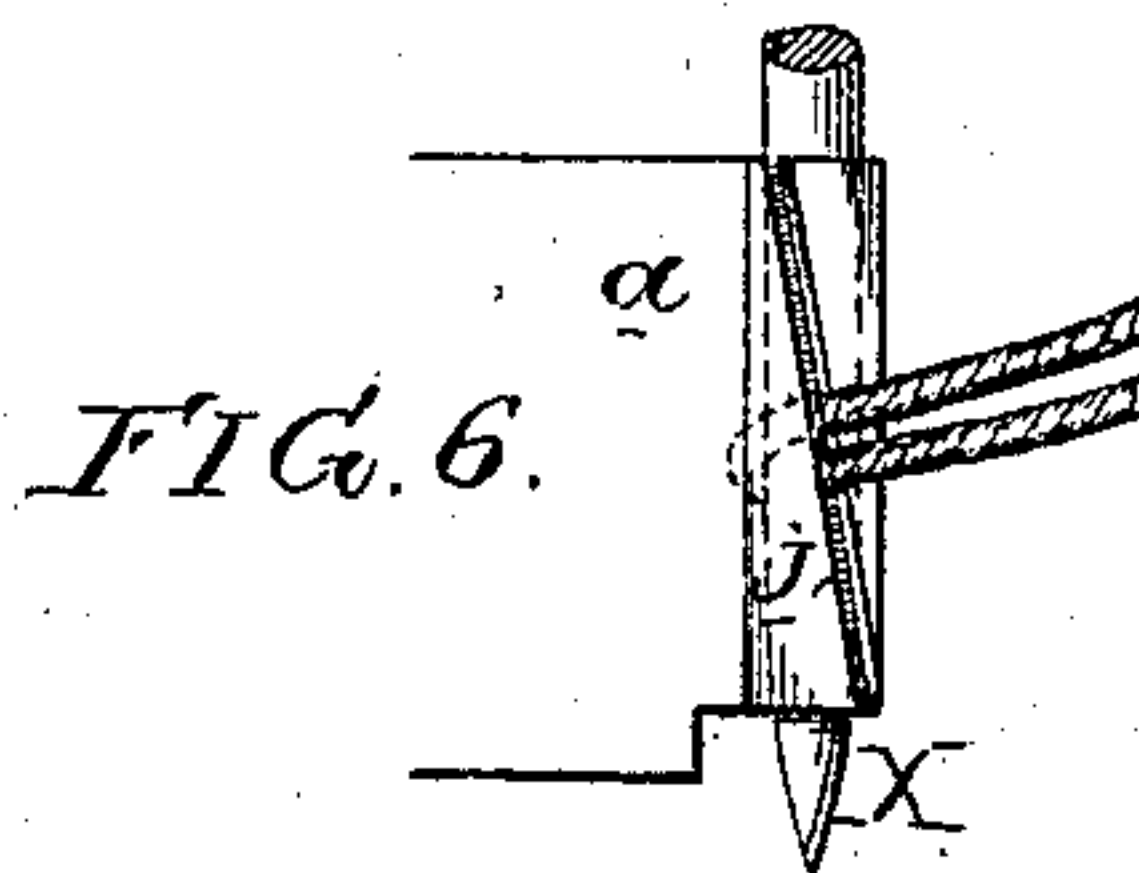
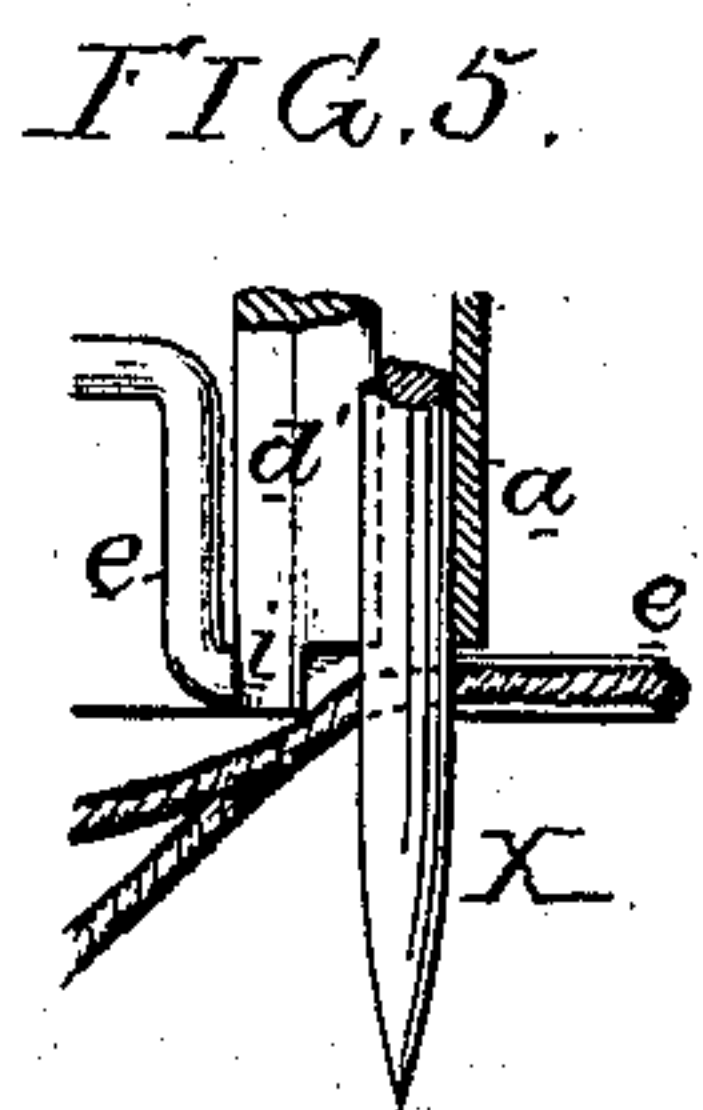
