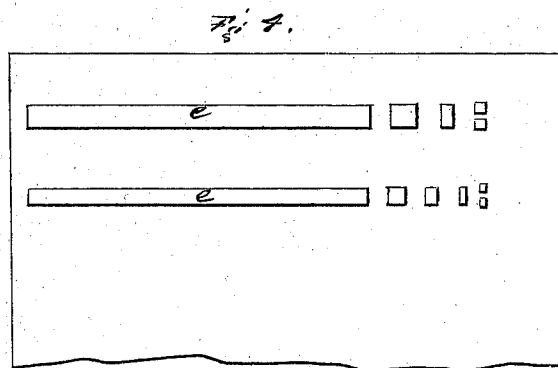
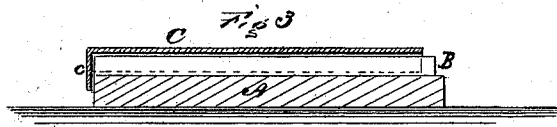
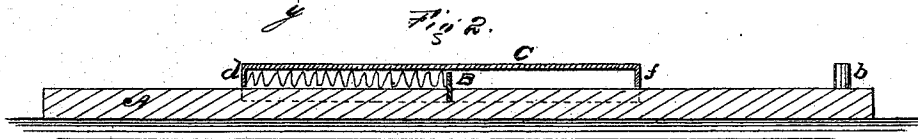
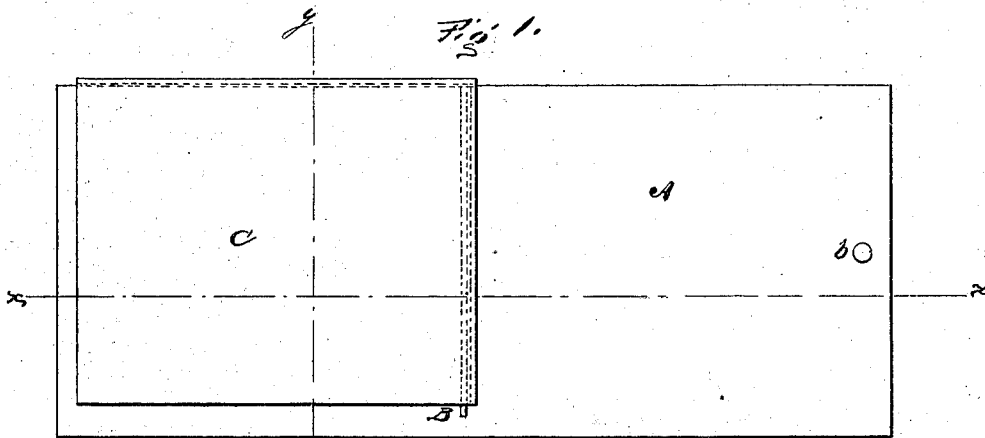


R. S. WILLIAMS.
Manufacture of Dental Gold.

No. 140,984.

Patented July 15, 1873.



Witnesses:

H. C. Mattenbergh
M. Lowell

Inventor:

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UNITED STATES PATENT OFFICE.

RICHARD S. WILLIAMS, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF DENTAL GOLD.

Specification forming part of Letters Patent No. **140,984**, dated July 15, 1873; application filed June 27, 1873.

To all whom it may concern:

Be it known that I, RICHARD S. WILLIAMS, of the city, county, and State of New York, have invented a new and useful Improvement in Dental Gold; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

This invention is in the nature of an improvement in gold for dental purposes; and the invention consists in the apparatus hereinafter described for forming uncondensed parallelipeds from dental foil; and also the process hereinafter described of preparing dental gold.

It is well known that gold-foil for dental use, before being used for that purpose, is first trimmed square and then annealed, the edges that are trimmed from the foil being worked over again, this preparation adding to the expense of the foil. To avoid this expense, and at the same time produce dental gold in a convenient shape and perfectly ductile, I form my gold in the manner and with the apparatus hereinafter described.

In the accompanying sheet of drawings, Figure 1 represents a plan or top view of my device; Fig. 2, a longitudinal section of same taken in the line *x x*; Fig. 3, a cross-section of same taken in line *y y*; and Fig. 4, a plan view of prepared gold.

A represents a bed-plate, of any desired size and material. Transversely onto this bed-plate is affixed a bridge, B, and a stop, *b*. One or more sheets of foil are placed onto the bed-plate A just in front of the bridge B, the lower edge of the foil abutting against said bridge. A plate, C, having its front and rear edges and one of its sides turned down at right angles to the face of the plate; as shown in Figs. 2 and 3, is now placed over the foil, the front edge *d* of the plate resting upon it; and said plate is next drawn backward until its rear edge *f* abuts against the stop *b*. As the plate C is moved back it gathers up and carries with it up to the bridge B the foil, which, by this operation, is plaited or crimped closely together. The plaited foil is then, for

an instant, passed over the flame of a spirit-lamp, which anneals the gold, making it ductile, and then it is again placed onto the bed-plate A and the front side of the plate C pressed against its several sides, successively squeezing the foil between the bridge B and the turned-down edge of the plate C, in this way forming the foil into a bar or parallelipiped of gold, as shown at *e*, Fig. 4, without condensing or consolidating its several folds or laminae. Of course, the closer or tighter the foil is pressed between the front edge of the plate C and the bridge B the denser and smaller will be the bar of gold formed.

The turned-down side *e* of the plate C, projecting over and working against the edge of the bed-plate A, acts as a guide, and enables the plate C to be moved back in a direction that will keep its front edge parallel with the bridge.

The foil being formed into a bar in the manner above described, it is now cut into convenient lengths or pieces, by a sharp instrument, in such manner that the cutting will not condense nor consolidate the foil where cut. This cutting, however, I do not claim as any feature of this present invention, since it was patented to me on the 8th day of April, 1873.

From the foregoing it will be seen that dental foil is formed into a convenient shape for dentists' use; but, what is still more important, no part of the foil thus formed up is condensed or consolidated, so that the gold, when placed into the cavity of a tooth, will readily yield to the pressure of a dental instrument, and may be, therefore, forced and packed into dental cavities without much labor, and with a certainty that the cavities will be entirely filled.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The apparatus hereinbefore described for preparing dental gold.
2. The process hereinbefore described for preparing dental gold.

RICHD. S. WILLIAMS.

Witnesses:

H. L. WATTENBERG,
G. M. PLYMPTON.