

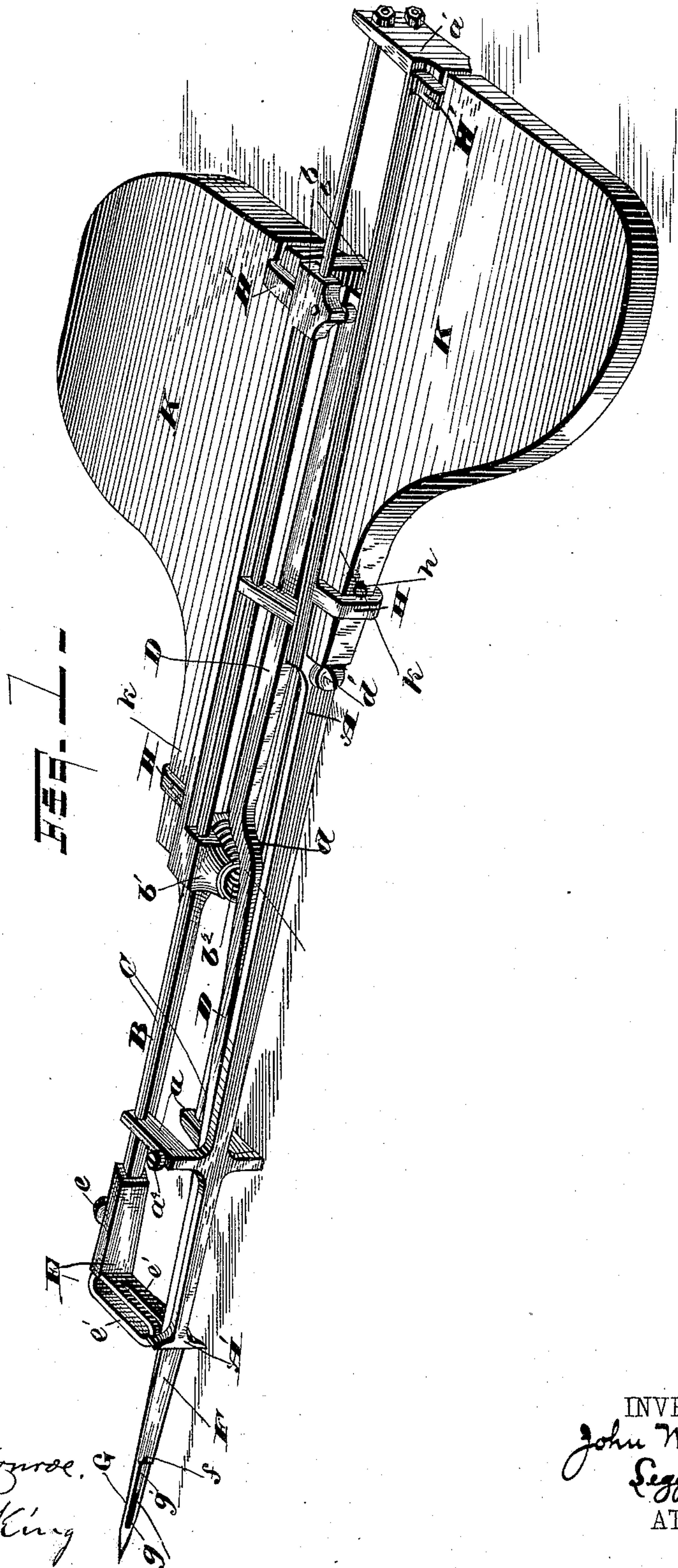
(No Model.)

2 Sheets—Sheet 1.

J. W. WEDDEL.
FABRIC TURFING IMPLEMENT.

No. 334,915.

Patented Jan. 26, 1886.



