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W. G. LANGDALE & R. J. NOWLIN.

FAN ATTACHMENT FOR ROCKING CHAIRS.

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NO MODEL.

Fig. 1.

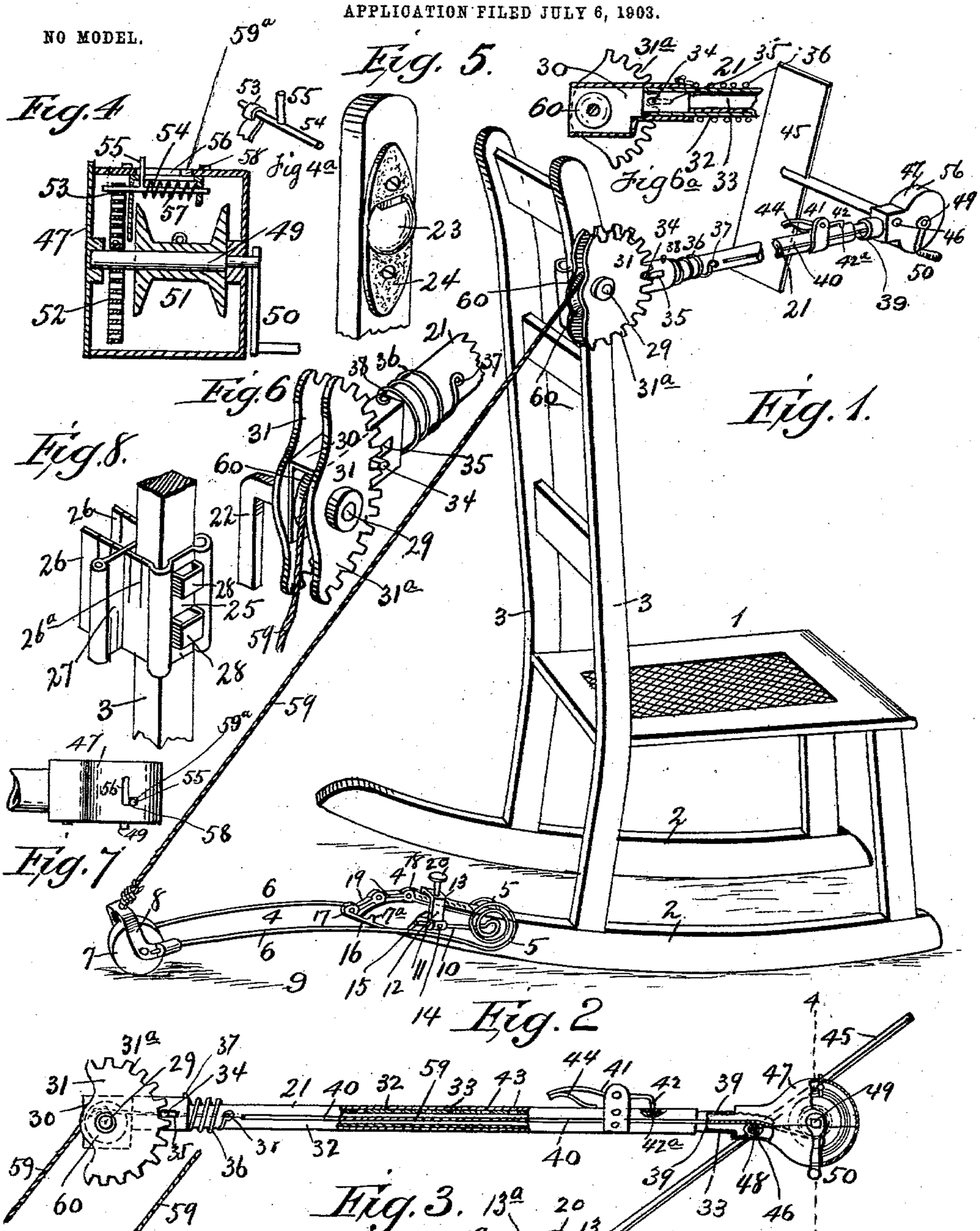

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 4a.

Fig. 5.

Fig. 6.

Fig. 6a.

Fig. 7.

Fig. 8.

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UNITED STATES PATENT OFFICE.

WILLIAM G. LANGDALE, OF MILFORD, OHIO, AND ROBERT J. NOWLIN, OF LAWRENCEBURG, INDIANA.

FAN ATTACHMENT FOR ROCKING-CHAIRS.

SPECIFICATION forming part of Letters Patent No. 753,148, dated February 23, 1904.

