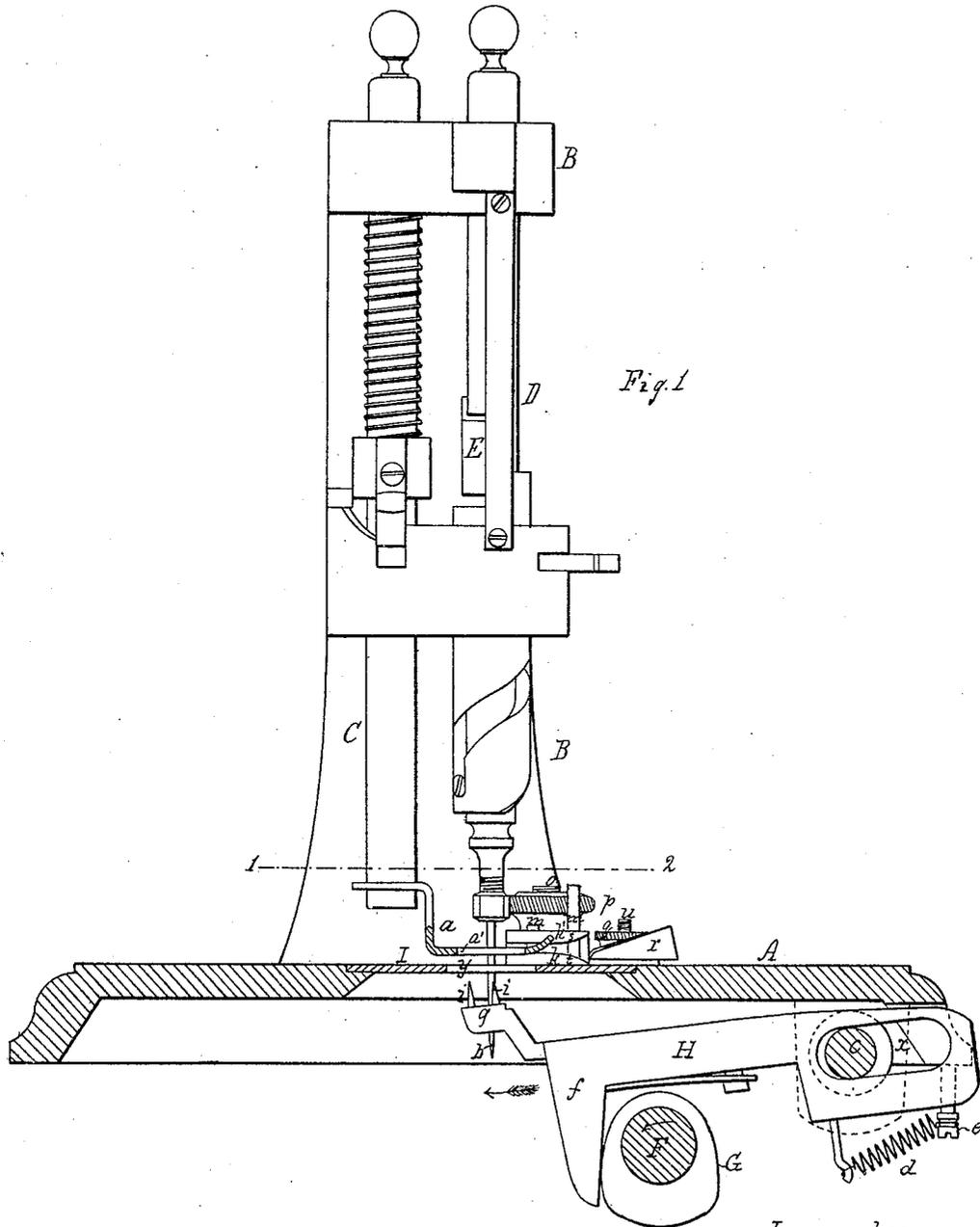


G. REHFUSS.
SEWING MACHINE.

No. 61,103.

