

# The Six-frame Translumination Cabinet

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## THE SIX-FRAME TRANSLUMINATION CABINET<sup>1</sup>

by

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Owing to the ever increasing number of examinations in the roentgen departments of our hospitals and the resulting increase of the number of films, it has proved difficult to obtain, in the premises now available for the purpose, sufficiently large translumination spaces for the examination and demonstration of roentgen films. In order to overcome these difficulties, to some extent at least, double frames have been constructed, which can be pushed up and pulled down in front of the illuminated window, whereby twice as many films may be shown at a time in the translumination cabinet. BAASTRUP has further increased the capacity of the cabinet by hanging up in front of it five frames which may be pulled down in turn before the illuminated window. This contrivance, however, has the disadvantage that the frames must be placed at different distances from the translumination window. With a view to eliminating the difficulties just mentioned, I have had a translumination cabinet constructed according to the following principles.

The contrivance (Fig. 1) consists of a translumination cabinet *a* and a working table *b*. A device *c* for shifting six film frames is fixed above the table. The dimensions of the translumination window of the cabinet is  $1300 \times 975$  millimetres and consists of an opal glass pane, behind which there are three luminous tubes supplying an evenly distributed light. Further, there is at the bottom of the cabinet a similar tube fixed in a reflector and provided with a particular switch. By means of a lever *d* this tube may be raised to a position close behind the lower opal glass window, which is about 18 centimetres high, whereby a more intensely illuminated space is obtained, particularly convenient for examining pictures of ears, sinus films etc. If the reflector is moved backwards, an increased, even illumination of the whole window is achieved. It is of great importance when translumination films are to be read that the

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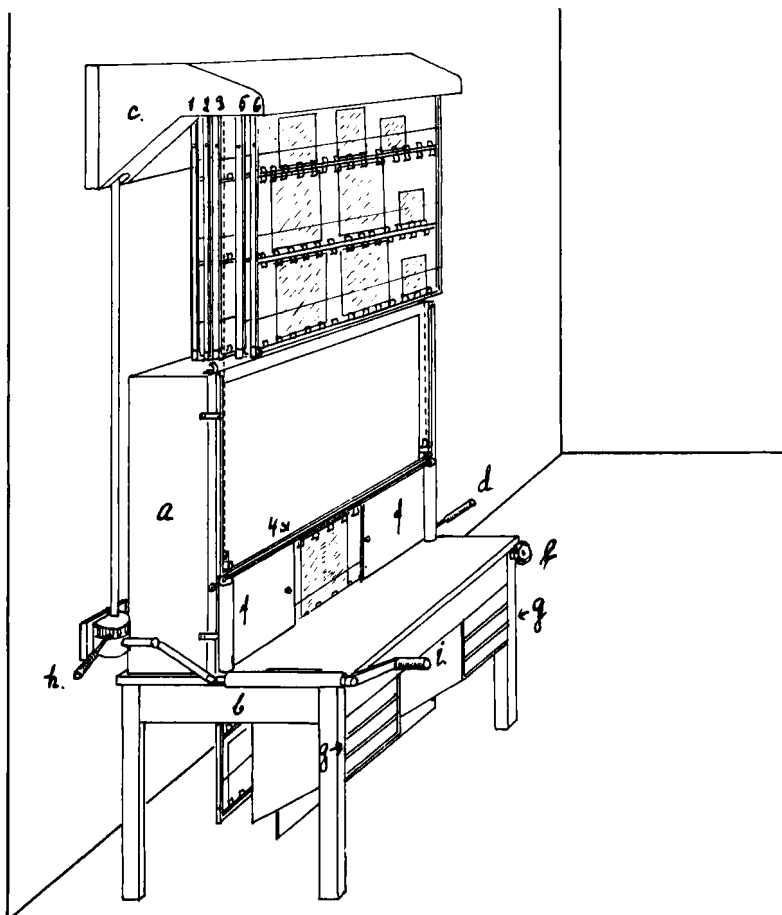


Fig. 1.

part of the window which is not covered by the film should be darkened, as the light radiating from this part considerably diminishes the ability of the eye to observe details. This excessive light is also unnecessarily tiring to the eye. Physicians often pay too little attention to this. This arrangement of darkening, however, was already used many years ago in the small transillumination cabinets constructed by FORSELL.

In the cabinet now described this darkening is achieved partly by means of a curtain close behind the opal glass window, which curtain may be raised or lowered by a wheel *e* to the right at the front of the working table, partly by two curtains *f* in front of the film frame, which are movable towards the centre of the window. Thus variable diaphragms for the examination of details may be arranged in a convenient way.

The working table contains three drawers. Under the table there are hutches *g* on either side with three shelves each, on which may be placed transmissions from other departments of the hospital, films for each frame etc.

In the shifting device *c*, which is fastened to the wall above the translumination cabinet, there are six numbered frames for the hanging up of films. By a gear-lever *h* on the left end of the table a film frame may be moved to the window in front of the translumination cabinet, irrespective of its number. The film is seized by a clutch fixed to a chain running over a gear-wheel.

By means of a handle *i* to the left of the long side of the table the frame is conducted downward and then seized by a pair of ledges on each side of the translumination window.

The frame is divided into three horizontal spaces for the hanging up of the film. By the handle the film may be easily managed with the left hand to the right level, whereas the curtain — which can be raised or lowered — is handled with the right hand. In order to avoid the risk of the operator's breaking the glass pane of the frame by kicking it with his feet when the frame is lowered to its bottom position for the examination of the films in its upper spaces, there is a kicking shelter in front of the frame under the table.

The device for the examination of films described above seems to me the most suitable one for a roentgen department with limited space. For larger departments a combination with cabinets of the ordinary type or the two-frame type is to be preferred, as, in some cases, these latter types afford a better survey of the films.

As in hospitals rounds mostly start in the roentgen department, it has proved very suitable to hang the film material in a six-frame cabinet, for, as a rule, it is quite sufficient for a clinic.

If the six-frame cabinet is used, it is possible for the roentgen physician to show the whole material sitting comfortably beside the head physician of the clinic, and the attendant assistants standing behind can thus see the films clearly.

Further I have found the cabinet very useful for teaching roentgen-diagnostics. The six-frame cabinet will suffice for a whole lecture and offers the students exceedingly good chances of following the examination of the film material from a short distance.

This cabinet may be ordered from AB Svenska Philips, Gothenburg, Sweden.

## SUMMARY

The author describes a transillumination cabinet arrangement where six frames can be pulled up and pushed down thus increasing the capacity.

## ZUSAMMENFASSUNG

Verf. beschreibt einen Lichtschrank, wo durch eine Wechsellanordnung 6 Filmrahmen vor den Lichtschrank heruntergeschoben werden können, wodurch die Kapazität vermehrt wird.

## RÉSUMÉ

L'auteur décrit un négatoscope où, grâce à un système d'escamotage, on peut abaisser 6 porte-films devant l'appareil, augmentant ainsi le rendement.

