have been sewed arrive at the wheel J, they are thrown from the hooks by its wings, and are ready for the shearing machinery.

Having thus described our invention,

We claim as new and desire to secure by Letters Patent—

1. The endless annular rotating guide D, constructed in cross-section, as shown, and arranged to work behind the presser-foot and needle-arm, as and for the purpose specified.

2. The annular rack *c*, and sliding shaft *e* having pinion at each end, combined with the driving-shaft F of a sewing-machine, having the worm *f* thereon, all arranged for rotating a guide-plate, D, as described.

3. The combination, with stitching and feeding mechanism, substantially such as described, of a continuously revolving annular fabric-guide D, as and for the purpose set forth.

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Witnesses:

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