

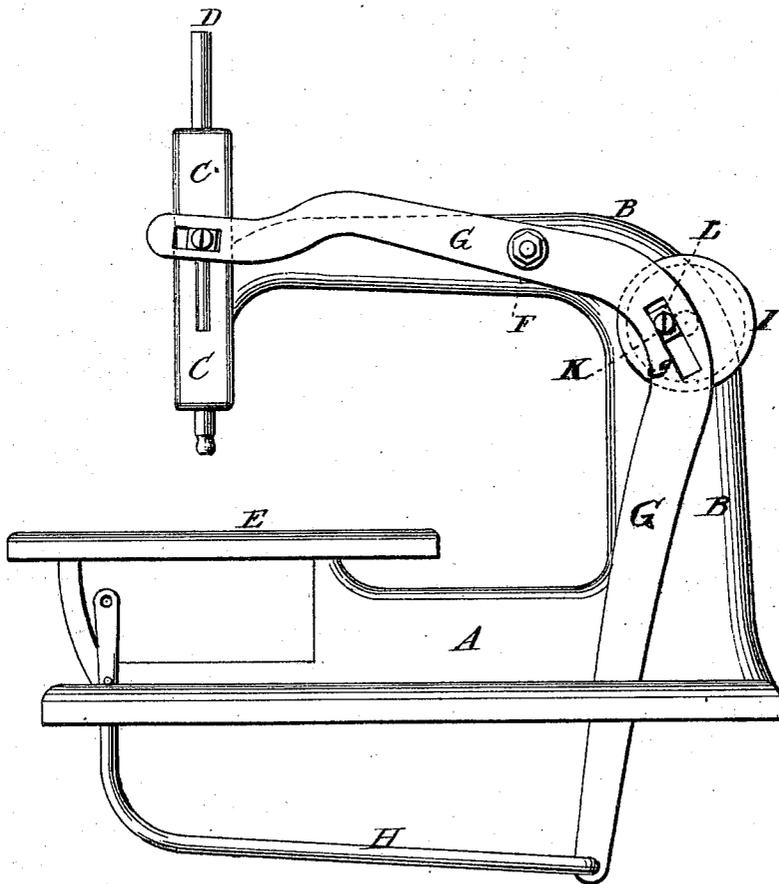
(134.)

A. H. WAGNER.

Improvement in Sewing Machines.

No. 122,747.

Patented Jan. 16, 1872.



Witnesses.

Alfred M. ...
John R. Young

Inventor.

A. H. Wagner, by
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Atty's.

UNITED STATES PATENT OFFICE.

AUSBERT H. WAGNER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 122,747, dated January 16, 1872.

To all whom it may concern:

Be it known that I, AUSBERT H. WAGNER, of Chicago, in the county of Cook and in the State of Illinois, have invented new and useful Improvements in Sewing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which is shown a side elevation of a machine containing my improvements.

The object of my invention is a reduction in number of the operating portions of a sewing-machine, so as thereby to enable it to be furnished at a lower cost than has been possible heretofore; and it consists in the combination and relative arrangement of the vibrating arm provided with a longitudinal slot, the driving-pulley provided with a crank-pin, and the block journaled upon said pin and sliding within said slot, substantially as and for the purpose hereinafter shown.

In the annexed drawing, A represents the frame of the machine provided with a stationary arm, B, housing C for containing the needle-bar D, and with a supporting plate, E, all of usual construction. Extending horizontally and laterally outward from one side of the stationary arm B is a stud, F, upon which is pivoted a vibrating arm, G, which corresponds in general longitudinal size with said stationary arm, and has its forward end connected with the needle-bar D in such a manner as to cause the latter to have a vertically reciprocating movement whenever said pivoted arm is given a vibratory motion. The vertical portion of the arm G extends downward through the frame A, and has pivoted to its end one end of a connecting-bar, H, which, from thence extends horizontally forward, and then in a curve upward through a slot in said frame, and has its upper end pivoted to or upon the shuttle-carrier. Journaled upon the elbow of the arm B is a grooved pulley, I, upon or within the

outer face of which, at a suitable distance from the center, is a stud or pin, K. Within the elbow of the vibratory arm G is provided a slot, *g*, which, when said arm is in a central position, coincides with the center of the pulley I, and extends to equal distances upon either side of the same. A block, L, placed within the slot *g* and corresponding in size to the width of the same is journaled upon the pin K, and completes the device, the operation of which is as follows:

A rotary motion being imparted to the pulley I the movement of the pin K will cause the arm G to vibrate vertically upon its bearing, the block L meanwhile sliding to and fro within its slot so as to accommodate itself to the different positions of said parts, and furnishing a substantial and durable bearing for said pin. The motion of the vibrating arm is imparted to the connecting-bar H, and through it to the shuttle-carrier and feeding devices, from which it will be seen that the single pulley and its pin, as combined with said arm, performs the office of the ordinary crank and eccentric, while at least one connecting-bar is dispensed with, by which means a large saving is effected in the cost of the machine.

Having thus fully set forth the nature and merits of my invention, what I claim as new, is—

In combination with the vibrating arm G, provided with the slot *g*, and pivoted to or upon the stationary arm B, the pulley I provided with the pin K, and the block L pivoted upon said pin and sliding within said slot, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of September, 1871.

AUSBERT H. WAGNER.

Witnesses:

NATHAN ALLEN,
A. D. STURTEVANT.

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