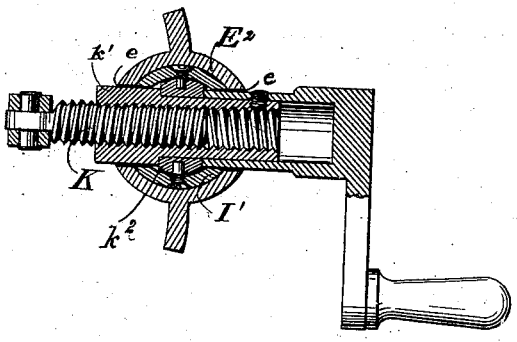
2 Sheets—Sheet 1.

S. S. WHITE.

DENTAL CHAIR.

No. 187,573. Patented Feb. 20, 1877.

Fig 3.



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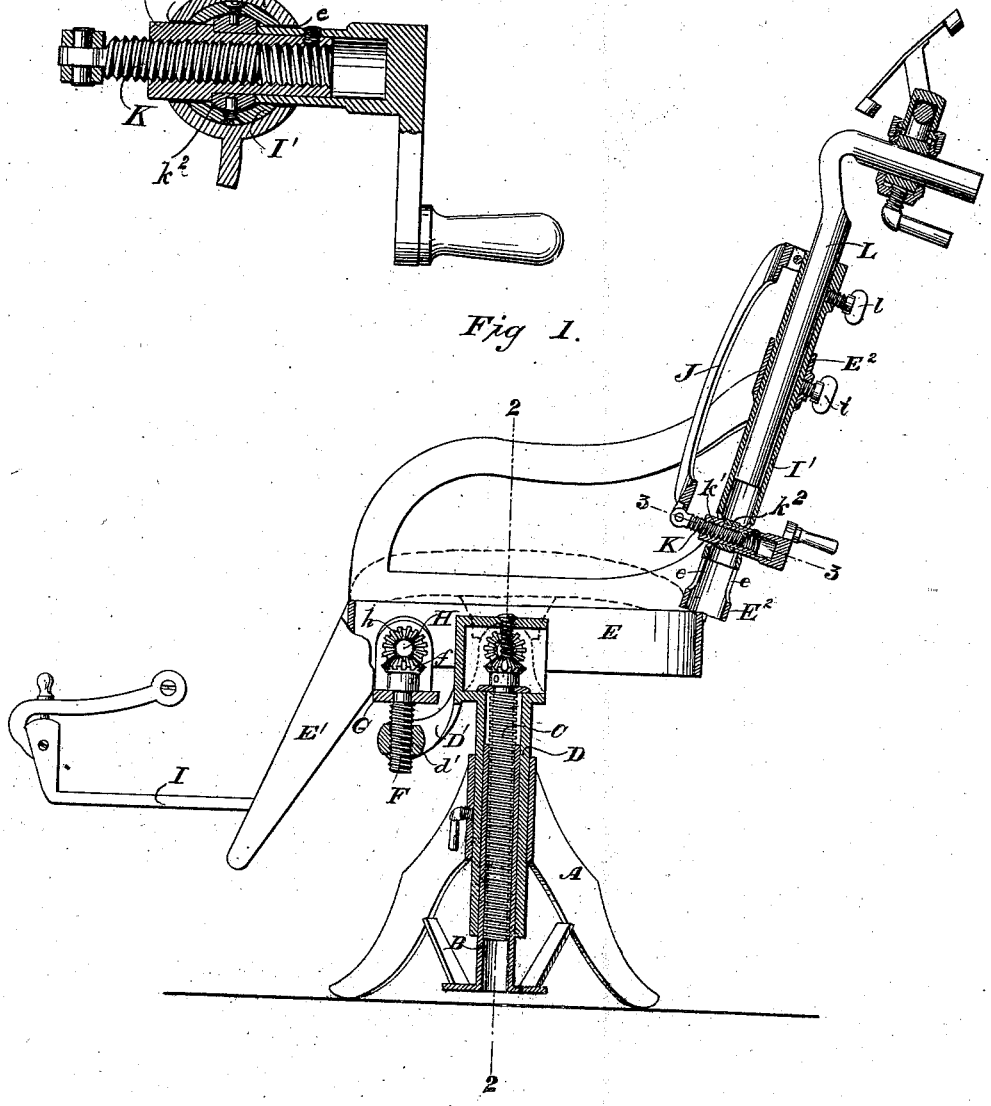

WITNESSES.

