(No Model.) 2 Sheets—Sheet 1.

O. C. WHITE.

DENTIST'S OR PHOTOGRAPHER'S CHAIR.

No. 326,185. Patented Sept. 15, 1885.

Fig. 12.

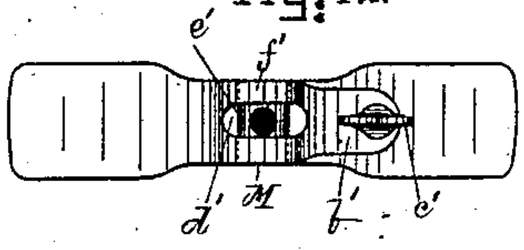


Fig. 13.

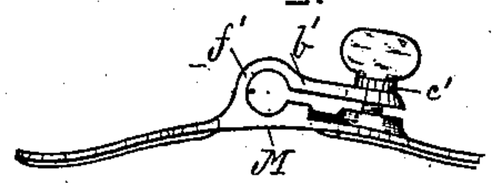
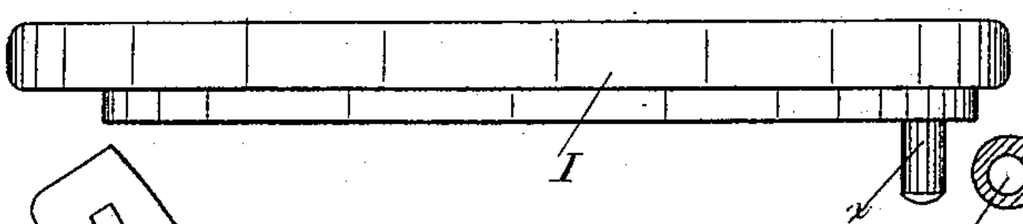


Fig. 1.

Fig. 5.



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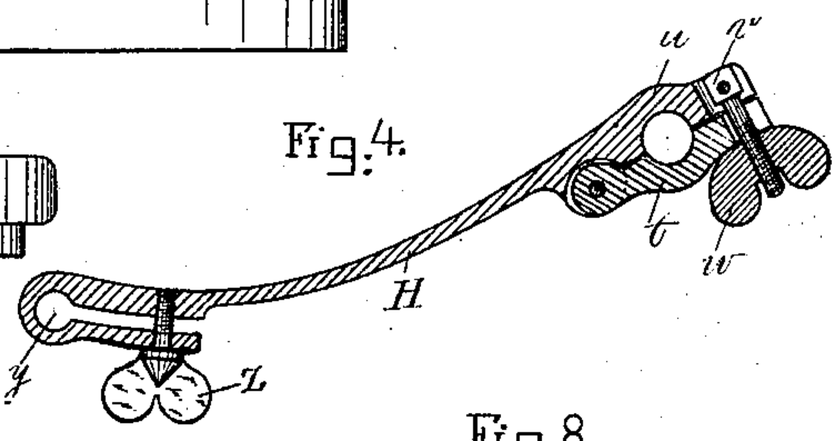

