

(Model.)

E. J. TOOF.

PRESSER FOOT FOR SEWING MACHINES.

No. 445,912.

Patented Feb. 3, 1891.

Fig 1

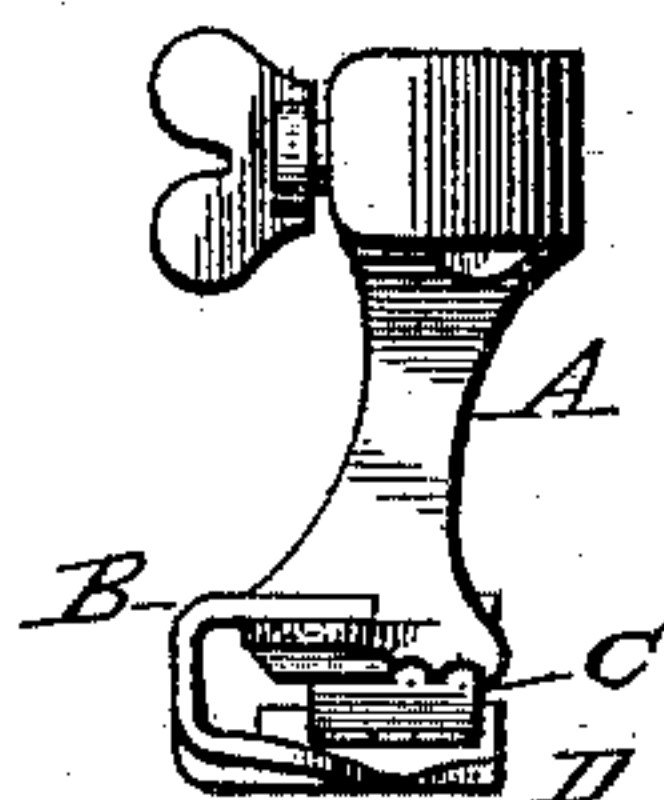


Fig 2

