

(No Model.)

R. G. WOODWARD.
PRESSER FOOT FOR SEWING MACHINES.

No. 446,575.

Patented Feb. 17, 1891.

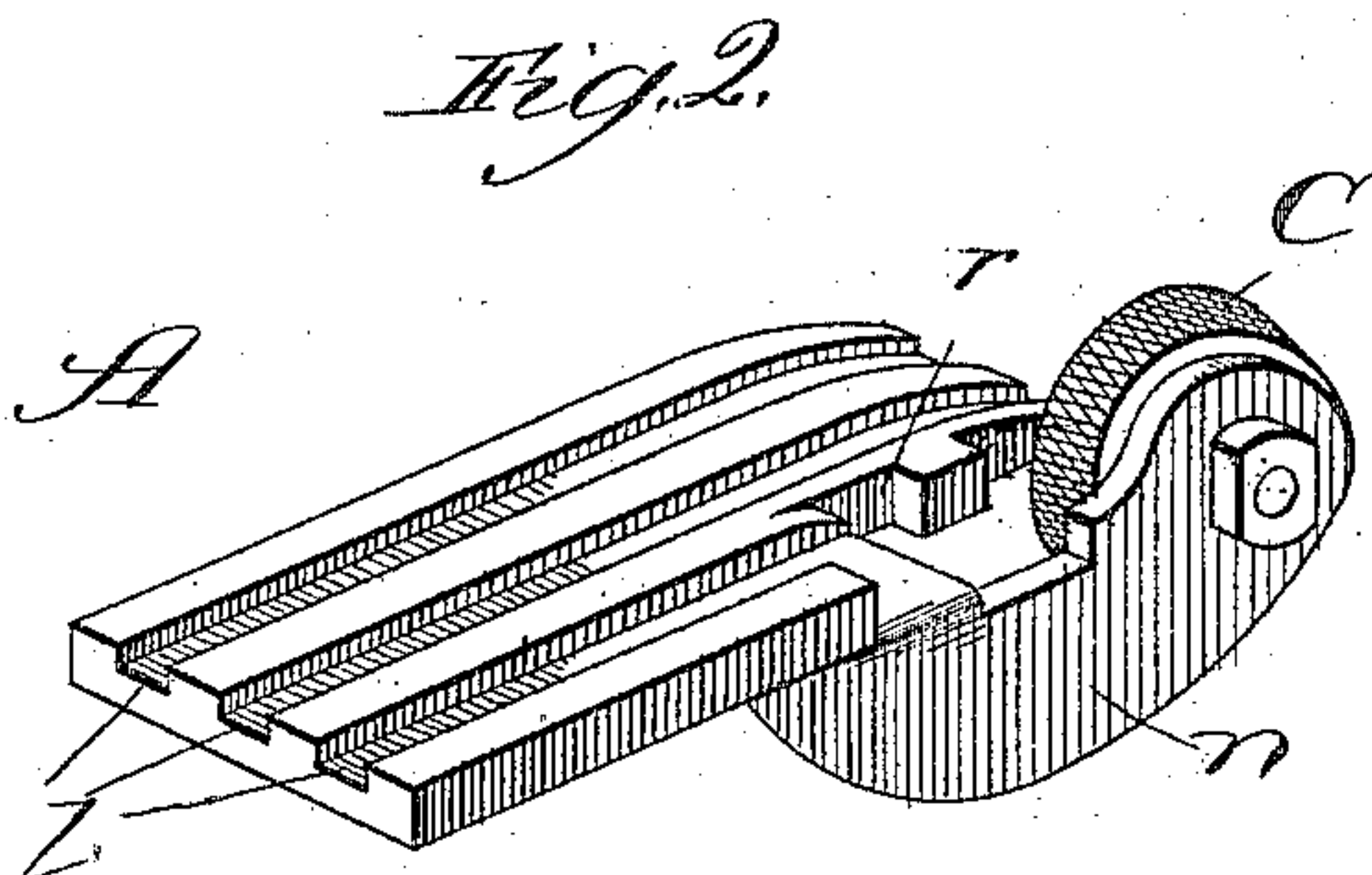
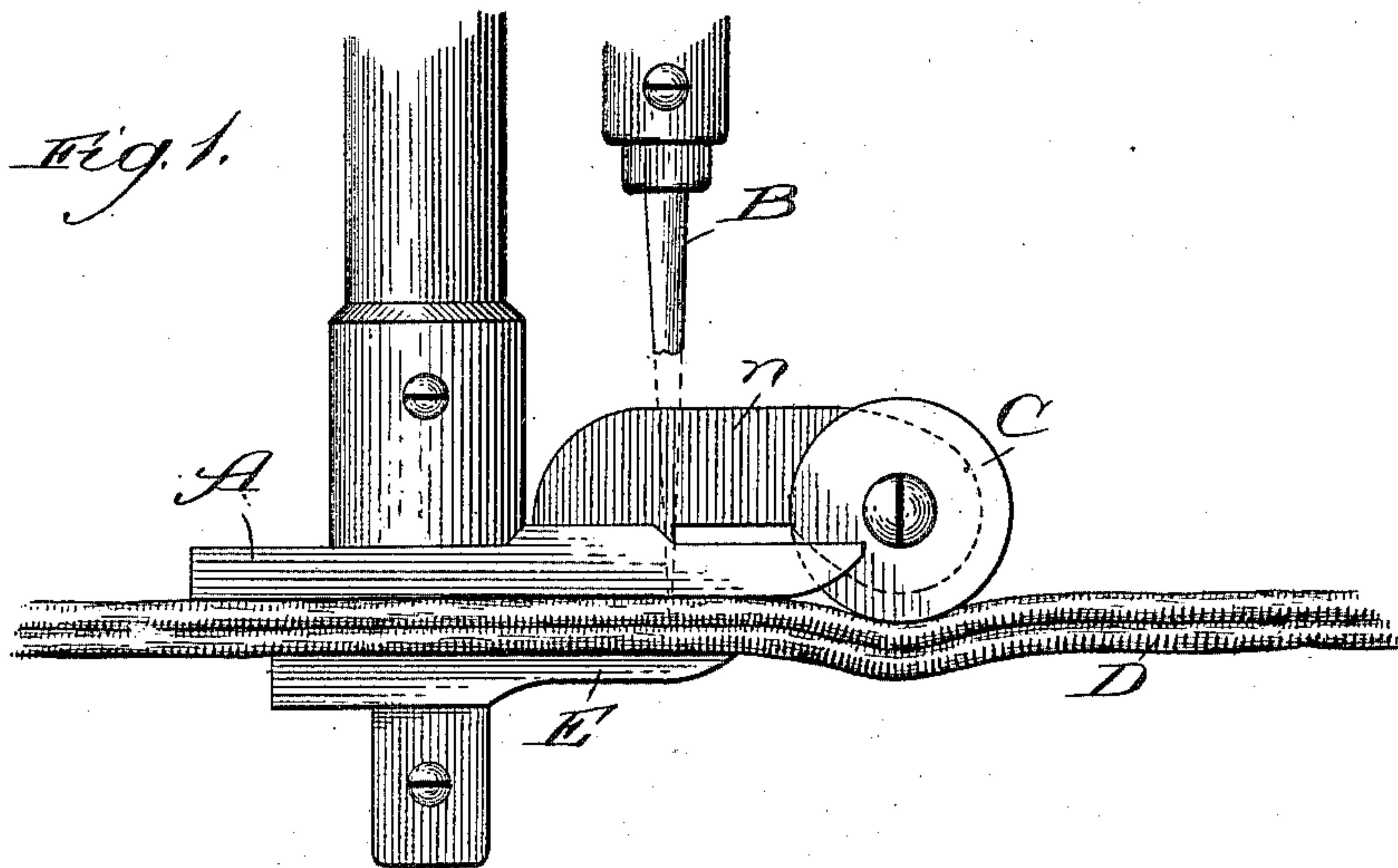


