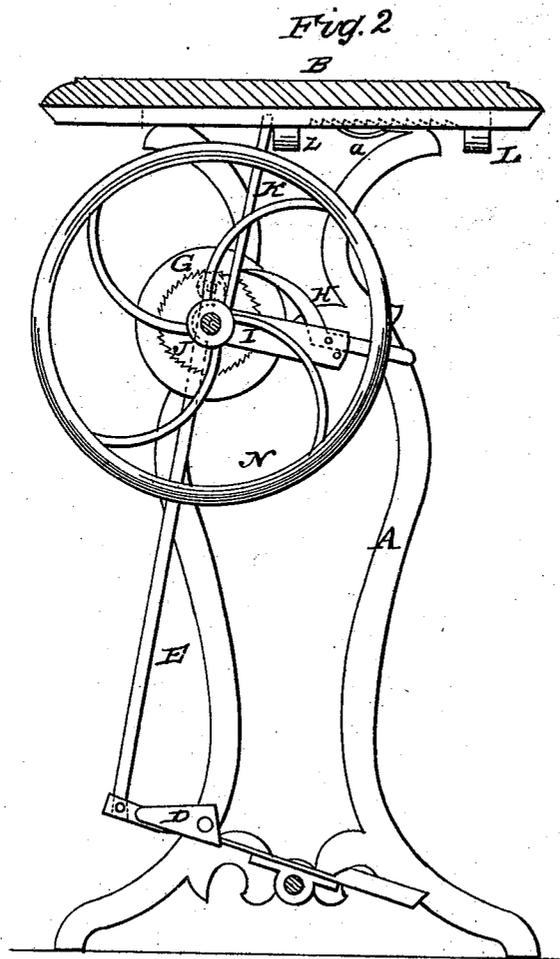


P. J. STEER.
Sewing Machine.

No. 20,006.

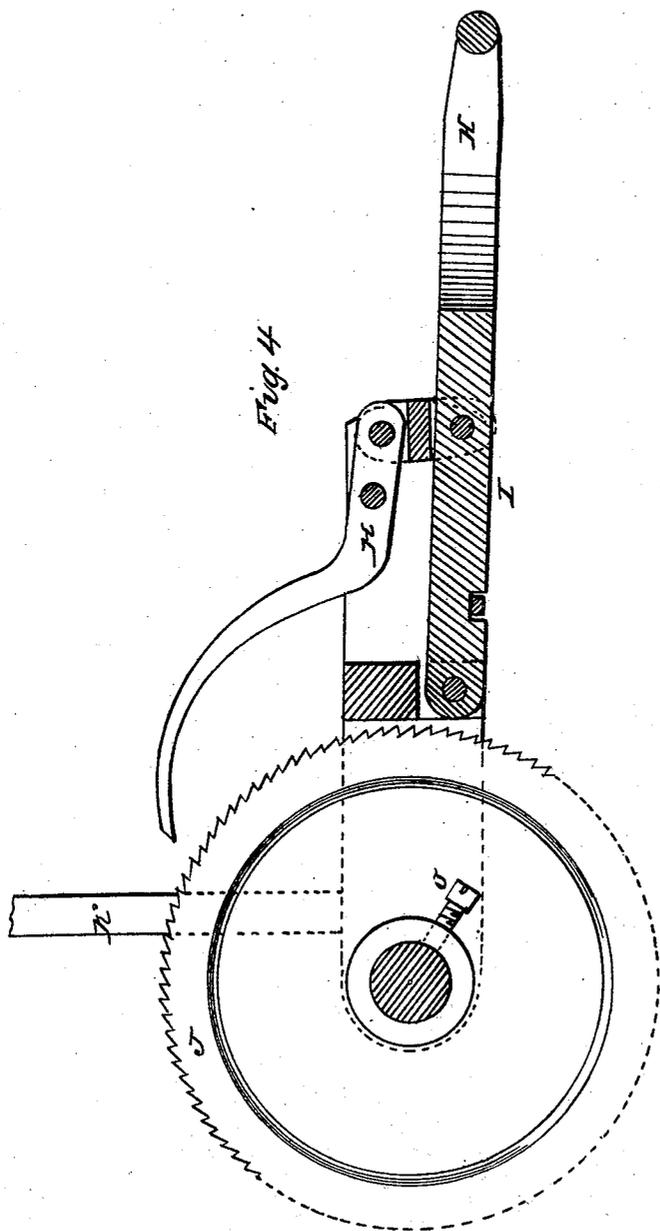
Patented April 20, 1858.