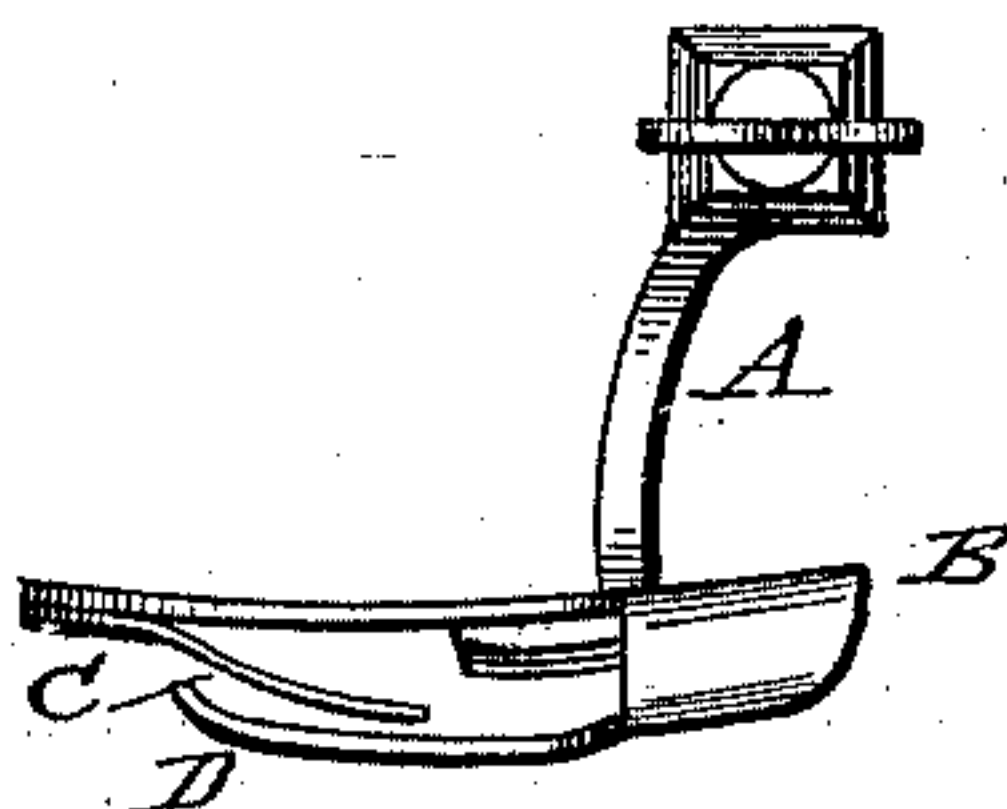


Fig 3

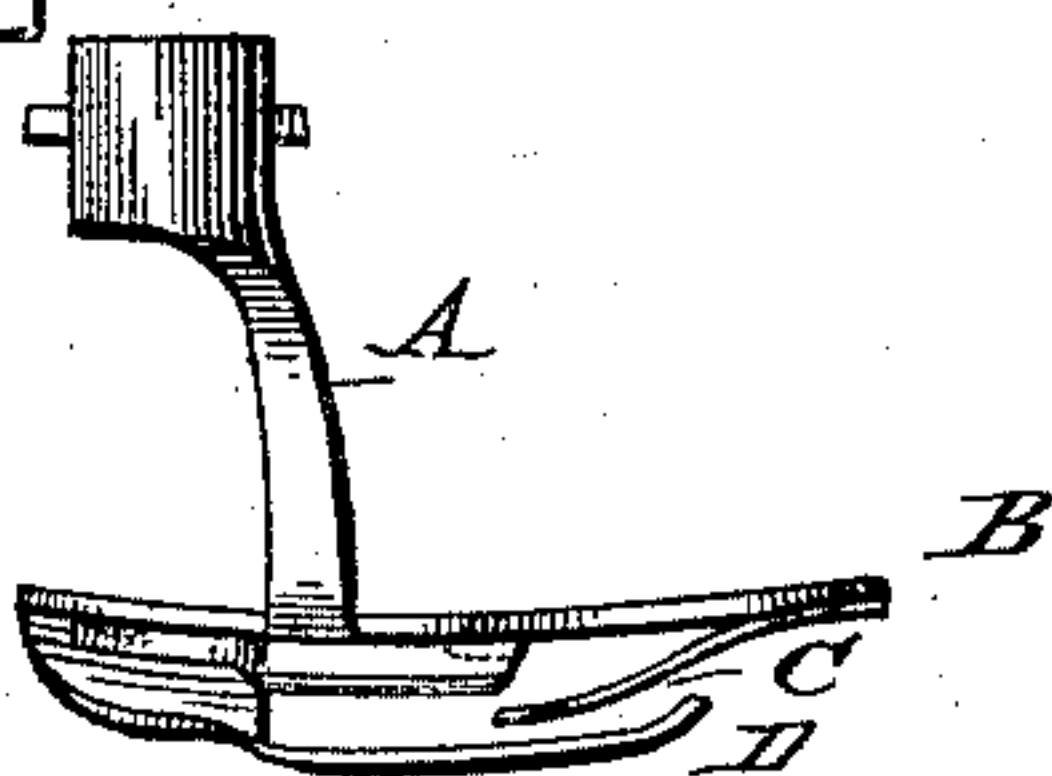


Fig 4

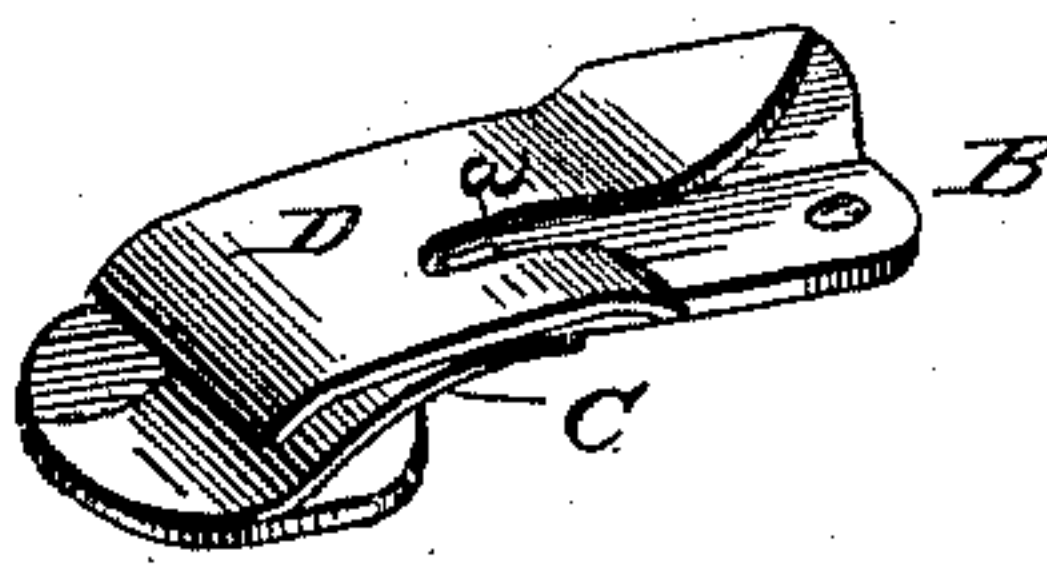
