

J. H. MOONEY,
Sewing-Machine.

No. 134,154.

Patented Dec. 24, 1872.

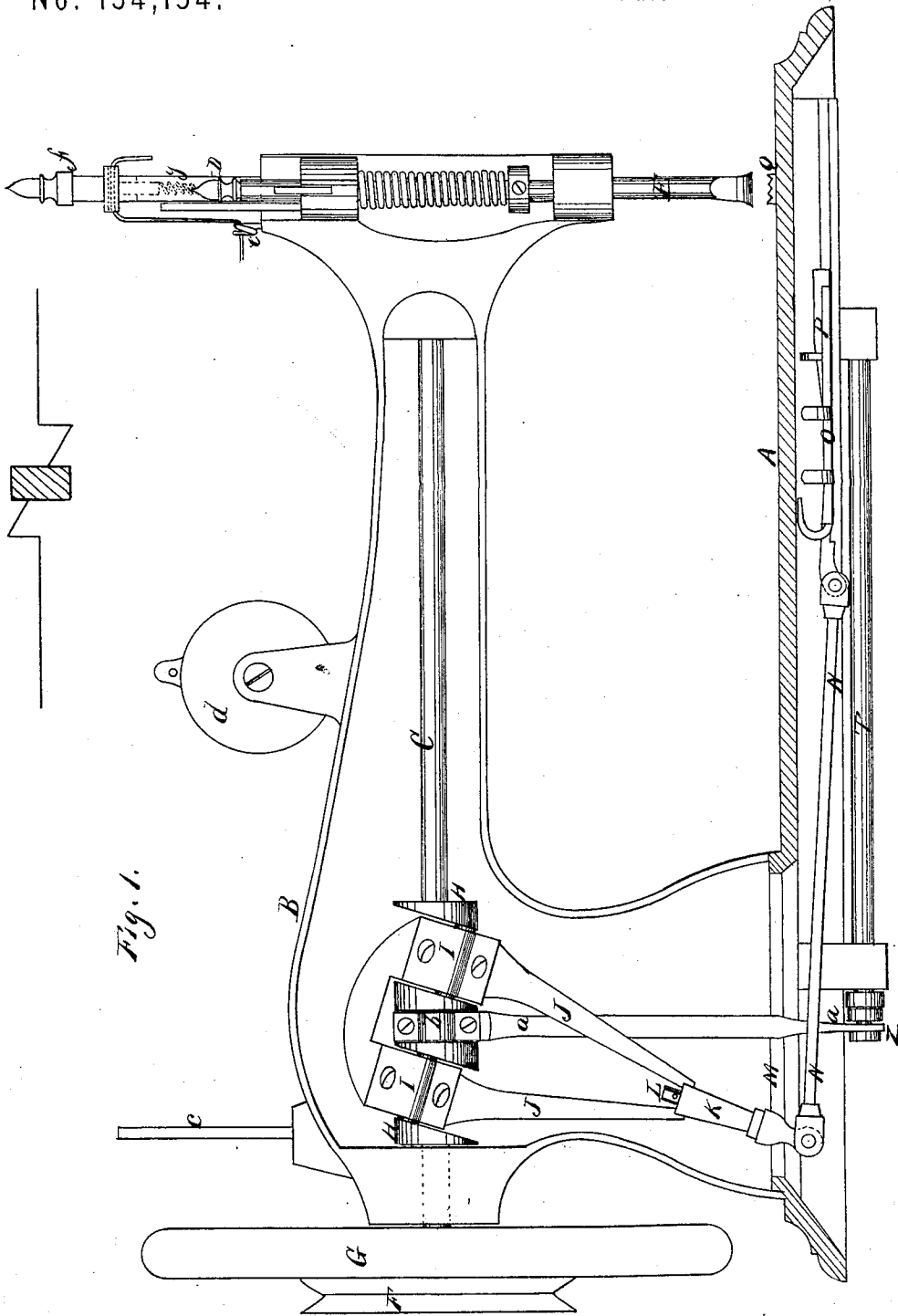


Fig. 1.

Witnesses.
Allythorn
John L. Smith.