Application filed July 6, 1903. Serial No. 164,420. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM G. LANGDALE, of Milford, in the county of Clermont and State of Ohio, and ROBERT J. NOWLIN, of Lawrenceburg, in the county of Dearborn and State of Indiana, have invented new and useful Improvements in Fan Attachments for Rocking-Chairs, of which the following is a specification.

Our invention relates to a fan attachment for rocking-chairs; and the object of the same is to construct a device of this character provided with means operated by the rocking of the chair for driving the fan, also a vertical adjustment for the same.

The construction employed by us in carrying out our invention, which is simple and novel, is fully described and claimed in this specification and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a perspective of our device attached to a rocking-chair. Fig. 2 is a side elevation, partially in section, of the bracket-arm. Fig. 3 is a detail perspective of the spring-operating lever. Fig. 4 is a detail section of the motor on the line 4 4, Fig. 2. Fig. 4ª is a detail of the hook on end of spring. Fig. 5 is a detail of the socket member. Fig. 6 is a detail perspective of the sectors and casing. Fig. 6ª is a detail longitudinal section of the casing. Fig. 7 is a detail plan of the casing, showing the bayonet-slot engaged by the thumb-piece on the bolt. Fig. 8 is a detail of a modified form of socket member.

Like numerals of reference designate like parts in the different views of the drawings.

The numeral 1 designates a rocking-chair having rockers 2 and back members 3. A spring motor-lever 4 is mounted on the rear end of one of the rockers 2 and comprises two spiral springs 5, one end of each of which is prolonged to form arms 6, which extend rearwardly and carry a roller 7, which is journaled in the arms of a yoke 8, connected to the two arms 6. The roller 7 bears on the floor 9. The inner coils of the springs 5 are prolonged to form arms 10, which pass through apertures 11 in arms 12 of a yoke 13, which straddles the rear end of the rocker 2. The arms 10 are secured by set-screws 14. A clip 15 embraces the under side of the rocker 2 and is connected to the arms 12 of the yoke 13. A shoe 16 is fitted over the rear end of the rocker 2 and comprises end link members 17 and 18 and two intermediate members 19, hinged thereto. The member 17 is integral with the clip 15 and has lugs 17ª thereon, which engage the sides of the rocker. The member 18 passes beneath the cross-bars 13ª of the yoke 13 and is serrated to adapt it to be engaged by a clamping-screw 20, fitting a threaded aperture 13ᵇ in the cross-bar 13ª. By this arrangement the motor-levers 4 are held securely in place on opposite sides of the rocker 2.

To support the fan mechanism, a bracket-arm 21 is mounted on the back of the chair 1 and is provided with an arm 22, engaging a socket 23 in a plate 24, rigidly attached to the back of the chair. Instead of the plate 24 we may use a clamp 25, Fig. 8, having arms 26, having slits 26ª therein engaged by a comb-like member 27. Sockets 28 are formed in the clamp to accommodate the arm 22. The arm 22 is formed on the end of a shaft 29, which passes through a casing 30 and supports two toothed sectors 31, keyed thereon. The bracket-arm 21 is formed of two telescoping tubes 32 and 33. The larger tube 32 is slidingly mounted in the casing 30 and has two pins 34 thereon, which pass through slots 35 in the casing 30 and are held in engagement with the teeth 31ª on the sectors 31 by means of a contracting spiral spring 36, which surrounds the tube 32 and is secured at its ends to studs 37 and 38, seated in the tube 32 and casing 30, respectively. By this arrangement the angle of the arm 21 can be adjusted from horizontal to vertical, either up or down, by setting the pins 34 in engagement with the different teeth 31ª. The tubular inner section 33 of the arms 21 is slotted from end to end at 39 to render it more yielding, as is also the section 32, which is longitudinally traversed by slots 40. A catch-lever 41 is mounted on the outer tube 32 and has a nose 42 on one arm thereof, which passes through an aper-

ture 42ª and is normally held in engagement with one of a series of apertures 43 in the inner tube 33 by a spring 44, which bears on the lever 41. By this arrangement the length of the arm 21 can be adjusted within wide limits.

A fan 45 is mounted on a shaft 46, which is journaled in a casing 47, mounted on the end of the arm 21 and rigidly secured to the tube 33. A pulley 48 is keyed on the shaft 46 and is located within the casing 47 in alinement with the bore of the tube 33. A shaft 49 is also journaled in the casing 47 and carries a crank 50, located outside the casing for use in turning the shaft by hand. A spool 51 is rigidly secured to the shaft 49, and a spirally-coiled spring 52 encircles said shaft and has its inner coil rigidly attached thereto. The outer coil of the spring 52 has a hook 53 formed thereon, which engages a slidingly-mounted bolt 54, having a pin 55 mounted therein and extending through a slot 56 in the casing 47 and beyond the face thereof to provide a thumb-grip for operating the bolt. A spiral spring 57 surrounds the bolt and bears on the pin 55 to hold the bolt normally in position to engage and hold the hook 53. A notch 59ª in the side of the slot 56 enables the pin to be engaged therein to secure the bolt 54 in its retracted position.

