

C. R. POWERS.
DENTAL TOOL HOLDER.
APPLICATION FILED FEB. 3, 1910.

993,100.

Patented May 23, 1911.

Fig. 1.

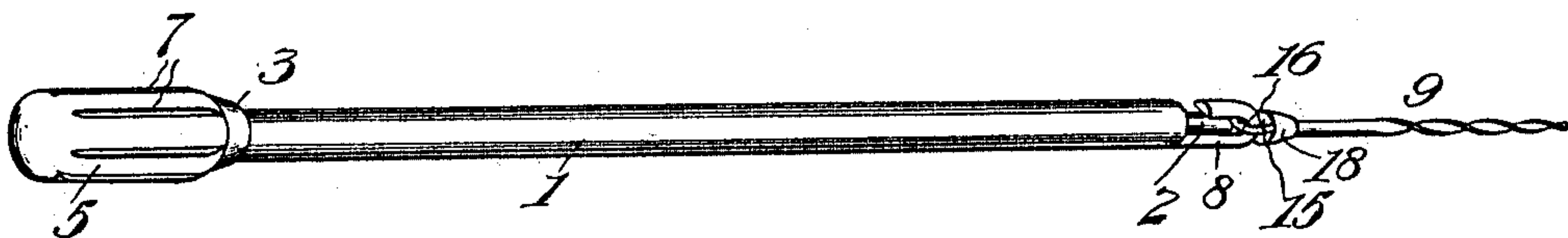


Fig. 2.

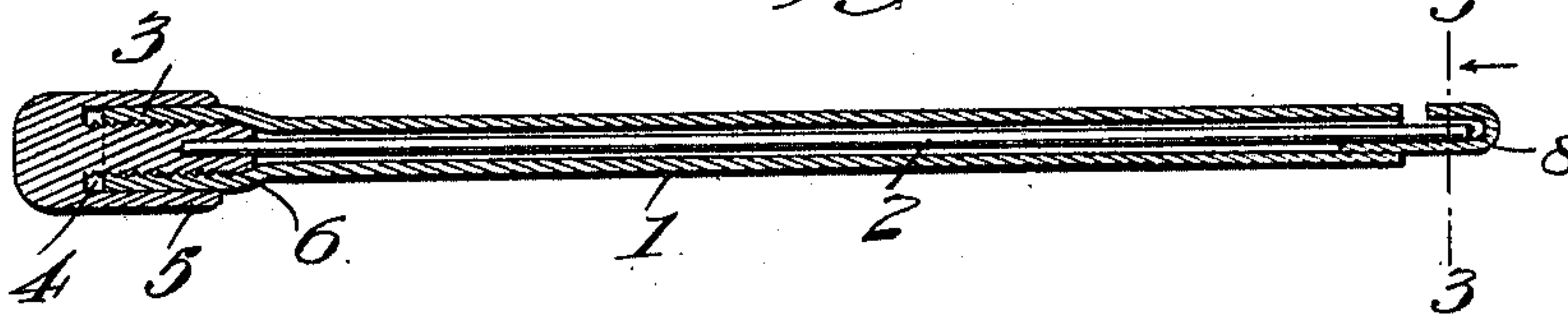


Fig. 3.

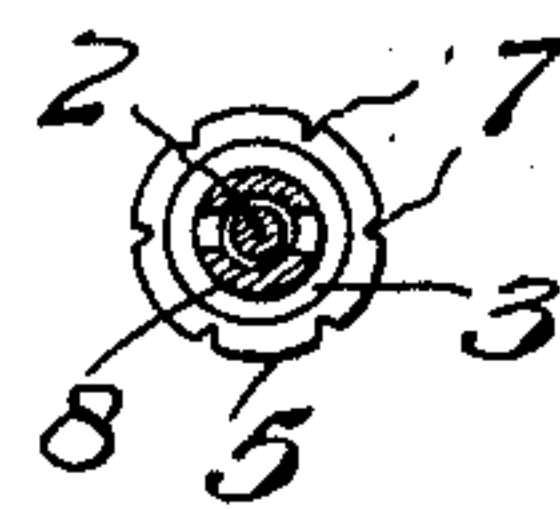


Fig. 4.

