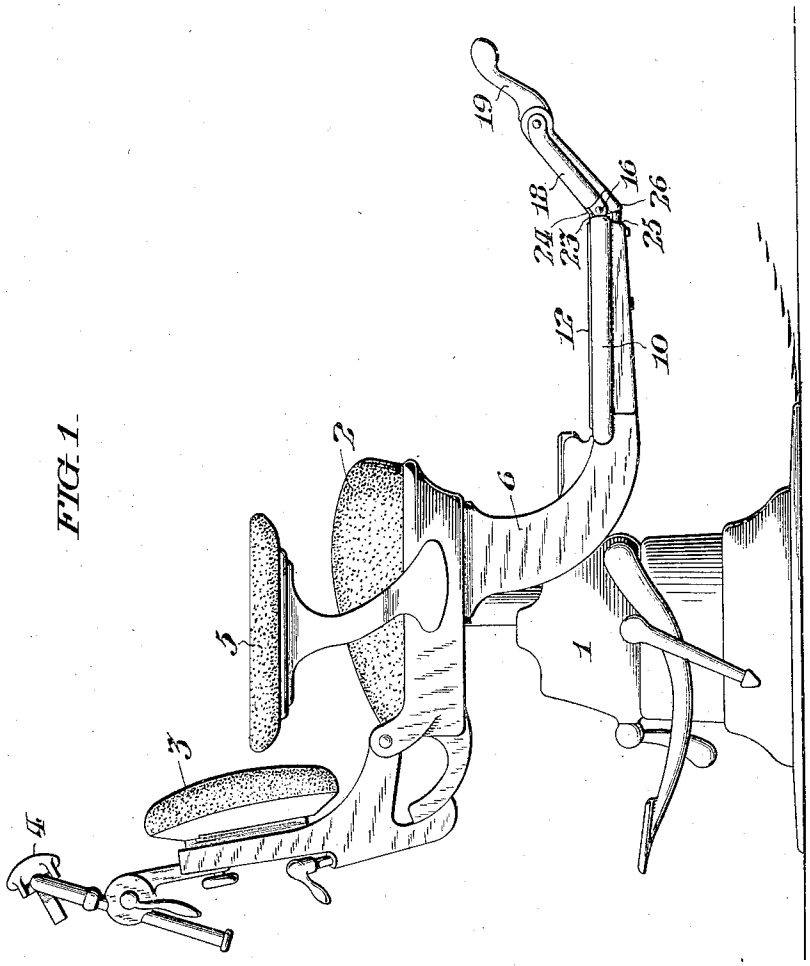
Oct. 30, 1923. 1,472,272

G. D. HECK

DENTAL CHAIR

Filed Jan. 7, 1921 2 Sheets-Sheet 1

FIG. 1.



Witness
William J. Russell

Inventor
George D. Heck,

By Clifton C. Hallowell

Attorney

Oct. 30, 1923. 1,472,272

G. D. HECK

DENTAL CHAIR

Filed Jan. 7, 1921 2 Sheets-Sheet 2

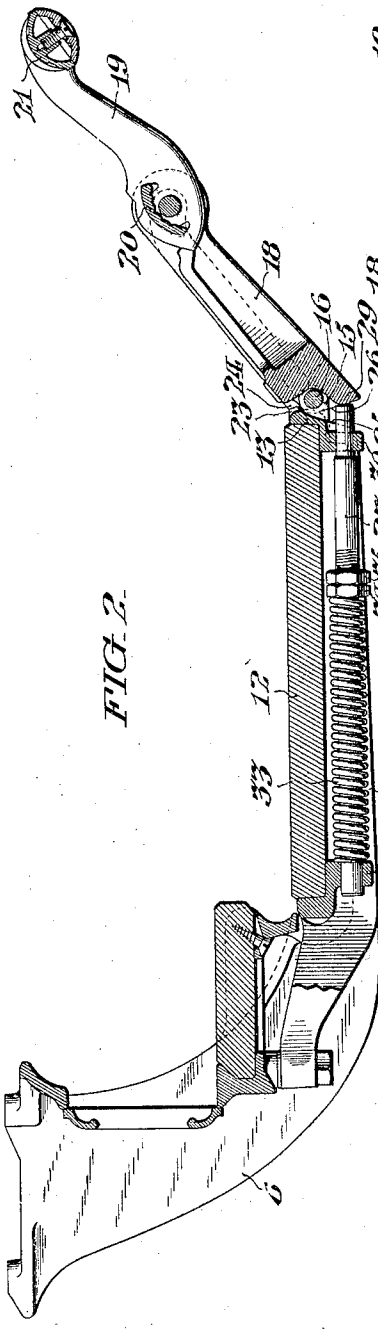


FIG. 2.