Fig. 4.

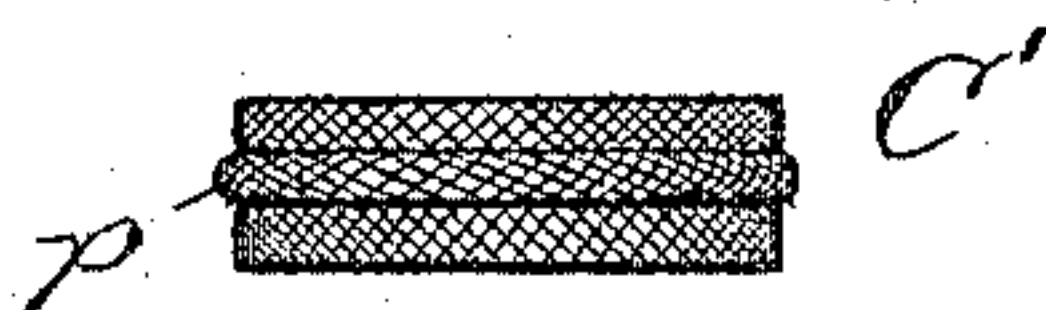
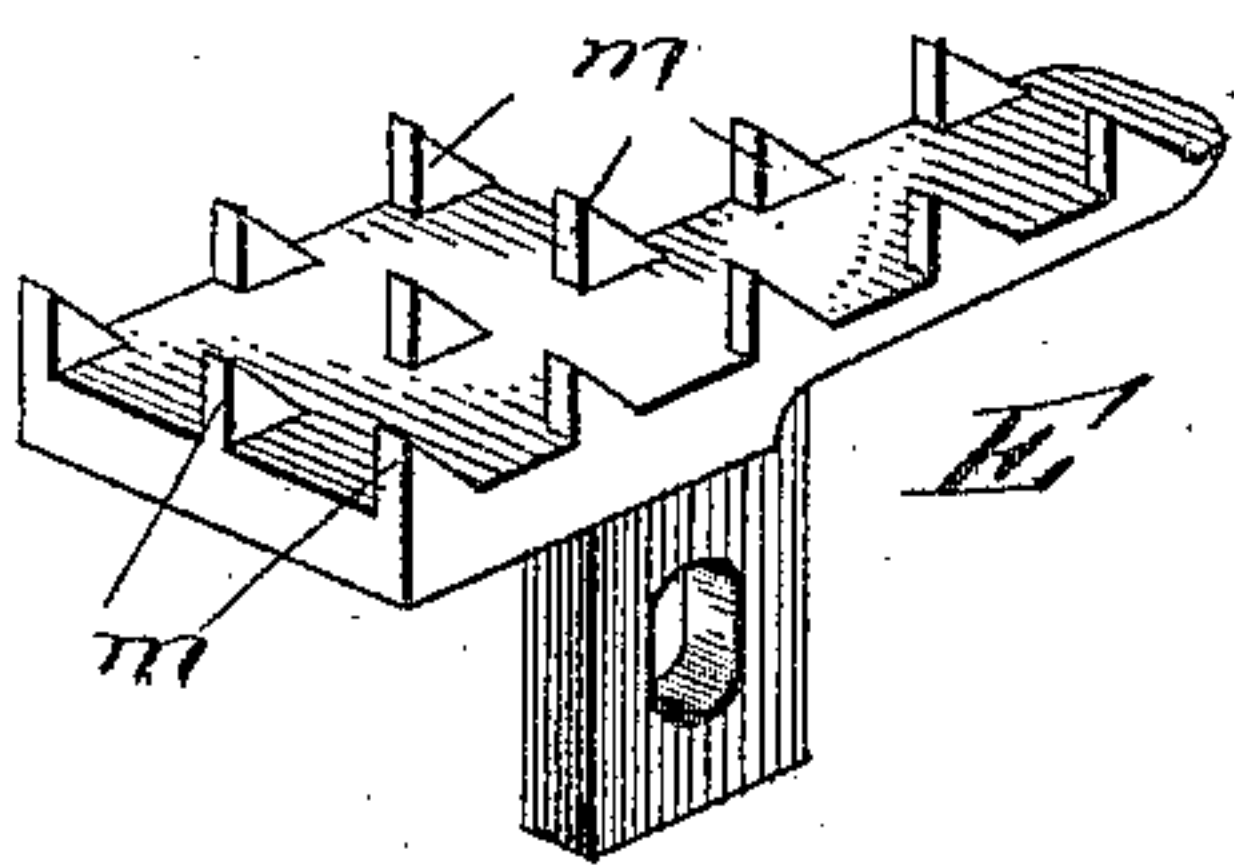


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

RUSSEL G. WOODWARD, OF WAUKEGAN, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS.

