

D. B. HERRINTON.

Motive Powers for Sewing-Machines.

No. 152,633.

Patented June 30, 1874.

Fig. 1.

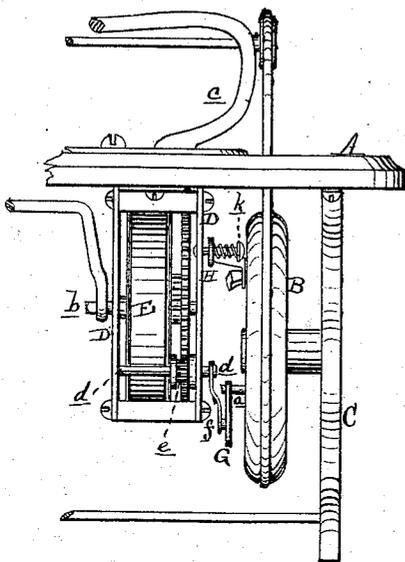


Fig. 2.

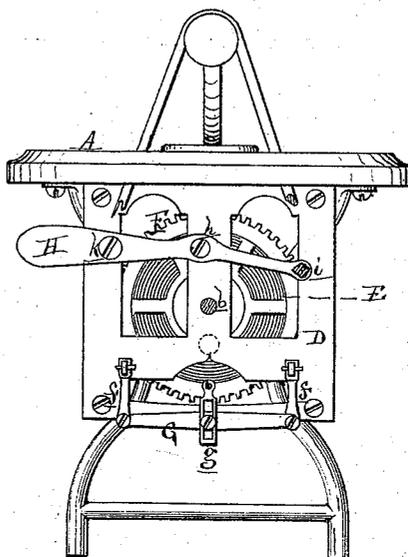
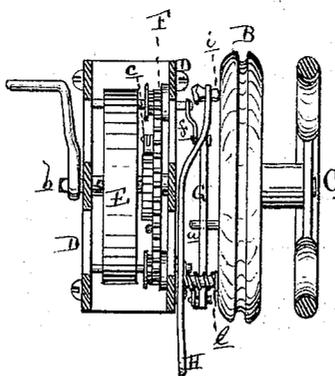


Fig. 3.



Attest.
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DAVID B. HERRINTON, OF DETROIT, MICHIGAN.

IMPROVEMENT IN MOTIVE POWERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **152,633**, dated June 30, 1874; application filed February 16, 1874.

To all whom it may concern:

Be it known that I, DAVID B. HERRINTON, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Sewing-Machine Motors, of which the following is a specification:

This invention has for its object to furnish a motor for sewing-machines in lieu of the treadle in general use, the power being derived from the recoil of a coil-spring, which may be wound up at intervals; and it consists in the peculiar arrangement of the cranks for transmitting the motion to the driving or balance wheel of the sewing-machine.

Figure 1 is a front elevation of a sewing-machine with the motor attached. Fig. 2 is an elevation of that side of the motor-frame next the driving-wheel of the machine, the latter being removed to show the cranks and parallel rod. Fig. 3 is a partial horizontal section of the motor-frame at *x x*, showing the brake and driving-wheel in plan.

Like letters refer to like parts in the several figures.

In the drawing, A represents the table of a sewing-machine, and B the driving-pulley, whose shaft may be journaled in a short bearing at the right-hand standard C of the machine. D D are the two side plates of a frame bolted to the under side of the table close to the pulley C, which is provided with a crank-pin, *a*. In the plates D is journaled a central shaft, *b*, to which is secured one end of a coiled ribbon of spring-steel, E, the outer end of which is secured to the top of the frame. A ratchet, *c*, is keyed on the shaft *b*, with which

a spring-pawl in a spur-gear, F, engages, said spur-gear being simply sleeved on the said shaft, with which it revolves when its pawl is pushed by the ratchet. Across the lower corners of the frame are journaled two shafts, *d d*, each carrying a pinion, *e*, with which the spur-gear meshes, and at the projecting end of each shaft is secured a crank, *f*, having a wrist at the end. G is a parallel rod, having the wrists of the two cranks *f* journaled through its ends. At the middle of this rod is a vertical arm, *g*, having an eye at its upper end, in which is inserted the crank *a* of the driving-pulley. The spring is wound up by a crank or pawl wrench on the left-hand projecting end of its shaft. The recoil of the spring in tension acts upon the shaft *b* to rotate it in the opposite direction, setting the large spur-wheel in motion, which in turn rotates the pinion-shafts and their cranks *f*, which in turn, through the parallel rod G and arm *g*, acting upon the crank-pin *a*, rotate the driving-pulley, through which the sewing-machine is actuated.

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

The frame D, shafts *b d d*, spring E, ratchet *c*, spur-wheel F, pinions *e e*, cranks *f f*, parallel rod G, and arm *g*, constructed and arranged to rotate the driving-pulley of a sewing-machine, substantially in the manner shown and set forth.

DAVID B. HERRINTON.

Witnesses:

H. S. SPRAGUE,
WM. P. SPALDING.