

E. T. STARR.  
DENTAL-CHAIR.

No. 171,443.

Patented Dec. 21, 1875.

Fig. 1.

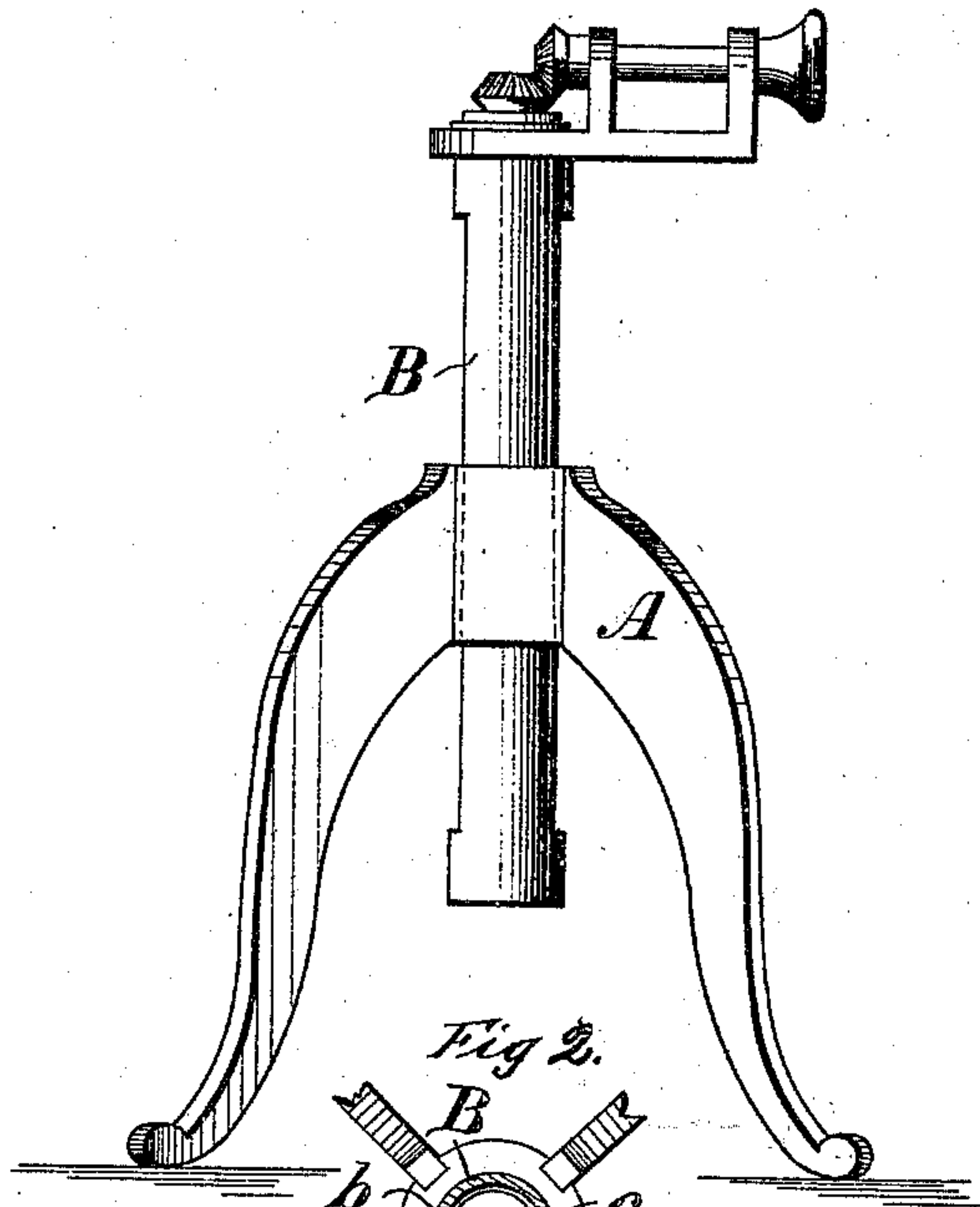


Fig. 2.

