Feb. 16, 1937. J. L. BURKE 2,071,110

FILM PACK STRUCTURE

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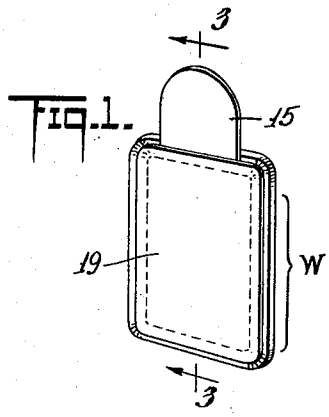


FIG. 1.

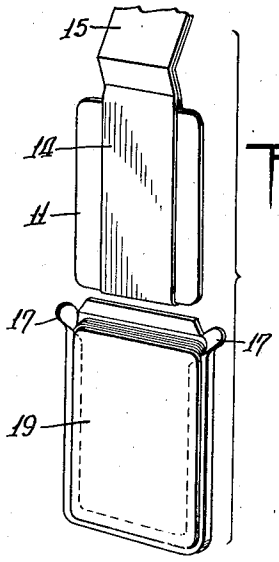


FIG. 2.

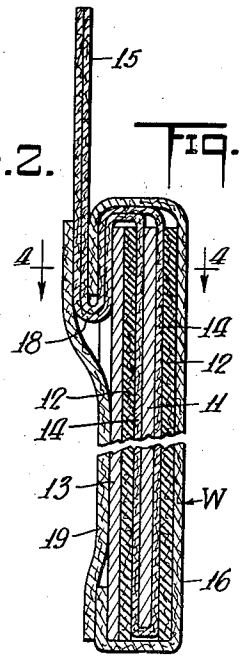


FIG. 3.

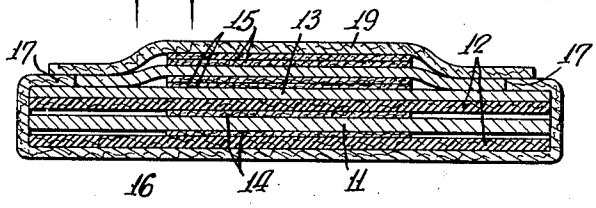


FIG. 4.

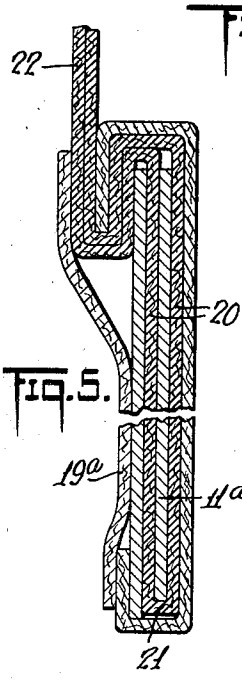


FIG. 5.

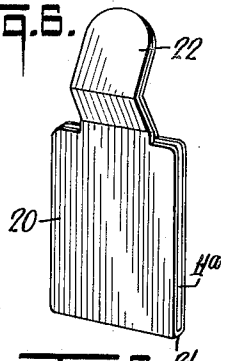
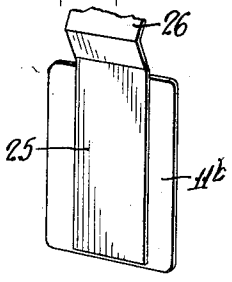


FIG. 6.

FIG. 7.



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FILM PACK STRUCTURE

James L. Burke, Weehawken, N. J.

Application April 1, 1932, Serial No. 602,471

5 Claims. (Cl. 250—34)

My present invention relates to the art of packaging, and more particularly to packets of small relatively flat articles.

An object of the invention is to provide a packet of the foregoing type which can be readily assembled, enclosed or fabricated by automatic machinery, which is conventional in apperance, which adequately protects the contents, and which admits of ease and speed of removal of the contents when desired without the possibility of injury to the protected article in the process of removal thereof.

Another object is to provide a packet of the above type enclosing a multiplicity of flat articles and which admits of selective removal, as desired, of individual articles therefrom while preserving the integrity of the package enclosing the remaining articles, and maintains the latter adequately protected despite the removal of their companions therefrom.

A specific application of the invention relates to photographic film packs, more particularly to packs of miniature dental X-ray films, and in that particular application it is an object of the invention to protect the enclosed film, not only from dirt but primarily from light or other film-destructive rays or emanations, and to admit of removal of the film from the pack without the likelihood of wetting the same with saliva from the patient's mouth, and yet without in any way impairing the photographic properties of the film by its association with the elements, by which the convenience above set forth is accomplished.

In the accompanying drawing, in which are shown one or more of various possible embodiments of the several features of the invention,

Figure 1 is a perspective view showing one embodiment of the film pack;

Fig. 2 is a view similar to Fig. 1, showing the removal of the film;

Fig. 3 is a view in longitudinal section with the thickness greatly exaggerated, on line 3—3 of Fig. 1;

Fig. 4 is a transverse sectional view on line 4—4 of Fig. 3;

Fig. 5 is a view similar to Fig. 3, of a modified form;

Fig. 6 is a perspective view of the combined film removal and protective arrangement of the embodiment of Fig. 5;

Fig. 7 is a perspective view of the combined film and pull tab in another modification.

Referring now to Figs. 1 and 4 of the drawing, there is shown particularly a miniature X-ray dental film pack, including the conventional dental film 11 interposed between two sheets of black opaque substance 12, behind which is a sheet of lead foil or other X-ray intercepting substance 13.

