C. H. BAYLEY.

THREAD-CUTTER FOR SEWING-MACHINES.

No. 184,950. Patented Dec. 5, 1876.

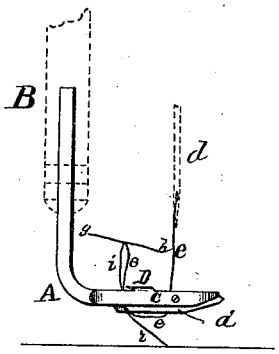

FIG. 2.

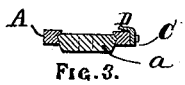

FIG. 3.

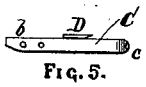

FIG. 5.

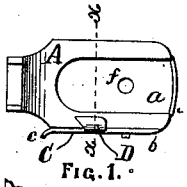

FIG. 1.

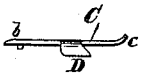

FIG. 4.

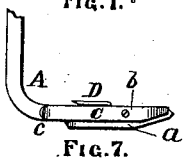

FIG. 7.

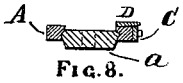

FIG. 8.

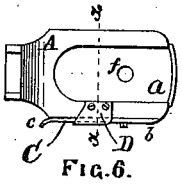

FIG. 6.

WITNESSES.

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IMPROVEMENT IN THREAD-CUTTERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **184,950**, dated December 5, 1876; application filed August 17, 1876.

To all whom it may concern:

Be it known that I, CHARLES H. BAYLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Thread-Cutting Attachments for Sewing-Machines, of which the following, taken in connection with the accompanying drawings, is a specification:

My invention relates to a device to be attached to sewing-machines for cutting the threads after the completion of a seam and retaining the ends of the severed threads in position until the commencement of another seam; and it consists in the use of a spring attached to the vertical edge of the presser-foot, in such a manner that its movable end will press hard against the surface to which it is attached, in combination with a short knife, the cutting-edge of which extends across the line of division between the spring and the surface to which said spring is attached, and having its cutting-edge extending horizontally, or nearly so, across the line of division between the spring and the edge of the presser-foot, and between the movable end of said spring and a line drawn through the center of the needle, and at right angles to the line of feed of the goods, so that when the threads are drawn under the spring and severed by the knife, both threads remaining on the machine, and held at their severed ends by the spring, will be drawn obliquely backward from the eyes in the throat-plate and presser-foot, so as to present no obstruction to the feeding of the work to start a new seam.

Figure 1 of the drawings is a plan of a presser-foot, with my improvement attached thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical transverse section on line *x x*, Fig. 1. Fig. 4 is a plan, and Fig. 5 an elevation, of the knife and spring made in one piece; and Figs. 6, 7, and 8 are respectively a plan, an elevation, and a transverse section illustrating a modification, in which the knife is secured to the presser-foot, or other suitable part of the machine, independently of the spring, which is made in a separate piece therefrom.

A is the presser-foot of a Wheeler & Wilson sewing-machine, provided with the glass bushing-slide *a*, and adapted to be secured to the presser-foot bar B. (Shown in dotted lines in any well-known manner.) C is a leaf-spring, secured to the left-hand edge of the presser-foot at *b*, and extending back therefrom to *c*, the inner face of said spring pressing closely to the surface of the edge of the presser-foot, to which it is secured, except at its rear end *c*, which is curved slightly away from the presser-foot to facilitate the entrance of the threads between the spring and the edge of the presser-foot. D is a short chisel-edged knife, the cutting-edge of which is slightly above the upper edge of the spring C and the upper surface of the presser-foot A, and between the movable end of the spring C and a line drawn through the center of the needle at right angles to the line of feed of the work.

The cutting-edge of the knife D, when seen in plan, is oblique to the line of separation between the spring C and presser-foot A, and extends some distance over onto the presser-foot A, as shown in Figs. 1 and 6.

When viewed in the direction of the length of the spring the knife-edge is at right angles, or nearly so, to the line of separation between the spring C and presser-foot A, or parallel, or nearly so, to the upper surface of the presser-foot.

The knife D may be formed in one piece with the spring C, as shown in Figs. 4 and 5; or it may be made separate from the spring and secured thereto, or to the presser-foot A, as shown in Figs. 6, 7, and 8, without affecting the principles of operation.

The object of this improvement is a saving of time on the part of the operator, and also a saving in the amount of thread used.

Heretofore, at the end of every seam, the operator has been obliged, in removing the work from the machine, to draw out about four inches of thread before cutting it from the work in order to prevent the "take-up" from drawing the thread from the eye of the needle in starting a new seam, and she is also obliged to find and pick up a pair of scissors or a knife to cut the threads. This loss of time in picking up the knife or scissors and drawing out the slack threads, and the loss of from five to eight inches of thread to every seam sewed, however short the seam might be, proves to be no inconsiderable matter

when taken in the aggregate for a term of years, especially if the machine is in constant use, as is the case with manufacturing machines.

When my improvement is used no time is lost in looking for or picking up the scissors or knife, and instead of drawing out four inches of slack thread only about an inch of slack is necessary, or only sufficient to remove the work from under the presser-foot when both the threads are drawn between the presser-foot A and the spring C into the position shown in Fig. 2, where *d* is the needle, (shown in dotted lines,) and *e* is the needle-thread leading from the eye of the needle through the eye *f* of the presser-foot along its under side, and up between the spring C and the edge of the presser-foot to the work, (represented by the line *g h*,) and *i* is the shuttle or looper-thread leading from the eye in the throat-plate of the machine up to and between the spring C and the edge of the presser-foot to the work.

Fig. 2 represents the threads *e* and *i* drawn under the spring C, and in the act of approaching the edge of the knife D. A slight further movement of the work toward the front of the machine will cause the threads *e* and *i* to be severed by the cutting-edge of the knife D, while the severed ends of the threads are firmly held by the pressure of the spring C.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination and arrangement of the spring C, attached by its front end to the vertical edge of the presser-foot, and adapted to press hard against the same and a knife, the cutting-edge of which extends horizontally, or nearly so, across the line of division between said spring and the presser-foot, and located between the rear or movable end of said spring and a horizontal line drawn through the center of the needle, and at right angles to the line of feed of the work, substantially as described.

Executed at Boston, Massachusetts, this 15th day of August, 1876.

CHARLES H. BAYLEY.

Witnesses:

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E. A. HEMMENWAY.