(No Model.)

B. LILLY & R. R. KINNEY.

BELLOWS ATTACHMENT FOR ROCKING CHAIRS.

No. 587,008. Patented July 27, 1897.

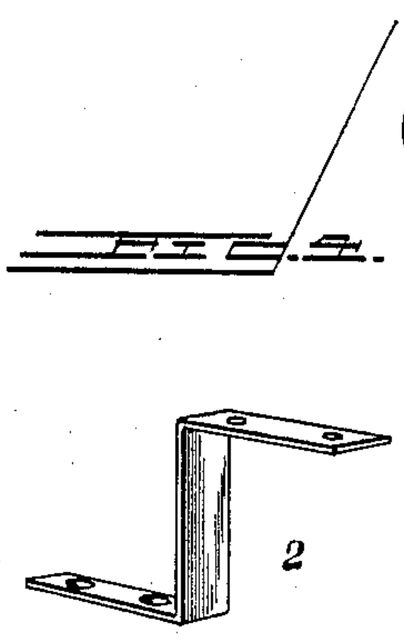


FIG. 4.

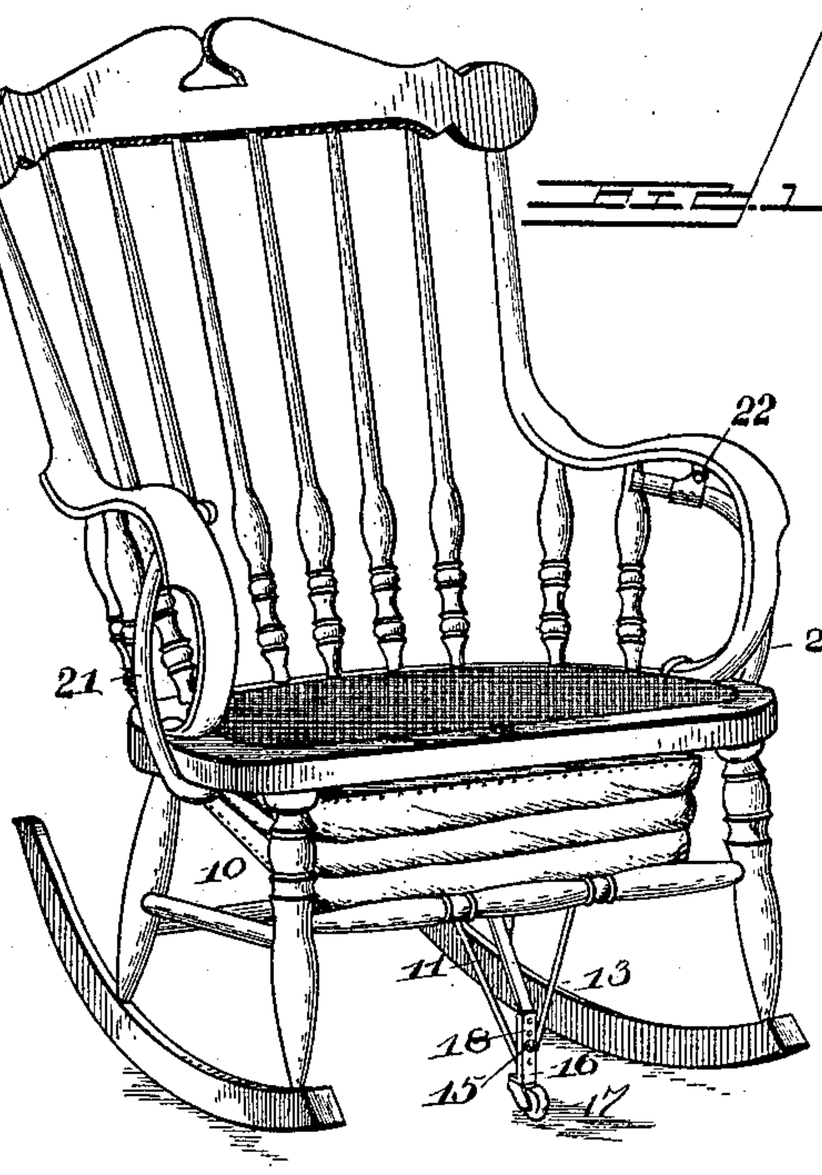


FIG. 1.