C. Clarence Poole

Wm A. Skinkle

INVENTOR.

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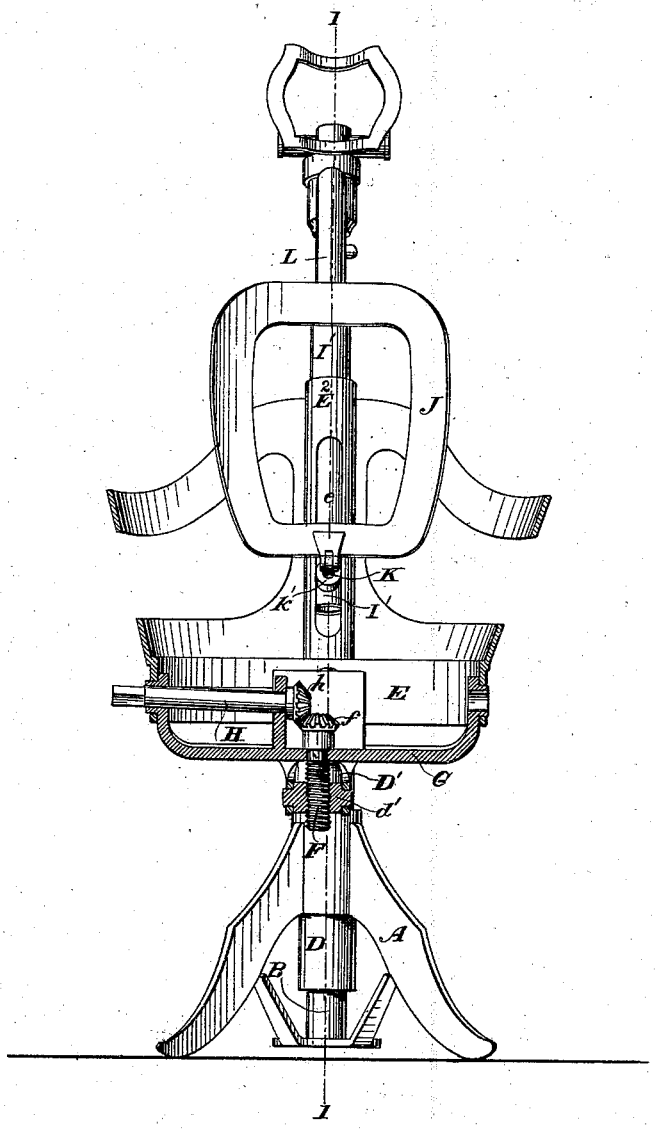
2 Sheets—Sheet 2.

S. S. WHITE.

DENTAL CHAIR.

No. 187,573. Patented Feb. 20, 1877.

Fig 2.



WITNESSES

C. Clarence Poole

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INVENTOR

Samuel S. White.

By his Attorneys

Baldwin, Hopkins & Peyton

UNITED STATES PATENT OFFICE.

SAMUEL S. WHITE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DENTAL CHAIRS.

Specification forming part of Letters Patent No. 187,573, dated February 20, 1877; application filed January 15, 1877.

To all whom it may concern:

Be it known that I, SAMUEL S. WHITE, of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Dentist's Chairs, of which the following is a specification:

My invention relates to a dentist's chair, the various parts of which are adjustable to suit the varying conditions under which it is required to work, and resembles in its general features and constitutes an improvement upon the chair patented to O. C. White, July 30, 1872, No. 130,093, and reissued July 11, 1876, as No. 7,223.

The object of the first part of my invention is to render variable the angle of inclination of the chair-frame and seat relatively to the base upon which it is mounted, which end I attain by pivoting the frame upon its support through a step of which a screw works vertically, and has its upper end journaled in a pivoted plate near the front of the chair-frame, said screw being rotated by suitable means to vary the inclination of the frame, as will hereinafter more fully appear.

The object of the next part of my invention is to provide a back-rest capable of being raised or lowered relatively to the chair-frame, and also of being adjusted to or from its support to render the position of the occupant more easy or firm, which ends I attain by hinging the upper end of a back-rest to a telescoping section or tube adjustable vertically in the chair-frame, the lower end of which section carries a screw to adjust the lower end of the back-rest to or from its support, as will hereinafter more fully appear.

