

(No Model.)

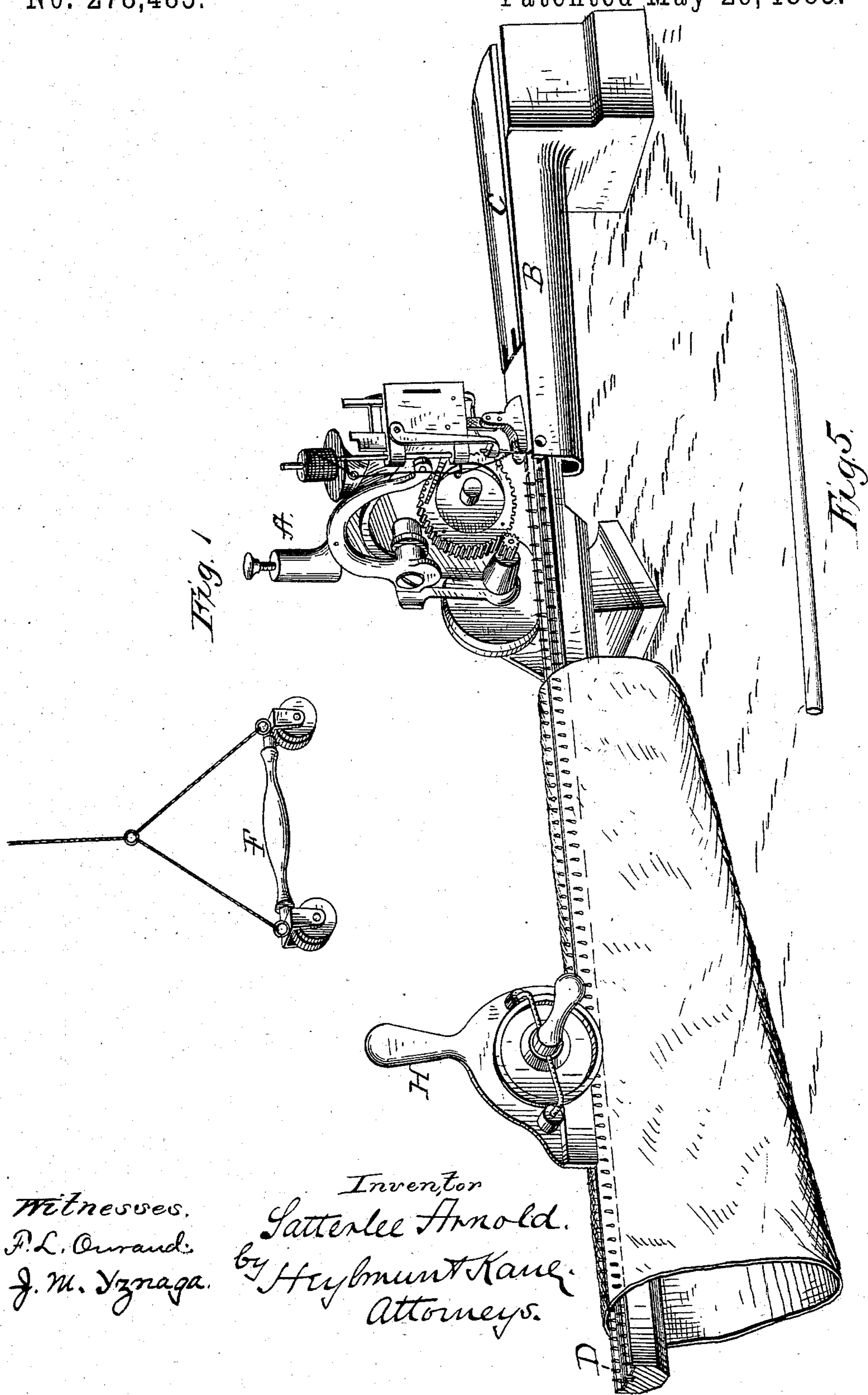
2 Sheets—Sheet 1.

S. ARNOLD.

METHOD OF AND APPARATUS FOR TRIMMING AND SEWING FABRICS.

