

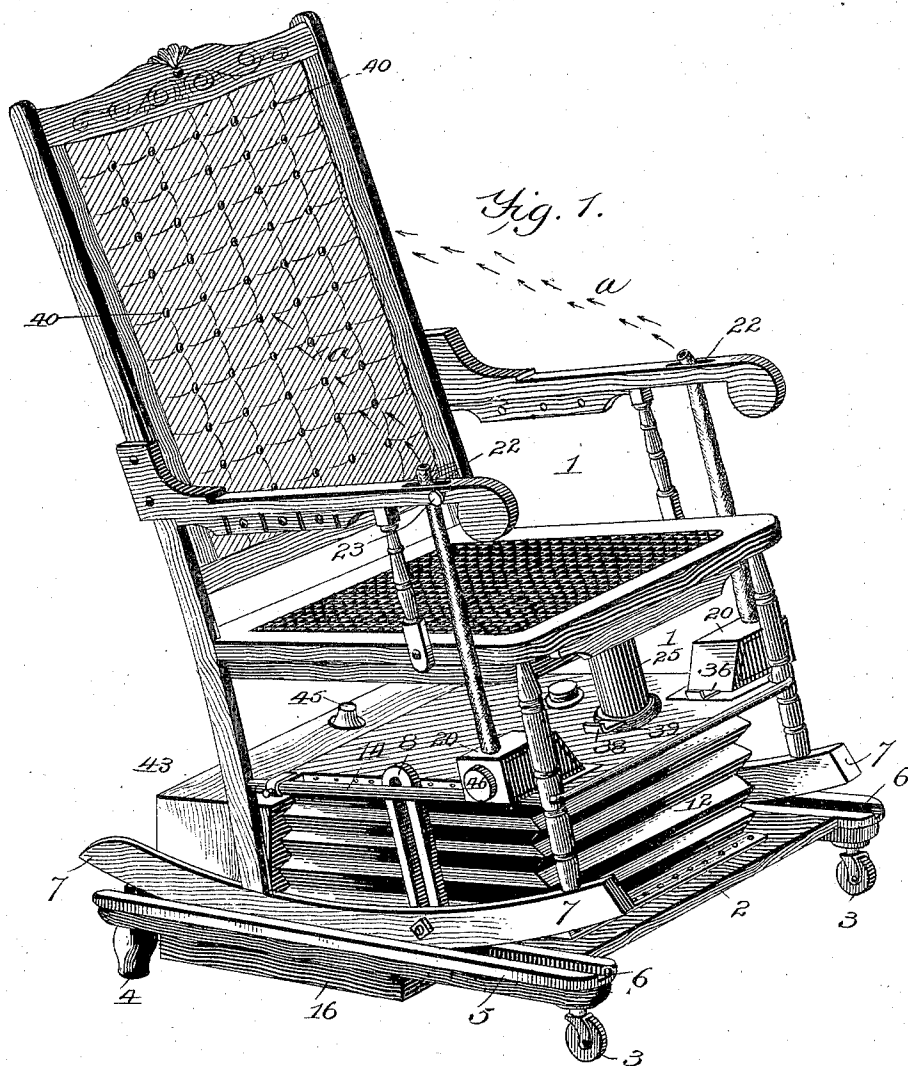
(No Model.)

3 Sheets—Sheet 1.

C. U. KRIEG, Sr.
BELLOWS ATTACHMENT FOR CHAIRS.

No. 580,284.

Patented Apr. 6, 1897.



