No. 638,468. Patented Dec. 5, 1899.

H. L. McKELLOPS.

DENTAL PLIERS.

(Application filed Apr. 11, 1899.)

(No Model.)

Fig. 1

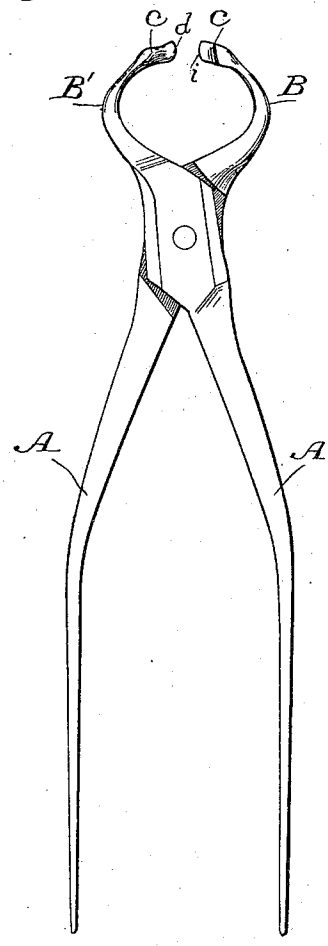


Fig. 2

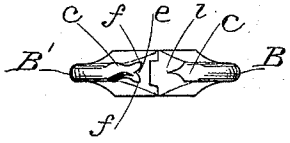


Fig. 3

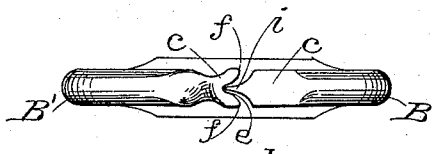


Fig. 4

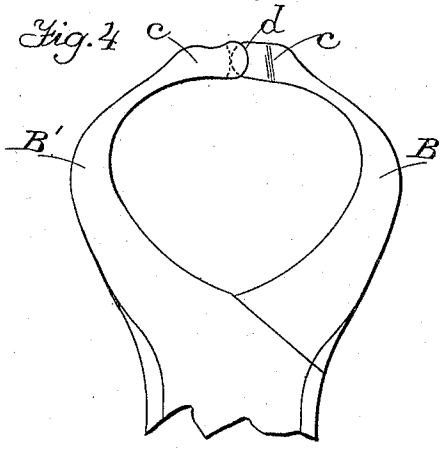
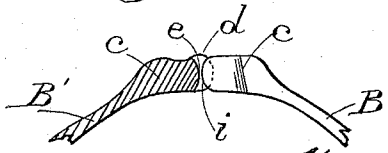


Fig. 5



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DENTAL PLIERS.

SPECIFICATION forming part of Letters Patent No. 638,468, dated December 5, 1899.

Application filed April 11, 1899. Serial No. 712,655. (No model.)

To all whom it may concern:

Be it known that I, HENRY LOUIS McKELLOPS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Dental Pliers; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention relates to certain improvements in pliers by which that implement is adapted for indenting, grooving, and forming the top or masticating surfaces and lingual and labial faces of gold crowns for teeth; and it consists in forming the jaws or beaks of the pliers so that one of them can be introduced within the cap-shaped gold crown and the points brought together upon the metal of the crown-top at any required angle without interfering with any part of the cap except the part immediately between the points of the jaws or beaks.

It also consists in so forming the points of the jaws or beaks that they may be used for molding and shaping the irregularities of such masticating-surface and forming the fissures or sulcus indentations, which form a necessary feature of bicuspid and molar teeth.

Referring to the accompanying drawings, Figure 1 is a side view of the pliers, showing the jaws partly open. Fig. 2 is an end view of the head of the pliers with the jaws open, showing the formation of their points. Fig. 3 is an enlarged end view of the head of the pliers, showing the points of the jaws brought together. Fig. 4 is an enlarged view of the jaws; and Fig. 5 shows a portion of the jaws, one of them being in section.

Let A A represent the two lever-handles of a pliers, which are connected by a hinge-joint near the jaws or beaks in the usual way.

The jaws or beaks B B′ of my improved pliers I make semicircular in form and gradually tapering from the base to near the point, as shown at Fig. 1. At a short distance back of the points of these beaks an enlargement *c* commences, which terminates at the meeting-points. The enlargement at the point of one of these jaws, B′, may be a simple terminal enlargement, but for the purpose of symmetry I have represented the enlargement in the drawings as extending back a short distance from the point; but the enlargement is concaved or reduced in its middle portion, so as to give a free terminal enlargement, for the purpose hereinafter described. The point or face *d* of the jaw is rounding and somewhat flattened on its sides, as shown at Fig. 2, and a V-shaped groove *e* is made vertically in the face or point, extending from the top of the enlargement around the front or face and down underneath the enlargement, and the sides of the groove flare outward with a rounding curve (which forms the projections *f f* on each side of the groove) into rounding points or knobs. The enlargement *c* of the jaw B is made to correspond with the enlargement on the end of jaw B′, and its extreme end or point is beveled from each side toward the middle line of the enlargement, so as to form a blade or sharpened edge *i*, which enters and fits into the bottom of the concavity of the point of jaw B′ when the jaws are forced together. The beveled sides of this point are made concave, so that when the meeting faces of the jaws are brought together a flaring space is left between each concave side of the point *i* and the flaring sides of the projections *f f* of arm B′. It will now be seen that the curved jaw or beak B′ of the pliers can be introduced into the interior of a cap-shaped gold crown after the band has been soldered to the top plate of the crown and be adjusted to any desired angle to the plane of the crown-top, and the point of the exterior jaw can then be pressed forcibly down, so as to mold or swage the metal of the crown-top directly between the points of the jaw into the form of cavities, depressions, and fissures.

By means of this implement I can produce in gold crowns an exact imitation of the indentations or fissures (sulcus) of natural teeth, as it enables me to locate the points of the jaws at any particular locality in the crown-top and produce an impression or continuous line of depressions in an artistic manner that will faithfully imitate the natural lines, depressions, and fissures of the teeth to be reproduced in crownwork without marring or in any way interfering with the crown-band or any of the cuspidal protuberances on the face of the crown.

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

A fissure-pliers for dental work having semi-circular jaws or beaks tapering from the base to near their points; an enlargement near the point; rounding faces to the points; one jaw having a V-shaped groove in its face with flaring sides, the other having a V-shaped point or edge with concave sides adapted to enter the V-groove of the opposite jaw, substantially as described.

In witness whereof I have hereunto signed my name, in the presence of two witnesses, this 29th day of March, A. D. 1899.

HENRY LOUIS McKELLOPS.

Witnesses:
CHAS. J. ARMBRUSTER,
J. A. BAYLESS.