In order to drive the fan by the mechanism described, a cord 59 is necessary and is connected to the cross-bar of the yoke 8, carried by arms 6, and passes up and over a sheave 60, rotatably mounted on the shaft 29, and then through the bore of inner tube 33, then coils once around the pulley 48, and finally coils around and is securely attached to the spool 51.

In operation the device is set up as shown in Fig. 1, the angular position of the arm 21 being adjusted by first retracting the spring 36 by pulling on the tube 32 to disengage the pins 34 from the teeth 31ª and turning the arm to any angle desired and releasing the tube 32. The length of the arm 21 can next be adjusted after releasing the cord 59 by means of the catch-lever 41 engaging the apertures 42ª in the tube 33. To throw the device out of gear, the bolt 54 is retracted by means of the pin 55 to release the hooked end 53 of the spring 52, after which the spool 51 may be turned, by means of the crank 50, to wind the cord 59 up taut, after which the bolt 54 is released to engage the hook 53. As the rocking-chair 1 is rocked forward the arms 6 will be operated by the springs 5 to swing through an arc to pull on the cord 59 to turn the pulley 48 to drive the fan 45 in one direction and to unwind the cord off the spool 51 and coil the spring 52 tighter. As the chair 1 is rocked backwardly the arms 6 will be operated in the reverse direction to coil the springs 5 tighter and to permit the cord 59 to slack off; but this slack is taken up by the spring 52, which will partially uncoil and drive the spool 51 to take up the slack of the cord 59, and thereby drive the fan 45 in the opposite direction.

We do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of our invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a fan-motor for rocking-chairs, the combination of a fan the adjustable clamp engaging the rear end of a rocker, the motor-lever comprising the spiral spring the extremities of which are prolonged to form arms, the arm connected to the inner coil being connected to said clamp and the arm connected to the outer coil extending rearwardly and bearing on the floor, and the roller carried by said last-mentioned arm and bearing on the floor, and means for actuating said fan from said motor-lever, substantially as described.

2. In a fan-motor for rocking-chairs, the combination of a fan, a clamp embracing the rear end of a rocker, the two spiral springs located on opposite sides of the rocker, the inner coil of each of said springs being rigidly connected to said clamp, and the extremity of the outer coil being prolonged to form an arm extending beyond the rear of the rocker and held down by said spring, the roller carried by the rear ends of said arms and bearing on the floor, the cord connected to said last-mentioned arms, and means operated by said cord for driving the fan, substantially as described.

3. In a fan-motor for rocking-chairs, the adjustable clamp for the rear end of the rocker comprising a jointed member adapted to conform to the contour of the tip of the rocker, and one end being serrated, a yoke striding said rocker and having its arms connected to one end of said jointed member, and a set-screw seated in an aperture in the cross-bar of said yoke with its point engaging the serrated end of said jointed member, substantially as described.

4. In a fan-motor for rocking-chairs, a bracket-arm comprising the combination of the inner tube slotted from end to end, an outer tube traversed by a longitudinal slot and fitted upon said inner tube, and the catch for adjustably securing said tubes against relative movement to enable the length of said arm to be adjusted, substantially as described.

5. In a fan-motor for rocking-chairs, the combination of the hollow bracket-arm, the casing carried by the outer end of said arm, the shaft journaled in said casing and bearing a fan, and a pulley located in alinement with the bore of said bracket-arm, the shaft journaled in said casing and bearing a crank-arm exterior to said casing and a spool located thereon, a spiral spring surrounding said last-mentioned shaft and having its inner coil con-

nected thereto, the bolt engaging the outer coil of said spring, the cord passing around said pulley and secured to said spool, and means for pulling said cord to turn said spool in opposition to said spring, substantially as described.

6. In a fan-motor for rocking-chairs, the combination of a fan, a hollow bracket-arm bearing the shaft of said fan a casing mounted on said arm, the shaft bearing the spool, the spiral spring surrounding said shaft and connected thereto, the end of the outer coil of said spring having a hook formed thereon, and the spring-pressed slidably-mounted bolt normally engaged by said hook, said bolt being adapted to be operated to release said hook, the cord passing through said arm and around said spool and connected thereto, and the motor-lever connected to said cord and opposing said spring, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WILLIAM G. LANGDALE.
ROBERT J. NOWLIN.

Witnesses:
WILL W. RENNER,
JOHN H. RUSSE.