

No. 702,646.

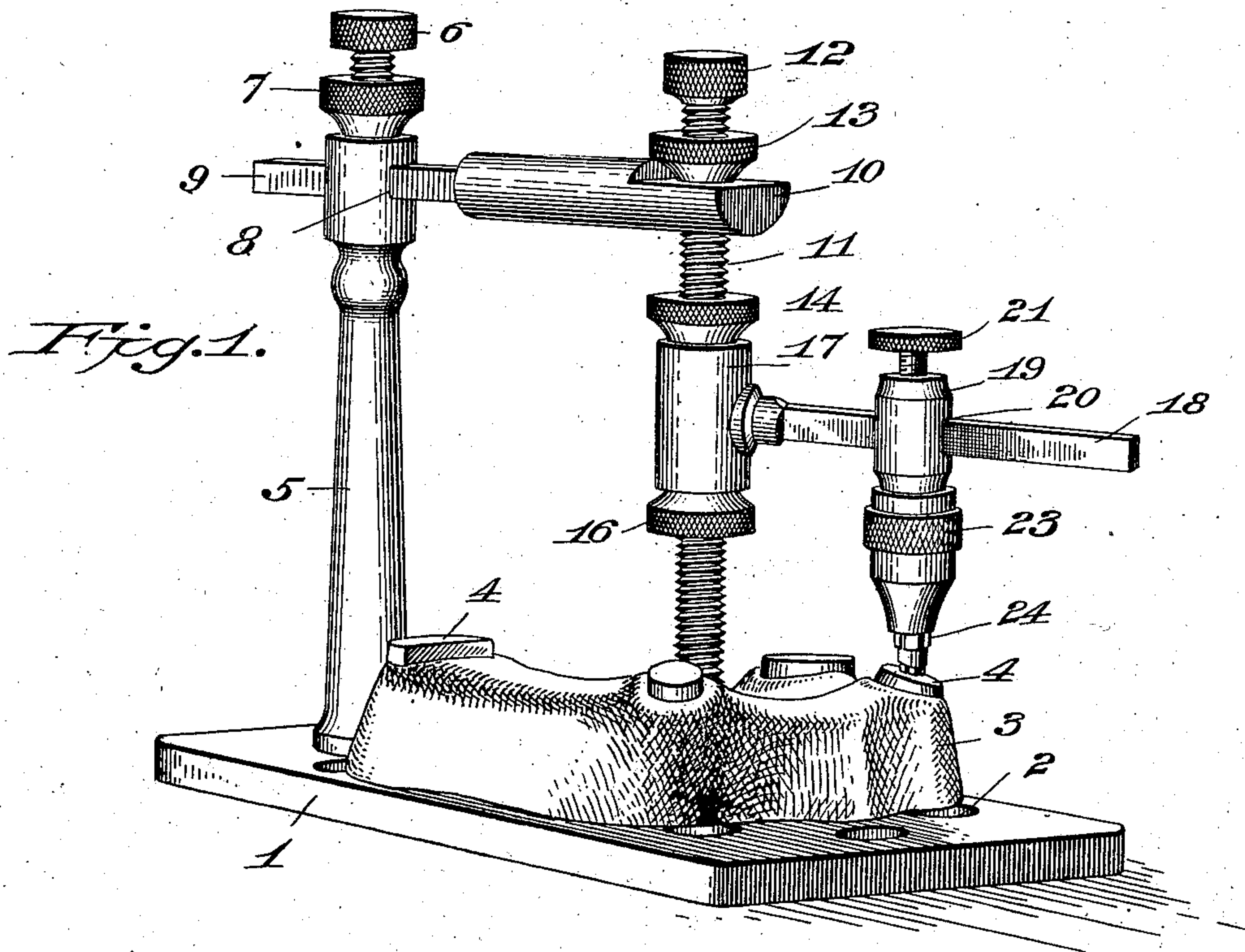
Patented June 17, 1902.