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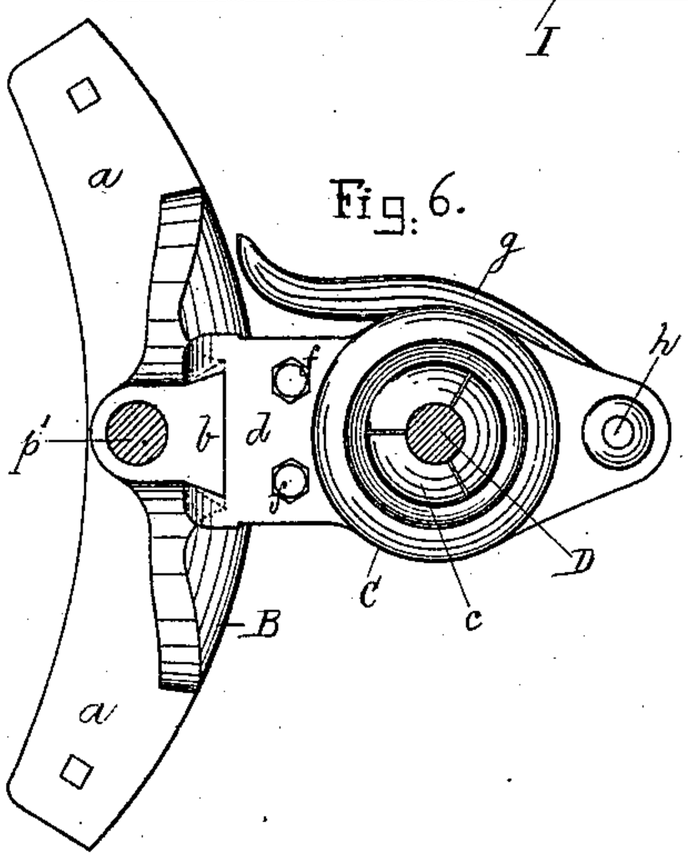
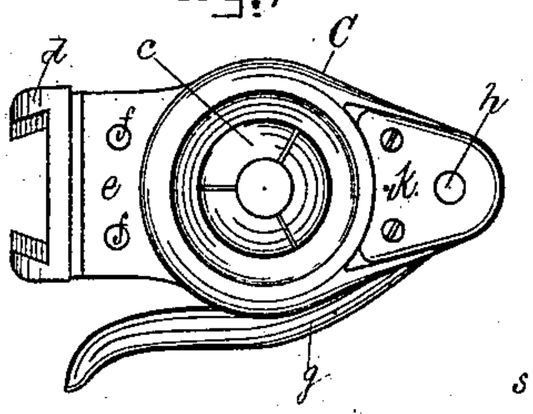


Fig. 7.



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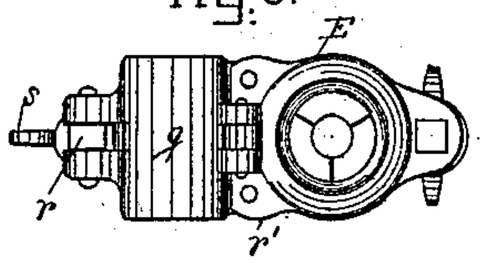


Fig. 9

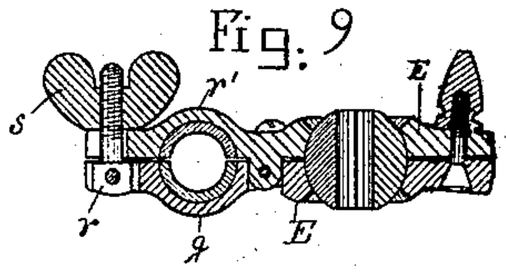


Fig. 10.

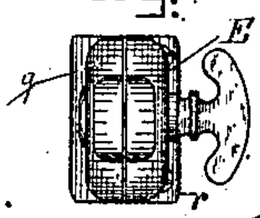
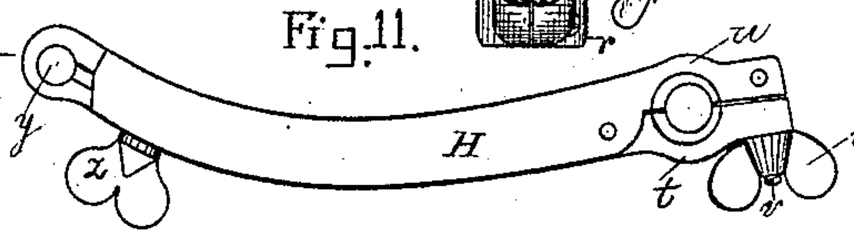


Fig. 11.



