(No Model.) 2 Sheets—Sheet 1.

E. CORNELY.

EMBROIDERING MACHINE.

No. 292,284. Patented Jan. 22, 1884.

Fig. 1.

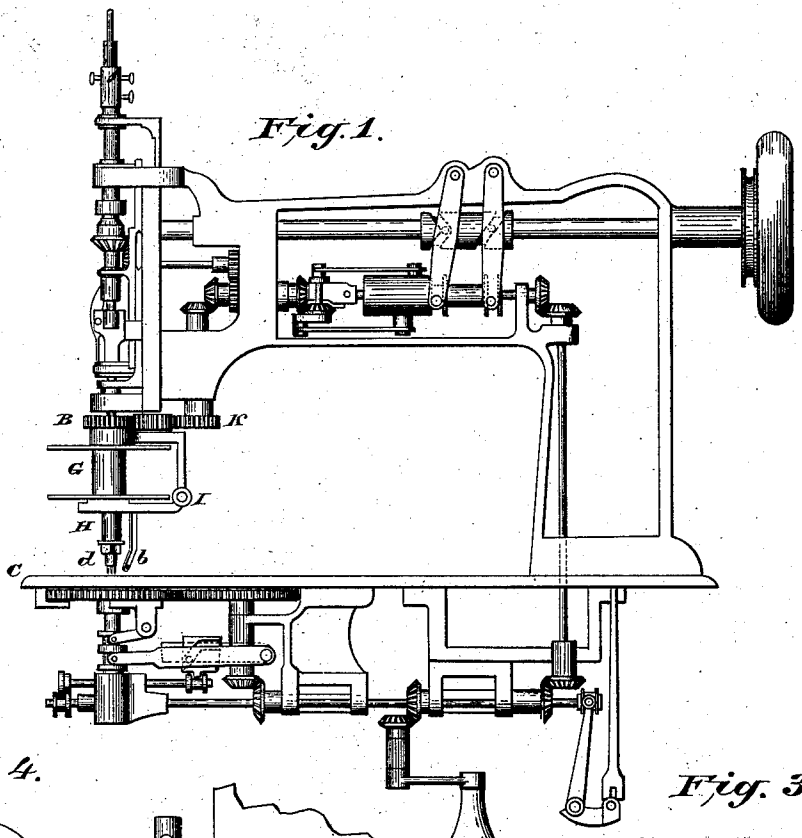


Fig. 4.

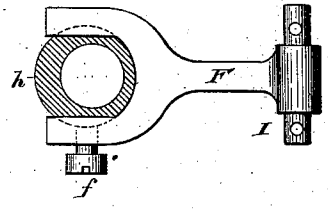


Fig. 3.

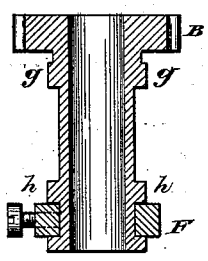
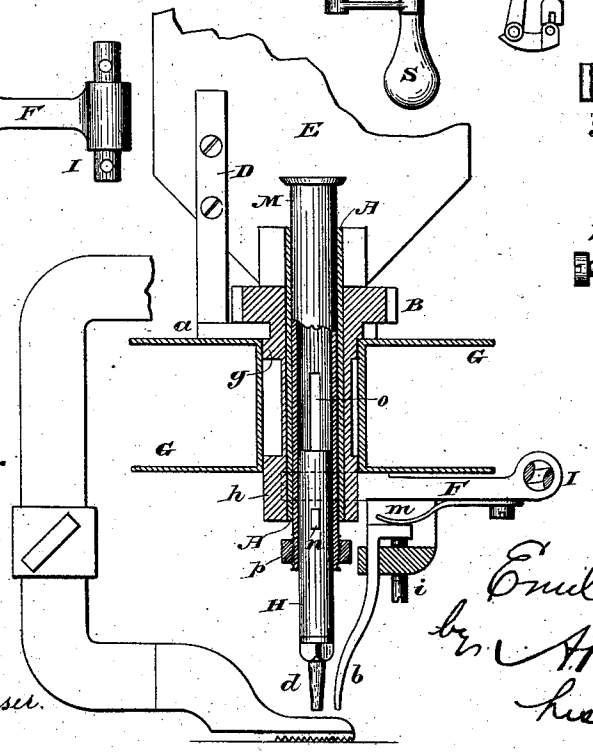


Fig. 2.



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his attorney

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(No Model.) 2 Sheets—Sheet 2.

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EMBROIDERING MACHINE.

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Fig. 5.

