A simple viewing table for clinical and research use

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One often wants to compare or measure clinical transparencies or radiographs but is thwarted by the lack of available equipment. Usually the 35 mm transparencies or intra-oral radiographs are too small for easy measurement.

There are two methods that may be used to overcome this:

1. One may use a microscope to enlarge the details of the transparency or radiograph. This is not always satisfactory. Microscopes are expensive, only one person can usually view the specimen at any time and worse still rather than being clarified, detail is often obscured. What happens is that the microscope enlarges the film grain over a very small area of the specimen which usually results in an inability to identify the original landmark.

2. A simple alternative is to magnify the transparencies and radiographs by projection. There are a number of techniques that may be used.

2.1 A photographic enlarger can project the specimen onto a screen. This requires a darkened room and is not really practical due to the low intensity of illumination and the fact that one's head or hands often get in the way of the light beam thereby obscuring the image. If a 35 mm slide projector instead of an enlarger is used the same problem may occur.

2.2 A 35 mm slide projector may be used to project an image against a conventional upright screen, or against a wall. Making tracings or measurements against these is not easy. One's head and arms also often get in the way and it is tiring to work against a vertical surface.

2.3 A more practical approach is the device shown here (Fig. 1). It consists of a sheet of glass overlying a three sided box (30 cm x 30 cm x 30 cm) supported on a base. The sides of the box support a silvered photographic glazing plate set at 45°. A sheet of tracing paper placed on the glass acts as a screen to reproduce the image projected from a 35 mm projector. Using vinyl covered chip board the total cost was R19. Little skill is needed as the boards form part of the shelving system available at most hardware shops in South Africa (System Plus, P.O. Box 43056, Industria, Transvaal). All the wood is precut and only needs gluing together.

All transparencies and radiographs are mounted in 35 mm transparency holders. Using tracings of them, photographs and radiographs may be compared. For example the variation in position of the gingival margin before and after surgery; the comparison of serial radiographs of periapical radiolucencies. Magnification may be altered by moving the projector backwards and forwards. The instrument is available for inspection in the dental research unit for any interested persons.

Fig. 1. Photograph showing the viewing table with tracing paper in position. The projector contains radiographs to be measured.

Journal of the D.A.S.A. — September 1975