Witnesses.
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Wm. H. Preston

Inventor.
Otis C. White.
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(No Model.) 2 Sheets—Sheet 2.

O. C. WHITE.

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Fig. 2.

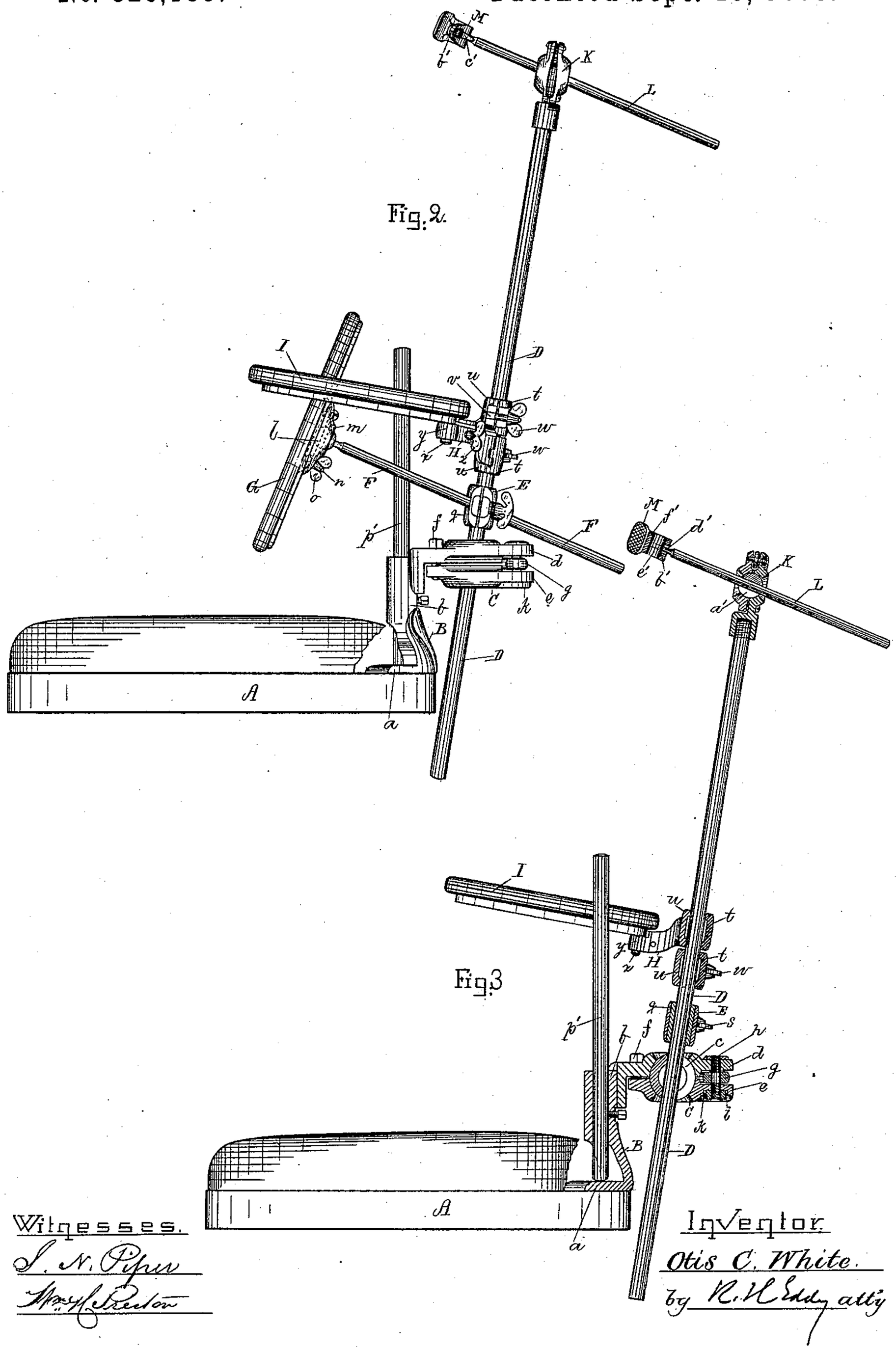

Fig 3

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UNITED STATES PATENT OFFICE.

