

F. J. COATES.

Improvement in Dentists' and Barbers Chairs.

No. 132,255.

Patented Oct. 15, 1872.

Fig. 1.

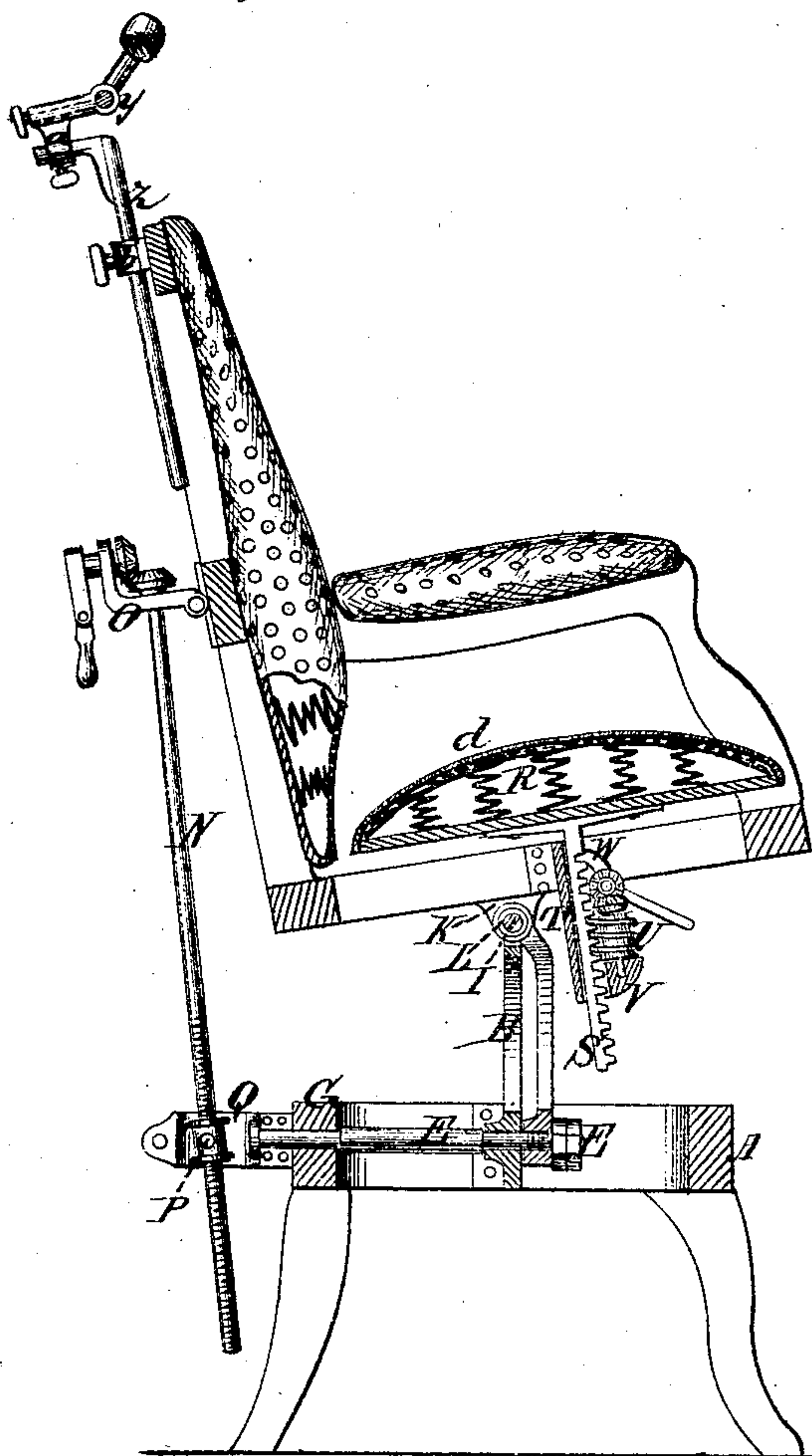
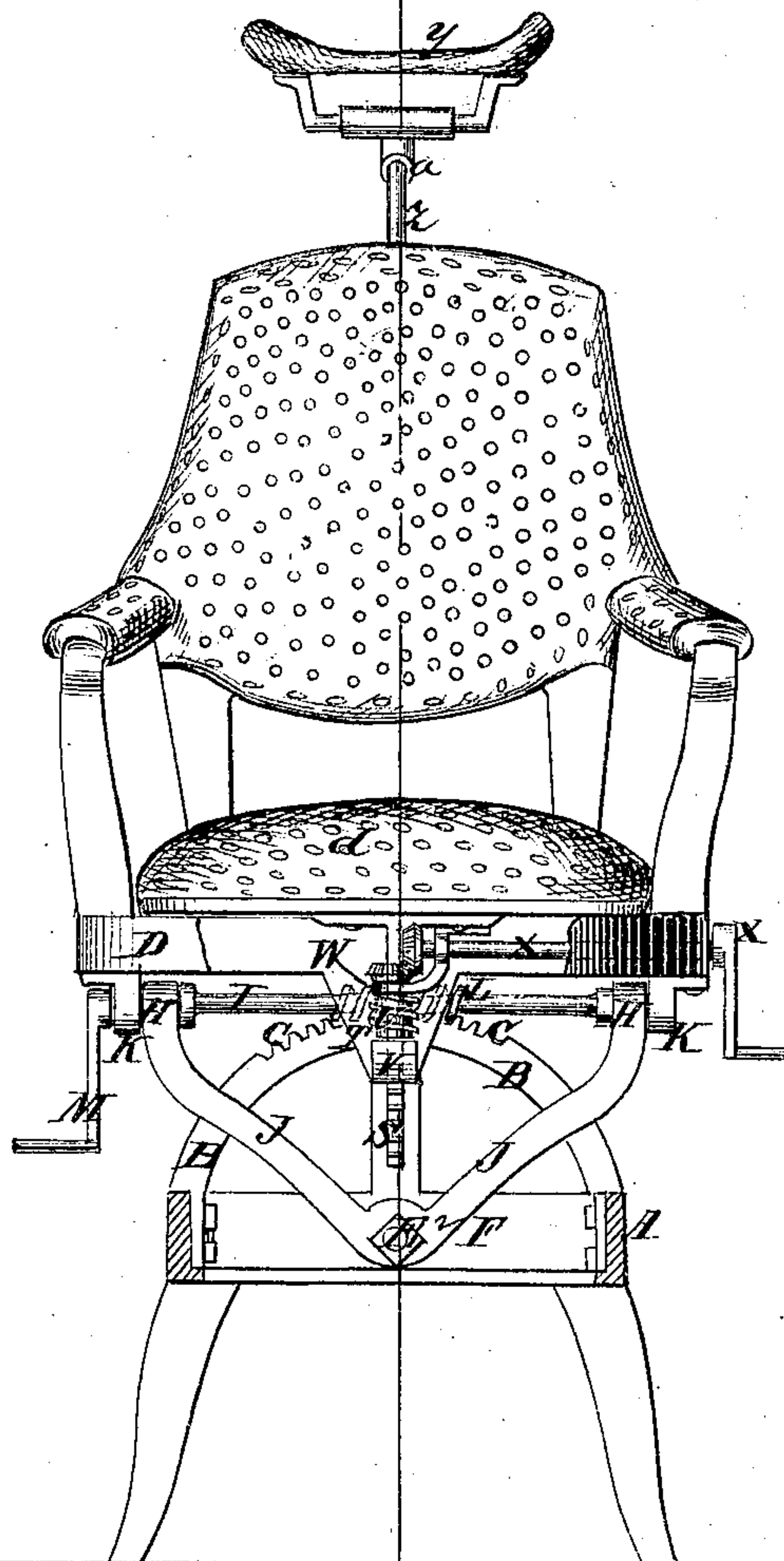


