

July 24, 1934.

A. W. McCLEAN

1,967,534

MOUNTING FOR X-RAY PLATES

Filed Oct. 31, 1932

2 Sheets-Sheet 1

Fig. 1.

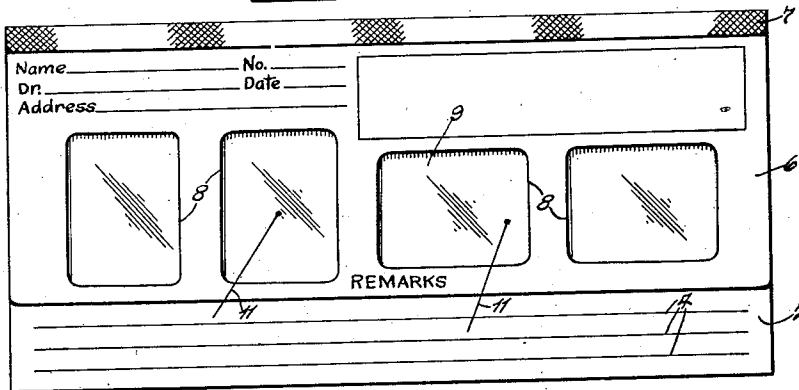


Fig. 2.

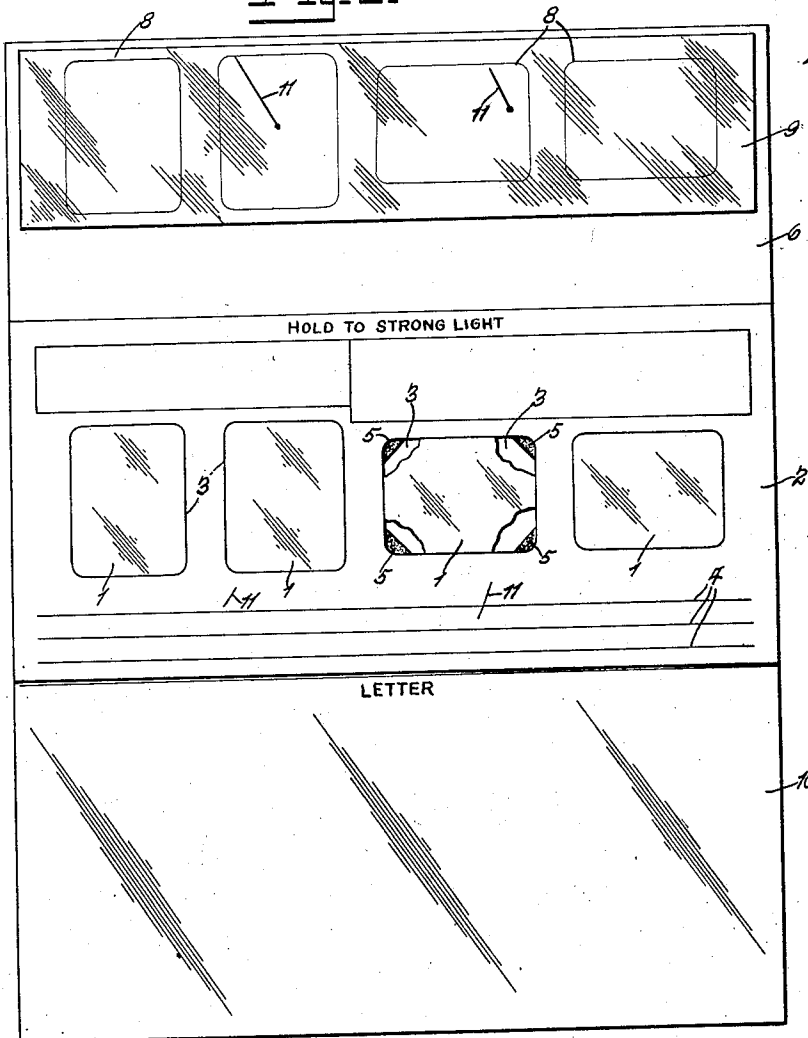


Fig. 3.

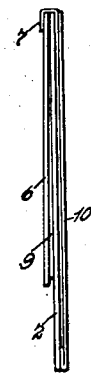
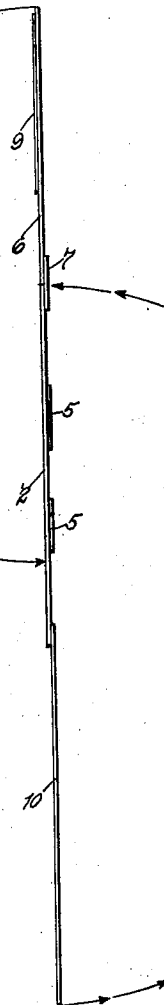


Fig. 4.



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2 Sheets-Sheet 2

Fig. 5.

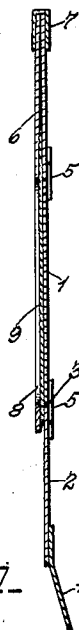


Fig. 6.

