Dec. 4, 1945. F. J. STADLER 2,390,397

DENTAL X-RAY FILM IDENTIFIER

Filed Jan. 18, 1945

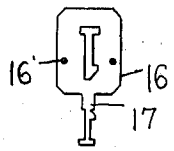


FIG. 7

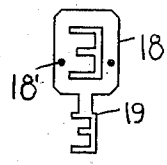


FIG. 8

FIG. 1.

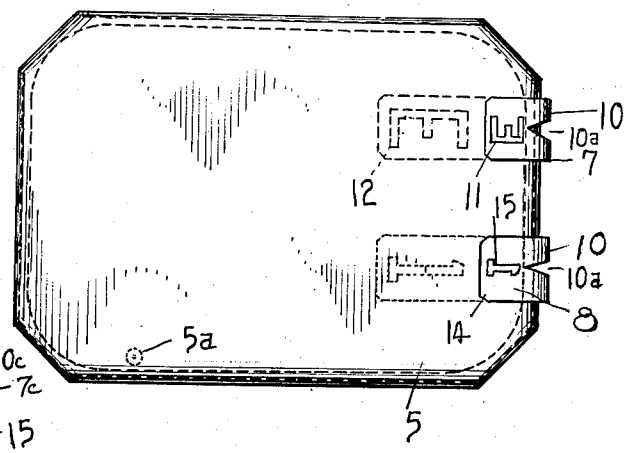


FIG. 6

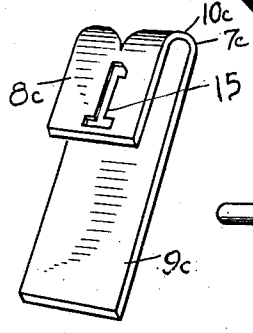


FIG. 2.

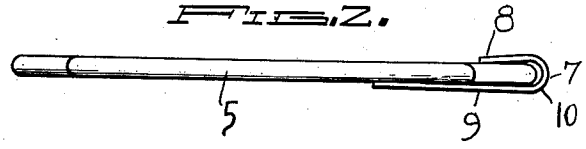


FIG. 3.

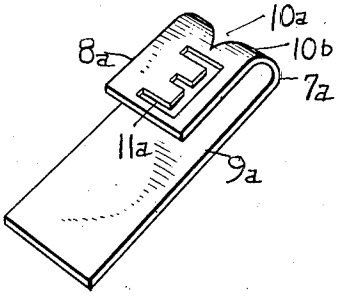


FIG. 4.

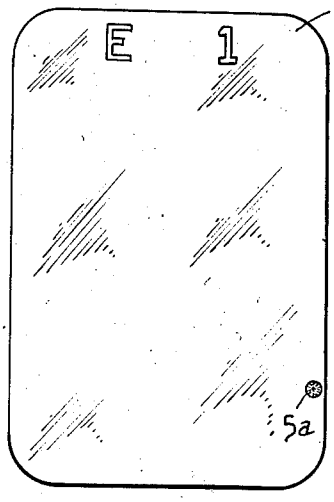
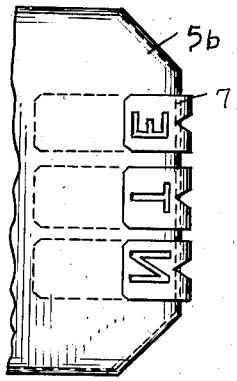


FIG. 5.



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Patented Dec. 4, 1945

2,390,397

UNITED STATES PATENT OFFICE

2,390,397

DENTAL X-RAY FILM IDENTIFIER

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Application January 18, 1945, Serial No. 573,370

4 Claims. (Cl. 250—67)

This invention relates to a dental X-ray film packet, and one of its objects is to provide a device for positively identifying the picture obtained by exposing the film, in the mouth of a patient, before X-rays, so that the dentist may avoid the present objectionable practice of writing the name of the patient on the film, after its development.

Another object of the invention is the provision of a system for identifying individual X-ray dental films, so that the reading side of the film may be instantly identified and this done by a keyed identification marking, produced by exposure of the film in making the dental picture, which will enable the dentist to accurately classify the picture and assign it to the proper patient.

With the above and other objects in view, the invention relates to certain new and useful constructions, combinations and arrangements of parts, clearly illustrated in the accompanying drawing, and fully described in the following specification. In the drawing:

Fig. 1 is a plan view, enlarged, of a closed dental X-ray film packet, showing attached identifying means.

Fig. 2 is an edge view thereof.

Fig. 3 is a detail perspective view thereof.

Fig. 4 is a plan view, enlarged of the developed dental X-ray film, showing the identifying marks.

Fig. 5 is a fragmentary plan view, enlarged, showing a plurality of identifying elements attached to the dental X-ray film packet.

Fig. 6 is a perspective view of an identifying element, having a number.

Fig. 7 is a detail plan view of an identifying element having two corresponding or matching numbers or marks, and constructed to be folded upon itself.

Fig. 8 is a plan view, showing a similar arrangement for identifying letters.

Referring to the accompanying drawing, which illustrates the practical application of the invention, 5 designates a standard X-ray dental film packet, which encloses a film 6, usually coated with sensitive emulsion on both sides to prevent curling.

On the film packet 5 I place a U-shaped clip 7, which includes the short arm or jaw 8 and the long arm or jaw 9, and the connecting bend 10, which is shown to be cut-out at 10*a*, so that the two arms or jaws may be folded more easily upon each other.

