L. MESZAROS.

MECHANICAL FAN.

APPLICATION FILED DEC. 8, 1909.

955,823. **Patented Apr. 19, 1910.**

Fig. 1

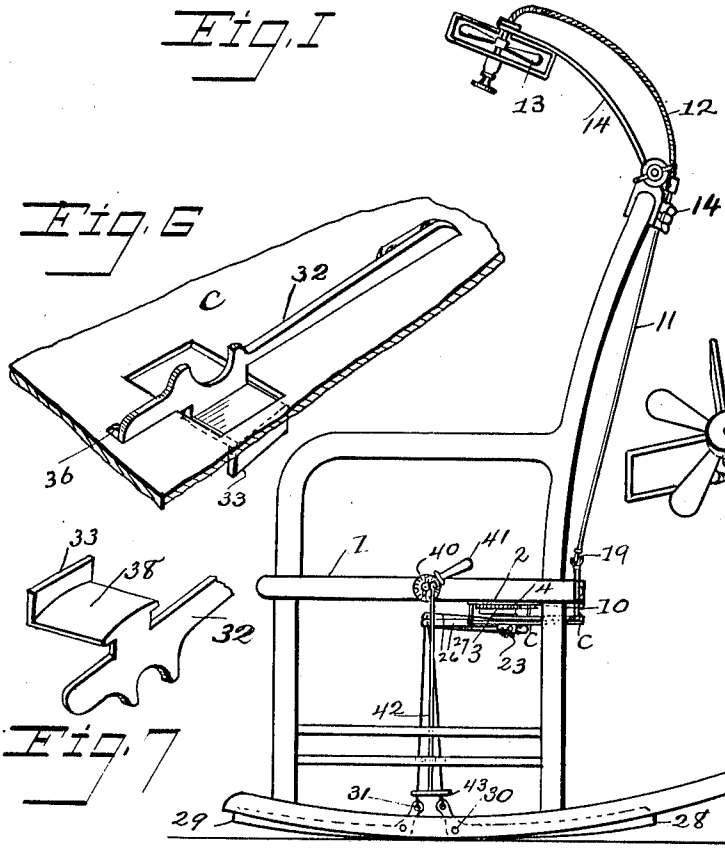

Fig. 6

Fig. 9

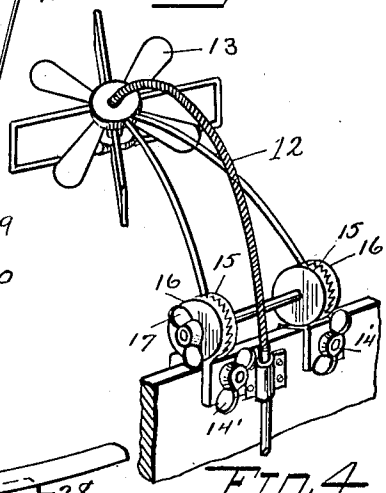

Fig. 7

Fig. 4

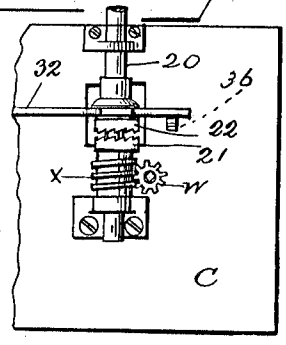

Fig. 3

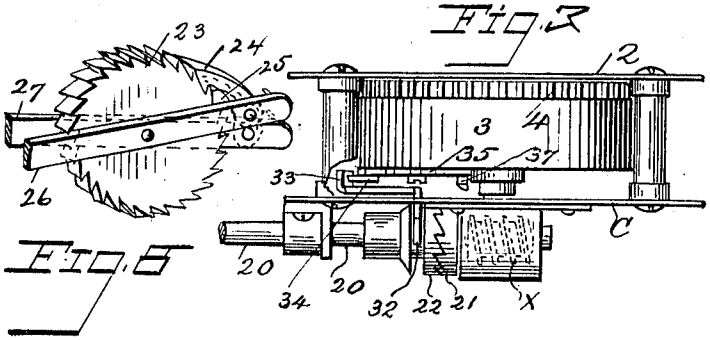

Fig. 8

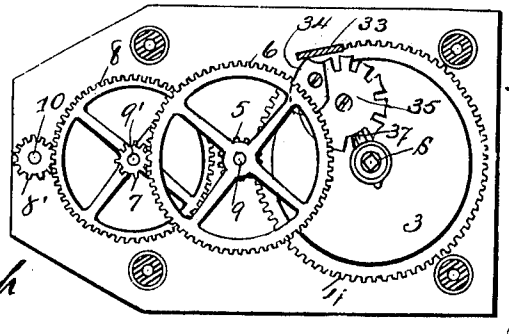

Fig. 2

Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS MESZAROS, OF CLEVELAND, OHIO.

MECHANICAL FAN.

955,823. Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed December 8, 1909. Serial No. 532,143.

To all whom it may concern:

Be it known that I, LOUIS MESZAROS, a citizen of Austria-Hungary, and resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Mechanical Fans, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of the invention are to provide mechanical means for driving a fan or other rapidly rotating device, and the invention is particularly applicable to use with a rocking chair, and is so arranged that the movements of the person in the chair in rocking it backward and forward will operate the fan at any desired rate of speed.

