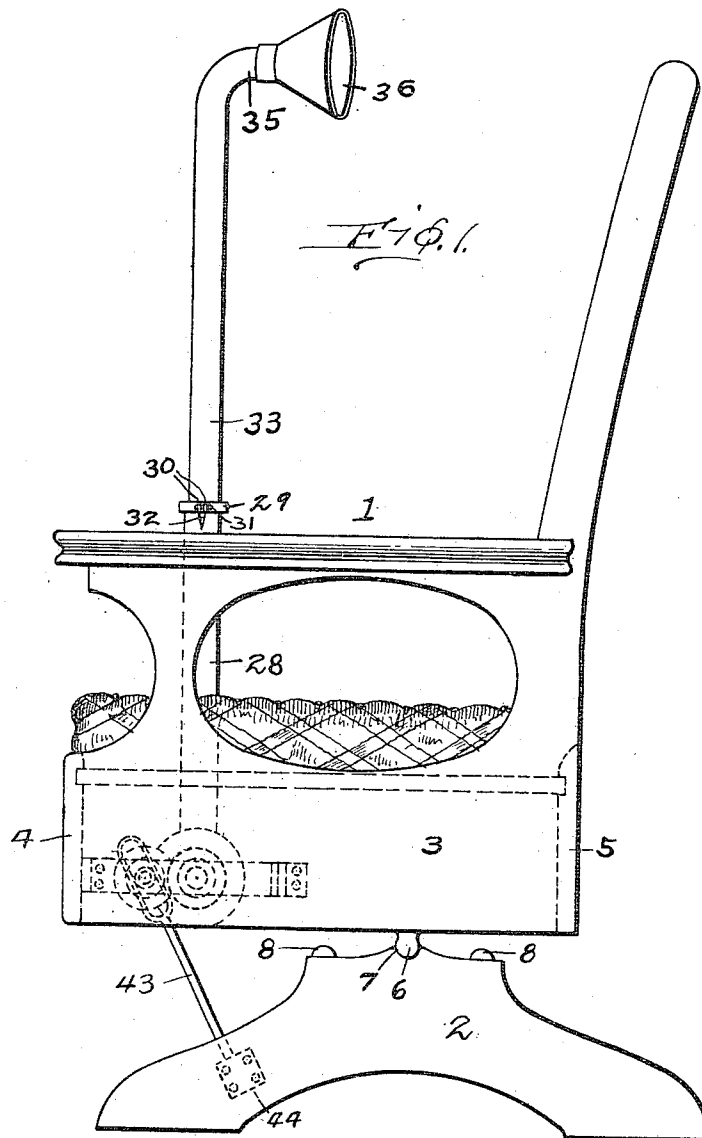


E. G. BULES.
 BLOWER FOR ROCKING CHAIRS.
 APPLICATION FILED JUNE 24, 1909.

957,739.

Patented May 10, 1910.

