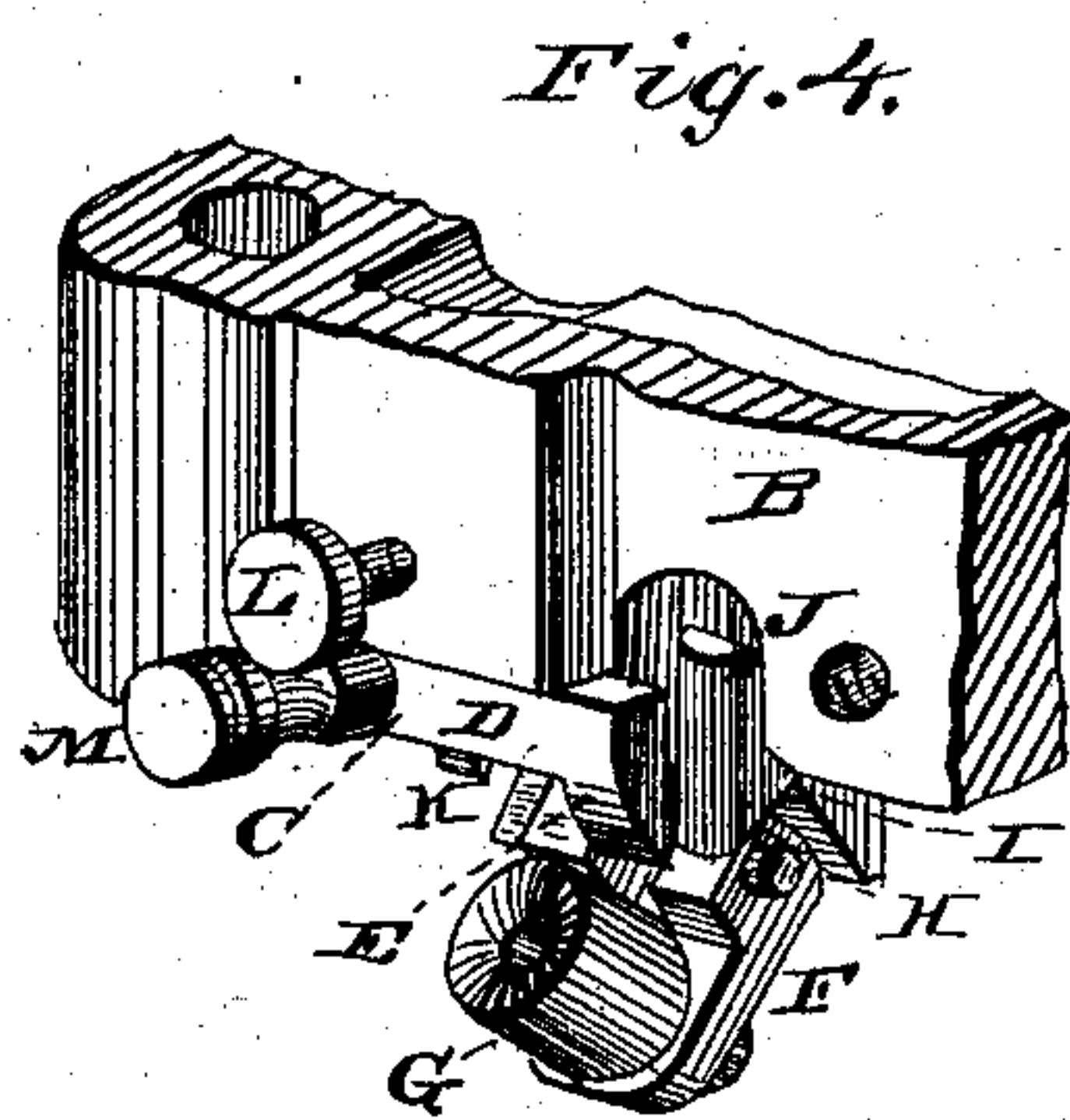
