Sept. 4, 1923. 1,467,108

M. B. HODGSON

DENTAL FILM MOUNT

Filed Oct. 26, 1920

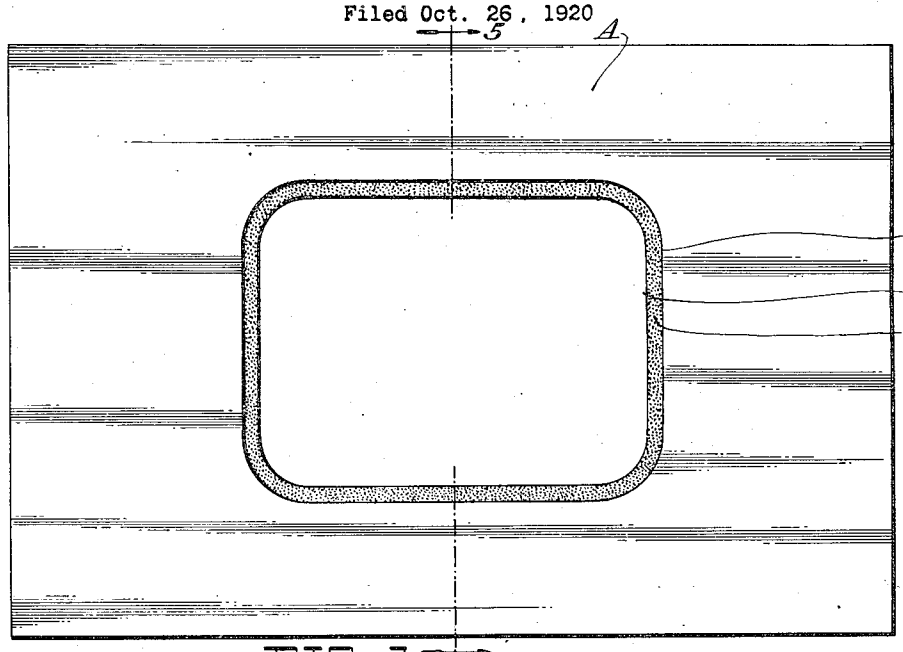


FIG. 1.

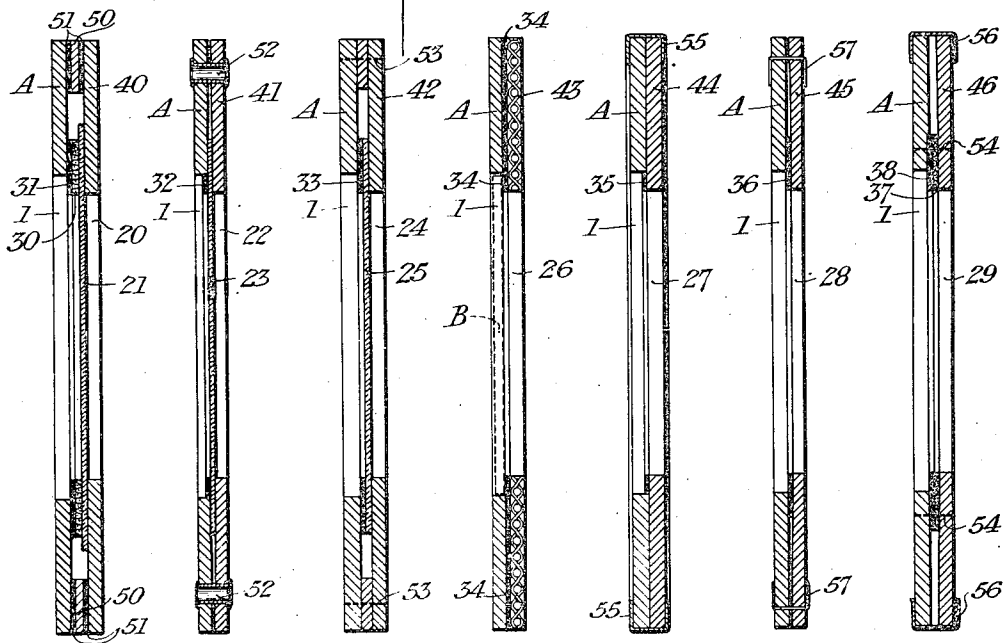


FIG. 2. FIG. 3. FIG. 4. FIG. 5. FIG. 6. FIG. 7. FIG. 8.

