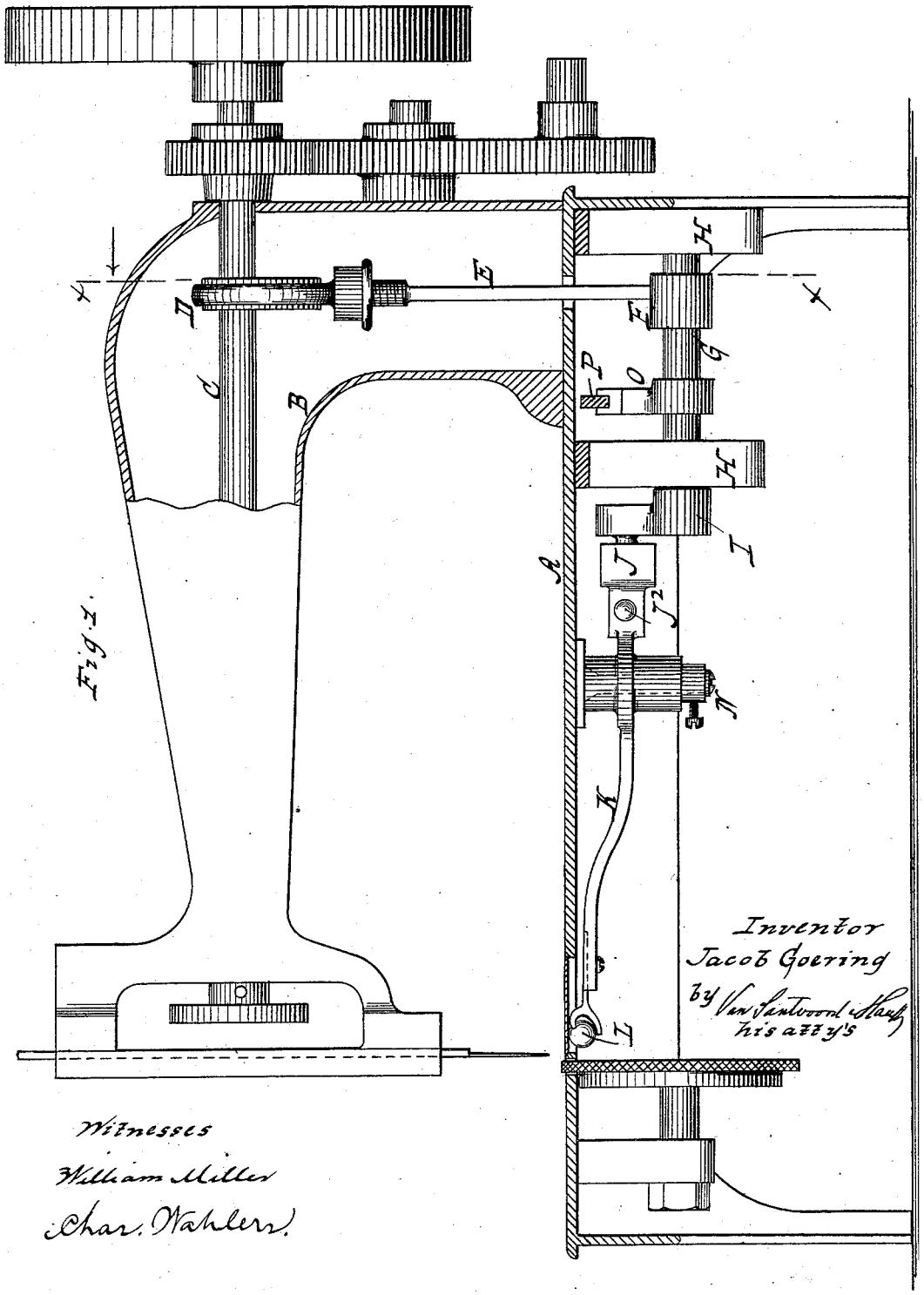
(No Model.) 4 Sheets—Sheet 1.

