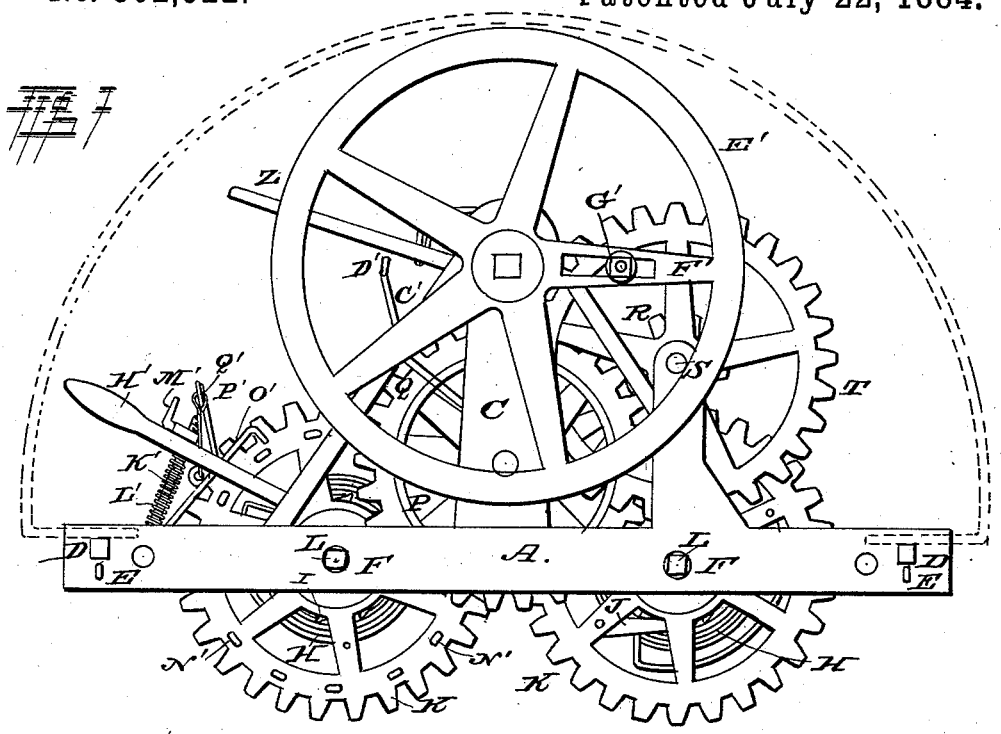
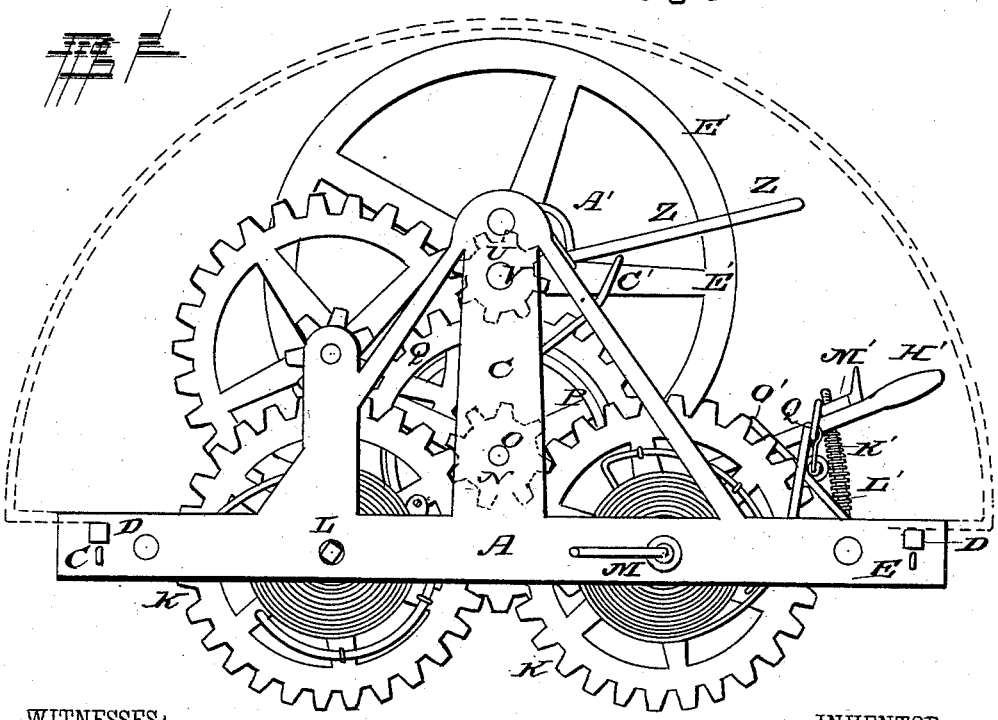
(No Model.) 2 Sheets—Sheet 1.

J. R. REEVES.

SEWING MACHINE MOTOR.

No. 302,522. Patented July 22, 1884.





