

**Television Exhibition—**

out for nearby objects they move closer together.

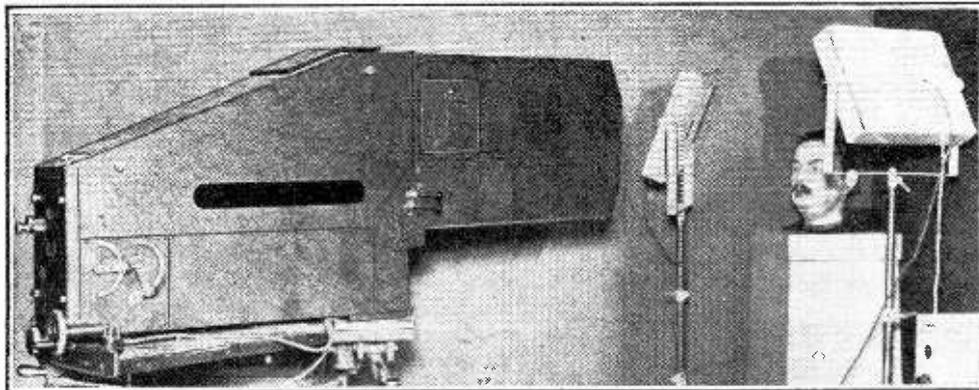
It is not generally realised that the principles upon which the Emitron camera depends were described as long ago as 1911 by Campbell-Swinton, and a working

flection and focusing; it is of the type used in their television receivers. They have also photo-cells equipped with electron multipliers and the Farnsworth electron-image camera.

As one might expect in an exhibition which shows the history of television, a

efficiency as well as a method of modulating light by setting up waves in a liquid through which the light is passed. The particular feature of this system is the possibility of projecting a line of light on to the viewing screen instead of merely a spot, and this is obviously of the first importance, since it greatly improves the efficiency of the apparatus.

A large cathode-ray tube operating with a very slow-speed scan to demonstrate how the raster is built up is being shown by Ediswan, and there are also models showing how focusing is accomplished.



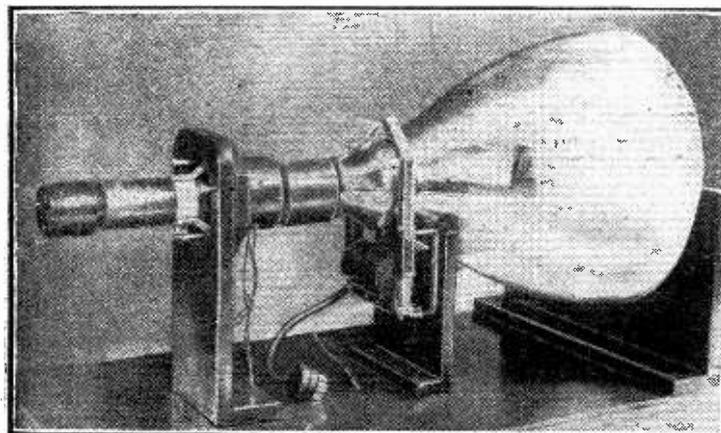
The Baird 30-line Spot-light scanner which was used in the B.B.C. transmissions up to 1932. The banks of photo-cells can be seen on either side of the head.

model of his original idea is being shown. This model has been constructed by E.M.I., and in its essentials is remarkably like the present-day cameras. Actually, Campbell-Swinton's idea was not tried out when he originally put it forward, and at that time it would probably have been impossible to make it work, for neither CR tubes nor photo-cells had been adequately developed.

In this main section of the exhibit there is a small booth in which Baird are demonstrating the old 30-line television. On one side of the booth is a wax model of a

large part of the apparatus consists of mechanical scanners. Probably the most familiar of these is the Nipkow disc, closely followed by the mirror-drum. Many will less readily recognise the Mihaly

The coils for deflection and focusing can be seen around the neck of this large Baird cathode-ray tube.



drum, which consists of a circle of stationary mirrors with a small central rotating mirror. The latest form of this, the Mihaly-Traub scanner, is also shown, and in this the fixed mirrors are reduced to

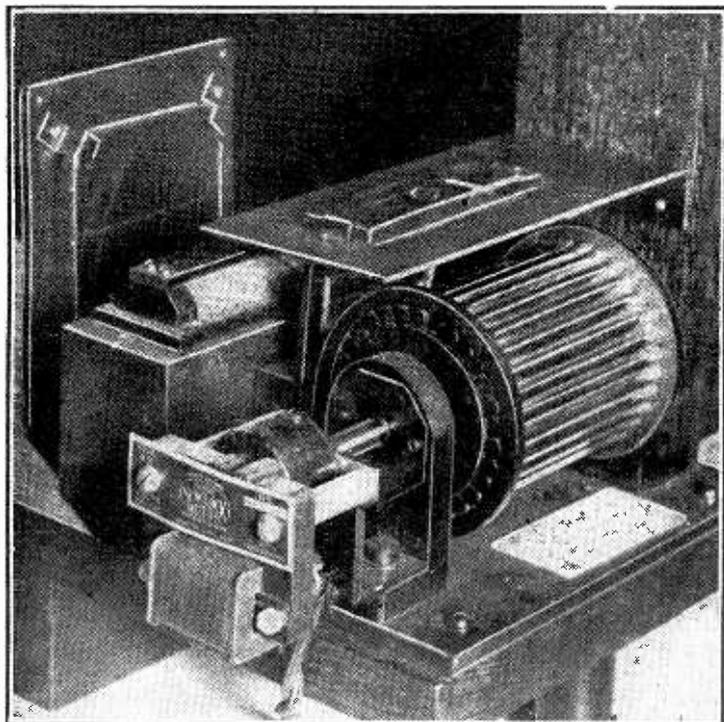
have sent us information regarding a series of miniature ball bearings for which the firm holds the exclusive British agency. The overall diameter of the smallest bearing so far produced is 1½ mm. It is suggested that these bearings might have many applications to electrical and radio instruments.

The title of Nuvolion, Ltd., has been changed to Metropolitan Relays, Ltd. Address: 46, Bedford Hill, Balham, London, S.W.12.

**Brighter Photography.** By David Charles, F.R.P.S. Pp. 143, 161 diagrams and illustrations. Published by Iliffe and Sons Ltd., Stamford Street, London, S.E.1. Price 2s. 6d.; postage 4d.

THIS book takes the embryo amateur photographer through the whole subject from A to Z in an unusually entertaining and interesting manner, and there is no part which the reader will be tempted to skip. It can be thoroughly recommended to all who desire to know something about processing their photographs as well as taking them.

The author has long been recognised as an expert in photographing wireless apparatus and equipment. N. P. V.-M.



One model of the Scophony beam-converter is shown here. The drum is driven by a small motor and has an echelon behind it.

man's head with banks of photo-cells on either side, and in front of it a spot-light mirror-drum scanner. On the other side of the booth is the mirror-drum receiver. Baird have also on view a large cathode-ray tube designed for electromagnetic de-

five mounted in the form of an arc, and the rotating element is a nine-sided polygon.

A variety of extremely interesting apparatus is being shown by Scophony, and it includes mechanical scanners of high