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UNITED STATES PATENT OFFICE.

P. J. STEER, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN OPERATING SEWING-MACHINES.

Specification forming part of Letters Patent No. 20,006, dated April 20, 1858.

To all whom it may concern:

Be it known that I, PHINEAS J. STEER, of the city and county of Washington, and District of Columbia, have invented a new and useful Improvement in Apparatus for Operating Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings of the same, making part of this specification, and in which—

Figure 1 represents a front view of the machine-table with my invention attached; Fig. 2, an end view of the same; Fig. 3, a section of the driving-shaft with the fly-wheel and my invention attached to the shaft, and Fig. 4 a side view of my invention as the same appears when attached to the driving-shaft.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

In Fig. 1, A represents the legs of the stand or table; B, the top; C, the bottom brace; D, the treadle; E, the connecting-rod; F, the driving-shaft; G, the pulley; H, the pawl, which is pivoted between the near ends of the arms I and plays between them upon the ratchet-wheel J. The near end of the pawl being heavier than the ratchet end, it falls down and throws the pawl out of the ratchet. The ratchet-wheel J is firmly attached to the driving-shaft F, while the arms I, between which the ratchet-wheel is hung, play loosely on the driving-shaft F. K is a vertical arm, firmly attached to one of the horizontal arms, I, and extending up to the adjustable slide L, which is held in the groove M by a spring-pawl, both the groove M and the spring-pawl being firmly attached to the under side of the table B. The adjustable slide L may be moved backward or forward, being held, when so adjusted, firmly in its place by the spring-pawl, which falls into notches in the slide L, by means of which the near end of the pawl-arm H may be raised or lowered, so as to adjust it exactly to the proper height for the operator's left knee, immediately over which it hangs, being supported in that position by the upper end of the vertical arm K, resting against the far end of the adjustable slide L.

The difficulty which has heretofore existed in the starting of sewing-machines has been that the operator has had to take one hand

from the work—which is often very inconvenient—to start the fly-wheel in the direction required, without which it is as likely to go in the wrong as in the right direction. It is to obviate this inconvenience that my invention is intended, and which it fully accomplishes.

Its operation is as follows, viz: When the operator is ready to start the machine, she will slightly elevate the left knee by raising the heel about half an inch from the floor or until she feels her knee touching the pawl H. The pawl will then be in the ratchet and the machine will be securely locked against a backward motion, but free to move forward. Then, with her right foot upon the treadle, she may safely start the machine, and it must go forward, which she will instantly know by the clicking of the pawl upon the ratchet-wheel, when she may drop her knee and keep the machine going by the treadle. As soon as she drops her knee the clicking ceases. If the crank of the driving-shaft should happen to stand at one of its dead-points and refuse to move forward when the right foot begins to operate on the treadle, then a slight additional elevation of the left knee will move the crank from its dead-point and the machine will move forward by the treadle. In no case, however, will the elevation of the knee be so great as to require the foot to be raised from the floor. By this arrangement the operator is enabled to use both hands to arrange and keep in place the material being sewed, and at the same time start the machine forward by the knee and foot without the possibility of its turning the wrong way.

I disclaim the employment of a pawl and ratchet for the purpose of revolving a shaft continuously in one direction, as this is not new; but

What I do claim is—

The arrangement of the above devices for starting sewing-machines always in a right direction and to prevent backward motion with the knee and foot of the operator, and without using the hand for that purpose, as set forth and described.

P. J. STEER.

Witnesses:

THOS. G. WARREN,
EDWD. STEER.