

May 10, 1927.

1,628,499

B. JOESCH

DENTAL APPLIANCE

Filed Oct. 20, 1924

Fig. 1--

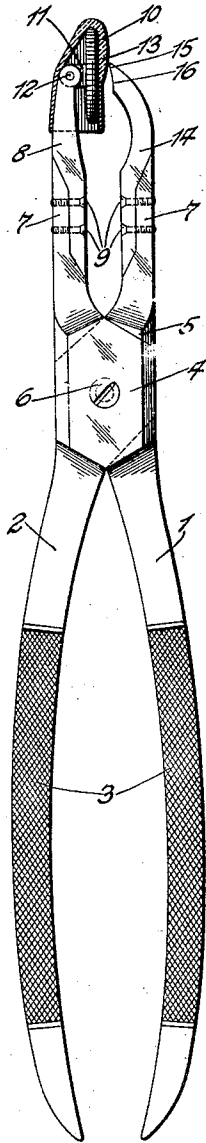


Fig. 2--

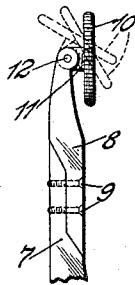


Fig. 3--

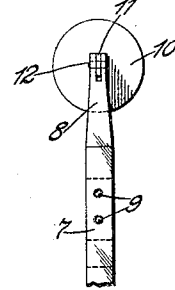


Fig. 4--

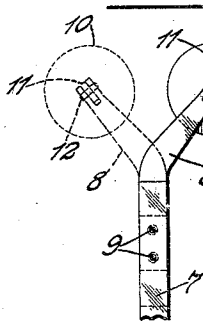


Fig. 5--

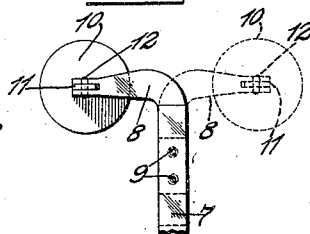


Fig. 6--

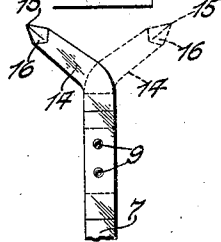


Fig. 7--

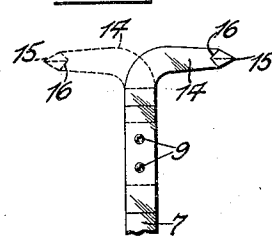


Fig. 8--



Inventor:
Bernhard Joesch,
by *Clappay & Fungland*
his Attorneys.

UNITED STATES PATENT OFFICE.

BERNHARD JOESCH, OF ST. LOUIS, MISSOURI.

DENTAL APPLIANCE.

Application filed October 20, 1924. Serial No. 744,610

This invention relates to improvements in dental appliances and more particularly to an appliance for extraction of teeth.

5 An object of the invention is to provide a dental appliance adapted for the extraction of teeth having one jaw thereof equipped with a pivoted plate adapted to seat against the outer gun and the other jaw of which impinges against the back surface of the tooth to be extracted, whereby 10 the tooth is extracted by a forward pull of the instrument, the plate constituting the pivot point of the movement.

Another object of the invention is to provide a dental appliance of the class described including cross pivoted clamping members arranged to receive interchangeable jaw members so that a single pair of cross members may be utilized by the interchange 20 of the jaws for the extraction of teeth in any position in the mouth.

Additional advantages of the structure will be apparent from the following detailed description taken in connection with the 25 accompanying drawing, in which—

Fig. 1 is a side elevation.

Fig. 2 is a detail view of the jaw carrying the pivoted plate, illustrating the different 30 positions of the plate.

Fig. 3 is an end view of the same member.

Fig. 4 is a view of the same member with a different angular adjustment of the jaw.

Fig. 5 is the same member with another angular adjustment of the jaw.

35 Fig. 6 is a view of the impinging jaw, the angle modified from that shown in Fig. 1.

Fig. 7 is a further modification of the angle of the impinging jaw.