No. 278,485.

Patented May 29, 1883.



Witnesses,
P. L. Curran,
J. M. Vznaga,
Inventor
Satterlee Arnold.
by Heyburn & Kane,
Attorneys.

(No Model.)

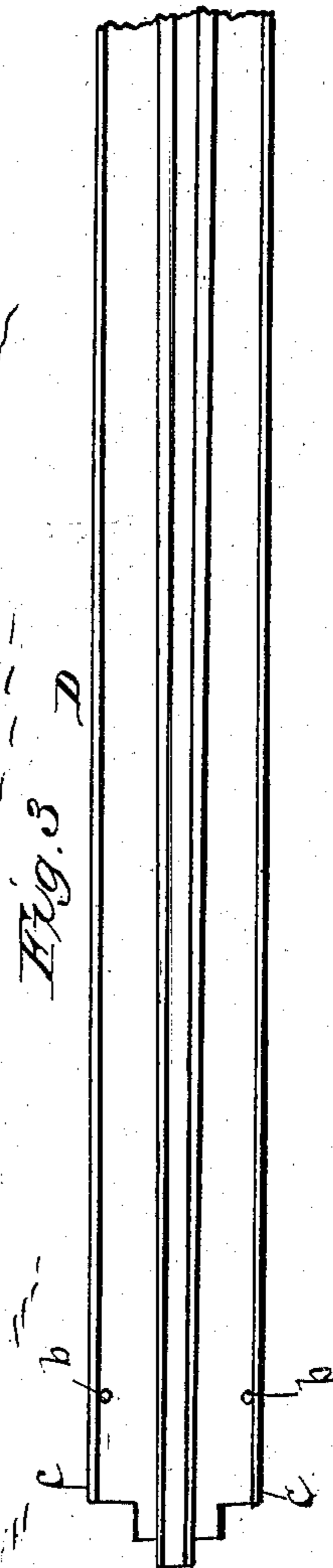
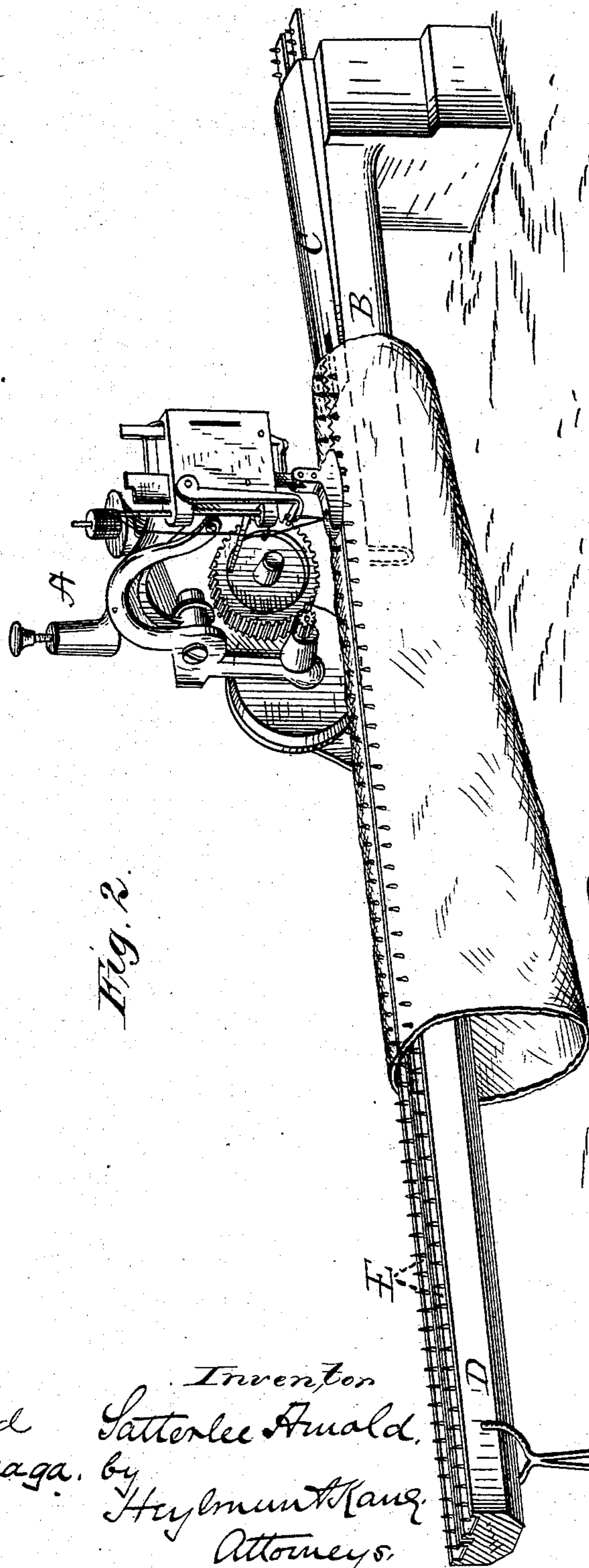
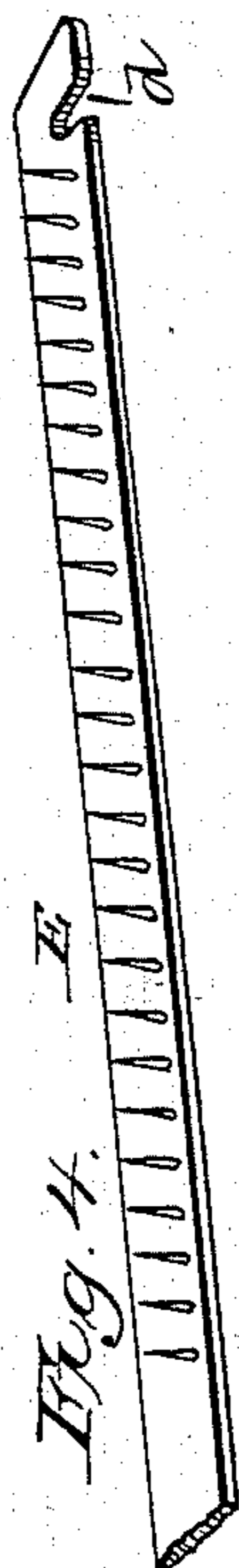
2 Sheets—Sheet 2.

