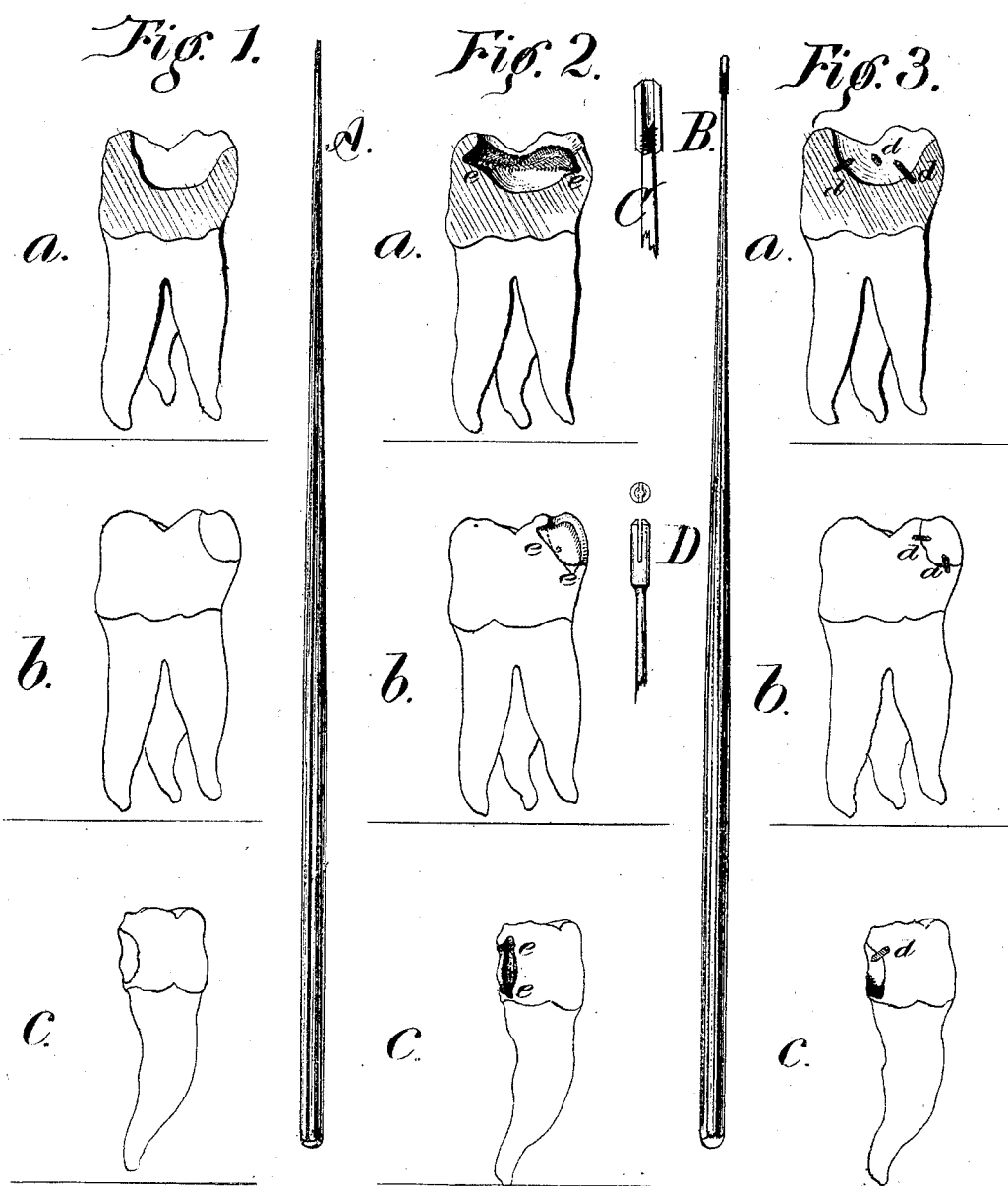


CHARLES H. MACK.

Improvement in Securing Dental Fillings.

No. 114,454.

Patented May 2, 1871.



Witnesses.

John Welch

John O'Neill

Inventor.

Charles H. Mack

United States Patent Office.

CHARLES H. MACK, OF PORTLAND, OREGON.

Letters Patent No. 114,454, dated May 2, 1871.

IMPROVEMENT IN SECURING DENTAL FILLINGS.

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

I, CHARLES H. MACK, of Portland, in the county of Multnomah, in the State of Oregon, have invented an Improved Method of Securing "Dental Fillings" in Natural Teeth; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing making a part of this specification.

Description of Drawing.

Figure 1, *a b c* represent cavities.

Figure 2, *a b c*, cavities treated in primitive mode.

Figure 3, *a b c*, cavities treated in the improved mode.

A is a tap, and

B a combined socket and wrench for inserting the screws or pins *d* in the dentine.

C is an enlargement of B, showing the shape of the interior.

D, a modification of B, with a slotted opening in the sides for flattened heads or pins *d*, and may be made to fit other shaped heads.

In connection with these tools a small drill, somewhat smaller than the tap A, is used.

Object of the Invention.

There has long existed among dentists a grave difficulty in securing the fillings of decayed teeth in various cavities, some of which will, with the aid of the drawing, be elaborated.

In fig. 1, *a*, a large molar is partially denuded, only a small portion of the upper covering remaining. The primitive treatment of such a tooth is shown by the letters *e* in the parts of fig. 2, there being a strong under cutting, the object of which is to hold the filling. The effect of this is plain. This mode greatly weakens the tooth.

The pyramidal form shown at *a*, fig. 1, and *a*, fig. 3, is certainly much stronger than the dovetail cavity at *e*, fig. 2.

At *b*, fig. 1, a compound cavity is shown in a tooth of same denomination, partly on the top and side, where it is even more difficult to make the filling secure by the under-cutting mode.

In the several figures *c* represents a cavity on the

side of a tooth. This, too, would be materially weakened by being operated upon as in the now-prevalent mode, as shown at upper *e*, in fig. 2, *c*.

By the improved method such cavities may be easily filled. All that need be done is to remove the decay and, without any under cutting, insert the pins *d* in various directions, so that they project in such way as would best serve to hold the filling.

These minute pins or "nibs" *d* are made of metallic wire, on which a screw-thread has been cut of same size as the tap A. The wire is then cut off in proper lengths and ends finished, one to follow the tap A and the other fitted to a V-shape, to fit the interior of the combined socket and wrench B, which exactly fits them. The filling is now packed about these retaining-pins *d*, and the whole is secured to the tooth thereby.

A tooth-crown may be much worn by abrasion, and its top may be raised to its original size and shape without cutting into the tooth, other than securing these pins or nibs *d* in the dentine, as hereinbefore described, filling on and about them.

Other forms than that of a plain wire screw may be used. I sometimes employ pins with flattened heads, but generally prefer the pattern before described on account of the facility with which they may be made and used with the tools, as described.

These minute drill-holes do not penetrate deep into the tooth, and may be of any suitable size, and they are always in a direction to avoid the nerve. The patient is relieved of much pain as compared with the old treatment, as the small diameter of the drill does not scrape as severely as the old cutting-instrument.

Claim.

I claim—

As the connection between a tooth and its filling, a metallic pin inserted firmly in the body of the tooth, the arrangement being substantially as described.

CHARLES H. MACK.

Witnesses:

C. B. TALBOT,

A. J. MOSES.