

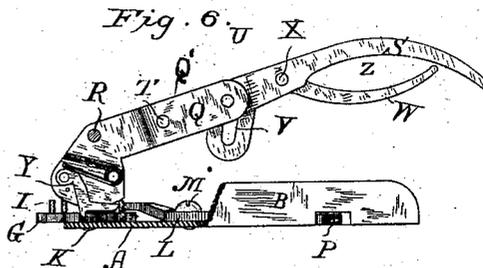
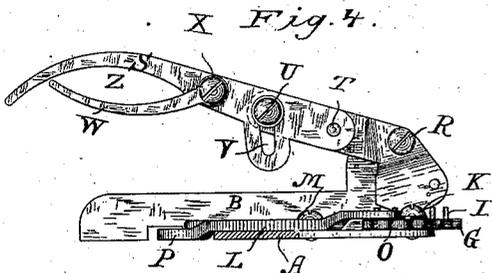
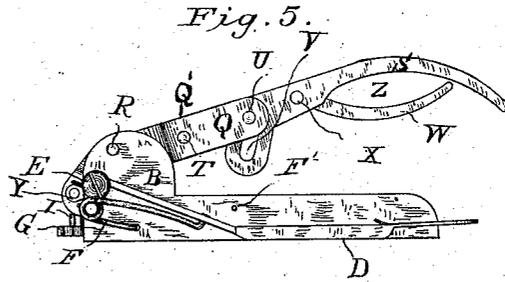
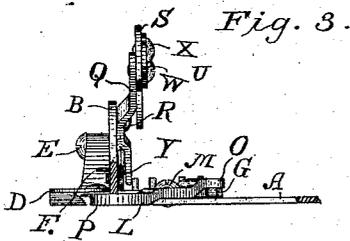
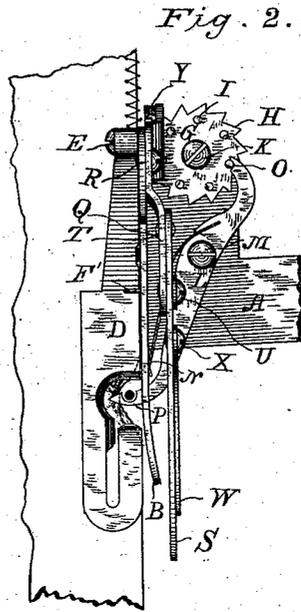
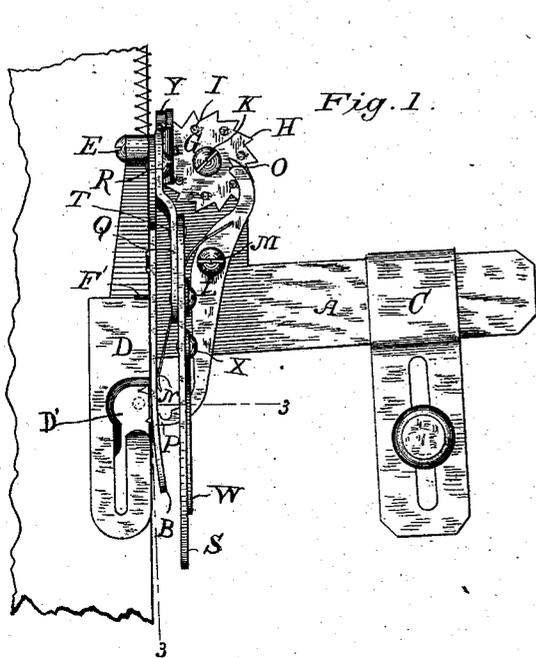
(No Model.)

W. E. VEBER.

OVERSEAMING ATTACHMENT FOR SEWING MACHINES.

No. 292,451.

Patented Jan. 22, 1884.



WITNESSES

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WILLIAM F. VEBER, OF BOWLING GREEN, OHIO, ASSIGNOR OF ONE-HALF
TO ALLAN W. RUDOLPH, OF SAME PLACE.

OVERSEAMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 292,451, dated January 22, 1884.