According to the present invention a flexible strip or ribbon, preferably a strip 14 of paper, woven fabric or cellulose substance, is folded at its middle about one edge of the photographic film and protrudes at its end 15 beyond the opposite edge of the photographic film. The entire pack, including the film 11 with its flexible strip 14 thereabout, the opaque sheets 12, and the X-ray intercepting sheet 13, is enclosed in the conventional wrapper W in which such films are ordinarily packaged, which wrapper is of light impervious fabric. The wrapper back may comprise a blank 16, the edges 17 of which are folded over the various edges of the contents and as shown in Fig. 3 over the protruding ends of the pull strip 14, the latter being reversely bent inward as at 18, and its extremities bent upward to protrude beyond the wrapper. The face of the wrapper is preferably in the form of a label 19 adhesively secured to the inturned edges 17 of the wrapper back. Thus, there is produced a completely enclosed pack in which the film is maintained in light-excluding relation and from which the extremities of the pull tab protrude.

After the film package has been exposed within the mouth of the patient, the film is readily removed by simply holding the pack and pulling on the exposed tab 15. By this operation the pack is automatically opened by the pushing action of the advanced edge of the relatively stiff film 11 and the latter emerges from the pack free of all of the contents, and the pull strip or ribbon which is not bonded to the film is thrown away.

In the embodiment of Figs. 5 and 6, the auxiliary strip 14 is omitted and the opaque cover sheets of the film are made in a unitary sheet 20 with a folding edge 21, and with unitary pull tabs 22 beyond the advance or forward edge thereof. In other respects the package is identical with that previously described. Corresponding parts have the reference numerals with exponent "a" of the embodiment of Figs. 1 to 4.

In Fig. 7, the film 11^b has directly bonded thereto, preferably adhesively, a strip 25 extending preferably the length thereof and having integral therewith a pull tab 26 protruding therebeyond. The strip and the pull tab both are preferably made of transparent material such as "Cellophane" or glassine. Except for this difference the pack enclosing this combined film and pull tab is identical with that of Figs. 1 to 4.

The embodiment of Fig. 7 has the advantage that the pull tab **26** serves not only the function of the other embodiments, that is of serving to push the package open and to remove the film therefrom, but has the additional advantage of serving as a handle clip more or less permanently associated with the film, so that the latter can be conveniently held thereby to the light for viewing the film, or hung thereby to dry. The tab and its securing extension is made transparent so that in holding the film to the light the areas of transparency will not be obstructed thereby.

In each of the embodiments, it will thus be seen that the tractive means, which includes the pull tab construction, dispenses with the need for separate operation to remove the film from the open pack, but the opening of the pack and the withdrawal of the film together with the tractive means occurs as the result of a single pulling operation in which direct contact of the fingers with the film and the danger of scratching the emulsion are avoided.

While the invention has been described in a number of particular embodiments for miniature dental X-ray film packages, for multiple packaging, it will of course, be understood that these particular applications, while highly useful, are merely illustrative of the broader uses of the invention, which is useful in a wide variety of fields including, among others, packs of various types of confections, safety razor packs, postage stamp packs, packs for various types of medicaments, and merchandise of various forms and more especially merchandise of the character put up in the form of relatively flat, more or less thin articles of dimensions sufficiently small to be carried in the pockets or handbags.

It will thus be seen that there is herein described a packet in which the several features of this invention are embodied, and which in use attains the various objects of the invention and is well suited to meet the requirements of practical use.

As many changes could be made in the above construction, and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A dental film pack comprising a film, a transparent strip bonded to said film along one face thereof and having a tab unitary therewith and protruding beyond said film, said tab having an inturned basal portion and a wrapper enclosing said film and said strip in light tight relation, said wrapper including a part folded over the inturned base of said pull tab and over which the rest of said pull tab is folded outwardly to extend therebeyond, said wrapper including means adhesively connected to said part and retaining the base of said pull tab in position.

2. A dental film pack comprising a film, a pull strip co-related therewith and having an end protruding from one edge thereof, a light-tight wrapper about said film and pull strip, said wrapper including an element having a closure flap extending over said pull strip and over the edge of which flap the end of said pull strip protrudes beyond the pack, and a label adhesively secured to said element and covering the overlapping portions of said flap and said pull strip.

3. A dental film pack comprising a light-tight wrapper including an element having an integral closure flap at one end, a film having a pull strip extending longitudinally thereof and of width less than that of said film, said closure flap being folded over the protruding part of said pull strip, the extremity of said pall strip being folded over said flap and protruding from said pack, and a label adhesively secured to said element, said label overlapping said flap and the superposed portion of said pull strip, the upper end of said label being adhesively attached to said flap laterally of said pull strip.

4. A photographic film pack consisting of a wrapper, a film and flexible withdrawal means enclosed by said wrapper and removable therefrom in a single operation, said withdrawal means being in tractive relation to said film, extending lengthwise thereof and including a pull tab protruding beyond the forward edge of said film, said wrapper including a part folded over the base of the tab, and means secured to said part and holding the base of said tab in place, with the end of said tab protruding from said wrapper.

5. A photographic film pack consisting of a wrapper, a film, flexible means folded around the rear edge of said film and presenting pull tab ends protruding beyond the forward edge thereof, said wrapper including a part folded over the bases of said pull tab ends, and means secured to said part and holding said bases in place, with the extremities of said ends protruding from said wrapper.

JAMES L. BURKE.