

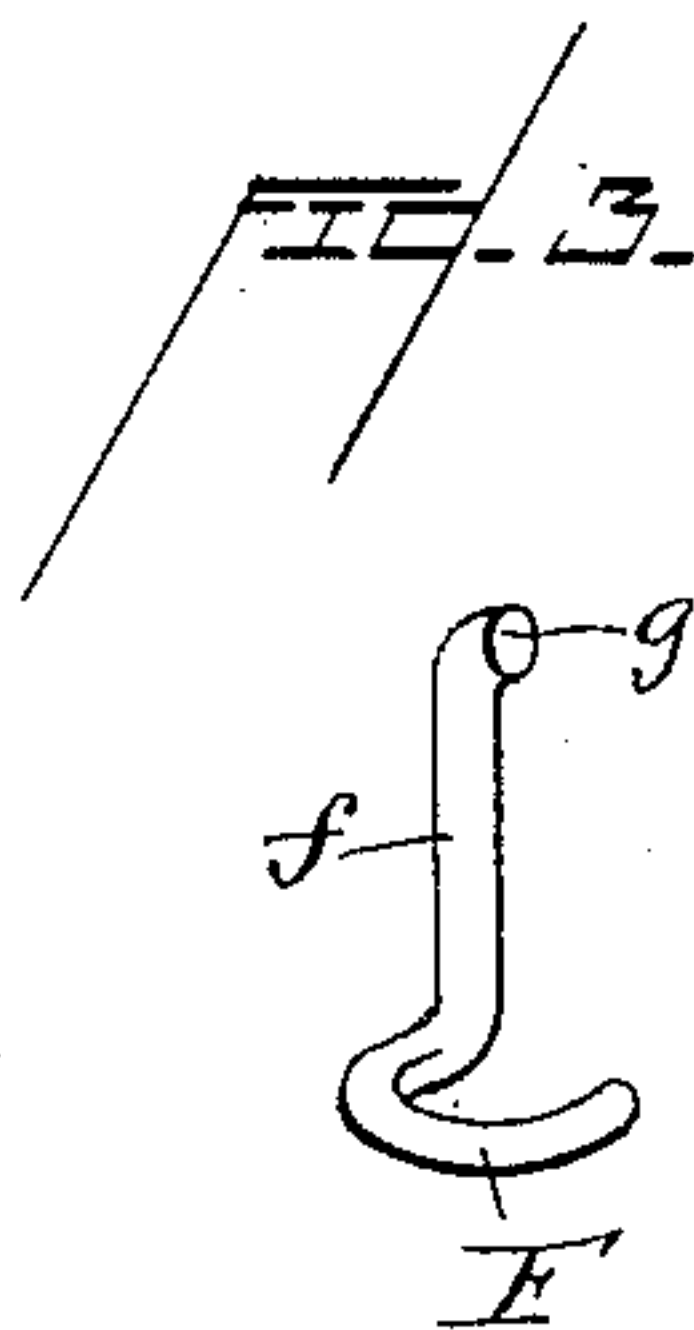
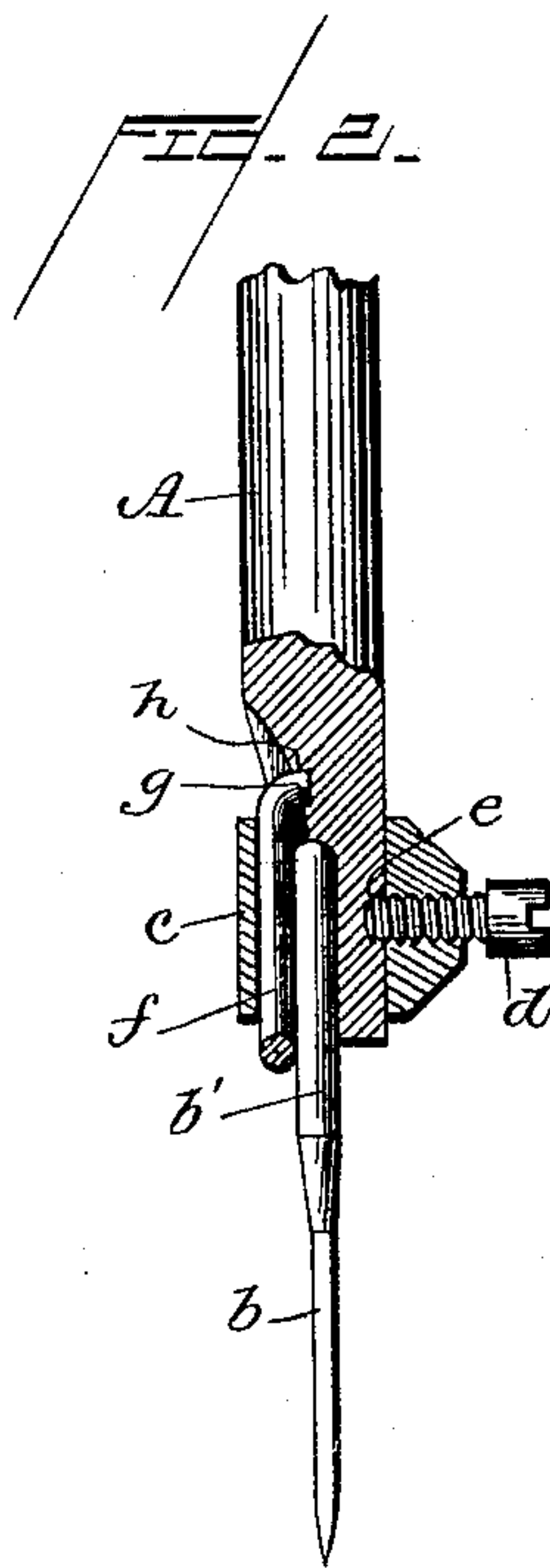
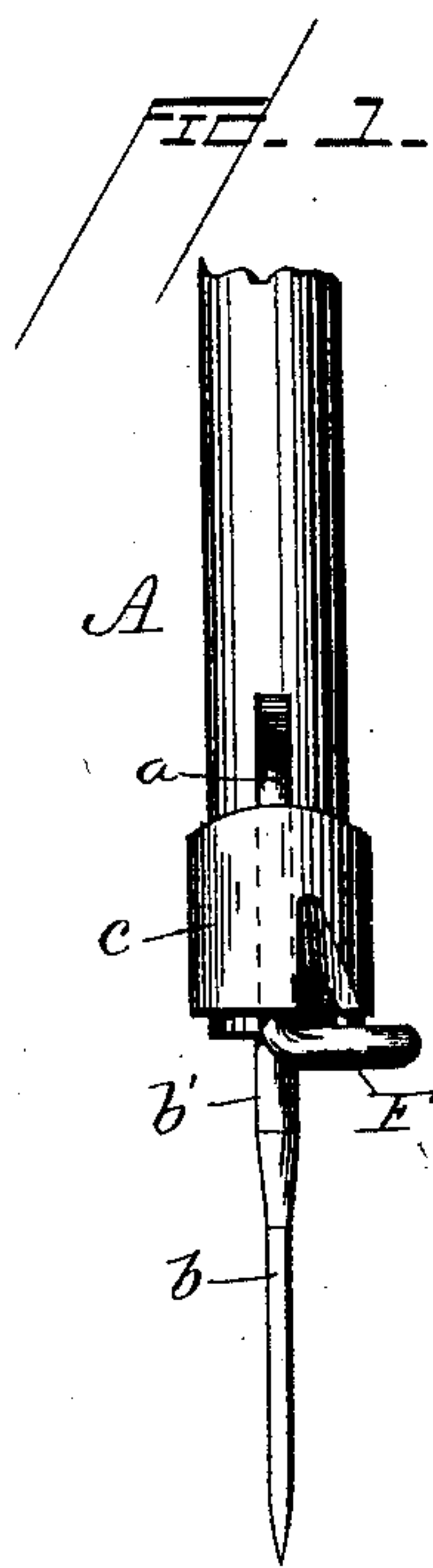
(No Model.)

