

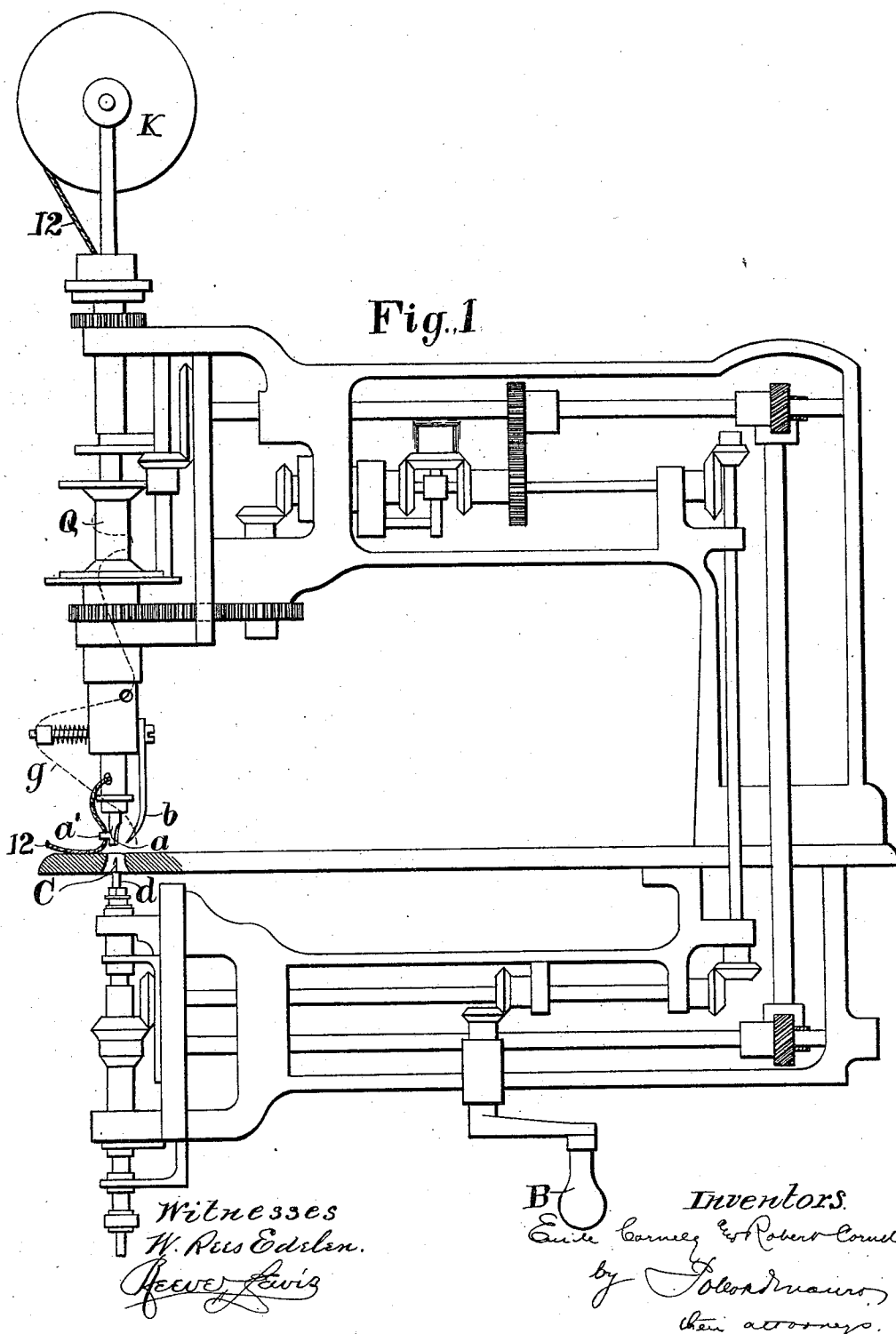
(No Model.)

3 Sheets—Sheet 1.

E. & R. CORNELY.
EMBROIDERING MACHINE.

No. 575,027.

Patented Jan. 12, 1897.



