(No Model.)

J. E. PÉCHARD.

SEWING MACHINE NEEDLE CLAMP.

No. 299,847. Patented June 3, 1884.

FIG. 1

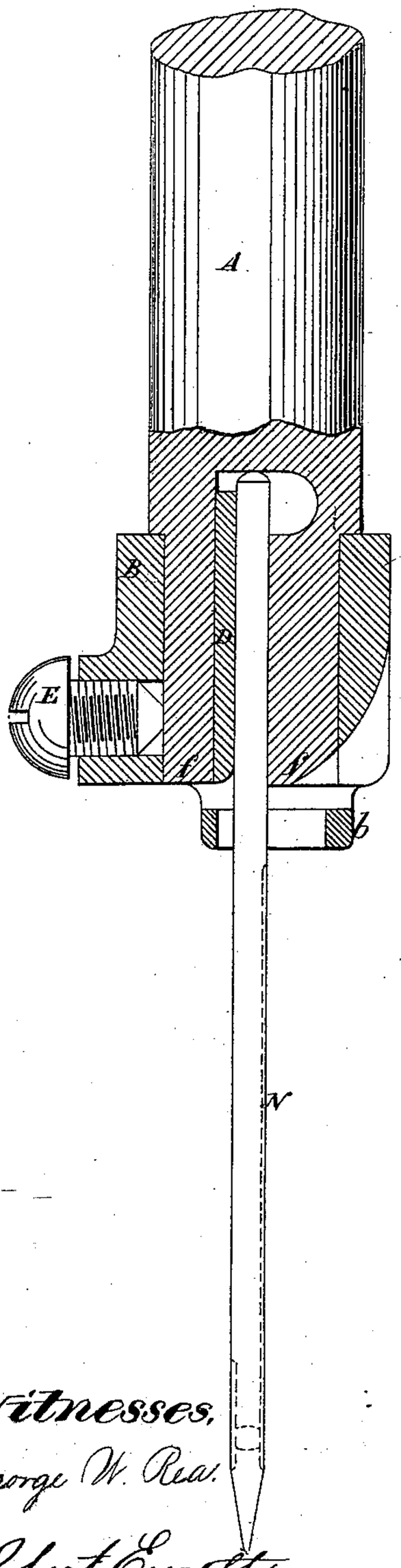

FIG. 6.

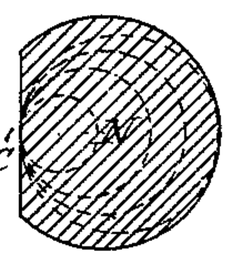

FIG. 3

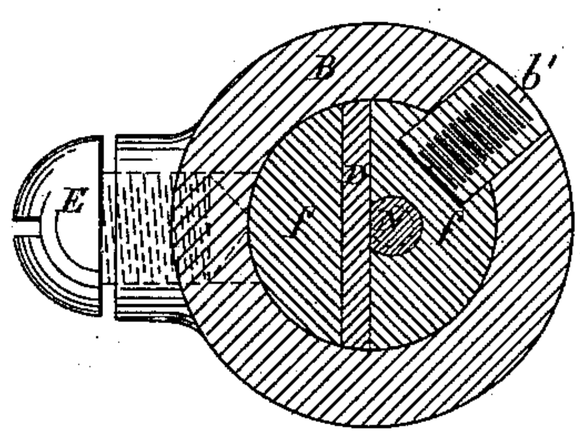

FIG. 2

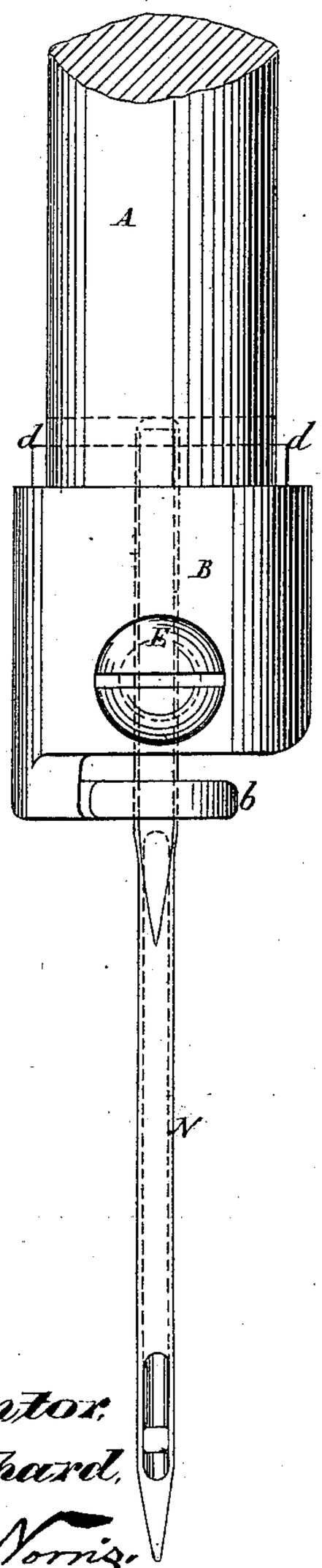

FIG. 4

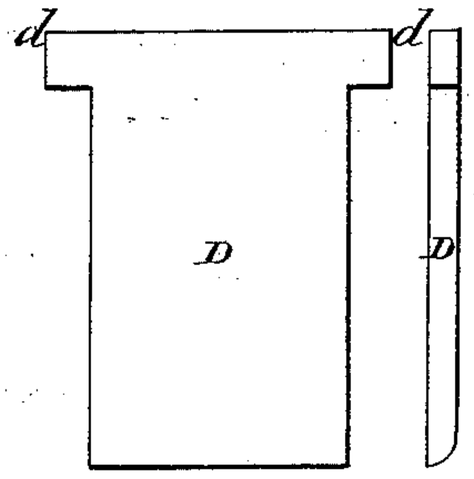

FIG. 5

Witnesses,
George W. Rea.
Robert Everett.