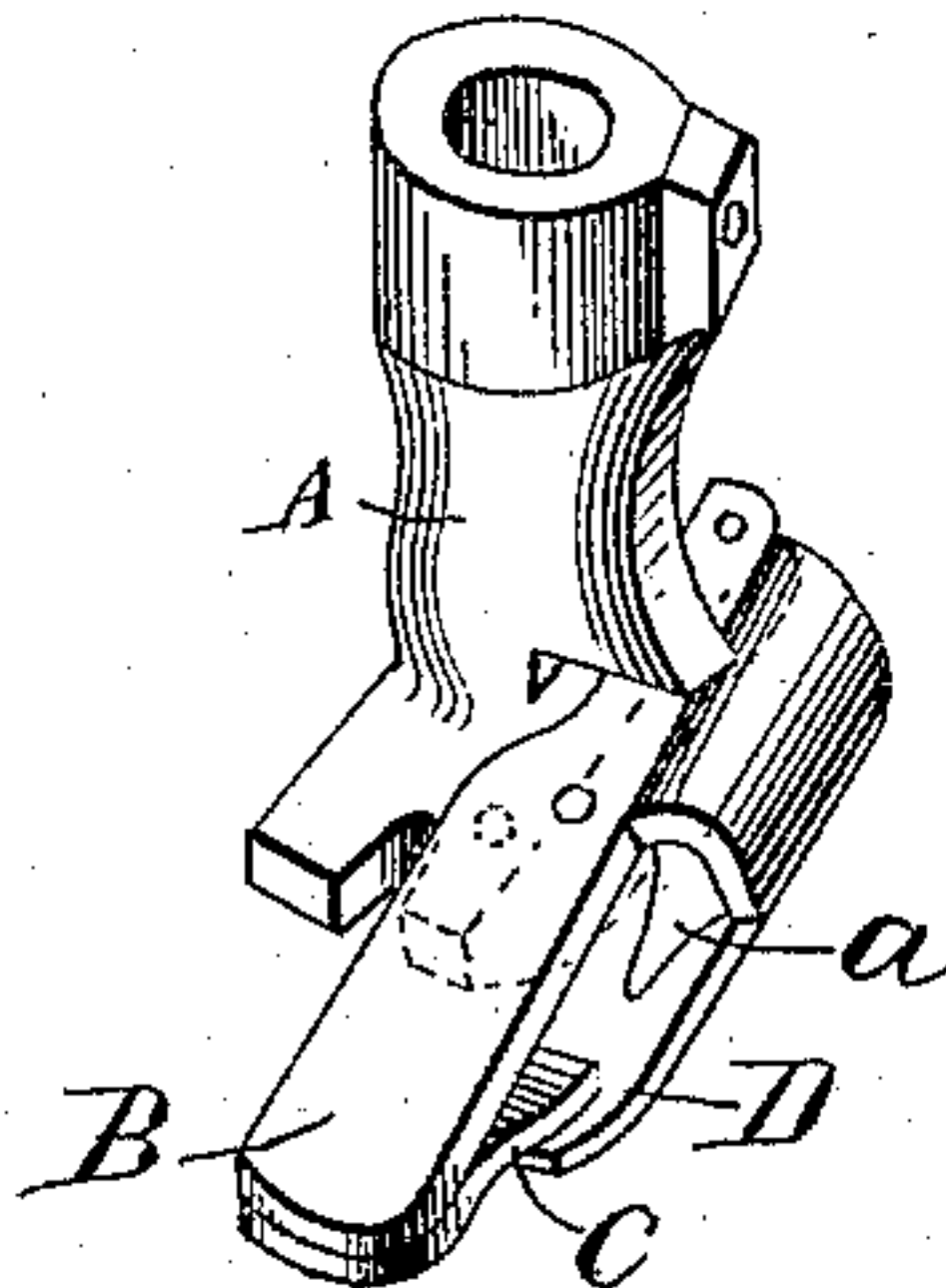


Fig. 5.



WITNESSES:

*Ad. S. Dietrich*  
*Joseph M. Crane*

INVENTOR.

*Edwin J. Toof*  
*by J. D. Crane*  
his ATTORNEY.