OTIS CONVERSE WHITE, OF WORCESTER, MASSACHUSETTS.

DENTIST'S OR PHOTOGRAPHER'S CHAIR.

SPECIFICATION forming part of Letters Patent No. 326,185, dated September 15, 1885.

Application filed April 20, 1885. (No model.)

To all whom it may concern:

Be it known that I, OTIS CONVERSE WHITE, of the city and county of Worcester, in the Commonwealth of Massachusetts, have invented a new and useful Improvement in Chairs for the use of Dentists or Photographers or others; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, Fig. 2 a side view, and Fig. 3 a vertical section, of a chair embodying my invention, the nature of which is defined in the claims hereinafter presented. Fig. 4 is a horizontal section of one of the arms. Fig. 5 is a side view of one of the elbow or forearm rests of the arms. Fig. 6 is a top view of the ball-clamp C and the junction-piece B hereinafter described. Fig. 7 is an under side view of the socketed cap *k*, applied to the part *d* and the nut *i*. Fig. 8 is a front view, Fig. 9 a horizontal section, and Fig. 10 an end view, of the ball-clamp E. Fig. 11 is a top view of one of the arms H, to be described. Fig. 12 is a rear view, and Fig. 13 an edge view, of the head-rest clamp.

In such drawings, the seat A without the legs of a chair is represented, as the mechanism shown is, by means of its junction-piece B, secured to the said seat. The said junction-piece has a flat base, *a*, that rests upon and is secured to the chair-seat by screws. At its upper part the junction-piece is provided with a dovetailed tenon, *b*, to enter a correspondingly-shaped socket in a ball-clamp, C, down through and above whose ball *c* there extends a cylindrical rod, D. The said ball *c*, made in three segments of a sphere bored axially to receive the rod D, is placed within a spherical socket formed in the two portions *d e* of the body of the clamp. The lower portion, *e*, is movable upward and downward relatively to the upper portion, *d*, the two near their inner ends being connected by headed screws *f f*, that go down loosely through holes in the upper portion and screw into the lower portion.

Between the portions *d* and *e*, near their outer ends, is a handle, *g*, that extends from the middle of a short rod, *h*, which, above the handle as well as below it, is screw-threaded, one screw being a right and the other a left threaded screw. One of these screws has screwed on it a hexagonal nut, *i*, which is held in place in the part *e* by a cap, *k*, fastened by screws to the said part *e*, and having a hexagonal or polygonal socket or recess to receive within it the nut and prevent it from revolving in the part *e*. By having the nut revoluble on the screw, when the cap is disconnected from such nut and the part *e* the latter can be adjusted to its proper distance from the part *d* for the handle, when being moved so as to simultaneously revolve the two screws, to cause the parts *d* and *e* to clamp the ball between them and contract it upon the rod going down through it.

Above the junction-piece B is another ball-clamp, E, which is clamped on the rod D, and is movable transversely thereon and lengthwise thereof. Through the ball of the clamp a rod, F, extends, and has a back-rest, G, fixed to it at its front end by a ball-and-socket connection. The ball, like that shown in Fig. 6, is formed in three spherical pieces, so as to be capable of being compressed against the rod passing through it. The clamp *l* of the ball, pivoted to the socket-piece *m*, has a screw, *n*, extending from it through the said piece *m*, a nut, *o*, being screwed upon the screw and against the piece *m*, which is a dish or convex plate secured to the back-rest. By having the back-rest connected with its sustaining-rod by a ball-and-socket connection provided with means of clamping the ball, as occasion may require, from turning within the socket, and by having such sustaining-rod connected to the rod D by the ball-clamp E, the rod going through the ball thereof, the back-rest can be adjusted in any desirable position to support the back of a sitter in the chair; or such back-rest can be advanced or retracted and moved and tipped laterally as circumstances may require. The ball-clamp E has means of clamping it to the rod D—that is to say, it has hinged to it a jaw, *q*, to which a screw, *r*, is pivoted—so as to enable the screw to be turned into or out of the notch in the stationary jaw *r'* of the clamp. A nut, *s*, screwed on the screw, serves to draw the movable jaw of the clamp toward the fixed jaw and the two against the rod between and encompassed by them.

