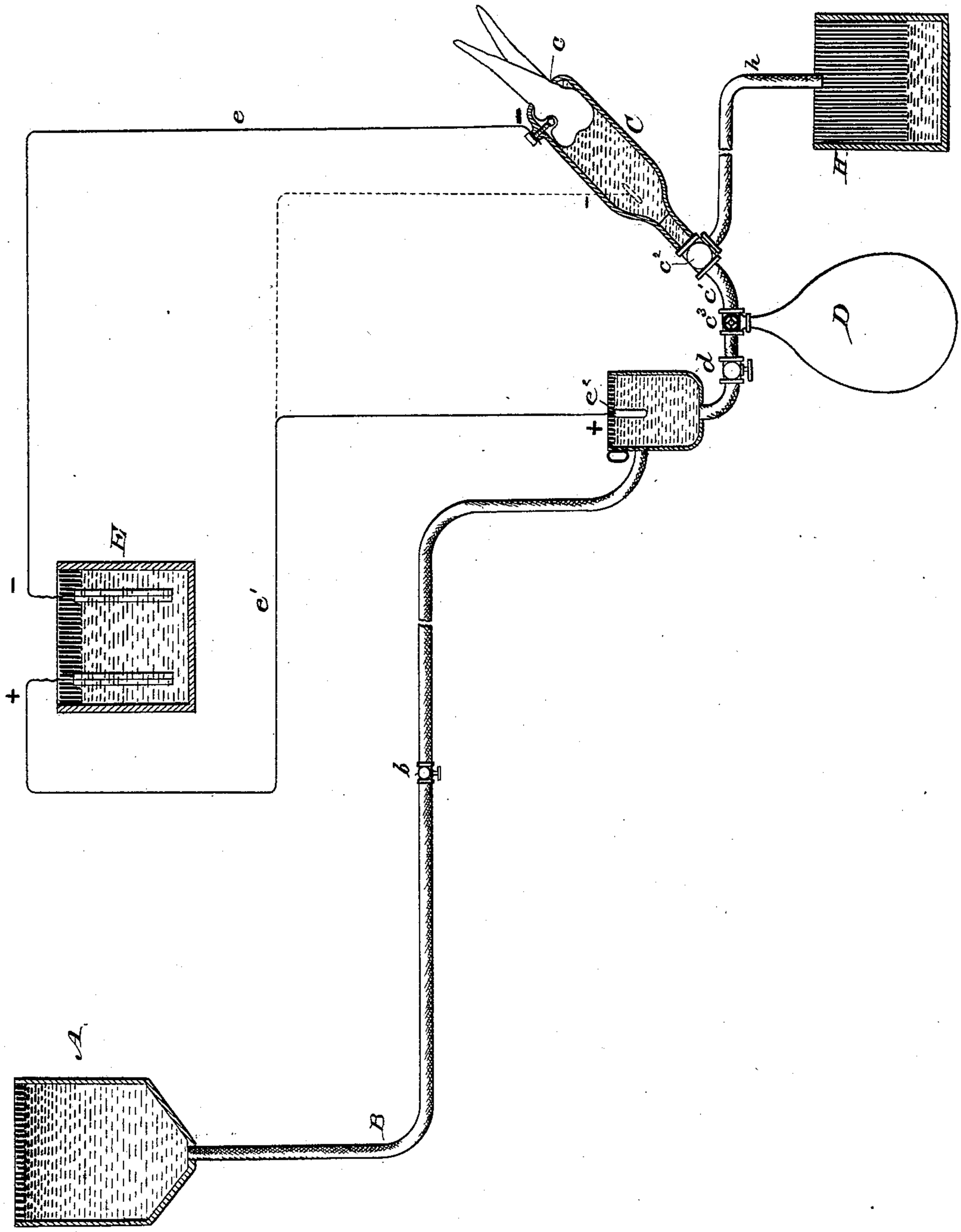
(No Model.)

E. C. TAYLOR.

METHOD OF FILLING TEETH.

No. 404,745. Patented June 4, 1889.



Witnesses

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METHOD OF FILLING TEETH.