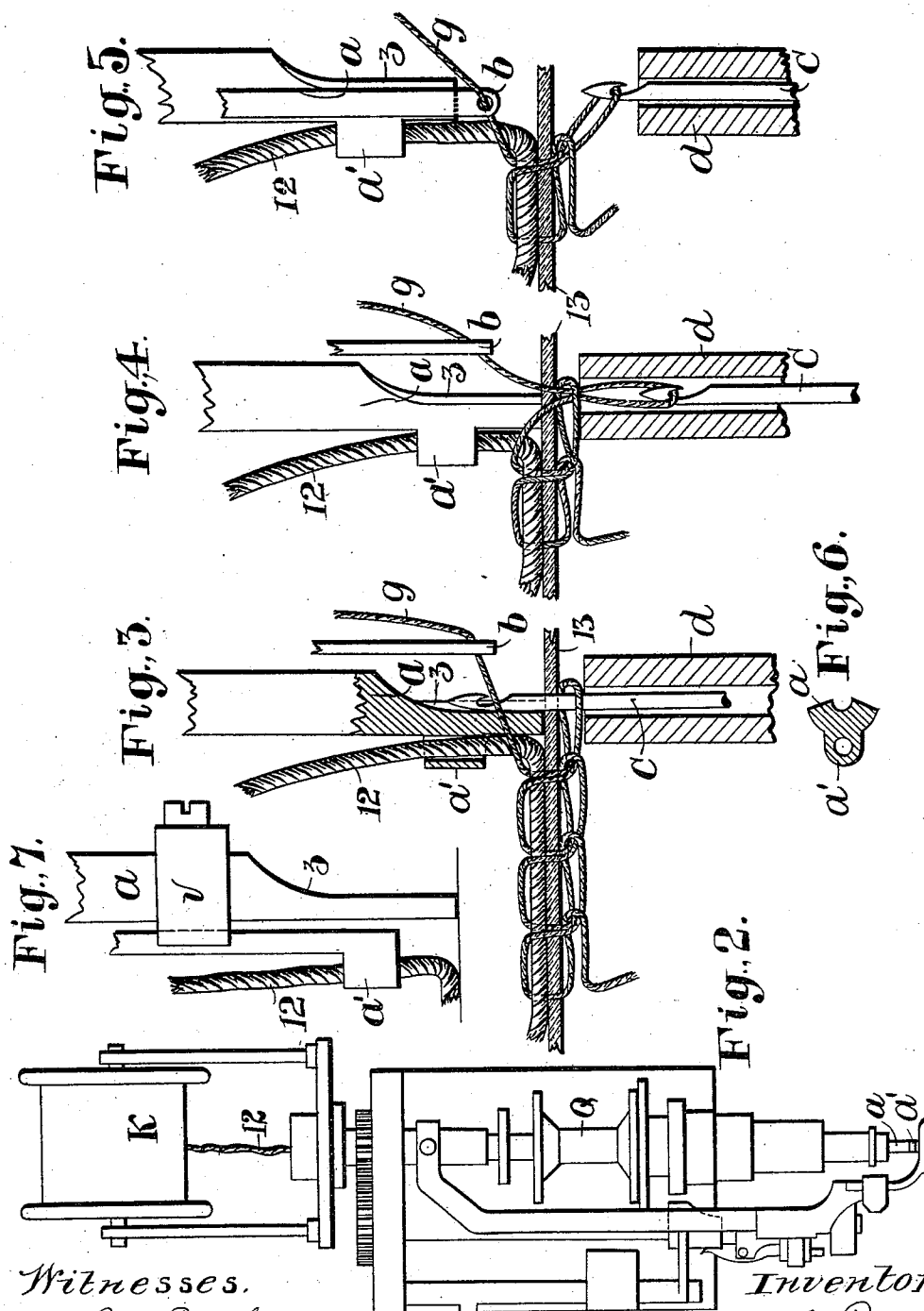
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3 Sheets—Sheet 2.

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Patented Jan. 12, 1897.



Witnesses.
W. Bess Edilen.
Jesse Lewis

Inventors
E. & R. Cornely & Robert Cornely,
by J. H. Mauro,
their attorney

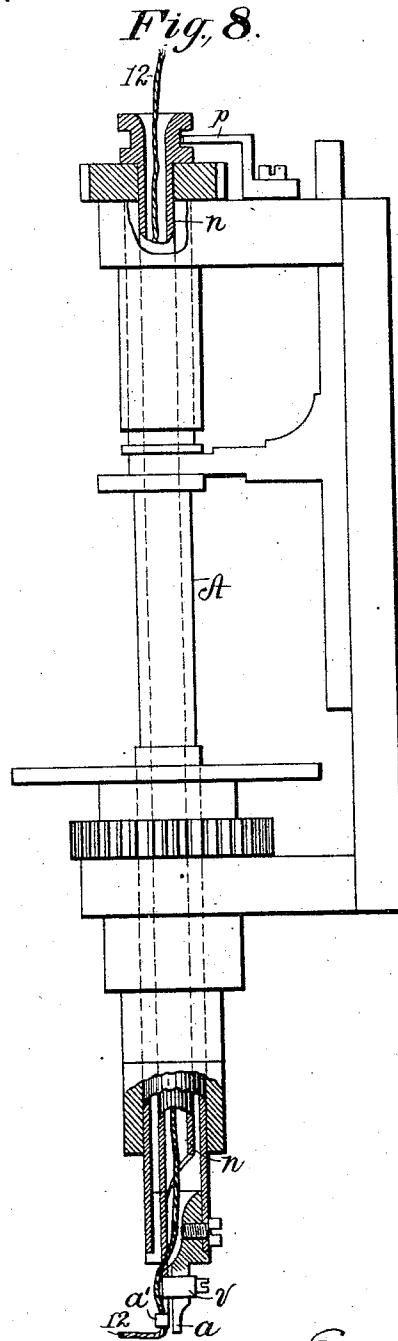
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3 Sheets—Sheet 3.

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EMBROIDERING MACHINE.

