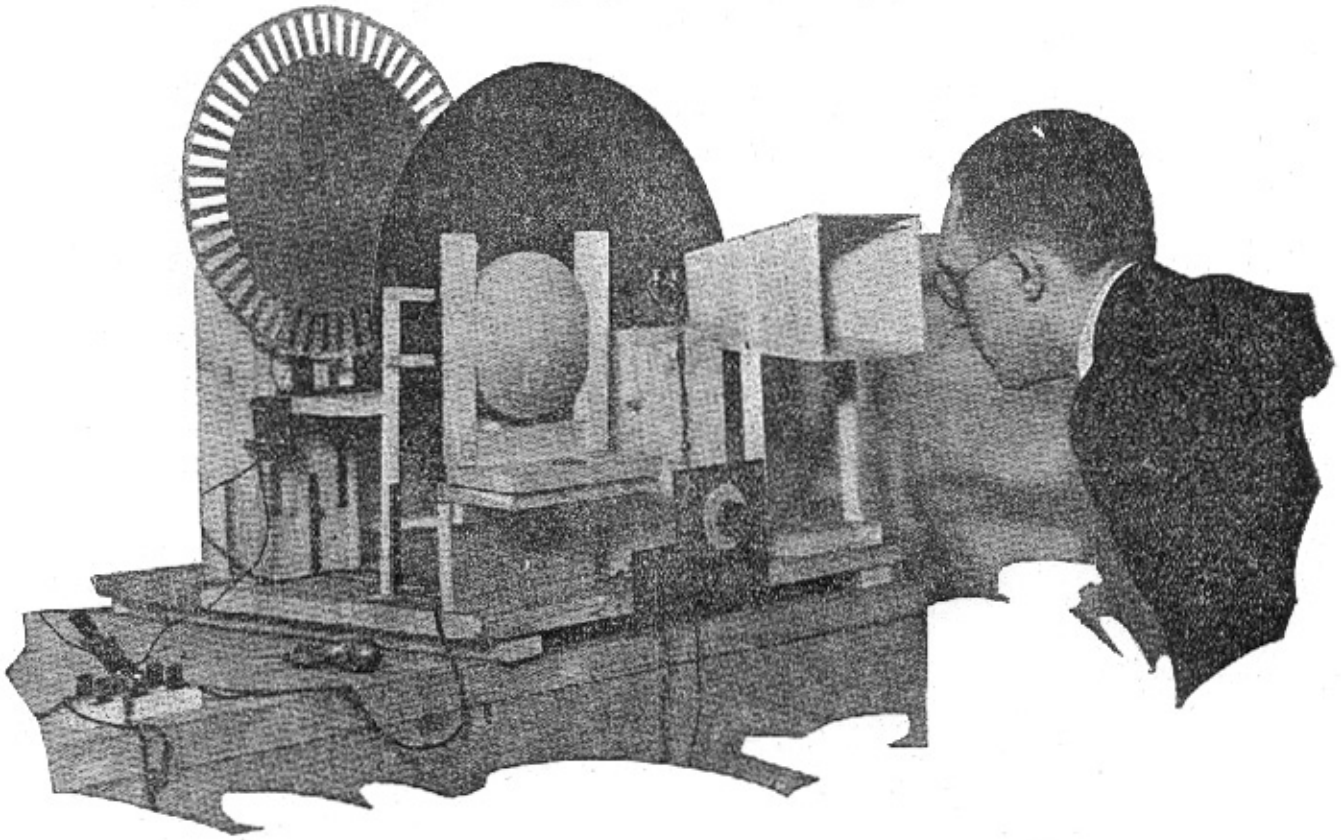
How to make a Simple Televisor

Specially described and tested for "Television" by our Technical Staff.



AMATEURS must have read the numerous accounts of the demonstrations given of television during the past two years, but although much has been published on this work nothing whatsoever appears to have been done to give practical assistance to the amateur in carrying out research work in his own home. This at first seems surprising, as the very large part played by the amateur in the development of wireless is well known and appreciated.

Television, however, is a much more complex subject than wireless, and requires a knowledge of science which is not usually within the grasp of the man in the street. The subject, however, has been greatly developed within the past two years, and in the South Kensington Museum, open to the view of the public, is a quite simple apparatus with which "television" of shadows was first achieved.

There would seem to be no outstanding reason why the ordinary amateur should not build for himself a similar device and enjoy the unparalleled pleasure of exploring for himself this new branch of science. There is always something infinitely fascinating in exploring a completely novel field, and we propose to give in this article constructional details which will enable the amateur to build for himself a simple machine which will show the transmission of outlines in a crude form.

In subsequent issues we shall publish further devices and improvements, and also assist in any way we can amateur constructors in solving and elucidating the problems which they are bound to meet.

The mechanical part of the apparatus consists essentially of a simple disc perforated by two spiral sets of holes. We have purposely reduced the device to its simplest possible form, and in this first machine the same disc will be used both for transmitting and receiving, so that there will be no synchronising problems to deal with. Synchronising devices will be dealt with in a subsequent issue.

We will begin by giving the details of this disc. Cardboard may be used and forms a fairly satisfactory medium, and one very easy to handle. It may be obtained from any stationer's, and should, preferably, have one side covered in black. There is considerable latitude in the thickness of card, but it must be sufficiently substantial to give rigidity. The first step is to cut from this card a circle 20 inches in diameter, then mark off eleven circles, the first with a radius of 9 inches, the second with a radius of 8$\frac{1}{8}$ inches, and so on until the final one with a radius of 7$\frac{1}{2}$ inches. The circumference must then be divided up into twenty equal segments and radii drawn. Where the radii intersect these circles the squares are cut, as shown in diagram, Fig. 1.

In place of cardboard thin sheet metal, such as tin-plate, may be