

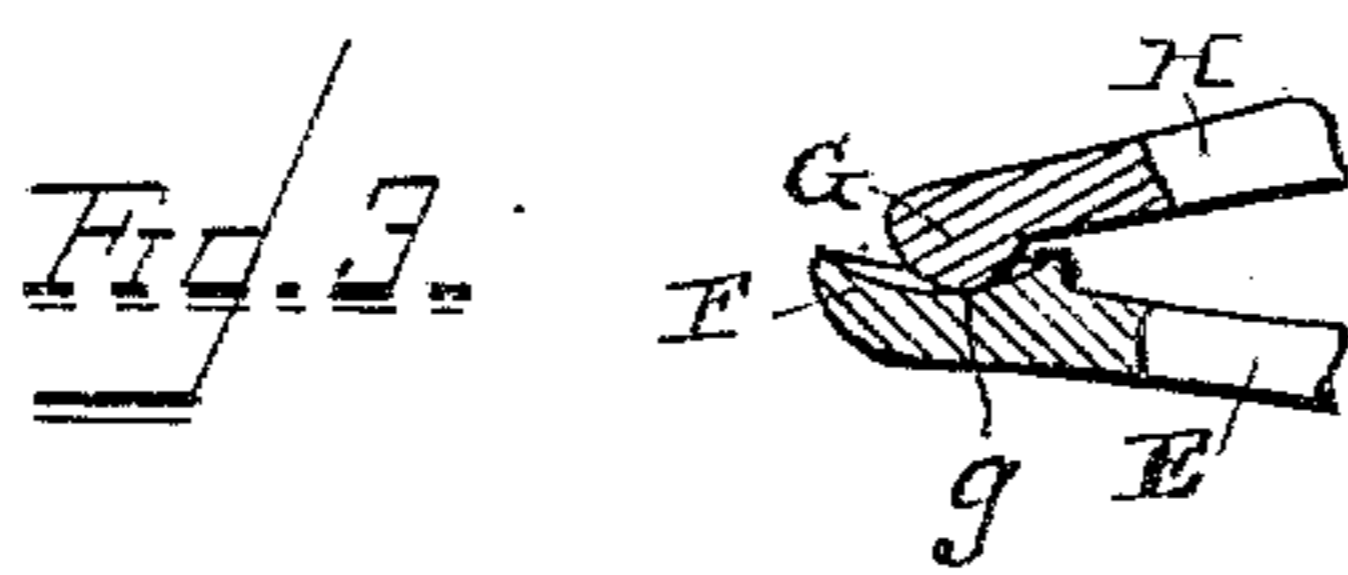
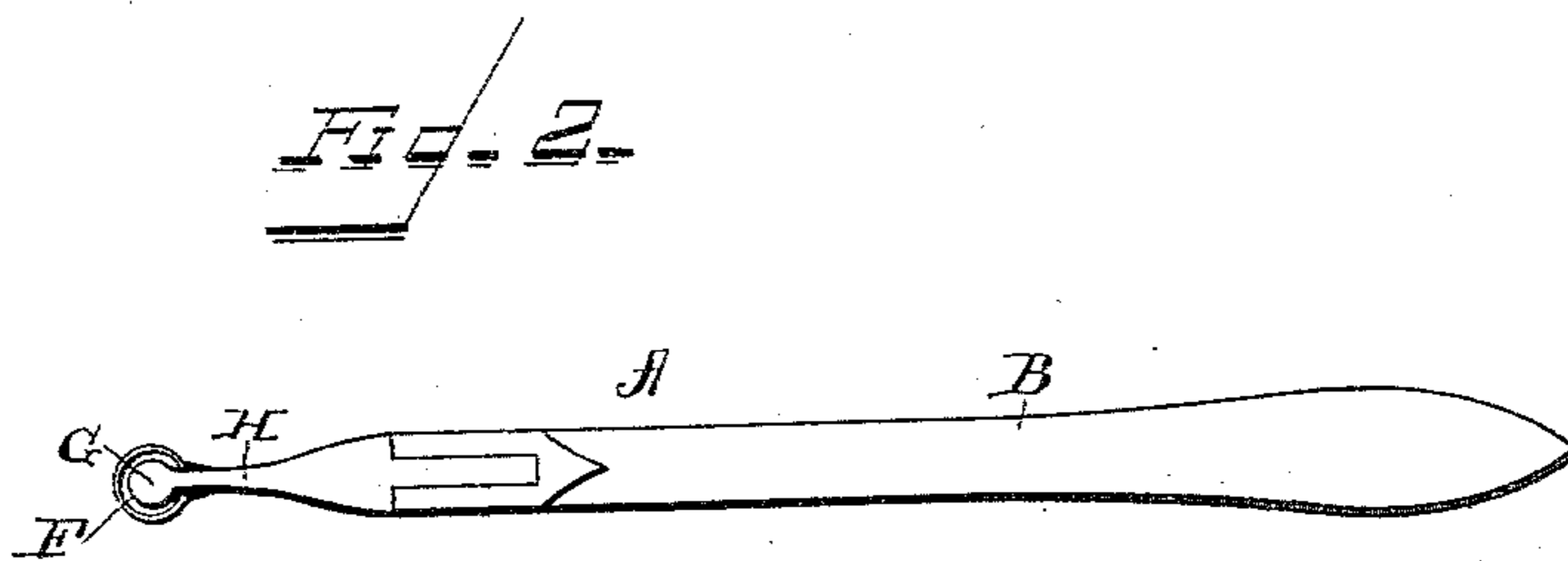