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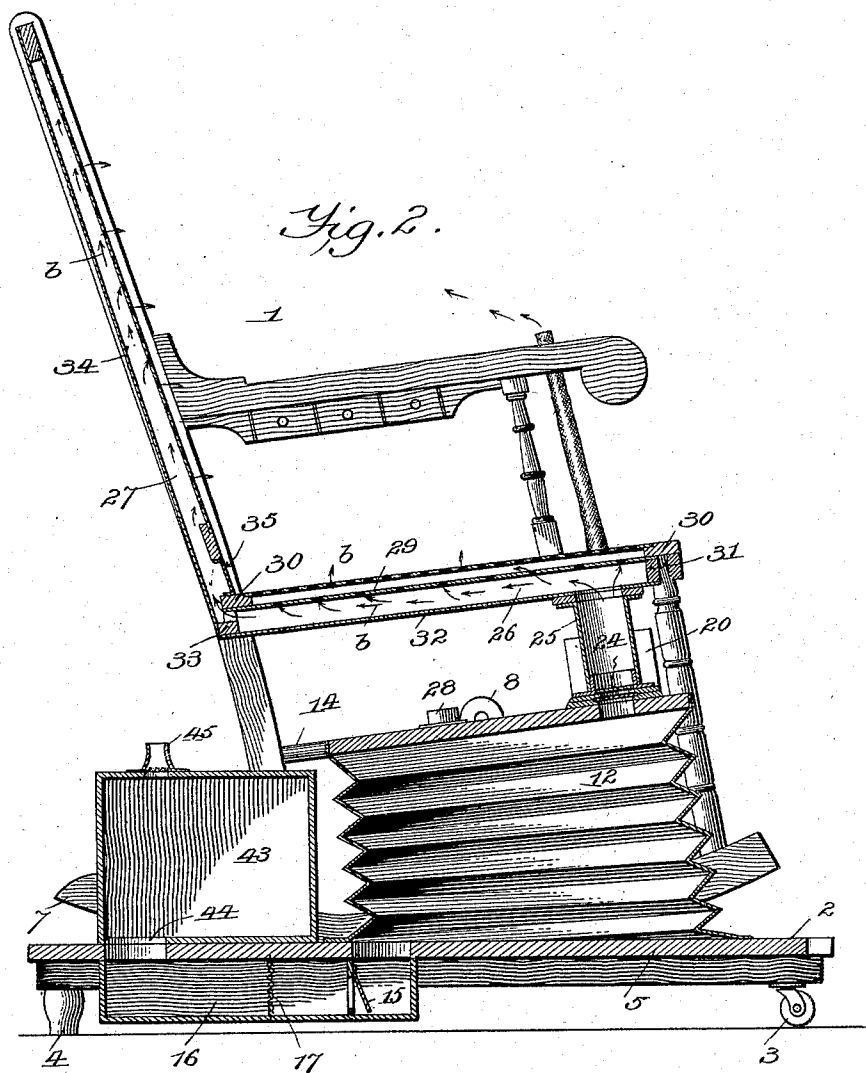
(No Model.)

3 Sheets—Sheet 2.

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Fig. 3.

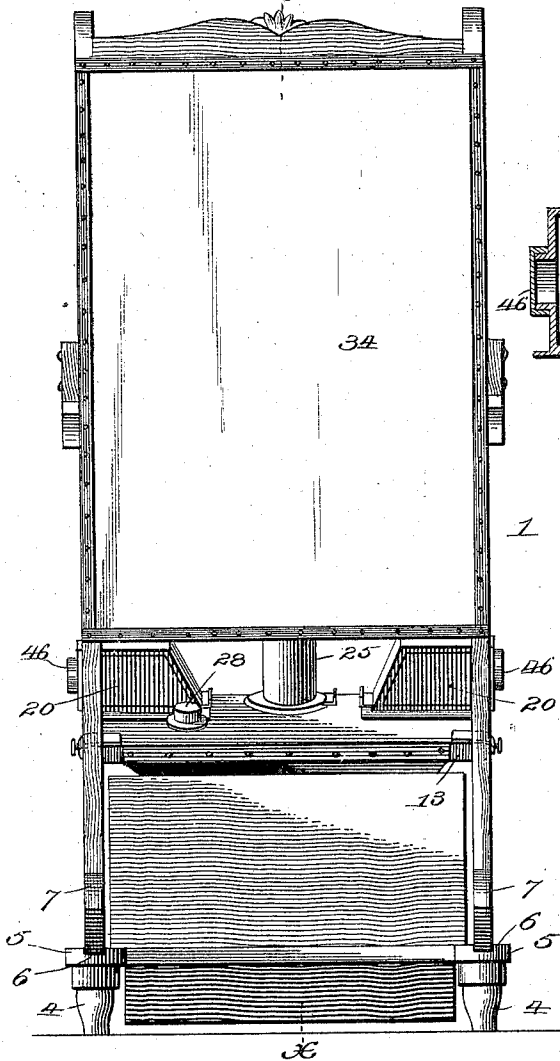


Fig. 4.

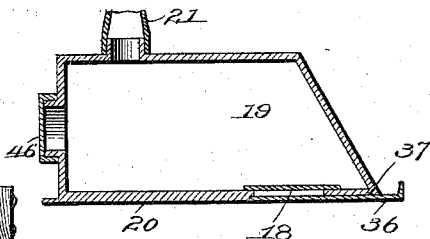


Fig. 5.

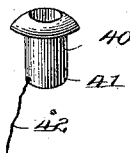


Fig. 6.

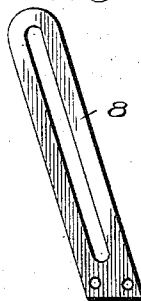
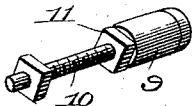


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHRISTIAN U. KRIEG, SR., OF NASHVILLE, TENNESSEE.