Above the back-rest there are clamped to

the rod D two arms, H, one of which is directly above the other. At its inner end each arm is furnished with clamping devices for securing it to the rod D and permitting it to be either turned laterally or moved upward and downward therein as occasion may require. The clamping device at the inner end of the arm consists of a movable jaw, *t*, hinged to a fixed jaw, *u*, to which is hinged a screw, *v*, to extend through a notch in the movable jaw, a nut, *w*, being screwed on the screw and against the movable jaw, and both jaws being suitably recessed to receive the rod between them.

The arm, by means of its clamping devices, by which it is secured to the rod D, can be removed laterally from or applied to the rod without the necessity of passing the rod upward or downward through the arm. At its other end each arm is hooked to embrace the pivot *x* of one of two elbow or forearm rests I, such pivot being extended down within a cylindrical bearing, *y*, in the hook. Through the prong or free part of the hook a clamp-screw, *z*, projects and screws into the arm. By turning up the screw the pivot *x* can be clamped to the arm; or on the screw being loosened or turned back the elbow or forearm rest can be turned around in the sector of a circle or be removed from the arm.

At the head of the rod D is another ball-clamp, K, substantially like the ball-clamp C hereinbefore described. Through the ball *a'* of the clamp K, such ball being in three segments or parts, a rod, L, extends. Such rod can be slid lengthwise in the ball, and such rod at its front end has pivoted to it a head-rest, M, which is furnished with a clamp-jaw, *b'*, and screw *c'*, for clamping it to the rod, and admitting of it, the said rest, being adjusted into different inclinations, as occasion may require. From the above it will be seen that not only can the head-rest be so adjusted, but that it can be moved laterally or up and down, or forward and backward, as the necessities of a sitter may demand.

In the clamp-jaw *b'*, lengthwise thereof, is a slot, *d'*, through which the rod L extends and screws into a cylinder, *e'*, that goes through a cylindrical bearing, *f'*, in the head-rest clamp. On setting up the screw of the clamp the jaw *b'* will be borne against the cylinder, and when the screw is lowered or turned backward the jaw will spring away from the cylinder.

When a person may be sitting in the seat of the chair, the rod D may be adjusted into an upright and an inclined position. The back-rest and the arms and their elbow-rests and the head-rest can also be adjusted into suitable positions, as may be required for them to sustain the person to the best advantage for his comfort and for a dentist to operate on him.

The chair can also be used by photographers or others to advantage. Its parts can be readily adjusted to support a sitter either in an upright or an inclined or recumbent position.

There extends upward from the top of the junction-piece B a cylindrical rod or post, *p'*, to which, instead of to the rod D, the two arms H may be applied when it may be desirable to support them independently of the said rod D. The back-rest can also be adapted to the post as to the rod D.

I claim—

1. The ball-clamp C, substantially as described, composed of the two parts *d* and *e*, socketed to receive between them the ball, the screw-nut and its sustaining-cap applied to one of such parts, and the handle provided with the screw to engage with the part *d*, and the said rest, all being essentially as set forth.

2. The combination of the head-rest clamp, having its jaw *b'*, provided with the slot *d'*, with the cylinder *e'*, going through the said clamp and connected at its middle to the rod L by being screwed thereon, all being substantially as set forth,

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Witnesses:
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