TELEVISION

Reception On Moving Train

● IN A recent experiment carried out, in England, by the Baird Co., television images were successfully picked up on the portable receiver and scanner shown at the upper right. The image was observed in the window at the right of the scanner, appearing on the side of the disc. A suitable aerial was supported on the roof of the car and the ground connection was made through its axles and wheels.

Simple Scanning Kit

● ONE of the cleverest, and economically priced, television image projectors for home or other use is shown in the second photo at the right. A neon crater tube is placed in the cylindrical casing at the top; and the rapid pulsations of its light pass through the rapidly revolving lenses mounted in the disc shown, which is belt-driven by an electric motor. Through a clever mechanical speed-regulating mechanism, which the operator is here shown manipulating, the image can be easily framed and held steady.

Uses a "Lens Drum"

● A MANUFACTURER recently brought out one of the finest combination television receivers and scanners for home use, that we have yet seen. The console cabinet is fitted with two dials and two complete receiving sets; one a short-wave receiver for the television signals, and the other capable of picking up the voice on its wavelength whether short or long. The drawing herewith shows its operation.

First American Cathode-Ray Televisor

● THE first commercial cathode-ray receivers for television were those developed by Manfred von Ardenne in Germany, and now manufactured and sold in that country. The RCA-Victor Company, it is rumored, will very shortly introduce to the American radio public, a cathode-ray tube receiver, which will cost about $500.00.

A Brooklyn, N. Y., television manufacturer has developed a cathode-ray tube receiver for television, which can be sold, probably, for about $150.00 or less; the experimental model of this receiver is shown in an accompanying photo. It is the development of M. Rappaport, consulting engineer of the Television Manufacturing Company of America. The vacuum-tube oscillators, with their frequency adjustment dials, are shown in the picture. The cathode tube, which has about 1,500 volts applied to it, is housed in the large metal shielded box at the left of the photo. The image, on the end of the tube, is observed through the circular opening, as shown in the picture.

With this cathode-ray tube receiver, it has been possible to pick up and make visible the television images

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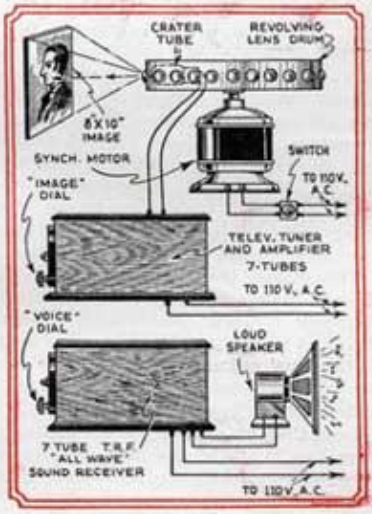
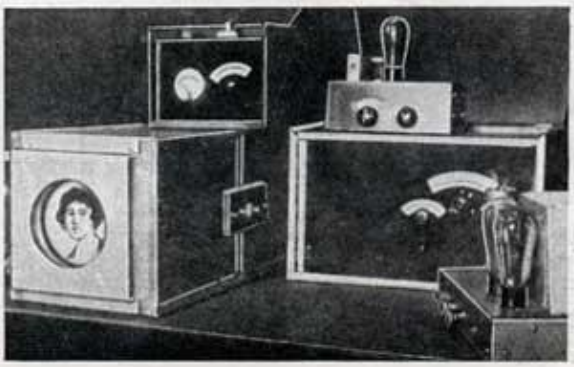


In the standard English televisor, the image is scanned vertically at the side of the disc. This is a scene on an English train.

The Hartmann scanner, with its large lenses and powerful crater lamp, can throw an image three feet square on a screen. (1203)

The Shortwave and Television Co.'s new double unit has an all-wave tuner with loud speaker for voice; and a short-wave television tuner, with neon lamp and scanner, behind the screen at the left. (1204)



Above, the arrangement of the double television receiver illustrated at the lower right. The horizontal lens drum, projecting an 8" x 10" image on the front screen, is driven by a synchronous A.C. motor. The screen folds back flush when not in use.

Left, the new cathode-ray televisor, with its operating units. The picture is produced in the tube itself at the left; scanning being effected electrically.

Television Notes

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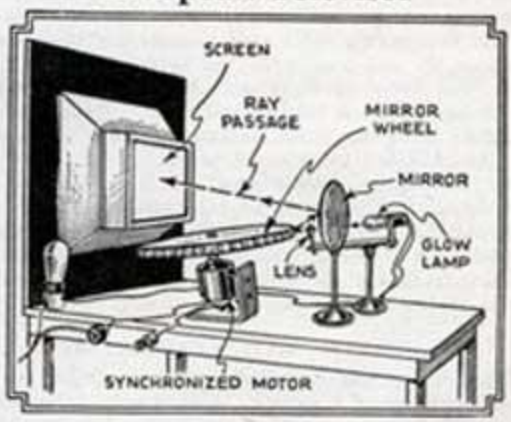
broadcast on 6.8 meters by the new N.B.C. television transmitter atop the Empire State Building in New York City. The image was picked up on a super-regenerative receiver.

The Don Lee transmitting station in Los Angeles, Cal., is sending out television signals daily on 6.3 meters, utilizing a cathode-ray "pick-up" for the image transmission. Films are broadcast; the scanning is done with 80 lines, and the images can be seen only with an 80-hole disc.

European Televisor



Extremely compact scanning means are afforded by this type of mirror-disc, but it requires great precision in its grinding.

● THE accompanying illustration shows a clever new European television projector which utilizes two sets of mirrors, one moving and the other stationary. The vertically-mounted motor has a ballast lamp, and also a speed regulating resistance, in series with it. On the shaft of the motor there is secured a revolving mirror-wheel, each mirror being placed at a slightly greater angle than its neighbor; so that, when the mirror wheel has completed one revolution it will have completely scanned the image once.

The revolving mirrors pick up the neon glow-tube's pulsations and reflect them on to a stationary mirror of circular shape; from this the image pulsations are in turn projected on to the screen. Several similar schemes utilizing mirrors are being developed by American television manufacturers.

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