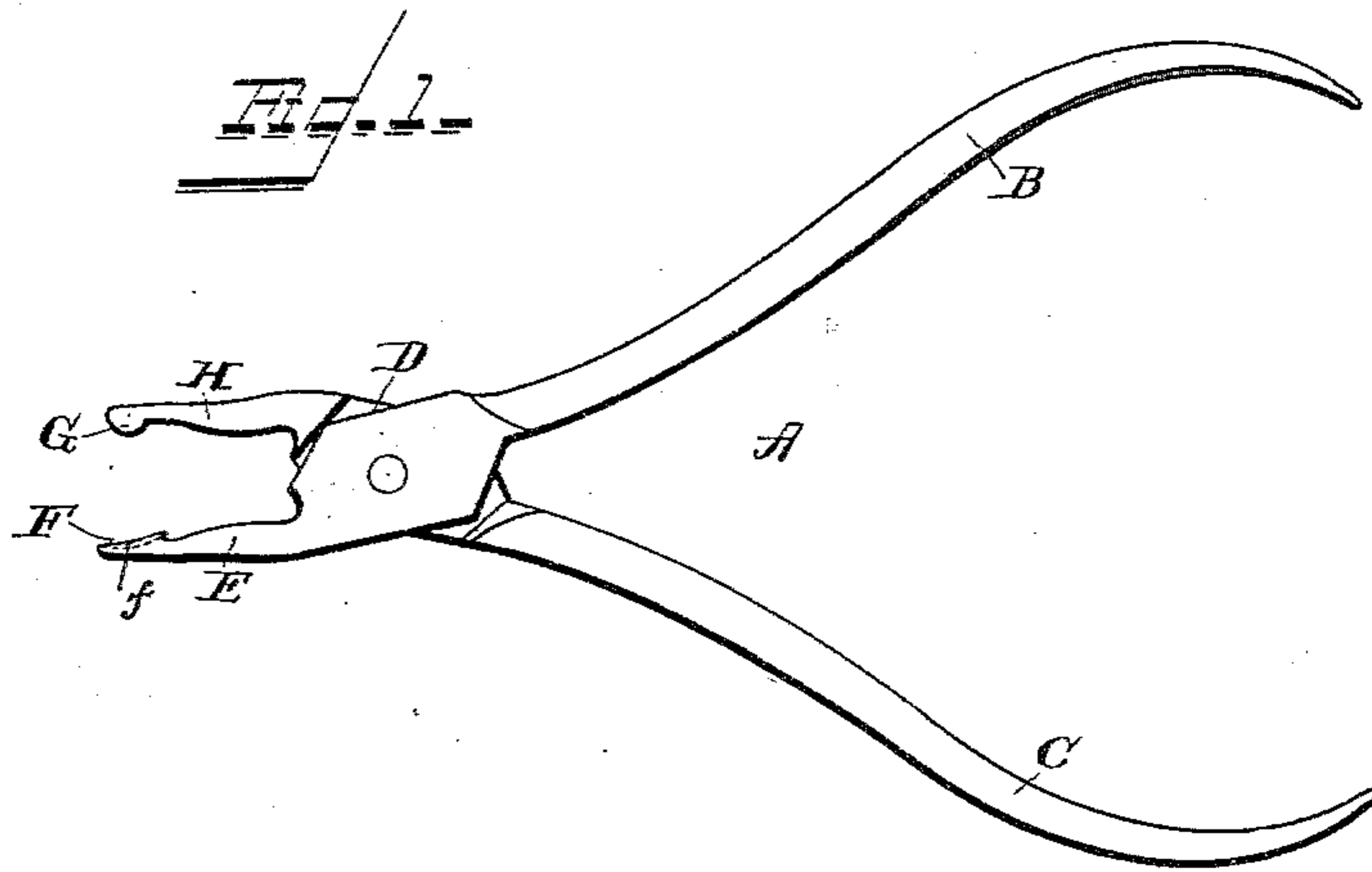
(No Model.)