Application filed June 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. VEBER, of Bowling Green, in the county of Wood and State of Ohio, have invented an Improved Overseaming Attachment for Sewing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

The object of my improvements is to produce a new mechanism to enable an overseam to be sewed by the use of any ordinary sewing-machine, so that the two adjacent edges of goods to be united shall substantially abut against each other after the seam is formed and the goods are straightened, to avoid any unnecessary rib or projection of the edges of the cloth beyond the seam, and to make a smooth union of the edges.

In the accompanying drawings, illustrating my improved attachment, Figure 1 is a plan view of my improved attachment. Fig. 2 is a similar view, showing the parts in a similar position. Fig. 3 is an end view, partly in section, on the line 3 3 of Fig. 1. Fig. 4 is a side elevation, with the guide-plate A in section. Fig. 5 is an elevation from the opposite side from that shown in Fig. 4; and Fig. 6 is a similar view, partly in section.

A indicates a guide-plate, provided upon the side next the needle of the sewing-machine, as usual, with an upwardly-projecting flange or plate, B.

C indicates a clamp of any suitable character for securing the guide-plate adjustably to the bed-plate of a sewing-machine.

D indicates a supplemental presser-foot, pivoted to the flange B of the guide-plate at E, and provided with a spring, F, tending to throw it up away from the bed-plate of the machine, so as to follow the upward movement of the main presser-foot, and with a stop-pin, F', to limit its upward movement. The presser-foot D is provided with a recess, D', for the purpose hereinafter designated.

G indicates a ratchet-wheel, provided with teeth H, and with pins I, turning on its axle K, fixed in the guide-plate.

L indicates a pushing-lever, pivoted at M, and provided with the spring N, bearing against the flanged guide-plate. This lever is notched

at one end, O, so as to receive successively the pins I, which are suitably shaped to enter the notch and remain there a suitable time. The lever is also notched or otherwise suitably shaped at the other end, P, to enter the recess D' in the presser-foot, and engage with the edges of the cloth to be joined and push them to one side. 55

Q indicates a lever, consisting of two parts, Q' and S. The lower part of the lever proper is pivoted at R to the flange of the guide-plate, and the upper part, or operating-arm, S, is pivoted at T to the part Q', between its ends, and is adjustable thereon by means of a set-screw, U, working in a slot, V, formed in the arm. 60 65

W indicates a branch of the arm S, secured thereto adjustably by a set-screw, X. The adjustability of the operating-arm S and its branch W is for the purpose of readily accommodating the attachment to different machines having different lengths of stroke of their needle-arms. 70

To the lower or shorter end of the lever Q is applied a spring-pawl, Y, adapted to engage with the teeth of the ratchet-wheel G and turn it the distance of one tooth at a time. 75

In order to apply this improved overseaming attachment to a sewing-machine, it is necessary that a pin or a suitable projection from the needle-bar be provided to extend into the space Z between the extremity of the operating-arm and its branch. In most machines the needle-screw will answer the purpose, and no special pin need be provided. It is also necessary that the supplemental presser-foot be placed under the presser-foot of the machine to which the attachment is applied, or that the presser-foot of the machine be provided with a recess similar to the recess D'. 80 85 90

The operation of this attachment is as follows: It is applied to the bed-plate of the sewing-machine in suitable relation to the goods to be united by overseaming and to the needle. The goods are laid one piece over another, with the edges parallel and abutting against the flange of the guide-plate, so that each stroke of the needle desired to pass through the goods will be a suitable distance from the edge. Now, normally, every stitch of the needle 95 100

