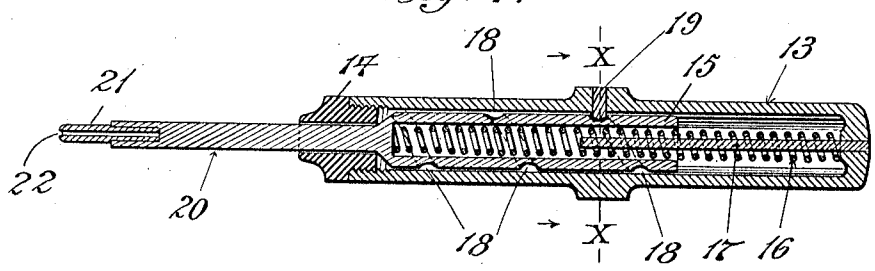
G. O. BURLEW.

TOOL FOR FASTENING METAL TOOTH BACKINGS.

APPLICATION FILED MAY 24, 1912.

1,035,855. Patented Aug. 20, 1912.

Fig. 1.



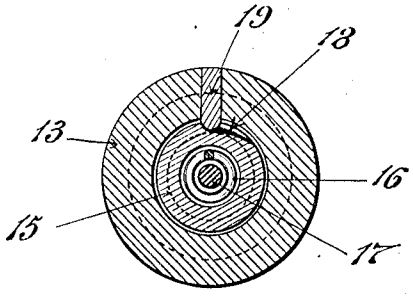




Fig. 2.

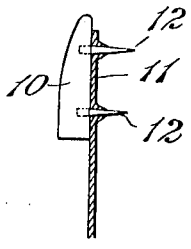



Fig. 3.

Witnesses:
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Inventor

By his Attorneys
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# UNITED STATES PATENT OFFICE.

GILDEROY O. BURLEW, OF NEWARK, NEW JERSEY.

## TOOL FOR FASTENING METAL TOOTH-BACKINGS.

1,035,855. Specification of Letters Patent. Patented Aug. 20, 1912.

Application filed May 24, 1912. Serial No. 699,537.

*To all whom it may concern:*

Be it known that I, GILDEROY O. BURLEW, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Tools for Fastening Metal Tooth-Backings; 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.

The present invention relates to an improved tool for rapidly spinning and compressing metal sheets around the pins or spikes by which they are often united to artificial teeth when preparing a metal "backing" for such teeth.

The principal advantage of my improvement is found in its providing a simple and easily operated tool whereby a rotative twist can be given to the gold leaf while compressing it around the pins in forming a joint, which will prevent all possibility of leakage around the pins.

The nature of the invention is made clear in the accompanying drawings, wherein—

Figure 1 is a longitudinal section of the tool, Fig. 2 is a transverse section on the line X—X in Fig. 1, and Fig. 3 shows the effect of the tool in joining to the fastening of an artificial tooth a sheet of gold shown in section therein.

In applying a porcelain facing 10 to certain dental structures in a well known manner, it is a common practice to supply a gold sheet 11 between such facing and the structure to which it is applied, and it is important that the apertures through which pass the sharp pins 12, used in supporting the facing itself, should fit so tightly and permanently around the pins as to prevent all leakage around the pins.

It is the object of the present invention to provide a tool which will quickly and effectually make a joint of this character.

Within the hollow shell 13, closed by a cap 14, preferably screwing into said shell as shown, a core 15 is mounted so as to be capable of reciprocating movement within the shell. The core 15 is preferably hollow, to accommodate a spring 16 on a guiding pin 17, which spring normally holds the core in the extended position shown in Fig. 1. The core carries an external spiral groove 18 of long pitch into which there projects a pin 19, so that, when the core reciprocates with relation to the outer handle or shell, it also takes on a rapid rotary movement. The core comprises an extension, marked 20 in Fig. 1, which passes through an appropriate opening in the cap 14, and carries at its extremity a spinning tool having a deep terminal cavity of appropriate shape, 22, of such a size as to receive and admit one of the pins 12 and the thin layer of gold pushed up around its base when the pin is thrust through the sheet of gold 11. The opening of the cavity 22 should be rounded inward and present no sharp edge or projection which might cut or pierce the gold.

In using this tool, the sheet is laid upon soft wood or other suitable material and the pins 12, carrying the facing 10, are pushed through the gold, until the sheet lies flat against the back of the facing. The opening 22 in the spinning tool 21 is then placed over each pin and the gold pushed up around it, and the handle or shell 13 is moved up and down. On each downward movement the tool 21 twists the gold sheet neatly around the pin, and then consolidates the same in a single mass in a manner familiar, so far as the consolidation is concerned, in ordinary gold fillings for teeth. To facilitate this operation, I prefer to make the shell 13 fairly heavy, so as to produce a hammer effect.

What I claim is—

1. A tool for producing non-leaking joints where pins project through a metal tooth backing in dental work comprising in combination, a handle or shell, a core mounted so as to reciprocate within said handle or shell, means for producing rotary motion of said core when the shell is reciprocated, and a spinning tool at the extremity of the core having a suitably shaped deep cavity adapted to fit over one of said pins and the metal backing plate around the base thereof, substantially as described.

2. A tool for producing non-leaking joints where pins project through a metal tooth backing in dental work comprising in combination, a handle, or shell, a core mounted so as to reciprocate within said handle or shell, and having a spiral external groove, a projection in the shell entering said groove, an extension on said core, and a spinning tool on the extremity of said extension provided with a deep cavity of suitable shape, adapted to fit over one of said pins and the

metal backing plate around its base, substantially as described.

3. A tool for producing non-leaking joints where pins project through a metal tooth backing in dental work comprising in combination, a handle or shell, a core mounted so as to reciprocate within said handle or shell, and having a spiral external groove, a projection in the shell entering said groove, a spiral spring and a guide therefor within said shell entering an appropriate cavity in said core, an extension on said core, and a spinning tool on the extremity of said extension provided with a deep cavity of suitable shape, adapted to fit over one of said pins and the metal backing plate around its base, substantially as described.

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

GILDEROY O. BURLEW.

Witnesses:
H. S. MACKAYE,
KATHARINE C. MEAD.