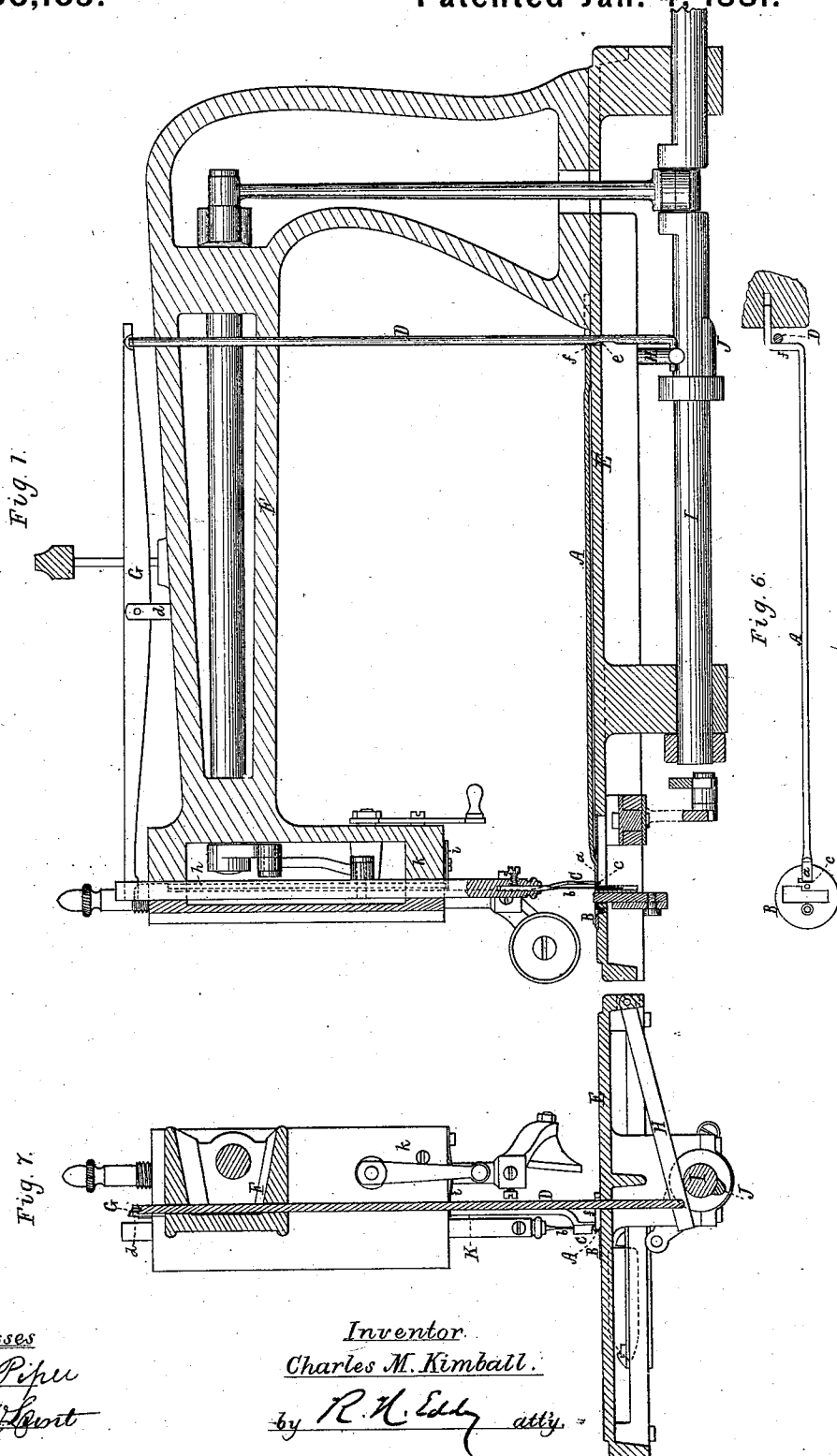


(No Model.)

2 Sheets—Sheet 1.

C. M. KIMBALL.

Trimming Attachment for Sewing Machines.
No. 236,165. Patented Jan. 4, 1881.



Witnesses
S. N. Piper
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Charles M. Kimball.
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

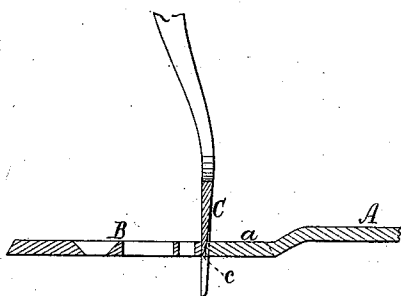


Fig. 5.

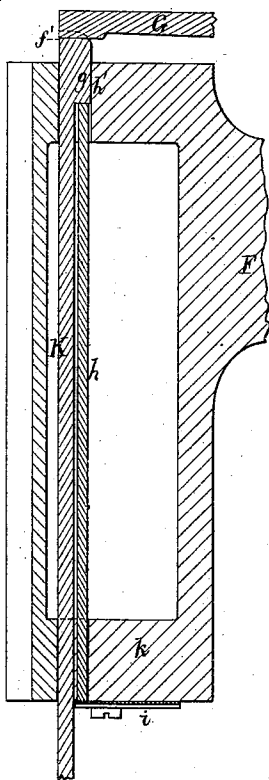


Fig. 8.

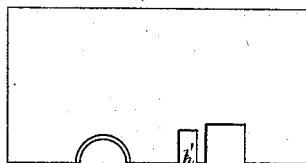


Fig. 9.

