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A VIEWER FOR DENTAL ROENTGENOGRAMS

by

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Dentists frequently need roentgenograms in their practice. The films are usually examined by looking at them against the daylight or a remote artificial source of light. No special lighting appliances or light frames are available for the examination of dental roentgenograms, for the large illuminated surface of the frames used for ordinary roentgenograms are unsuitable for small dental films. Considering aseptics and the work at hand, it is recommendable not to handle any films during the treatment.

The examination of a roentgenogram yields the best possible results if the lighting apparatus fulfils the following requirements:

1. The light coming from the source behind the film should be evenly distributed over the film's entire surface.
2. The strength of the light should be sufficient to penetrate even the densest parts of the film, so that the differences in the image within these areas become visible. The glare of light must not, however, obliterate the smallest differences in image of the thinnest sections.
3. No brightly illuminated areas, blinding the eye, should remain outside the film.
4. No interfering light should reach the surface of the film from the front or the sides.

The commercially available viewers for 5 by 5 cm transparencies have proved to fulfil these requirements and to be practical appliances suitable for the examination of dental films. Such is, *e.g.*, the Zeiss Ikon "Isoscop" lighting devise (Figs. 1 and 2), which can be connected to circuit of 110 or 220 V and is provided with an incandescent bulb of 15 W. The lamp does not heat much and the ventilation is good, so that the roentgenogram can be continuously illuminated. The viewer is equipped with a lens giving a 1.5-fold magnification. When placed in the appliance, the film is easy to examine and even its smallest details can be clearly distinguished.

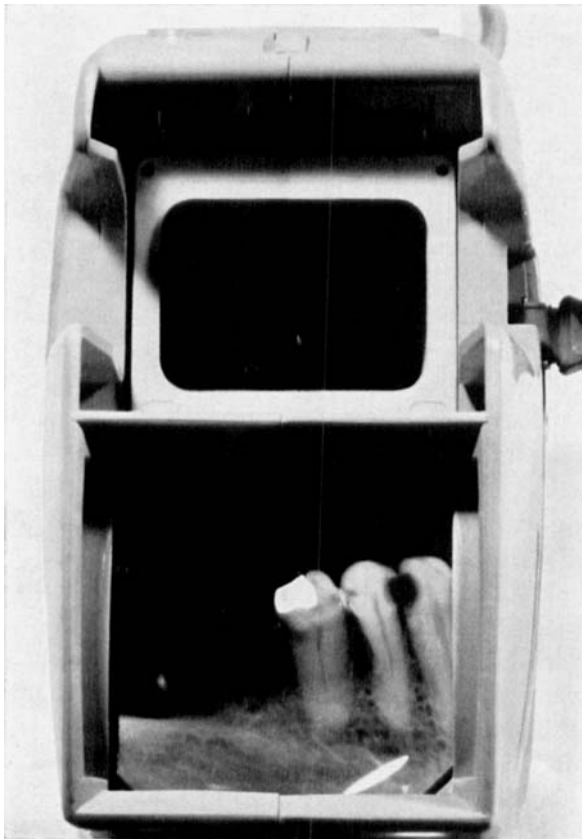


Fig. 1. Transparence viewer adjusted for inspection of a dental film.

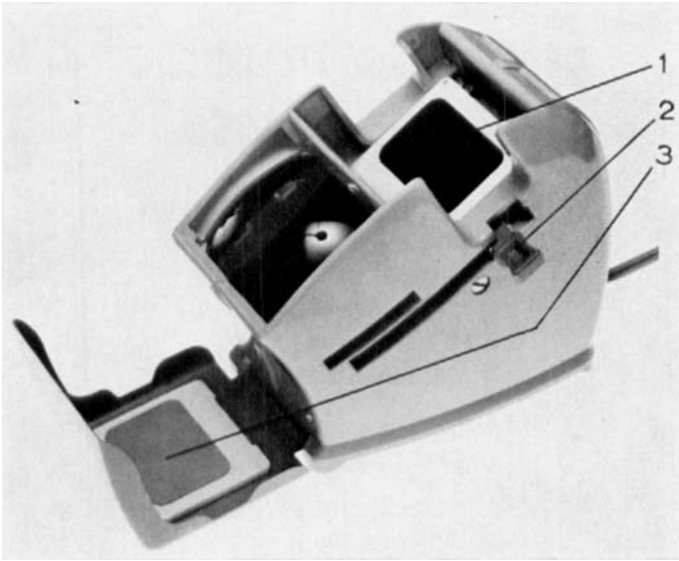


Fig. 2. 1 — Film supply; 2 — Knob for switch of the film;
3 — Film receiver.

The roentgen film is attached to the ordinary frame for 4 by 4 cm slides and the picture surface is limited on opposite sides to fit the 3 by 4 cm dental film. It is also possible to fit the dental film into a cardboard frame, the exterior measures of which are 5 by 5 cm. This kind of frame can be marked and stored in the boxes used for ordinary slides.

There is little doubt that the device could be further improved with a view to the purpose described here.

SUMMARY

A viewer for dental roentgenograms is described.

RÉSUMÉ

Description de l'utilisation d'un diascope pour la lecture des clichés radiographiques dentaires.

ZUSAMMENFASSUNG

Verwendung eines Diaskopos zur Betrachtung von Zahnroentgenaufnahmen wird beschrieben.