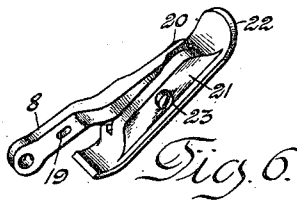
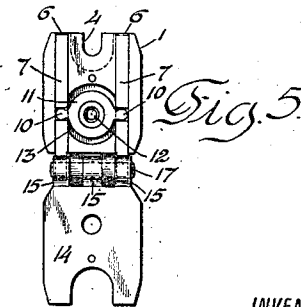
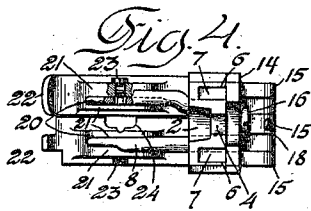
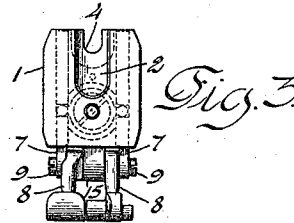
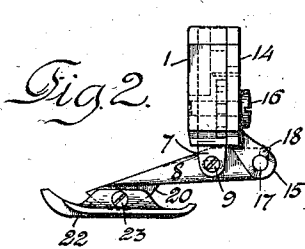
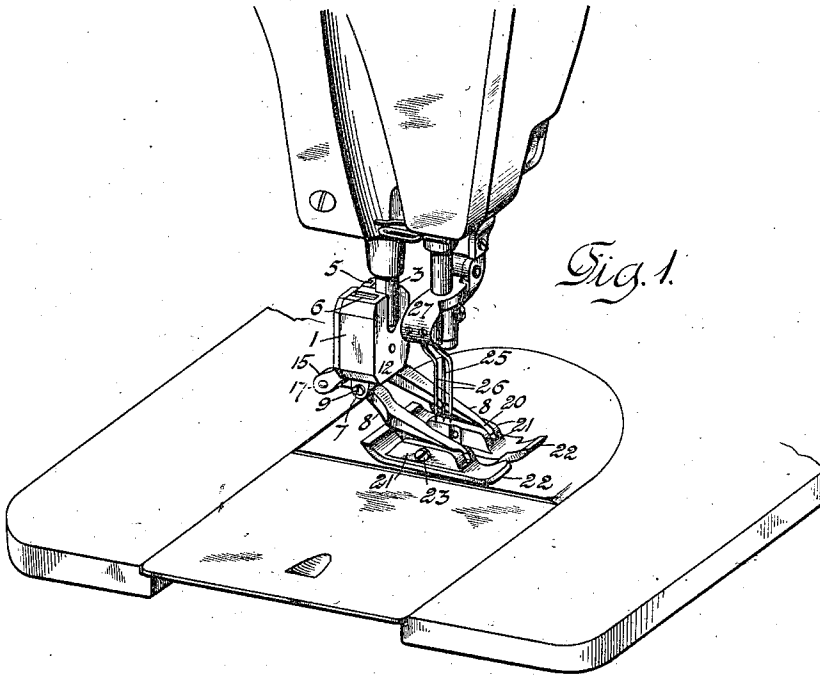


G. S. GATCHELL.
PRESSER FOOT FOR SEWING MACHINES.
APPLICATION FILED MAR. 8, 1909.

963,135.

Patented July 5, 1910.



WITNESSES

W. E. Smith
V. E. Smith

INVENTOR

George S. Gatchell

BY *Harry J. Miller*
ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE S. GATCHELL, OF ROSELLE PARK, NEW JERSEY, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, A CORPORATION OF NEW JERSEY.

PRESSER-FOOT FOR SEWING-MACHINES.

963,135.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed March 8, 1909. Serial No. 481,882.

To all whom it may concern:

Be it known that I, GEORGE S. GATCHELL, a citizen of the United States, residing at Roselle Park, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Presser-Foot for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to an improvement in that class of presser-feet having an equalizing device interposed between the work engaging foot-plates in such a way that movement of one of the members will be transmitted to the other, thus insuring a uniform pressure on the work when different thicknesses of material are simultaneously passed beneath the same.

It has for its object to provide a compound or duplex presser-foot the members of which are mounted so as to adapt themselves to variations in the thickness of material being operated upon.