# J. GOERING.

## SEWING MACHINE.

No. 305,301. Patented Sept. 16, 1884.




Witnesses
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Inventor
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his attys

(No Model.) 4 Sheets—Sheet 2.

# J. GOERING.

## SEWING MACHINE.

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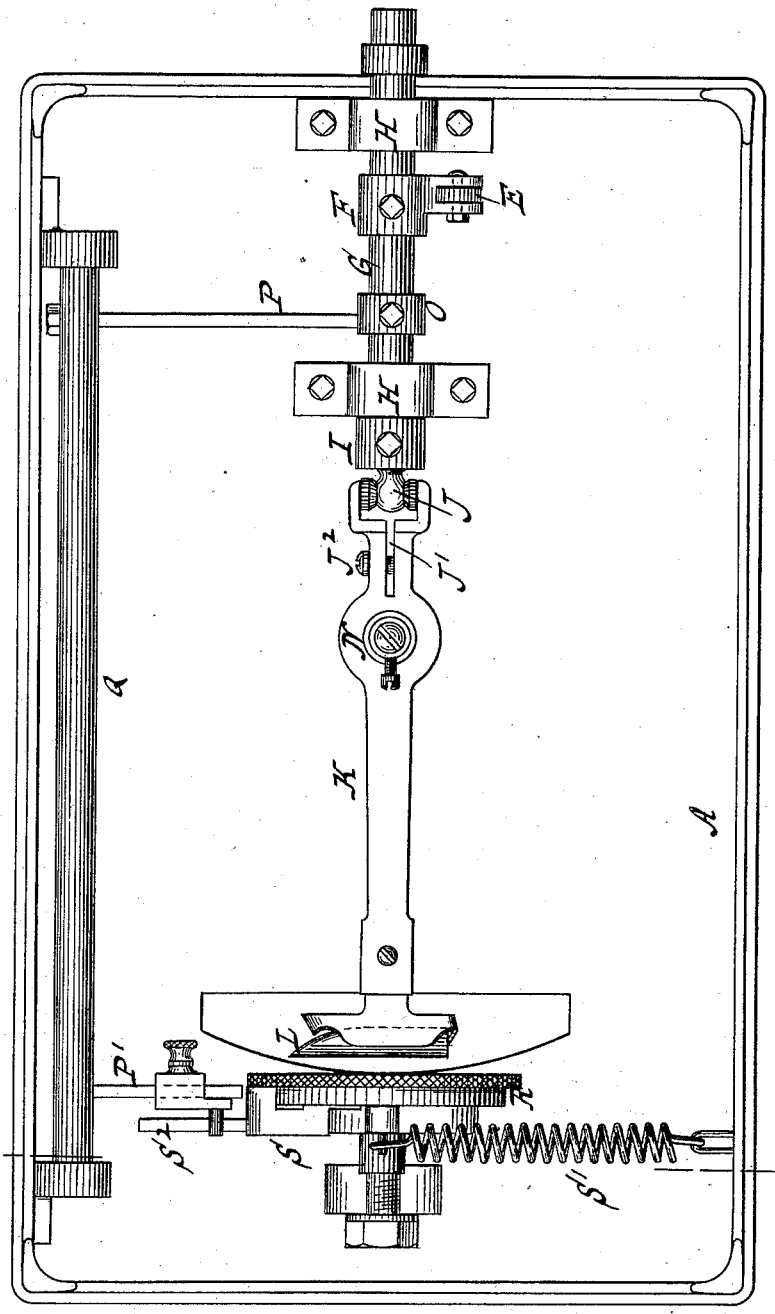


Fig. 2.

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## SEWING MACHINE.