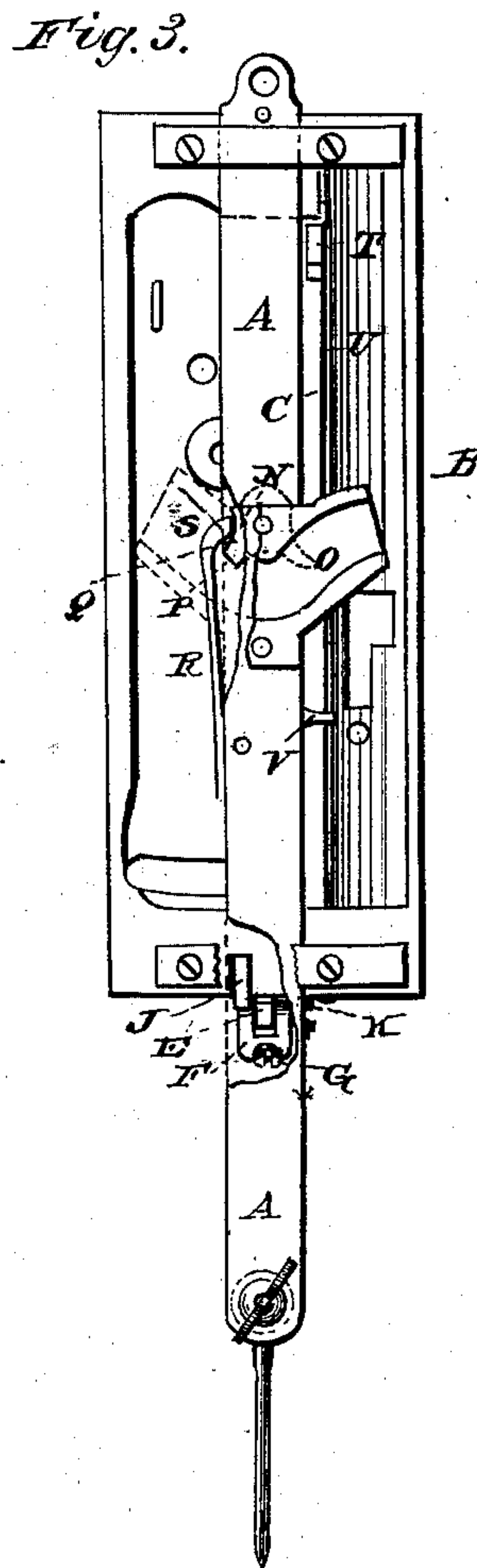
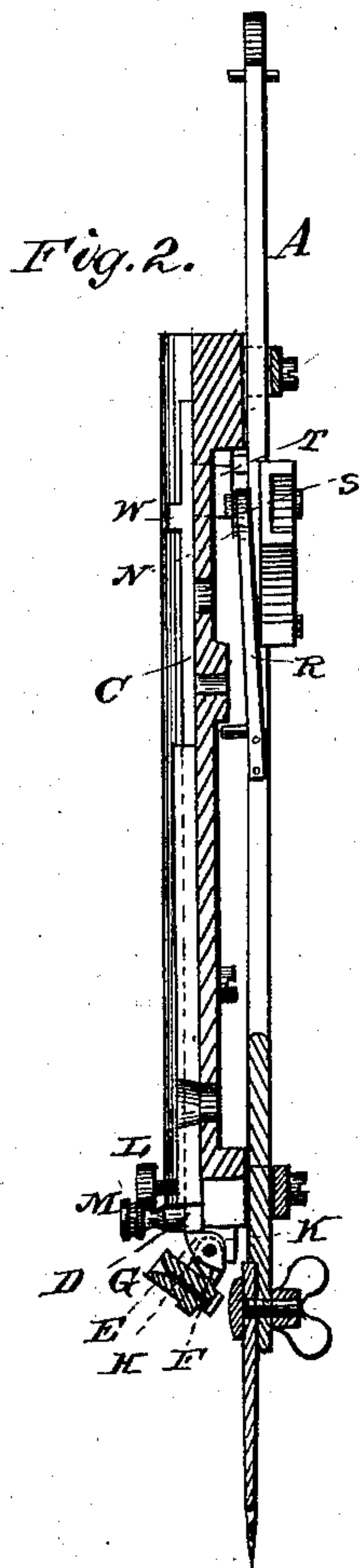
