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X-RAY FILM HOLDERS

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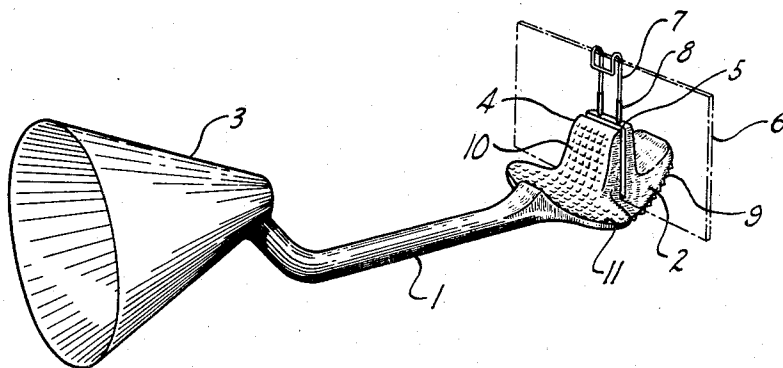


Fig. 1

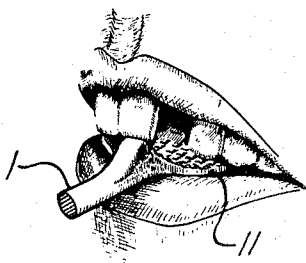


Fig. 2

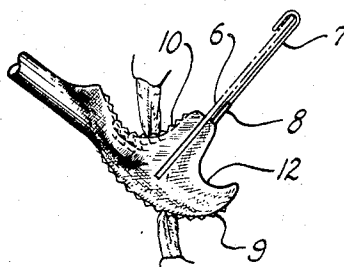


Fig. 3

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X-RAY FILM HOLDERS

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1 Claim. (Cl. 250—64)

This invention relates to new and useful improvements in X-ray film holders for dental use, and the present application is a continuation-in-part of application Serial No. 218,315, filed March 30, 1952, that has matured as Patent No. 2,612,609 granted September 30, 1952.

In the aforementioned application I have disclosed an X-ray film holder having a pilot cup integrally formed therewith for receiving the nose of an X-ray machine. In accordance with the present invention I utilize such pilot cup in conjunction with a specially designed holder which is adapted to align the X-ray film with the teeth to be X-rayed without the need for any support of the film holder other than its engagement by the teeth.

It is among the objects of this invention to provide an X-ray film holder of the above-mentioned character having a plurality of bighting surfaces of a contour to adapt the film to the area of the teeth to be X-rayed.

It is a further object of this invention to provide an X-ray film holder having a bighting area with bight wing extensions for engagement by the teeth for the purpose of bridging any gaps in the row of teeth to be X-rayed.

It is still another object of the invention to provide an X-ray film holder of integral construction employing a pilot cone for the nose of the X-ray machine having an extensible film engaging bracket to adapt it for use with rectangular X-ray film by engaging the same on its short or long dimensions.

These and other objects of the invention will become more apparent from a consideration of the accompanying drawing, constituting a part hereof, in which like reference characters designate like parts, and in which:

Fig. 1 is a view in perspective of an X-ray film holder embodying the principles of this invention;

Fig. 2 is a view of the bight wing portion of the film holder illustrating the manner of its use; and

Fig. 3 is a view in perspective of the bighting area of the film holder illustrating the manner of its engagement when in operative position.

With reference to the several figures of the drawing, numeral 1 designates a shank having what may be generally termed a bight 2 and a pilot cone 3 integrally formed therewith. The bight portion 2 consists of a convex or rounded surface having serrations 9 at the bottom thereof and a concave portion 10 that complements the curved portion 9 which is also provided with serrations

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for the purpose of providing gripping areas for the teeth in the manner shown in Fig. 3 of the drawing. The numeral 11, Figs. 1 and 2, designates a wing bight which is an extension of the area 10 for the purpose of bridging gaps where teeth are missing in the manner shown in Fig. 2, so that adequate gripping is provided by adjacent teeth as appears from the illustration.

The raised portion 4 of the bight is provided with a deep slot 5 for receiving the X-ray film 6 and an extensible bracket having a fixed portion 8 is molded into the portion 4 and is provided with the extensible portion 7 that overlaps to engage the top of the film 6 to securely hold it in position. Conventional X-ray film for dental use is of rectangular shape and by means of the extensible portion 7 either the long or the short ends may be firmly secured in the holder.

The portion 12, as shown in Fig. 3, provides a convenient area which in some instances may be also provided as a bight for properly locating the film 6 in alignment with the area of the teeth to be X-rayed.

By means of the above described film holder a film can be properly located with reference to the teeth to be X-rayed by simply inserting the film in the mouth and by holding the shank 1 at the desired angle which the operator knows is the proper angle for the exposure. The person having the teeth X-rayed merely closes the teeth on the bight area 9 and 10 in the manner illustrated, and the nose of the X-ray machine is then inserted in the pilot cone 3 to expose the film to the X-ray.

Although one embodiment of the invention has been herein illustrated and described, it will be evident to those skilled in the art that various modifications may be made in the details of construction without departing from the principles herein set forth.

I claim:

A dental film holder for X-ray exposures comprising a shank portion having a pilot cup for receiving the nose of an X-ray machine at one end and a film holder at the other end thereof, said film holder having a slotted opening for receiving the film and having oppositely disposed concavo-convex bight surfaces for the upper and lower teeth, respectively, the radius of the concavo surface being shorter than the radius of the convex surface and being offset from the center of the latter to provide angular adjustment of the film slot with the teeth to be X-rayed.

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