J. J. R. PATRICK.

DENTAL PLIERS.

No. 373,682.

Patented Nov. 22, 1887.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN J. R. PATRICK, OF BELLEVILLE, ILLINOIS.

DENTAL PLIERS.

SPECIFICATION forming part of Letters Patent No. 373,682, dated November 22, 1887.

Application filed April 21, 1886. Serial No. 199,638. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. R. PATRICK, a citizen of the United States, resident at Belleville, in the county of St. Clair and State of Illinois, have invented certain new and useful Improvements in Dental Adapting-Pliers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of my invention, and is a side view of the same open. Fig. 2 is a top view closed. Fig. 3 is a detail view.

My invention relates to dental adapting-pliers; and it consists in the construction and novel combination of parts, as hereinafter described, and pointed out in the claims.

The object of these dental pliers is to treat the metal crowns of teeth round the cervical border of the same to cause them to properly fit the natural tooth by compressing the metal, so as to indent from the inside outwardly, or from the outside inwardly, to give the cervical border of the metal crown the proper irregularity that will cause it to fit the natural root. The crowns are sometimes so long and deep that it requires the special tool to properly perform the work.

Referring by letter to the accompanying drawings, A designates the dental pliers, which comprise the levers B and C, the latter being passed through a recess, D, in the former, after the usual manner of connecting the levers of pliers, the levers being pivoted together by the usual rivet.

The lever B is provided with a jaw, E, which is provided with a small spoon-shaped or concavo-convex biting or engaging end, F, which receives the enlarged convex biting end G of jaw H, so that the metal crown that may receive pressure between the jaws will have a concavo-convex depression made therein; or the depression may be the reverse of that mentioned, accordingly as the concave jaw F is placed on the inside or outside of the metal tooth-crown.

The spoon-shaped end F of the jaw E has

its side edges slightly concave, as at *f*, Fig. 4, and the concavity in said jaw is made on the arc of a considerably larger spheroid than the convex end G of the jaw H, which end is more projecting at the meeting point *g*, Fig. 3, than a sphere of nearly the same radius.

In an application which I have made under date with this, Serial No. 199,637, I have shown and described a tool to operate on metal crowns to give to the same the proper surface projections and indentations, so as to cause them to correspond and fit neatly the teeth or crowns opposite them in the jaw. The tool shown in the application above referred to being designed to operate upon the engaging-faces of the metal crown, I have adapted the one shown in the present application to operate upon the sides or cervical border of the crown.

In operation the cap or metallic crown-plate is first formed as nearly as possible to receive the natural or artificial base. The metallic crown is then placed over the said base in the mouth, with a piece of impression-paper over it. The jaws being then brought together, the impression-paper placed upon the artificial crown will indicate by the opposite tooth in the opposite jaw the hills or projections and the depressions therein. Thus it will be observed that the profile of the opposite tooth may be obtained upon the artificial metallic crown. The flange or cervical part of the cap being stamped cylindrical, or nearly so, and every tooth having a longitudinal rounded ridge below each cusp or tubercle, which ridges curve or insensibly merge into the intervening longitudinal hollows, it becomes necessary for the dentist, after shaping the meeting surface or crown of the cap, to fit the flange or cervical part of the same on the tooth. This is done by bending outward or inward, as the case may require, between the jaws of the pliers the plate metal forming said cervical portion, one jaw of the pliers being inserted as high as necessary in the cap, the jaws closed, and the pliers drawn outward. As the longitudinal projections and depressions of the tooth run into each other without angles, if the concave end F of the pliers fitted accurately over the convex end G, and if the side edges, *f*, of said concave end were not concave,

the external and internal ridges made by the tool would have angular meeting edges on each side of their bases, and would not fit the tooth; but as the concavity in one jaw is on a larger radius than the convexity in the opposite jaw, and flares away from the same, the tool does not bite the metal plate along the edges of the concavity, but bends it in a gentle curve, so that no angular ridges are formed. The concavities on the edges of the end F make this result more pronounced, as it is the said edges which would more particularly make angular creases if not shaped as described. By increasing the projection of the meeting point *g* of the head G the edges of the ends can be separated farther without increasing the size of said ends.

I am aware that dental pliers have been made with a concave and a convex engaging end, and such I do not broadly claim.

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

As an article of manufacture, the herein-described dental pliers, consisting of the two pivoted levers B and C, provided, respectively, with the jaws E and H, the jaw E having its end provided with a shallow concavity having slightly-concave side edges, and the jaw H having a rounded end, G, of less radius than the concavity in the end F, and provided with the prominent or projecting meeting point *g*, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. R. PATRICK.

Witnesses:

THEO. MUNGEN,
PHILIP C. MASI.