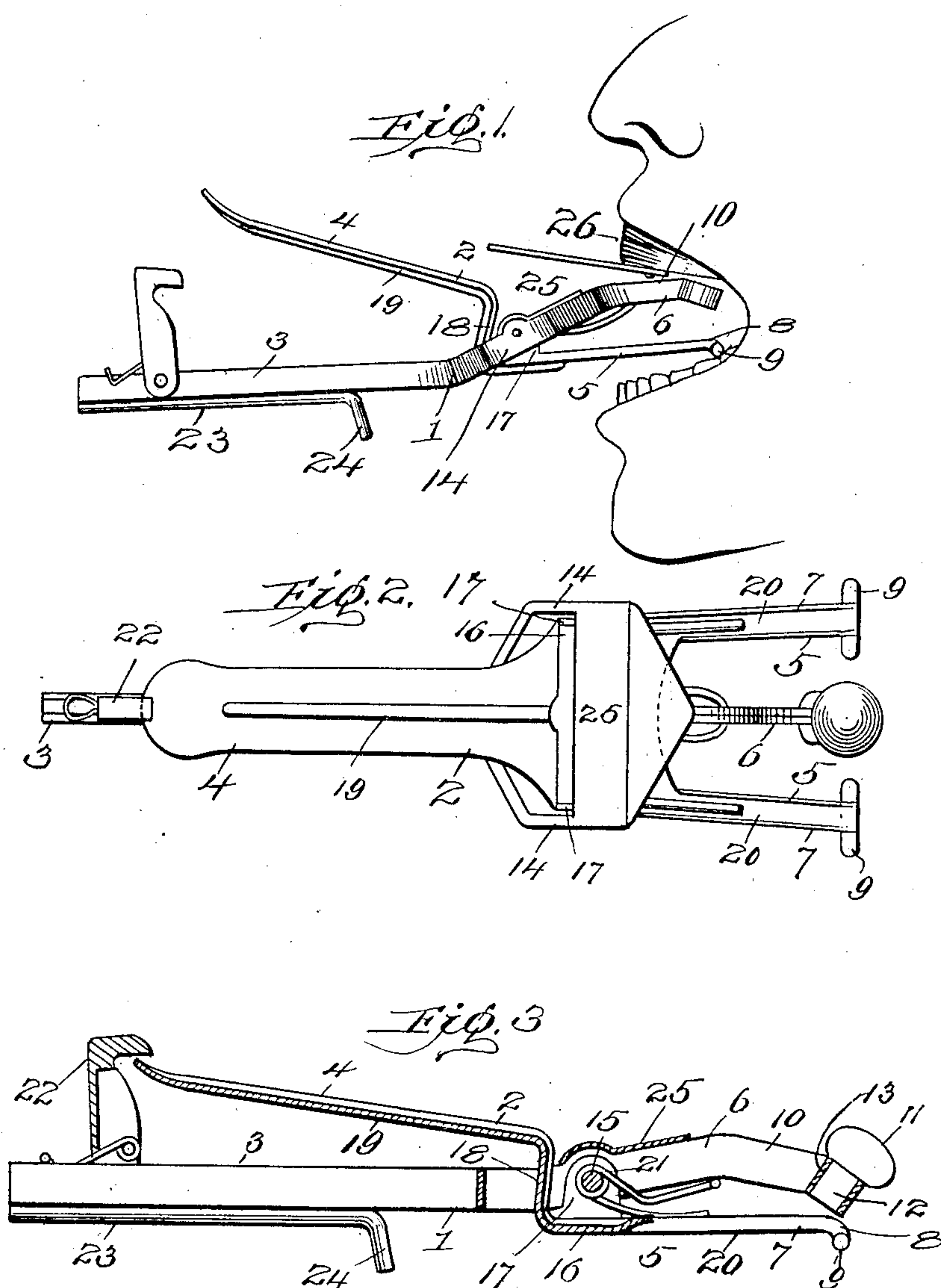


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PATENTED OCT. 29, 1907.

M. A. ROBBINS.
DENTAL IMPRESSION PLIERS.
APPLICATION FILED DEC. 15, 1906.



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UNITED STATES PATENT OFFICE.

MYRON A. ROBBINS, OF PASSAIC, NEW JERSEY.

DENTAL IMPRESSION-PLIERS.

No. 869,520.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed December 15, 1906. Serial No. 348,078.

To all whom it may concern:

Be it known that I, MYRON A. ROBBINS, a citizen of the United States, residing at Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Dental Impression-Pliers; and I do hereby 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.

10 The present invention relates in general to dentistry, and has for its primary object to provide a novel means whereby a patient will be enabled to hold an impression cup in his mouth a considerable length of time without gagging to an appreciable extent, or his nerves becoming greatly excited.

Where an impression of the roof of the mouth is being taken in the customary manner the nerves of the patient frequently become so excited that he has an uncontrollable tendency to close his jaws and thereby cause a false impression to be taken.