PRESSER-FOOT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 446,575, dated February 17, 1891.

Application filed September 10, 1890. Serial No. 364,510. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL G. WOODWARD, a citizen of the United States, residing at Waukegan, in the county of Lake and State of Illinois, have invented a new and useful Improvement in Presser-Foot for Sewing-Machines, of which the following is a specification.

My invention relates to an improvement in the presser-foot portion of a sewing-machine for use particularly on sewing-machines adapted for sewing the heavier class of material, such as carpets. In goods of the kind referred to, in order that the seam formed by stitching shall be close, it is necessary that the material along the line of the seam shall be pressed together with great firmness preparatory to the stitching.

The object of my improvement is to provide simple means whereby the presser-foot shall be adapted effectively to press the goods together along the line of the seam to be formed to insure required closeness of contact of the contiguous layers of the material along the line of junction.

My further object is so to construct the presser-foot provided with my improvement referred to as to prevent dulling of the teeth of the feed.

In the accompanying drawings, Figure 1 is a broken view, in elevation and in the nature of a diagram, representing the presser-foot of a sewing-machine provided with my improved compressor, shown as operatively applied in sewing carpet, the needle being also indicated in operative position. Fig. 2 is an inverted perspective view of the presser-foot provided with my improved compressor in the form of a roller and showing the presser-foot to be provided longitudinally in its base with grooves to admit the teeth of the feed; Fig. 3, a perspective view of the feed; and Fig. 4, a view of the compressor-roller for the presser-foot, showing a modified construction of its peripheral surface.

The parts illustrated in the several views are represented as larger than normal.

A is the presser-foot, which may involve any desired or well-known construction of that part of a sewing-machine. In line with the eye *r* for the passage of the needle B, I

provide a compressor C, supported to extend, essentially, beyond the lower surface of the presser-foot. The form of the compressor C is that illustrated, of a roller, the periphery of which should be milled, as shown, or otherwise roughened, and a desirable modification is presented in Fig. 4, wherein the roller is denoted by C' and its periphery is formed centrally around its circumference with a roughened ridge *p*. The roller is supported pivotally on the end of an arm *n*, extending from a side of the presser-foot A, as shown, and is thus located to project below the surface of the presser-foot on the line of the seam.

When a carpet D or other heavy material is being sewed, the edges to be united are clamped in a usual manner between the presser-foot A and a feed E, the construction and manner of operation of which latter are well known and need not, therefore, be accurately described herein. The compressor C or C' by extending below the lower pressing-surface of the presser-foot forces the contiguous surfaces of the goods closely together along the line to be sewed thus in advance of the work of the needle, and the close contact of the surfaces of the goods along the line of the seam effectually prevents any such looseness in the stitches as would permit the goods when flattened out to be drawn on opposite sides of the line of stitches, and thus open the seam.

By providing the compressor-roller with a ridge *p* it operates to produce a depression in the nature of a furrow along the line to be stitched, and is the more desirable for some kinds of goods.

The teeth *m* of the feed-dog are shown as provided thereon in three longitudinal rows, which respectively coincide with the longitudinal grooves *l* in the base of the presser-foot A. Thus when the goods being sewed "run off," or the thickness thereof is less than the length of the teeth *m*, the latter are not worked against the hard surface of the base of the presser-foot, which would rapidly dull them, but they enter the grooves *l* short of their bases, and are thus uninjured.

What I claim as new, and desire to secure by Letters Patent, is--

1. In a sewing-machine, the combination, with the presser-foot, feed, and reciprocating

needle, of a compressor-roller rigidly supported to revolve on its axis on the presser-foot forward of the needle and feed-dog and permanently extending at its periphery below
5 the plane of the bearing-surface of the presser-foot, substantially as and for the purpose set forth.

2. In combination, a sewing-machine presser-foot A, grooved longitudinally on its under
10 side, a reciprocating needle B, a compressor

unyieldingly supported on the presser-foot forward of the needle and permanently extending at its bearing-edge below the plane of the bearing-surface of the presser-foot, and a feed E, having teeth *m*, substantially as and
15 for the purpose set forth.

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Witnesses:

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