C. MOORE.

Sewing Machine.

No. 18,823. Patented Dec. 8, 1857.

Fig. 1

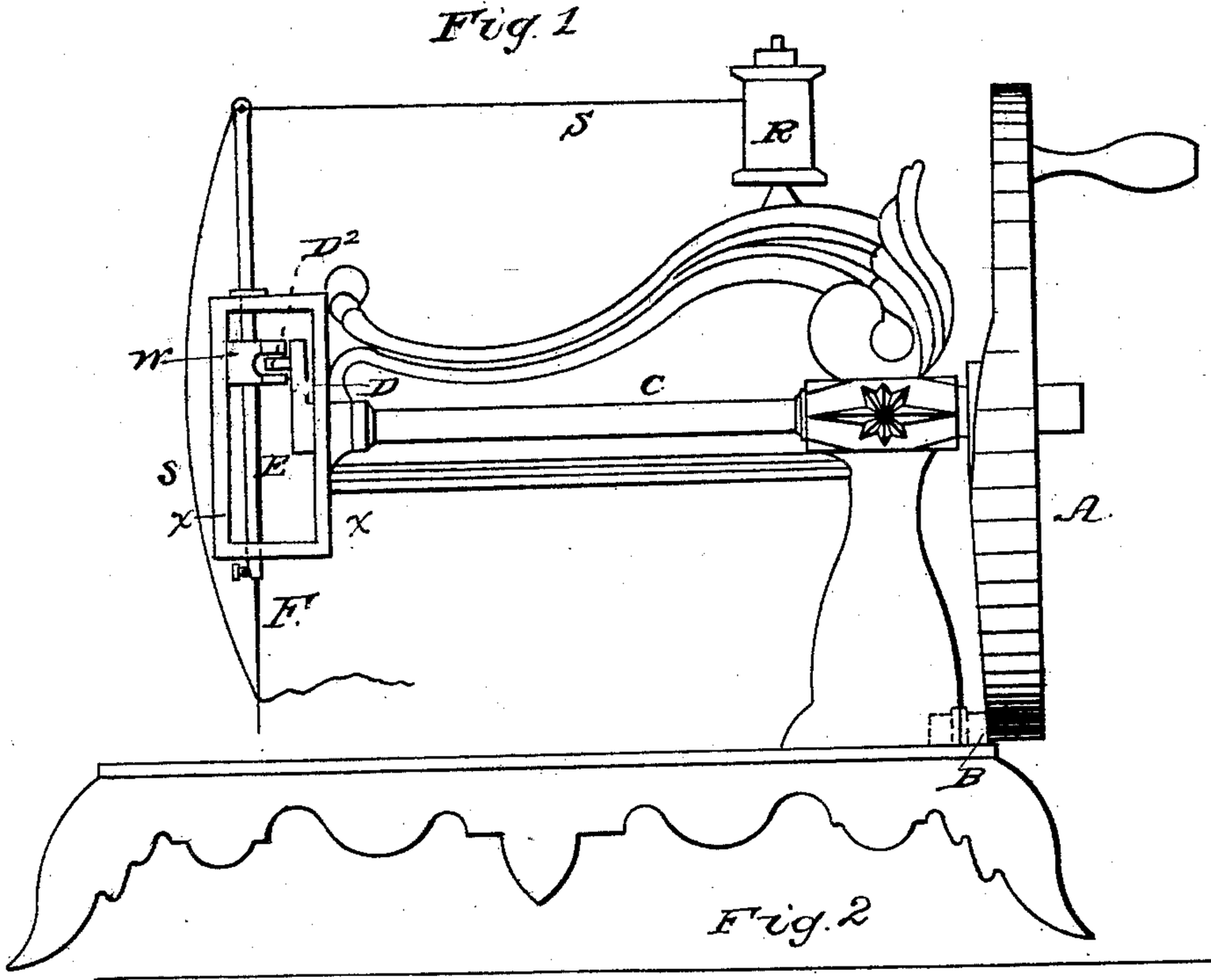


