

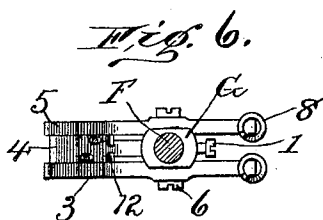
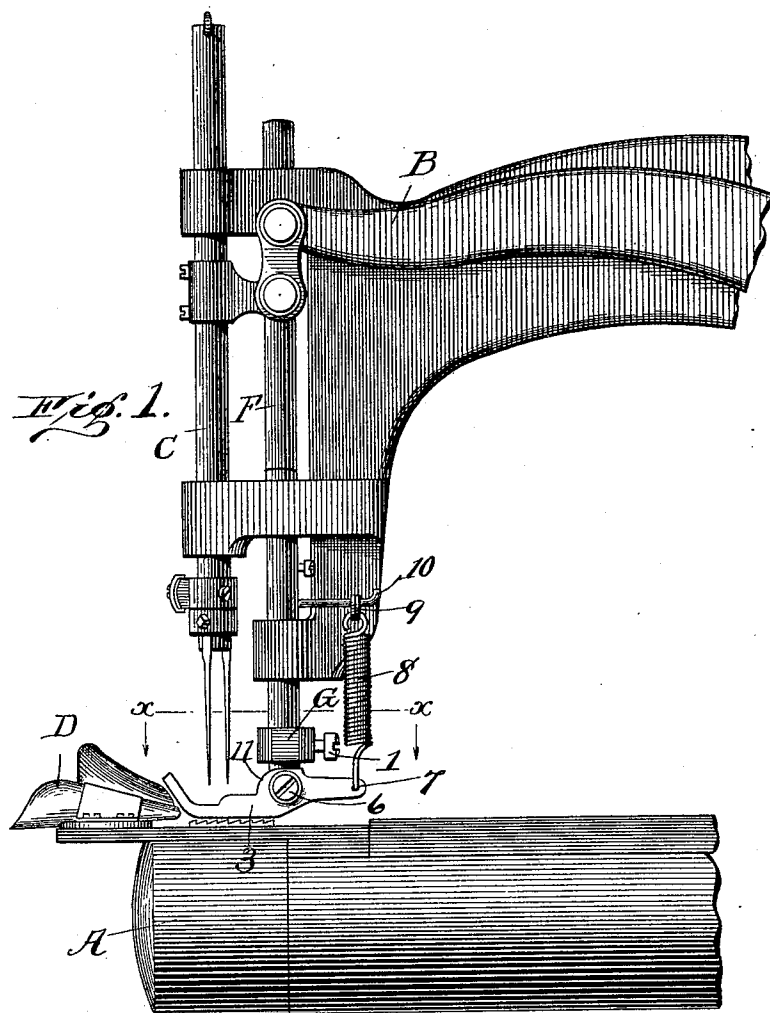
(No Model.)

2 Sheets—Sheet 1.

J. C. GOODWIN.
SEWING MACHINE.

No. 583,396.

Patented May 25, 1897.



