July 13, 1954 B. MATZEN 2,683,313

ORTHODONTIC INSTRUMENT

Filed March 6, 1953

Fig. 1.

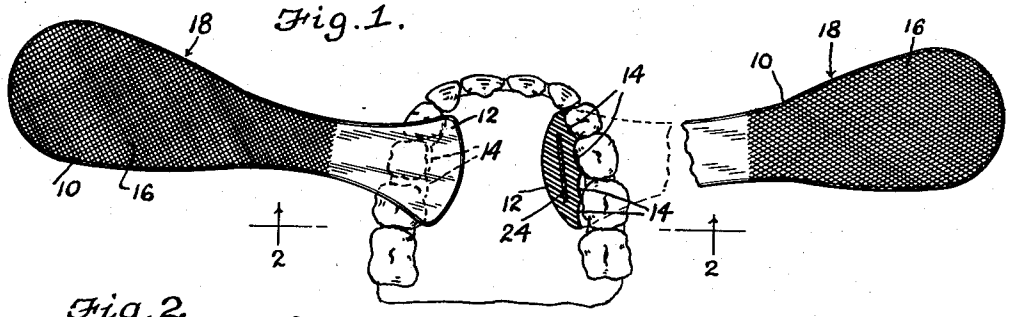


Fig. 2.

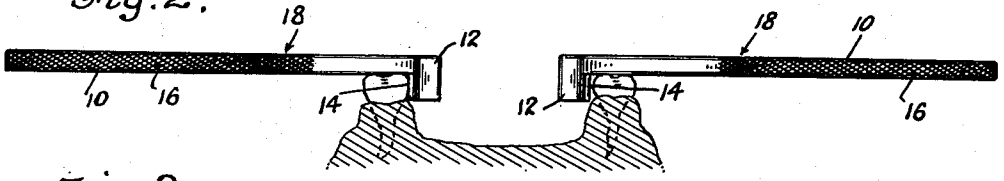


Fig. 3.

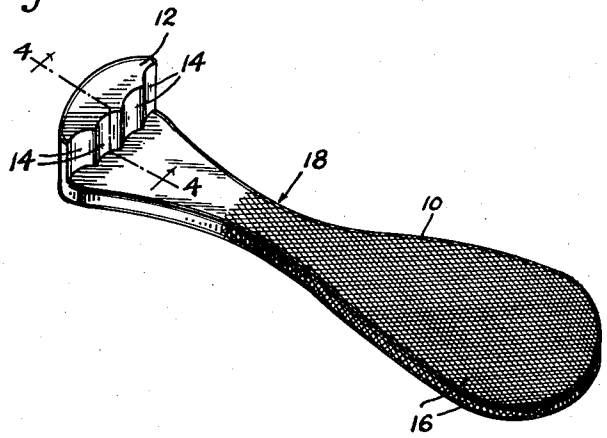


Fig. 4.

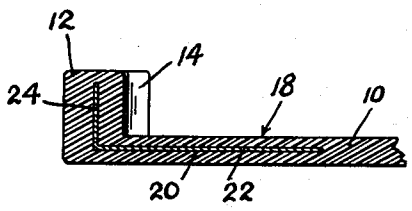


Fig. 6.

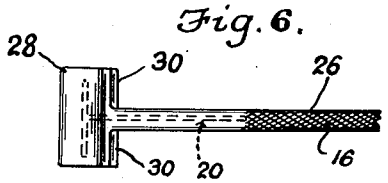
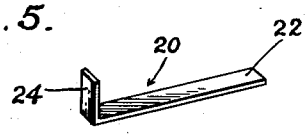


Fig. 5.



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ORTHODONTIC INSTRUMENT

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4 Claims. (Cl. 32—14)

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This invention relates to an orthodontic instrument and more particularly to a hand manipulated implement.

It has been well established in dental practice that one of the major causes of crooked teeth in an adult is the result of improper arch growth during the period between the loss of the baby teeth and the subsequent eruption of the permanent teeth of an individual. The first or baby teeth of an individual being naturally smaller than the subsequent or adult teeth do not require the room in the dental arches that will be later required when the first teeth are replaced by the second teeth and it frequently happens that eruption of the second teeth occurs before the arches have been fully developed resulting in crooked teeth.

The primary object of this invention is to stimulate the bone growth and the widening of the dental arches to help the proper eruption of the second teeth and to avoid the subsequent wearing of braces and the like for the purpose of straightening teeth which have come in in an irregular manner.