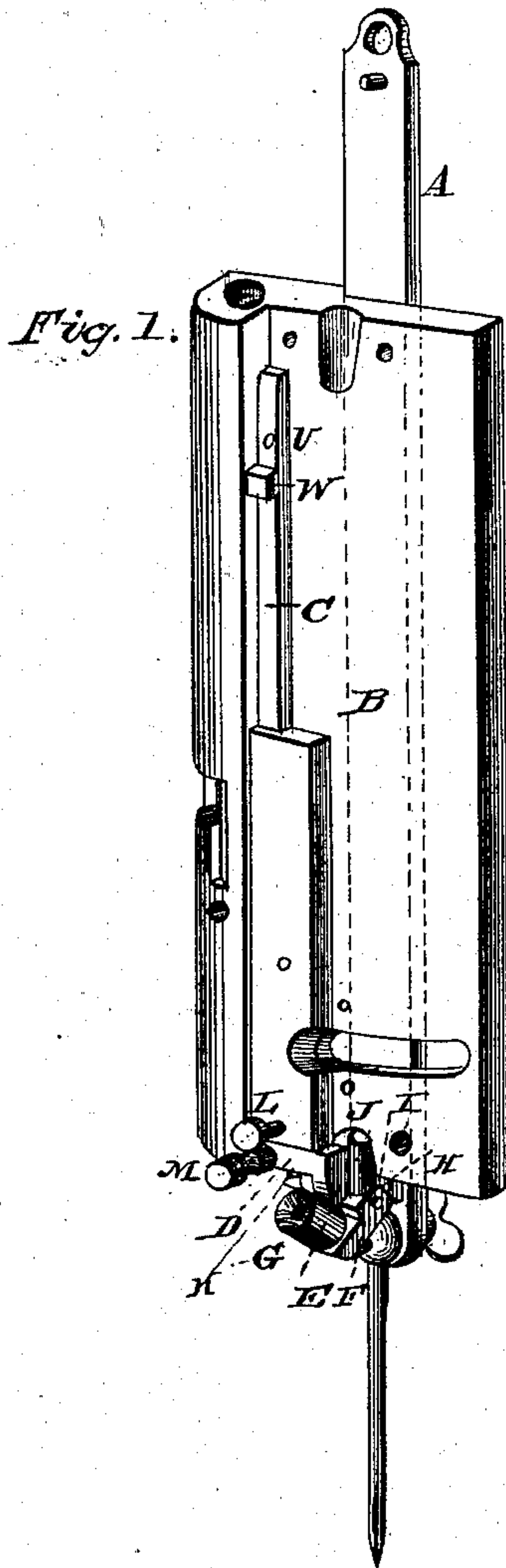


