2 Sheets—Sheet 1.

J. CHASE.

Sewing Machine.

No. 18,732. Patented Dec. 1, 1857.

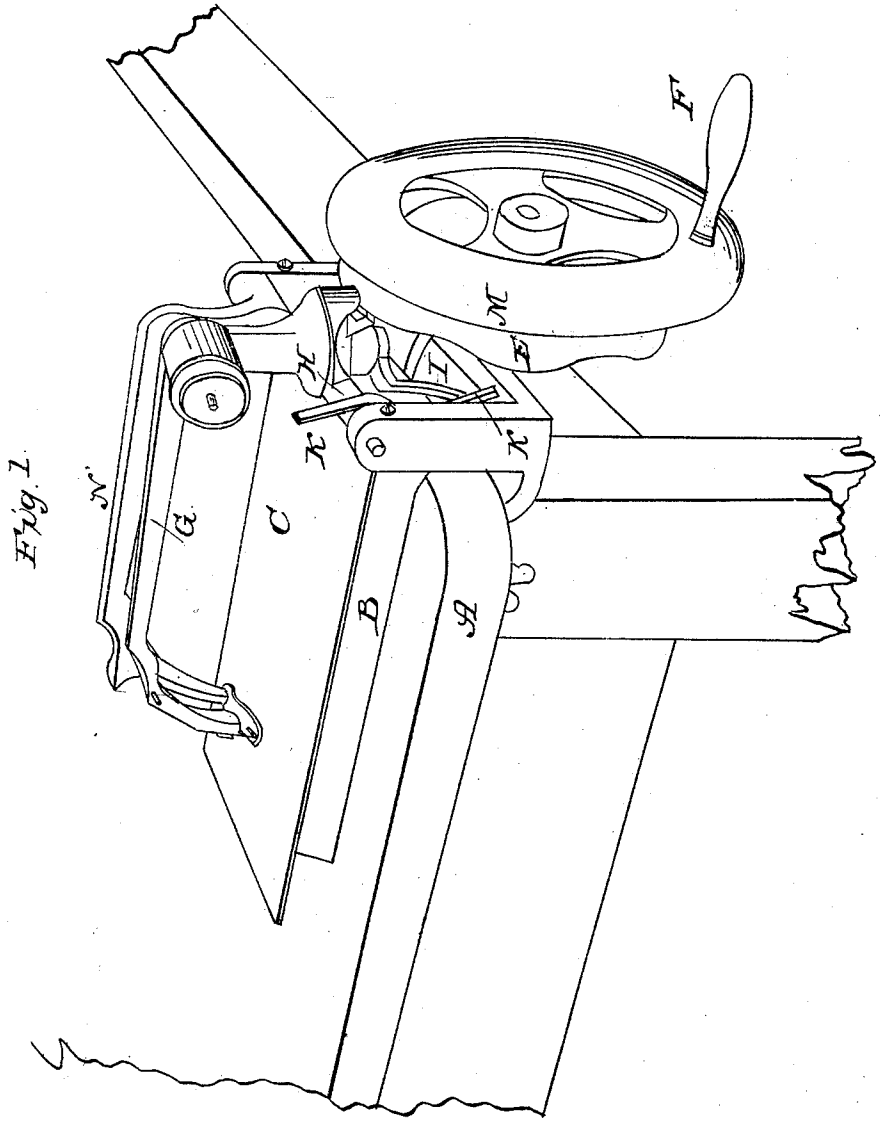

Fig. 1.