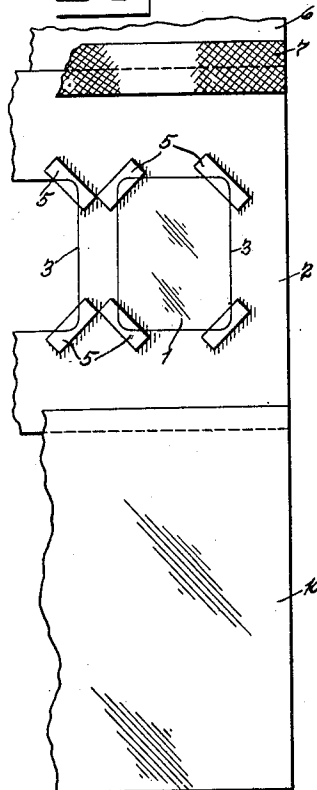


Fig. 7.

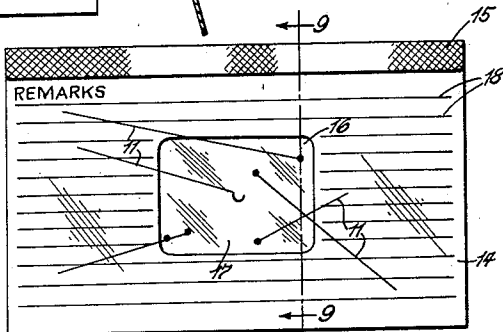


Fig. 8.

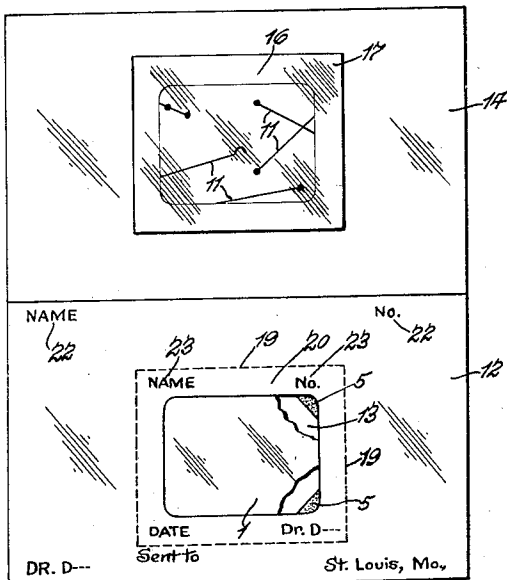


Fig. 9.

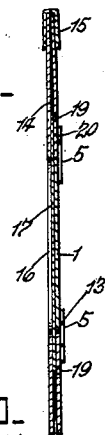
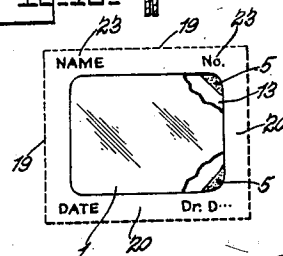


Fig. 10.



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UNITED STATES PATENT OFFICE

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MOUNTING FOR X-RAY PLATES

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4 Claims. (Cl. 40—158)

This invention relates to mounting for X-ray plates; and has particular utility in mounting small X-ray films such as are used for diagnosis in stomatology and oral surgery.

5 An object of this invention is to provide a mounting for X-ray plates which will hold the plates securely in position by attaching members which will interfere with transmitted light through the plates as little as possible.

10 Another object of the invention is to provide a mounting of the character described which can be readily filed in a drawer or cabinet with protection for the plates against abrasion.

15 A further object of the invention is to provide a mounting of the character described with means whereby marks may be placed indicating morbid conditions without disfiguring the plate itself.

20 Another object of the invention is to provide a mounting of the character described whereby marks may be made indicating morbid conditions illustrated by the plate, with means for removing the plate from the mounting in such a manner that it can be replaced in the mounting to match with the markings.

25 Other and further objects will be apparent from the following detail description, taken in connection with the accompanying drawings, in which—

30 Fig. 1 is a plan view of the device in folded position.

Fig. 2 is a plan view of the device in open position.

35 Fig. 3 is an end elevation of the device in folded position.

Fig. 4 is an end elevation of the device in open position.

Fig. 5 is a sectional view of the device partly folded.

40 Fig. 6 is a detail rear view.

Fig. 7 is a plan view of a modified form in folded position.

Fig. 8 is a plan view of the modified form shown in Fig. 7 in open position.

45 Fig. 9 is a cross-section on the line 9—9 of Fig. 7.

Fig. 10 is a plan view of a removed portion of the mounting.

50 The invention has particular utility in mounting small X-ray films made from exposures of a portion of the jaw, such as are used in diagnosis in stomatology, oral surgery or dentistry, and the embodiments illustrated are particularly adapted for such purpose.