2 SHEETS—SHEET 1.



Inventor

Edward G Bules

By Mason F. Lawrence

Attorneys

Witnesses

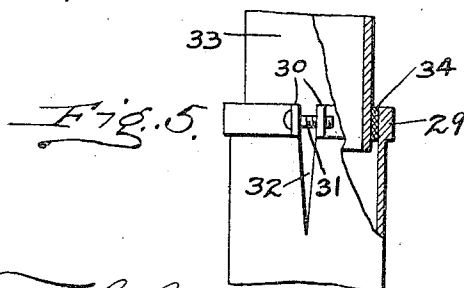
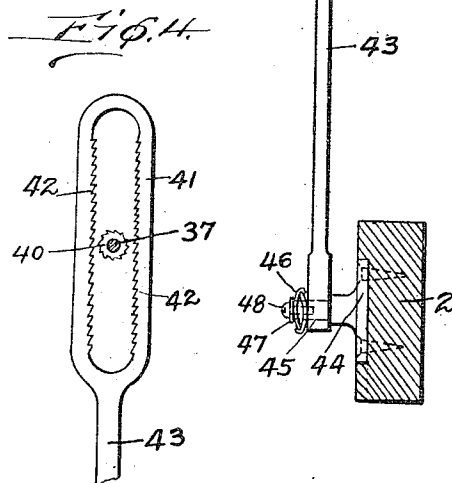
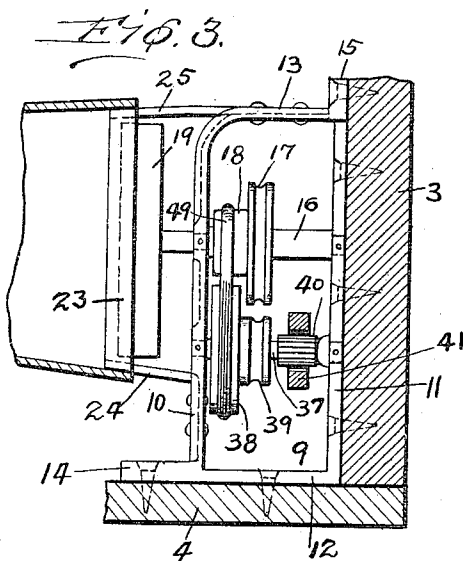
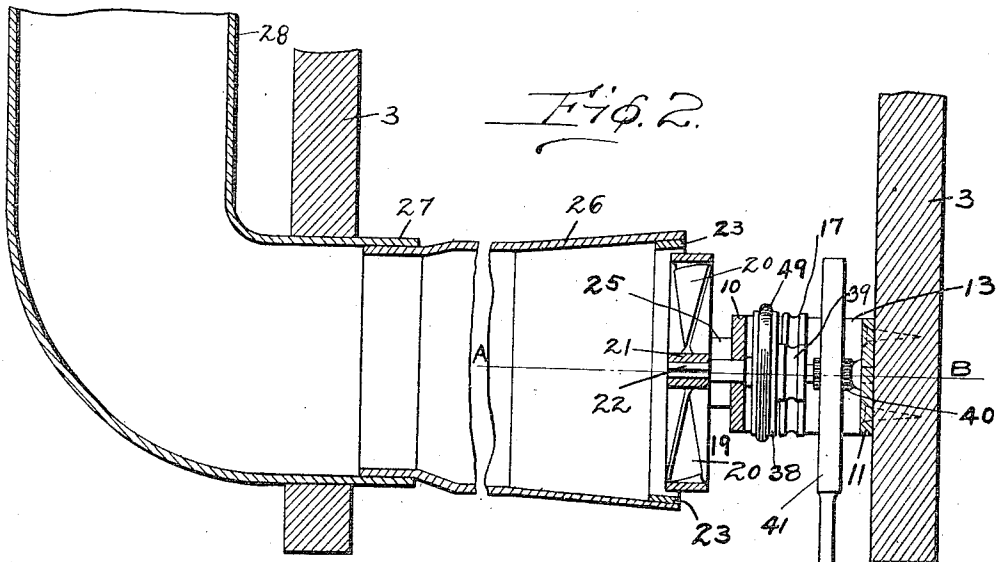
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UNITED STATES PATENT OFFICE.

EDWARD G. BULES, OF SAN DIEGO, CALIFORNIA.

BLOWER FOR ROCKING-CHAIRS.

957,739.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed June 24, 1909. Serial No. 504,198.

To all whom it may concern:

Be it known that I, EDWARD G. BULES, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Blowers for Rocking-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to blowers for rocking chairs and has for an object to provide a blower to be operated by the natural rocking movement of a rocking chair whereby the occupant may receive a continual discharge of air at any point desired without the expenditure of extra effort to operate the blower.

A further object of the invention is to provide a simple device for operating the blower to keep the same in motion as long as the chair is made to rock.

A further object of the invention is to provide a fan and fly-wheel in combination to increase the momentum of the several parts, and to force air into a tube and to deliver the same to the occupant of the chair at any desired angle.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawings: Figure 1 represents a side elevation of the rocking chair embodying the features of the invention. Fig. 2 represents a fragmentary sectional elevation view through a portion of the frame and base of the chair, the blower pipe, fan and gear frame, looking toward the front of the chair. Fig. 3 is a fragmentary sectional plan view taken approximately on line A—B of Fig. 2. Fig. 4 is a fragmentary view in front elevation of the operating rod pivoted to the base of the chair, as shown in Figs. 1 and 2. Fig. 5 is a detail fragmentary view in elevation and partly in section of the flexible joint of the blower pipe.

