

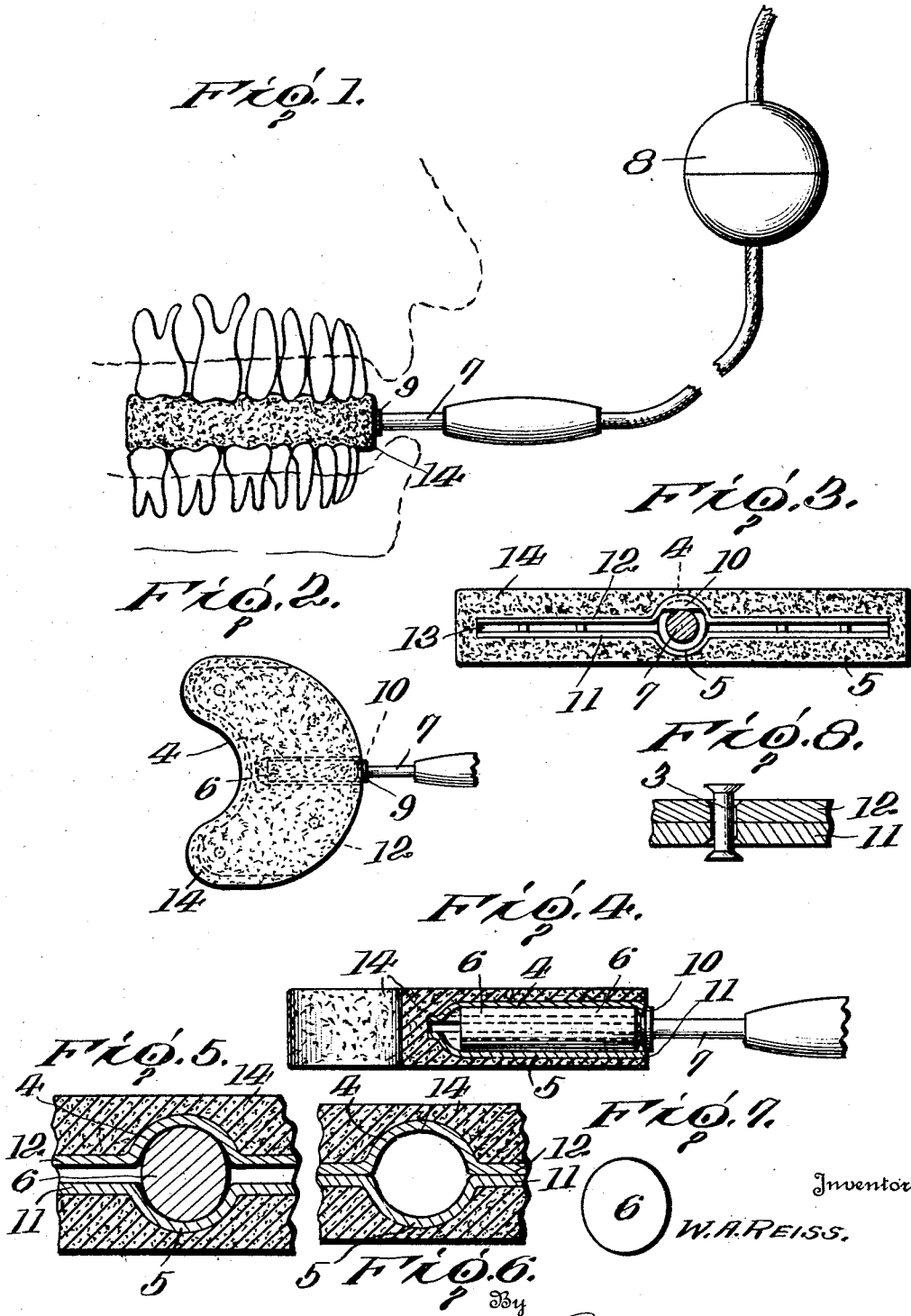
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VIBRATING DEVICE

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VIBRATING DEVICE

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This invention relates to certain new and useful improvements in a vibrating device, especially adapted to be used for producing blood circulation in the tissues surrounding the teeth and is designed especially for treating diseases of the teeth, such as pyorrhea and the like.

Medical science has discovered that in the modern way of living where prepared foods are used as a diet, the tissues surrounding the teeth break down for the lack of use. In masticating coarse food, the blood is pushed out of the vessels of the tissues on the pressure of the teeth and rushes back when the pressure is released as when the teeth are separated and I have found that with my device the circulation in these tissues will be stimulated.

Another object of my invention is to provide a device which is adapted to be placed between the teeth and grasped by the teeth so that when the device is in operation, an upward and downward movement as well as a lateral movement is produced so as to imitate the action of the jaws in masticating food.

A still further object of my invention is to provide a device which is exceedingly simple and cheap in construction and one in which a rubber pad is employed in which is disposed a pair of loosely connected plates between which is arranged an eccentric for producing the vibratory and oscillatory movement.

Another object of my invention is to provide a device in which the rubber pad can be easily and quickly inserted or removed so that in case of a family, each member of the family can have a separate pad to be used in connection with the vibrating device.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings,

Figure 1 is an elevation of the device showing it in position within a person's mouth;

Figure 2 is a top plan view of the device;

Figure 3 is an enlarged front elevation, the revolving shaft being shown in section;

Figure 4 is an enlarged longitudinal section;

Figure 5 is an enlarged transverse detail section;

Figure 6 is an enlarged detail transverse section with the eccentric removed;

Figure 7 is an enlarged end view of the eccentric; and

Figure 8 is an enlarged detail section through the plates showing the manner of loosely connecting the same together.