WITNESSES

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Geo. W. King

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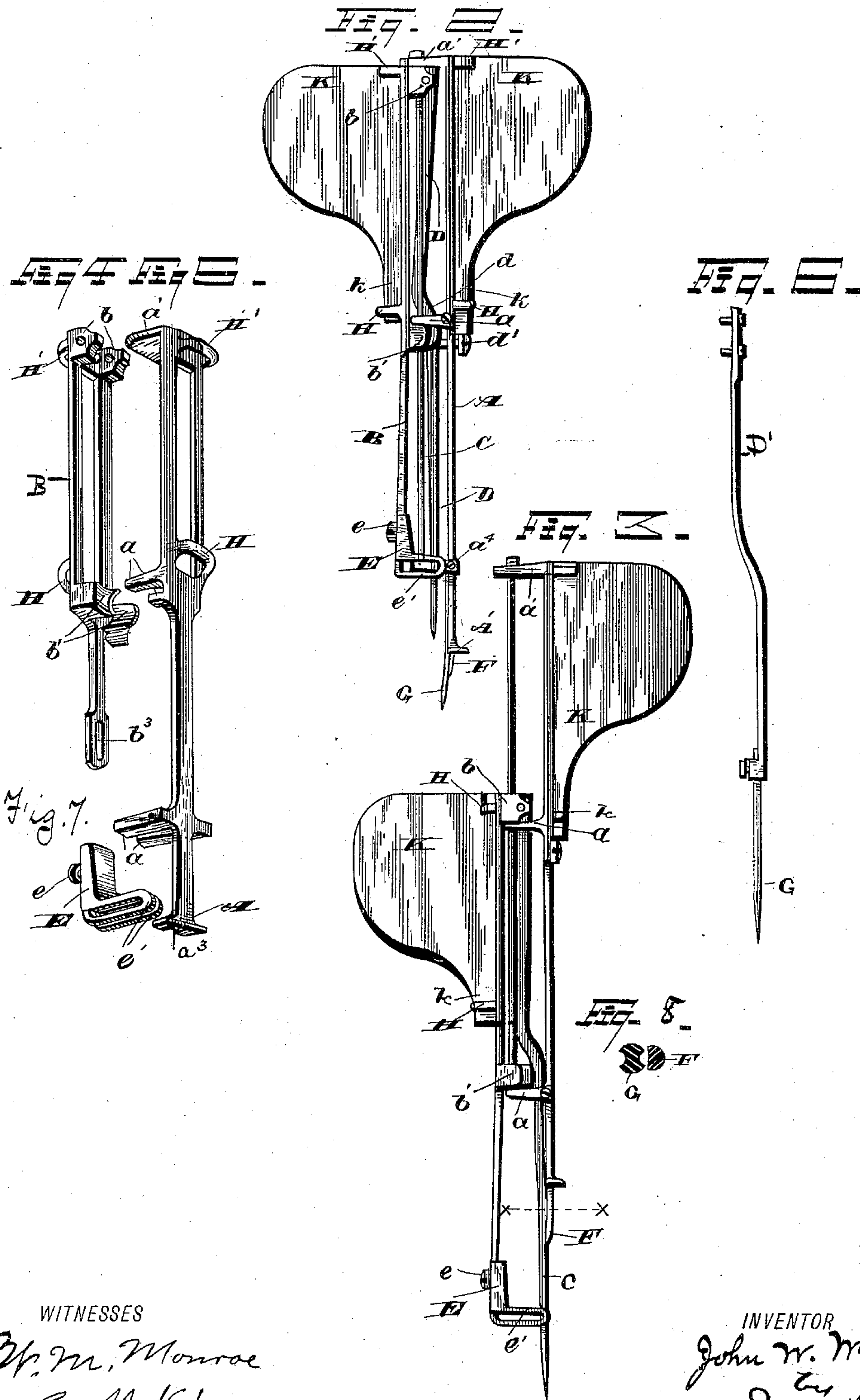
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UNITED STATES PATENT OFFICE.

JOHN W. WEDDEL, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO HOWARD
M. PETTENGILL, OF SAME PLACE.

FABRIC-TURFING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 334,915, dated January 26, 1886.

Application filed May 14, 1885. Serial No. 165,505. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. WEDDEL, of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful
5 Improvements in Fabric-Turfing Implements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the
10 same.

My invention relates to improvements in fabric-turfing implements, the object being to provide a vibrating needle operated in one direction by a spring and in the opposite direction by an incline and abutment-screw, to
15 the end that the vibrating of the needle automatically feeds the device and gives the required length of stitch, longer or shorter, according to the adjustment of the abutment-screw.
20

My invention also relates to the details of construction hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a
25 view in perspective of my improved implement. Figs. 2 and 3 are side elevations showing different working positions of the same. Figs. 4 and 5 are views in perspective, respectively, of the parts B and A. Fig. 6 is an
30 elevation of a modified needle-bar and detachable needle. Fig. 7 is a view in perspective of the adjustable stop E, that is connected with the part B. Fig. 8 is a view in transverse section of the needle and loop retainer.

35 A and B are metal pieces that form the frame-work of the device. The part A has lugs a , set in pairs, and a flange, a' , at the upper end, and the lugs and flange are pierced for receiving the parallel rods C, that form
40 ways for the other half of the device to slide upon. The part B has lugs b and b' , set in pairs and pierced to slide on the rods C. When the parts are assembled, as shown in Figs. 1, 2, and 3, in operating the device, the lugs of
45 the two parts abut together and form stops that limit the movement of the parts in either direction. Between the lugs b is pivoted the needle-bar D, that also passes between the lugs b' , that form lateral guides or steady-pins
50 for the bar. The inner faces of the lugs b' are

concaved and form a seat for a spiral spring, b^2 , that presses the needle-bar outward—that is, toward the opposite part, A. The needle-bar has an offset at d , forming an incline, and a set-screw, d' , is screwed through the part A, 55 to engage this incline and force the needle-bar toward the spring b^2 —that is, away from the part A—when the needle is drawn in the direction away from the work. The lower end of the part B has a long slot, b^3 , through which 60 passes the screw e , that adjustably secures the part E, that forms a stop to engage the work and limit the advance of the needle through the fabric. This part E has loops e' , that embrace the needle and give it lateral support. 65 These loops are of suitable length, so that the needle may vibrate between them a sufficient distance to form any length of stitch required. The thread may pass out laterally through either one of these loops, and whichever loop 70 is used serves, when so used, as a thread guide. The lower end of the part A terminates in the blunt end A' , that also engages the work and limits the advance of the loop-retainer F. This part F lies along in the groove a^3 , and is 75 secured by the set-screw a^4 , and the loop-retainer is therefore adjustable endwise. This loop-retainer is preferably half-round in cross-section, having its flat side next the needle. The loop-retainer is designed to be inflexible, 80 and the form (half-round) serves this purpose well, and is not liable to cut the fabric. A notch, f , is provided on the end for engaging the thread or yarn.