The invention comprises the spring actuated mechanism, adapted to be attached to the chair, and operatively connected with the fan, which is adjustably supported for use in any desired position and at any angle, and the invention also includes mechanism connected with the rockers, and adapted and arranged to operate the spring winding mechanism automatically as the chair is rocked.

An important feature of the invention is also found in the automatically acting clutch and stop movement by the action of which the spring is preserved from over winding, and it also includes a device for throwing the clutch into action again when the spring is entirely unwound.

The invention further comprises the combination and arrangement of parts and construction of details, as hereinafter described, shown in the accompanying drawings and specifically pointed out in the claims.

In the accompanying drawing Figure 1 is a side elevation of a rocking chair, having attached thereto the automatically operating fan. Fig. 2 is a plan view of the spring actuated mechanism with the cover plate therefor removed; Fig. 3 is an end view of the same showing the clutch and operating mechanism therefor. Fig. 4 is a plan view of the gear case showing the spring clutch lever. Fig. 5 is a perspective view showing the mode of attaching the fan to the chair. Fig. 6 is a perspective view of the spring clutch lever showing from above. Fig. 7 is a perspective view of the same shown from below. Fig. 8 is a perspective view of the ratchet wheel and pawls.

In these views 1 represents an ordinary rocking chair; 2 is the frame for the gear mechanism; 3 is the spring case, the gear 4 upon which is connected with the train gears, 5, 6, 7, 8 and 8′, mounted upon spindles, 9, 9′ and 10. The last named spindle 10 is therefore driven at an increased rate of speed, and from this spindle the fan driving shaft 11 and the flexible shaft 12 to which the fan 13 is attached, are driven.

An adjustable support, 14 is secured to the back of the chair by any suitable clamping device such as set screws 14′ 14′. This support is attached for pivotal movement to the back of the chair by means of the ratchet plates 15 and 16 and shaft and thumb screw 17.

The shaft 12 to which the fan is directly attached is preferably flexible so as to permit of adjustment to any desired angle. The connecting means between the driving spindle and shaft 11 may be a universal joint of any kind as shown at 19.

The motor spring is provided with a winding stem S, which is connected with the worm X and the worm wheel W.

To wind the motor spring the winding shaft 20 is operated by means of the clutch in two portions 21 and 22, the outer member of which is rotated by means of the ratchet wheel, 23. Engaging with this ratchet wheel 23, are the pawls, 24 and 25, which are mounted upon the oscillating arms, 26 and 27, which are connected with rock arms 28 and 29, pivoted at 30 and 31 upon the chair rockers. These rock arms are adapted to operate alternately as the chair is tilted one way and the other, and the oscillating arms, 26 and 27 are therefore alternately moved so as to cause the pawls to operate alternately upon the ratchet wheel, 23. This action will keep the spring wound up to the limit all the time. To prevent overwinding the spring, a spring clutch lever, 32, is employed, which is secured to the cover C of the gear case. This clutch is provided with an inclined flange, 33, which extends through the cover and is engaged by a cam shaped piece of metal 34, upon the stop wheel 35, as the wheel revolves, and is thus thrown back so as to release the clutch as soon as the spring is sufficiently wound. When the spring lever 32 is thus thrown

back it will automatically engage a beveled lug, 36, upon the cover, and will be retained thereby until the spring released from the lever, is unwound. At this time a pin, 37, upon the stop wheel 35 will engage an inclined surface, 38, upon the lower face of the lever and will release the lever from the lug 36 thus permitting the spring lever to fly back again and reëngage the clutch parts. In this manner no attention is required whatsoever from the person in the rocker, the mere movement of the rocking serving to keep the motive spring wound up. A device for preventing the action of the winding mechanism from operating is also shown in Fig. 1 for use when it is desired not to use the fan, where 40 is a ratchet disk pivoted upon the chair, and provided with a lever, 41. 42 is a rod connected eccentrically therewith at the upper end, and provided at the lower end with a plate, 43, adapted to engage when lowered with the upper ends of the rock arms 28 and 29.

When the lever 41 is depressed the rock arms will be raised out of engagement with the floor and the winding mechanism will cease to operate.

The ratchet disk 40 is mounted upon a second ratchet disk, 44, which is secured to the chair, so that the rock arms can be retained with their outer ends raised if desired.

Having described the invention which I claim as new and desire to secure by Letters Patent is,

1. In combination, a rocking chair, a motor spring, and case attached thereto, speed gearing in said case, a winding shaft and clutch, a ratchet upon said winding shaft, oscillating arms upon said shaft and pawls thereon adapted to engage said ratchet, rock arms pivoted in one of the rockers of said chair, and connected with said oscillating arms, said rock arms adapted to alternately operate said pawls, a fan mounted in said chair, and operatively connected driving shafts for said fan, said driving shafts operatively connected with said speed gearings.

2. In combination, a rocking chair, a motor spring, and case attached thereto, speed gearing in said case, a winding shaft and clutch, a ratchet upon said winding shaft, oscillating arms upon said shaft and pawls thereon adapted to engage said ratchet, rock arms pivoted in one of the rockers of said chair, and connected with said oscillating arms, said rock arms adapted to alternately operate said pawls, a fan mounted in said chair, and operatively connected driving shafts for said fan, said driving shafts operatively connected with said speed gearings, and means for preventing the overwinding of the spring when said rocking chair is in use.

In testimony whereof, I hereunto set my hand this 29th day of November, 1909.

LOUIS MESZAROS.

In presence of—
WM. M. MONROE,
NICHOLAS BAPP.