Referring to the drawings by numerals 1 represents a chair and 2 represents the base of the chair.

3 represents the side frame-pieces of the chair 1, and 4 and 5 represent the front and back frame pieces of the chair respectively. Secured to the bottom of the side frame-

pieces 3 is a member 6 having its lower portion substantially semi-circular in shape, which is positioned in a semi-circular groove 7 formed in the base 2. Positioned equidistant from the semi-circular member 6 and upon the base 2 are rubber stops 8 for the purpose of engaging the chair body in its extreme forward and backward movement to act as a cushion for the same. Secured to the inner face of one of the frame-pieces 3 and the front frame member 4 is a substantially rectangular shaped supporting bracket 9 having parallel bars 10 and 11 spaced apart and connected at one end by a tie member 12, and at the opposite end by a tie member 13. The bar 11 is secured to the side frame-piece 3 by suitable bolts or screws, and the tie member 12 is secured to the end frame-piece 4 by suitable screws or bolts. The bar 10 is provided at its front end with an extension member 14 which is secured to the front frame-piece 4. The bar 11 is provided with an extension member 15, which is also secured to the side frame-piece 3 by suitable screws. The bars 10 and 11, the tie members 12 and 13 and extensions 14 and 15 are preferably cast integral.

Journaled in the parallel bars 10 and 11 is a shaft 16, upon which is rigidly mounted a large grooved wheel 17 and a small grooved wheel 18. One end of the shaft 16 projects beyond the rectangular supporting bracket 9 and has mounted thereon a combined fly-wheel and fan 19. The fly-wheel 19 is so constructed as to act both as a fly-wheel and a fan, and is provided with blades 20 cast integral with the rim of the fly-wheel 19 and the hub 21 in which is mounted the reduced portion 22 of the shaft 16. The reduced portion 22 is keyed or otherwise made rigid with the fly-wheel 19. Extending over a portion of the rim of the fly-wheel 19 is a circular member 23 which is secured to bracing members 24 and 25, which are in turn riveted to the frame bar 10 and tie bar 13 respectively.

Positioned on the outer periphery of the circular member 23 is a substantially funnel-shaped member 26 for receiving the current of air supplied by the rotating of the combined fly-wheel and fan 19. An extension 27 is positioned on the outer periphery of the smaller end of the funnel-shaped member 26 and passes through and is supported by one of the side-frame-pieces 3. The pipe 28 is bent outside of the frame-piece 3 substan-

tially at a right-angle with the extension 27 and passes up on the outside of the chair to any height desired. The top of the pipe 28 is provided with an annular portion 29 provided with projections 30 through which passes a screw bolt 31. The top of the pipe 28 is cut out for a considerable distance down as at 32, for the purpose of forming a clamp member of the annular portion 29 which is preferably made integral with the top of the pipe 28.

A delivery pipe 33 is projected into the top of the pipe 28 and between the outer periphery of the delivery pipe 33 and the inner periphery of the pipe 28 is positioned a leather washer 34. By means of the screw bolt 31 the pipe 28 may be adjusted to clamp the delivery pipe 33 through the medium of the leather washer 34 to any desired tension, but preferably so that the delivery pipe 33 may be revolved with ease and at the same time be supported vertically. The delivery pipe 33 is provided with a curved extension 35 over the end of which is positioned a funnel shaped member 36 for delivering a supply of air to the occupant of the chair.