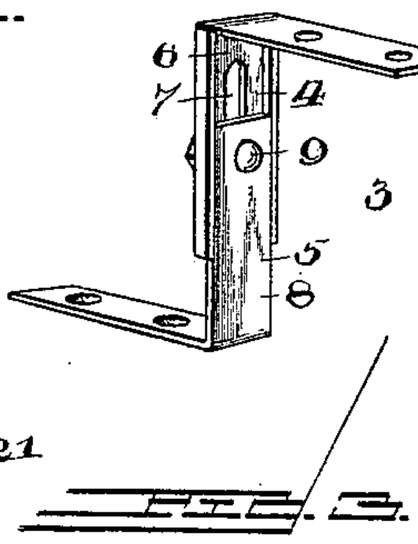


FIG. 3.

FIG. 5.

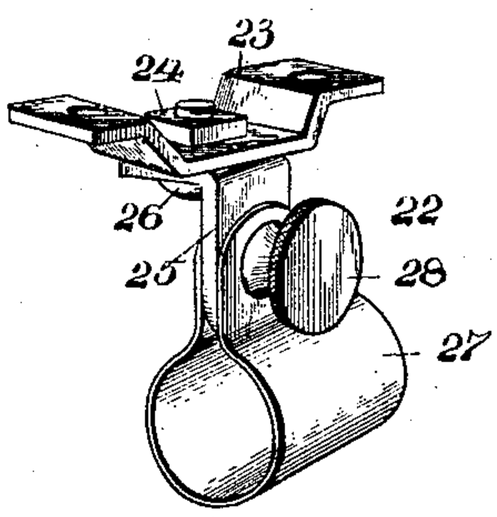


FIG. 2.