Another object is to exercise the tissues surrounding the teeth and stimulate the flow of blood therethrough to produce a healthy condition in the vicinity of the teeth.

The above and other objects may be attained by employing this invention which embodies among its features a handle, a head carried by the handle and projecting outwardly therefrom adjacent one end thereof, said head having a convex row of parallel juxtaposed tooth receiving recesses opening through the side thereof adjacent the handle, and the walls of the recesses lying perpendicular to the handle whereby by placing the head against the inner surfaces of the teeth of the patient and manipulating the handle, a massaging effect and a working of the teeth will result which will tend to widen the arch in which are mounted the teeth so treated.

In the drawings:

Figure 1 is a pair of orthodontic exercisers showing the manner in which they are employed against the teeth for widening the arch and stimulating the bone growth.

Figure 2 is a sectional view taken substantially on the line 2—2 of Figure 1.

Figure 3 is a perspective view of one of the instruments.

Figure 4 is a fragmentary sectional view taken substantially on the line 4—4 of Figure 3.

Figure 5 is a perspective view of an L-shaped reinforcing member which is adapted to be embedded within the instrument.

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Figure 6 is a fragmentary side view of a modified form of the invention.

Referring to the drawings in detail, each instrument comprises a handle 10 carrying adjacent one end a head 12 which head projects laterally from the handle and is provided on the side thereof adjacent the handle with a convex row of juxtaposed recesses 14, the walls of which lie substantially perpendicular to the handle. The surface of the handle is preferably knurled, as at 16, and the entire handle and head structure constituting the instrument designated generally 18 is preferably molded from a relatively firm yielding resilient material such as rubber or the like. In the preferred form of the invention the instrument has embedded therein an L-shaped reinforcing member designated generally 20, one leg 22 of which is longer than the adjacent leg 24 and the leg 22 is embedded in the handle 10 as suggested in Figure 4 while the leg 24 is embedded in the head 12. It will thus be seen that the junction of the head with the handle is reinforced at the point most subject to strain.

In the modified form of the invention illustrated in Figure 6, a handle 26 is provided adjacent one end with a head 28 which extends laterally from the handle adjacent opposite sides thereof, and the sides of the head 28 which are located adjacent the handle are provided with a convex row of concave recesses 30, the walls of which lie substantially perpendicular to the handle.

In use it is preferred that two instruments be used simultaneously as suggested in Figure 1 by placing them in the mouth of the patient with the convex row of recesses against the teeth substantially as shown in Figure 1. By simultaneously rocking the handles 10 perpendicular to their longitudinal axes, it is obvious that the convex row of recesses will engage the teeth to exercise them and the tissues in the immediate vicinity of the teeth to thereby stimulate bone growth and help develop the growth of the arches and consequently promote the normal growth pattern in the erupting teeth.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

What is claimed is:

1. An orthodontic instrument comprising a handle, a head carried by the handle and projecting outwardly therefrom adjacent one end thereof, said head having a convex row of parallel

juxtaposed tooth receiving recesses opening through the side thereof adjacent the handle, and the walls of said recesses lying perpendicular to the handle.

2. An orthodontic instrument comprising a handle, a head of relatively firm yielding resilient material carried by the handle and projecting outwardly therefrom adjacent one end thereof, said head having a convex row of parallel juxtaposed tooth receiving recesses opening through the side thereof adjacent the handle, and the walls of said recesses lying perpendicular to the handle.

3. An orthodontic instrument comprising a body molded from a relatively firm yielding resilient material, said body comprising a handle, a head carried by the handle and projecting outwardly therefrom adjacent one end thereof, said head having a convex row of parallel juxtaposed concave tooth receiving recesses opening through the side thereof adjacent the handle, and the walls of said recesses lying perpendicular to the handle.

4. An orthodontic instrument comprising a body molded from a relatively firm yielding resilient material, said body comprising a handle, a head carried by the handle and projecting outwardly therefrom adjacent one end thereof, said head having a convex row of parallel juxtaposed concave tooth receiving recesses opening through the side thereof adjacent the handle, and the walls of said recesses lying perpendicular to the handle, and an L-shaped reinforcing member embedded in the body with one leg thereof wholly enclosed by the head and the other leg wholly enclosed by the handle.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,736,996	Dalmas	Nov. 26, 1929
2,583,038	Birch	Jan. 22, 1952