5 dle would be taken through the goods; but by
 the operation of my attachment, before the needle
 descends to make every alternate stitch,
 the edges of the goods are pushed aside out of
 10 the path of the needle, so that one-half of the
 stitches will pass through the goods at a suitable
 distance from the edges, and the other
 half of them, alternately, will pass outside of
 15 or past the edges of the goods, thus forming
 a perfect overseam. This movement of the
 goods out of the path of the needle is accom-
 plished as follows: When the needle-arm rises,
 it lifts the operating-arm and lever Q, causing
 20 the pawl Y to engage with one of the teeth of
 the ratchet-wheel and move it a distance equal
 to the width of the tooth. Now, the number
 of pins upon the ratchet-wheel is just equal to
 one-half the number of the teeth of the wheel.
 The result is that this movement of the wheel
 25 the distance of one tooth causes one of the
 pins to impinge against the end of the push-
 ing-lever L, acting as a cam, and move that
 end so that it will engage by its notch with
 the pin, and there stop. At the same time
 30 the other end of the lever, by its notch or other
 suitable conformation, will be caused to enter
 the recess D' in the presser-foot, and push that
 part of the edges of the goods opposite to the
 needle aside, just out of the path of the needle.
 35 As the needle-bar descends, the operating-arm
 is brought down, and the spring-pawl Y is
 brought into position to engage with another
 tooth of the ratchet-wheel. When the needle-
 bar again rises, it causes another movement of
 40 the ratchet-wheel the distance of the width of
 one of its teeth, which throws the pin out of
 the notch of the lever L, and permits the end
 of the lever to pass in between the pins. This
 releases the pressure of the opposite end of the
 45 lever upon the edges of the goods, which brings
 the goods into position under the needle for
 the next stroke. The parts must of course be
 so adjusted, and their movements so timed,
 that the needle shall leave the cloth before the
 50 pusher begins to move the cloth out of its path.
 Thus it will be seen, by this simple mech-
 anism for alternately pushing in out of the
 path of the needle, and then permitting the
 55 restoration of the goods by their own tension,
 caused by the feed, the stitches are taken with
 certainty, alternately, through the goods and
 outside of the goods, so as to form a perfect
 overseam. It will not, in all cases, be neces-
 sary to use the auxiliary presser-foot D, as the
 ordinary presser-foot may be formed with a
 recess to accommodate the end of the pusher-
 lever.

I do not confine my invention to the precise
 form of mechanism herein described, because,
 without departing from its substance, consid- 60
 erable modifications of mechanical devices may
 be made for practicing it.

What I claim to be new, and desire to se- 65
 cure by Letters Patent of the United States,
 is—

1. An over-seamer for sewing-machines, con- 70
 sisting of the combination of the bed-plate, the
 vertically-reciprocating needle, means for hold-
 ing the goods to be operated upon on both sides
 of the needle, means for feeding forward the
 goods, and the pushing-lever for moving that
 75 part of the edges of the goods opposite the needle
 out of the path of the needle at every alter-
 nate stroke of the needle-bar, so that a stitch
 is alternately made in the goods and outside
 the edges of the goods, thereby forming an
 overseam, substantially as set forth.

2. The combination, with the bed-plate of 80
 a sewing-machine, of the vertically-reciprocating
 needle, means for holding the goods to be
 operated upon on both sides of the needle,
 means for feeding forward the goods, the guide-
 plate mounted on the bed-plate, the ratchet-
 wheel pivoted thereto, the pins carried by the
 85 wheel, which are equal to half the number of
 its teeth, and the pushing-lever mounted on the
 guide-plate, which is operated by the pins in
 the ratchet-wheel, whereby that part of the
 edges of the goods opposite the needle is moved
 out of the path of the needle at every alternate
 90 stroke of the needle-bar, so that a stitch is al-
 ternately made in the goods and outside the
 edges of the goods, thereby forming an over-
 seam, substantially as set forth.

3. An overseaming attachment for sewing- 95
 machines, consisting of the combination of the
 guide-plate, the ratchet-wheel mounted there-
 on, the pins carried by the ratchet-wheel,
 (equal to half the number of teeth in the ratch-
 et-wheel,) the lever Q, for operating the ratch-
 et-wheel, the pusher-lever, which engages with 100
 the pins on the ratchet-wheel, and the recessed
 presser-foot mounted on the guide-plate, the
 several parts being adapted and arranged sub-
 stantially as set forth. 105

In testimony whereof I have hereunto sub-
 scribed my name this 9th day of June, A. D.
 1883.

WILLIAM F. VEBER.

Witnesses:

MARCUS S. HOPKINS,
 C. P. ELWELL.