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Patented Sept. 4, 1923. 1,467,108

UNITED STATES PATENT OFFICE.

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DENTAL FILM MOUNT.

Application filed October 26, 1920. Serial No. 419,757.

To all whom it may concern:

Be it known that I, MILLARD B. HODGSON, a citizen of the United States of America, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Dental Film Mounts, of which the following is a full, clear, and exact specification.

This invention relates to mounts for photographic films and particularly to mounts adapted to hold small dental Rontgenographic negatives so that they may be examined by transmitted light, and so that they may be readily filed.

The objects of my invention are to provide such a mount that will be easily manufactured, into which the film may be placed with the minimum of care, and which will hold the film securely against accidental displacement, but which will permit of its removal. Other objects appear hereinafter.

I attain these objects by constructing the mount with a window that will transmit light, around which window is a marginal portion coated with a slow-drying adhesive to which the margin of the negative will adhere by pressure, and around this margin is a centering frame within which the negative fits, thus insuring its proper location with respect to the adhesive and the window.

Reference will now be made to the accompanying drawing in which like reference characters refer to like parts, and in which

Fig. 1 is a plan view of my improved mount.

Figs. 2 to 8 are respectively sections of different constructions of my improved mount, Fig. 5 being taken on the line 5—5 of Fig. 1, and differing in details that will be pointed out in the full description following.

My mount consists in general, of a front film-centering sheet which is designated A in all of the forms shown, and which has an aperture 1 of a size and shape to fit the particular film with which it is intended to be used, and of a back sheet which is shown as differing in construction in the different figures. In all forms, however, the back sheet has a central light transmitting window 2 smaller than, but registering centrally with, the aperture 1, and it carries on the margin around this window and within the aperture a coating of a slow-drying adhesive 3, the desired characteristic being that the adhesive shall remain "tacky" for a very considerable length of time. While the particular composition of the adhesive is not of importance, it is preferably a composition of rubber and coal tar pitch with any suitable softener, such as benzol, gasoline or chloroform. This remains for a long time sufficiently adherent to hold an ordinary film when the latter is merely pressed against it. Compositions such as that mentioned are well known and are used for adhesive tapes of various kinds, such as that known as "surgeon's tape."

In the form shown in Figure 2, there is a sheet 40 having a central aperture 20, covered by a strip of pyroxylin 21 which may be clear or transparent. A mask 30 of flexible material is coated with adhesive 31, and placed on the pyroxylin sheet, the inner edge of the mask registering with the edge of aperture 20. This whole assemblage constitutes a back member of the mount and is placed behind the front member A, with the apertures registering centrally and the outer edge of the mask carrying the adhesive extending beyond the edges of the aperture 1. There is thus left a margin of adhesive within the aperture 1, and surrounding the light transmitting window formed by the aperture 20 covered by pyroxylin 21.

In the form shown in Figure 3, the sheet 41 has a central aperture 22, covered by a pyroxylin sheet 23, to which is applied a band of adhesive 32 the inner edge of which registers with the edge of aperture 22, and the outer edge of which fits just within the aperture 1 when the elements are assembled. The sheet 32 and sheet 23 with the adhesive thereon comprise the back member of the mount.

In the form shown in Figure 4, the sheet 42 has a central aperture 24, covered by a pyroxylin sheet 25 to which is directly applied the border of adhesive 33, the inner edge of which registers with the edge of aperture 24, and which extends beyond the edges of aperture 1 when the parts are assembled.

