May 5, 1925. 1,536,345

J. G. JONES ET AL

DENTAL X RAY FILM PACKAGE

Filed Sept. 29, 1921

FIG - 1.

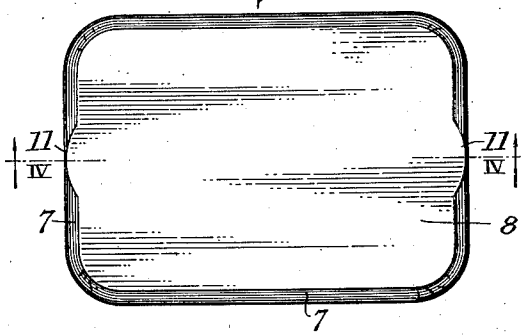


FIG - 2.

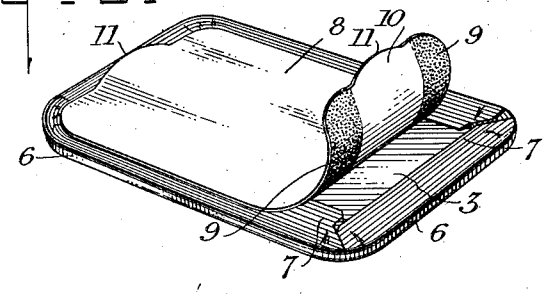
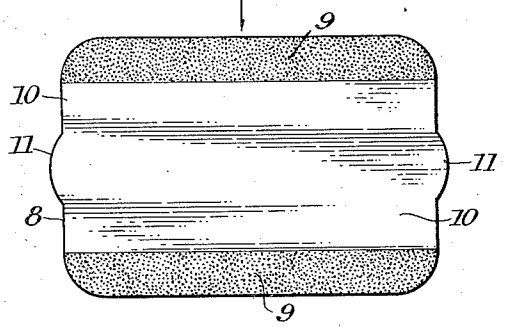


FIG - 3.



WITNESS

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FIG - 4.



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UNITED STATES PATENT OFFICE.

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DENTAL X-RAY-FILM PACKAGE.

Application filed September 29, 1921. Serial No. 504,179.

To all whom it may concern:

Be it known that we, JOHN G. JONES and HAYWOOD G. DEWEY, citizens of the United State of America, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Dental X-Ray-Film Packages, of which the following is a full, clear, and exact specification.

Our invention relates to packages of sensitized film prepared for use individually in dental X-ray work. The objects of our invention are to provide a package of this type which will be tightly sealed against the entrance of light, which will not become accidentally opened when submitted to moisture or other ordinary conditions of use, which will be simple of manufacture and convenient to use, but which is at all times easy to open. Other objects will appear hereinafter. These and other ends we have obtained by the structure more fully explained hereinafter and particularly by the use of a sealing sheet for the package which is attached to it as its side edges only by strips of waterproof adhesive, the central part of the sheet being free from adhesive and having at its ungummed edges manipulating protuberances.

Reference will now be made to the appended drawings in which the same reference characters refer to the same parts throughout:

Fig. 1 is a plan of our improved package;

Fig. 2 is a perspective view of our package with the sealing sheet partially removed;

Fig. 3 is a plan of the bottom side of the improved sealing sheet;

Fig. 4 is a section of the package taken on the line IV—IV of Fig. 1.

The package shown comprises a sheet 1 of black protective paper opaque to ordinary light but pervious to X-rays, two sheets 2 of sensitized film and a second protective sheet 3 of black protective paper, the protective sheets 1 and 3 lying upon opposite sides of the films. Around the elements enumerated above is placed a wrapping sheet 5, preferably of opaque paper, of greater area than the enclosed sheets. This overlies sheet 1, and its edges are bent up around the edges of the contained sheets at 6 and then bent to overlie the surface of sheet 3 in a continuous flange or fold 7, extending around the entire periphery of the package. The package thus wrapped is sealed in closed condition by a sealing sheet 8. This sheet 8 has along its side marginal portions strips of waterproof, slow-drying adhesive 9. The particular material of this adhesive is unimportant, as such adhesives are well known, one consisting of a rubber cement being familiar in the form of surgeons' tape. Between these marginal adhesive strips is a central portion 10 which is free from adhesive, and between the central portions of the end flanges of the sealing strip there are formed slight protuberances 11, preferably of less width than the space 10 between the adhesive strips.