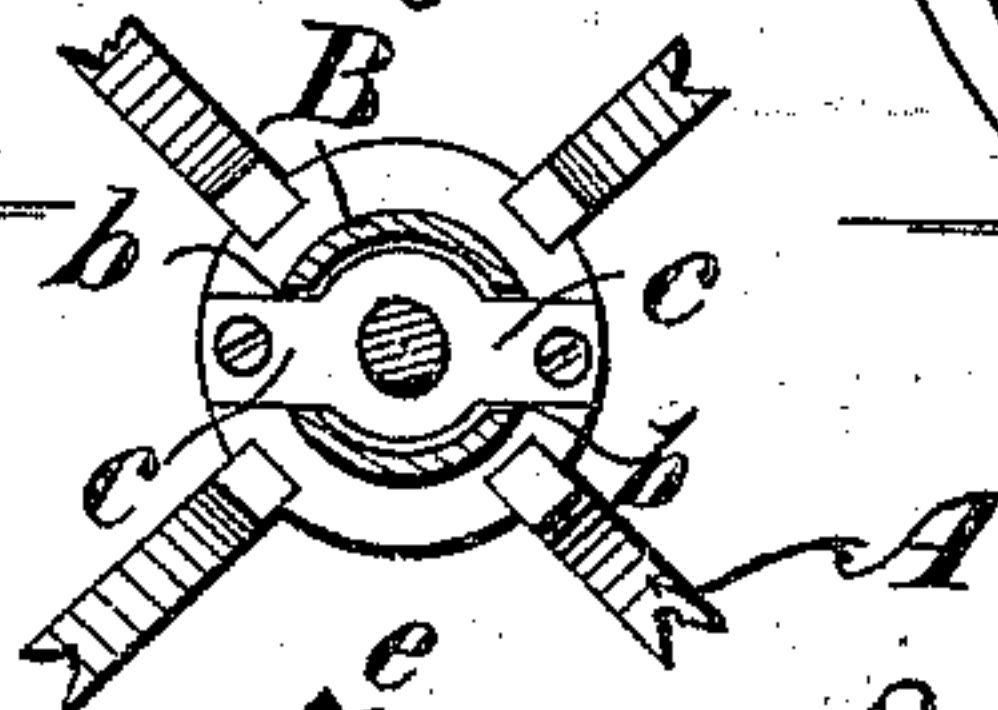
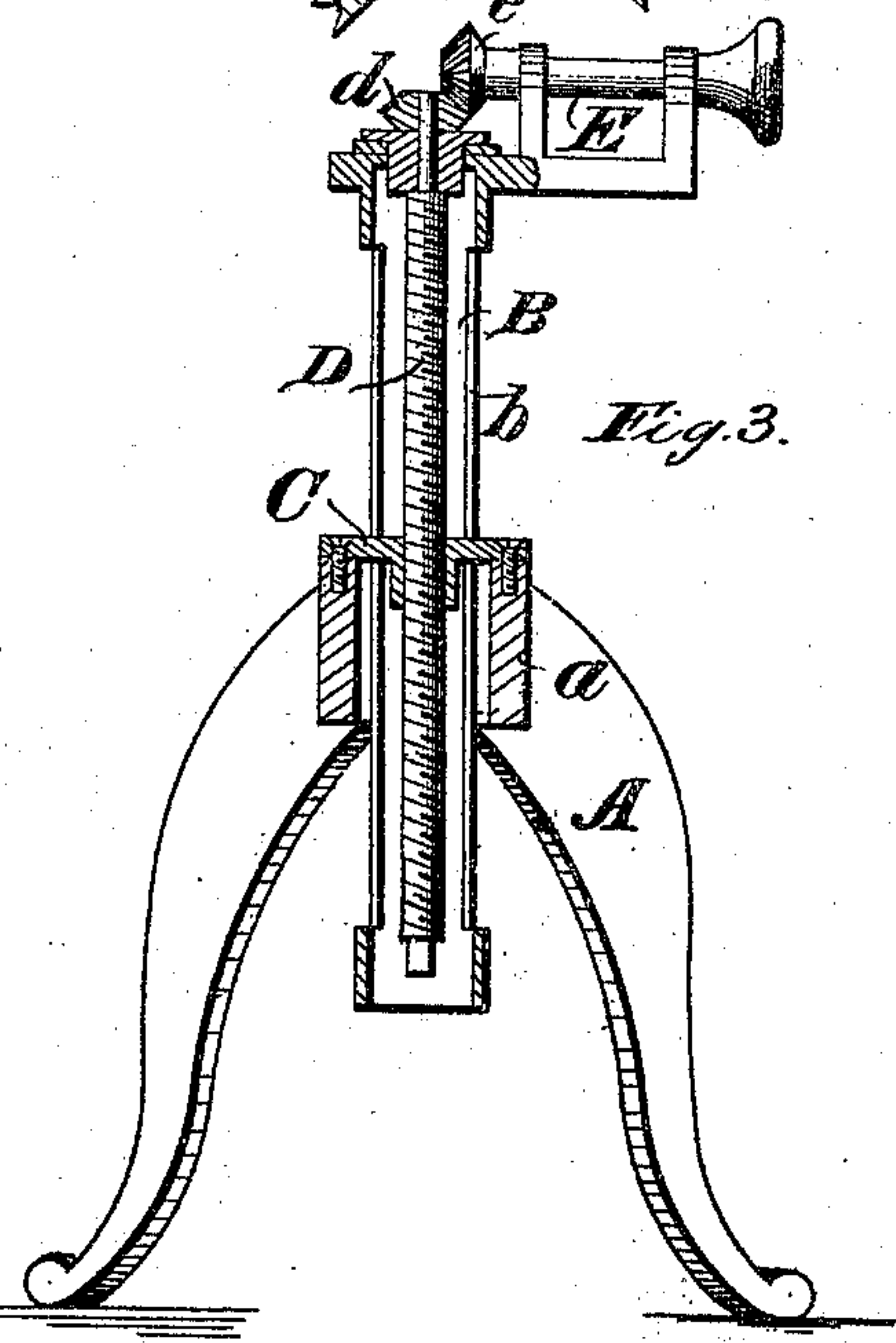