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANCIS J. COATES, OF CINCINNATI, OHIO.

IMPROVEMENT IN DENTISTS' AND BARBERS' CHAIRS.

Specification forming part of Letters Patent No. 132,255, dated October 15, 1872.

To all whom it may concern:

Be it known that I, FRANCIS J. COATES, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Dentist's and Barber's Chair, of which the following is a specification:

My invention consists of certain arrangements of apparatus for supporting the seat and shifting it laterally on a horizontal pivot; also forward and back; raising and lowering the seat. It also consists in the construction of such chairs with perforated covers to the seats and backs for ventilation, all as hereinafter described.

In the accompanying drawing, Figure 1 is a vertical sectional elevation of my improved chair taken on the line *x x* of Fig. 2; and Fig. 2 is a sectional elevation of the stand and the seat-frame and front elevation of the balance of the chair.

Similar letters of reference indicate corresponding parts.

The stand A has a semicircular arched metal bar, B, mounted on the two sides at the center between the front and back, which said bar has cogs C formed on the upper edge along the top, and at the axis of this arched bar the chair-seat frame D is pivoted on a shaft, E, by an angle-bar, J. Said shaft E is journaled in the cross-bar F of the stand at its front end, and in the part G near the rear; and the angle-bar E, which branches upward each way from its pivot, has a bearing, H, in each upper end, in which the cranked shaft I is mounted, and the chair-seat frame D is pivoted on this shaft by bearings K, so as to swing forward and back. Between these bearings the shaft has a worm-thread, L, which gears with cog-teeth C, for shifting the seat to the right or left laterally, and for holding it in any position. The said shaft I is provided with a crank, M, for turning it. To shift the seat forward and backward I employ a shaft, N, mounted in a bracket, O, on the back of the chair at its upper end, and screwing through a nut, P, at its lower end, mounted on trunnions in a support, Q, swiveled on the rear end of shaft E, so that said nut P has a universal motion, which allows the said shaft N to swing forward and back and sidewise with the seat-frame. This shaft N is turned by a crank-shaft and pinions at the top. The seat

R is mounted on the toothed bar S, which is arranged to slide up and down in the support T for varying the height of said seat, and a worm, U, gears with said toothed bar to raise or lower the seat. Said worm is mounted on supports V and W, attached to the seat-frame to oscillate with it, and it is turned by the crank-shaft X and pinions gearing them together. The head-rest Y is mounted on the horizontal arm of the vertically-adjustable rod Z, by a sleeve *a*, so as to be adjustable forward and back on it, besides being adjustable vertically, which latter adjustment is effected by sliding said rod up and down in the fixed support *b* on the back of the top of the chair.

For the purpose of securing circulation of air through or ventilation of the seat and back of the chair I form numerous holes in the covers *d e* thereof, the same being as close together and of such form or size as the nature of the material of said covers will allow, or as judgment may dictate. As these perforations weaken the cloth more or less wire-gauze may be applied as a cover for the springs, and the cloth covers applied over the gauze.

Thus constructed, the seat and back will be kept moderately cool instead of becoming and remaining unpleasantly heated when in use.

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

1. In a barber's or dentist's chair, the seat or back thereof, provided with a perforated cover, *d*, or *e*, applied over the springs, substantially as specified.
2. The angle-bar J, pivoted to the stand to swing laterally, substantially as specified.
3. The combination, with the stand and seat-frame, of the shaft N and universally-jointed nut P, substantially as specified.
4. The combination, with shaft I and angle-bar J, of the curved toothed bar B and worm L, substantially as specified.
5. The seat R, toothed adjustable rack S, support T, and the worm U, combined substantially as specified.

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