In carrying out my invention I employ a pair of metal plates 11 and 12 which are loosely connected together by rivets 3 so as to allow these plates to move up and down in respect to each other and to move laterally in respect to each other. These plates are preferably of the shape shown so as to conform to the jaws of the mouth and are provided with substantially semi-circular portions 4 and 5 into which is adapted to be placed an eccentric 6 carried by a revolving shaft 7 which is driven by any suitable means, such as an electric motor 8 in order to allow the device to be used in an ordinary house where electricity is used for illuminating the same.

When the plates are in contact with one another as shown in Figure 6, the opening formed by the two substantially semi-circular portions 4 and 5 is oval-shaped so that when the plates are separated to receive the eccentric 6, they will be held slightly apart in order to allow these plates to move freely in respect to each other as the eccentric revolves.

The eccentric is preferably provided with an annular groove 9 into which extends a lip 10 formed on one of the plates so as to hold the eccentric in position therein.

The pair of plates are adapted to be inserted within an opening 13 of an elastic pad 14 which is of substantially the same shape as the plates shown so that when placed in the mouth it can be gripped between the teeth and in operation, the user places the pad in the mouth and bites down on the same and when the shaft 7 is rotated, the plates are vibrated so as to produce a motion similar to the motion produced in chewing in mas-

ticating food, whereby the circulation of the blood is stimulated.

The resiliency of the rubber pad tends to hold the plates in contact with the eccentric and by placing the eccentric between the plates and forcing the plates in the opening of the rubber pad, the rubber will be compressed to a certain extent so that the resiliency of the rubber will hold the plates in position therein.

By constructing the vibrating device as herein shown and described, one pair of plates can be used in connection with any number of pads, as each member of a family could have a separate pad to be used in connection with the vibrating plates in order to be treated, as the pads are readily placed in position over the plates or removed therefrom so that they can be readily cleaned and by having the pad and plates separable, each person can have a pad which could be designated by any suitable means.

By forming the pad of a resilient material, it can be readily gripped with the teeth without injuring the same in any way and when the eccentric is being revolved, the plates will be vibrated and oscillated so as to impart the proper movement to the teeth in order to stimulate the circulation.

By forming the eccentric with a groove and having one of the plates with a member fitting within the groove, the eccentric is held in position within the plates as the resiliency of the pad holds the plates together so that as the eccentric revolves, the plates are moved up and down and sidewise and while I have shown in the drawings the plates connected together by rivets, it is, of course, understood that they can be connected together by any suitable means so long as they are loosely connected together in order to allow the plates to vibrate and oscillate.

From the foregoing description it will be seen that I have provided a novel apparatus for carrying out the method of producing a blood circulation in the tissues surrounding the teeth by means of which diseases of the teeth can be treated by the user without the aid of the medical profession, as one of the main objects of this invention is to provide a device for home use so that treatments can be obtained as desired.

While in the drawings I have shown certain details of construction, it is, of course, understood that I do not wish to limit myself to the exact manner of forming the device as herein shown as I am aware that various changes can be made without departing from the spirit of my invention as clearly defined by the claims.

What I claim is:

1. A device of the kind described comprising an elastic pad having an opening, a pair of loosely connected plates adapted to be inserted within said opening having substan-

tially semi-circular portions and an eccentric arranged within said opening and adapted to rotate therein for vibrating and oscillating said plates.

2. A device of the kind described comprising an elastic pad having an opening, a pair of plates loosely connected together and adapted to be inserted within said opening and held therein by the elasticity of said pad, said plates being provided with registering substantially semi-circular portions, an eccentric arranged within said semi-circular portions and means for revolving said eccentric.

3. A device of the kind described comprising an elastic pad shaped to fit within the mouth, and adapted to be grasped between the teeth, said pad being provided with an open end, a pair of loosely connected plates having semi-circular portions arranged in the opening of said pad, an eccentric arranged within the semi-circular portions of said plates having an annular groove, a member carried by one of said plates fitting within said groove, and a rotating shaft for revolving said eccentric.

4. A device of the kind described comprising an elastic pad having an opening and adapted to be grasped between the teeth, a pair of loosely connected plates adapted to be inserted within said opening, and means between said plates for causing an oscillating and vibrating movement thereof to cause said pad to expand and contract.

5. A device of the character described comprising a hollow pad adapted to be grasped between the teeth, a pair of loosely connected suspended plates arranged within the said pad and means between the said plates for causing a vibrating and oscillating movement thereof to cause said pad to expand and contract for exercising the teeth.

6. A massage device comprising an elastic pad adapted to be grasped between the teeth, a pair of superposed members arranged within the pad and positive means arranged between said members for vibrating and oscillating said members relatively to each other for exercising the teeth.

7. A massage device comprising an elastic pad adapted to be grasped between the teeth, a pair of loosely connected spaced members arranged within the pad, and positive means mounted between the members for vibrating and oscillating said members relatively to each other for exercising the teeth.

8. A massage device comprising a hollow elastic pad having substantially horizontally disposed upper and lower faces of a size to cover the entire biting area of the teeth of the upper and lower jaws and to be grasped between the teeth, a pair of superposed plates of substantially the same size as the internal cavity of said pad disposed therein and power

operated rotary means disposed between said
plates for moving said plates relatively to
each other to cause said elastic pad to inter-
mittently expand and contract for exercising
the teeth.

5 In testimony whereof I hereunto affix my
signature.

WALTER A. REISS.

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