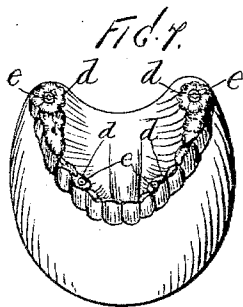
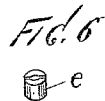
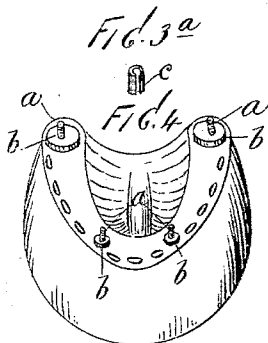
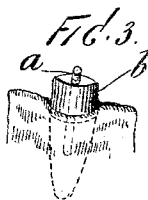
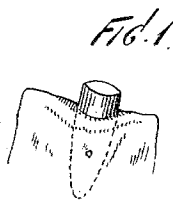
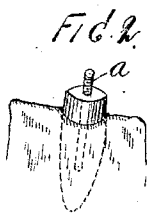


(No Model.)

F. COMER.
METHOD OF BRIDGING TEETH.

No. 571,556.

Patented Nov. 17, 1896.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK COMER, OF LONDON, ENGLAND.

METHOD OF BRIDGING TEETH.

SPECIFICATION forming part of Letters Patent No. 571,556, dated November 17, 1896.

Application filed July 16, 1896. Serial No. 599,411. (No model.) Patented in England September 25, 1895, No. 17,905.

To all whom it may concern:

Be it known that I, FRANK COMER, a subject of the Queen of Great Britain, and a resident of 5 Hereford Square, South Kensington, London, England, have invented a new and useful Method of Bridging or Capping Teeth, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts wherever found throughout the several views, and for which Letters Patent were granted in Great Britain September 25, 1895, No. 17,905.

15 This invention relates to dentistry, and particularly to dental bridgework, and said invention is fully disclosed in the following specification.

Heretofore the system generally adopted in dental bridgework has been, first, to provide the roots by which the bridge is to be supported in position with caps or rings of gold or other metal, and then, with these caps or rings in position, to take a plaster-of-paris impression of the mouth. These rings or caps are sufficiently loose-fitting to come away with the impression, so that upon taking a plaster cast from the latter the caps or rings will be left in position on the cast when the impression is broken away from the latter after this has been allowed sufficient time to harden. The cast so obtained is then fitted with the necessary artificial teeth, which are backed with gold or other material and soldered together and to the caps or rings, and the cast when finished is secured in position by first drying the roots to which the bridge so formed is to be attached, filling the caps or rings with cement, and pressing the case firmly in position. The case is thus firmly and permanently fixed in position, and so long as removal is not required generally answers its purpose; but when removal is found necessary for repairing, cleaning, or other like operation it is usually found that this is impossible without injuring if not entirely destroying the cases; and the object of my invention is to overcome this difficulty by a system in which bridges are rendered easily removable. This object I accomplish by means of the construction described in the follow-

ing specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of a part of the gum, showing one tooth, the crown of which is ground into proper form. Fig. 2 is a similar view showing said crown provided with a screw composed of platinum or similar material; Fig. 3, a similar view showing a cap connected with the crown; Fig. 3^a, a perspective view of a small split tube which I employ; Fig. 4, a perspective view representing a model or casting obtained after the teeth have been prepared therefor; Fig. 5, a perspective view of a screw-nut which I employ; Fig. 6, a head which is adapted to be connected with the screws, and Fig. 7 is a perspective view of the bridge secured in place.

In the practice of my invention I first grind the stumps or crowns to which the bridge is to be attached by the aid of corundum coning-cups to a conical form, as shown in Fig. 1. The nerve-canals are then enlarged and tapped with a screw-thread, and an annealed platinum or other screw screwed into these tapped holes in the roots and the projecting portion of said screws are bent into the required position. Gold or platinum caps *b* are next fitted onto and cemented over the roots, said caps passing well up under the gums, as shown in Fig. 3, in order to protect the roots from decay, and the whole is thus prepared for taking the necessary impression by placing small split tubes *c* (shown in Fig. 3^a) over the projecting screws. When the impression is made, these split tubes come away, and in these tubes other screws are placed when taking a cast from the impression, the result being that said screws, when the impression is broken away from the cast, occupy exactly the same position as those in the mouth of the patient, as shown in Fig. 4, which is a representation of a model so obtained. Beads or caps *d*, one of which is shown in Fig. 5, composed of gold or platinum, are then slipped on the screws on the model, and on these are soldered the required number of artificial teeth. When the bridge so prepared is placed in position, the beads, which may also form grinding-surfaces, will fit over the screws on the stumps in the patient's mouth, and the bridge may be firmly secured in position by screwing

nuts *e* (shown in Fig. 6) onto the ends of these screws, as shown in Fig. 7, the beads being preferably countersunk and the nuts tapered, so that said nuts may occupy a position level
5 with or slightly below the masticating-surface, and the loosening of these parts may be prevented, when desired, by packing with gold-foil. By this arrangement it will be seen that the bridge may be quickly and easily re-
10 moved by the simple operation of unscrewing a few nuts, and a duplicate bridge may be as easily secured in position.

My invention is not limited to the use of platinum, gold, and other material, and I re-
15 serve the right to use celluloid or any other suitable material for the purpose herein specified.

Having fully described my invention, I claim as new and desire to secure by Letters
20 Patent—

The method herein described of capping or bridging teeth, which consists in first grinding

the stump or crown into suitable form, then enlarging the nerve-canal and fixing a pin or screw therein, then fitting a cap thereover, :5 then placing a small split tube over the pin or screw, which projects through said cap, then taking an impression with which the split tube is removed, then placing another screw or pin in said split tube, as it is held in the impres- 30 sion, then making a cast or model in or from said impression, in which said screw remains when the impression is broken away, then placing a cap or bead on said screw in the cast or model, substantially as shown and de- 35 scribed.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 2d day of July, 1896.

FRANK COMER.

Witnesses:

AGNES HUME,
MAUD HADDOCK.