In the form shown in Figure 5, which is my preferred form, a sheet 43, preferably of opaque fabric, has an aperture 26. The entire surface of the sheet is coated with adhesive 34 of the type described. This

form of mount is particularly easy to make since a long strip of fabric may be evenly coated, and passed through a stamping machine that cuts out the apertures, while a long strip of opaque paper is passed through another machine which cuts out suitably spaced and shaped apertures and the two strips are then joined by pressure only, in proper registry and cut between the apertures. A film B is indicated in dotted lines.

In the form shown in Figure 6, the sheet 44 has an aperture 27, and a margin of adhesive 35 around this aperture and fitting within the aperture 1.

In the form shown in Figure 7, the sheet 45 has the aperture 28 with a border of adhesive 36 around it, and extending beyond the edges of aperture 1 when the parts are assembled.

In the form shown in Figure 8, the sheet 46 has the aperture 29, with a mask 37, carrying adhesive 38, fitting around it, the mask and adhesive extending beyond the edges of aperture 1 when the parts are assembled.

In the preferred form, shown in Figure 5, the adhesive alone holds the elements together, but in the other forms it is necessary or desirable to employ other securing and binding means. Various alternative means may be used such as are shown in the several figures. These may comprise spacing strips 50, coated on each surface with adhesive 51; eyelets 52; stitching 53 or 54; edge binding 55 or 56; or wire fasteners 57, and these fastening means may be secured as shown at any desired points in the mount.

In use the negative is slipped into the aperture 1 of a holder and since the negative and aperture are correspondingly shaped, the negative will be at once correctly centered. It is then pressed down firmly around the edges and will at once be held in the mount ready for use. If the forms having a celluloid sheet are used the emulsion side of the negative is placed against this sheet so as to be protected against injury. It is intended that these mounts shall constitute filing means for the negatives, which are thus permanently mounted on them, but should it be desirable for any reason to remove the negative, this can be done since it can be stripped from the adhesive without injury to its diagnostic value.

The mount thus made, particularly in the preferred form, is obviously simple in manufacture and in use. It has no protruding nor movable parts that engage other mounts or that can break off. It is thin and easily filed; the films are mounted with the greatest ease and can be readily removed. It is not necessary, as in some mounts, to slide the film behind a frame, or to insert its corners painstakingly through slits or under tabs that are liable to break and that usually cause annoyance. It is only necessary to lay it in the countersunk opening, the edges of which act as locating abutments and press it slightly at the edges. While I have described the mount as used with dental X-ray negative films, it is obvious that any image-bearing sheet, differing widely in form and material, may be placed in a mount, the structure of which embodies my invention, and I contemplate all such changes and equivalents as falling within the scope of the appended claims.

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

1. A holder for an individual X-ray dental film comprising a backing sheet having a light-transmitting viewing portion, a second sheet attached thereto and having an opening, the first named sheet having just within the periphery of the said opening a narrow strip of slow-drying adhesive coating material, whereby a film shaped to fit said opening may be placed therein and will be removably held in place at its margins only by the narrow strip of adhesive material.

2. A mount for an individual X-ray dental film comprising a fabric back sheet with a viewing opening, and coated upon its entire front surface with a slow-drying adhesive material, and a front sheet with an opening larger than said first named opening, the front sheet adhering to the coating, the openings in the two sheets being so located that an adherent margin will remain around the smaller opening and within the larger opening, whereby a dental film shaped to fit said larger opening will be properly located by the edges thereof and may be adhesively but removably attached by the use of pressure only, and at the margins only, to the back sheet and within the aperture in the front sheet.

3. A transparency comprising a backing sheet having a light-transmitting viewing portion, a second sheet attached thereto and having an opening larger than said viewing portion, an image-bearing, light-transmitting sheet fitting within said opening and attached at its margins only, by means of a slow-drying adhesive composition, to the backing sheet.

Signed at Rochester, New York, this 22nd day of October 1920.

MILLARD B. HODGSON.