T. A. WEBER.

2 Sheets--Sheet 1.

Sewing-Machine.

No. 166,236.

Patented Aug. 3, 1875.

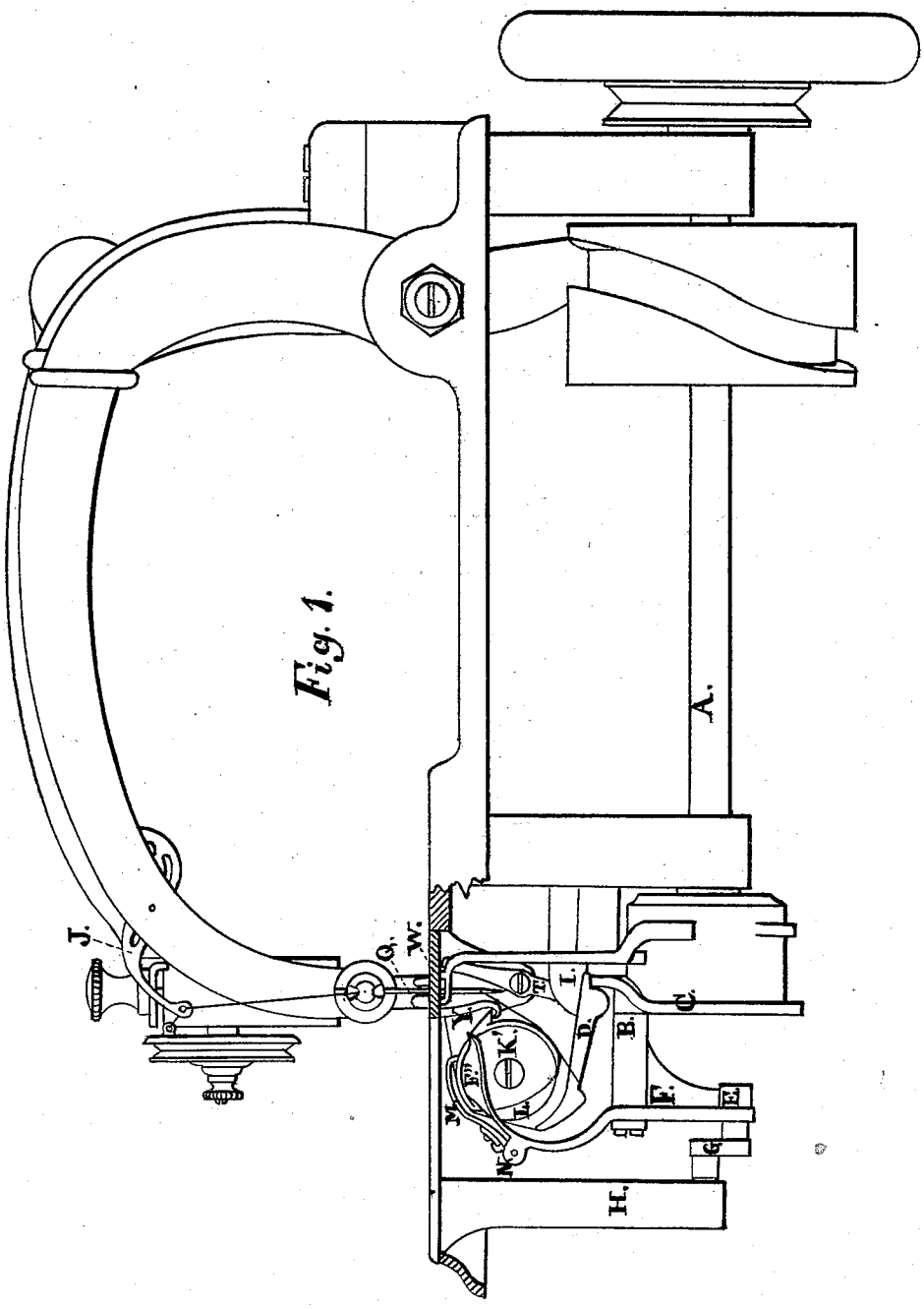

Fig. 1.

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L. W. Leithrop,

Inventor:
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Sewing-Machine.

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Fig. 2.

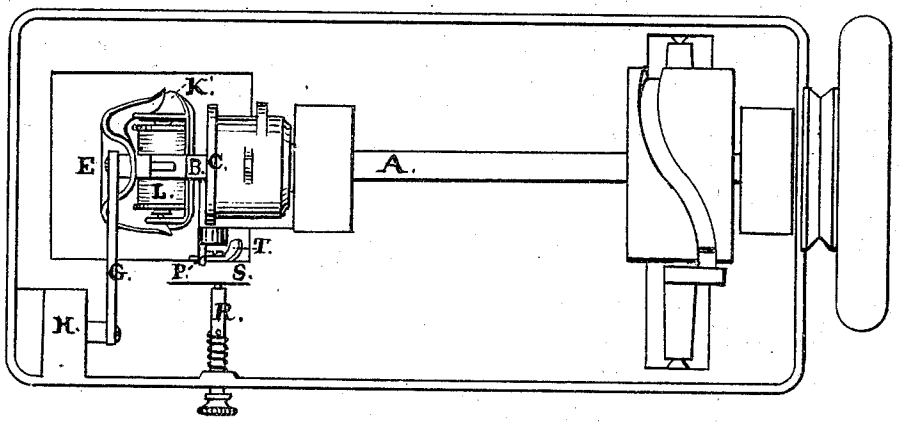


Fig. 4.