We have found that the adhesive at the side margins or borders holds the package sufficiently tight, and that it is not necessary in ordinary use that sheet 8 be adherent around its entire edge. When the packages are manufactured, the sealing sheet is placed firmly in contact with the package and holds it in a perfectly light-tight condition. While the package is not completely waterproof, the presence of the waterproof adhesive along the sealing edges prevents the loosening of sheet 8 under the influence of the moisture of the mouth, so that the package will remain intact. The material of the sheets 1, 3 and 5 is preferably water resistant to an extent sufficient to protect the films from the influence of the moisture of the mouth for a reasonable length of time. It is thus apparent that the package is amply sealed against the effects of light and moisture for all customary use.

The great advantages of our improved form of sealing sheet are apparent in the opening of the package. If the strip 8 were tightly adherent around its edges, it would be necessary to pry it loose at some point with the thumb nail or a knife, which in the obscurity of a dark room is not always an easy process. Due, however, to the presence of protuberances 11, which are ungummed, the user can feel them with the ball of the thumb and grasp them readily, thus stripping off the entire sheet, this type of adhesive permitting such action with a flexible strip such as 8. The sheet 8 is preferably made of a material so strong that it will strip off as an entirety without tearing. If it is made of quite thin material, however, there may be a tendency for the central por-

tion between the adhesive strips to give way in the manner of a rip strip. In this case the remaining adherent portions may be readily removed. In any event the package is easily opened in the dark room by the user, all of the manipulations being rendered easily possible by the sense of touch only, without it being necessary to examine the package visually.

The package claimed in this application is a specific embodiment of the invention generically covered by Patent No. 1,441,160, Lovejoy, granted Jan. 2, 1923.

It will be understood that the form of package herein shown and fully described is to be considered as illustrative of one embodiment of our invention, and that we contemplate as within the scope thereof all such modifications and equivalents as fall within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. An X-ray film package comprising a sheet of sensitized material, a light proof wrapper therefor, and a flexible sealing sheet for said wrapper, said sealing sheet along two opposite margins only having strips of adhesive by which it is attached to the wrapper and holds the latter closed, and having between said strips a central area free from adhesive extending from end to end of said sheet and the non-adherent end edges thereof constituting means by which the sheet may be manipulated.

2. A dental X-ray film package comprising a sheet of sensitized material, a light proof wrapper therefor, and a flexible sealing sheet for said wrapper, said sealing sheet along two opposite margins only having parallel strips of slow-drying, waterproof adhesive by which it is attached to the wrapper and holds the latter closed, and having between said strips a central area free from adhesive extending from end to end of said sheet and the non-adherent end edges thereof constituting means by which the sheet may be manipulated.

3. An X-ray film package comprising a sheet of sensitized material, a light proof wrapper therefor, and a flexible sealing sheet for said wrapper, said sealing sheet along two opposite margins only having strips of slow-drying, waterproof adhesive by which it is attached to the wrapper and holds the latter closed, and having on one of the other edges a manipulating protuberance free from adhesive, the central part of the sealing sheet being also free from adhesive.

4. A dental X-ray film package comprising a sheet of sensitized material, a light proof wrapper therefor and a flexible sealing sheet for said wrapper, said sealing sheet along two opposite margins only having parallel strips of slow-drying, waterproof adhesive by which it is attached to the wrapper and holds the latter closed, and having on each of the other edges manipulating protuberances, there being on the sealing sheet a central space between the marginal adhesive strips, said space being wider than the protuberances and free from adhesive.

Signed at Rochester, New York, this 23rd day of September, 1921.

JOHN G. JONES.
HAYWOOD G. DEWEY.