J. I. & H. PELLERIN.

Trimmer for Wax-Thread Sewing-Machines.

No. 208,631. Patented Oct. 1, 1878.

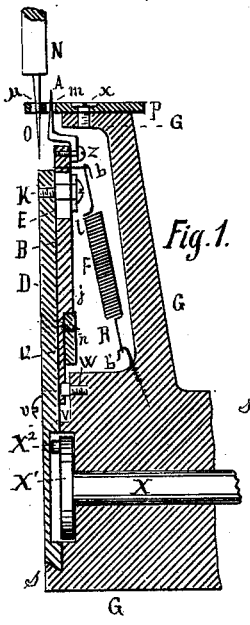

Fig. 1.

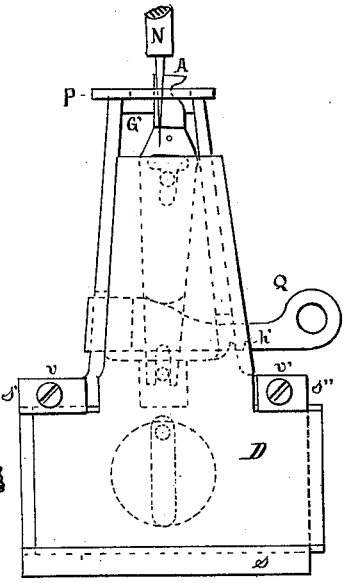

Fig. 2.

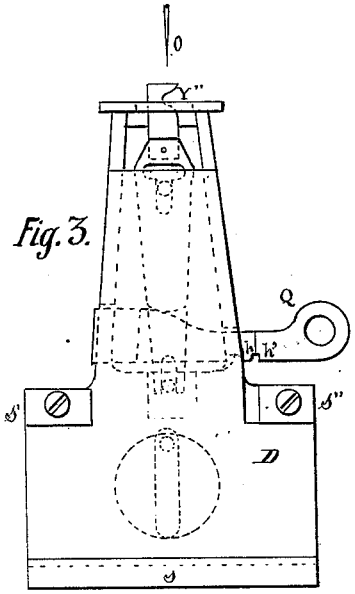

Fig. 3.

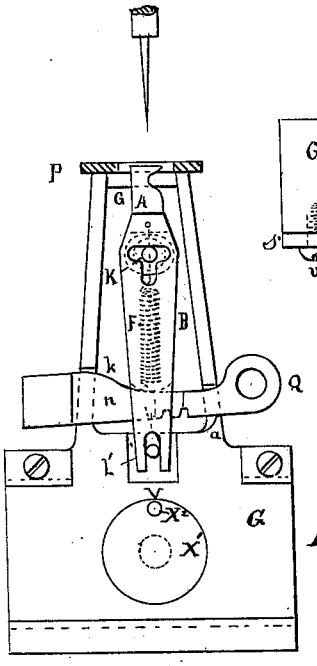

Fig. 5.

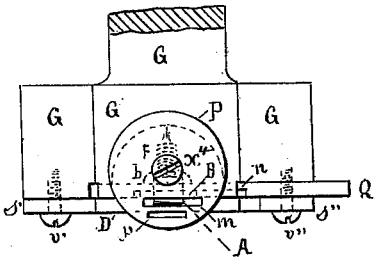

Fig. 4.

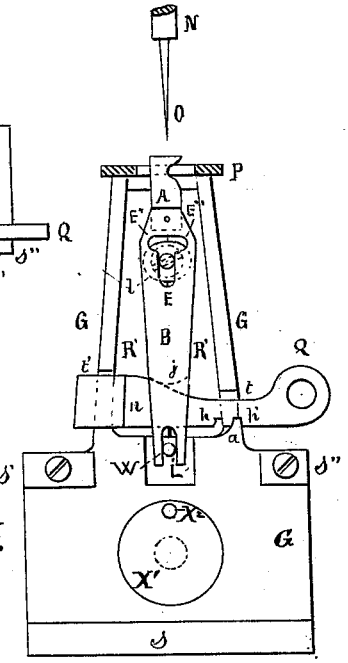

Fig. 6.

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UNITED STATES PATENT OFFICE.

JOSEPH I. PELLERIN AND HECTOR PELLERIN, OF MONTREAL, QUEBEC, CANADA.

IMPROVEMENT IN TRIMMERS FOR WAX-THREAD SEWING-MACHINES.

Specification forming part of Letters Patent No. **208,631**, dated October 1, 1878; application filed December 28, 1877.

To all whom it may concern:

Be it known that we, JOSEPH ISAÏE PELLERIN and HECTOR PELLERIN, both of the city of Montreal, District of Montreal, Province of Quebec, Dominion of Canada, have invented a new and Improved Machine for Cutting Leather Simultaneously with the Sewing Thereof; and we 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 is a perpendicular and central view, in section, of the devices applied to what is known as the "wax-thread machine." Fig. 2 is a front view, the cutter having just finished its oscillating motion for cutting the leather, and is seen in the position it must occupy when thick leather has to be cut; Fig. 3, the same view, but showing the cutter at a stand-still. Fig. 4 represents the devices seen on top of the plate P, which covers the post of the machine; Fig. 5, a front view, showing the cutter lowered when it is no longer required to cut the leather, the plate D being taken off to allow the motion of our apparatus to be better seen; Fig. 6, same view, but showing the cutter in the required position for cutting thin leather.

