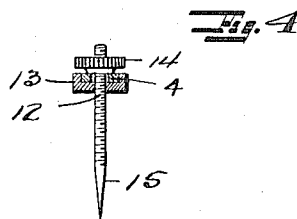
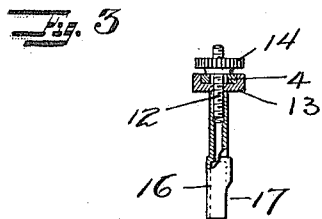
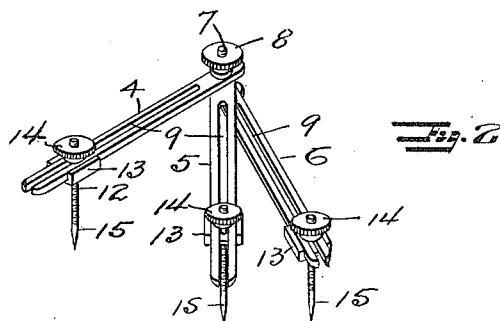
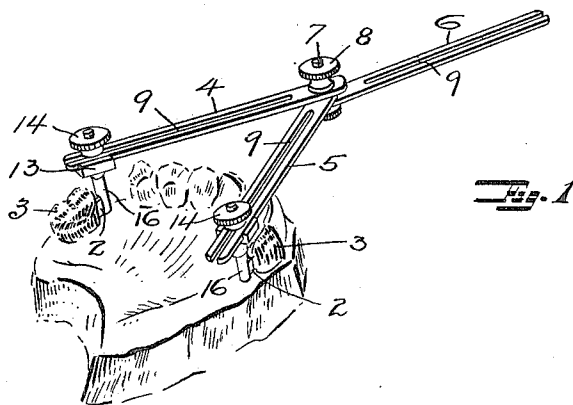


C. NISHI.
 PARALLELING INSTRUMENT.
 APPLICATION FILED MAR. 27, 1916.

1,216,596.

Patented Feb. 20, 1917.



WITNESS
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INVENTOR.
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UNITED STATES PATENT OFFICE.

CHOTOKU NISHI, OF SAN FRANCISCO, CALIFORNIA.

PARALLELING INSTRUMENT.

1,216,596.

Specification of Letters Patent. Patented Feb. 20, 1917.

Application filed March 27, 1916. Serial No. 86,947.

To all whom it may concern:

Be it known that I, CHOTOKU NISHI, a subject of the Emperor of Japan, and a resident of the city and county of San Francisco, State of California, have invented a certain new and useful Paralleling Instrument, of which the following is a specification.

The invention relates to dentistry and particularly to an instrument for paralleling tooth surfaces, tooth cuts, attaching lugs or other devices.

An object of the invention is to provide an instrument for paralleling dental cuts or structures.

A further object of the invention is to provide an instrument for insuring the equality of depth of tooth cuttings.

The invention possesses other advantageous features, some of which, with the foregoing, will be set forth at length in the following description, where I shall outline in full that form of the invention which I have selected for illustration in the drawings accompanying and forming part of the present specification.

Referring to said drawings:

Figure 1 is a perspective view of the instrument of my invention, showing its use in paralleling lugs for the attachment of a removable bridge.

Fig. 2 is a perspective view of the instrument when it is to be used for paralleling root cuttings.

Fig. 3 is a cross section of one of the arms of the instrument showing the lug engaging socket.

Fig. 4 is a cross section of one of the arms showing the root cutting paralleling attachment.

In the practice of dentistry, it is often essential that cuts or lugs or other elements be disposed parallel to each other, in order that the desired results be obtained. By the use of the instrument of my invention, parallelism is assured and the liability of faulty work reduced to a minimum. The instrument of my invention is adaptable, among many instances, to the preparation of teeth for the receipt of removable bridges.

One type of removable bridge is attached to lugs 2 which are secured to the abutments 3, which usually consist of crowned tooth roots. In order that the bridge may be placed and removed, it is essential that the lugs be parallel in a substantially vertical direction.

In other instances, when tooth-roots are being cut for bridge attachment or otherwise, it is necessary that the cuts be parallel and frequently it is necessary that they be of certain predetermined depths with relation to each other.

The instrument of my invention consists of a plurality of flat arms 4, 5, 6, pivoted together at one end on a thumb screw 7, which is engaged by a thumb nut 8. Tightening the nut on the screw causes the arms to be held in any desired relation and their contact with each other insures their substantial parallelism. Each arm is provided with a longitudinal groove 9. Disposed in the groove is a screw 12, which engages in a threaded aperture in the saddle 13 arranged below and engaging the sides of the arm. The screw is held in any position of adjustment along the arm by the thumb nut 14, which bears against the upper surface of the arm. The screws may be adjusted longitudinally of the arms, and may be adjusted vertically and the angles between the arms may be adjusted. When the instrument is to be used for paralleling cuttings in tooth roots the screws are lengthened into pointed projections 15 and the screws are adjusted vertically so that they will all bottom in the cuttings when the cuttings are made to the proper depth. When the instrument is to be employed for paralleling lugs, a socket 16 is screwed to or formed integrally with the screw. The head of the lug seats in the socket and the shank of the lug passes through a slot 17 in the side of the socket. With the sockets engaging the lugs, the lugs are parallel and the abutments may then be secured in place. The sockets may also be adjusted vertically to accommodate lugs which are placed at different elevations with respect to the jaw.

I claim:—

1. An instrument for paralleling dental structures comprising a plurality of slotted arms, a pivot fixed at one end of said arms about which the arms are angularly adjustable and instrumentalities extending through said slots and adjustable longitudinally thereof and means for clamping the instrumentalities in adjusted position.

2. An instrument for paralleling dental structures comprising a plurality of slotted arms provided at their ends with apertures spaced from said slots, a pivot ex-

tending through said apertures, means on
the pivot for clamping the arms together in
angularly adjusted positions, clamps engag-
ing said arms and arranged to be adjusted
5 longitudinally thereof and parallel instru-
mentalities secured to said clamps and ex-
tending through said slots.

In testimony whereof, I have hereunto
set my hand at San Francisco, California,
this 22nd day of March, 1916.

CHOTOKU NISHII.

In presence of—
H. G. Prost.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."