

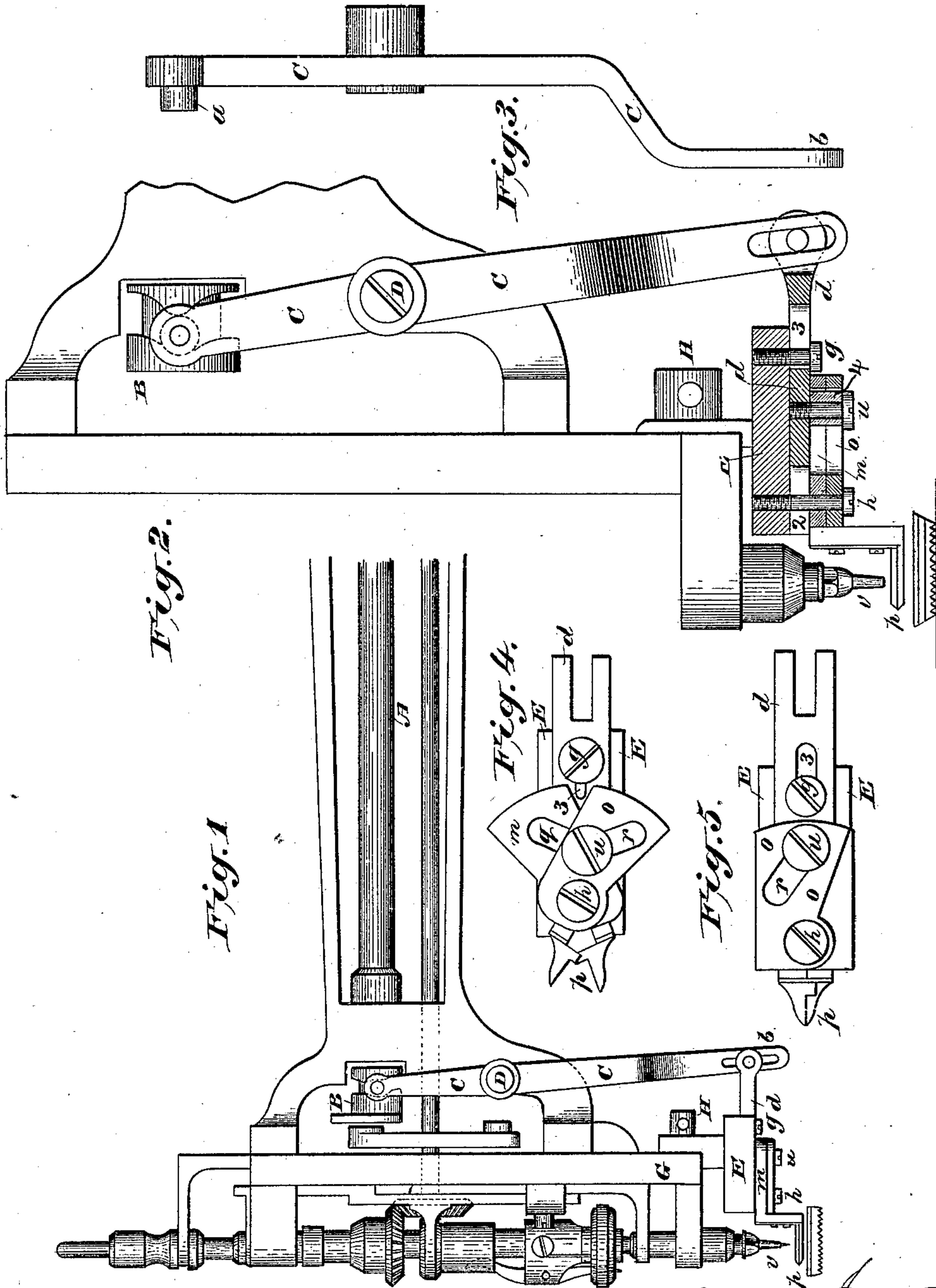
(No Model.)

L. BERTRAND.

PROCESS OF AND CUTTING APPARATUS FOR SEWING AND EMBROIDERING.

No. 297,057.

Patented Apr. 15, 1884.



Attest:
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UNITED STATES PATENT OFFICE.

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PROCESS OF AND CUTTING APPARATUS FOR SEWING AND EMBROIDERING.

SPECIFICATION forming part of Letters Patent No. 297,057, dated April 15, 1884.

Application filed July 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, LEON BERTRAND, of the city of Paris, in the Republic of France, have invented a new and useful Cutting Apparatus for Sewing and Embroidering Machines, which invention is fully set forth in the following specification.

The subject of the present invention is the application to sewing or embroidering machines of an automatic cutting apparatus which cuts the thread of each single stitch after it has been drawn by the needle above the cloth, thus producing a velvet or peluche like surface when the stitches are laid closely together one to the other.

To fully explain the nature of my invention, I have represented it in the drawings as applied to a Bonnaz embroidering-machine, which, being fully known, does not require any description; but it may be equally well applied to any system of sewing or embroidering machines.

Figure 1 represents my cutting apparatus as applied to a Bonnaz embroidering-machine. Fig. 2 represents the same apparatus, full size, secured to the head-plate of the machine; Fig. 3, a detached view of the driving-lever; Figs. 4 and 5, plans of the cutting-scissors.

A grooved cam, B, is secured to the main shaft A of the machine and imparts by its rotation a reciprocating motion to the lever C, which is pivoted at D to the frame of the machine. The lower end, b, of the lever C is slotted and imparts a reciprocating motion to the slide d, which plays within the block E, which latter is secured to the head-plate G of the machine by means of screw H. The slide d is supported by means of the studs g and h, which are screwed into the block E, and it is provided with suitable slots, 2 and 3, through which the studs g and h pass. Two plates, m o, are sustained by the stud h, and can swing on it as their center. They are provided with two inclined slots, q r, through which passes a stud, u, which is screwed to the slide d. It is provided with a friction-roller, 4, which is fitted into the slots q r. Two cutting-blades, p, are secured to the perpendicular arms of plates m o. The reciprocating

motion of the lever C imparts a rectilinear reciprocating motion to the slide d, to its stud u, and its friction-roller 4, which, acting against the inclined sides of slots q r of the arms m o, opens and closes these latter, and consequently the cutting-blades p, at each stitch of the machine, which thus constitute a pair of automatic cutting-scissors. The groove on cam B is adjusted in such a manner that the scissors p close up when the thread has been drawn by the needle above the cloth, and they thus cut it in said position, Fig. 5, below the needle; and when the needle and the nipple v commence their descending motion, they open, Fig. 4, to allow them a passage downward. The cutting-blades p are secured to the vertical arms of the plates m o by means of screws, and they can easily be removed and be replaced when they are to be changed or to be sharpened.

The above mechanism is described as the best method contemplated of carrying the invention into effect. It is obvious that other mechanism may be used in place thereof; and I therefore do not limit my invention to the sole application of scissors, nor to the manner of operating them by the devices above explained.

I claim—

1. In the art of machine sewing and embroidering, the process consisting in first forming a stitch in the ordinary way, and, second, cutting the thread above the fabric after the completion of the said stitch and before the commencement of another, whereby a velvet or peluche seam is produced, substantially as described.

2. The combination, with the needle of a sewing and embroidering machine, of cutting apparatus arranged to operate in the path of the needle to sever the sewing-thread after the formation of a stitch, and connections for operating said cutting apparatus from a movable part of the machine, substantially as described.

3. The combination, in an organized sewing and embroidering machine, with the needle-bar and its operating devices, of thread-cutting mechanism, arranged in close proximity to the cloth-plate, and connections for operating said