W. E. GRISWOLD.

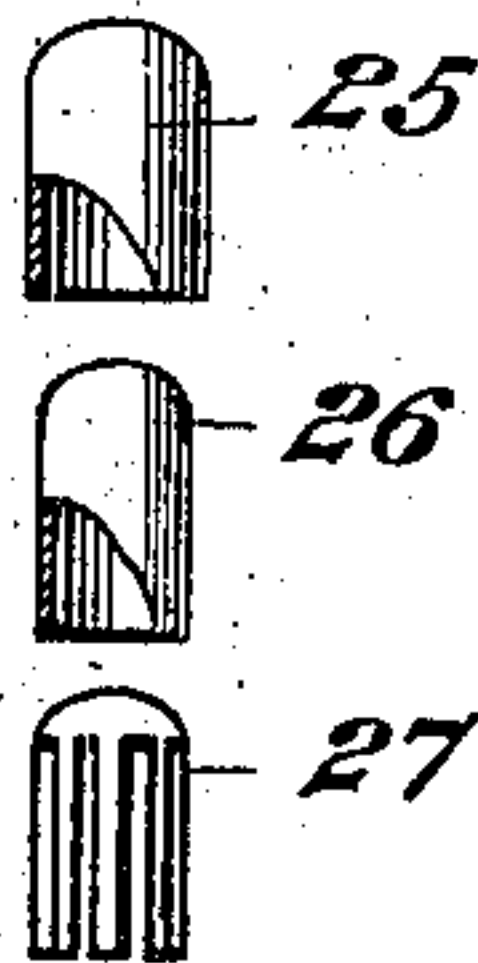
DENTAL TOOL.

(Application filed July 28, 1900.)

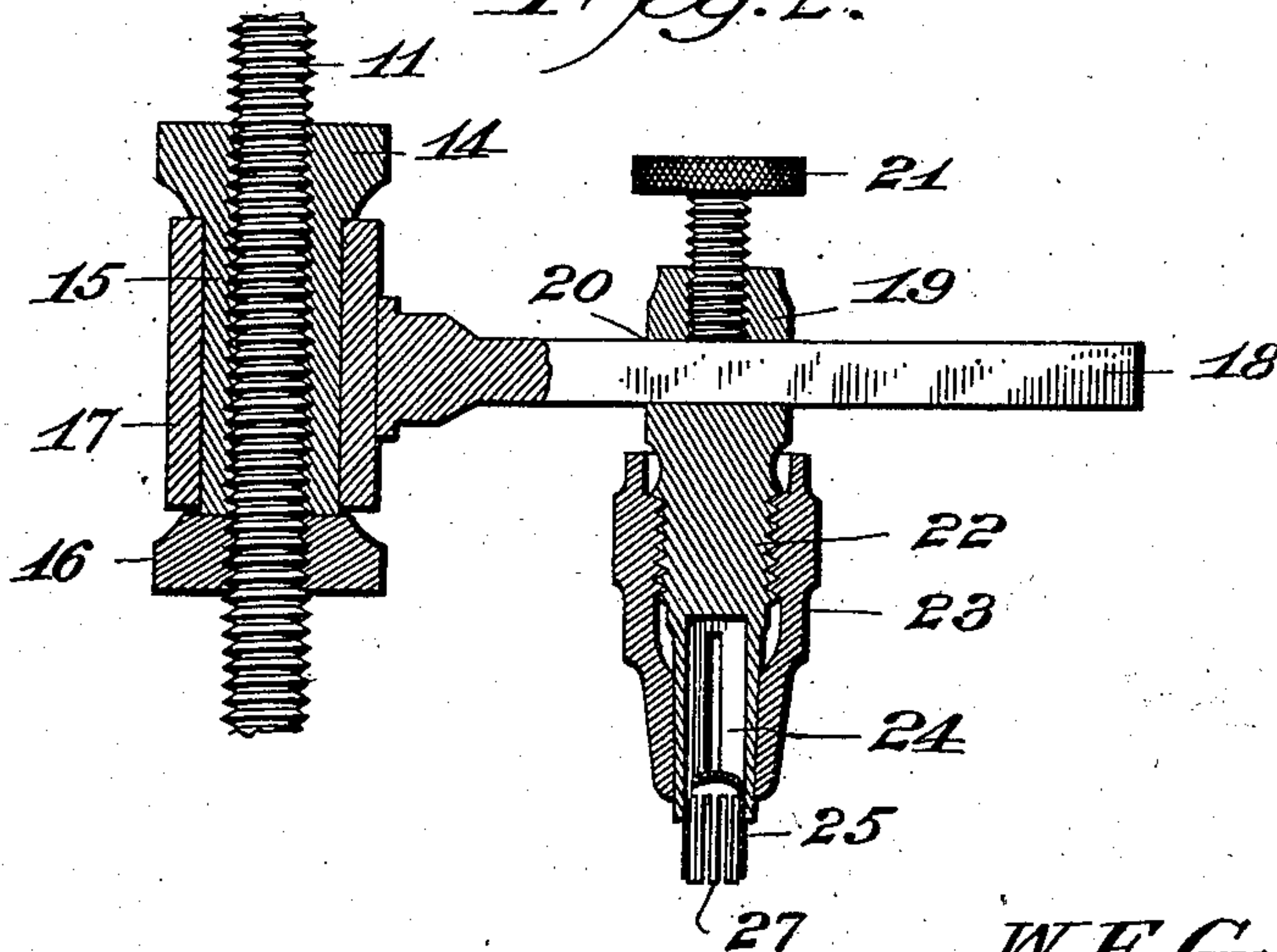
(No Model.)