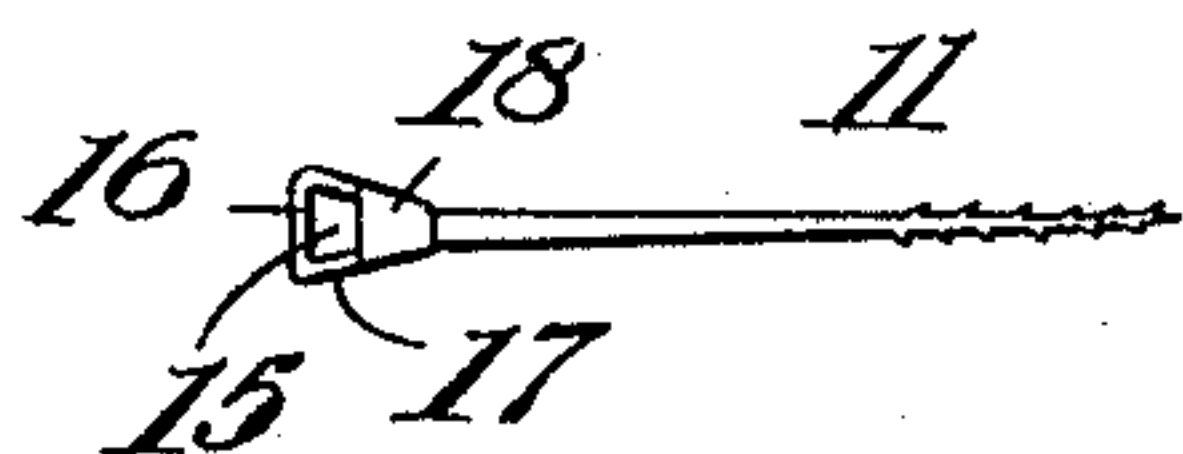


Fig. 5.

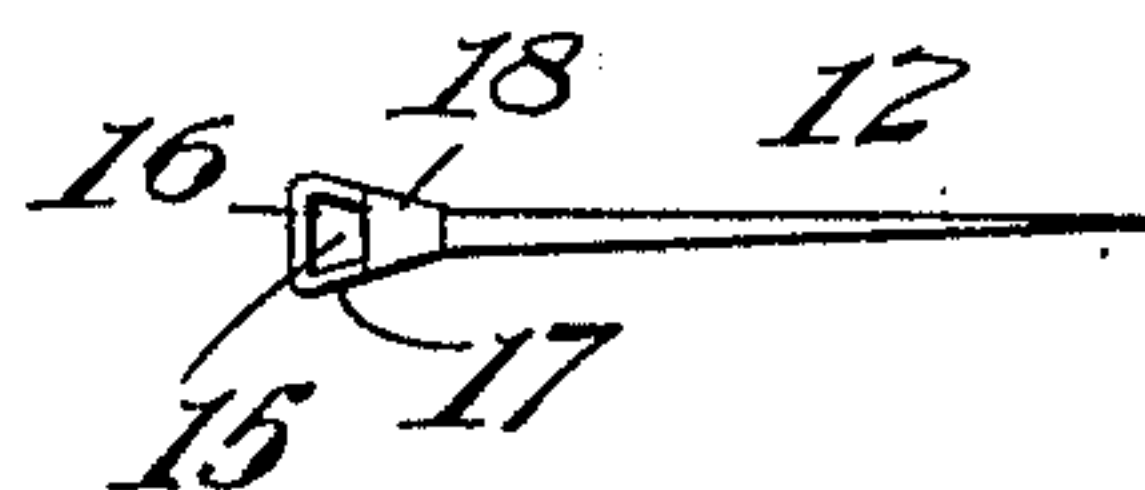


Fig. 6.

