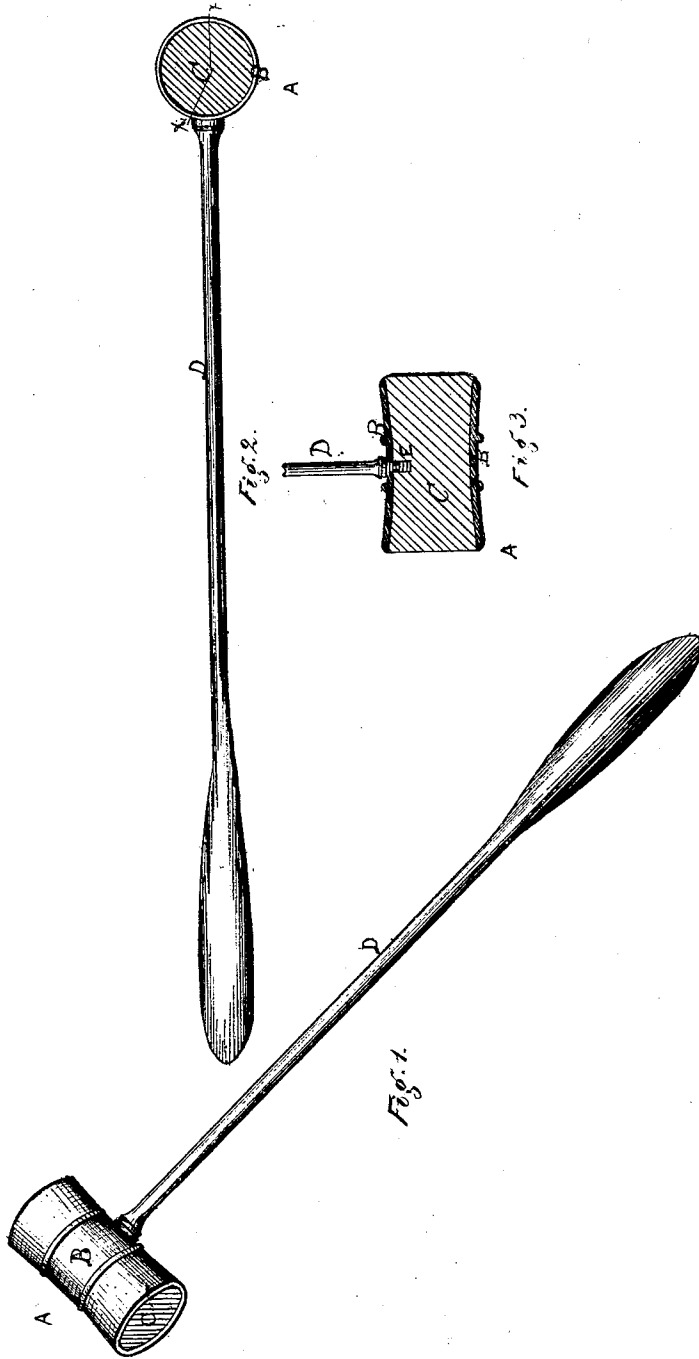


J. A. Bidwell,

Dental Mallet.

No. 103706.

Patented May 31, 1870.



Witnesses:
G. H. Cross
Wm. C. Jarrell

Inventor:
Julius A. Bidwell

United States Patent Office.

JULIUS A. BIDWELL, OF CHICAGO, ILLINOIS.

Letters Patent No. 103,706, dated May 31, 1870.

IMPROVEMENT IN DENTAL MALLETS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JULIUS A. BIDWELL, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Dental-Mallet; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 is a perspective view of my improved mallet;

Figure 2 is an end view; and

Figure 3, a longitudinal section of the same, in the line $x x$, fig. 2.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

In filling decayed or injured teeth with gold it is necessary that the latter be thoroughly condensed within the teeth, and for this purpose a mallet is employed, the blows of which are delivered upon an instrument called a "plugger," bearing with one end against the filling.

Mallets of wood and hard metal have been employed for this purpose, but the former does not possess sufficient weight to be effective in a tool of the required size, while the blows of the latter are too violent and jarring upon the teeth, and are consequently not only liable to loosen the same, but are unpleasant and painful to the patient.

The jarring of the tooth is due to the recoil of the blows incident to the percussion of two unyielding substances; that is to say, the contact of the hard metal mallet with the "plugger."

To overcome this difficulty, mallets have been formed of tin, lead, and other soft metals, by which a yielding blow is given upon the plugger, and the recoil avoided or deadened; but, owing to the softness

of the metal, the mallet in a very short time becomes broken and misshapen to such an extent as to render it worthless, and the substitution of a new one necessary.

My invention has for its object to provide a mallet of soft metal, which shall in use retain its form and remain unbroken; and to this end

It consists in constructing the mallet of a hard metal shell filled with soft metal, as will be hereinafter more fully described.

In the accompanying drawing—

A is the mallet, composed of a hard metal shell or cylinder, B, opened at both ends, and having a soft metal filling or core, C.

D is the handle, adapted for attachment to the mallet by a screw-connection E, or by other suitable means.

It will be seen that the ends of the soft metal are exposed for contact with the plugger, and also that they are prevented from being forced out of shape by the surrounding ends of the hard metal shell B.

When the filling C becomes worn it can be easily removed, and the shell refilled.

If desired, hard rubber may be used for the shell instead of metal.

Having thus described my invention,

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

A dental mallet, composed of an open-ended cylinder or shell of hard metal or other hard material, enclosing a soft metal core or filling, and provided with a suitable handle, substantially as described, for the purpose specified.

JULIUS A. BIDWELL.

Witnesses:

G. H. FROST,
WM. C. FARWELL.