Patented Jan. 8, 1867.



Witnesses
John Parker
S. W. Horse Goddard

Inventor
G. Rehfuß
By his attorney
H. Houson

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Fig. 2

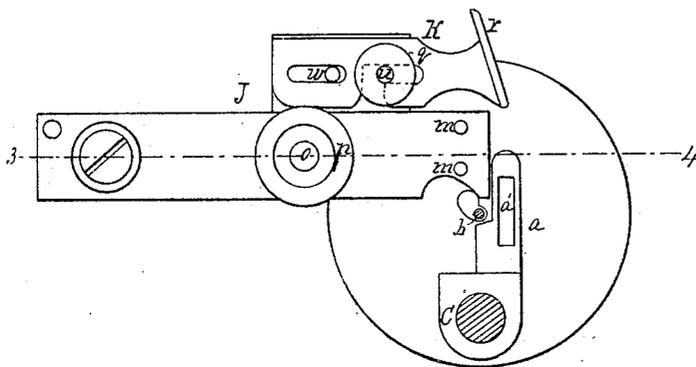
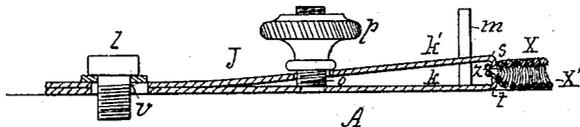


Fig. 3



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United States Patent Office.

GEORGE REHFUSS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
AMERICAN BUTTON-HOLE SEWING-MACHINE COMPANY, OF SAME PLACE.

Letters Patent No. 61,103, dated January 8, 1867.

IMPROVEMENT IN SEWING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE REHFUSS, of Philadelphia, Pennsylvania, have invented certain improvements in Sewing Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention consists in certain mechanism, fully described hereafter, for sewing together carpets and other heavy fabrics.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation. On reference to the accompanying drawing, which forms a part of this specification—

Figure 1 is a sectional elevation of a sewing machine with my improvements.

Figure 2, a sectional plan on the line 1-2, fig. 1, showing part of the machine; and

Figure 3, a section on the line 3-4, fig. 2.

A is the bed-plate of the machine, to which is secured an arm B, and in the front end of the latter slide the presser-bar C and needle-bar D. To the lower end of the presser-bar is secured the ordinary "foot" *a*, in which is a slot, *a'*, and to the needle-bar is secured the detachable eye-pointed needle *b*. To the side of the arm B is hung a lever, E, which is jointed to the needle-bar, and is operated by the movements of the driving-shaft F in a manner too well known to those skilled in this class of machinery to need particular description. Over a cam, G, secured to the driving-shaft, extends a feed-lever, H, which is hung to a pin, *c*, the latter passing through a slot, *x*, and to the lever is secured one end of a spiral spring, *d*, the other end of which is attached to a pin, *e*, projecting from the base-plate. At the inner of the lever are two projections, *f* and *g*, the latter extending beneath an opening, *y*, in the work-plate I, and at the upper side of this projection are two sharp-pointed pins *i i'*. To the base-plate A is secured what I term a "guide," J, which consists of two plates or jaws, *k* and *k'*, secured to each other at their rear ends and to the base-plate by a screw, *l*, which passes through slots in both plates or jaws and into the base-plate. The upper jaw or plate, *k'*, is elastic, and is so bent that it tends to rise at its front end from the plate *k* and to bear against the under side of a nut, *p*, which turns on a screw, *o*, secured to the lower plate. The front ends of the jaws, *k k'*, are bent inward so as to form two ribs or flanges, *s t*, which may be adjusted at any required distance in respect to each other by means of the nut *p*, and through openings in the plate *k'* project rods *m m*, (secured to the plate *k*), which prevent any lateral movement of the plate *k'* without interfering with the free vertical movement of the same. To a projecting portion of the plate *k* are secured two pins, *w u*, which extend through slots in an adjustable plate K, the latter being secured in any position, to which it may be adjusted by a nut, *q*, which screws on to the pin *u*. At the front end of the plate *k* is an inclined wedge-shaped projection, *r*, for a purpose described hereafter. The machine is provided with a shuttle, loop-holder, or other suitable device, by means of which the needle-thread may be secured after being passed through the fabric; inasmuch, however, as various devices may be used for this purpose, and as the construction and operation of such devices are well known to those conversant with this class of machinery, it has not been thought necessary to illustrate or particularly describe the same. The cam G is so constructed that as the shaft F revolves the feed-lever will be raised until the edge of the projection *g* is flush with the work-plate I, and the pins *i i'* project into the openings *a'*, then moved forward in the direction of its arrow, and then depressed in the same manner as feed-levers of the ordinary construction. The strips *x x'* of carpet or other fabric to be sewed together are placed one above the other, the piled surfaces, whether cut or uncut, being "face to face," and are secured between the jaws *k k'* by turning the nut *p* so that the ribs *s t* shall press against the fabric near the thick cord or selvage, *z*, at the edge of the same, this selvage preventing the fabric from being drawn upwards from between the jaws, but not interfering with its free movement between the jaws, toward the needle *b*. The guide J is then so adjusted on the base-plate that the needle *b* when it descends shall penetrate both strips, *x x'*, near the edges of the same, and the plate *k* is moved forward to the position shown in fig. 2, so that the inclined projection, *r*, shall be between the two strips.