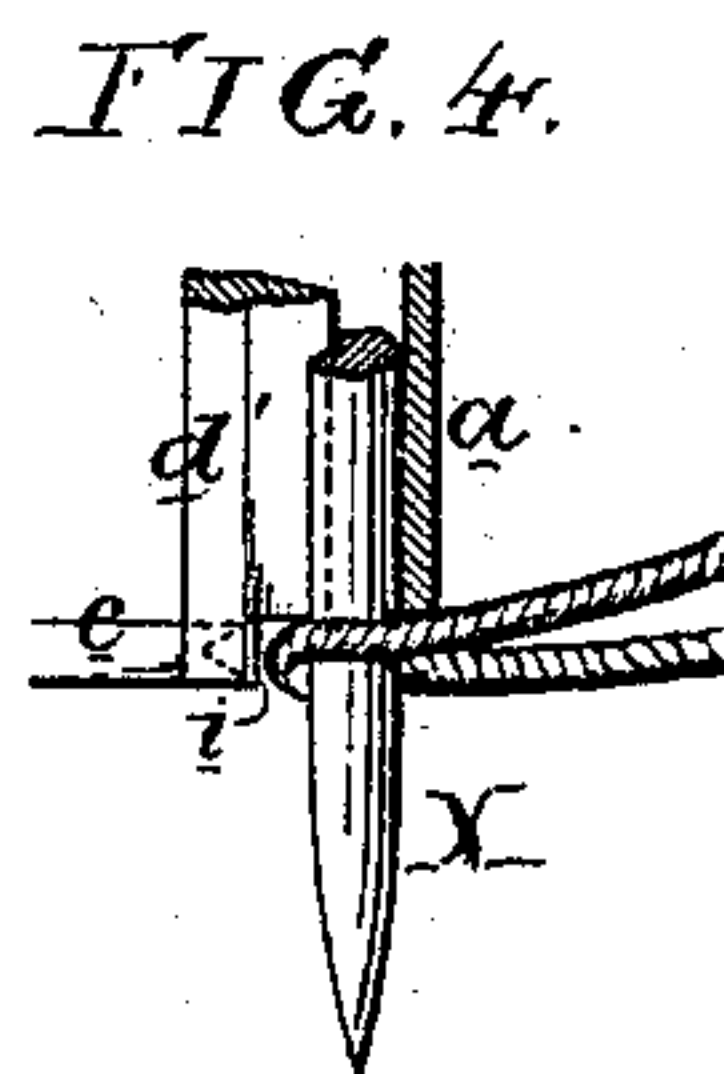