Fig. 2

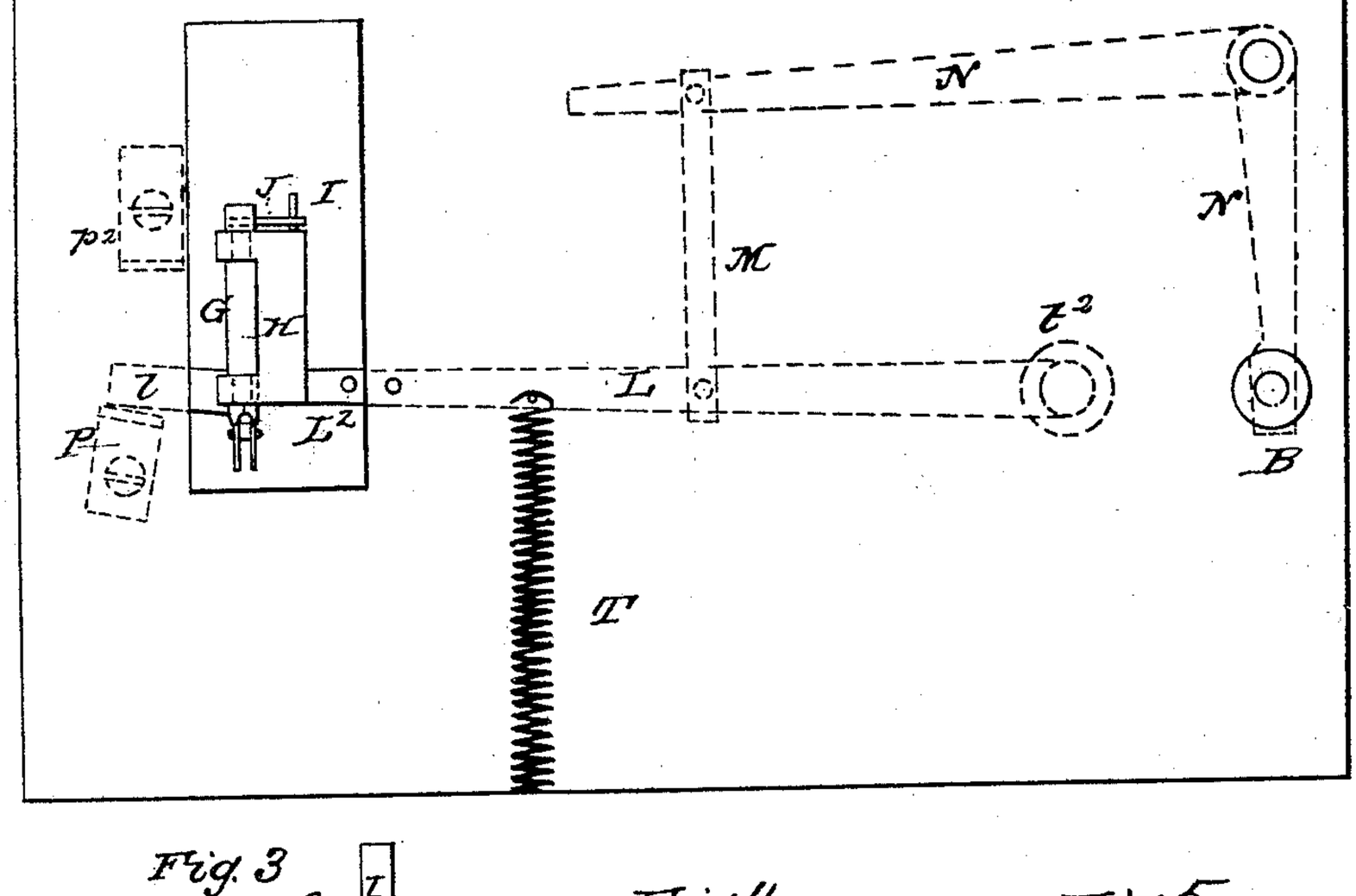
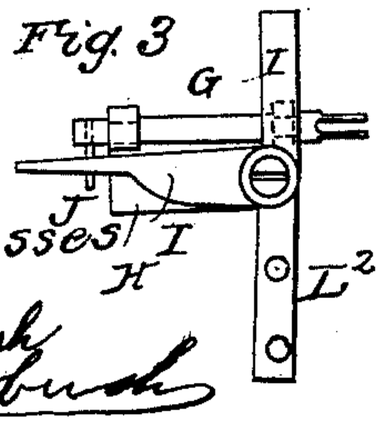