Inventor.
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 By *l. m. Smith*, atty

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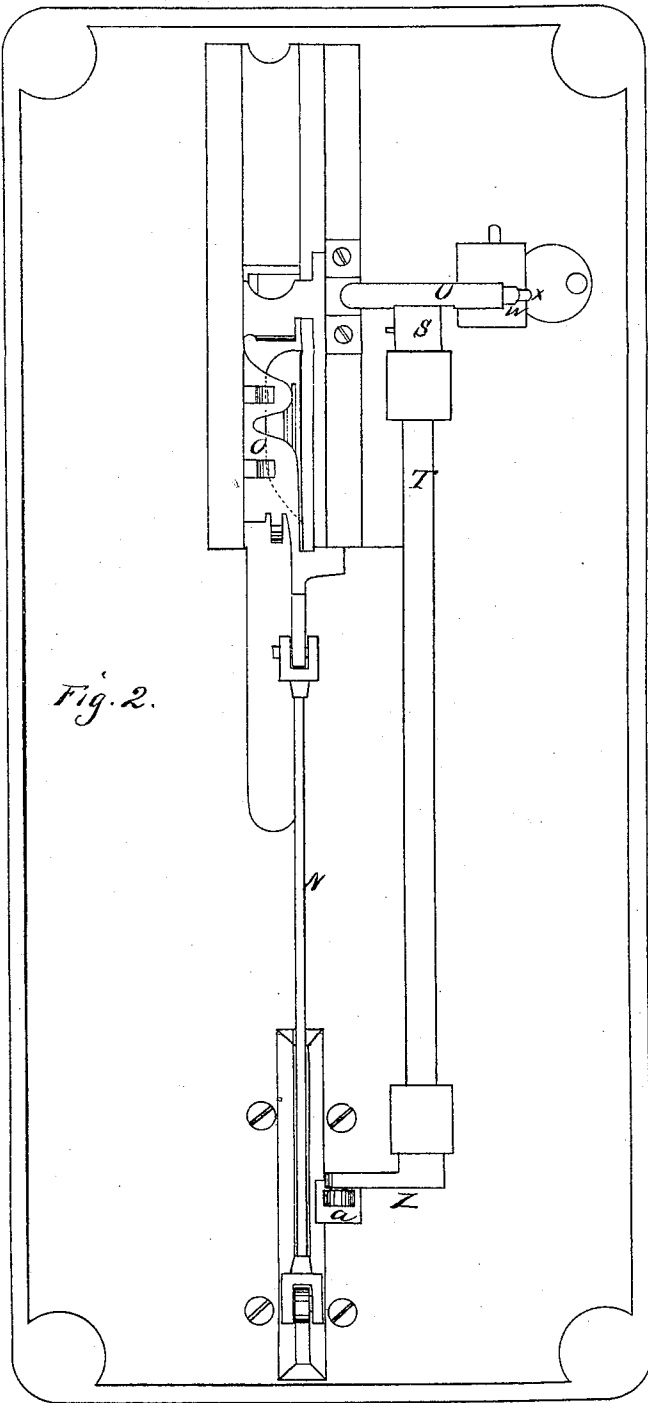


Fig. 2.

Fig. 3.

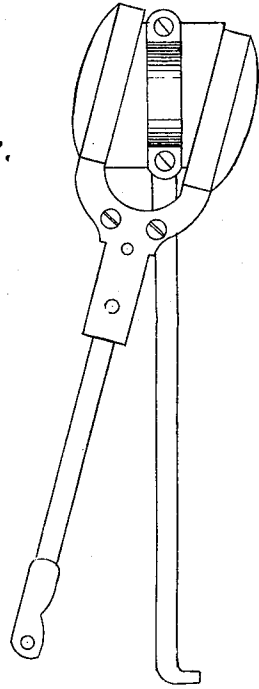
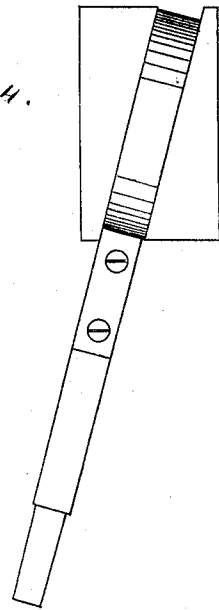


Fig. 4.