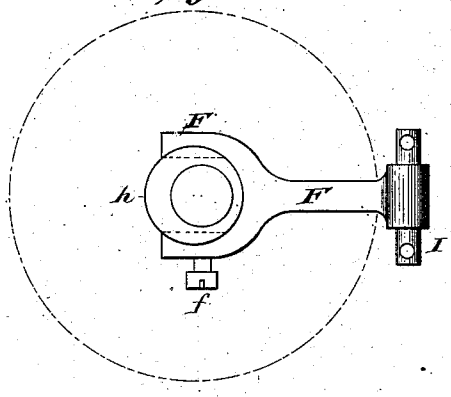


Fig. 6.

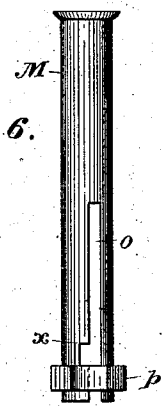


Fig. 8.

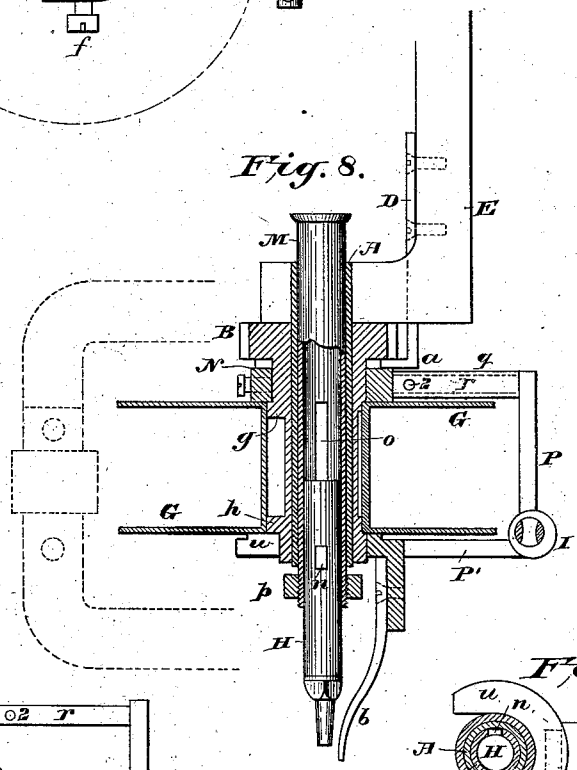


Fig. 7.



Fig. 10.

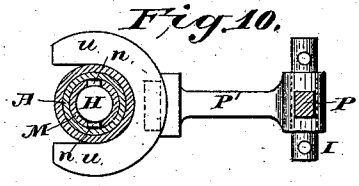


Fig. 9.

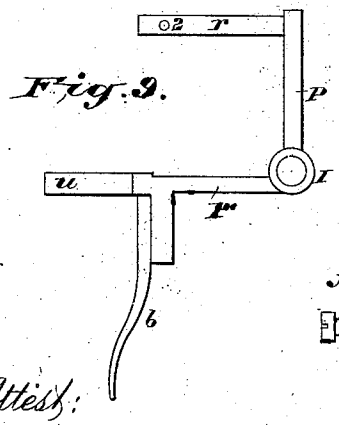
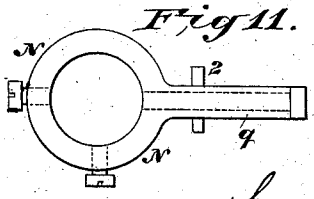


Fig 11.



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UNITED STATES PATENT OFFICE.

EMIL CORNELY, OF PARIS, FRANCE.

EMBROIDERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 292,284, dated January 22, 1884.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, EMIL CORNELY, of Washington city, in the District of Columbia, a resident of the city of Paris, in the Republic of France, have invented a new and useful Improvement in Embroidering-Machines, which improvement is fully set forth in the following specification.

The object of the present invention is the production of a new style of work, which will be understood from the following description:

By Letters Patent granted to me August 15, 1882, No. 262,743, a machine was constituted which can produce several rows of chain-stitches simultaneously from a single thread and by means of the universal feed; and in No. 262,742, of the same date, a machine is described in which, by means of a revolving thread-carrier, which follows the feed of the machine, a thread is wound around the seam made by the needle. In combining the two machines, so as to wind a thread around the several chain-stitches, a new seam is created, which, not only in its appearance, but also in its qualities, is a new and useful article. The fact of several chain-stitches being produced from a single thread makes it evident that those chain-stitches must be united between themselves on the lower side of the material by crosswise-laid threads, and the second thread wound around them on the upper side of the material must also, necessarily, appear as a cross-thread. Thus the entire work has the appearance, on both sides of the material, of an overseaming stitch, which can be employed not only for embroidering purposes, but is also a perfect and solid binding when applied to edgework.

In the drawings, Figure 1 represents an elevation of the entire machine. The other figures, 2 to 11, represent detached views, hereinafter to be referred to.