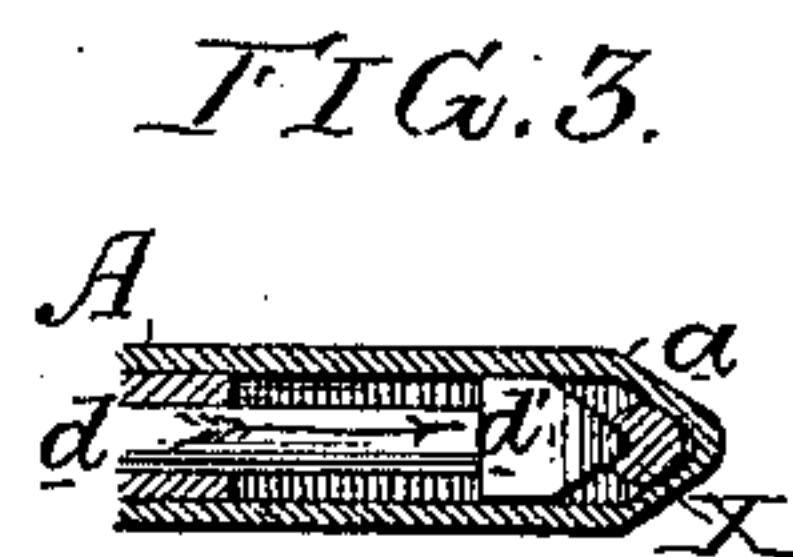
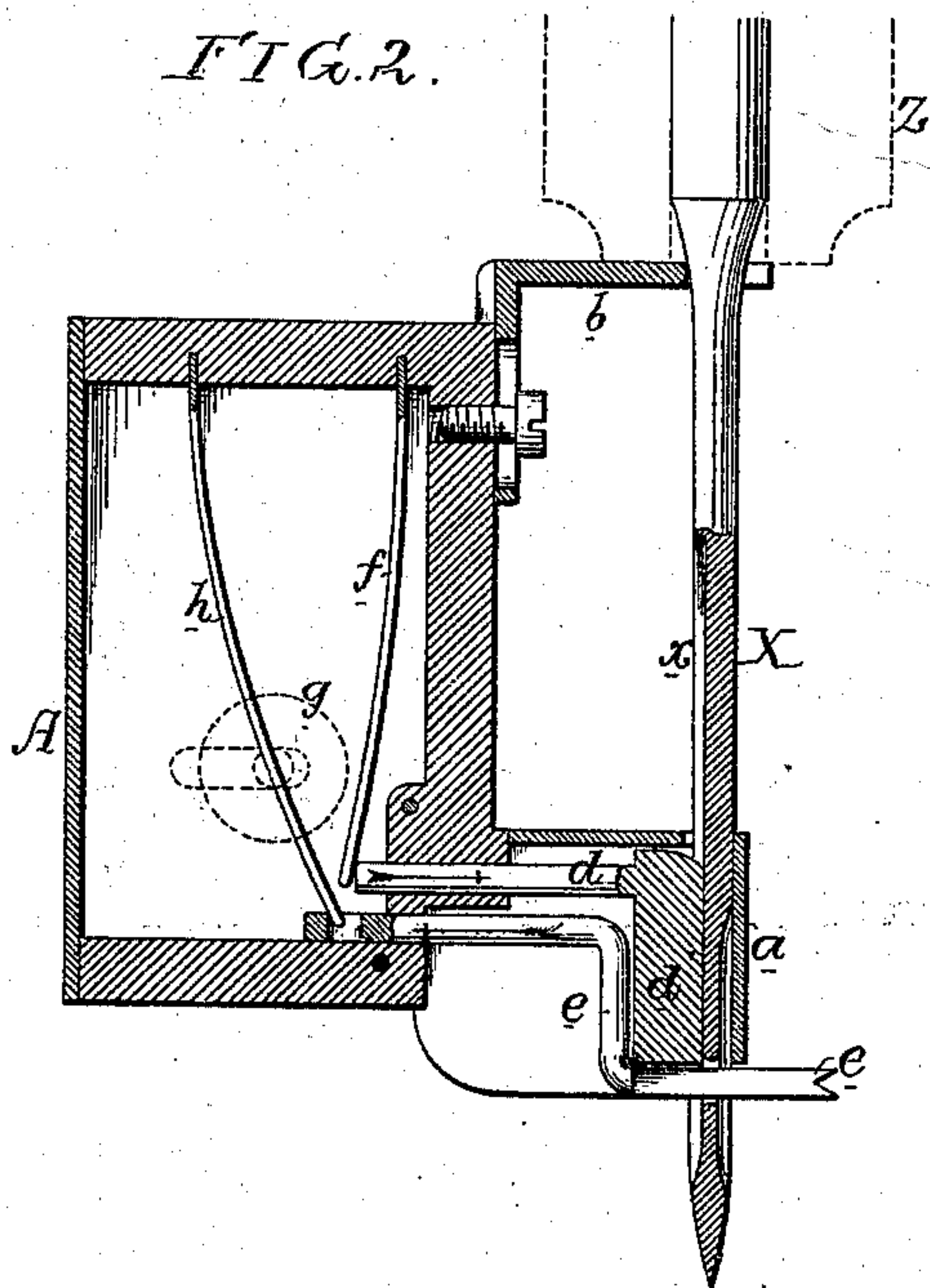
