(No Model.)

J. L. WRIGHT & H. HEINE.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

No. 462,833. Patented Nov. 10, 1891.

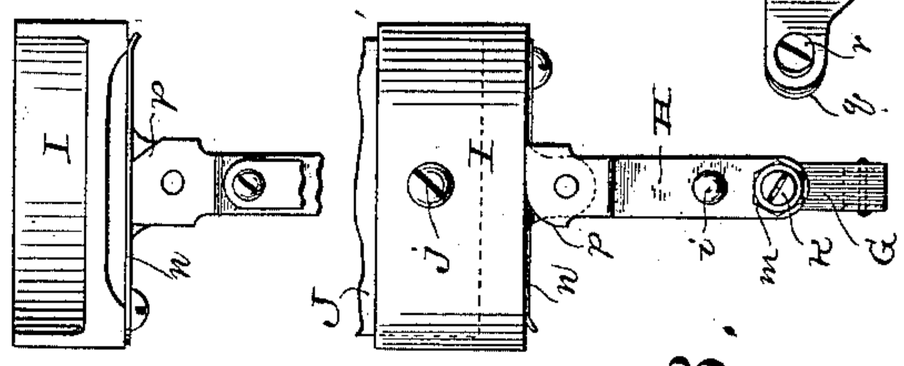

Fig. 9.

Fig. 7.

Fig. 3.

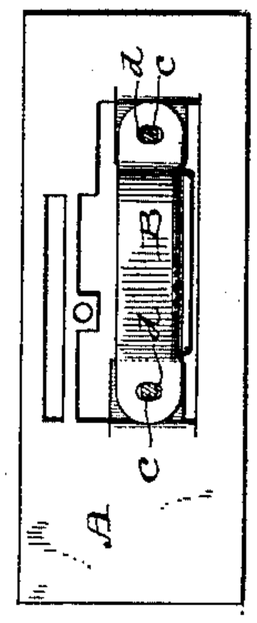

Fig. 5.

Fig. 6.

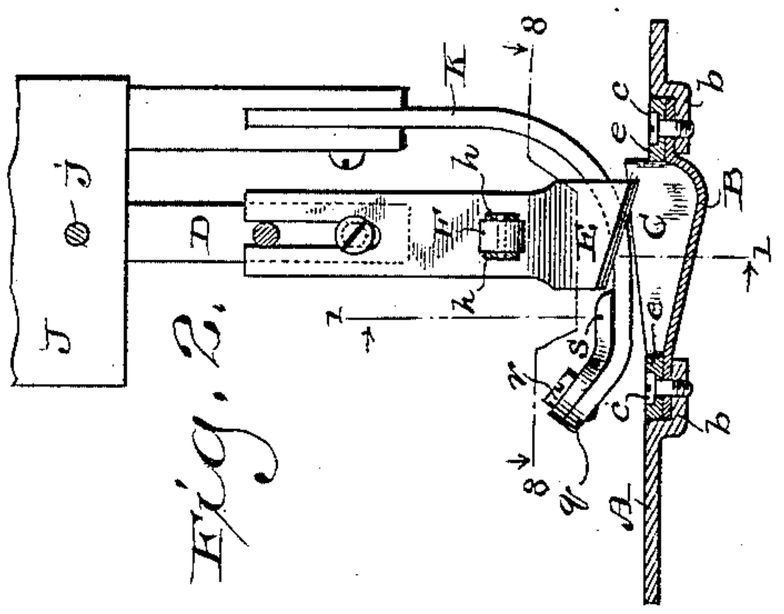

Fig. 2.

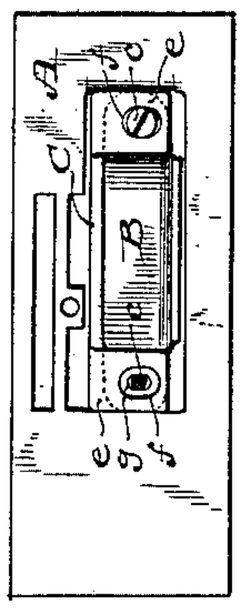

Fig. 4.

Witnesses
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Fig. 1.

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UNITED STATES PATENT OFFICE.

JAMES L. WRIGHT AND HERMAN HEINE, OF MILWAUKEE, WISCONSIN.

TRIMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 462,833, dated November 10, 1891.

Application filed July 12, 1890. Serial No. 358,567. (No model.)

To all whom it may concern:

Be it known that we, JAMES L. WRIGHT and HERMAN HEINE, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Trimmer Attachments for Sewing-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to trimmers employed in connection with sewing-machines; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a front elevation of our invention, partly in section, on line 1 1 of Fig. 2; Fig. 2, a side elevation of the same, partly in section, on line 2 2, Fig. 1; Fig. 3, a detail elevation of a pressure device that forms part of our invention; Fig. 4, a plan view of a sewing-machine throat-plate provided with a lint-cup and detachable shear-bar; Fig. 5, a similar view with the shear-bar removed; Fig. 6, a detail perspective view of said shear-bar; Fig. 7, an end view of a knife that is connected to the seam-trimmer bar of the sewing-machine to oppose the shear-bar on the throat-plate; Fig. 8, a horizontal section on line 8 8 of Fig. 2, and Fig. 9 a detail elevation of the pressure device seen from the side opposite that shown in Fig. 3.

