C. WIECZORECK.

PRESSER FOOT.

APPLICATION FILED MAR. 11, 1911.

1,069,836. Patented Aug. 12, 1913.

Fig. 1

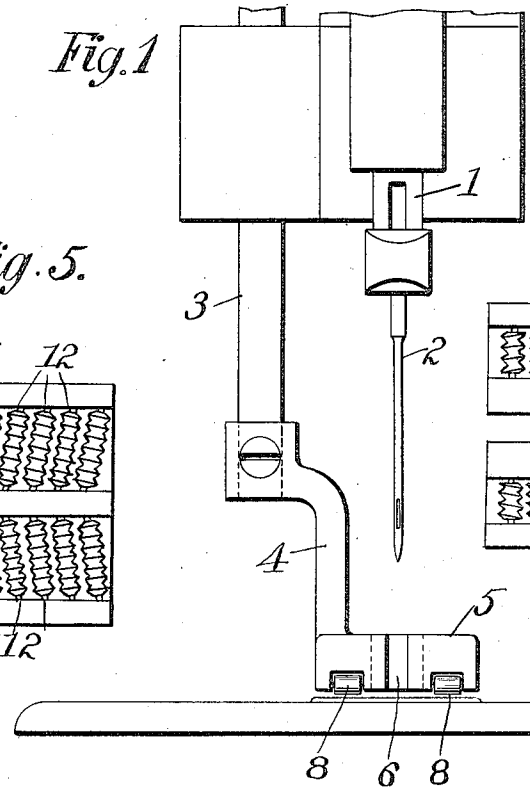


Fig. 4.

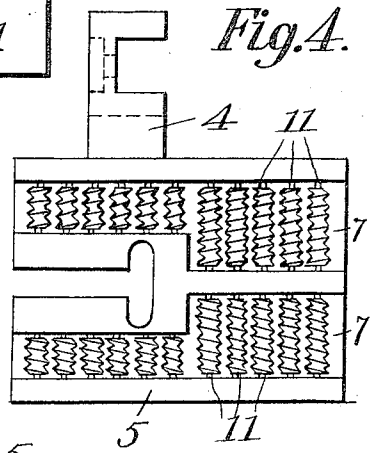


Fig. 5.

Fig. 2

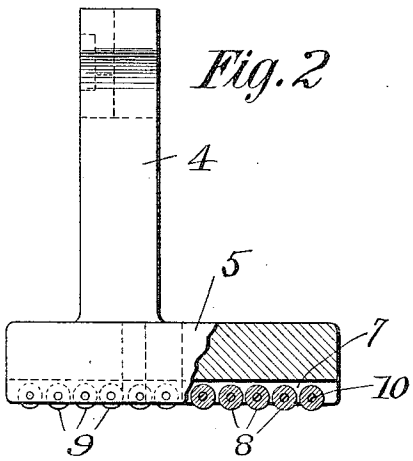
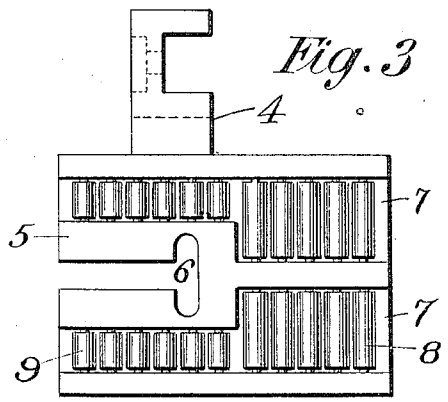


Fig. 3



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CLEMENS WIECZORECK, OF UNION, NEW JERSEY, ASSIGNOR TO PEERLESS RUBBER MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

PRESSER-FOOT.

1,069,836. Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed March 11, 1911. Serial No. 613,688.

To all whom it may concern:

Be it known that I, CLEMENS WIECZORECK, a citizen of the United States, residing in the town of Union, county of Union, State of New Jersey, have invented a certain new and useful Presser-Foot for Sewing-Machines and Similar Apparatus, of which the following is a full, clear, and complete disclosure.