S. ARNOLD.

METHOD OF AND APPARATUS FOR TRIMMING AND SEWING FABRICS.

No. 278,485.

Patented May 29, 1883.



Witnesses.
R. L. O'Rand
J. M. Yznaga.

Inventor
Satterlee Arnold,
by
Hyman Kaug,
Attorneys.

UNITED STATES PATENT OFFICE.

SATTERLEE ARNOLD, OF TROY, ASSIGNOR TO ANNA M. ARNOLD, OF NEW YORK, N. Y.

METHOD OF AND APPARATUS FOR TRIMMING AND SEWING FABRICS.

SPECIFICATION forming part of Letters Patent No. 278,485, dated May 29, 1883.

Application filed August 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, SATTERLEE ARNOLD, a citizen of the United States of America, residing at Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Methods of and Apparatus for Trimming and Sewing Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of the means for accomplishing the objects herein stated. Fig. 2 is another perspective view, showing the trimmed fabric fed to and through the sewing-machine. Fig. 3 is a plan view of the guide-rail. Fig. 4 is a perspective view of a portion of a pin-plate. Fig. 5 is a perspective view of the pointed wire.

This invention, which relates to the art of trimming and sewing fabrics, consists in the art or method of overlapping the edges of the fabric, then trimming the continuous edges for a seam, then moving the trimmed edges closer together, then guiding and feeding the fabric with the trimmed edges in juxtaposition to a sewing-machine, and finally uniting them by overseaming and anchoring or auxiliary stitches.

My invention also consists in the art of trimming and uniting fabric, the same consisting in overlapping the edges of the fabric, then simultaneously trimming the continuous edges for a seam, then guiding and feeding the fabric with the trimmed edges in juxtaposition to a sewing-machine, and finally uniting them by stitches.