The part of the machine which is above the bed-plate C is in all respects, except as hereinafter described, a copy of the machine described in No. 262,742, and the part which is below said plate is substantially a copy of what is found in Patent No. 262,743, and both, therefore, need not be described here, as the operation of the three needles and of the revolving thread-carrier is fully known from the above Letters Patent, and as they produce, evidently, a seam, as above described; but in this machine, it was particularly found necessary to employ a large spool for the upper thread, as a large quantity of thread is wound around several needles. It was therefore found necessary to employ a large central spool; but the difficulty which this plan has always presented, even in single-thread machines, was to find an easy method of removing and inserting said spool in the machine after its thread was exhausted. These difficulties were removed in the following manner:

Fig. 2 represents a vertical section on an enlarged scale through the wheel B, fixed sleeve A, and nipple-tube H, represented in Fig. 1. The wheel B turns freely upon the fixed sleeve A, and is sustained thereon by means of a fork, *a*, which extends into a corresponding circular groove of wheel B. The vertical bar D of said fork *a* is screwed onto the plate E of the machine. The hub of the wheel B is extended downward, and is provided with two circular eccentrics, *g* and *h*, upon which the spool G is placed, which thus receives a rotating motion around the needles by the action of the wheel B, and which, at the same time, can turn freely on said eccentrics for the purpose of delivering its thread freely to the thread-carrier *b*. Two mortises are milled out on the sides of the eccentric *h*, into which the arms of a fork-shaped piece, F, are inserted, and are secured therein by means of the screw *f*, Figs. 2, 3, 4, and 5. The part F, being fastened to the hub of the wheel B, turns with the latter and serves as a support to the spool G, which turns thereon by the action of eccentrics *g* and *h*. The tension I, the thread-guides, and the rotating thread-carrier *b* are secured to the part F. The position of the thread-carrier *b* can be adjusted by means of the screw *i*, and it is held in its position by the action of the spring *m*, which is secured to the part F. Upon loosening screw *f* the part F can be withdrawn, and the tension I, the thread-guides, and the thread-carrier *b* can be removed at a single operation.

To remove the spool from the machine it is necessary that the nipple-tube H can be easily removed and replaced, which thus far was not found possible. This difficulty was overcome

in the following manner: The nipple-tube is made in two parts, H and M, Figs. 2, 6, and 7. The former, sliding within the latter, is provided with a projection, *n*, which slides within a corresponding groove, *o*, of the tube M. On the lower part of the tube *o* is a recess, *x*, Fig. 6, into which the projection *n* of tube H can be pushed and fastened in a similar manner as the one employed for fixing a bayonet to a fire-arm. By then turning slightly the screw-nut *p*, the two tubes H and M are tightly secured together, and are solid, like one piece, because the screw-nut *p* not only presses against the lower side of the projection *n*, but also presses the split tube M firmly against the tube H by reason of its slightly-conical shape.

Instead of a part, F, which is secured to the hub of the wheel B below the spool G, a similar device may be secured to said wheel above said spool, as represented in Figs. 8, 9, 10, and 11. A collar, N, is secured above the spool G to the hub of wheel B, and its hollow shank *q* serves to receive the arm *r* of the frame P P′, which is fastened to it by a pin, 2. The fork-shaped part *u* of the frame P P′ leans against the lower part of the wheel-hub B and supports the spool G. Besides the tension I, the thread-guides and the thread-carrier *b* are secured to it. Upon withdrawing the pin 2 the entire frame P P′ can be removed by a single operation.

Having thus fully described the nature of my invention, what I claim is—

1. In an embroidering-machine, the combination, with devices for forming several parallel rows of stitches, of mechanism, as indicated, for winding a thread around the group of threads composing the several rows of stitches, substantially as described.

2. In an embroidering-machine, the combination, with devices for forming several rows of stitches, of a spool encircling the nipple-tube, a thread-carrier, and means for rotating the spool and thread-carrier around the needles, substantially as described.

3. The combination, with the operative elements of an organized sewing and embroidering machine, as set forth, of the nipple-tube, composed of detachable parts, which slide one within the other, and fastening means for securing the parts in their working position, substantially as described.

4. The combination, with the nipple-tube, formed in two parts, detachably connected together, of a spool surrounding said nipple-tube and carrying the thread to be wound around the needle-thread, substantially as described.

5. The combination of the two-part nipple-tube, the wheel B, turning freely around said tube, the spool encircling the hub of said wheel, and the thread-carrier and thread-guides connected and turning with said wheel, substantially as described.

6. In the art of sewing and embroidering fabric, the improvement consisting in forming several parallel rows of stitches and simultaneously with such formation winding an embroidering-thread around the group of sewing-threads, substantially as described.

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

EMIL CORNELY.

Witnesses:
EDWARD P. MACLEAN,
DAVID T. S. FULLER.