

Out of Darkness

THE EXAMINATION of the shadow image produced on a fluorescent screen by X-rays passing through a patient has long provided doctors with a valuable method of diagnosis. Now, a new contribution of electronic science to medicine, the Image Amplifier, eliminates the difficulties previously associated with the faint and indistinct image on the conventional screen, by transforming it to an intensified image of greatly increased brilliance and detail. With this equipment, it is unnecessary for the operator to undergo the pro-

longed dark adaptation previously required, and the added brilliance greatly increases his ocular efficiency.

Not least of the many advantages offered by the Image Amplifier is a lessening in radiation risks for both patient and operator, examinations being carried out at lower X-ray intensities and with greater speed.

The image is seen through a viewing mirror. An additional double-viewing mirror may be clipped over the normal one, permitting simultaneous viewing by two people—an invaluable aid to consul-

A preview demonstration of the Marconi Image Amplifier was held at Marconi House, London, and many distinguished people from the English Electric Group were present. Left to right, C. T. M. Bagnall, Colonel Sir Stanley Angwin, K.B.E., F. N. Sutherland, H. C. Van de Velde, F. G. Cook, J. I. Hall and P. de Laszlo





In Canadian Company

IT WAS A closely concentrated schedule which H. G. Nelson carried through during the fortnight he recently spent with the Canadian Marconi Company. Mr. Nelson is a director of that company, and in the short time of his visit made a systematic review of its activities, flying to New York, Toronto, Ottawa and Montreal. Here he is with S. M. Finlayson, President, C.M.C. (centre), and J. J. Kingan, General Manager, C.M.C.

tation and instruction. Incidentally, the image can be recorded by either still or ciné camera using normal screening current.

The Image Amplifier may be substituted for the normal fluorescent screen on the Marconi "500" Tilt Table. The use of the unit, however, may be readily adapted for operating with tables of other manufacture.

This major advance in fluoroscopy is made possible by the substitution of an electron accelerator tube for the normal fluoroscopic screen.

The tube has its own fluorescent surface upon which the X-rays passing through the patient impinge. The fluorescence excites a photo-electric plate and the electrons emitted are accelerated by a high potential applied to the tube by an external power source. A system of electron lenses focuses the inverted image on a fluorescent screen where the effects of acceleration provide the necessary increase in brilliance. The optical system then reorients this image, which is viewed in a convenient mirror at its original size.

There is no doubt that the Image

Amplifier will be widely used in hospitals both in this country and abroad. It will, in future, be included in the range of Marconi Instruments X-ray and electro-medical equipment.

The Image Amplifier gives a brighter image with reduced radiation. It also offers exceptional ease of operation, for the image may be viewed from any angle

