H. CALLSEN.

DENTAL TOOL.

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1,354,089.

Patented Sept. 28, 1920.

Fig. 1.

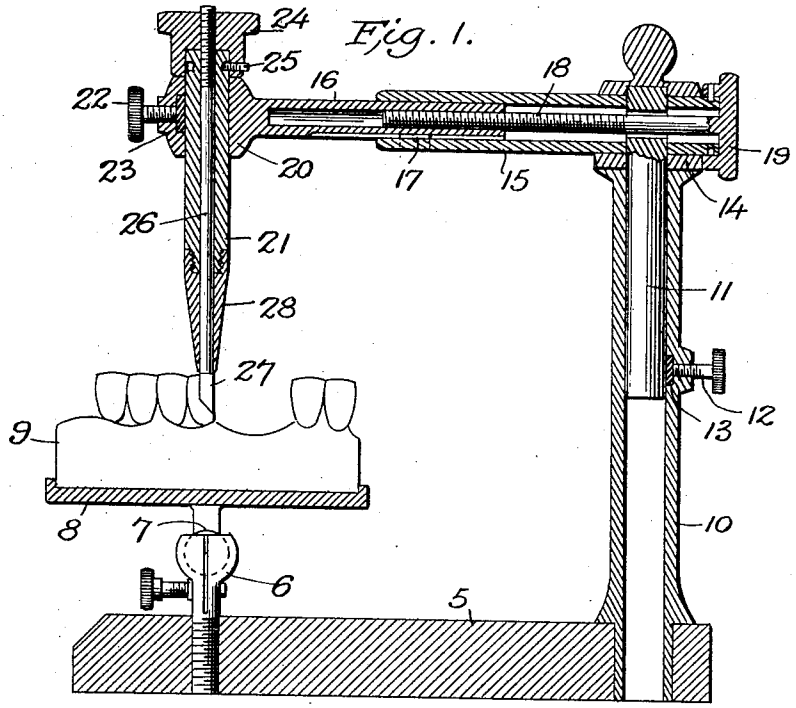
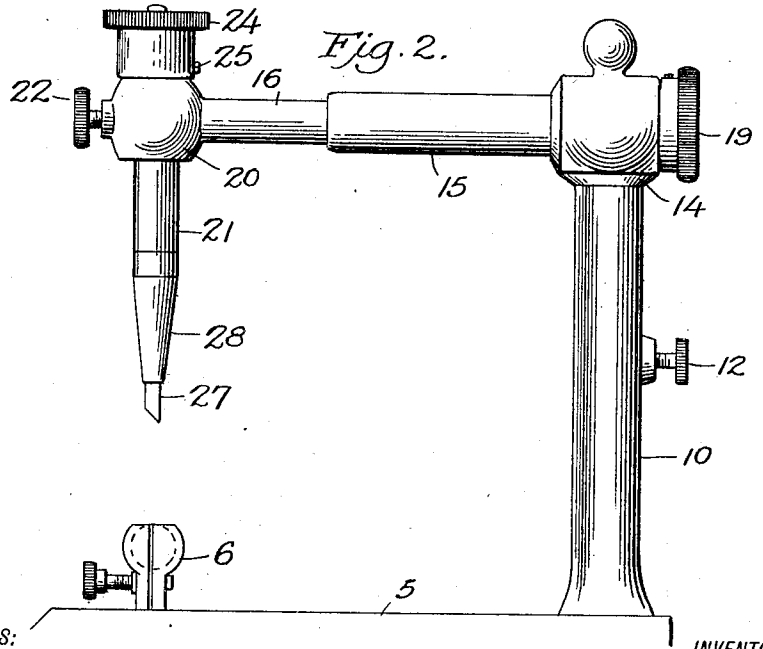


Fig. 2.



WITNESS:

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DENTAL TOOL.

1,354,089. Specification of Letters Patent. Patented Sept. 28, 1920.

Application filed November 29, 1919. Serial No. 341,491.

To all whom it may concern:

Be it known that I, HENRY CALLSEN, a citizen of the United States, and residing at New York, New York county, New York State, have invented certain new and useful Improvements in Dental Tools, of which the following is a specification.

This invention relates to dental instruments of precision and especially to parallelometers and its object is to provide means for very delicate adjustment without danger of lost motion in the parts and also for the removal of the plug from a tooth without its catching or jamming and so that its measurement may be secured.