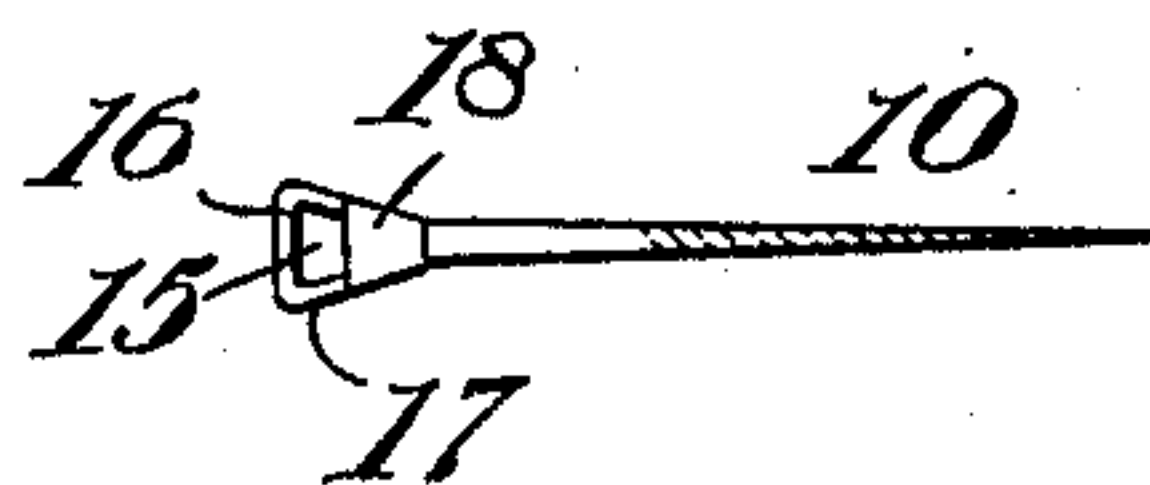


Fig. 7.

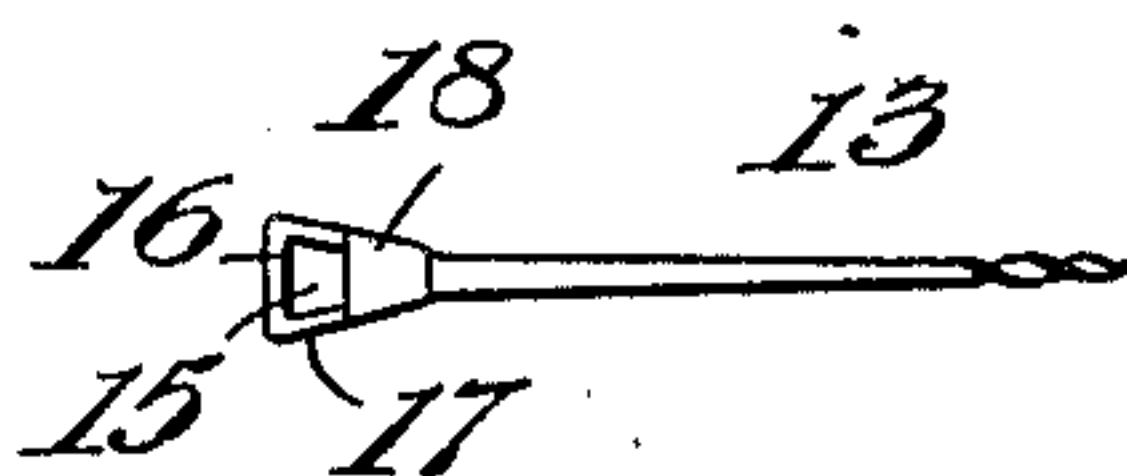
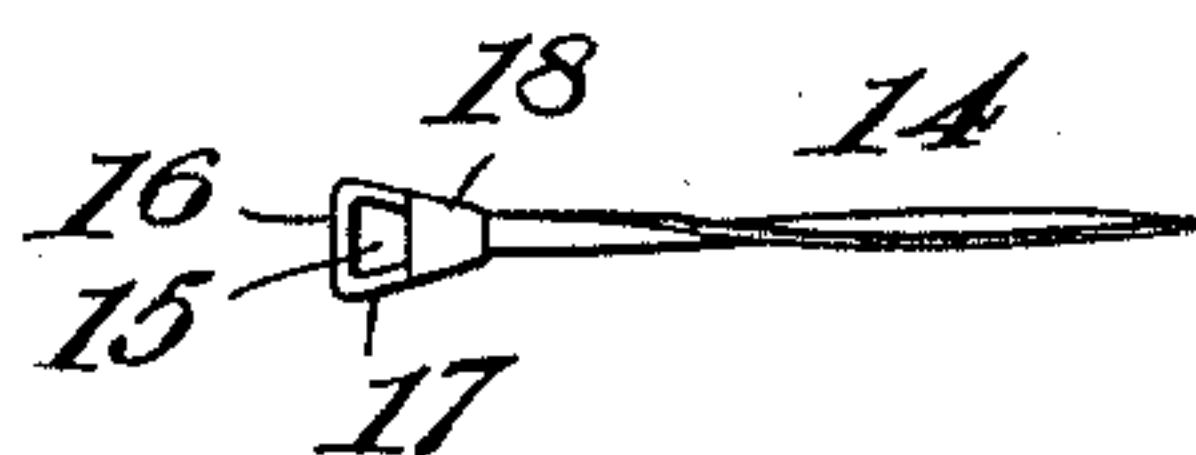


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES R. POWERS, OF PRINCETON, WISCONSIN.