55 The mounting shown in Figs. 1 to 6 is adapted

to hold four X-ray films 1. It includes a frame member 2 preferably of heavy paper or light cardboard having openings 3 substantially the size of the film to be mounted. The frame member 2 has a series of lines 4 upon which the remarks of the diagnostician may be written. Strips 5 are secured to the back of the frame 2 and across the corners of the openings 3, as best shown in Fig. 6. Tacky material is placed on the inner surface of the strips 5 for engagement with the film, and thus the film may be securely held in position in the openings 3. The strips 5, as well as the tacky material placed upon their inner surfaces, are preferably transparent. A cover sheet 6 is hinged to the frame 2 at its top edge by an adhesive strip 7. The cover sheet has openings 8 which match with the openings 3 when the cover sheet 6 is folded over the frame member 2, as shown in Fig. 1. A strip 9 of thin translucent paper or similar material is secured to one side of the cover sheet 6, as shown in Fig. 2. The strip 9 should be of such nature that it may readily be marked upon with pen or pencil. It is to be understood that the word "translucent" as used herein also includes "transparent", but I have found that a sheet which is not truly transparent is entirely suitable for this purpose and sheets which are not truly transparent more readily receive pen or pencil marks than sheets such as cellophane, which are truly transparent.

A flap 10 may be secured to the lower edge of the frame member 2 in such a manner that it may be folded over the back of the frame member 2, as shown in Fig. 3, and thus protect the back of the film against abrasion. This flap 10 may be used conveniently for memoranda or report.

In making a diagnosis, the folder will be opened, as shown in Fig. 2, and the films placed in the path of strong light. In this position, the photographs may be easily read. When the diagnostician has observed a spot indicating a morbid condition, the cover sheet 6 may be folded over and the transmitted light will be such that the spot may be indicated by a point and line, as shown at 11. The remarks concerning such a location, such as "cavity" or "abscess", may be noted on the lines 4. It will thus be seen that the points of morbid condition may be clearly indicated on the mounting without marking upon or otherwise disfiguring the film itself; and, further, that the films are securely held in position and protected against abrasion when the mounting is filed or otherwise handled.

A modification is shown in Figs. 7, 8, 9 and 10, 110

which also illustrate a further improvement. In this embodiment, the mounting as specifically shown is adapted to contain but one plate, but it will, of course, be understood that such a mounting may be made to contain a plurality of plates.

A frame member 12 has an opening 13 adapted to receive a plate or film 1 which is secured in the opening by adhesive strips 5, as previously described. A cover sheet 14 is hinged at the top edge of the frame member 12 by an adhesive strip 15. The cover sheet 14 has an opening 16 which matches with the opening 13 when the cover sheet 14 is folded over the frame member 12 in the position shown in Fig. 7. A translucent sheet 17 of the same nature as the sheet 9, previously described, is secured over the opening 16 on one side of the sheet 14. The outer side of the sheet 14 may have lines 18 upon which notations may be written.

The use of the embodiment shown in Figs. 7, 8 and 9 is identical to that described with relation to the preceding figures, the marks and lines 11 being made on the outer face of the sheet 17 and the sheet 14, as best shown in Fig. 7.

Lines 19 of perforations are formed as a border about the opening 13 in such a manner as to form a sub-frame 20, which may be readily separated from the device as a whole at the perforations 19. The sub-frame 20 may be replaced and held in position when replaced by adhesive strips, not shown but similar to the strips 5.

The frame member 12 has on it designations, as shown at 22, similar to designations, as shown at 23, on the sub-frame 20. Thus the diagnostician may detach the film from its mounting and send it, for instance, to another dentist or physician, while retaining his own remarks in his own file, and the film may be properly matched with its mounting upon its return and again secured in proper position.

Parts of the invention may be used without the whole, and various changes may be made in the details of construction within the scope of the appended claims and without departing from the spirit of this invention.

I claim:—

1. A device of the class described including a frame of relatively stiff material with an opening therein substantially the size of a plate to be mounted to permit the plate to be inset in said opening, relatively small strips of transparent material secured on the back of the frame across the opening, and transparent tacky material on the front side of said strips within said opening adapted to secure the plate in position.

2. A device of the class described including a frame of relatively stiff paper with an opening therein substantially the size of a plate to be mounted, means for holding the plate in position in the opening, a cover sheet hinged to the frame and adapted to overlie the frame, and a translucent window on the cover sheet adapted to match the opening in the frame, said window and cover being adapted to receive written notations thereon and said frame having lines of perforations completely bordering said opening.

3. A device of the class described including a frame of relatively stiff paper with an opening therein substantially the size of a plate to be mounted, means for holding the plate in position in the opening, a cover sheet hinged to the frame and adapted to overlie the frame, a translucent window on the cover sheet adapted to match the opening in the frame, said frame having lines of perforations completely bordering said opening, designations on the frame within the border, and corresponding designations on the frame outside the border.

4. A device of the class described including a frame of relatively stiff paper with an opening therein substantially the size of a plate to be mounted, means for holding the plate in position in the opening, a cover sheet hinged to the frame and adapted to overlie the frame, and a translucent window on the cover sheet adapted to match the opening in the frame, said window and cover sheet being adapted to receive written notations thereon.

ALEXANDER W. McCLEAN.