Referring by letter to the drawings, A represents the throat-plate of a sewing-machine, and in the present case a certain portion of this throat-plate is cut away to receive a cup B, in which lint, dust, and other refuse arising from the cutting of any fabric is caught and prevented from coming into contact with the needle or other working parts of the machine, this refuse being carried away by said fabric as the latter is fed to said machine, thereby preventing any material accumulation of said refuse in the cup.

The cup above described may be made in one piece with the throat-plate or it may be secured to lugs *b*, depending from said throat-plate, by means of set-screws *c*, as best illustrated in Fig. 2. In order that the cup may be laterally adjusted, the openings *d* therein for the set-screws are elongated in a direction transverse of said cup, as best illustrated in Fig. 5.

In some instances it may be preferable to have the cup-wall adjacent to the needle of the machine in one piece with the remainder of the cup; but we have shown said wall in the form of a bar C, provided with lugs *e*, having countersinks *f* and elongated openings *g*, the latter being in register with the like openings *d* in the ends of said cup and engaged by the set-screws *c*, whereby we may accomplish a lateral adjustment of the bar, for the purpose to be hereinafter described, the countersinks serving to receive the heads of said set-screws, whereby the latter are always flush with the throat-plate of the machine.

The upper edge of the bar C is preferably in the form of an inclined plane, the highest point being at the back, and throughout its length this bar projects more or less above the throat-plate A of the machine. In case the bar C forms a wall of the cup B said bar will extend below the throat-plate to the depth of said cup to form a shield for the needle; but if this shield is separate from said bar the latter may be of less depth, if found more desirable.

Adjustably or otherwise secured to the seam-trimmer bar D of the machine is a knife E, opposed to the bar C, and the knife being reciprocated against the latter bar a shear cut is obtained against the fabric. We prefer to have the cutting-edge of the knife slope downward toward the back to form a cutting-angle with the bar C, and said edge of the knife is preferably beveled in a lateral direction in order to obtain the best possible shear cut against said bar. The lowest point of the knife E is always against the shear-bar C, and in order to keep said parts sufficiently tight one against the other at all times we arrange a pressure device to impinge against said knife.

In the present instance the pressure device comprises an anti-friction roller F, impinged against the knife and having its bearings in ears *h* at the lower end of a flat spring G, that is detachably secured to an arm H, the latter being provided with a handle *i* and pivotally

connected to a stationary plate I, attached to an arm J of the machine by means of a set-screw *j* or other suitable means.

In order to regulate the tension of the pressure device, a set-screw *k* is arranged in the arm to impinge against the flat spring G, and a set-nut *m* on the screw holds the latter in its adjusted position.

The pressure device is held in its normal position by the pressure of a spring *n*, secured to the plate I, to impinge against the upper flat end of the arm H, and the latter is beveled at *p* to receive the pressure of the spring when said pressure device is swung on its pivot to permit of access to the cutting mechanism above described.

The pressure-foot K of the machine is extended toward the operator, as shown at *q*, to form a guide for the material passing toward the needle, and attached to this extension of said pressure-foot by a set-screw *r* or other suitable means is a finger *s*, that serves as a guide to conduct said material to the knife as well as to hold the same below the cutting-edge of said knife to prevent clogging in front of the latter.

By having the refuse-cup B and the shear-bar C laterally adjustable, as shown and described, the margin of the material outside the line of stitching may be varied as to width, or the same result may be obtained by lateral adjustment of the shear-bar only in case the latter does not form a wall of the cup, and it is obvious that the same result may also be attained by employing shear-bars of different thicknesses.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the throat-plate having depending lugs, a refuse-cup detachably connected to the lugs, a shear-bar forming one wall of the cup, and a vertically-reciprocating knife opposed to the shear-bar, substantially as set forth.

2. The combination of the throat-plate having depending lugs, a refuse-cup, set-screws connecting the ends of the cup with the throat-plate lugs, a shear-bar forming one wall of the cup and provided with lateral lugs having openings therein for engagement with said screws, and a vertically-reciprocating knife opposed to the shear-bar, substantially as set forth.

3. The combination of the throat-plate having depending lugs, a refuse-cup having its ends provided with elongated openings, set-screws engaging these openings and throat-plate lugs, a shear-bar forming one wall of the cup and provided with lateral lugs having countersinks and elongated openings engaging said screws, and a vertically-reciprocating knife opposed to the shear-bar, substantially as set forth.

4. The combination, with a stationary shear-bar, of a vertically-reciprocating knife opposed thereto, an arm parallel to the knife, a spring-plate secured to the arm, an anti-friction roller arranged on the spring-plate to impinge against said knife, and a set-screw adjustable in said arm in opposition to said spring-plate, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JAMES L. WRIGHT.
HERMAN HEINE.

Witnesses:
H. G. UNDERWOOD,
LAWSON SCOTT.