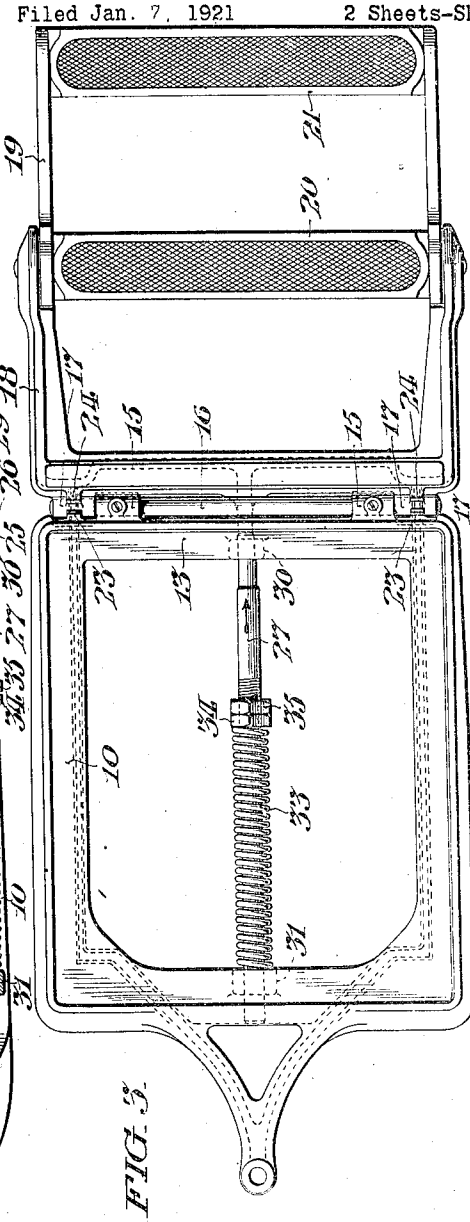


FIG. 3.

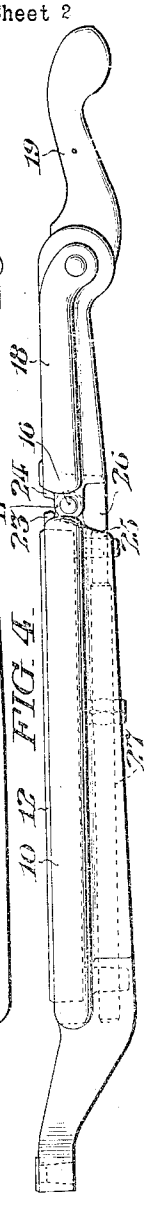


FIG. 4.

Inventor

George D. Heck,

By Clifton C. Callowell

Attorney

Patented Oct. 30, 1923. 1,472,272

UNITED STATES PATENT OFFICE.

GEORGE D. HECK, OF PRINCE BAY, NEW YORK, ASSIGNOR TO THE S. S. WHITE DENTAL MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

DENTAL CHAIR.

Application filed January 7, 1921. Serial No. 435,763.

To all whom it may concern:

Be it known that I, GEORGE D. HECK, a citizen of the United States, and a resident of Prince Bay, in the county of Richmond, State of New York, have invented certain new and useful Improvements in Dental Chairs, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates particularly to foot-rests for dental chairs, and is especially directed to that class of foot-rests in which the foot-rest frame is pivotally connected to and supported by the frame of the foot-board or platform and capable of being extended substantially into alinement with said foot-board or platform.

The principal objects of my invention are to provide a dental chair with a foot-rest having its frame pivotally connected to the frame of the foot-board or platform, and yieldingly supported in upwardly inclined relation to the frame of said foot-board or platform and arranged to yield to any abnormal pressure exerted by the patient in the chair, to a position substantially alined with the foot-board or platform or approximating such position.

Other objects of my invention are to provide yielding means for supporting a foot-rest in normally inclined relation to the foot-board or platform of a dental chair, and to provide means adjustable to vary the tension of said yielding means whereby the pressure requisite to effect the movement of said foot-rest toward a position approximating the alinement with the foot-board or platform may be varied.

Specifically stated, the form of my invention as hereinafter described, comprises a foot-board frame, and a foot-rest frame pivoted to said foot-board frame and normally maintained in upwardly inclined relation thereto by a plunger rod which is forced forwardly against said foot-rest frame by spring pressure tending to yieldingly maintain said foot-rest frame in its normally inclined position but arranged to yield to a predetermined pressure exerted upon the foot-rest by the patient in the chair.

My invention also includes all of the various novel features of construction and arrangement as hereinafter more definitely specified.

