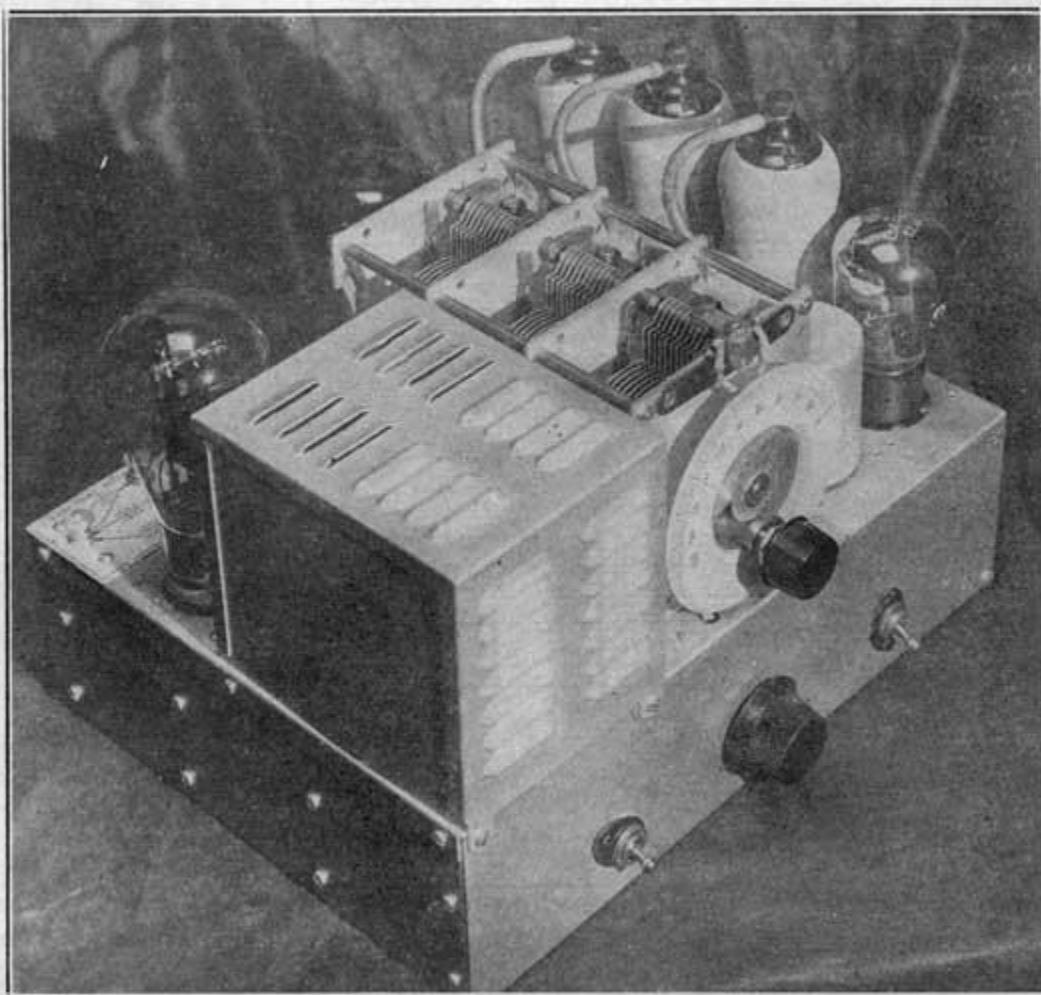


# NEW VISION RECEIVER



Foreign Feature Photos

Television Receivers of this type are being exhibited at radio shows in Europe. See page 3.

# DISCS IN EUROPE

## French Inventor Offers Spiral with 30 Lenses, Each Adjusted

By Henri de la Falois

NOTABLE advancements in the perfection of radio and television apparatus were shown at the radio exposition inaugurated recently by M. Queuille, Minister of Postes, Telegraphs, and Telephones. On the front cover we reproduce a photograph of a radio chassis shown at the exposition. This is a six tube receiver comprising three screen grid tubes, and audio amplifier stage, a power tube and a rectifier. It is a tuned radio frequency receiver with three ganged tuned circuits. It is supposed to be applicable to reception of television signals as well as to reception of broadcast signals.