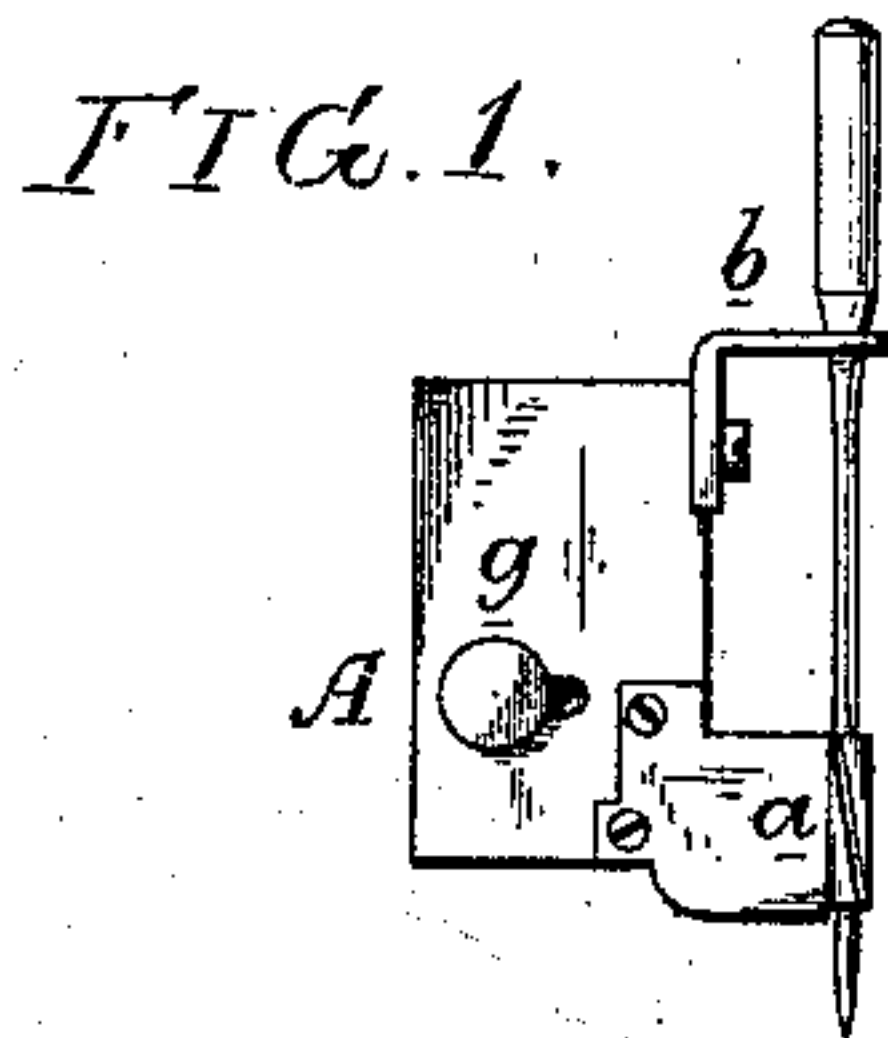