No. 575,027.

Patented Jan. 12, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

EMILE CORNELY AND ROBERT CORNELY, OF PARIS, FRANCE.

EMBROIDERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 575,027, dated January 12, 1897.

Application filed October 22, 1895. Serial No. 566,544. (No model.)

To all whom it may concern:

Be it known that we, EMILE CORNELY and ROBERT CORNELY, residents of Paris, France, have invented a new and useful Improvement in Embroidering-Machines, which is fully set forth in the following specification.

In Letters Patent of the United States No. 340,422, of April 20, 1886, a machine is described and claimed for fixing cords to a material by winding a thread around the cord and around a needle-hook which in its upward motion draws a loop upward through the material and produces a chain-stitch on the upper side of said material while the cord is fixed to the under side thereof.

To employ said machine, the design to be embroidered with cord had to be applied to the upper side of the cloth, and the cording work was produced on the under side, and the operator was thus unable to see his work. To obviate this difficulty, we have combined a machine in which the revolving thread-carrier, the cord, and the universal feed are arranged and operated above the cloth-plate, while the hook-needle and its nipple are below the table of the machine.

In addition to the nipple which encircles the needle and is beneath the cloth-plate there is a nipple above the cloth-plate, which has an open side or recess, which the needle enters in its movement above the cloth, the said nipple partly encircling the needle and the thread being wound around both the needle and the nipple. The recess in the latter being open on the side, the hook-needle can descend, carrying the thread with it. Heretofore the looper has always wound its thread directly around the needle itself, and this difference constitutes an important feature of the invention. In Letters Patent No. 501,704, granted to us July 18, 1893, the hook-needle works upwardly and has the usual nipple-tube, and additionally thereto there is a braiding-nipple above the cloth-plate; but in this case the looper must work inside the upper nipple-tube, and in operation it winds the thread directly around the needle itself.

By the present improvement the stitch is produced in full view of the operator, which is advantageous in doing ordinary embroidery-work, as well as in attaching a braid to the fabric.

In the accompanying drawings, Figure 1 represents a side view of the machine; Fig. 2, a front view thereof; Figs. 3, 4, and 5, the stitch-producing mechanism on a large scale, and Fig. 6 a cross-section of the cord-guiding nipple. Figs. 7 and 8 represent a modification, wherein the cord-guide is independent of the nipple in the up and down movements of the latter.

Referring to the drawings, *b* represents a revolving thread-carrier, which can be operated from the crank-handle *B* of the universal feed mechanism through suitable gears and shafts in a well-known manner. Cord 12 to be fixed to the cloth 13, Figs. 3, 4, and 5, is wound upon a spool *K*, which is mounted on the head of the machine and descends through the central tube of the machine and through the guide *a'* of the nipple *a*, said nipple being recessed or cut away, as at 3, on the side opposite the guide for purposes hereinafter explained. (See Fig. 6.) A thread *g* from spool *Q* is fed through the eye of revolving thread-carrier *b*.

A hook-needle *C* operates upwardly through the bed-plate, beneath which its operating mechanism is located. *d* is a sleeve or nipple around said needle.

In operation (see Figs. 3, 4, and 5) the hook-needle *C* in its uppermost position lies in the recess 3 in the side of nipple *a*, and the revolving thread-carrier *b* winds the thread around the needle-cord 12. Upon the descent of the needle its hook catches the thread *g* and draws it downwardly through, forming a loop and eventually producing a chain-stitch against the under side of the fabric and single stitches over the cord on the upper side thereof.

The mechanism for operating the thread-carrier—such, for example, as shown in Patents No. 262,742, dated August 15, 1882, and No. 338,488, dated March 23, 1886—and the hook-needle, said mechanisms being also connected with the crank-handle of the universal feed mechanism, are of well-known construction, and as our present invention has no specific relation thereto need not be described in detail.

For certain purposes it is desirable that the cord-guide *a'* should be independent of the nipple *a*, so that the guide *a'* does not

rise and descend with the nipple, although participating in its rotary movements. Fig. 7 represents such an arrangement in which nipple *a* effectuates its up and down movements without thread-guide *a'*, said guide
5 being caused to turn therewith through the intermediary of a forked piece *v*, secured to nipple *a*. In such an arrangement the thread-guide is supported by and constitutes a part
10 of the central cord-tube *n*, inclosed in nipple-tube *A*, said tube *n* being suspended at its upper end by a fork *p*, on which it can turn freely to follow the rotary movements of the nipple.

15 What we claim is—

In an embroidering-machine, the combina-

tion of a cord-guiding nipple above the cloth-plate, a thread-carrier for winding a thread around the nipple, a reciprocating hook-needle working upwardly from beneath the
20 cloth-plate, a second nipple surrounding said hook-needle, and operating mechanism for said nipples, needle and thread-carrier, substantially as described.

In testimony whereof we have signed this
specification in the presence of two subscri-
25 ing witnesses.

EMILE CORNELLY.
ROBERT CORNELLY.

Witnesses:

CLYDE SHROPSHIRE,
D. T. S. FULLER.