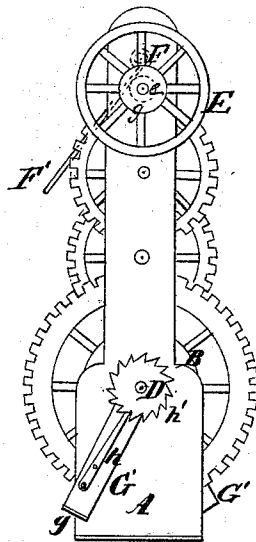


B. C. CHAMBERS.
Sewing-Machine Motors.

No. 141,996.

Patented August 19, 1873.



Witnesses
J. B. Connolly
W. C. Connolly

Inventor
Benjamin C. Chambers
By J. Connolly Atty
his Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN C. CHAMBERS, OF SHADY PLAIN, PENNSYLVANIA.

IMPROVEMENT IN SEWING-MACHINE MOTORS.

Specification forming part of Letters Patent No. **141,996**, dated August 19, 1873; application filed July 23, 1873.

To all whom it may concern:

Be it known that I, BENJAMIN COULTER CHAMBERS, of Shady Plain, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Sewing-Machine Motors; and I do hereby declare that the following is a full, clear, and exact description thereof, that 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 drawing is an illustration of a side elevation of my invention.

This invention has relation to spring-actuated motors for sewing-machines; and consists in the construction and novel arrangement of mechanism for winding the spring by the alternating movement of the feet, as hereinafter described, the object being to produce a continuous revolution of the power-shaft.

Referring to the drawings, A designates a sewing-machine motor composed of a train of gearing arranged in the usual manner, and driven by means of a coiled spring, B, upon the power-shaft D. Upon the last shaft *e* of the train is a balance-wheel, E, and attached to a transverse bar, F, above said shaft is a pivoted brake, F', which, being pressed against the periphery of the pinion *g*, arrests the movement of the motor. The handle of said brake so projects, as shown in the drawing, that the necessary pressure may be given from the knee of the sewing-machine attendant, who, in consequence, is enabled to govern the machine while both hands are employed in guiding the cloth to be sewed. G' G' designate two stirrups depending from and loosely held

upon the power-shaft outside the frame of the motor. These stirrups are designed to receive the feet of the operator, and are provided with foot-plates *g*, holding-straps, or other devices, to make the feet fast thereto, and cause the stirrups to move with the feet, the same, during the winding operation, being respectively moved alternately to and from, as in walking. Attached to the face of each stirrup is a spring dog or pawl, L, which engages with a pawl, *h*, on or near the adjacent end of the power-shaft. When the stirrups are moved from the operator the dogs act against the teeth of the ratchets, turning the latter and effecting at each revolution a partial winding of the spring. When the stirrups are drawn toward the operator the dogs yield and pass over the teeth of the ratchets, thus preventing recoil or unwinding of the spring.

I do not claim, broadly, the use of devices for winding the spring of a sewing-machine motor by the application of foot-power; but

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

The combination, with a sewing-machine motor, constructed substantially as shown, of a pair of ratchets arranged, respectively, at opposite ends of the power-shaft, and a pair of stirrups, having straps to hold the feet, and provided with spring-dogs to turn the ratchets and produce a continuous revolution of the power-shaft, as described.

In testimony that I claim the foregoing I have hereunto set my hand.

BENJAMIN COULTER CHAMBERS.

Witnesses:

W. R. DUFF,
J. T. ROBERTSON.