

J. L. HYDE.
SEWING MACHINE.

No. 31,604.

Patented Mar. 5, 1861.

Fig. 1.

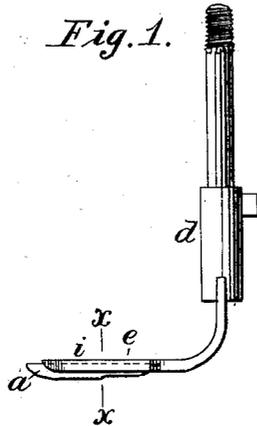
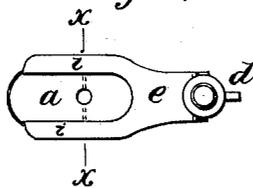


Fig. 3.



Fig. 2.



Witnesses:

Wm. H. Hyde
Eugene Van Benschoten

Inventor:

J. Little Hyde

UNITED STATES PATENT OFFICE.

J. LITTLE HYDE, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 31,604, dated March 5, 1861.

To all whom it may concern:

Be it known that I, J. LITTLE HYDE, of the city, county, and State of New York, have invented a new and useful Improvement in the Presser-Foot of Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of a presser-foot constructed according to the principle of my invention. Fig. 2 is a plan of the same, and Fig. 3 is a transverse section of the same at the lines *x x* of Figs. 1 and 2.

Previous to my invention presser-feet for sewing-machines have been constructed with transparent foot-plates, to enable the operator to see the portion of the seam which is beneath the foot-plate.

My invention has reference principally to this description of presser-feet, and its object is to enable them to be constructed at a less cost, and at the same time to permit of the easy introduction of the foot-plate.

To this end my invention consists in the combination of the foot-plate with the shank of the presser-foot by means of a frame open at one side to permit of the introduction of the foot-plate edgewise therein, the adjacent edges of the foot-plate and frame having the forms of a tongue and groove to fit each other.

In the example represented in the drawings the foot-plate *a* has an oblong form, and is constructed to be inserted endwise into the foot-frame *e*. It is beveled at its edges, as seen at Fig. 3, and is perforated to permit the needle to play through it in forming the seam. A portion of its sole is also cut away to relieve the pressure on the work after the seam is formed. The foot-frame *e* is open at one side, so that two of its other sides, *i i*, form jaws, between which the foot-plate is inserted. Its interior is grooved, as seen at Fig. 3, to fit the beveled edges of the foot-plate, and it is rigidly secured to the shank or stalk *d*, by which the presser-foot is connected with the stationary arm of a sewing-machine. In milling out the groove of the foot-frame *e* the space between the jaws is cut slightly narrower at its mouth than the foot-plate, so that the jaws press by their elasticity against the edges of the foot-plate and retain it in place by friction, thus obviating the necessity of employing a

rivet, screw, or other contrivance for the purpose, while the upper and lower rims of the groove hold the foot-plate firmly in its place against the pressure caused by the spring that bears the presser-foot down upon the work.

The foot-plate in the present example is arranged to be inserted end foremost into the foot-frame; but the latter, if desired, may be constructed to receive the foot-plate at one of its longer sides. In this case, as in the example represented, the foot-frame must be left open at the side at which the foot-plate is to be introduced. If the presser-foot be required to vibrate so as to feed the material, as is the case with the presser-feet of some sewing-machines, the under sides of one or both of the sides of the foot-frame which extend in the direction of the feed should be toothed, to enable them to grasp the cloth firmly; or the under side of the foot-plate itself may have teeth formed upon it.

I have described the foot-plate as beveled off at its edges and the foot-frame as grooved in a corresponding manner; but it is evident that the inner edges of the foot-frame may be beveled off to form a tongue, and the edge of the foot-plate may be grooved in a corresponding manner, if such a mode of construction be preferred. A line may also be engraved upon the bottom or upon the top of a transparent foot-plate in the direction of the seam to serve as a guide for the operator, by which the position of the work can be regulated when working without a gage.

I do not claim to be the first inventor of a transparent presser-foot for sewing-machines, nor the first who combined a foot-plate with a foot-shank by means of a frame of some kind; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of a foot-plate with the shank of the presser-foot by means of a foot-frame open at one side, so as to permit the introduction of the foot-plate edgewise therein, substantially as described.

In testimony whereof I have hereunto subscribed my name.

J. LITTLE HYDE.

Witnesses:

WM. H. HYDE,
EUGENE VAN BENSCHOTEN.