BELLOWS ATTACHMENT FOR CHAIRS.

SPECIFICATION forming part of Letters Patent No. 580,284, dated April 6, 1897.

Application filed September 9, 1896. Serial No. 605,244. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN U. KRIEG, Sr., a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Bellows Attachments for 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 generally to chairs, and particularly to a combined rocking-chair and bellows; and it has for its object to provide a rocking-chair the rocking motion of which will create a current or currents of air and direct the same upon the occupant of the chair; and it consists of the parts and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a chair embodying my invention; Fig. 2, a vertical section on the line *xx*, Fig. 3; Fig. 3, a rear elevation of the chair; Fig. 4, a detail sectional view of one of the outlet-valves; Fig. 5, a detail view of one of the vent-buttons; Fig. 6, a detail view of one of the slotted guide-plates.

Similar numerals refer to similar parts throughout all the views.

Referring to the drawings, the numeral 1 represents the chair proper, which may be any desired form or style of rocking-chair adapted for attachment thereto of my invention.

A frame 2, preferably mounted on rollers 3 at its front end and supported by short legs or uprights 4 at the rear end, is provided for the chair, the side bars 5 of the frame being grooved, as at 6, to receive the rockers 7 of the chair in order to prevent lateral movement of the chair while being rocked, the forward and backward motion being limited by a slotted plate or upright 8, rigidly secured to the inner side of each of the side bars 5 of the frame, in the slot of which a spool or roller 9 works, said rollers being loosely mounted on elongated bolts 10, extending through the rockers 7 and held thereon by means of nuts 11. The slotted plate 8 may be secured to the outer side of the bars 5, if

preferred. Thus it will be observed that I control and limit the motion of the chair in all directions by very simple but exceedingly efficient means and that there is no liability of the chair working bodily forward or backward or laterally while in use.

To the inner edges of the bars of the frame 2 the bottom of a bellows 12 is secured in any desired manner, the front top edge of the bellows being secured to a front round of the chair and the rear edge to a cross-bar 13, secured at each end to the side rounds 14 of the chair by means of bolts or screws or in any desired manner, so that the rocking motion of the chair will operate the bellows.

The inlet-valve 15 for the bellows is located in a box 16, which extends partly under the bellows at the rear and communicates therewith through the bottom board of the bellows, as clearly shown in Fig. 2, the rear part of the box 16 being open at its top to the atmosphere and the valve being located vertically transverse the box. In order to prevent the entrance of mice or insects or foreign matter or articles gaining access to the bellows, a wire-gauze or an open-work wire shield 17 is secured in the box and transverse the same at a point in rear of the valve.

The bellows is provided with four valves at the top, of which valves 18, located, preferably, near the front of the bellows at each side thereof, are provided for the outlet of the air to chambers 19, formed by boxes 20; secured to the top of the bellows and covering said valves 18, from which the air escapes to flexible pipes or hose 21, secured over flanged openings in the top of the boxes 20 and extending through slots 22, formed vertically in the arms of the chair. The valve 18 may be placed in the flanged opening in the boxes 20, or a valve may be used at each opening, if desired. The slots 22 are inclined or formed through the arm at an angle, and set-screws 23 pass through the arms and enter the slots in order to engage the pipes and hold them to any position to which they may be adjusted in order to direct the current or flow of air in any desired direction.

A valve 24 is located in a chamber formed of a cylinder 25, preferably of sheet metal, which is secured to the top of and at about the center of the front of the bellows and

midway the valves 18 and which communicates with a chamber 26, formed beneath the seat of the chair, the same chamber 26 also communicating with a chamber 27, formed at the back of the chair.

A safety-valve 28 is arranged centrally of the top of the bellows and adjusted to permit of the escape of the air in the event of the accidental or careless closing of all the outlet-valves, and thus prevent the bursting of the bellows.

When it is desired to apply my invention to a chair having a caned seat and back, the chamber 26 is formed by tightly securing the edges of a perforated cloth 29, of any suitable material, to the under side of the seat-frame 30 of the chair, then securing wooden strips 31 to the seat-frame and over or on the edges of the cloth 29 at the front and both sides of the chair, to which is tacked the edge of an imperforate piece of cloth 32, the rear edge of which is tacked to a wooden strip 33, extending across the rear of the chair and secured to the rear legs of the chair slightly below the seat-frame thereof, so as to provide a space for the escape of the air to the rear chamber 27.

