(No Model.) 2 Sheets—Sheet 1.

L. W. & E. E. MARTYR.

ROCKING CHAIR FAN.

No. 564,566. Patented July 21, 1896.

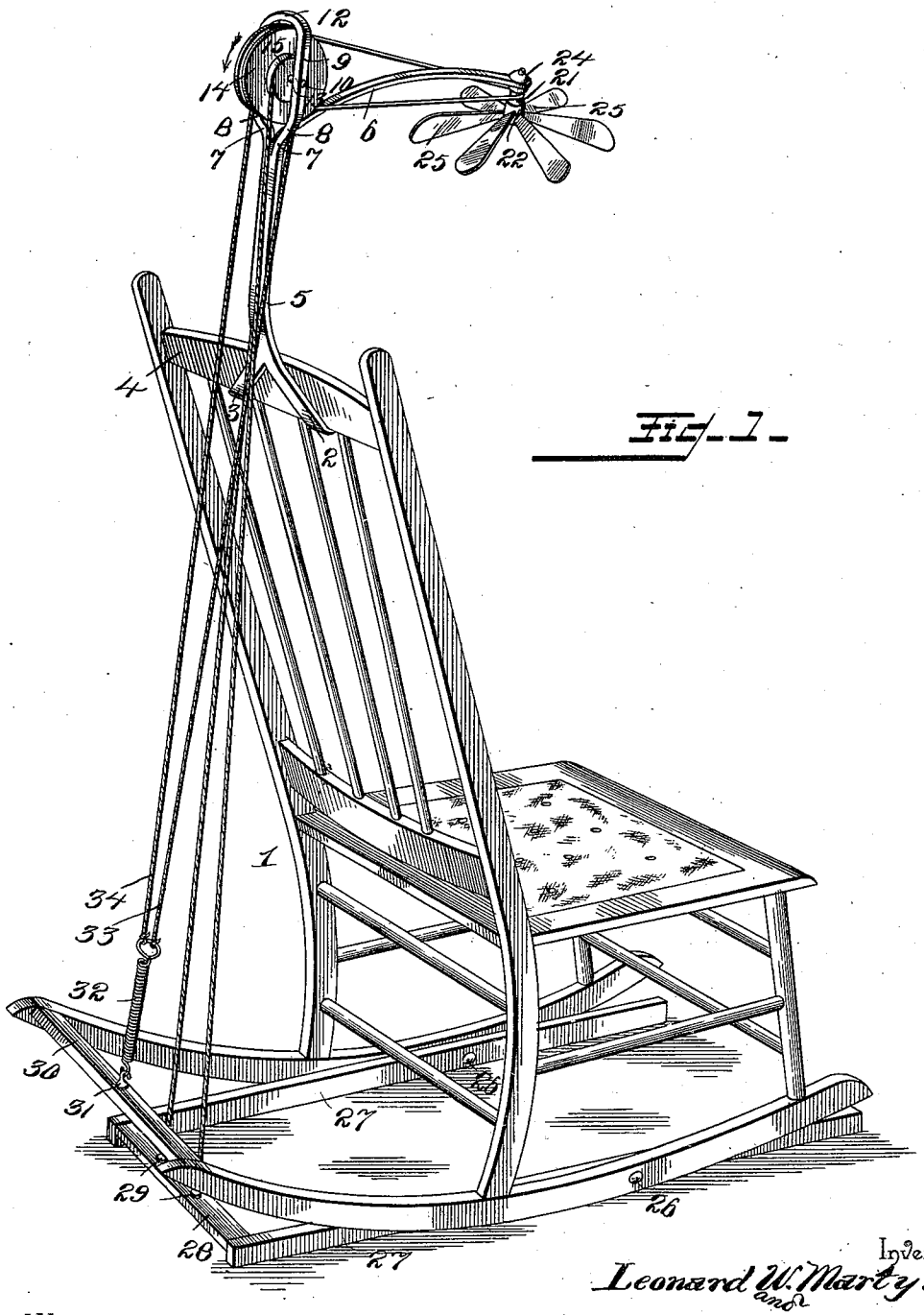

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

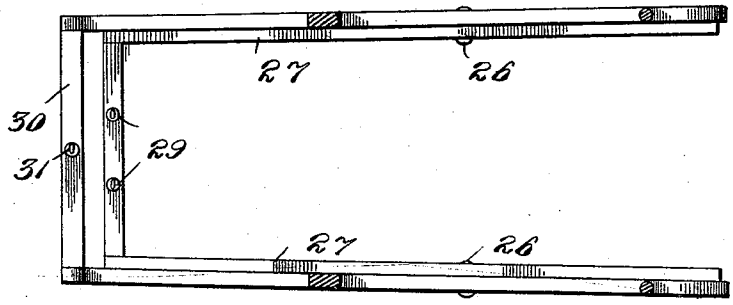


Fig. 3.