WITNESSES

A. H. Downer

Thos. P. Howe

INVENTOR

Joel Chase

2 Sheets—Sheet 2.

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Fig. 2

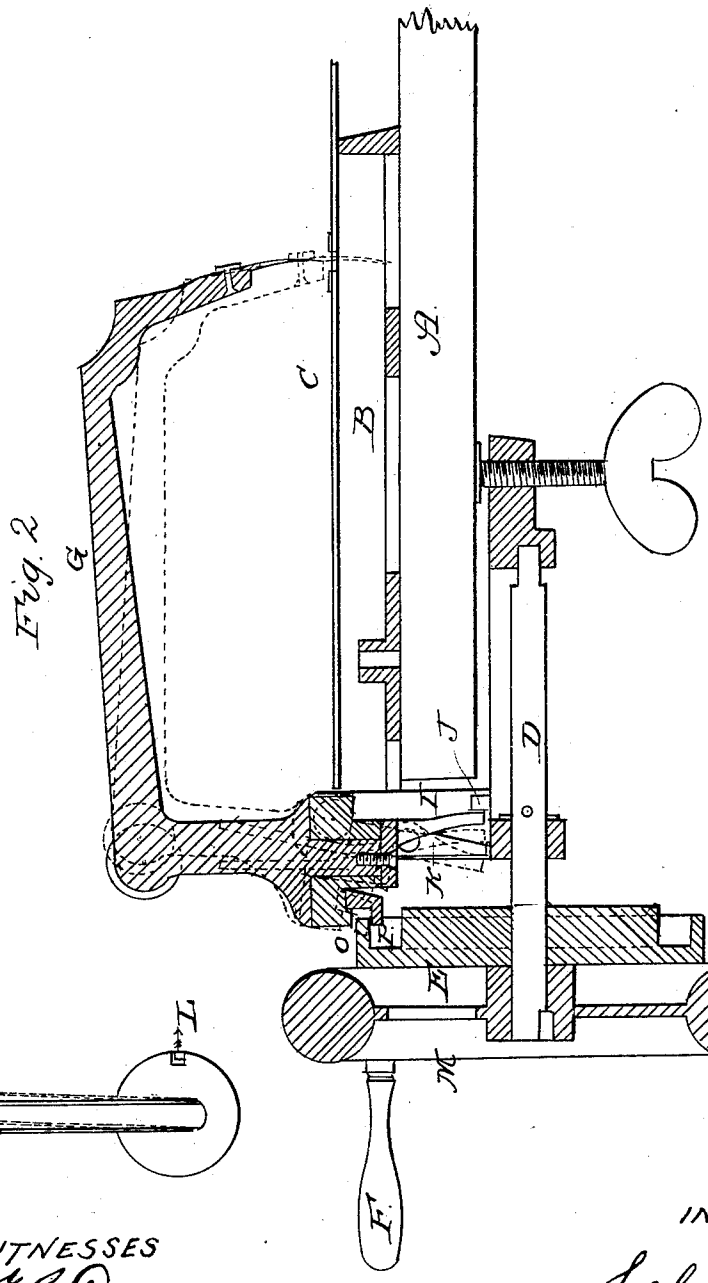

Fig. 3

WITNESSES

A. H. Downer

Thos. P. Hood

INVENTOR

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UNITED STATES PATENT OFFICE.

JOEL CHASE, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **18,732**, dated December 1, 1857.

To all whom it may concern:

Be it known that I, JOEL CHASE, of the city, county, and State of New York, have invented certain new and useful Improvements in the Feed-Motion of Sewing-Machines, which I have described in the following specification and illustrated in the accompanying drawings with sufficient clearness to enable others of compepetent skill to make and use my invention.

My invention consists in a certain combination and arrangement of parts, hereinafter described, for causing the needle to feed the cloth forward, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a perspective view of my improved machine. Fig. 2 is longitudinal sectional elevation. Fig. 3 is a plan of a part of the needle-arm.

A is the table on which the machine may be placed. C is the plate on which the cloth is laid. B is the main casting, which forms the frame of the machine. D is the main shaft, upon which the balance-wheel M and the cam-wheel E are hung. F is a crank-pin for operating the machine. The cam-wheel E is made with a waved or undulating rim to give motion to the needle-arm G. The needle-arm is hung in a socket in the rock-shaft H, which is hung in bearings in the frame. This needle-arm fits closely into the socket in the shaft, and is kept from turning by friction any farther than it is compelled to turn by the arm I, which is attached to the lower end of the part which fits into the socket. This arm is restricted in its motion by the stop J, and also may be restricted in its opposite motion by the lever K. It is also kept from moving more than a proper distance by the stop L in the socket.

The operation is as follows: As the needle is pressed down the arm I is thrown back against the lever K unless the lever is turned so as to throw the foot of it back out of its way, as indicated in red lines in Fig. 2. When the lever is in its present position, as the needle descends to its lowest point of descent the arm I strikes the lever K and turns the shank of the arm J in the socket of the rock-shaft far enough to move the needle a sufficient distance to feed the cloth a short stitch ahead. The needle rises nearly to its highest point before the lateral position of the needle is changed, when the arm I strikes the stop J and moves the needle back to its former position. By throwing the lower end of the lever K farther forward, the arm I is more limited in its motion, and the cloth is, as a consequence, fed farther, the motion of the needle being greater. By moving the lever backward or forward, the length of the stitch may be increased or diminished at pleasure. The cloth is held to the table by a spring-pad, N, in the usual way. Two bearings, O and P, astride the rim of the cam-wheel and give motion to the needle-arm as the wheel is turned.

I claim—

The combination of the lever G, when hung on an axis in the rock-shaft, with the lever I, when the motion thereof is limited by the stops, in the manner set forth, for the purpose of imparting the feed motion to the needle.

JOEL CHASE.

Witnesses:

THOS. P. HOW,

A. H. DOWNER.