WITNESSES:

Fred. L. Dieterich.

Wm. Fecher

INVENTOR.

John R. Reeves,
by Louis Bagger & Co.
ATTORNEYS.

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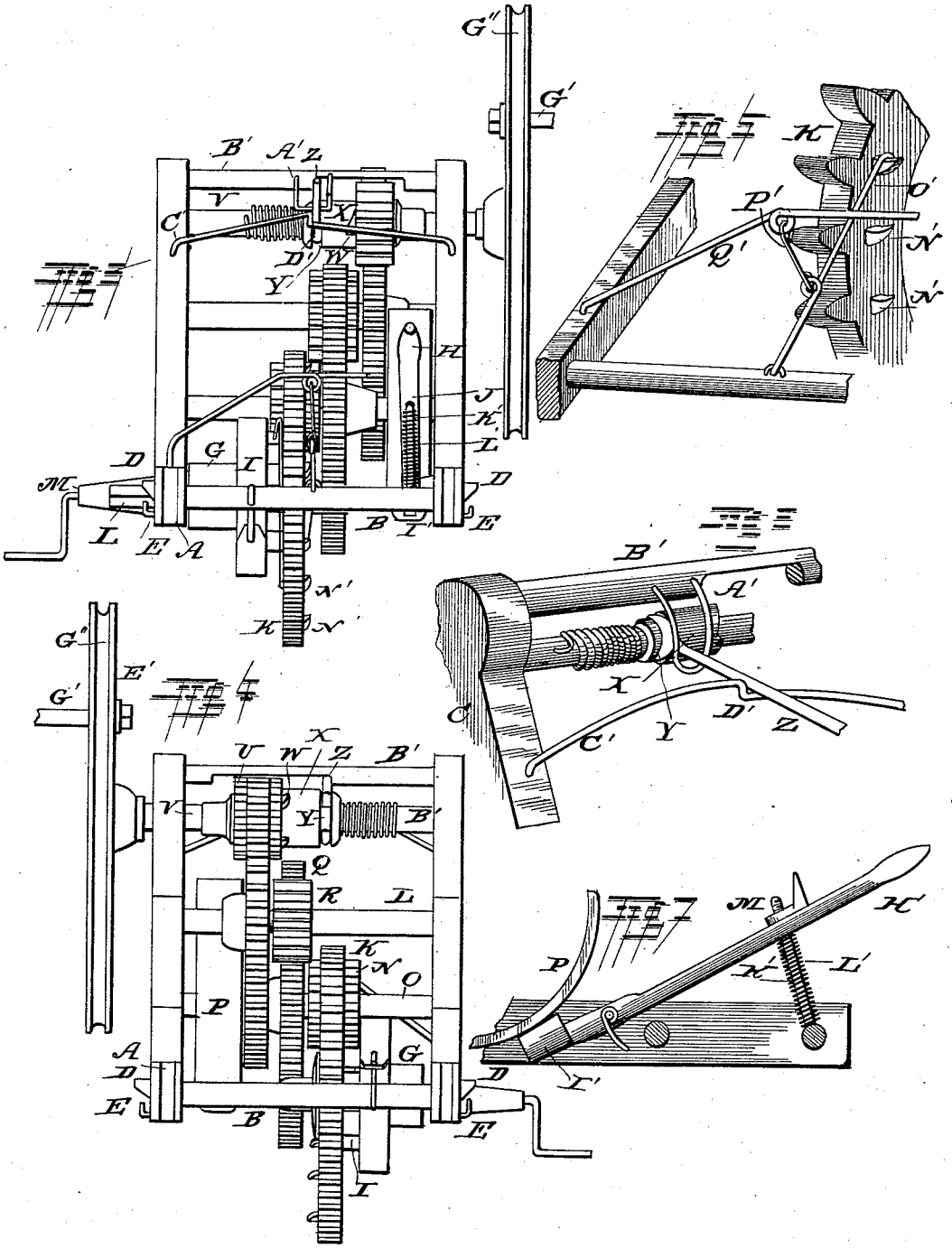

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UNITED STATES PATENT OFFICE.

JOHN R. REEVES, OF NEWELS, KENTUCKY.

SEWING-MACHINE MOTOR.

SPECIFICATION forming part of Letters Patent No. 302,522, dated July 22, 1884.

Application filed May 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. REEVES, a citizen of the United States, and a resident of Newels, in the county of Pulaski and State of Kentucky, 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 of the invention, 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, which form a part of this specification, and in which—

Figures 1 and 2 are side views of my improved sewing-machine motor. Figs. 3 and 4 are end views, and Figs. 5, 6, and 7 are detail views.