The object of my invention is the production of a presser-foot which may be more satisfactorily and efficiently used in connection with fabrics or sheet materials with surfaces having a high frictional resistance to a rubbing or sliding action, such as for instance, rubber fabric, rubber belting, etc. In the manufacture of certain rubber goods, it has been the custom to use sewing machines for uniting abutting edges by sewing the same together with a cross or zig-zag stitch before the edges are cemented or otherwise permanently attached together. With the ordinary presser-foot of the sewing machine, the tendency has been to separate the edges of the fabric, owing to the frictional resistance of the under-side of the presser-foot and the "drag" of the fabric as it is advanced by the feeding device. To overcome this defect, I have devised a presser-foot which may be briefly described as being provided with a series of plain or grooved rolls on each side of the opening through which the needle of the machine passes, so that frictional contact with the presser-foot is reduced to a minimum, thereby allowing the fabric to be fed beneath the same without the tendency to separate the edges thereof.

When the rolls are grooved or provided with sharpened circumferential ridges, which are inclined to the longitudinal line of movement of the material being sewed, the edges of the material are positively forced toward each other so that the tendency to separate is further overcome and any lateral tension on the fabric is compensated for.

For a detailed description of several forms of my invention, which I at present deem preferable, reference may be had to the following specification and to the accompanying drawing forming a part thereof, in which:

Figure 1 is a front elevation of the presser-foot support and needle bar support of any preferred form of sewing machine, the presser-foot being provided with plain rolls. Fig. 2 is a side elevation, partly in section, of the presser-foot. Fig. 3 is a plan view of the under or contact side of the presser-foot. Figs. 4 and 5 are plan views of the under or contact side of the presser-foot, showing a modified form of anti-friction rolls.

Referring to the drawing, the numeral 1 indicates the needle-holding bar, and 2 the needle attached thereto.

3 indicates the bar for supporting the presser-foot, and 4 the arms or bracket which supports the plate which forms the contact portion of the presser-foot.

5 indicates the presser-foot proper, which is provided with a central opening 6 through which the needle passes. The presser-foot is grooved on each side of the central longitudinal line, as indicated at 7, and is provided with a series of rollers 8 and 9, which are located, respectively, in the wide and narrow parts of the grooves, the narrow part of the groove being that part of the presser-foot which is provided with the opening 6 for the needle. The anti-friction rolls may be mounted in the presser-foot in any preferred way, but I have shown them as consisting of small cylindrical rolls, through which pass small pins 10 serving as axles, the ends of which are retained in the walls of the recesses or grooves 7.

In the modification shown in Fig. 4, the rolls 11 are provided with helical ridges or projections in the nature of a screw-thread, the threads being inclined in opposite directions on each side of the central line of the presser-foot.

In Fig. 5 the rolls 12 are provided with circular or parallel ridges, the rolls themselves being inclined at the requisite angles on each side of the longitudinal line of the presser-foot to produce the same tendency to force the edges of the material toward each other.

Other changes or modifications may be made by those skilled in the art, without departing from the spirit and scope of my invention.

What I claim and desire to protect by Letters Patent is:

1. A sewing machine presser-foot comprising, a plate recessed on its lower side and having a needle opening therethrough,

and a plurality of longitudinal series of anti-friction rolls within said recessed plate and projecting beyond the lower surface only thereof, a portion of said rolls being located at each side of the needle opening and being of small diameter and close together to form substantially continuous longitudinal bearing surfaces symmetrically located relative to the needle opening.

2. A presser-foot having anti-friction rolls projecting from the lower surface thereof, said rolls being provided with sharp transverse ridges, and forming a substantially continuous guiding and bearing surface for the material being treated.

3. A presser-foot having a plurality of longitudinal series of anti-friction rolls projecting from its lower surface, said rolls being provided with sharp transverse ridges, and said ridges being inclined on each side of the needle opening at opposite angles to the direction or motion of the fabric being sewn.

4. A presser-foot having series of anti-friction rolls projecting from its lower surface, said rolls being provided with sharp transverse ridges, and said ridges being in the form of continuous right and left-hand screw-threads on opposite sides of the needle opening, respectively.

Signed at New York, county and State of New York, this 10th day of March, 1911.

CLEMENS WIECZORECK.

Witnesses:

JOHN A. CARBERRY,

EDW. W. VAILL, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."