Fig. 8 is a face view of the impinging jaw.

40 Heretofore in the practice of dentistry and particularly the extraction of teeth the forceps with which the teeth are drawn are arranged with two clamping impinging jaws and the tooth is extracted by a straight 45 downward or upward pull. In order to reach the teeth in different positions in the mouth different instruments having the jaws at different angular adjustments have been required. The present invention acts on a 50 different principle of movement in the extraction operation, utilizing a pivoted pull forward instead of a straight downward or upward pull on the tooth. Furthermore, a single set of clamping cross members may 55 be used with interchangeable jaws so that

any position in the mouth may be conveniently reached by the operator.

In the embodiment of the invention illustrated in the drawing the clamping portion of the instrument is formed from a pair of 60 cross members 1 and 2, the lower ends of which constitute the handle and each having formed thereon a knurled section 3 more conveniently adapting them for manual manipulation. 65

The particular form of the pivot connection includes forming one of the cross members (in the embodiment shown the member 1) with a spaced portion 4 through which a straight portion 5 of the other member extends. A releasable pivot screw 6 provides a connection between the two members and serves as a fulcrum for the clamping members. The upper end of each of the members 1 and 2 is formed with a portion 7 the inner face of which is offset to receive a matching face of the shanks of the jaws. There are two general forms of jaws that are utilized together to form a pair, one of which comprises a shank 8 the lower end of which 80 has its outer face offset to match the portion 7 of the members 1 and 2, that is to say it can be mounted upon and securely fixed to either of the members 1 or 2, the means of attachment comprising screws 9 threaded 85 through the shank 8 and into the wall of the portion 7. At the upper end of the shank is a round disc 10 having a lug 11 on its back face, the lug 11 being attached to the upper end of the shank by a pivot connection 12. A rubber cap 13 fits over the disc and the upper end of the shank. Opposite the disc member is a jaw comprising a shank 14, the upper end of which is formed with a point 15 and a concave angular recess 16 below the point. The shank 14 is designed to be releasably attached to the portion 7 of the respective members 1 and 2 by the screws 9. 95

Both the shank 8 and the shank 14 are made with different angular adjustments, as shown in Figs. 4 to 7 inclusive. Inasmuch as the jaws are interchangeable from the members 1 and 2 and the shanks are formed with the three different angles the single pair of clamping jaws utilized with these 100 interchangeable shanks provides an instrument whereby all of the teeth may be conveniently reached for extraction. 105

The method of use of the instrument consists in placing the disc covered with the 110

rubber cap 13 against the outer gum and impinging the upper end of the shaft 14 against the inner surface of the tooth. The recess 16 is so formed that when the point 5 15 impinges against the tooth the tooth will be firmly gripped and the recess 16 will fit close to the inner surface of the upper part of the tooth. By pulling forwardly on the instrument the shank 14 will swing in 10 an arc forwardly and extract the tooth on a forwardly extending line. The pivoting action accomplished by the pivotal disc permits the operator to utilize the principle of a lever force against the tooth instead 15 of the ordinary movement of a straight downward or upward pull.

The arrangement of the instrument permits an easy and complete sterilization of all of it and of every one of the parts 20 thereof.

The application of the instrument is possible to a tooth in any condition, even when the same should be decayed, and will prevent breaking of the body of the tooth at any 25 point and remove the chance of pushing any

part of the same into the cavity above the tooth.

I am aware that the invention may be modified in certain particulars without departing from the nature and principle thereof. I do not limit myself unessentially, but what I claim and desire to secure by Letters Patent is:—

A dental appliance comprising crossed pivoted members, one of which curves toward 35 the extremity of the other, a disc, a lug on said disc, a pivot element passing through said other member and through said lug preventing said disc from turning laterally toward the upper and lower sides of said 40 other member and permitting said disc to swing toward and away from the inner side of said other member, and an elastic cover enclosing the outer end of said other member and enclosing said disc beyond the extremities 45 of said two members and extending inwardly from the outer edge of said disc on the side of said disc that is toward said curved member.

BERNHARD JOESCH.