25 In order to obviate this difficulty the present invention comprises broadly a cushioning means interposed between the impression cup and the lower jaw whereby the patient is enabled to move his lower jaw and bear upwardly with the same against the cushioning means without shifting the position of the impression cup.

30 With these and other objects in view the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings:—Figure 1 is a side elevation showing the application of the invention. Fig. 2 is a top plan view of the impression pliers. Fig. 3 is a side elevation of the pliers, portions thereof being shown in section.

35 The cushioning means comprising the present invention is shown in the nature of a pair of pliers formed of a pair of complementary members 1 and 2 which are pivotally connected at an intermediate point to form the handles 3 and 4 and the oppositely disposed jaws 5 and 6. The lower jaw 5 comprises a pair of spaced and approximately parallel arms, 7, having their extremities bent slightly downward at 8 and formed with transversely disposed bearing members 9 adapted to fit against the teeth upon opposite sides of the lower jaw as disclosed in Fig. 1. The upper jaw 6 is bent slightly inwardly at 10 and is positioned between the spaced arms 7 of the lower jaw. At the extremity of the upper jaw 10 there is located a knob 11 which is adapted to bear against an impression cup such as indicated at 26 in Fig. 1 and preferably fits within the depression in the base of the said cup. In the preferred form of the invention this knob 11 is formed of some yielding material such as rubber and is detachably connected to the

pliers by means of an integral stem 12 fitting removably in an opening 13 at the extremity of the upper jaw 6.

In the specific construction of the complementary member 1, it will be observed that the same is broadened out at an intermediate point forming the spaced portions 14 connected by the pivot pin 15 upon which the complementary member 2 is mounted. A convenient method of accomplishing this result is by forming the member 1 of two flat strips which are secured to each other throughout the greater portion of their length but are spread apart at an intermediate point to form the spaced portions 14. The complementary member 2 is also broadened at an intermediate point as indicated at 16 and is provided with the ears 17 by means of which it is pivotally mounted upon the pin 15. Immediately to the rear of the ear 17 an offset portion 18 is formed in the complementary member 2 which passes through the opening between the spaced portions 14 of the member 1 and causes the handle 4 and jaw 5 of the member 2 to lie upon opposite sides of the member 1. In the form of the invention shown in the drawings the complementary member 1 is formed of sheet material and the handle 4 has a concave upper surface for the reception of the thumb of the operator and also has a reinforcing rib 19 stamped therefrom. The arms 7 of the jaw 5 may also be reinforced by giving the same a concave formation as indicated at 20 if desired.

In order to force the jaws 5 and 6 apart a spring 21 is employed which is shown as in the nature of a coil spring carried by the pivot pin 15.

40 A catch 22 is provided for locking the jaws of the pliers in a closed position when the implement is being applied to a patient, and this catch is pivotally connected to the handle 3 so as to engage with the extremity of the handle 4 in such a manner as to be readily disengaged therefrom by the finger of the operator while handling the instrument. Attention is also directed to the fact that a rib or enlarged portion 23 extends along the outer edge of the handle 3, the inner end of the rib terminating in a projection 24. In the use of the pliers the fingers of one hand of the operator bear against the enlarged portion 23 of the handle 3 and are prevented from slipping longitudinally thereon by means of the projection 24, while the thumb fits within the depressed portion of the opposite handle 4. It will thus be apparent that by a slight motion of the thumb the catch 22 can be disengaged from the handle 4 and by properly manipulating the handle of the instrument the action of the jaws can be controlled.

45 In order to protect the spring 21 it may be found desirable to employ a covering plate 25 connecting the forward portions of the spaced members 14 of the complementary member 1.

Having thus fully described my invention, what I

claim as new and desire to secure by Letters Patent is:—

1. A device of the character described, comprising a pair of loosely connected jaws, one of which is formed with two spaced arms provided at their extremities with transversely disposed bearing members, while the opposite jaw is positioned between the spaced arms and provided with a knob for engaging an impression cup.
2. A device of the character described, comprising complementary members pivotally connected to form handles and jaws, one of the jaws being provided with spaced bearing means and the opposite jaw with means for engaging an impression cup.
3. A device of the character described, comprising complementary members pivotally connected to form handles and jaws; one of said jaws being pivoted with bearing means and the opposite jaw with means for engaging an impression cup, means for forcing the two jaws apart, and means for locking the jaws together.
4. A device of the character described, comprising complementary members pivotally connected to form handles

and jaws, an enlarged rib extending along the outer edge of one of the handles, and a projection cooperating with the rib to enable a firm grip to be obtained upon the handle without danger of slipping.

5. A device of the character described, comprising complementary members pivotally connected to form jaws and handles, spaced bearing means and means for engaging an impression cup carried respectively by the jaws, means normally acting to force the jaws apart, and a catch carried by one of the handles and engaging the extremity of the opposite handle to hold the jaws together.

6. In a dental instrument, crossed and pivoted handle members, a jaw member carried by one handle member and comprising spaced bearing arms, and a single arm carried by the other jaw member spaced between the bearing members and carrying a resilient knob.

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

MYRON A. ROBBINS.

Witnesses:

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