Fig. 3



Witnesses:
W. C. Forbush
E B Forbush

Fig. 4

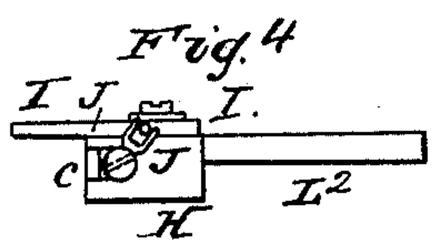
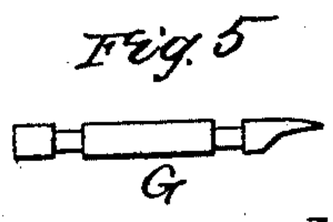


Fig. 5



Inventor
Charles Moore

UNITED STATES PATENT OFFICE.

CHARLES MOORE, OF BUFFALO, NEW YORK.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **18,823**, dated December 8, 1857.

To all whom it may concern:

Be it known that I, CHARLES MOORE, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a top plan of the looper and the lever by which it is operated. Fig. 3 is a bottom plan of the looper. Fig. 4 is an end view of the looper. Fig. 5 is a plan of the looping-fork.

A, Fig. 1, is a cam-wheel, by which the machine is operated. B is a roller which is attached to the series of levers which work the looper. This roller extends upward from the lever N and through the bottom of the machine, so as to come in contact with the cam-wheel. *c* is the wheel-shaft; D, crank. The wrist D^2 works in a slit in the slide W, which is connected to the needle-shaft E. The slide W moves in the frame X. E, needle-shaft; F, needle; R, spool containing the thread; S, thread; D^2, crank-wrist; W, slide; X, frame in which the needle-shaft and slide work.

G, Fig. 2, is the looping-fork. H represents the bed-plate or support for the fork and the lever I, which gives the fork its proper movement. I is a right-angled lever, which is pivoted to the bed-plate, and serves to give the fork a quarter-turn; P P^2, stops on the bottom of the machine. One end of the lever I alternates between these stops, striking first one and then the other, and thereby giving the proper movement to the other end of the lever, which also gives the requisite quarter-turn to the fork. J represents a crotch, which is connected to the fork. The end of the lever lies in this crotch, and thus the movement of the lever turns the fork; L, lever. The looper is fastened to the end of this lever and moves with it. M, intermediate lever connecting L to N; N N, right-angled lever having its fulcrum at *r*. A pin projects from the end of this lever, which supports the roller B. The lever L has its fulcrum at t^2; T, spiral spring.

Fig. 3 represents the looper bottom upward. L^2 is a projection by which it is fastened to the lever L, Fig. 2. *g* is the fulcrum of the right-angled lever I. This fulcrum is made fast to the bed-plate H; J, crotch which is connected with the fork G, and by which the lever I turns the fork.

Fig. 4 more distinctly represents the crotch *j* and its connection with the fork G.

Letters of like name and kind refer to like parts in each of the figures.

Operation: When the cam-wheel A is made to revolve, the cam will press the roller B inwardly, thereby moving the series of levers N N, M, and L in the direction to move the looper back from the needle, and also expand the spiral spring T. As the looper is thus carried back from the needle by the action of the cam upon the series of levers, the lever I strikes the stop P^2 before the looper has passed to its limit backward, and thereby the looper is turned so as to bring the tines of the fork perpendicular to each other. At this point the cam moves off from the roller, and then the spiral spring moves the looper in the opposite direction, the tines of the fork in that position passing between the needle and thread. The lever I then strikes the stop P, and causes the fork to make a quarter-turn, and thereby carries the thread for the loop, so that when the needle is driven down through the cloth it passes behind the thread and between the tines of the fork, thereby forming the loop. As the looper recedes, the needle serves to slip the thread from the fork, and the stitch is perfected.

The feeding apparatus is not represented herein, it being distinct from the looper.

What I claim, and desire to secure by Letters Patent, is—

The specific mechanism herein described for forming the loop—namely, the fork G, crotch J, lever I, and stops P and P^2, arranged and operating in combination in the manner and for the purpose specified.

CHARLES MOORE.

Witnesses:
E. B. FORBUSH,
W. H. FORBUSH.