My invention also consists in the combination, with a sewing-machine, of a guide-rail having two traveling ways and a central longitudinal groove, two holding devices arranged on opposite sides of the longitudinal groove, and a trimming device.

My invention also consists in the following organized instrumentalities, to wit: a guide-

rail with pin-plates for receiving and holding the material in a condition to be trimmed, a device for pressing the fabric on the pin-plates, a means for trimming both edges of the fabric simultaneously, and a means for feeding the trimmed edges in juxtaposition to a sewing-machine for uniting the same.

My invention further consists in a shedder or stripper attached to a sewing-machine and adapted to remove the goods, after the seam is sewed, from both the pin-plates or holding means moving in a guide-rail.

My invention further consists in the novel construction and combination of parts, as will be hereinafter more fully set forth and specifically claimed.

In the annexed drawings, the letter A represents a sewing-machine specially adapted for uniting the edges of elastic fabrics by overseaming and anchoring or auxiliary stitches.

For a further description of the sewing-machine reference is made to my application filed on the 10th day of February, A. D. 1881, Serial No. 25,813, and now pending in the United States Patent Office. Since the application for this sewing-machine has been filed I have added the arm B, the front end of which is under the needle and upper feed, to which I attach one end of a guide-rail which conducts the trimmed fabric to the sewing-machine, and a shedder or stripper, C, arranged in the rear of the needle and on top of the arm B for removing the sewed or united fabric from the pin-plates as they are fed forward under the shedder. This shedder, which is composed of a bar or plate having its forward end inclined or tapering from end to end, is so mounted on the arm B as to permit the free passage of the pin-plates under it, as shown.

The letter D represents a guide-rail having one of its ends shaped and fashioned so as to fit properly in the arm or horn B of the sewing-machine. This guide-rail on its upper surface is formed with two traveling ways for the reception of pin-plates about to be described, and a central longitudinal groove or furrow for a shoe, hereinafter set forth. The traveling ways of the guide-rail are contracted at their upper ends for the purpose of bringing closer

together the pin-plates moving together side by side in the same horizontal plane. These ways, at the upper ends, are provided with little studs or pins *b*, arranged alongside of the outer rails or flanges, *c*, for the purpose of positively directing the front ends of the movable pin-plates, and consequently bringing the trimmed edges attached to the pin-plates nearer together to make a full and firm seam. The office of the central longitudinal groove or furrow is to receive the shoe of the trimmer and guide the same during the process of trimming the edges of the fabric.

The letter E represents the holding device, which in this case consists of a set of pin-plates arranged opposite each other in the traveling ways of the guide-rail. These pin-plates are provided with fastening means, in this example a notch, *d*, engaging with pins or studs (not shown) located at or near the upper end in the traveling ways of the guide-rail for temporarily holding them in position during the act of attaching the edges of the fabric and trimming the same to seaming or sewing edges.

The letter F represents a tool composed of the handle and two sets of journaled rollers, somewhat like a roller-skate, for pressing the fabric on and over the pin-points of the plates by rolling the tool to and fro.

The letter H represents a trimming device with a guiding-shoe adapted to work in the central groove or furrow of the guide-rail, and a rotary cutter to trim the overlapping fabric edges on the line of the central groove.

The *modus operandi* of working goods of the cylindrical form is as follows: One of the edges of the fabric is placed upon the pin-points of one of the plates arranged in the guide-rail, so as to overlap the central groove thereof, in which condition the fabric is pressed down upon the row of pin-points by the pressing-tool straddling them. The other edge of the fabric is passed under the guide-rail and over and on the row of pin-points on the opposite plate, so that the rough edge thereof overlaps the other edge of the fabric and the central groove of the guide-rail, in which position this edge is secured to its pin-plate by the pressing-tool in the manner already described.

