

W. S. ELLIOTT.

Improvement in Dental Drills.

No. 123,559.

Patented Feb. 13, 1872.

Fig. 1.

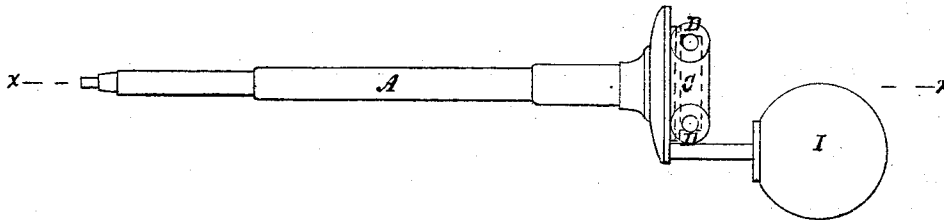


Fig. 2.

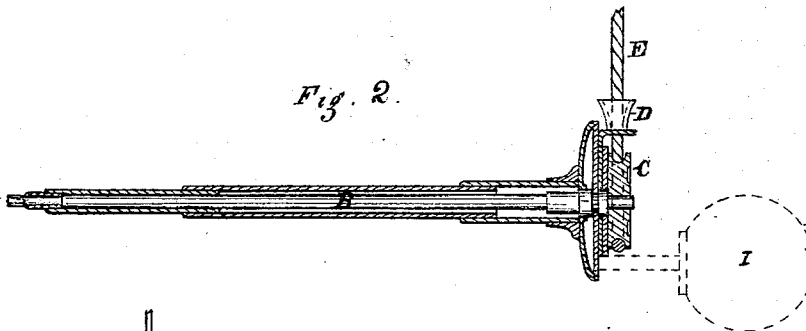


Fig. 4.

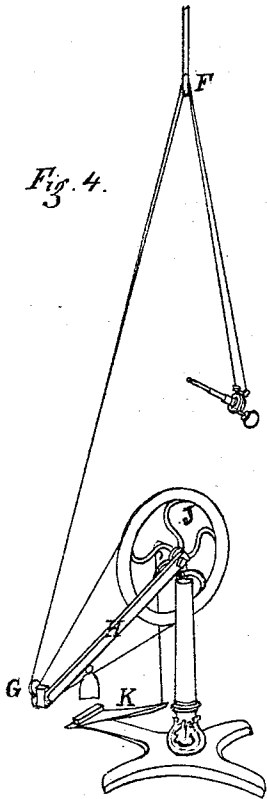
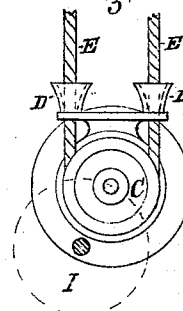


Fig. 3.



Walter S. Elliott
by J. J. Gordon his
Attorney,

Witnesses.

Geo. H. Collins
John M. Ripley

UNITED STATES PATENT OFFICE.

WALTER SCOTT ELLIOTT, OF GOSHEN, NEW YORK.

IMPROVEMENT IN DENTAL DRILLS.

Specification forming part of Letters Patent No. 123,559, dated February 13, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, WALTER SCOTT ELLIOTT, of Goshen, Orange county and State of New York, have invented a new and useful Improved Dental-Drill Stock; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, and the letters of reference marked thereon, in which the same letter represents the same thing in each figure.

Figure 1 is a top view of my improved dental-drill stock; Fig. 2, a longitudinal section through X X of Fig. 1; Fig. 3, an end view with ball removed; Fig. 4, a perspective view with treadle attached, showing it in position for operation.

A is the drill-stock; B, the shaft thereof; C, the drill-pulley; D D, the revolving thimbles; E, the cord; F, the double pulley overhead; G, the double extension-arm pulley; H, the extension arm; I, the balancing-weight; J, the driving-wheel; and K, the treadle.

Heretofore dental drills operated by driving-wheels have been used, but have been defective in respect of latitude and freedom of motion.

My improvement consists in such devices, and the arrangement thereof relatively to each other, that the fullest possible latitude of motion is obtained, and the point of the drill or other instrument may be placed in the cavity or upon the filling of a tooth, at any and every desired angle, with ease.

This is effected mainly by suspending the drill over the patient, by attaching drill-pulley C directly to drill-shaft B, using the revolving guide-thimbles D D, whereby cord E is certainly kept upon drill-pulley C, no matter what inclination is given thereto, depressing or doubling of the cord upon itself by movable extension arm H, which permits depression of the instrument to the patient's mouth, the employment of balancing-weight I at such a point beyond the point of pulley-suspension, which acts as a fulcrum, as to balance the drill-stock, and at the same time produce a sufficient traction on the cord, and weight enough on extension arm H to balance the drill and its weight I.

What I claim, and desire to secure by Letters Patent, is—

1. A dental instrument apparatus, constructed and operated substantially as set forth, when the stock is suspended by cords which communicate the power.

2. The combination of instrument-stock A, drill-pulley C, pulley F, and extension arm H, operated by cords and power, substantially as explained.

3. Revolving guide-thimbles D D, when employed in a power-operated dental instrument.

WALTER S. ELLIOTT.

Witnesses:

GEO. H. COLLINS,
JOHN W. RIPLEY.