These and other objects and details of the invention are more fully described in the following specification, set forth in the appended claims and illustrated in the accompanying drawings, wherein:

Figure 1 is a vertical sectional view,

Fig. 2 is a side elevation.

The device is mounted on a base 5 and consists of a socket 6, at one end to contain the ball 7, beneath the plate 8, which carries the cast 9, and at the other end of the base is a hollow upright 10, which carries a stem 11, that may be secured at any angle rigidly by the set screw 12, and soft metal binder 13.

The upper end of the stem 11, carries a head 14, with a horizontal tubular extension 15, in which plays a telescopic tube 16, splined in the larger tube by means of the feather 17, and is moved in and out by aid of the screw 18, whose head 19, is swiveled on the end of the tube 15. The tube 16, and its head 20, are thus movable to and from the standard 10, and around it and the head 20, carries the vertical tube 21, tapering toward its lower end and is held against movement by the set screw 22, and its binder 23. To the top of tube 21, is swiveled the nut 24, by means of the screw 25, that plays in an annular groove at the top of the tube 21, and in this nut plays the stem 26, of the tool or mandrel 27, the stem being threaded so that by turning the nut the tool may be withdrawn from a cavity or located therein. When it is necessary to leave one tooth to operate upon another or, as shown in the drawing, more clearly, to leave the left side tooth and transfer the tool to the right side tooth, to prepare a bridge for the said teeth, the tool is extracted by means of the nut 24, the tube 21, elevated slightly to remove the conical extremity 28, from contact with the tooth. The tube 16, may then be retracted by means of the screw 18, until it reaches the spot near the opposite tooth when the tool and tube 21, may be lowered at will.

The device is thus provided with all the means necessary to produce very delicate and accurate measurements for dental work and its parts are few and it is obvious that the latter may be otherwise arranged or modified without departing from the essential features above described or from the scope of the appended claims.

As will be seen by Fig. 2, the parts and particularly the delicate screw threads are all inclosed and are not endangered by the chalk or plaster of Paris which might not only clog these parts, but cause wear of the same and impair the efficiency of the tool. The point 28, of the tube 21, is of hard metal while the binding pieces 13 and 23, are interposed between the hard metal screws and the adjacent tubes so that the latter may not be bent or indented and their precision impaired.

By providing a substantial base, as shown, the device is firmly supported and both hands are left free to do the necessary work. The arrangement of the cast on the universal joint permits of the use of the tool on the same, at any desired angle.

It is obvious that the device may be otherwise arranged or modified without departing from the essential features above described or the scope of the appended claims.

What I claim as new is:

1. In a dental tool, the combination of a base and a tubular upright, a tool carried in a sleeve and parallel with the upright, telescopic means connecting the sleeve with the upright, and means for adjusting and locking the above parts.

2. In a dental tool, the combination of a base, a tubular upright, a tubular arm having a stem swiveled in the upright, a sleeve adjustable in the outer end of the arm, a tool carried by the sleeve and adapted to be retracted within the lower end thereof, and means in the tubular arm for varying the distance between the upright and the sleeve.

3. In a dental tool, the combination of a base, a tubular upright, a stem adapted to be adjusted in the upright and having a horizontal tubular arm, a tube adapted to telescope within the tubular arm, an adjust-

able sleeve at the end of the telescoping tube, a tool adapted to move in the same, and a swiveled table mounted on the base and beneath the tool.

4. In a dental tool, the combination of a base and a tubular upright, a stem adapted to be adjusted and locked in the upright, a telescopic arm carried by the stem, adjusting means for the telescopic arm, a tube adjustably carried at the end of the arm, a tool in the tube, and adjusting means for the tool.

5. In a dental tool, the combination of a base, a tubular upright, a stem carried in the upright, a horizontal tube carried at the upper end of the stem, a telescopic member in the same, an adjusting screw carried in the tube and actuating the member, a vertical tube at the outer end of the member, a tool with a threaded upper end in the vertical tube, a nut swiveled on the latter and adapted to retract the tool while its tube is located, and means for adjusting and locking the vertical tube.

6. In a dental tool, the combination of a base, an upright, a tool parallel with the upright, means for moving the tool with relation to the upright, means for shifting the tool around the upright, means for moving the tool vertically, and a table universally joined to the base to carry a cast.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY CALLSEN.

Witnesses:

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