It is designed more especially for controlling hem folds in hemstitching handkerchiefs, hemming sheets, pillow-cases and the like. To this end the equalizing device is constructed so as to avoid any binding action between its component parts and to insure an easy movement of the same so as to permit the presser-foot to readily pass over cross-seams and hem-folds presented thereto. The invention will be understood by reference to the accompanying drawing,

35 in which—

Figure 1 is a perspective view of the presser-foot applied to the presser-bar of a sewing machine, Figs. 2, 3 and 4 are respectively side, front and top views of the presser-foot, Fig. 5 is a rear elevation of the same with the cap-plate swung outwardly on its pivot to expose the equalizing device and Fig. 6 is a perspective view of one of the levers carrying the pivotally mounted foot-plates.

The presser-foot comprises the shank portion 1, having a suitable socket 2 for attachment to the presser-bar 3 and a notch 4 for passage of the presser-foot-attaching screw 5. The shank 1 has two vertical and parallel guide ways 6 disposed lengthwise of the same in which plunger pins 7 are fitted, their lower ends being connected to the longitudinally extending levers 8 by the pivot screws 9. The plunger pins 7 are notched

intermediate their ends for reception of the arms 10 of the equalizing lever 11 fulcrumed upon an integral stud 12 in the recess 13 of the presser-foot shank 1. A cap-plate 14 having rearwardly and downwardly projecting bearing lugs 15, is secured to the rear side of the shank by means of the screw 16 tapped into the fulcrum-stud 12 and carries the fulcrum-pin 17 which is secured in position by the set-screw 18 and affords a pivotal support for the forwardly extending levers 8.

The levers 8 have openings 19 entered by the unthreaded ends of the pivot-screws 9. The holes in these swinging levers are elongated to compensate for the vertical movement of the plunger pins and to avoid any binding action between such connected parts. The forward ends of the levers 8 have reduced portions 20 pivoted between the spaced lugs 21 of the foot-plates 22 by means of the pivot screws 23, a suitable opening 24 being provided in one of the foot-plates for passage of the needle 25 and piercers 26 mounted in the vibrating needle-clamp 27.

In the class of machine for which the present improvement is especially designed it is preferable that the foot-plates be pivotally mounted considerably in advance of the shank which is attached to the presser-bar, and it has been proposed heretofore to employ vertically sliding plunger pins having forwardly extending rigid arms to afford suitably disposed fulcrum-points for said foot-plates. To avoid the binding action of the plunger pins in their guideways formed in the shank member due to the overhang of their fulcrum supporting arms, the present construction has been designed. As will be observed, by the present invention, the endwise thrust of the plunger-rods is sustained by loose pivotal connections with the separate transversely disposed levers carrying the foot-plates whereby the plunger pins are adapted to slide freely in their respective guideways under all conditions.

Having thus set forth the nature of the invention, what I claim herein is:—

1. A presser-foot comprising a shank formed with parallel guide-ways, a pair of plunger-pins fitted slidingly in said guide-ways, a rocking member fulcrumed intermediate the plunger-pins and connected with the same upon opposite sides of its fulcrum

point, forwardly extending levers fulcrumed upon said shank and each pivotally connected with one of said plunger-pins, and foot-plates each pivotally attached to and carried by one of said levers.

2. A presser-foot comprising a shank having in its rearward side spaced parallel guide-ways disposed lengthwise thereof, plunger-pins fitted to said guide-ways and connected together for reciprocal movement therein, a cap-plate secured to the rearward face of the shank to close said guide-ways and provided with rearwardly extending lugs, levers fulcrumed at their rearward ends upon said lugs and independently connected intermediate the ends each with one of said plunger-pins, and foot-plates each pivotally attached to and carried by one of said levers.

3. A presser-foot comprising a shank having in its rearward side spaced parallel guide-ways disposed lengthwise thereof, plunger-pins fitted to said guide-ways and connected together for reciprocal movement therein, a cap-plate secured upon the rearward face of the shank and formed with spaced depending rearwardly projecting

lugs, levers having their rearward ends introduced between the lugs of said cap-plate and carrying each at its forward end a foot-plate pivotally connected therewith, a pivotal-pin for connecting the levers with said lugs, and pivotal and sliding connections intermediate said levers and the lower ends of said plunger-pins.

4. A presser-foot comprising a shank formed with parallel guide-ways and provided with supporting lugs laterally offset from the latter, a pair of plunger-pins fitted slidably in said guide-ways, a rocking member fulcrumed intermediate said guide-ways and connected upon opposite sides thereof with said plunger-pins, levers extending transversely of said plunger-pins and each having pivotal connections with the same and with said supporting lugs, and a foot-plate carried by each of said levers.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

GEORGE S. GATCHELL.

Witnesses:

LILLIAN M. MILLER,
VICTOR E. SMITH.