Inventor:
Jules E. Péchard,
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

JULES ETIENNE PÉCHARD, OF PARIS, FRANCE.

SEWING-MACHINE-NEEDLE CLAMP.

SPECIFICATION forming part of Letters Patent No. 299,847, dated June 3, 1884.

Application filed December 18, 1883. (No model.) Patented in France November 3, 1883, No. 158,344; in Belgium November 24, 1883, No. 63,321, and in England November 26, 1883, No. 5,521.

To all whom it may concern:

Be it known that I, JULES ETIENNE PÉCHARD, a citizen of France, residing at Paris, in the Republic of France, have invented an Improvement in Sewing-Machine Needles and their Holders, (for which I have obtained a patent in Great Britain, dated November 26, 1883, No. 5,521; France, dated November 3, 1883, and Belgium dated November 24, 1883,) of which the following is a specification.

In sewing-machines, whether for lock-stitch, chain-stitch, or for other kinds of stitch, it is of great importance that the side of the needle at which the loop is engaged by the shuttle, hook, or other organ should maintain a constant position relatively to the movement of that organ, notwithstanding that needles of various sizes may be used in the machine.

My invention relates to a construction of the needle and its holder, whereby the accuracy of position of the loop side of the needle is insured and facility is given for removing or inserting needles of various sizes without varying this position, as I will explain, referring to the accompanying figures, which are drawn to enlarged scales in order to show details more clearly.

Figure 1 is a vertical section, Fig. 2 is a side elevation, and Fig. 3 is a sectional plan, of the needle-holder, and Figs. 4 and 5 are front and side views of the plate fitted therein, these five figures being drawn to a scale of about four times the natural size. Fig. 6 is a plan of the needle-head, showing the relative positions of sections of needles of various sizes, this figure being drawn to a scale of about sixteen times the natural size.

The stem A of the needle-holder is at its lower end turned to fit a ring, B, and has a hole, C, the size of the needle-head bored up its center. It is also slotted across to receive a flat plate, D, which trespasses on a segment of the circular hole C, and has a little side-play in the slot between the two limbs *f f* of the stem. The ring B, to which may be attached a thread-guide, *b*, is held on the stem A by a screw, *b'*, which passes through a free hole in the ring, and is screwed into one of the limbs *f*. The ring B is furnished with a setting-screw, E, by screwing up which the limbs *f f* of the stem are forced toward each other, so as to pinch the parts between them, like the jaws of a vise. The plate D is made with two projecting shoulders, *d d*, which, lodging on the upper edge of the ring B, prevent the plate D from dropping out of the slot. The head of the needle, as shown in Fig. 6, is cylindrical, with a segment cut off one side, so as to present a flat face, C'.

Needles of various sizes are made with heads, which are all of the same size, and with their shanks eccentric to the head, but all tangential to the plane of the flat side C', as indicated by the several dotted circles in Fig. 6, each of those circles representing the section of a needle-shank. Whatever, therefore, be the size of needle thus constructed, its one side, at which the thread-loop is acted on, is in vertical line with the face C'. On slackening the screw E the head of the needle can be inserted into the hole C of the stem until it butts against the top of the hole, as shown in Fig. 1, and then by screwing up the screw E the needle becomes firmly gripped, the flat side of its head lying against the face of the plate D.

Having thus described the nature of my invention and the best means I know of carrying it into practical operation, I claim—

1. The combination of a sewing-machine needle having its circular head provided with a flat face tangential to the circular section of its shank, with a needle-holder bored to receive the needle-head, and provided with a transverse slot, a flat plate held in the slot to bear against the flat side of the needle-head, and means for forcing the plate and needle-head together, substantially as described.

2. The combination of a sewing-machine needle having its circular head provided with a flat face, C', tangential to the circular section of its shank, with a holder having a slot to form limbs *f*, and bored to receive the needle-head, a flat plate, D, arranged in the slot to bear against the flat face of the needle-head, and devices for forcing the limbs together to grip the needle-head and press its flat face against the flat plate, substantially as described.

3. The combination of a sewing-machine needle having a circular head provided with a flat face, C', with a holder bored to receive the needle-head, and provided with a transverse

slot to form two limbs, *f*, the ring B, attached to one of the limbs, and provided with a screw, E, and a flat plate arranged in the slot to bear against the flat face of the needle-head, and having shoulders engaging over the ring, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 1st day of December, A. D. 1883.

JULES ETIENNE PÉCHARD.

Witnesses:

FERDINAND MOREL,

T. JULES DEGÈON.