### A Lens Scanner

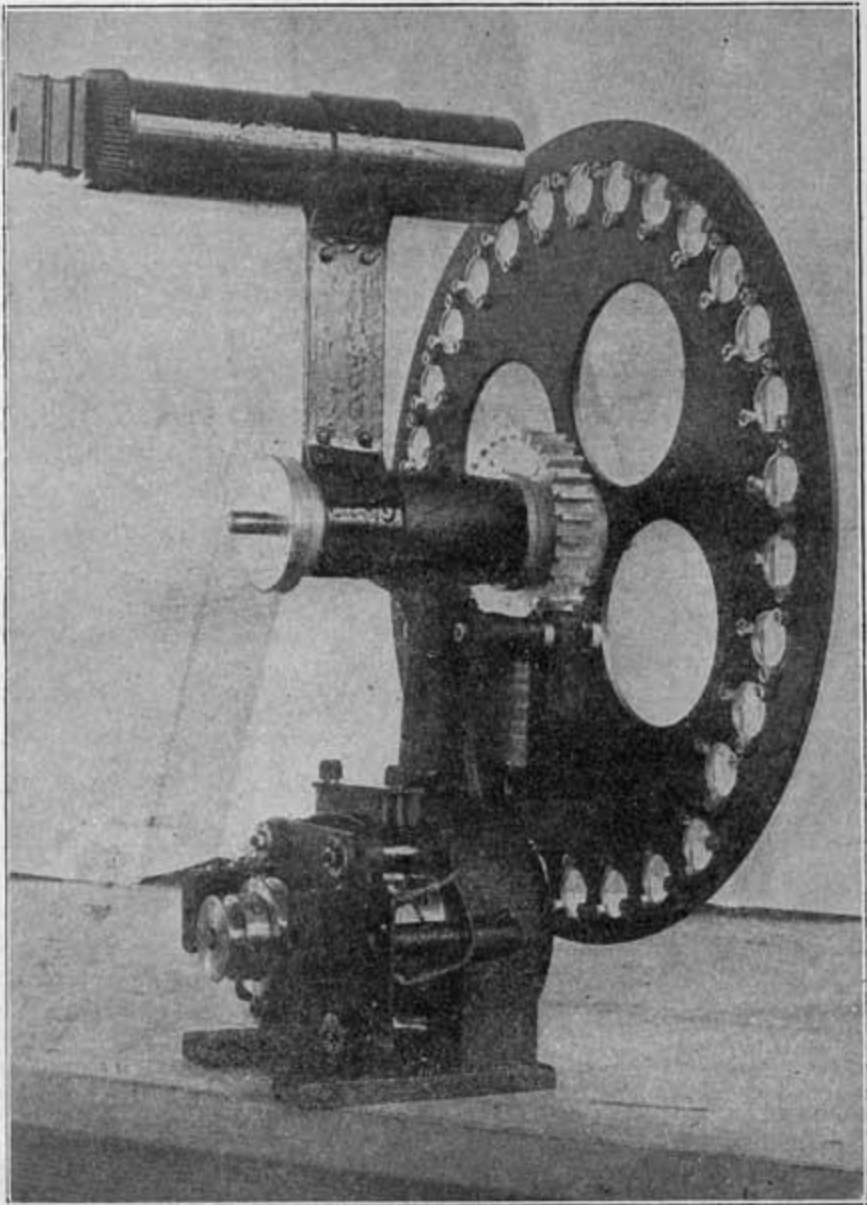
Herewith is photograph of a television transmitting scanner as demonstrated at the exposition. The French are known for the fine workmanship of their scientific instruments, and in the construction of this scanner they have lost none of their reputation. It is a fine looking mechanism.

The disc is apparently driven by means of a synchronous motor, which constitutes the base of the assembly. The toothed wheel on the main shaft directly in front of the disc and directly over what appears to be an audio transformer constitute the elements of a generator of a synchronizing signal which is sent as a modulation on the television carrier.

### The Drive

This drive arrangement can also be used for receiving. In that case the driving motor in the base should be of the universal or induction types and the power supplied to it should be just sufficient to drive the disc at the required speed. The synchronizing signal received from the transmitting station is then impressed on the phonic wheel attached to the shaft through the coil underneath the toothed wheel. The synchronizing signal will then hold the disc in synchronism with that of the transmitter for as the disc tends to speed up, relatively to speed of the transmitter, the synchronizing signal will retard it a little, and conversely, when the

*(Continued on next page)*



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receiving disc slows down, relatively to the transmitting disc, the synchronizing signal speeds it up. Thus the transmitting disc governs the speed of the receiving disc although it does not drive it.

The disc has 30 lenses set in a spiral, each lens being carefully adjusted by three screws to correct alignment. The mask where the actual scanning takes place is located inside the telescopic tube and consists of a tiny hole in an otherwise opaque sheet in the focal plane of the lenses. Each

lens forms a complete image of the scene to be transmitted but the images move relatively to the scanning spot. Hence as the disc turns around once all the elemental areas of the object are passed in review before the scanning spot.

The photo-electric cell is also inside the telescopic tube. Hence the light from the elemental areas passes directly into the cell.

In case this scanner is used for reception a crater lamp or some other modifiable point source of light is located inside

the telescopic tube. The image of this point source, reduced to a small intense spot of light, is thrown on the screen and distributed by the moving lenses.

The disc is made of thicker material than is the custom in this country and this fact tends to make the speed steadier, due to the greater moment of inertia. But it also requires a little more driving power. The greater thickness, of course, simplifies the mounting and adjusting of the lenses. Other features are the long shaft and the sturdy bearings.