Witnesses:
J. M. Fowler,
Albert Popkins,

Inventor:
Julius C. Goodwin
By *Chas. S. Sturtevant,*
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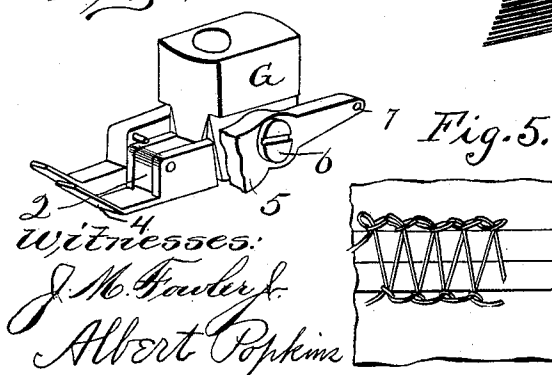
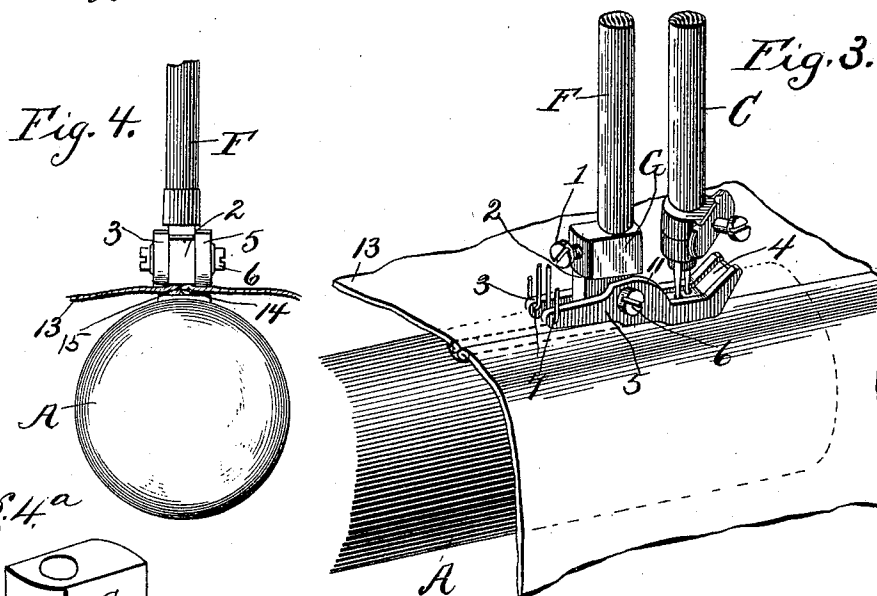
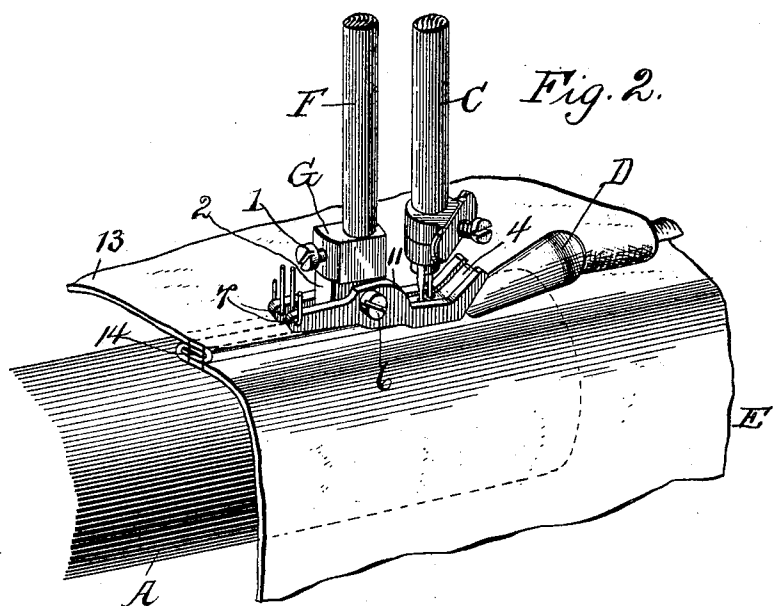
(No Model.)

2 Sheets—Sheet 2.

J. C. GOODWIN.
SEWING MACHINE.

No. 583,396.

Patented May 25, 1897.



Witnesses:

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UNITED STATES PATENT OFFICE.

JULIUS C. GOODWIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 583,396, dated May 25, 1897.

Application filed November 13, 1896. Serial No. 611,955. (No model.)

To all whom it may concern:

Be it known that I, JULIUS C. GOODWIN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon.

My invention relates to an improvement in sewing-machines, and particularly to an improved construction of the presser-foot therefor; and the object is to provide a device composed of a number of independently-acting parts whereby proper pressure may be exerted upon the fabric to hold it in position, even though a piece of goods of varying thicknesses may be passing through the machine.

The invention consists, primarily, of a presser-foot provided with a series of independently-acting parts capable of adjusting themselves to any thickness of fabric and at the same time obtaining a proper pressure upon the goods at all points of contact.

My invention also consists in the matters hereinafter described, and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of so much of a sewing-machine as is necessary for a complete understanding of the invention. Fig. 2 is a perspective view from the rear side showing the device in use where two pieces of goods are folded together and passed through the machine. Fig. 3 is a similar view showing the apparatus when used upon the machine for covering the trimmed seams of fabrics. Fig. 4 is an end view of Fig. 3. Fig. 4^a is a perspective view, partly in section, showing the manner of pivoting the central section. Fig. 5 represents the under side of the fabric shown in Fig. 3. Fig. 6 is a top plan view of the presser-foot.

In the drawings the machine shown is of well known Union Special type, and is herein shown as provided with two needles set oblique to each other respecting the line of feed.

A represents the cylindrical bed-plate of the machine.

B is the needle-lever.

C is the needle-bar.

D is a folder such as I prefer to use on a machine.

E represents the fabric to be sewed.