# UNITED STATES PATENT OFFICE.

EDWIN J. TOOF, OF NEW HAVEN, CONNECTICUT.

## PRESSER-FOOT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 445,912, dated February 3, 1891.

Application filed November 12, 1883. Serial No. 111,598. (Model.)

*To all whom it may concern:*

Be it known that I, EDWIN J. TOOF, a citizen of the United States, residing in the city of New Haven, county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in Presser-Foot for Sewing-Machines, of which the following is a specification.

My invention consists in the combination, with a supporting shank or frame, of an elastic foot or sole serving as a presser and separator, a supplemental presser, and a guide, constructed in a manner as will hereinafter be set forth in detail, the object of the elasticity of said foot or sole being to allow the latter a more gentle resistance to the feed-dog, in order that between the two engaging surfaces any imperfection or seam may pass without undue retention, which in the latter instance is apt to change the uniformity of stitching. It serves to separate the under strip (where two or more are to be united) from those above, and by such separation undue stretching is largely avoided, as the feeder in this instance has only the strip between it and the presser to force along, the ones above riding along freely as they are impinged by a slight spring above and being carried along as the lower strip is advanced, thereby largely avoiding slipping of the one piece on the other, as when two or more strips are to be fed along by the feed-dog between it and the presser in the ordinary manner.

Referring to the drawings, Figure 1 represents a rear end view of my invention; Figs. 2 and 3, side views, (opposite;) Fig. 4, bottom view in perspective of the foot or sole detached from the shank of the presser-foot. Fig. 5 represents a perspective view of my attachment with the foot or sole ready to be swung into position.

A is the shank part of the presser-foot, adapted for connection with the presser-bar of the sewing-machine, and D is the foot or sole thereof proper, and C is a spring-tongue serving as a secondary presser, located between the part B, which forms the support for said tongue, and the foot D. The part forming the "foot" and "frame," to which the "spring-tongue" is attached, is in this instance formed of plate or sheet metal by bending into the required shape, so as to form the

elastic foot or sole thereof. It will appear obvious, however, to those skilled in the art that "plate" or sheet metal is not essential to its proper construction, for the reason that the part referred to may be cast, or it may be formed by the milling process or otherwise and be equally applicable for the purposes required. It will be also observed that in the particular method shown in the drawings for combining the parts, the foot proper and the shank part are formed in two pieces; but this is not essential, for the reason that the parts may be formed in one piece by casting, milling, or otherwise; yet I prefer to construct the parts separately, in order that the shank part may be used for the purpose of connecting other devices for use in conjunction with the stitching mechanism. The foot and frame part of my improved invention is provided with projections adapted to connect with corresponding openings contained in the shank part of the presser-foot, which features are shown more clearly in Fig. 3 of the drawings. The projections, however, may be reversed—that is to say, instead of providing the frame or foot proper with the requisite projections, they may be formed upon the shank which is to support the former, and their function would be the same. The longitudinal slit with which the "sole part" of the presser is provided (more clearly shown at *a* in Fig. 4 of the drawings) is considered important in such a device for the purpose of allowing the two pieces of material united by stitching to be fed along without obstruction beneath the presser, which could not be done without such slit or opening.

The operation of my improved presser-foot is as follows: When in position for operation, the strip desired to be fed along and to which other parts are to be secured is placed upon the cloth-plate of the sewing-machine above and upon the feed-dog beneath the presser-foot part D, which is let down upon the material in the usual manner under pressure, and the other strip is drawn between the top of the part D and the spring-tongue or supplemental presser C, beneath the needle, for the stitching process, where it is carried along by riding upon the top of the under strip under slight tension from the presser C. In this



way slipping or undue pulling upon the upper strip is avoided, and the feed-dog is not required to "force" along two or more pieces between it and the presser-foot, and by this  
5 method undue overstretching and gathering of the material is largely, if not entirely, avoided, and by reason of the slit or opening, before referred to, with which the sole or bottom of the presser is provided, the strips united by  
10 stitching above and below the sole, which serves as a separator, are permitted to move along without check or hinderance.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters  
15 Patent of the United States, is—

A presser-foot for sewing-machines, consisting of a frame, an elastic or yielding sole supported thereby below the same through the medium of a connecting-piece or shank, which latter forms a guide, a supplemental  
20 spring-presser C, supported by said frame above the said elastic or yielding sole, and a supporting-shank for connection with a presser-bar, substantially as described, and for the purpose set forth.

EDWIN J. TOOF.

Witnesses:

JOHN DANE, Jr.,  
JOSEPH M. CRANE.