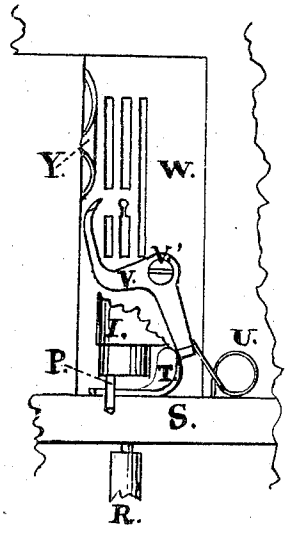
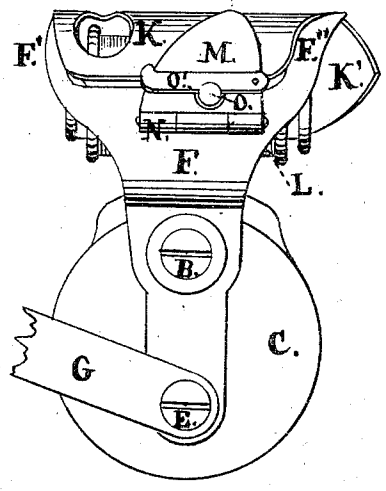


Fig. 3.



Witnesses;

M. Martin.

L. W. Lathrop.

Inventor;

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UNITED STATES PATENT OFFICE.

THEODORE A. WEBER, OF NEW YORK, N. Y., ASSIGNOR OF THREE-FOURTHS HIS RIGHT TO RESOLVID GARDNER AND LEBBEUS W. LATHROP, OF SAME PLACE.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **166,236**, dated August 3, 1875; application filed January 12, 1875.

To all whom it may concern:

Be it known that I, THEODORE A. WEBER, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Sewing-Machines, of which the following is a specification:

The operation of the sewing-machine on which this improvement is applied, being similar to others in common use, as far as the needle, take-up, and feeding are concerned, renders their description unnecessary.

I will, therefore, only specify my invention, which consists, first, in a crank-pin at the front end of a driving-shaft, which, in connection with a link and carrier, conveys a commercial spool of thread by an elliptic revolving movement through a loop of needle-thread, which is formed by an oscillating looper, driven by a cam, and increased by the beveled edge of a shuttle containing the commercial spool of thread. The second part of my invention consists in the manner of holding and fastening a shuttle to the upper swinging end of a carrier secured from displacement as the needle-loop passes freely over said shuttle and between it and its resting-places.

Figure 1 is a side elevation, and partly a longitudinal section, of a machine embodying my invention. Fig. 2 is a plan of the same. Fig. 3 is a detail view of the spool-carrier, showing the manner of fastening the shuttle to it. Fig. 4 is a detail view of the parts engaged to form the chain-stitch.

A is the driving-shaft, at the front end of which is crank-pin B. F is the shuttle-carrier with its resting-places for the shuttle at F′ and F″ on its upper end. K is the shuttle in position. The lower end of carrier F is joined at E to link G, which at its opposite end is joined to the stationary post H.

By revolving the driving-shaft A, crank-pin B turns in carrier F, which joint action with link G causes shuttle K with its spool L to revolve in an elliptic line, thereby passing the shuttle with its spool through and beyond the needle-loop of thread, which has been formed partly by the action of looper D, and increased by the beveled edge K′ of shuttle K, said shuttle being relieved from its resting-place F″ (sufficient for the free passage of upper thread) by the shuttle coming in contact and passing over hooked end of post Y, which is fastened to the front end of needle-plate W. The looper D is joined to post I and is held (by means of a spring) with its lower end against cam C, which, by its revolution, causes the upper end of said looper to oscillate sufficiently to engage and extend the needle-loop against the beveled edge K′ of shuttle K, thereby forming a free passage for a commercial spool of thread. The under spool having thus passed through the needle-loop it leaves a bite of its thread locked in said loop, so that it shall be drawn into the fabric by the action of take-up J on the upper thread, which thereby completes the lock-stitch before the needle-eye has passed above the fabric in its upward motion, thus causing the upper thread to have free passage in the groove of the needle.

The shuttle K is held in position on its resting-places F′ and F″ on carrier F by finger M, that is hinged to said carrier at N, and pressed down over a notched projection at O, which notch receives the movable catch O′ that holds finger M over shuttle K to keep it in position on the carrier F.

On the underneath side of the needle-plate W swings, at V′, Fig. 4, a hooked piece, V, which is intended to place the loop of upper thread in such position that the needle Q in its downward passage shall enter said loop, so as to form the double lock-chain stitch, or if the under thread is dispensed with, the single chain-stitch.

The hook V is held out of the upper thread by means of spring U, and driven forward by a small lever, T, which swings on post S, and is operated by crank-pin P, said pin being moved with looper D. Stop-pin R, which passes through post S, will hold lever T from contact with pin P, preventing the hook V from coming into action.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. The combination of looper D and cam C, with shuttle K, its holder F, crank-pin B, link G, and stationary post H, as and for the purpose set forth.

2. The combination, with shuttle K, of carrier F, provided with resting-places F′ and F″, finger M, notched projection O, and catch O′, as and for the purpose specified.

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Witnesses:

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