The chamber 27 is formed by securing the edges of a suitable imperforate cloth or other material 34 to the strips 33 and the frame of the back of the chair, so as to form a chamber between the cane back of the chair and the cloth 34, the space usually left between the bottom cross-piece of the back and the seat being closed by a cloth or leather strip 35, tacked thereover, as clearly shown in Fig. 2. Thus it will be observed that upon rocking the chair the air will be drawn into the bellows through the valve chamber or box 16 and escapes through the valves 18 to the chambers 19 and through the pipes 21 to the face or other part of the person occupying the chair, as indicated by arrows *a*, according to the adjustment of the pipes, and also through the valve 24 to the chambers 26 and 27, and is distributed through the perforated cloth 29 and the cane seat and back of the chair, the course of the air being indicated by arrows *b*.

The valves 18 are each provided with a plate 36, which may be inserted under the valves through a slot 37, and a similar plate 38 and slot 39 are provided for valve 24, whereby all or any one of the valve-openings in the top of the bellows which these valves control may be closed when desired, thereby enabling me to direct the currents from the bellows to the face alone or to either side of the face or other part of the person occupying the chair, or I can cut the currents off from the face and direct them under and through the seat and back of the chair at will.

When my invention is to be applied to upholstered chairs, I provide the chambers 26 and 27 under the seat and at back of chair, respectively, as described, but instead of the perforated cloth 29 I provide vents for the escape of the air in the form of buttons 40,

(see Fig. 5,) having elongated tubular shanks 41, which extend through the covering or upholstery of the chair into the chambers 26 and 27 and are secured by the knotting or tying of the cords 42, secured thereto, or by washers placed on the shanks. The buttons serve the same purpose as the ordinary upholstery-button in furniture-covering, as well as acting as vents for the air. The air may be forced through chambers formed under the arms and on the arms, similar to chambers 26 and 27, when the chair is upholstered at these points.

On top of the inlet-valve chamber or box 15 and covering the opening therein I arrange and secure a box or case 43, having an opening 44 therein corresponding to the opening in chamber 15 and having a vent or opening 45 in its top, which may be protected by a netting or wire-gauze, so as to prevent dust and dirt from being drawn therethrough. In this case or box 43 I may place chemicals in order to medicate and purify the air passing through the box, or I may place ice or a suitable freezing mixture to cool the air, or I may place a combination of chemicals in the case to produce heat or may otherwise supply heat to the case in order to heat the air as it passes through the case and before entering the bellows.

The chambers or boxes for the valves 18 are each provided with a cap 46, adapted to screw on or otherwise be attached to a flange surrounding an opening formed in the side of the boxes, in order to enable me to supply said chambers with chemicals when I so desire.

I do not desire to be restricted to the application of my invention to chairs, as it is evident it may as readily be applied to cradles or rocking cribs for children. In the latter case the mattress takes the place of the seat of the chair and is made or provided with my tubular-shanked buttons.

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

1. The combination, with a rocking-chair having communicating air-chambers beneath its seat and at its back, and vent-openings for said chambers, of a bellows adapted to be operated by said chair, an outlet-valve for said bellows, a chamber for said valve in communication with the first-named chambers, and an inlet-valve for said bellows, substantially as described.

2. The combination, with a rocking-chair having arms formed with inclined openings, of a bellows adapted to be operated by said chair, outlet-valves for said bellows, chambers or boxes for said valves, flexible pipes passing through said openings and connected with said chambers or boxes, and means for securing the free ends of said pipes in their adjusted positions, substantially as described.

3. The combination, with a rocking-chair, of a bellows adapted to be operated by said chair, outlet-valves for said bellows, an inlet-

valve for said bellows, a chamber for said inlet-valve, and a case or box formed with a vent or opening arranged in communication with said inlet-valve chamber, whereby the air may be drawn through said box or case before entering the valve, substantially as described.

4. The combination, with a rocking-chair, and a supporting-frame having grooved side pieces for the rockers of said chair, of a bellows having its upper edges secured to said chair and its bottom edges to said supporting-frame, and inlet and outlet valves for said bellows, whereby the movement of the chair operates the bellows, substantially as described.

5. The combination, with a rocking-chair, a supporting-frame for said chair, a slotted guide-plate attached to said frame, and a spool

or roller attached to said chair and working in said slotted plate, whereby bodily forward and rearward movement of the chair is prevented, substantially as described.

6. The combination with a rocking-chair having air-chambers formed therein, vent-openings for said chambers consisting of buttons having tubular shanks entering said chambers, of a bellows adapted to be operated by said chair having an outlet communicating with said chambers, substantially as described.

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

CHRISTIAN U. KRIEG, SR.

Witnesses:

C. C. VAN LEER,
WM. SIMPSON, Jr.