(Model.)

2 Sheets—Sheet 1.

F. G. ALTMANN & F. POMMER.
NEEDLE THREADING ATTACHMENT FOR SEWING MACHINES.
No. 258,345. Patented May 23, 1882.



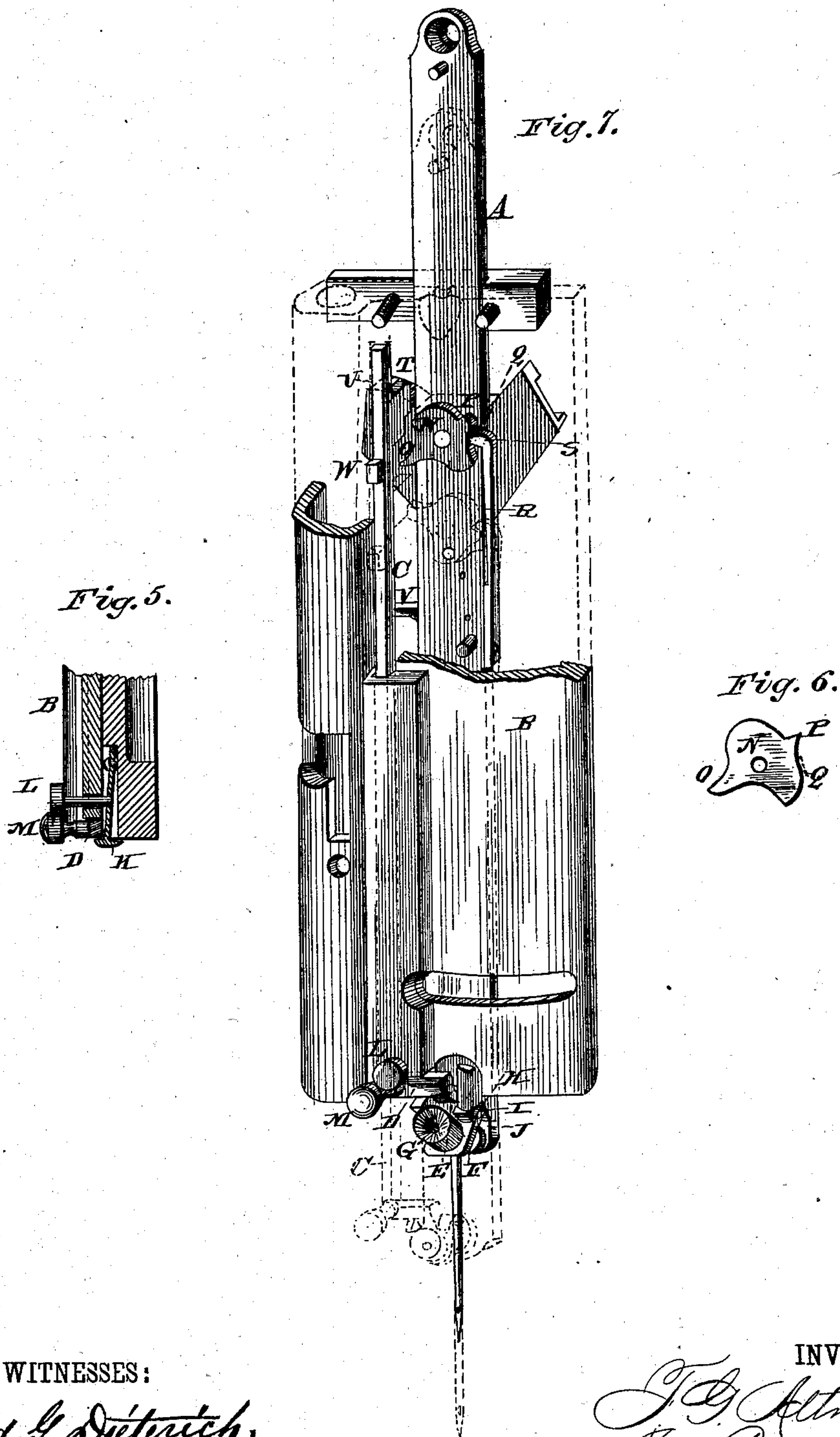
WITNESSES:
Ad. G. Dietrich
P. E. Dietrich

INVENTOR.
F. G. Altmann
F. Pommer
by *C. Snow & Co.* ATTORNEYS.

(Model.)

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INVENTORS

F. G. Altmann
F. Pommer
by *C. A. Snow & Co* ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRANK G. ALTMANN AND FRED POMMER, OF EDINA, MISSOURI.

NEEDLE-THREADING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 258,345, dated May 23, 1882.

Application filed March 4, 1882. (Model.)

To all whom it may concern:

Be it known that we, FRANK G. ALTMANN and FRED POMMER, of Edina, in the county of Knox and State of Missouri, have invented certain new and useful Improvements in Needle-Threading Attachments for Sewing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a perspective view of our improved needle-threading device for sewing-machines. Fig. 2 is a vertical sectional view taken through the needle-bar and threading-tube. Fig. 3 is a rear view of the needle-bar, threading-tube carrier, and attachments. Fig. 4 is a detail view, in perspective, of the threading-tube and the lower end of the carrier. Fig. 5 is a vertical sectional view through the spring-catch L. Fig. 6 is a detail view of the cam-plate N; and Fig. 7 is a detail view, in perspective, of the operating parts of our invention.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to needle-threading attachments for sewing-machines; and it consists in certain improvements in the construction of the same which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A refers to the needle-bar, which is mounted in the usual manner to slide vertically in the frame B of the machine.