A shaft 37 is mounted at one end in the frame bar 10, and at the opposite end in the frame bar 11, and rigidly mounted on the shaft 37 is a large grooved wheel 38 and a small grooved wheel 39. Rigidly mounted on the shaft 37 and between frame bar 11 and the grooved wheel 39 is a gear wheel 40. Surrounding the gear wheel 40 is a loop member 41 having teeth 42 positioned on each side of the gear wheel and adapted to be out of engagement with the teeth of the gear wheel 40 when the rocking chair is at rest. Extending downwardly from the loop portion 41 is a rod 43 which connects with the base 2 of the chair. Secured to the base 2 of the chair is a bracket member 44 provided with the reduced shaft portion 45, on which is mounted the bottom end of the rod 43. Positioned on the outer end of the reduced portion 45 is a spring 46 substantially elliptical in construction. The spring 46 bears against the rod 43 and is held in engagement with the rod 43 by means of a washer 47 and a screw 48. The spring 46 is for the purpose of keeping the loop portion 41 in contact with the gear wheel 40 when the chair is thrown forward by pressing against the base of the rod 43 with sufficient force to hold the rod in a set position and normally out of engagement with the gear wheel 40 when the chair is in a horizontal position.

The grooved wheel 18 mounted on the shaft 16 and the grooved wheel 38 mounted on the shaft 37 are connected by a belt 49 so that when the shaft 37 is revolved the shaft 16 is also made to revolve, which in turn revolves the combined fly-wheel and fan 19 to force air into the funnel-shaped member 26,

and thence into the pipe 28 to be delivered to the occupant of the chair. If it is desired to decrease the speed of the combined fly-wheel and fan 19 the belt 49 is shifted to the grooved wheels 17 and 39, which are geared higher than the grooved wheels 18 and 38. It will be perfectly obvious that instead of using grooved wheels 17, 18, 38 and 39 on the shafts 16 and 37 connected by a belt, geared wheels might be mounted on the shafts 16 and 37 connecting directly with each other, as by means of teeth, or sprocket wheels might be used and connected by means of sprocket chains. The delivery pipe 33 and funnel 36 are made adjustable both vertically and transversely by means of the pipe 33 being made to slide up and down in the pipe 28 through the medium of the clamping means secured to the top of the pipe 28, and also capable of being revolved in the pipe 28 to have the funnel 38 positioned at any angle to the occupant of the chair that may be desired.

In the operation of my improved blower for rocking chairs when the occupant of the chair desires to rock, the movement of the chair forward and backward causes the gear wheel 40 to move forward and backward bodily, and the teeth of the gear wheel 40 to engage the teeth of the loop portion 41 of the rod 43 which is pivoted to the base 2, and produces a pull on the gear wheel 40, which being rigidly connected to the shaft 37 rotates the same, which in turn rotates the shaft 16 by means of the grooved wheels 18 and 38 and the belt 49, and as the shaft 16 is made to revolve the combined fly-wheel and fan 19 is also made to revolve and to force air into the funnel-shaped member 26 and thence to the pipe 28, to the delivery pipe 33 and out through the funnel 36 to the occupant; the movement of the chair forward causing the teeth on one side of the loop member 41 to engage the teeth of the gear wheel 40 to rotate the shaft 37, and the movement of the chair backward causing the teeth on the opposite side of the loop member 41 to engage the teeth of the gear wheel 40 to rotate the shaft 37.

What I claim is:—

1. In a rocking chair, a body portion provided with side and end frame pieces, a blow pipe arranged to pass through one of the side frame pieces and to project above the main body portion thereof and bent inward to form a discharge member, a combination fan and fly wheel positioned in the other end of the blow pipe, a pivotal base positioned under the chair body, a pivotal member carried by the body and engaging the pivotal base and means carried by the base and connected with the combination fan and fly wheel to operate the same for the purpose of forcing air through the blow pipe.

2. In a rocking chair, a blow pipe con-

5 nected therewith, a combination fan and fly wheel mounted upon a shaft and positioned in one end of the blow pipe, a second shaft mounted adjacent the first mentioned shaft, means mounted upon the chair for revolving the last mentioned shaft and means connecting the two shafts, whereby when motion is imparted to the second mentioned shaft the first mentioned shaft will be made to revolve

and to simultaneously rotate the combination fan and fly wheel for the purpose of forcing air through the blow pipe. 10

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD G. BULES.

Witnesses:

GEORGE H. RUST,

F. E. WALKER.