In the accompanying drawings, Figure 1 is a side elevational view of a dental chair conveniently embodying a foot-rest constructed in accordance with my invention; Fig. 2 is an enlarged central vertical longitudinal sectional view of the foot-board or platform and attached foot-rest in its normal position as shown in Fig. 1; Fig. 3 is a plan view of the foot-board or platform and attached foot-rest shown in Figs. 1 and 2 extended to its abnormal substantially alined position; and Fig. 4 is a side elevational view of the foot-board or platform and the attached foot-rest extended as shown in Fig. 3.

In said figures, the chair comprises the frame 1, seat 2, back 3, head-rest 4 and arm-rests 5, and has the usual depending frame bracket arms 6 which carry the foot-board or platform frame 10 having the foot-board 12 supported thereon. The platform frame 10 has its forward transverse bar 13 provided with hinge lugs 15 pivotally connected by the shaft 16 with the hinge lugs 17 of the foot-rest frame 18 which has the pivoted extension arms 19 carrying the foot-rest bars 20 and 21, of well known construction.

The foot-board or platform frame 10 is provided with stop lugs 23 forming abutments for the stop lugs 24 on the foot-rest frame 18, and serving to limit the upward pivotal movement of the foot-rest frame 18, as best shown in Fig. 2, and said foot-board or platform frame 10 is provided with abutments 25 arranged to be engaged by the abutments 26 on the foot-rest frame 18 and serving to limit the downward movement of said foot-rest frame 18, as best shown in Fig. 4.

The foot-rest frame 18 is normally supported in the upwardly inclined position shown in Figs. 1 and 2 by the plunger rod 27, which bears against the lug 29 and which is supported by the bearing lugs 30 and 31 depending from the foot-board frame 10, and said plunger rod 27 is normally forced forward in the direction of the arrow indicated thereon, by the spiral spring 33, which is held under compression between the lug 31 and the nuts 34 and 35 adjustable on said shaft to vary the compression of said spring and the consequent pressure of said plunger rod 27 against the lug 29, whereby the pressure of the patient's foot requisite to move

said foot-rest in opposition to said spring may be varied.

My invention is particularly advantageous for the reason that while a foot-rest constructed in accordance therewith will withstand the pressure incident to supporting the foot of the patient in the chair under normal conditions, yet it will yield to any abnormal pressure which the patient may exert as by reason of the influence of an anesthetic.

I do not desire to limit my invention to the precise details of construction and arrangement as herein set forth, as it is obvious that various modifications may be made therein without departing from the essential features of my invention as defined in the appended claims.

Having thus described my invention, I claim:

1. In a dental chair the combination with a foot-board having a frame, of a foot-rest having a frame pivoted to the frame of said foot-board, and yielding means tending to hold said foot-rest frame in inclined relation to said foot-board frame.

2. A dental chair having a foot-board comprising a frame provided with depending bearings, a plunger longitudinally movable in said bearings, a spring tending to force said plunger forwardly, a foot-rest having its frame pivoted to said foot-board frame and yieldingly supported by said plunger.

3. A dental chair comprising a foot-board and foot-rest hingedly connected, a plunger rod movable longitudinally of said foot-board and normally tending to hold said foot-rest in its operative position, and a spring tending to force said rod into engagement with said foot-rest, and arranged to yield to permit said foot-rest to move to an inoperative position, in alinement with said foot-board, or approximately such position.

4. A foot-rest frame pivoted to the foot-board frame of a dental chair, a plunger rod longitudinally movable on said foot-board frame and tending to yieldingly hold said foot-rest frame in its operative position, a spring tending to force said plunger rod into engagement with said foot-rest frame and arranged to yield to an abnormal pressure exerted upon said foot-rest, and permit said foot-rest to assume a position substantially alined with said foot-board.

5. A foot-rest frame having abutments and pivoted to a foot-board frame having abutments arranged to engage the abutments on said foot-rest frame to limit its range of pivotal movement, and a spring-pressed plunger tending to yieldingly hold said foot-rest in its operative position and arranged to yield when a predetermined pressure is exerted upon said foot-rest.

6. A foot-rest frame having abutments and pivoted to the outer end of a foot-board frame having opposed abutments arranged to engage the abutments on said foot-rest frame to limit its range of pivotal movement, and means tending to yieldingly hold said foot-rest in its operative position and arranged to yield when a predetermined pressure is exerted upon said foot-rest.

7. A foot-rest for a dental chair hingedly connected to swing toward and from said chair, a horizontally extended plunger rod normally tending to hold said foot-rest in its operative position, a spring tending to force said plunger rod into engagement with said foot-rest, and arranged to yield to permit the foot-rest to move to an inoperative position by abnormal pressure.

In witness whereof, I have hereunto set my hand this 29th day of December, A. D., 1920.

GEORGE D. HECK.

Witnesses:
ALBERT L. HOLLOWELL,
SAMUEL R. BARTON.