*Fig. 3.*



*Fig. 2.*



Witnesses  
*G. S. Elliott.*  
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Inventor,  
by  
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his Attorney



# UNITED STATES PATENT OFFICE.

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## DENTAL TOOL.

SPECIFICATION forming part of Letters Patent No. 702,646, dated June 17, 1902.

Application filed July 28, 1900. Serial No. 25,172. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. GRISWOLD, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Dental Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in dental tools. Its object is to provide an instrument especially applicable in setting spring-studs perfectly parallel in models.

The instrument comprises as its principal features a standard or supporting-post, a centering-post, and an adjustable chuck or cap holder.

In the accompanying drawings, Figure 1 is a perspective view of the instrument with a model in place. Fig. 2 is a partial view in section, and Fig. 3 illustrates the spring-stud and caps which I use in making my securing device for bridge-pieces.

1 represents a base-plate having perforations 2, into which the plastic material of a model may run to secure it in place.

3 is a model, and 4 represents band-caps of roots in place in the model.

5 is a standard or supporting-post fixed to the base-plate 1.

6 is a screw-threaded rod with a milled head playing in the top of the standard 5.

7 is a screw-threaded milled adjusting-nut working on the rod 6.

8 is a slot in the standard 5, through which plays a horizontal arm 9, shown here as rectangular at the end playing in the slot 8 and enlarged at the other end and cut away to form a flat face at 10.

11 is a screw-threaded centering-post adapted to take a purchase on the model 3.

12 is a milled head on the post 11.

13 is a milled adjusting screw-nut working on the post 11.

14 is a screw-threaded milled head having an integral sleeve 15, surrounding and working upon the post 11.

16 is a milled adjusting screw-nut working on the post 11.

17 is a sleeve-journal turning on the sleeve 15 and bearing a horizontal arm 18.

19 is a chuck-head having a slot 20, through which the arm 18 may play.

21 is a milled adjusting screw-rod playing in the top of the chuck-head 19.

22 is the threaded end of the chuck-head 19, on which may be secured or adjusted the milled screw-threaded chuck 23, having the usual clasps 24.

25 represents my large-sized cap, 26 a smaller size which may telescope the larger size, and 27 my spring-stud.

It will be observed that the sleeve 15 is slightly longer than the sleeve 17, so that the binding may not be too tight to permit the easy swing of the arm 18 and the chuck.

It is obvious that these mechanical details may be varied in many ways—as, for example, by combining the standard 5 and the arm 9 or by a different arrangement of the adjusting devices.

In using my instrument I place the model 3 on the base-plate 1 and adjust the centering-pin 11 in all directions, so as to securely hold the model in the proper position. I then adjust and secure the swinging arm 18 and the chuck-head 19 in such relative positions that the spring-clasps of the chuck are immediately above the projecting base of the root. I have previously placed in the chuck the cap 25 in case the larger size is to be used, or if one of smaller size is required I first place the cap 25 and then in that the smaller cap 26, finally placing the spring-stud within the smaller cap, the two caps telescoping, so that in this way the instrument may be adapted for either of the two sizes. I then center the chuck-head 19 and bring it down by the adjusting means, so that the ends of the spring-stud rest on the base of the root. By this means I can determine the precise angle at which the ends of the spring-stud and cap must be filed and can easily remove the holder for the purpose of filing and replace it if necessary to again measure and then at intervals as required remove it to finish the filing. I am thus enabled to readily place the spring-studs in the cap and ascertain the exact angle for any particular cap or root.

My device, as is apparent, may be otherwise applied to the work of centering and gaging. In the description I have for purposes of illustration and application limited it to the specific uses defined.

Having fully described my invention, what I claim is—

1. In a dental tool, the combination of a standard, a centering-post to rest upon a model, and an adjustable chuck or holder connected with the centering-post to carry tooth-securing devices.

2. In a dental tool, the combination of a standard, an adjustable securing or centering post to rest upon a model, and an adjustable and removable chuck or holder for carrying spring-studs or caps for teeth.

3. In a dental tool, the combination of a

standard, a centering-post, a swinging arm carried by the centering-post and vertically adjustable thereon, and a chuck carried by the swinging arm.

4. In a dental tool, the combination of a standard, a screw-threaded centering-post, a sleeve having a screw-threaded head working on the centering-post, a journal-sleeve turning on the first-named sleeve and bearing a horizontal arm, and an adjustable chuck carried by the arm, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. GRISWOLD.

Witnesses:

WALTER F. ROGERS,

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