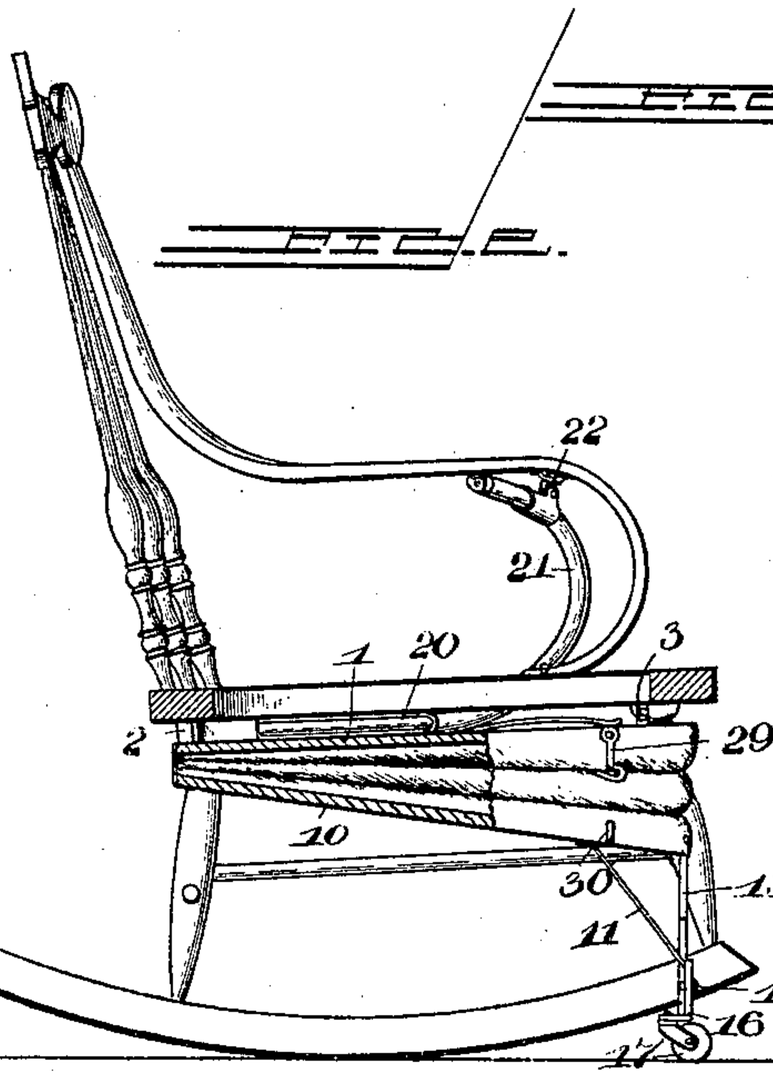
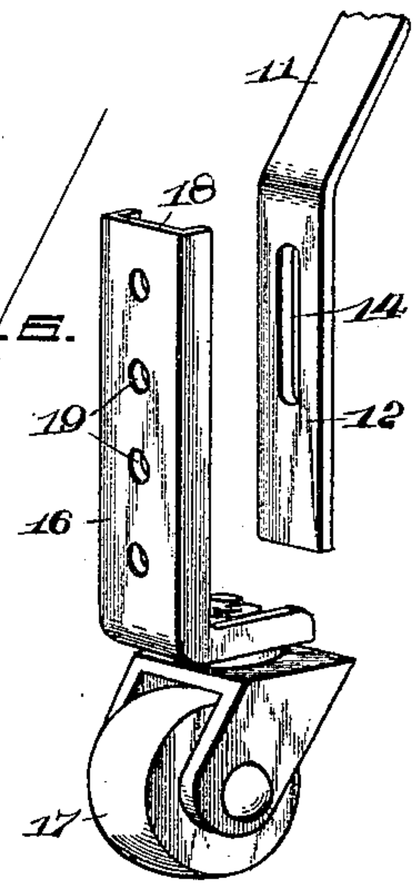


FIG. 6.



Witnesses
W. A. Doyle.
D. E. Doyle

By their Attorneys,

Inventors,
Richard R. Kinney and
Bernard Lilly,
Church & Co.

UNITED STATES PATENT OFFICE.

BERNARD LILLY AND RICHARD R. KINNEY, OF COLDWATER, MICHIGAN.

BELLOWS ATTACHMENT FOR ROCKING-CHAIRS.

SPECIFICATION forming part of Letters Patent No. 587,008, dated July 27, 1897.

Application filed October 14, 1895. Serial No. 565,633. (No model.)

To all whom it may concern:

Be it known that we, BERNARD LILLY and RICHARD R. KINNEY, citizens of the United States, residing at Coldwater, in the county of Branch and State of Michigan, have invented a new and useful Bellows Attachment for Rocking-Chairs, of which the following is a specification.

Our invention relates to a bellows attachment for rocking-chairs; and the object in view is to provide a simple and efficient apparatus adapted to be applied to an ordinary chair of this class, and including means whereby the direction of the current or currents of air may be adjusted to suit the position and preference of the occupant of the chair.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a bellows attachment embodying our invention applied in the operative position to a rocking-chair. Fig. 2 is a vertical central section of the same. Fig. 3 is a detail view in perspective of one of the adjustable brackets for supporting the front end of the bellows. Fig. 4 is a similar view of one of the rear brackets. Fig. 5 is a similar view of the adjustable clamp for holding the extremity of the conductor. Fig. 6 is a detail view of the lower extremity of the leg or standard to show the adjustable foot.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

To the under surface of the seat of the chair is secured the stationary wall 1 of the bellows, the rear end of said wall being secured to the seat by means of rigid angle-brackets 2. (Shown in detail in Fig. 4.) The front brackets 3, one of which is shown in detail in Fig. 3, are adjustable to provide for changing the position of the front edge of the stationary wall 1 with relation to the plane of the chair-bottom. This adjustable bracket comprises angular members 4 and 5, the former of which is provided with a grooved or guide arm 6, having a longitudinal slot 7, said grooved or guide arm being adapted to receive a slide-arm 8, forming a part of the member 5, which is engaged by a bolt 9, operating in the slot in the guide-arm.

