(No Model.)

A. F. GERALD.

SEWING MACHINE NEEDLE.

No. 248,158. Patented Oct. 11, 1881.

Fig. 1

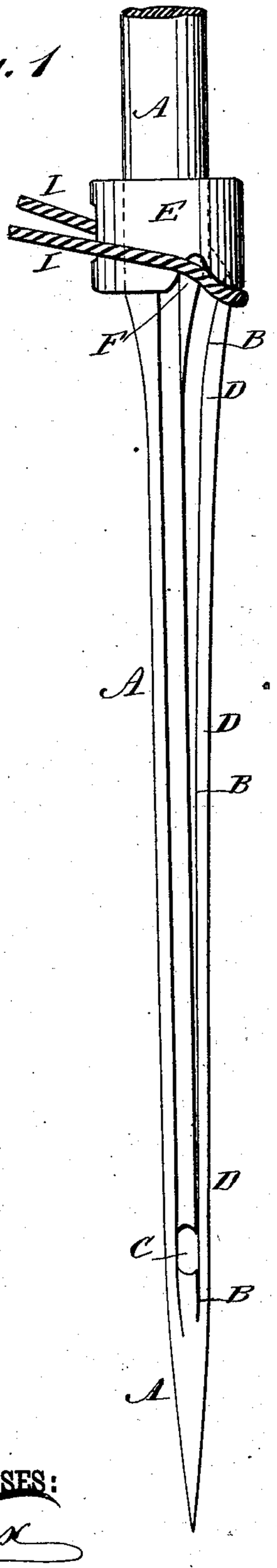


Fig. 2

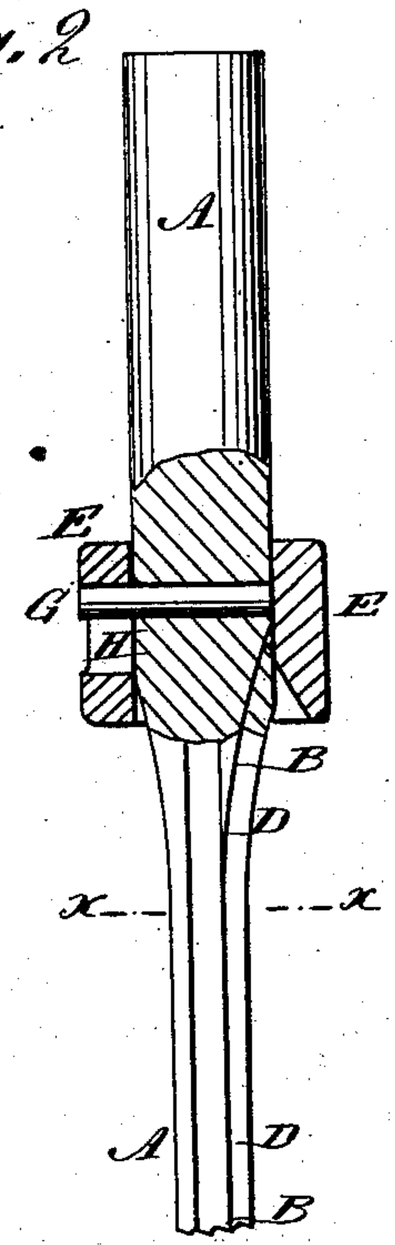
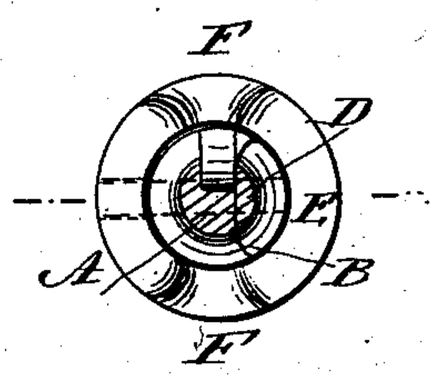


Fig. 3



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UNITED STATES PATENT OFFICE.

AMOS F. GERALD, OF FAIRFIELD, MAINE, ASSIGNOR TO HIMSELF AND ELBRIDGE G. RIDEOUT, OF NEW YORK, N. Y.

SEWING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 248,158, dated October 11, 1881.

Application filed January 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, AMOS F. GERALD, of Fairfield, in the county of Somerset and State of Maine, have invented a new and useful Improvement in Sewing-Machine Needles, of which the following is a full, clear, and exact description.

Figure 1 is a side elevation of my improvement. Fig. 2 is a sectional elevation of a part of the same. Fig. 3 is a cross-section of the same, taken through the line *x x*, Fig. 2, looking upward.

Similar letters of reference indicate corresponding parts.

The invention consists in combining with a body having a slit, pin, and eye, an inclined splint having its upper end set outwardly, and a sleeve inclined at the inside of its lower end, having opposite notches on its lower edge, and a slot, as hereinafter described.

A represents a sewing-machine needle, which is secured to the needle-holder of the machine in the ordinary manner. In the needle A is formed a slit, B, extending from a little below the eye C along one side of the said eye, and upward to some point above the part of the needle that passes into the goods, where it passes out at the side of the needle, as shown in Figs. 1 and 2.

The inclined or tapered upper end of the splint D, formed by the slit B, is sprung or set outward a little, so that when the said splint is left free a thread can be inserted between the body A of the needle and the end of the splint D and slipped down through the slit B to the eye C.

The upper end of the splint D is held in place against the body A of the needle by a sleeve, E, or other guard. The inner surface of the part of the sleeve E that passes over the end of the splint D is inclined, so that it will pass over the said end and press and hold it close to the body A of the needle. In the opposite sides of the lower edge of the sleeve E are formed notches or recesses F to receive the thread when it is drawn across the splint D and pressed upward. The movement of the sleeve E is limited by a pin, G, passing through a slot, H, in the said sleeve, and into the body A of the needle, as shown in Fig. 2. The guard E may be held down by its own weight, or it may be pressed down by a spring connected with the needle-holder. The guard E may also be connected with and supported from the needle-holder.

The guard E has been shown and described as made in the form of a sleeve, and this construction I prefer as being neat, simple, and effective; but it may be so made as to pass only part way around the needle, or it may be made in the form of a lever or cam connected with the needle-holder, and arranged to cover and protect the point or upper end of the splint D.

The advantage of connecting the guard E with the needle-holder is that in that case only one guard will be required for each machine instead of having a guard for each needle, as is necessary when the guard is permanently connected with the needle.

In threading a needle provided with my improvement the operator takes hold of the thread I with the thumbs and fingers of both hands, and with his hands at a little distance apart, and draws the part of the thread I between his hands across the splint D, and presses it upward against the lower edge of the guard E, so that the thread I will slightly raise the said guard E, enter the recesses F, and pass over the point of the splint D. The thread I is then drawn downward through the slit B until it enters the eye C. With this improvement the needle can be threaded very easily and quickly, even by those having imperfect eyesight. The extension of the slit B below the eye C allows the splint D to spring outward as the thread passes downward to the eye C more easily and gradually, and with less danger of breaking than if the said slit B stopped at the eye C.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a sewing-machine needle, the combination, with the body A, having slit B, pin G, and eye C, of the inclined splint D, having its upper end set outwardly, and the sleeve E, inclined at the inside of its lower end, and having opposite notches, F, on said lower edge, and the slot H, to adapt the needle to be used as described.

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Witnesses:

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