

F. JACOB.  
SEWING-MACHINE.

No. 190,047.

Patented April 24, 1877.

Fig. 1.

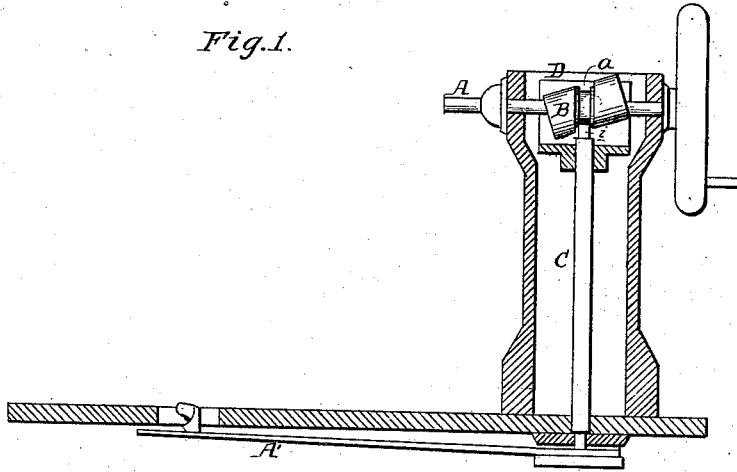
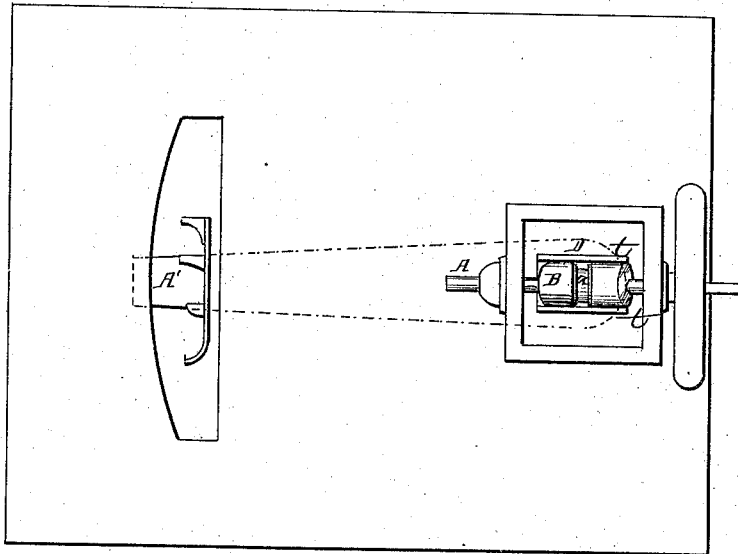


Fig. 2.



Attest:

*Fred Benjamin*  
*George Thom*

*F. Jacob*

*By Oliver Drake*

*His attorney*

# UNITED STATES PATENT OFFICE.

FREDERICK JACOB, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **190,047**, dated April 24, 1877; application filed January 31, 1877.

*To all whom it may concern :*

Be it known that I, FREDERICK JACOB, of the city of Newark, in the county of Essex and State of New Jersey, 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 thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to operate the shuttle-arm from the driving-shaft without the use of intermediate vibrating levers or cranks.

The accompanying drawing illustrates the nature and character of my invention, in which Figure 1 is a side elevation of that portion of a sewing-machine (partly in section) in which my improvements are chiefly embodied, and Fig. 2 is a top or plan view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in the combination of the horizontal shaft A, provided with an inclined cylinder, B, and the vertical shaft C, having at the upper end a box, D, with parallel sides or lips *ff*, which inclose said cylinder nicely, but not tightly, as shown and indicated in Figs. 1 and 2.

The shuttle arm or carrier A' is rigidly secured to the vertical shaft C at the bottom, and as the shaft A revolves, the requisite motion is imparted to the shuttle-carrier by means of the cylinder B and the box D, in which it revolves, which communicates an oscillating motion to the shaft C, as will be readily understood.

The top end of the shaft C is steadied and kept in position by means of a groove, *a*, in the cylinder B, into which groove the end *i* of said shaft is neatly fitted.

The box D is intended to be adjustable laterally, so as to be contracted when necessary, as the parts wear away by reason of the friction and become loose.

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

The combination, in a sewing-machine, of the shaft A, the inclined cylinder carried by said shaft, the vertical shaft C, carrying a box, D, inclosing the cylinder, arranged directly below the shaft A, and provided with a projection, *i*, adapted to a groove, *a*, in the cylinder, as set forth.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

FREDERICK JACOB.

Witnesses:

OLIVER DRAKE,  
J. F. INSLEE.