The lower or hinged wall 10 of the bellows is provided with a depending leg or standard 11, having a vertical extension 12, which is located under the center of the front edge of the movable wall and is held in place by the looped brace 13, of which the arms are upwardly divergent and are secured to the under surface of said movable wall. The vertical extension of the leg or standard is slotted, as shown at 14, for engagement by an adjusting-bolt 15, and mounted to slide upon said extension is a vertically-adjustable foot 16, carrying a bearing-wheel 17. Said foot is provided with a vertical grooved arm 18, having a plurality of perforations 19, either of which may be engaged by said adjusting-bolt. The perforations in the grooved arm allow for the general adjustment of the foot, and the slot in the vertical extension of the leg or standard provides for the accurate adjustment of the same at points intermediate between and unattainable by the use of the spaced perforations.

Communicating with the interior of the bellows through openings in the upper or fixed wall thereof are the rigid pipes 20, and attached removably to the extremities of these pipes are the flexible conductors 21, preferably of rubber hose, and these conductors are engaged at points contiguous to the arms of the chair, or at any other suitable points, by means of clamps 22. These clamps are so constructed as to provide for adjusting the outlet ends of the conductors to discharge the air in any desired direction. In order to provide for this adjustment, we employ a clip-plate 23, secured in the construction illustrated to the under surface of an arm of the chair and bowed downward at its center to form a space between the same and the surface of the arm to receive a nut 24, an ear 25, secured by means of a bolt 26 to the clip-plate and engaged above the depressed center of said clip-plate by means of the nut 24, and a band 27, encircling the conductor near its outlet end and having its extremities secured to the ear by means of a thumb-screw 28. The band is pivotally mounted by means of the thumb-screw upon the ear to vary the inclination of the outlet end of the conductor,

and the ear is revolubly adjusted in a horizontal plane to vary the vertical plane of the discharge end of the conductor. By arranging the adjusting devices for the extremities of the conductors contiguous to and preferably under the arms of the chair they are within easy reach of the operator, whereby adjustment is possible without leaving the chair, while at the same time when not required said parts do not interfere with the movements of the occupant of the chair or with the ordinary uses of the chair and do not detract from the appearance of the same.

If preferred, the conductors may be detached, when not in use, from the extremities of the pipes communicating with the interior of the bellows, and at the same time the ears may be detached from the clip-plates on the under sides of the arms, the bellows being secured in its folded position by means of a hook 29, pivotally mounted upon the fixed wall in position to engage an eye or staple 30 on the movable wall.

The advantage of the adjustable bracket is to vary the interval between the upper surface of the fixed wall of the bellows and the under surface of the chair-seat, while the function of the adjustable foot for the leg or standard is to secure the proper bearing of the roller upon the floor and thus attain the desired operation of the movable wall of the bellows.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described our invention, what we claim is—

The combination with bellows adapted to be carried by a rocking-chair seat, means for operating the bellows, and flexible conductors, of clamps, each comprising a clip-plate 23 adapted to be secured to a supporting object, an angular ear 25 having one of its arms pivotally mounted by means of a bolt 24 upon said clip to swing in a plane parallel with the clip-plate, and adapted to be secured at the desired adjustment by means of said bolt, a band 27 open at one side and having parallel extremities arranged upon opposite sides of the other arm of said angular ear, and a set-screw engaging said band and interposed portion of the ear to pivot the former upon the latter to swing in a plane parallel to the clip-plate, said set-screw serving to secure the band at the desired angular adjustment, substantially as specified.

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

BERNARD LILLY.
RICHARD R. KINNEY.

Witnesses:
H. H. BARLOW,
JOSIE GILLESPIE.