SPECIFICATION forming part of Letters Patent No. 404,745, dated June 4, 1889.

Application filed March 1, 1889. Serial No. 301,614. (No model.)

To all whom it may concern:

Be it known that I, ELBERT C. TAYLOR, a citizen of the United States, residing at Humansville, in the county of Polk and State of Missouri, have invented certain new and useful Improvements in the Method of Filling Teeth, of which the following is a specification.

The present method of filling teeth is a slow and tedious operation, especially when fillings of gold are employed, and at the same time the operation is often painful to the patient.

The object of my invention is to fill the cavities of unsound teeth by electro-deposition, whereby the cavity may be completely filled in a short time and without pain.

In carrying out my invention I first clean and prepare the cavity in the usual way. Then preferably coat the interior of the cavity with some suitable material to receive the electroplating. I then surround the cavity with a tube or other suitable vessel for containing an electroplating-bath. Then connect one pole of the battery with the walls of the cavity of the tooth, and the other pole of the battery with an electrode in the bath, and then complete the circuit-connection to start the electroplating action. In a short time metal from the bath will be deposited on the walls of the cavity and in all its crevices, and will quickly fill up the entire cavity to the outside or face of the tooth.

If preferred, the electroplating action may be stopped before the cavity is filled and a plug be inserted, after which the electroplating action may be resumed, so as to cover up the plug and fill the intervening spaces between the filling and the walls of the cavity.

In carrying out my improved process I employ novel apparatus, which will be hereinafter more fully explained.

The accompanying drawing is a diagram view of the apparatus preferably employed.

I preferably provide a tank A, which may be made funnel-shaped, as shown, and which is connected at its lower end to a tube B. In the tube is a stop-cock *b* for regulating the flow of the liquid from the tank to the tooth. The tube B communicates with a vessel F, which contains part of the solution. A valve *b* is interposed between the vessel F and the tank A, by means of which the flow of liquid from the tank to the vessel F may be regulated. A short nozzle or nipple C is connected by means of a tube or passage *c'* with the vessel F. The nozzle or nipple C is preferably of rubber, and is provided with a perforation *c* in its front end adapted to fit the tooth being treated. On the opposite end of the nipple C and in the tube *c'* is arranged a three-way cock c^2, to which is connected a pipe *h*, which leads to a waste-tank H. By this means the flow of the liquid to the nipple C may be cut off and its contents drained into the tank H. In the pipe *c* near the cock c^2 is arranged another three-way cock c^3, to which is attached a bulb D. By this means the liquid may be temporarily withdrawn from the nipple C without allowing it to run into the waste-tank H. A third valve *d* may be interposed between the three-way cock c^2 and the vessel F to stop the flow of liquid. The vessel F, or some other part near the nipple C, may be provided with a hook J or other suitable device, by means of which it may be suspended when not in use.

The battery E is provided with electric-circuit wires *e e'*, the negative wire connecting with the walls of the cavity, as indicated, and the positive wire *e'* being provided with an electrode e^2 within the nipple C, as indicated by dotted lines, or with the vessel F, as indicated by full lines.

The electroplating-bath may contain a solution of copper, silver, gold, or other desired metal, and the electrode e^2 should be of a suitable kind to correspond with the bath.

The tank A is at a higher level than the tooth being treated, and the liquid descends through the tube B and *c'* and enters the nipple C after it has been placed over the tube. When the nipple is filled, the stop-cock may be turned off and the electroplating proceed, or the liquid may be supplied continuously.

If at any time it is desired to inspect the cavity during treatment, the bath may be

withdrawn from the nipple C by means of the bulb D, and after the nipple is replaced the liquid may be returned.

Having thus described my invention, what I claim is—

1. The herein-described art, method, or process of filling teeth, which consists in electroplating the cavity.

2. The herein-described art, method, or process of filling teeth, which consists in cleaning the cavity, electroplating the walls thereof, then inserting a plug in the cavity, and subsequently filling up the space between the walls of the cavity and the plug and the remainder of the cavity by electro-deposition.

In testimony whereof I have hereunto subscribed my name.

ELBERT C. TAYLOR.

Witnesses:
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