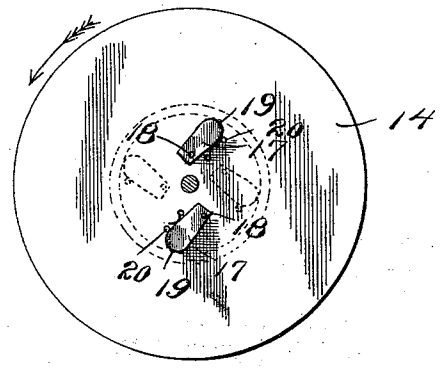


Fig. 4.

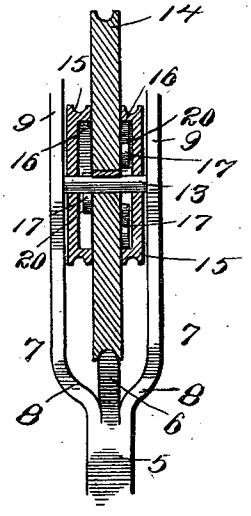
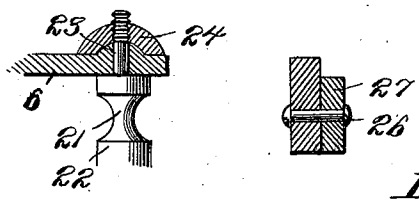


Fig. 5.



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UNITED STATES PATENT OFFICE.

LEONARD W. MARTYR AND ERNEST E. MARTYR, OF GALVESTON, TEXAS.

ROCKING-CHAIR FAN.

SPECIFICATION forming part of Letters Patent No. 564,566, dated July 21, 1896.

Application filed September 10, 1895. Serial No. 562,110. (No model.)

To all whom it may concern:

Be it known that we, LEONARD W. MARTYR and ERNEST E. MARTYR, citizens of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented a new and useful Rocking-Chair Fan, of which the following is a specification.

Our invention relates to fan-operating mechanisms, particularly to such as are adapted to be attached to a rocking-chair to be automatically operated by the reciprocating motion of the rockers.

Our object is to provide an improved fan attachment for a rocking-chair which shall give continuous and noiseless motion to a fan attached to the chair without any effort or attention on the part of the occupant of the chair. Our device is simple and inexpensive, and is readily adjustable to any form or size of rocker.

Accordingly, our invention consists in the mechanism hereinafter described in detail, and defined in the claims.

In the drawings, Figure 1 is a rear perspective view of our invention attached in operative position to a common rocking-chair. Fig. 2 is a horizontal section just above the rockers. Fig. 3 is a side elevation of the pulley-clutch and drive-wheel with the side pulley removed. Fig. 4 is a vertical section through the pulley mechanism. Fig. 5 shows fragmentary views of details.

Reference-numeral 1 designates an ordinary rocking-chair. Firmly secured by divergent arms 2 and 3 to the upper end of the back 4 of the chair is a vertically-projecting standard 5, trifurcated at its upper end, the middle arm 6 being bent forward in a graceful curve terminating a little short of the front line of the chair. The side arms 7 are branched diagonally at 8, and then continued up in parallel portions 9, which are perforated to form bearings 10 and then arched together at the top 12.

Centrally keyed or otherwise secured on horizontal pivot-shaft 13, which turns in bearings 10, is a drive-wheel 14, of a size to occupy substantially all the vertical space under arch 12. A special clutch-pulley 15 is loosely journaled on shaft 13 on either side of drive-wheel 14. Each of said pulleys 15 is grooved on its outer rim, and is provided with a lateral peripheral flange 16, projecting into loose facial contact with the drive-wheel. The inside annular surface of said flange is smooth, to provide a suitable frictional bearing-surface for the clutch-pawls 17. Two of these pawls are provided on either side of drive-wheel 14, pivoted at their inner ends on stub-pivots 18, arranged diametrically opposite each other at points equidistant from shaft 13, so as to rest in oblique contact against flange 16. These pawls are rounded at their ends 19, and may be made of brass or other metal and faced with rubber or rough leather, or otherwise provided with good gripping-surfaces, and they may be kept in contact against said flange 16 by a light spring against posts 20. These pawls 17 are so placed on either side as to turn back from the direction of revolution of the drive-wheel, the result being that when pulley-flange 16 is revolved forward it catches said pawl ends 19 with a wedging grip, so as to carry them with it and thereby revolve the drive-wheel.