The short arm 8 is provided with an identifying symbol 11, which is shown to be in the form of a letter E, but any other letter or symbol may be used. This letter is formed on the stock of the clip by printing the letter or symbol thereon, in metallic ink, or any ink which will block-out the X-rays, when the dental film packet, carrying the clip, is exposed to the same in dental work. This symbol or letter may also be in the form of a stamped out form which is attached thereto, so as to be permanently fused to the stock of the clip.

The stock of the clip is a transparent plastic material, which will resist boiling, and which, therefore, can be sterilized in the presence of boiling water or steam. One of the identifying clips may be repeatedly used.

The short arm of the clip is placed on the side of the dental film packet facing the X-rays, and the identifying symbol or letter 11 is printed or formed on the short jaw so that when the symbol is photographically impressed by the action of the X-rays upon the dental film, it will appear in positive or correct reading order, when the film is examined or studied from the proper side thereof. By identifying the correct reading side of the symbol or letter the dentist is thus able to establish which is the proper position of the film, so that in reading the picture he will not be confused as to whether a tooth is right or left.

The long arm of the clip may be provided with a symbol or letter 12, identical to the symbol or letter impressed on the short arm or jaw of the clip, so that the dentist can identify any film packet without turning it over. Due to the fact that the long arm is always located behind the film packet when it is presented to the X-rays, the letter or symbol on the long arm will not print on the dental film.

When a given symbol or letter, or a combination of symbols, is used for a particular patient, then the dentist records on the record of the patient this symbol or combination of symbols, and confusion is avoided in all future handling of the film.

In Fig. 3 I show a clip 7*a*, which is provided with a short jaw 8*a* and a long jaw 9*a*, connected to each other by the bend 10*b*, which is cut-out at 10*a'*. The short arm or jaw 8*a* is provided with an identifying symbol or letter 11*a*, which is cut out in the form of a stencil, and this clip may be made of metal or any material, which will not corrode in the presence of water or steam.

In Fig. 6 I show a clip 7*c*, having a short jaw or arm 8*c*, and a long jaw or arm 9*c*, connected to each other by means of the bend 10*c*. The short

arm 8c is provided with a struck out symbol 15 in the form of a numeral. The stock of this clip may be of any material which will resist corrosion in the presence of steam or water.

In Fig. 5 I show a portion of a dental film packet 5a, having a plurality of identifying clips thereon. One of these clips is provided with the identifying symbol or letter E, another with the identifying symbol or letter T, and another is provided with the identifying symbol or letter N. The stock of these clips may be a boilable plastic or what is known in the trade as boilable Lucite, of the clear or fully transparent type, and the letters or symbols may be printed thereon in metallic ink, or cutout and attached by any satisfactory method to the stock. The combination of symbols may correspond to the initials of the patient's name, or may be selected arbitrarily.

In Fig. 7 I show a blank 16 which is provided with a stamped form 17, shown to be the outline of the numeral 1, and bendable over and against the blank 16. The identification is established by the printing effect of the profile of the form 17, which may be any symbol or letter, or numeral. The blank 16 is also provided with small projections 16', which are adapted to bite into the covering material of the film packet to prevent the folded and attached clip from slipping from the packet.

In Fig. 8 I show a blank 18, which is provided with a bendable form 19, stamped out to represent the letter E. The blank 18 is formed with non-slip projections 18'.

When the dental picture is taken, the X-rays will stream from the equipment placed in confronting position to the head of the patient, pass through the teeth or gum area and activate the dental film, enclosed in the packet. It is necessary, therefore, that the symbol which is transferred to the dental film, by the action of the X-rays, appear on the outside of the clip in negative form, so that it will appear in positive or correct reading position on the developed film, and the correct reading side of the film may be thus established by determining the positive reading position of the identifying symbol.

When the clip is constructed of material other than boilable transparent plastic, or Lucite, stencil letter or symbol forms, or profile letter or symbol forms, may be used. In this case chromium plated brass or steel, stainless steel, or aluminum may be used.

The dental film packet is embossed by an indentation 5a, which is also impressed upon the edge portion of the dental X-ray film 6, as indicated at 6a. This will form a projection on one side of the film and a depression on the opposite side. The side which has the projection is the positive reading side of the film and the side that has the depression is the negative reading side of the film.

It is understood that various changes in the details of construction, their combination and arrangement, may be resorted to within the scope of the invention, as defined in the claims hereof.

Having described my invention I claim as new:

1. The combination with a dental X-ray film packet, of a transparent clip attachable to one side edge of the packet and producible on the film when the film is exposed to X-rays in making a dental picture, said clip having a stencilled portion so constructed that it can be produced in positive order on the film when attached to the packet to correctly indicate and identify the reading side of the film.

2. The combination with a dental X-ray film packet, of a transparent plastic clip attachable to an edge of the packet and provided with an identifying symbol printed thereon in metallic ink capable of being photographically impressed upon the film in dental X-ray exposure.

3. The combination with a dental X-ray film packet, of a U-shaped clip detachably connected with the film, and constructed of transparent material having a symbol thereon which can be photographically impressed upon the dental film in X-ray dental exposure.

4. The identifying attachment for dental X-ray film packets, consisting of a clip of transparent plastic attachable to an edge of the packet and having an identifying symbol printed thereon in metallic ink capable of being photographically impressed on dental film when attached thereto and exposed to X-rays in the making of a dental picture.

FRANK J. STADLER.