My invention further has for its objects to furnish a dental chair generally more available and reliable in its adjustment than those heretofore constructed, which ends I attain in the manner hereinafter specifically set forth.

The subject-matter claimed will hereinafter specifically be designated.

In the accompanying drawings, which represent all my improvements as embodied in a single chair in the best way now known to me, Figure 1 represents a vertical central section through my improved chair on the line 1 1 of Fig. 2. Fig. 2 represents a similar section therethrough on the line 2 2 of Fig. 1; and Fig. 3 represents a detached sectional view, on an enlarged scale, of the peculiarly-constructed adjusting-screw of the back-rest, taken on the line 3 3 of Fig. 2.

The base or stool A is provided with an internally-threaded tube, B, a screw-shaft, C, and a sliding sleeve, D, enveloping both the tube and screw-shaft, substantially as shown and described in O. C. White's patent, above mentioned, and as this means of raising and lowering the chair-frame constitutes no part of my invention it is deemed unnecessary to describe it more fully.

The chair-frame E rocks or is pivoted upon arms extending from the turning and endwise-moving sleeve or support D, as in said patent, and, in order to vary the inclination of the chair-frame relatively to its base, and hold it in any desired position, the sleeve D is provided with a step, D′, in which is journaled a block, *d′*, through which a screw, F, works, the upper end of said screw being journaled so as to turn freely, but is prevented from endwise movement in a pivoted plate, G, near the front of the chair-frame, and carries upon said end a bevel-wheel, *f*, driven by a corresponding bevel-gear, *h*, on a winch-shaft, H, turning in bearings on the plate G, as clearly shown in Fig. 2.

By this mode of construction I secure a positive and secure means of inclining the chair in any position desired, the screw, pivoted plate, and winch-shaft yielding to accommodate its movement.

The seat or cushion of the chair slides in guides, which permit it to move in and out horizontally, and the guides are curved up slightly at their forward ends, so as to elevate the front of the seat as it moves forward. The dotted lines in Fig. 1 indicate this adjustment.

The foot-rest frame I moves in guides in pendent arms E^1 of the chair-frame, and is adjusted in a manner and by means substantially similar to that shown and described in the patent of O. C. White aforesaid, and, therefore, need not be particularly shown or described by me.

The back or frame of the chair is provided with a tube, E^2, in which slides or telescopes another tube or section, I′, carrying a back rest or support, J, hinged or pivoted to its up-

per end, a suitable set-screw, *i*, locking the sections together at any point desired.

In order to render this back rest capable of being adjusted to or from its support to increase the ease and comfort or the firmness of position of the occupant, in addition to its capabilities of being raised and lowered independently of the chair-frame, its lower end is hinged to a screw, K, working within a threaded socket, k^1, journaled so as to turn freely, but prevented from endwise movement in a rocking bearing, k^2, mounted in the lower end of the telescoping section I′, the section or tube E^2 being slotted at *e*, to permit of the free passage of the adjusting-screw and its socket when the back-rest is being adjusted up or down.

By rotating the threaded socket k^1 by means of a proper handle at the back of the chair, the lower end of the back-rest is adjusted toward or from the chair-back proper through the medium of the screw K working in said socket, whose bearing is free to yield to accommodate its movement. The telescoping section is shown in this instance as a tube, in which a rod, L, supporting a head-rest of any approved construction slides freely, and is locked in any position desired by a set-screw, *l*. The head-rest shown in this instance is one substantially similar in construction and operation to that shown in the Letters Patent granted to Eli T. Starr, December 28, 1875, as No. 171,539, and consequently needs no detailed description here.

The operation and advantages of my improvements will be obvious from the foregoing description.

I claim as of my own invention—

1. The combination, substantially as hereinbefore set forth, of the base or stool, a support adjustable thereon, the chair-frame rocking on the support, a screw working in said support and having its upper end journaled in a pivoted plate on the chair-frame, and gearing for operating said screw, whereby the inclination of the chair-frame relatively to the base upon which it is mounted may be varied.

2. The combination, substantially as hereinbefore set forth, of the chair-frame, its tubular portion, the section telescoping therewith carrying a hinged back rest or support, and a screw also carried by said section, whereby the back-rest is capable of being adjusted both vertically and to and from its support.

In testimony whereof I have hereunto subscribed my name.

SAMUEL S. WHITE.

Witnesses:

J. A. B. WILLIAMS,

FRANK L. HISE.