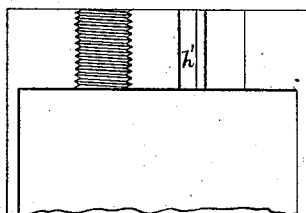
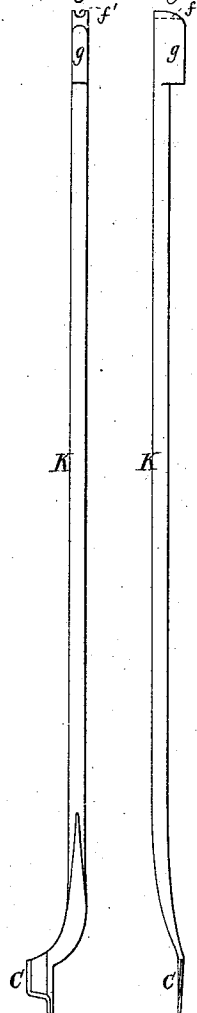


Fig. 3. Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES M. KIMBALL, OF BRADFORD, MASSACHUSETTS.

TRIMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 236,165, dated January 4, 1881.

Application filed August 6, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. KIMBALL, of Bradford, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Sewing-Machines Provided with Work-Trimmers; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

10 Figure 1 is a longitudinal section of a needle-and-shuttle sewing-machine, having my invention, the nature of which is defined by the claims hereinafter made. Fig. 2 is a vertical section, on an enlarged scale, of the work-trimmer and the throat-plate with which it operates. Figs. 3 and 4 are side views of the work-trimmer and its carrier, they being in one piece of metal. Fig. 5 is a cross-section of the work-trimmer carrier and its elevating spring and rod and part of the machine-arm to which such are applied. Fig. 6 is a top view of the trimmer-throat covering-slide and its carrier, such figure showing the rear end or part of the said carrier in its connection with the machine-arm at the junction of the latter with the base-plate. Fig. 7 is a transverse section of the machine, taken vertically through the notched rod for operating the carrier of the throat-covering slide. Figs. 8 and 9 are hereinafter explained.

30 My invention has reference to the trimmer-carrier and the trimmer-throat covering-slide, and is for operating them.

35 The work-trimmer, being wedge-shaped vertically, necessarily has the throat or hole in the plate through which such trimmer works of a size sufficient for the trimmer to descend in such hole the requisite distance. To the throat-plate, on which the work rests while being sewed and trimmed, there is applied a slide, which may be termed the "trimmer-throat slide," the work while being trimmed resting directly on such slide and the throat-plate. The said slide is shown in the drawings at *a*, it being projected from the front end of a long rod or carrier, *A*, and arranged to rest on and move within the throat-plate *B*, through which the needle *b* and the trimmer *C* operate. The slide is borne up to the rear or inclined face of the trimmer, and is maintained against such and partially over the trimmer-throat *c* while

the trimmer is in movement either upward or downward, such being to so partially cover the said trimmer-throat as to prevent the work or material while being trimmed from being pressed or forced down into the said throat, and thereby cause the said work to be unevenly trimmed. The said slide is readily forced backward by the trimmer during a descent of the latter, the front face of the trimmer at such time bearing against the front edge of the throat *c*. As the trimmer rises the slide is pressed forward up to the trimmer by the vertical notched slide-rod *D*. (Shown in Figs. 1 and 7.) This rod *D*, arranged to slide vertically in the base-plate *E* and arm *F* of the sewing-machine, is notched at top to receive the rear arm of a lever or walking-beam, *G*, fulcrumed at its middle to a post, *d*, extending up from the arm *F*. The said slide-rod also is notched or has a cam, as shown at *e*, to operate or press forward the carrier *A*, whose part *f* is in the notch and against the incline or cam *e* of the rod.

At its lower end the rod *D* is jointed to an arm, *H*, arranged beneath the base-plate and pivoted thereto, and extended over and across the driving-shaft *I*, such shaft having on it a cam, *J*, for moving the arm upward.

The front arm of the lever *G* rests in a notch, *f'*, made in the top of the carrier *K* of the trimmer *C*, such carrier being so applied to the arm *F* as to play or slide vertically and turn horizontally therein. This carrier, formed as represented in Figs. 3 and 4, has at its upper part a flat head, *g*, that projects from it in manner as shown. The said head enters a rectangular notch made in the arm, as seen in Figs. 8 and 9, the first of such figures being a top view, and the second a front view, of the part of the arm in which the notch is made. The head *g* rests on a vertical slide-rod, *h*, which at its foot bears on a spring, *i*, fixed to the lower part of the head *k* of the arm *F*, all being as represented.

By springing the lever *G* laterally out of the notch *f'* in the head of the trimmer-carrier the said carrier, with the trimmer, may be readily raised up until its head *g* may be above the arm *F*, in which case the carrier may be revolved so as to turn the trimmer aside out of the way of the work while the latter is

being sewed or manipulated without being trimmed, the bottom of the head, by resting on the top of the arm, serving to hold the trimmer in its raised position.

5 From the above it will be seen that the lever G is moved one way by the rod D, which at such time depresses the carrier of the trimmer, and that the said carrier, in being forced upward by the spring *i* and slide-rod *h*, will move
10 the lever the opposite way and cause it to force the slide-rod D downward.

What I claim as my invention is as follows, viz:

1. The combination, substantially as described, with the trimmer and its throat-slide,

of the slide and trimmer-carriers A K, cam J, (on the driving-shaft,) the arm H, the notched slide-rod D, and the lever G, all constructed, arranged, and adapted essentially in manner as set forth.

2. The trimmer-carrier, substantially as described, provided with a head, *g*, in combination with the arm F and mechanism for automatically moving the said trimmer-carrier upward, as set forth.

CHARLES M. KIMBALL.

Witnesses:

R. H. EDDY,

WM. W. LUNT.