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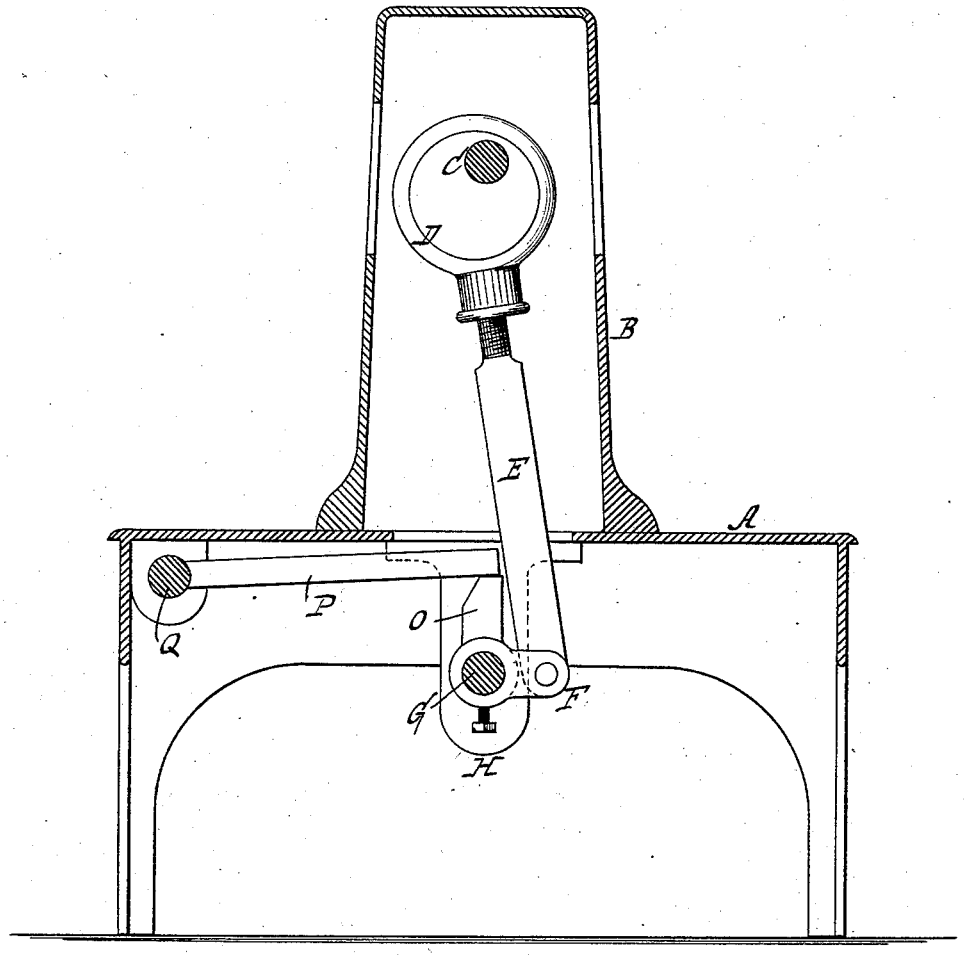
Fig 3.

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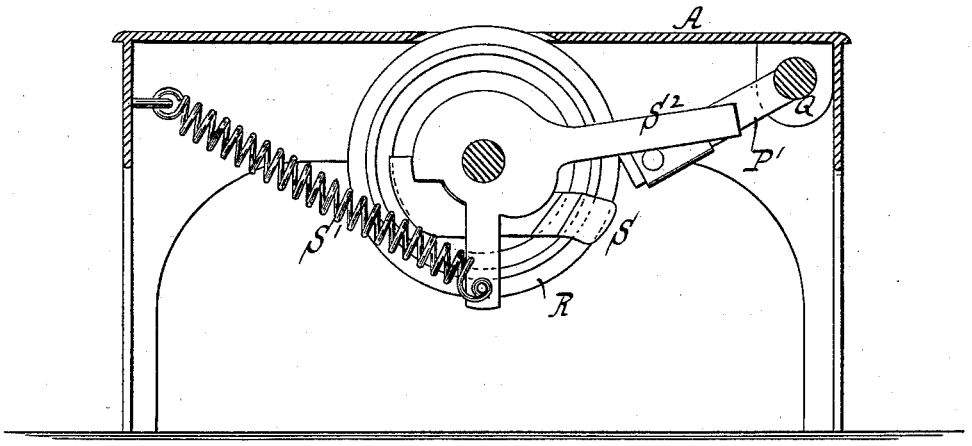
(No Model.) 4 Sheets—Sheet 4.