The shoe of the trimming-tool is now introduced into the central groove of the guide-rail, and the cutter thereof being operated is advanced by the hand of the operator in the direction of the length of the fabric edges, and as the trimmer progresses both edges are trimmed simultaneously, owing to the slight overlap, and this forward movement of the trimmer is continued until the entire length of the fabric is trimmed. The trimming-tool is now removed from the guide-rail and the pin-plates released from their temporary fastening and moved forward together, by hand or machinery, carrying with them the trimmed fabric, the edges of which are in the same horizontal plane, or slightly abut against each other, and in juxtaposition. The abutting edges are now slightly depressed by a pointed

wire into the central furrow of the guide-rail for the purpose of hiding from the face of the fabric the rough or ragged edges of the garment, the said central furrow being formed of such width as to properly receive the edges. As these pin-plates advance together with the trimmed edges presented in this condition to the needle of the sewing-machine the edges of the fabric are brought nearer together to make a full and firm seam, being gradually drawn together by the contraction of the traveling ways of the guide-rail at the upper end near the sewing-machine needle. As the seam is formed by the combined overseaming and anchoring or auxiliary stitches, the pin-plates continue to advance, and the united edges coming in contact with the shedder or stripper arranged in the rear of the needle the material is stripped or removed from the pins and collects upon the arm and shedder. When the seam has been entirely completed the sewing-machine is stopped for a moment, the frontend of the guide-rail is detached or raised from the sewing-machine arm and the sewed fabric removed, after which the front end of the guide-rail is adjusted in position, and the next set of pin-plates, with the trimmed fabric, is fed forward in the manner above described.

From the foregoing description it will be seen that both trimmed edges of the fabric are presented to the sewing-machine in juxtaposition. The advantage of thus presenting the edges to the sewing-machine needle is obvious to those skilled in the art.

It will be observed that in carrying out my method as above described of trimming and sewing fabrics four general elements, aside from the sewing-machine and its adjuncts, are required—to wit, a guide-rail, holding device, pressing-tool, and trimmer. For a further and detail description of the guide-rail, pin-plates, and trimmer reference must be had to my application filed even date herewith, Serial No. 39,708. The means for operating these elements or factors constitute no part of this application, as I reserve the right to employ known means for operating them.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The improvement in the art of uniting fabrics herein set forth, consisting in overlapping the edges to be united, then trimming said edges and feeding the fabric, with the trimmed edges in juxtaposition, through a sewing-machine, forming the seam by sewing across the adjacent edges of the material, substantially as described.

2. The improvement in the art of trimming and uniting fabrics, which consists in overlapping the edges of the fabric, then simultaneously trimming the continuous edges for a seam, then guiding and feeding the fabric with the trimmed edges in juxtaposition, to a sewing-machine, and finally uniting them by stitches, substantially as described.

3. The combination, with a sewing-machine,

of a guide-rail having two guiding-ways and a central furrow with two holding devices adapted to move in the guiding-ways, substantially as described.

3 4. The combination, with a sewing-machine, of a guide-rail having two guiding-ways, two holding devices arranged to move in the guiding-ways, and a trimming-tool, substantially as described.

10 5. The combination, with a sewing-machine, of a guide-rail with two traveling ways, and pin-plates carrying a trimmed-edge fabric, of a shedder or stripper attached to a sewing-machine frame, arranged in the rear of the
15 needle, for the purpose of removing the sewed fabric from the pin-plates, substantially as described.

20 6. In a means for trimming and sewing fabrics, the following organized instrumentalities, to wit: a guide-rail with pin-plates for receiving and holding the fabric in a condition to be trimmed, a device for pressing the fabric on the pin-plates, a means for trimming

both edges of the fabric simultaneously, and a means for feeding the trimmed edges in juxtaposition, and a sewing-machine for uniting the same, substantially as described. 25

7. In a means for trimming and sewing fabrics, the following organized instrumentalities, to wit: a guide-rail with pin-plates for receiving and holding the fabric in a condition to be trimmed, a device for pressing the fabric on the pin-plates, a means for trimming both edges of the fabric simultaneously, and a means for feeding the trimmed edges in juxtaposition, with devices for causing the pin-plates to approach each other, and a sewing-machine for uniting the same, substantially as described. 30 35

In testimony whereof I affix my signature in presence of two witnesses. 40

SATTERLEE ARNOLD.

Witnesses:

WM. J. MACDONALD,

R. H. VAN ALSTYNE.