D. J. TAPLEY.

Cutting Attachment for Sewing-Machines.

No. 205,315. Patented June 25, 1878.

*Fig. 2.*

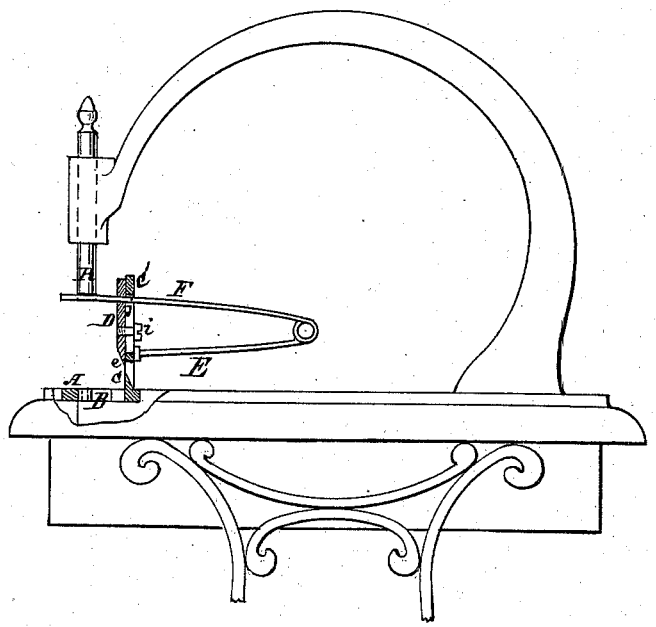



*Fig. 1.*

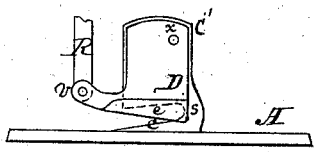
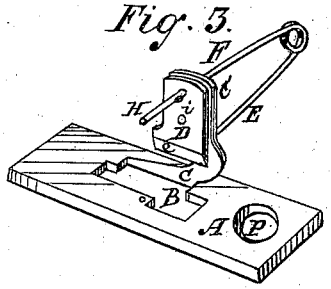



*Fig. 3.*

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# UNITED STATES PATENT OFFICE.

DANIEL J. TAPLEY, OF NEW YORK, N. Y.

## IMPROVEMENT IN CUTTING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **205,315**, dated June 25, 1878; application filed May 25, 1877.

*To all whom it may concern:*

Be it known that I, DANIEL J. TAPLEY, of New York, N. Y., have invented a new and Improved Cutting Device to be attached to Sewing-Machines, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use it, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 3 is a perspective of the attachment; Fig. 1, a front elevation thereof in a modified form; and Fig. 2 shows its application to the machine, a vertical cross-section being shown through the attachment, a section of the bed-plate, in this case, being cut out to admit it.

My invention consists of a cutting device to be attached to the bed-plate of a sewing-machine, and to be actuated by the bar or other device that operates the needle.

The object of the device is to cut cloth into strips for the manufacture of folds, ruffles, plaitings, or for any similar purpose.

The attachment consists of a plate, A, which is screwed to the bed-plate of the machine by means of a screw through the hole P, or by any other known or suitable means that may be adapted to the purpose. Upon or in the top face of the plate a cutting-blade, C, is made or fitted. This cutting-blade is formed of a plate of steel set at one side of and at right angles with the bottom of the plate A, substantially as shown by Fig. 2 of the drawing. The cutting-edge of the blade is formed by means of a deep beveled notch cut in the front edge of the plate, and made to slope upward from the point to the heel of the blade, substantially as shown by C, Fig. 1. This blade is the bottom and stationary blade of the cutting device. The top and operating-blade of the device is shown in the drawing by D. It consists of a separate piece of steel set against the inside face of the plate in which the lower blade is formed, the top part of the latter plate being made long enough and of the proper form to constitute a support and guide for the top blade to ride against. The top blade is held in position by means of a steady pin or screw, which, when in operation, moves up and down in a slot, *j*, cut in the top part of the plate C. The cutting-edge of the upper blade is shown by *e*.

The blades above described form the cutting device, which are, as before described, supported and secured to the machine by means of the plate A, and which, in this case, are operated by means of the needle-bar R and the spring E F. The two blades are closed upon each other to perform the act of cutting by the descent of the needle-bar upon the end F of the spring, and they are opened by the inherent energy of the spring, by which the blade D is made to follow the needle-bar as it moves upward.

The needle-bar may or may not be connected to the end of the spring that operates the blade D; but if it be connected the connection should be a yielding one, so as to leave both the spring and blade free in their action. The end E of the spring is secured to the back side of the plate C, and the end F travels in a slot, *j*, through which the steady pin or screw *i* also passes, by which the blade D is held in its place.

It is possible to operate this cutting device without the intervention of the spring by connecting the needle-bar or other operating part of the machine to the blade D; but in case the blade is operated in that way the connection should be loose, not rigid, so as to leave the blade free to act and not interfere with its adjustment upon the blade C.

One of the principal objects of the invention is to avoid hinging the blades together, as in the case of scissors, by which the movement of the fabric on the bed-plate is obstructed by the joint between the blades, and another is to operate the top blade by the needle-bar without interfering with its adjustment with reference to the bottom blade, as would be the case if the top blade were detached from the bottom one and fixed to the needle-bar, and not connected to the bottom blade by means of a steady pin or screw, or its equivalent.

It is very important that the movement of the fabric on the bed-plate should be unobstructed, and therefore the neck *s* at the heel of the blade C should be as narrow as possible consistent with the necessary strength to carry the blade D.

The top blade, as it appears in the drawing, has a reciprocating motion; but that is not necessary to the successful operation of the device, for if the top blade be pivoted to the supporting-plate well up toward the top, it would only be necessary to change the form of the blade to accomplish the end by a vibratory instead of a reciprocatory motion, substantially as shown by Fig. 1. R represents the needle-bar, and *v* its point of connection with the blades, the pivot being shown by *x*.

The drawing shows a hole, B, cut through the plate A for the upper blade to pass through when in operation; but that is not necessary, though it may be desirable; and in case the plate be made very thin it may be necessary, for it is desirable to get the edge of the lower blade as near the surface of the plate as possible.

Having now described the nature and object of my invention, I claim—

A cutting attachment for sewing-machines, consisting of a bed-plate to be secured to the cloth-plate of the machine, and upon which a stationary cutting-blade is made, having a projection raised above it, as at *c'*, and the operating-blade pivoted to or supported upon said projection above the stationary blade, instead of at its end, leaving the heel of the lower blade unobstructed by the joint that unites the two blades.

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