# J. GOERING.

## SEWING MACHINE.

No. 305,301. Patented Sept. 16, 1884.

Fig. 4.

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# UNITED STATES PATENT OFFICE.

JACOB GOERING, OF BROOKLYN, NEW YORK.

## SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 305,301, dated September 16, 1884.

Application filed May 8, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB GOERING, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Sewing-Machines, of which the following is a specification.

This invention relates to that class of sewing-machines comprising a vibrating shuttle and an intermittingly-rotating feed-wheel; and it consists in the novel means hereinafter described for imparting motion to the parts named, whereby a light-running and comparatively noiseless machine is obtained.

In the accompanying drawings, Figure 1 is a longitudinal section of a machine embodying my invention. Fig. 2 is an inverted plan view thereof. Fig. 3 is a cross-section in the plane of the line *x x*, Fig. 1. Fig. 4 is a like section in the plane of the line *y y*, Fig. 2.

Similar letters indicate corresponding parts.

The letter A designates the bed-plate of the machine, supporting the arm B, in which is arranged the needle-bar-operating shaft C in the usual manner. On this shaft C is mounted an eccentric, D, which is connected by means of a pitman, E, to a crank, F, mounted on a rock-shaft, G, which is arranged substantially parallel to the operating-shaft in hangers H on the bottom of the bed-plate, so that motion is imparted to the rock-shaft from the operating-shaft by the action of its eccentric D on the crank F, the pitman being preferably made adjustable for regulating such motion. On the rock-shaft G is mounted a second crank, I, which is at a different angle from the crank F, and to which is connected, by means of a ball-and-socket joint, J, one end of a lever, K, supporting the shuttle L, so that the required motion is imparted to this lever for operating the shuttle from the rock-shaft by the action of its crank I on the shuttle-lever. The shuttle-lever K has its fulcrum in a vertical pivot, N, on the bottom of the bed-plate A, and the motion of the lever being in a fixed plane it is important that the connection thereof with the crank I be effected by means of the ball-and-socket joint J, or its equivalent. In the example shown the ball of the joint named is on the crank I, while the socket is in the end of the shuttle-lever where the latter is split, as at J′, forming two jaws which are connected together by a set-screw, $J^2$, to render the socket adjustable in relation to the ball. On the rock-shaft G is also mounted a cam, O, which engages an arm, P, projecting from a shaft, Q, which is a medium for operating the feed-wheel R, this shaft being provided with a second arm, P′, which engages with the propelling-gear of the feed-wheel in such a manner that an intermittingly-rotating motion is imparted to the wheel from the rock-shaft G by the action of its cam on the operating-shaft.

The propelling-gear of the feed-wheel consists of a friction-pawl, S, a return-spring, S′, acting on the pawl, and a pawl-actuating arm, $S^2$, which is the part engaging the proper arm of the operating-shaft; but the particular construction of this gear forms no part of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

The rock-shaft G, having a crank at each end, and an attached projecting cam, O, intermediate the cranks, combined with the shaft C, the pitman E, the shuttle-lever K, the shaft Q, having a lateral arm, P, acted on by the cam on the rock-shaft, the feed-wheel R, and devices connecting the shaft Q with the feed-wheel to intermittently actuate the latter, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JACOB GOERING. [L. S.]

Witnesses:

CHAS. WAHLERS,

E. F. KASTENHUBER.