The needle G is substantially an ordinary 85 sewing-machine needle on a large scale, having an eye, g , near the point, and grooves g' on opposite sides, for partially inclosing the thread as it passes through the work. The parts A and B each have loops H and H', for 90 securing the handles K. These handles at k are reduced in size to pass through the loop H until the larger end of the handles is between the loops. The handles are then drawn endwise, the loop H' entering a notch in the handle, thus securing the latter, after which a 95 tack, h , is driven into the wood, that prevents the handles from moving endwise. These loops are cast upon the respective parts A and B, and add nothing to the cost, and save 100

the expense of screws for attaching the handles.

In operating the device the part E is adjusted lengthwise on the part B until the needle-point protrudes beyond the loops e' more or less, according to the length of the loop in the thread or yarn that it is desired to form on the work. Next the bottom of the loop e' and the end A' are brought in line, and the loop-retainer is set so as to reach to near the lower end of the needle-eye. The thread is passed laterally and from the outside through one of the loops e' , and down between these loops and through the eye of the needle.

In the position shown in Fig. 3 the needle is pressed through the fabric until the latter is engaged by the part E. Next the part A is advanced, the loop-retainer passing through the fabric by the side of the needle, and the notch f engaging the thread at the needle-eye, just as the part A' engages the fabric. The part B is then drawn back, withdrawing the needle from the fabric, the loop in the thread meantime being held by the loop-retainer in the position where the needle left it. As the needle leaves the fabric, the incline d engages the abutment-screw d' and swings the needle away from the loop-retainer. (See Fig. 2.) The latter being in the fabric is at the time stationary. As the needle is again advanced, it pierces the fabric the required distance in advance of the loop-retainer to form a stitch, longer or shorter, according to the adjustment of the abutment-screw d' . As the part E again engages the fabric, the loop-retainer is withdrawn, and as it leaves the fabric the action of the spring b^2 brings the loop-retainer again by the side of the needle. The feed, therefore, is automatic and regular, and requires no effort or care on the part of the operator.

As shown in Figs 1, 2, and 3, the needle G is made on the end of the needle-bar D. This construction is cheap and answers a very good purpose, providing but one size of needle is required, otherwise a socket (shown in Fig. 6) is provided on the end of the needle-bar to receive the shanks of interchangeable needles, the same as in sewing-machines.

Instead of pivoting the upper end of the needle-bar, as shown in Figs. 1, 2, and 3, the bar at D' (see Fig. 6) may be made thin, to serve as a spring, and the upper end of the needle-bar may be rigidly attached to the part B. In such case the spring b^2 could be dispensed with, as the spring D' would perform

the same function. There is not much difference in the cost of these two constructions of the needle-bar, and either will operate well; also, it is not essential to offset the needle-bar to form the incline d , as a separate piece may be employed for this purpose and secured either to the needle-bar or to the part A, and if to the latter the abutment-screw would pass through the needle-bar.

What I claim is—

1. The combination, with a loop-retainer and a spring-actuated vibrating needle arranged to be reciprocated endwise alternately, of an incline or cam secured to the needle, and an abutment-screw, substantially as and for the purpose set forth.

2. The combination, with two handles, a loop-retainer secured to one handle, and a needle pivotally secured to the other handle, the said needle and retainer arranged to be reciprocated endwise alternately, of an incline and abutment-screw, and a spring arranged to alternately separate and bring together the needle and loop-retainer, substantially as set forth.

3. The combination, with the parts A and B, having loops H H', and a needle and loop-retainer respectively secured to said parts, of the handles secured to said loops, substantially as set forth.

4. The combination, with the part A, provided with the lugs a and flange a' , of the parallel rods C, the part B, provided with the lugs b and b' , the lugs of the respective parts arranged the one set to support the parallel rod C, and the other set arranged to slide thereon, and the two sets of lugs arranged to abut against each other and form stops to limit the movement of the two halves of the device in both directions, substantially as set forth.

5. The combination, with the part A, the parallel rods secured thereto, and the adjustable loop-retainer, of the part B, adapted to slide on said rods, the needle, and the stop E, all of the above parts combined and operating substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 7th day of May, 1885.

JOHN W. WEDDEL.

Witnesses:

ERSKINE H. POTTER,
JAMES AUSTIN, Jr.