Fig. 3.



Witnesses:  
Baltis DeLong  
J. Hill

Eli T. Starr Inventor:

By his Attorney

Wm. B. Baldwin

# UNITED STATES PATENT OFFICE.

ELI T. STARR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO SAMUEL  
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## IMPROVEMENT IN DENTAL CHAIRS.

Specification forming part of Letters Patent No. **171,443**, dated December 21, 1875; application filed  
November 5, 1875.

*To all whom it may concern:*

Be it known that I, ELI T. STARR, of the city of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Dentists' Chairs, of which the following is a specification:

My invention relates to dentists' chairs of that class provided with means for raising and lowering the seat.

The subject-matter claimed will hereinafter specifically be designated.

In the accompanying drawings, Figure 1 represents a view of so much of my improved elevating apparatus as is necessary to illustrate the subject-matter herein claimed; Fig. 2, a horizontal section therethrough on the line of the fixed nut, and Fig. 3 a vertical section through the apparatus.

The base A of the chair may be constructed in any of the usual well-known ways, and is provided at its upper end with a collar, *a*, in which a tubular sleeve, B, fits snugly and moves freely endwise, but is prevented from turning by lugs *c* of a nut, C, fixed in the collar *a*, which lugs pass through vertical slots *b* in the walls of the tubular sleeve. A screw-spindle, D, inclosed within the sleeve, passes through the nut C, and has mounted upon its upper end a bevel-pinion, *d*, driven by a corresponding pinion, *e*, mounted on a shaft, E, supported

upon the frame of the chair and driven in any of the usual well-known ways. The turning of this screw raises or lowers both it and its enveloping sleeve, and, of course, the body of the chair also, while the ends of the slots in the sleeve act as stops to limit the range of adjustment of the chair.

My invention enables me to protect the screw and secure a strong, simple, and convenient method of adjustment, while enabling me to dispense with a fixed screw-sleeve, such as has heretofore in one instance been employed.

I do not broadly claim the combination of a movable sleeve and a spindle inclosed therein; but

I claim as of my own invention—

The chair-elevating apparatus hereinbefore set forth, consisting of the combination of the base or frame, its collar, the nut fixed therein, the screw-spindle passing through the nut, and the slotted sleeve inclosing the spindle and moving endwise through the collar, as and for the purposes described.

In testimony whereof I have hereunto subscribed my name.

ELI T. STARR.

Witnesses:

FRANK L. HISE,  
J. A. B. WILLIAMS.