The presser-bar is shown at F and at its lower end is provided with a flattened collar G, secured thereto by the set-screw 1. This collar is provided with a downwardly-extending thinned portion 2, to which are pivoted two parts 3 and 5 of the presser-foot. Each of these parts 3 and 5 is pivotally secured to the flattened portion 2 by means of a pivot-screw 6, and at its rear end is provided with an eye 7, in which is hooked or otherwise secured the lower end of a spiral spring 8, fastened at its upper end to a ring 9. This ring 9 is secured on an inwardly-extending lug or arm 10, and by means of these springs the rear ends of the parts 3 and 5 of the presser-foot are kept normally up and the forward or the part which coöperates with the presser-foot to clamp the goods is kept normally depressed. The central part 4 of the presser-foot is pivoted to the lower part 2 of the collar, as shown in Fig. 4^a, and has a slight swinging movement, as is common in connection with the well-known Union Special machines, and not deemed necessary of illustration here. The upward movement of the forward portions of the parts 3 and 5 is limited by means of the cam-shaped portions 11, which fit against the shoulders formed on the collar G, and stops 12 limit the downward movement of said forward portions, said stops 12 contacting with the central part 4 of the presser-foot.

It will be seen that when, as shown in Fig. 2, two pieces of goods are to be folded together and united, as in the making of shirts, overalls, &c., one of the parts—as, for example, 3—will bear on the single thickness of the fabric and act as a guide for the edge of the welt, the other part 5 will press down on the upper single thickness of fabric 13 and so act as a guide for the lower edge 14 of the welt, while the central portion 4 of the foot acts in the ordinary way.

The great value of a device of this character is also illustrated in the sewing across of the seams—as, for instance, in overalls, where at the point where the front seam joins the inside leg-seam there is considerable ridge formed and a number of thicknesses of fabric must be passed through the machine. In this event the parts 3 and 5 bear with practically equal pressure—one, say, on its four thicknesses of goods and the other one, say, on two thicknesses of goods—and hold the same firmly, preventing any slipping.

In Fig. 3 the use of the device in connection with the covering of seams is shown, in which the edges of the fabric have first been united and trimmed, the fabric then spread out flat, and the goods fed through the machine to cover the seam—as shown, for example, in Fig. 5. It will be seen that in this covering of trimmed seams there will be a greater thickness where two pieces of fabric are joined together than upon the outer edges, where only one thickness of fabric is to be stitched. If the presser-foot were made in one piece, the whole bearing-surface would be upon that portion of the seam directly under the center of the foot and the feed would have no action against the presser-foot upon its outer edges. By the use of the presser-foot herein shown and described these portions 3 and 5 bear upon the single thickness of fabric and act as guides for the edges of the thickened portion, as shown clearly in Fig. 4. As a further improvement I construct the presser-foot to facilitate the operations of making felled seams, the two outside sections of the foot acting as guides in retaining the two folded edges in close proximity and at equal distances from the needles, while the third or central section holds down the different thicknesses of cloth when folded and in the act of passing under the foot. It will be understood that by making the plane of the bottom of the central portion of the foot above the plane of the side portions a natural groove, as 15, for the reception of the felled seam will be formed, although the central section might be grooved, if desired.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described presser-foot having the two outside guiding-sections whereby the folded edges of the fabric will be kept in close proximity to and equal distances from the needles, and a central section adapted to rest upon the folded goods and having its under surface above the plane of the under surface of the other section, substantially as shown and described.

2. A presser-foot for sewing-machines, comprising two pivoted independently-acting spring-pressed side sections and a pivoted central section, substantially as described.

3. In a sewing-machine a presser-bar and a presser-foot, comprising a pivoted central section and side sections pivoted to the presser-bar with springs connected at one end to the rear end of the side sections and at the other end to the presser-bar whereby the forward end of said side sections is normally depressed, substantially as described.

4. In combination with the presser-bar, a collar secured thereto having a downwardly-extending thinned portion, a presser-foot, sections pivoted thereto, each section having at its rear end an eye, springs secured to said eye, rings to which the springs are attached and arms on the presser-bar to which the rings are secured and a central section secured to said collar between the sections 3 and 5, substantially as described.

5. In combination with the presser-bar, a collar secured thereto having a downwardly-extending thinned portion, a presser-foot, sections pivoted thereto, each section having at its rear end an eye, springs secured to said eye, rings to which the springs are attached and arms on the presser-bar to which the rings are secured and a central section secured to said collar between the sections 3 and 5, and stops for limiting the downward movement of said sections 3 and 5, substantially as described.

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

JULIUS C. GOODWIN.

Witnesses:

FRANK A. MATHEWS,
H. F. REARDON.