When the machine is put in operation, the pins *i i'*, as the lever H is raised, will penetrate both strips, *x x'*, of carpet, and as the lever moves forward will carry the carpet in the same direction to the extent of the move-

ment of the lever, after which the needle *b* will penetrate the strips and carry through the same a thread which is interlocked with the thread of a shuttle or loop-holder in the ordinary manner. As the strips *x x'* are moved toward the needle they will be guided beneath the latter, and their edges will be maintained parallel to each other by the plates *k k'*, while the inclined plate *r* will fold back the "pile" of both strips near the edges of the same. In sewing carpets it is important that the edges only of the strips should be secured together in order that there may be as little thickness as possible in the seam, and it is also fully as important that the strips should both be moved toward the needles at the same speed in order that the figures in the two may coincide with each other. In the above-described devices the plates *k k'* maintain the edges of the two strips parallel and guide them with such nicety beneath the needle that the latter will invariably penetrate the fabric at a point just back of the selvage, while, as the pins *i i* penetrate both strips, it will be apparent that not only will they both be fed forward at the same speed but the pins prevent the relative positions of the strips from being altered after they leave the guide. By the use also of the plate *k* and its projection for turning in the "pile," the latter is folded back so that the edges of the strips may be brought closely together. The form of the plates or jaws *k k'* may be altered without departing from the main features of my invention, and in some instances, where the pins *i i* would maintain the edges of the two strips of fabric parallel with each other, the guide may be dispensed with. In this case, however, a plain hemming guide should be secured to the base-plate to guide the fabric to the needle. The plate *K* may be used without the guide *J* by bringing it nearer to the needle and presser-foot than shown in the drawing. By the use of a slotted presser-foot the fabric may be held firmly down on to the feed, while the points of the pins *i i* are prevented from being injured by being brought into contact with the foot.

I claim as my invention, and desire to secure by Letters Patent—

1. The adjustable jaws *k k'*, with their ribs or flanges *s t*, constructed and adapted for attachment to a sewing machine, substantially as and for the purpose described.
2. The pins *i i* applied to a feeding device, and combined with a slotted presser-foot into the slot in which the pins project when above the work-plate, substantially as and for the purpose described.
3. The adjustable plate *K*, with its inclined projection *r*, constructed and adapted for attachment to a sewing machine, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. REHFUSS.

Witnesses:

CHARLES E. FOSTER,
C. HOWSON.