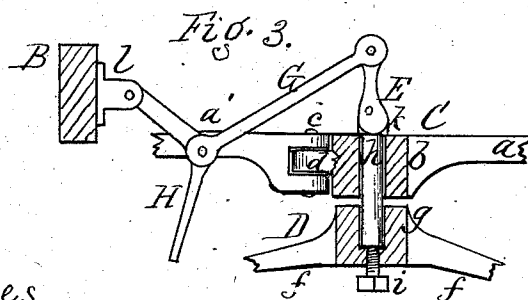
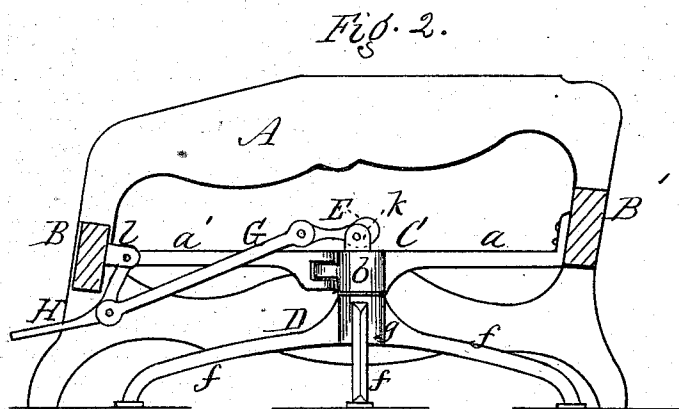
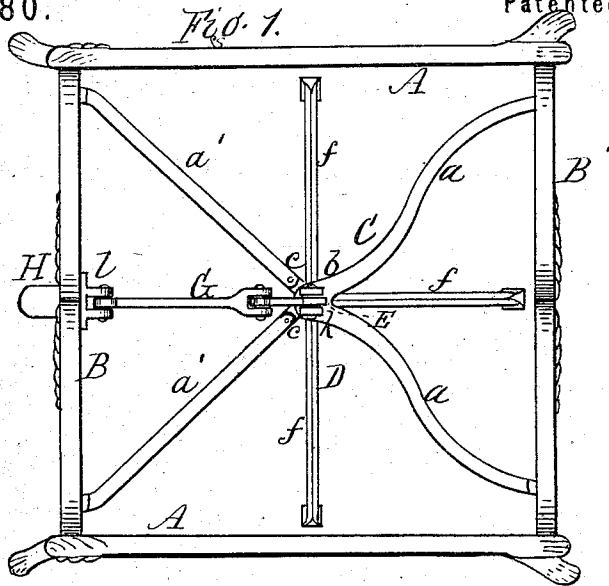


G. W. ARCHER.
Dentists' Chairs.

No. 158,880.

Patented Jan. 19, 1875.



Witnesses,
O. B. Scott.
Fred. A. Smith

Inventor
George W. Archer
per R. F. Cogood,
att'y.

UNITED STATES PATENT OFFICE.

GEORGE W. ARCHER, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN DENTISTS' CHAIRS.

Specification forming part of Letters Patent No. **158,880**, dated January 19, 1875; application filed March 23, 1874.

To all whom it may concern:

Be it known that I, GEORGE W. ARCHER, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Dentist and other Chairs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

The object of my improvement is to so arrange a dentist's or other chair that the chair itself may be elevated from the floor and turned upon its axis to any desired position to suit the convenience of the operator.

The invention consists in combining with the chair proper a supplementary support beneath the same, and a suitable mechanical arrangement for elevating the chair upon the support. It furthermore consists in the combination and arrangement of the operating parts, as hereinafter described.

In the drawings, Figure 1 is a plan of the bottom of a dentist's chair, showing my arrangement. Fig. 2 is a sectional elevation of the same. Fig. 3 is an elevation of the operating parts, showing the chair raised on its support and in the position for turning around.

A represents the ordinary base or bottom of a dentist's chair, and B B' are the front and rear cross-rails. C is a spider or skeleton, formed preferably of cast-iron, which is attached to the cross-rails in such a manner that the chair may be elevated by it. This spider consists of two or more rigid arms, *a a*, attached fast to the front rail, and having a central hub or bearing, *b*, also two or more adjustable arms, *a' a'*, which are pivoted at *c c* to lugs *d d* of the hub, and at the outer end are attached fast to the rear rail. The pivoting of the inner ends of these arms constitutes one of the novel features in my invention, as they are thereby adapted to chair-frames of different sizes, or in which the rails are situated nearer together or farther apart. The arms are simply drawn toward each other, or spread apart to fit the rails, as the case may be. This is a very great advantage, even in chairs of uniform size, since it is difficult to so fit the rails that they shall be alike in all cases. The arms, by being pivoted as described, can be brought to fit the rails in any

case. D is the independent support beneath the chair. It is simply a stool, having legs *f f*, and a central hub, *g*. In the hub is fitted a loose spindle or pin, *h*, which also extends up through the hub *b* of the spider. At the bottom is a set-screw, *i*, by which the spindle is adjusted up to compensate for wear, or for other purposes. The chair, with its spider C, may be lifted off or put on the standard or support D at pleasure, the two being independent. E is a lever-cam, pivoted in lugs *k k*, and bearing on top the spindle *h*. G is a connecting-rod, pivoted at one end to the lever-cam, and at the other to a treadle, H, which, in turn, is pivoted at its upper end to a bearing, *l*, made fast to the rail B'.

The parts are so arranged that when the chair is lowered to rest upon the floor, the treadle will stand outward, as shown in Fig. 2, in convenient position for the application of the foot. By pressing upon the treadle with the foot the treadle and the connecting-rod will be thrown inward, and the cam elevated, as shown in Fig. 3, thereby raising the chair upon the spindle *h* as a center, and allowing it to be turned as upon a pivot to any desired position to suit the operator.

The cam may be turned to an upright position, as shown, in which case it is self-supporting; or it may be only partially raised, in which case the foot is kept in contact with the treadle while the turning movement is given. When released the chair rests upon the floor in the usual manner, and retains a firm position.

The device above described enables the chair to be easily adjusted, and avoids the necessity of moving the chair around on the floor, as is usually done, and requires much effort when loaded.

If desired, the parts may be so arranged that the treadle may stand on the side or front instead of rear.

I do not claim spring-arms, connecting the spider with the bottom of the chair, as shown in the patent of Daniel E. Teal, July 19, 1870; but

I claim—

1. In a dental or barber chair, a spider, C, constructed with two stiff arms, *a a*, attached to the rear rail, and two pivoted arms, *a' a'*, connecting with the front rail, the whole com-

bined, as shown, that the spider may be expanded or contracted horizontally to adapt itself to different-sized chairs, as herein shown and described.

2. The combination, with the base or bottom of a dental or a barber chair, of the independent support D, spider C, and elevating-cam E, by which the chair may be elevated upon the support, and turned upon the same as a pivot, as described.

3. The combination, with the spider C and

support D, of the spindle *h*, cam E, connecting-rod G, and treadle H, operating in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEO. W. ARCHER.

Witnesses:

R. F. OSGOOD,

E. B. SCOTT.