E. M. STAPLES.

THREAD GUIDING DEVICE FOR SEWING MACHINES.

No. 452,395.

Patented May 19, 1891.



Witnesses:
Ar. Guehman.
Albert G. Smith.

Inventor:
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Atty.

UNITED STATES PATENT OFFICE.

ELIAL M. STAPLES, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER
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THREAD-GUIDING DEVICE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 452,395, dated May 19, 1891.

Application filed January 29, 1891. Serial No. 379,496. (No model.)

To all whom it may concern:

Be it known that I, ELIAL M. STAPLES, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Thread-Guides for Sewing-Machine Needle-Bars, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide a simple device to serve the double function of a thread-guide at the lower end of the needle-bar of a sewing-machine, and also as a gib to bear on the needle when the latter is secured in its bar by the clamping-collar, thereby permitting the needle to be clamped in place at the center of the bar without cutting away the lower end of the latter so much as would otherwise be necessary. To this end the thread-guide, which is merely a bent-wire loop to form a guiding-eye, is formed with a shank of proper size to loosely fit in the needle-receiving groove at the lower end of the needle-bar, said shank thus serving as a gib to hold the needle in place when the clamping-collar is tightened by its set-screw.

In the accompanying drawings, Figure 1 is an elevation of the lower end of a sewing-machine needle-bar with my invention applied thereto. Fig. 2 is a similar view, partly in vertical section; and Fig. 3 is a detail perspective view of the thread-guide and gib.

A denotes the needle-bar, having the groove *a* for receiving the shank *b'* of the needle *b*, and *c* is the needle-clamping collar provided with a set-screw *d*, the inner end of the said screw entering a recess at *e*, formed in the needle-bar for its reception.

F is the thread-guide, having a shank *f* of proper size to fit loosely in the groove *a* of the needle-bar, in which is placed the shank of the needle, said shank *f* being interposed be-

tween the shank of the needle and the collar *c*, as clearly shown in Fig. 2, to serve as a gib and thus cause the needle to be clamped tightly in place when the set-screw *d* is tightened. By thus employing the shank of the thread-guide as a gib for clamping the needle I avoid cutting away the lower end of the needle-bar so much as would otherwise be required to enable the collar *c* to engage and clamp a needle located in a recess in the center of the needle-bar, at which point it is desirable to place the needle.

To prevent the thread-guide from dropping out of the needle-bar when the set-screw is loosened to release the needle, I prefer to provide the upper end of the shank of said guide with an intumed end or projection *g*, which enters a slight recess at *h*, formed for its reception in the needle-bar.

I claim—

1. The combination, with a sewing-machine needle-bar provided with a needle-receiving groove and a clamping-collar, of a thread-guide having a shank loosely fitting in said groove and arranged to be interposed between the shank of the needle and the said collar, substantially as set forth.

2. The combination, with a sewing-machine needle-bar provided with a needle-receiving groove *a* and a recess *h*, of the clamping-collar *c*, its set-screw *d*, and the thread-guide having a shank arranged to be interposed between said collar and the shank of the needle and provided with the intumed end or projection *g* to enter said recess *h*, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ELIAL M. STAPLES.

Witnesses:

PHILIP DIEHL,
J. G. GREENE.