The object of this invention is to provide means for applying the principle of cutting the leather simultaneously with the seaming thereof to the class of shoemakers' sewing-machines which use a waxed thread.

The invention consists in the improved means hereinafter described, and pointed out in the claims.

In the drawing, K is a pivot-bolt, attached to a sliding plate, D, of the said machine, by the motion of which machine said plate is made to work longitudinally in the guides *s*, *s'*, and *s''*, which control it in its forward and backward motion. This forward and backward movement of the slide D is effected by a pin, X^2, which plays in a vertical groove in the said slide, and revolves with the disk X^1, attached to the shaft X, which latter is connected with the driving mechanism of the machine, the movement of the slide being from the position in Fig. 3 to that in Fig. 2. The fastening-screws of the affixed slides *s'* and *s''* are shown at *v v'*.

E, E', and E'' is a groove (in the form of a T) made in the body of the lever B, carrying the cutter, and in which moves freely the bolt K, attached interiorly on the said plate D.

L' is the foot-fork of the lever B, between whose lugs is the fixed pivot-stud W of the said lever, and which is attached to the body of the post G of the frame. A rectangular cut, V, is made at this place, to allow the free motion of the said fork when the lever is oscillating. A semicircular shoulder, *j*, formed on the half-thickness of the said lever above the fork, rests on the inclined back *k* of an adjusting-slide, Q, intended to support the said lever, at the same time regulating the height of the cutter above the plate P, either for cutting thick leather, as shown in Figs. 2 and 3, or thin leather, as in Fig. 6, without letting the cutter pass too much over the top of the leather, and also permitting the cutter to be lowered, as in Fig. 5, below the level of the said plate P when the cutter is no longer required to cut the leather, the sewing-machine continuing meanwhile to perform the seaming. This adjustment is effected when it is required to cut thick leather by seizing the ring on the adjusting-slide and drawing it longitudinally to the right, where the notch *h* keeps it on the finger *a*, formed on the base of the opening *t*, made on the front of the chamber R of the post of the machine, in which position the thick portion *k* of the slide bears against the shoulder *j* of the lever, and projects the latter, with its cutter, farther above the throat-plate. The opening *t*, as well as the opposite opening *t'*, gives passage to the slide, into which openings it can move with ease. By bringing the said slide to the position shown in Fig. 2, the notch *h'* is placed on the finger *a*, which allows the lever and cutter to drop slightly, and adapts the machine to the cutting of thin leather.

Finally, when the cutter is no longer required to cut the leather, the discontinuance is obtained by forcing back the adjusting-slide C into the position shown in Fig. 5, which allows the shoulder *j* of lever to pass completely off the thick part of slide.

The said slide is reduced to half its thickness at *n*, to allow at that place a free passage

of the part L′ of the fork of the lever between the said slide and the plate D, which moves said lever.

The spring F, hooked at *b* to the said lever B, and at *b′* to a hook fastened into the bottom of the chamber R′ of the post G, causes at all times the said lever to rest on the inclined part of the bearer. The said spring F, moreover, when the cutter is not required for use, and is lowered to the position shown in Fig. 5, maintains the cutter motionless, while the bolt K can move freely in the part E′ E″ of the T-shaped slot.

l is the washer of the pivot K. N is the needle bearer or holder; and O, the needle of the machine, which goes through the hole *u* of the plate P when the cutter is at work cutting the leather, passing from A, Fig. 3, to A′, Fig. 2. X^4 is the screw which holds the plate P on the top G′ of the chamber R′ of the post of the machine. *m* is the rectangular opening made to let the cutter pass through. Y′ is the form of the blade of the cutter; and Z, Fig. 1, the screw fastening it to the lever B.

Having thus described our invention, what we claim as new is—

1. The combination, with the post of a wax-thread sewing-machine having throat-plate P, of a vibrating lever, B, having a cutter adapted to be projected through the throat-plate, and a reciprocating slide-plate for operating said lever, substantially as described.

2. The combination, with the post G, of the lever B, having T-shaped slot E E′ E″, a reciprocating slide having a pin, stud, or bolt, arranged in said slot, together with means, substantially as described, for relatively adjusting the lever and stud so as to cause the latter to occupy a different position in the slot, according to whether the cutter is required to operate or be immovable, substantially as described.

3. The adjusting-slide Q, having notches *h* *h′* and inclined surface *k*, in combination with the post G and the lever B, for the purpose of adjusting the latter, substantially as described.

4. The combination of the spring F, the lever B, carrying a cutter, and the reciprocating plate D, having bolt K, loosely connected with the lever, substantially as and for the purpose described.

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Witnesses:
A. DUGAS,
A. MASSY.