Drive-wheel 14 is peripherally grooved and provided therein with an endless band, which passes around a small horizontal grooved pulley 21, fixed on the fan-shaft 22 immediately below the outer end of arm 6. The upper end of shaft 22 is suitably journaled in bearing 23 in said arm and secured therein by cap-nut 24. The lower end of fan-shaft 22 carries a plurality of radial fan-arms 25, made of sheet-brass. Of course, any other sort of fan may be substituted for fan 25, as this is not the essential feature of my invention.

Centrally pivoted between the chair-legs at 26 on the inner side of each rocker, substantially at the lowest point of rest, is a straight bar 27, extending to the front and to the rear a little short of the ends of said rockers. The rear ends of said bars 27 are connected by a horizontal rod 28, centrally provided with screw-eyes or staples 29, and the rear ends of the rockers are likewise connected by bar 30, having eye or staple 31, Secured at one end in eye 31 is a tension-spring 32, provided at its upper end with two pulley-cords 33 and 34. Cord 33 is passed over the right-hand pulley 15 from the front, and cord 34 is passed over the left-hand pul-

ley from the rear. Said two pulley-cords are then continued down and secured under considerable tension to eyes 29.

The result of the above arrangement is that the spring 32, being always under tension, causes the front ends of straight bars 27 always to tend to contact with the floor, thereby forming at that point a sort of fixed pivot, so that the rear ends thereof will vibrate past the rockers twice during every up and every down movement of said rockers. The reason for this is that every time that pivot 26 is at its lowest point bars 27 rest along the floor, but this happens in the midst of the rock of the rocker, so that said pivot-point 26 is raised both before and afterward, and inasmuch as the rear ends of said bars 27 swing rapidly up and down at each time the pivot 26 is raised, it therefore results that this rapid vibration takes place twice during each rock.

The further result is that by reason of the oppositely-rove cords 33 34 the two pulleys 15 are reciprocated in opposite directions by every upstroke and also by every downstroke of vibrating bars 27, so that one or the other of said pulleys is always revolving over to the rear and thereby in clutching engagement with the drive-wheel to continuously revolve the same in one and the same direction, to wit, over to the rear. Of course the clutches might be arranged oppositely to drive said wheel continuously in the reverse direction. This continuous motion of the drive-wheel is transmitted through the band and pulley 21 to the fan, which is thereby driven evenly and continuously in one direction. Of course arm 6 can be raised or lowered, lengthened or shortened, according to the preference of the party using the same.

It will be apparent that any usual or preferred form of clutch may be used in lieu of that herein described, and also that various other changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What we claim is—

1. The combination with a curved rocker, of a bar arranged parallel thereto and pivoted intermediately of its length to said rocker at the latter's point of rest, said bar extending forward in a line of less curvature than the rocker and to a length commensurate with the forward end of said rocker, a rotary fan journaled on a vertical axis in a frame attached to the chair-back, a drive-wheel journaled in the same frame and provided on either side with a clutch-pulley, said pulleys being arranged for reciprocal motion to engage with said wheel when they are rovolving in one direction and to disengage from said wheel when revolving in the opposite direction, whereby said wheel is caused to maintain continuous rotating motion and to drive the fan continuously in the same direction, and suitable power-transmitting means connecting the rear ends of said rocker and bar with said pulleys said means consisting of two band-cords, one for each pulley, and a tension-spring common to both cords, so arranged that said cords are always under tension and serve to impart motion to the pulleys in both directions, substantially as described.

2. The combination with the rockers of a chair connected at their rear ends by a cross-bar, of a tension-spring thereon, two straight bars centrally pivoted midway between the chair-legs one to the inside of either rocker and extending substantially even with the said rockers at either end, a cross-rod connecting said bars at their rear ends, a standard extending vertically from the back of said chair and having a drive-wheel suitably mounted in its upper end, a clutch-pulley on either side of said wheel provided with a peripheral flange extending laterally into facial contact with said wheel, two oppositely-pivoted pawls adjusted to the same direction on either face of said wheel arranged to engage said adjacent pulley-flange, an arm projecting forward from said standard, a vertical pivot-post journaled in the outer end of said arm and provided with a fan on its lower end, a pulley fixed on said post, a band connecting said fixed pulley and drive-wheel and separate and independent drive-bands for each clutch-pulley attached to their lower ends to said cross-rod, one of said bands being passed over its pulley from the front and the other of said bands being passed over its pulley from the rear, said bands being continued down and both attached at their opposite ends to said tension-spring, all so arranged that continuous rotary motion is given to said fan by the rocking movement of the chair, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

LEONARD W. MARTYR.
ERNEST E. MARTYR.

Witnesses:
S. W. HOWARD,
C. WASHINGTON.