DENTAL TOOL-HOLDER.

993,100.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES R. POWERS, a citizen of the United States, residing at Princeton, in the county of Green Lake and State of Wisconsin, have invented certain new and useful Improvements in Dental Tool-Holders, of which the following is a specification.

This invention relates to dental tool holders.

The object of the invention is to produce an article of this character in which a dental tool, such as a broach or the like, can be rigidly clamped in the holder in line with the longitudinal axis thereof, or at any desired angle thereto, or may be loosely held and still be rotated.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a dental tool holder, as will be hereinafter fully described and claimed.

In the accompanying drawing, forming a part of this specification, and in which like characters of reference indicate corresponding parts: Figure 1 is a view in perspective of a holder constructed in accordance with the present invention, and displaying the same as clamping a spiral broach and root-filler. Fig. 2 is a longitudinal sectional view through the holder, the broach being omitted. Fig. 3 is a transverse sectional view taken on the line 3—3, Fig. 2, and looking in the direction of the arrow thereon. Figs. 4, 5, 6, 7, and 8 are views, respectively, and in elevation, of a barbed broach, smooth broach, bristle, drill and reamer.

Referring to the drawings, 1 designates the shell or handle of the holder, and 2 the clamping rod. The handle is provided at one end with an enlarged tubular internally-threaded head 3 that is designed to fit within an annular seat 4 formed in an enlarged finger-grip 5 carried by one end of the clamping-rod, the core 6 formed by the seat 4 being externally-threaded to engage the head. The finger-grip is knurled or provided with longitudinal grooves 7 to facilitate turning of the holder to cause the implement carried thereby to perform its proper function. If preferred, the finger-grip 5 and rod 2 may be made integral; but from the standpoint of cheapness of construction

and facility of manufacture, it is preferable to make the parts separate and assemble them as by brazing or soldering. The finger-grip may be made of one kind of metal, such as brass, nickel-plated, or aluminum, and the rod of steel or any other metal suited to the purpose.

The end of the handle opposite that carrying the head 3 has secured within it the shank of an inturned hook 8, which, in conjunction with the rod 2, forms a clamp for retaining the dental implement, which may be a broach 9 of the spiral type shown in Fig. 1, a bristle 10, a barbed broach 11, a smooth broach 12, a drill 13, or a reamer 14, at any desired adjustment, angular or otherwise, relative to the handle when the holder is rotated. As shown, the hook 8 is constructed from a separate piece of metal from the shell or handle and is secured therein, as by solder; but as will be obvious, these parts may be made integral and still be within the scope of the invention.

The head 15 of the implement is of hollow triangular ring-like form in order to secure the best gripping action between its end bend 16 and the rod 2 and hook 8, and to prevent spreading of the head, the return bend 17 thereof may be secured to the shank by a soldered joint 13.

From the foregoing description, it will be seen that by reason of the coaction between the transverse bend 16 of the head 15 and the hook and clamping rod, the implement, no matter what its character may be, may be held rigidly at any desired adjustment, angular or otherwise, relatively to the handle, thus to accommodate the implement to the particular operation to be performed, and further that by adapting the holder to be rotated, the highest efficiency in use will ensue.

I claim:

1. A dental tool holder comprising a handle embodying a clamping device, in combination with a dental tool having an open triangular head to be engaged by the device.

2. A dental tool holder comprising a tubular handle provided at one end with a hook and at its other end with an internally-threaded head, and a clamping member co-acting with the hook and comprising a rod arranged within the handle and furnished with a finger-grip having a seat to receive

the head, one wall of the seat being externally-threaded to engage the head.

3. The combination with a dental implement holder comprising a handle provided
5 at one end with a hook, and a longitudinally adjustable rod arranged to project within the hook to provide a clamp, of an implement, having an open triangular head to

engage the hook and to be held therein by the rod. 10

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

CHARLES R. POWERS.

Witnesses:

EDWARD BARTEL,
JAMES L. KELLEY.

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