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

My invention has relation to motors for sewing-machines, or for similar light machinery; and it consists in the detail construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A indicate two parallel bars, connected at their ends by means of end pieces, B B, and having upon their upper edges side pieces, C C, forming a frame provided with bearings for the several shafts of the motor. The outer sides of the base-pieces are provided with outwardly-projecting shoulders D, upon which a casing or hood covering the mechanism may rest, and with hooks E, upon which a drip-pan may be supported, and at equal distances from the middle of the base-pieces they form transverse bearings F, in which the main arbors G, to which the main springs H are secured, turn. These arbors are similar to the arbors of a clock-work, and are provided with ratchet-wheels I, which are engaged by pawls J upon the faces of the driving-wheels K, which turn upon the arbors, and the ends of the arbors are rectangular, as shown at L, so as to enable them to be turned by means of a key, M, winding the springs, which are secured at their inner ends to the arbors, and at their outer ends to the end pieces of the base-frame. The cogs upon the drive-wheels engage a pinion, N, upon a shaft, O, journaled in bearings in the side pieces of the frame, and provided with a flat-rimmed wheel, P, near one end, and a cog-wheel, Q, is secured upon the shaft near the pinion, and engages another pinion, R, upon a shaft, S, which is provided with a cog-wheel, T, which again engages a pinion, U, upon a shaft, V, journaled in the upper end of the frame. One face of this pinion is provided with beveled projecting lugs W, which are engaged by similar lugs upon the end of a clutch-sleeve, X, which slides upon the shaft and turns with it, while the pinion turns upon the shaft, and the other end of the sleeve is provided with a circumferential groove, Y, in which the bifurcated ends of a lever, Z, slide, which lever is pivoted to rock upon a bracket, A′, projecting from a cross-piece, B′, connecting the upper ends of the side frames, and which lever slides with its outer end upon a bar, C′, connecting the upper portions of the side frames, and provided with a shoulder, D′, by which the said end of the lever may be caught and held when the clutch is disengaged. A fly-wheel, E′, is secured upon the outer end of the upper shaft, and one of its spokes, F′, is slotted radially, and the inner end of a crank-pin, G′, slides in the slot, having a nut or similar means upon its inner end, by which it may be adjusted in the said slot, and the power of the motor may be transmitted to the mechanism of the sewing-machine, either by means of a belt passing in the groove G″ in the rim of the fly-wheel, or by means of a connecting-rod pivoted upon the crank-pin. A brake-lever, H′, is pivoted near its inner end upon the inner side of one of the base-pieces, and is provided upon its inner end with a brake-shoe, I′, which may be brought to bear against the flat rim of the wheel P, and the outer end of the lever has a vertical perforation, J′, which slides upon an upright rod, K′, having a spiral spring, L′, wound around it, projecting from the end piece of the frame, and having its upper end screw-threaded and provided with a thumb-nut, M′, bearing against the upper side of the lever-arm, while the spring bears against the lower side of the lever-arm, the nut serving to depress that arm of the lever, bringing the shoe to bear against the wheel, stopping its motion, while the spring again serves to raise the said lever-arm when the nut is screwed upward, releasing the brake-shoe. The one face of one

of the drive-wheels is provided with a number of projecting lugs, N′, projecting laterally near the rim of the wheel, and a hooked arm, O′, is pivoted at one end upon the end piece of the frame, and is suspended by means of a hinged rod, P′, from a lever, Q′, pivoted upon the side piece of the frame, the said lever serving to throw the hooked arm toward the lugs upon the drive-wheel, when its hook will engage one of the lugs, and thus hold the wheel, and to again throw the arm away from the wheel, releasing the same. In this manner it will be seen that the motion of the drive-wheels may be entirely stopped by the hooked arm engaging the lugs upon one of the said wheels, the motion may be partially stopped or retarded by means of the brake, and that the motor may be disengaged from the mechanism of the sewing-machine by the clutch mechanism upon the fly-wheel shaft; and it will also be seen that when the treadle of the machine is connected by means of a connecting-rod to the crank-pin upon the fly-wheel the play of the treadle may be adjusted by adjusting the crank-pin in its slot in the spoke of the fly-wheel.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a sewing-machine motor, the combination of the spring-actuated drive-wheel having laterally-projecting lugs upon the side of its rim, the arm pivoted upon the frame, and having its end hooked, the lever pivoted upon the frame swinging toward the drive-wheel, and the rod suspended from the outer portion of the lever, and having the hooked arm suspended at its lower end, as and for the purpose shown and set forth.

2. In a sewing-machine motor, the combination of the flat-rimmed wheel secured upon a shaft of the works, the lever provided with a brake-shoe at its inner end, and having a vertical perforation near its outer end, and pivoted upon the motor-frame, the upright rod having its upper end screw-threaded, the spiral spring wound upon the upright rod, and the nut turning upon the upright rod, as and for the purpose shown and set forth.

3. In a sewing-machine motor, the combination of the two spring-actuated drive-wheels meshing with one pinion, the intermediate gear-wheels, the loose pinion, the fly-wheel shaft having clutch mechanism engaging the loose pinion, and the fly-wheel having a radially-slotted spoke provided with an adjustably-sliding crank-pin, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN R. REEVES.

Witnesses:
WILLIAM BALEY MCMULLIN,
WILSON ESTES.