Witnesses
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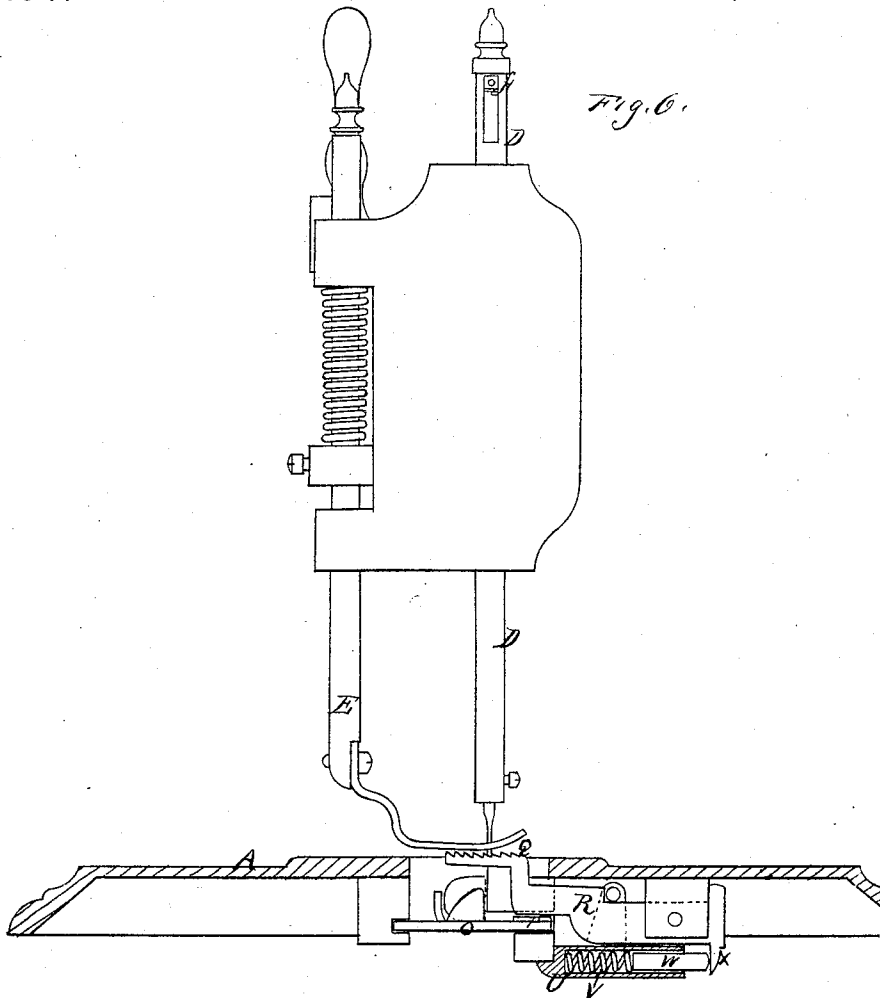


Fig. 6.

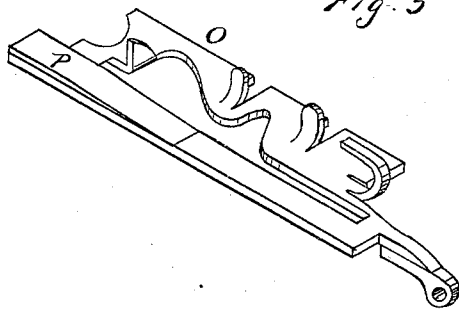


Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN H. MOONEY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 134,154, dated December 24, 1872.

To all whom it may concern:

Be it known that I, JOHN H. MOONEY, of San Francisco, in the county of San Francisco and State of California, have invented an Improvement in Sewing-Machines; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The object of my invention is to provide an improved sewing-machine; and it consists, mainly, in an improved device and movement whereby the shuttle-carrier is actuated directly from the main shaft, as is also the rocker-shaft of the feed movement.

Referring to the accompanying drawing for a more complete explanation of my invention, Figure 1, Sheet 1, is a back view showing the operating-gear. Fig. 2, Sheet 2, is a bottom view. Figs. 3 and 4, Sheet 2, show different forms of the movement for the shuttle-carrier. Fig. 5, Sheet 3, is a view of the shuttle-carrier. Fig. 6 is an end view, showing the return-spring of the feed more plainly.