C is a vertically-sliding rod arranged in suitable bearings in the frame B, adjoining the needle-bar A. The rod C has at its lower end a laterally-projecting arm, D, provided with a downward-projecting bracket, E, to which is hinged a frame, F, carrying the threading-tube G, which is preferably of the construction described in previous patents to ourselves, and numbered 246,360 and 252,007, respectively. The upper end of the frame F is rounded, as shown at H, so that it will readily enter a triangular notch, I, in a bracket, J, secured at the lower end of the frame-piece B; or the said

notch may be made in the said frame-piece by properly modifying the construction of the latter.

K is a spring-catch arranged at the lower end of frame-piece B, so as to engage the arm D of rod C and retain the latter in a raised position. By pressing a stud, L, of catch K the latter is released, and the rod C, which is provided with a stud or handle, M, by which it may be conveniently manipulated, may then be lowered. The construction and arrangement of the spring-catch may be modified without changing the spirit of our invention.

The needle-bar has upon its front side a pivoted cam-plate, N, provided with a finger, O, a tooth, P, and a shallow notch, Q. Said cam-plate is held in its normal position by a spring, R, secured to the side of the needle-bar and engaging the notch Q. Spring R has at its upper free end a rounded hook, S, capable of engaging the tooth P of the cam-plate.

The threading-tube carrier C has upon its side, near the upper end, a stud or pin, T, projecting through a slot, U, in frame B, so as to be capable of engaging the finger O of cam-plate N. Stud T also engages a pin, V, projecting laterally from the needle-bar, when the latter is in a raised position and the rod C is lowered, to bring the threading-tube in a line with the eye of the needle. The pin V thus serves as a regulator to stop the downward motion of the rod C when the threading-tube registers with the eye of the needle. To prevent the rod C from sliding down too low when the needle-bar is lowered, it has a stud, W, engaging the upper edge of the socket in which the said rod C slides.

The operation of our invention is as follows: The needle-bar being brought to its highest point, or nearly so, the catch K is disengaged from the rod C, which may then be lowered. As soon as the frame F is clear of the notch I the weight of the threading-tube causes it to assume a horizontal position, with its front end in contact with the needle, thus causing it to register with the needle-eye when the stud T of rod C comes in contact with the pin V of the needle-bar. The needle may now be threaded by passing the thread through the tube G and the eye of the needle. The rod C, with the threading-tube, is automatically returned

to its raised position, where it is held by the catch K in the following manner: When the machine is started and the needle-bar moves in a downward direction the finger O of cam-plate N strikes the stud T of rod C, which, being stationary, causes the cam-plate to move upon its pivot until the tooth P engages the hook S of spring R. In this position it remains on the upward stroke of the needle-bar, thus causing the finger O to engage the underside of stud T of rod C, which is thereby lifted until said rod reaches its normal position, where it is held by catch K. Frame F at the same time engages the triangular notch I, thus causing the threading-tube to swing outward from the needle into a diagonal position, where it cannot interfere with the operation of the needle-bar, and where it forms an inclined guide for the thread, which passes through it to the needle. The needle-bar in the meantime continues its upward course, when the finger O will bear upon the under side of stud T with sufficient pressure to disengage the spring-hook R S from the tooth P and turn the cam-plate N upon its pivot until it resumes its normal position, with the spring R engaging the shallow notch Q.

We would have it understood that, without changing the spirit of our invention, the cam-plate N, with its attachments, may be mounted upon the rod C, the stud T of which is then

transferred to the needle-bar. The slight modifications in construction which become necessary by such interchange of parts will readily suggest themselves to a skilled mechanic.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a needle-threading attachment for sewing-machines, the sliding rod C, carrying the hinged frame F, beveled at H, and having the threading-tube G, in combination with the bracket J, having notch I, as and for the purpose set forth.

2. The threading-tube carrier C, having pin or stud T, in combination with the needle-bar A, having pin V, as and for the purpose set forth.

3. The needle-bar A, having pivoted cam-plate N, provided with the finger O, tooth P, and shallow notch Q, spring R, having hook S, and pin V, in combination with the threading-tube carrier C, having pin or stud T, as and for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

FRANK G. ALTMANN.
FRED POMMER.

Witnesses:

FRANK COOK,
JOHN DOWNS.