**J. DIXIE.**  
**Needle-Setters and Threaders for Sewing-Machines.**  
 No. 150,542. Patented May 5, 1874.



Witnesses, Hubert Howson  
 Thomas McIlwain

John Dixie  
 by his Atty.  
 Howson and Son.

# UNITED STATES PATENT OFFICE.

JOHN DIXIE, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN NEEDLE SETTERS AND THREADERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 150,542, dated May 5, 1874: application filed April 23, 1874.

*To all whom it may concern:*

Be it known that I, JOHN DIXIE, of the city of Philadelphia, Pennsylvania, have invented an Improved Sewing-Machine-Needle Setter and Threader, of which the following is a specification:

The object of my invention is to facilitate the setting and threading of sewing-machine needles by the instrument illustrated in the exterior view, Figure 1, and enlarged sectional views, Figs. 2 and 3, of the accompanying drawing; the principal features of the said instrument being a case, A, having a slitted tubular projection, *a*, and an adjustable gage, *b*, and containing two rods, *d* and *e*, acted on by springs, tending to force them in contrary directions.

The tubular projection *a* consists, in the present instance, of a strip of sheet metal, bent to the form best observed in Fig. 3, and secured to the opposite sides of the case A of the instrument. The rod *d* has a V-shaped head or enlargement, *d'*, which is contained within this tubular projection, a spring, *f*, tending to force the rod outward, as indicated by the arrow.

The rod *e* is guided partly by the case and partly by the lower slitted portion of the head *d'* of the rod *d*, by which means the two rods are maintained in the definite positions, in respect to each other, demanded by the successful operation of the instrument. (See enlarged views, Figs. 4 and 5.)

The rod *e* is manipulated by means of a knob, *g*, which extends through a slot in the casing, and is attached to a spring, *h*, connected to the said rod *e*, and tending to draw it back from the tubular projection *a*, as indicated by the arrow in Fig. 2.

The lower front edge of the head *d'* is rabbeted, as shown at *i* in Figs. 4 and 5, and the tubular projection *a* has a diagonal slot extending from top to bottom, as shown at *j*, Fig. 6, for a purpose explained hereafter.

In using the instrument, it is held between the thumb and finger of one hand, while with the other hand the operator introduces the point of the needle X into the tubular projec-

tion *a*, and forces it downward through the same, the head *d'* of the spring-rod *d* yielding to the downward passage of the needle, but serving at the same time to hold the said needle in any position to which it may be adjusted. The needle is now turned between the thumb and finger until its groove *x* is brought opposite the V-shaped edge of the head *d'*, which, owing to the action of the spring *f*, will enter said groove, and thus prevent any further turning movement of the needle. (See Figs. 2 and 3.) A slight outward pressure is next applied to the spring-rod *e* through the medium of the button *g*, and the needle is moved up and down until the said rod passes through its eye, as shown in Fig. 2. The proper lateral and vertical position of the needle having been thus determined, it is inserted into the needle-arm Z of the sewing-machine, against which arm the adjustable gage *b* is held, as shown in Fig. 2. The needle is then secured to the arm by the usual set-screw, and the instrument withdrawn, and this completes the setting operation.

In using the instrument for threading sewing-machine needles, the eye of the needle is brought opposite the end of the spring-rod *e*, and the thread is looped, and drawn up into the rabbet *i* of the head *d'*, as shown in Fig. 4, so that when the rod *e* is pushed forward through the eye of the needle, as shown in Fig. 5, it shall carry the loop with it. After thus passing the thread through the needle-eye, the rod *e* is permitted to recoil, and one end of the thread is drawn through, after which both ends of the thread are passed upward through the slit *j* in the tubular projection *a*, and are thus withdrawn from the latter with the needle, as shown in Fig. 6.

I claim as my invention—

1. A sewing-machine needle-setter in which are combined a tubular projection, *a*, a gage, *b*, and two spring-rods, *d* and *e*, the former adapted to the groove, and the latter to the eye of the needle, all substantially as specified.

2. The rod *e* acted on by a spring, tending



to force it in one direction, in combination with the rod *d*, acted on by a spring tending to force it in the opposite direction, and having a V-shaped head, *d'*, slitted for the reception and guidance of the said rod *e*, all substantially as specified.

3. The combination of the spring-rod *e*, the rabbeted and slotted head *d'* of the spring-rod *d*, and the slitted tubular projection *a* of the

case of the instrument, all as and for the purpose described.

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

JOHN DIXIE.

Witnesses:

WM. A. STEEL,  
HUBERT HOWSON.