A is the bed-plate. B is the arm, which is made hollow so as to receive the shaft C and the operating mechanism. The needle-bar D is operated in the manner usual to several other machines by devices within the end of the arm B, and the presser-foot bar E also passes down through boxes or lugs at one side of the needle-bar, as shown. The driving-pulley F and balance-wheel G are secured at the opposite end of the shaft C outside the arm B. The device for giving motion to the shuttle-carrier consists of the enlarged cylinder H upon the shaft C, having an axis with the two bearing-points turned in it so as to stand at an angle with the line of the shaft, as shown. The boxes I I are fitted to the two bearing-journals, and from each an arm, J, extends downward. The two arms converge so as to meet in the sleeve K, as shown. A short shaft or pin, L, passes down through the sleeve K, and is flattened so as to move between the guides M, and at its lower end is connected to the rod N, as shown. By means of this angular shaft a peculiar motion is given to the arms J and sleeve K. By means of the pin L and guides M the twisting movement is corrected, and results in a direct reciprocating motion, which is communicated to the shuttle-

carrier through the connecting-rod N. The shuttle-carrier O is made as shown at Fig. 5, being stamped out of a piece of steel, and bent so as to retain the shuttle in place. A raised piece, P, is secured at one end of the shuttle-carrier, and beveled off so as to raise the feed at the proper time, as will be hereafter shown. The feed Q is secured to the slide R, which moves between guides, and is operated by a short rocker-arm, S, on the end of the rock-shaft T. Below the slide R is a cylindrical case, U, which contains a spiral spring, V. This spring operates a short piston, W, or in other suitable manner presses against a lug, X, which projects downward from the slide R, and thus returns the feed after it has been pressed forward by the arm S. The rock-shaft T carries at its opposite end another arm, Z, and this is operated by the pitman a, which extends upward, and is secured, by means of a box or strap, b, to an eccentric pin or crank, which is turned between the angular journals before described, and which carry the boxes I I, and by this device the feed is operated. The spool from which the thread is taken stands upon the spindle c, and the thread passes from it around the tension-wheel d, thence through the loop e and up through a hole in the bar f. This bar has below it a weak spring, g, which tends to keep it up, and thus take up the surplus thread which would have been carried down by the needle-bar.

The operation of my machine will be as follows: Motion is given to the pulley F and shaft C by the belt from the driving-wheel operated in the usual manner; and by means of the angular axis in the cylinder H the motion is communicated through the connecting-rod N to the shuttle-carrier, which is thus moved back and forward at the proper time as the needle descends, and thus forms the stitch. From the rocker-arm S and the mechanism before described the slide R with the attached feed is moved back and forward at right angles with the movement of the shuttle-carrier, the raised piece P upon the latter passing under the end of the slide R so as to raise it with the feed at the proper time for making a forward movement of the goods. As the shuttle-carrier recedes the piece P passes from under the slide R and allows it to be depressed

by the action of the spring V upon the lug X, and as the arm S recedes the same spring acts to carry the feed and the slide R back for a new forward-feeding movement. By this arrangement the forward movement takes place at the latter part of the up-stroke and the beginning of the down-stroke of the needle. There is also no lost motion between the slide R and the crank-pin at S; and the change of motion is made continuous by means of the incline P on the shuttle-carrier and the combined motion, so that there is but one stop during the whole movement.

These constructions give me a machine which runs easily, is very efficient, and cheap.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The cylinder H with its angular journals, and the arms J with their boxes I, sub-

stantially as and for the purpose herein described.

2. In combination with the arms J operated by the angular journals, as shown, the sleeve K and pin L, together with the guides M, substantially as herein described.

3. The combination, with the shuttle-carrier and its raised piece P, of the feeding-slide R and rocking-arm S, substantially as herein described.

4. In combination with the feed-slide R, the piston W and its operating-spring V with the protecting-case U, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand and seal.

JOHN H. MOONEY. [L. s.]

C. W. M. SMITH,
PHILIP MAHLER.