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COMBINED TELEVISION AND RADIO
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Fig. 1

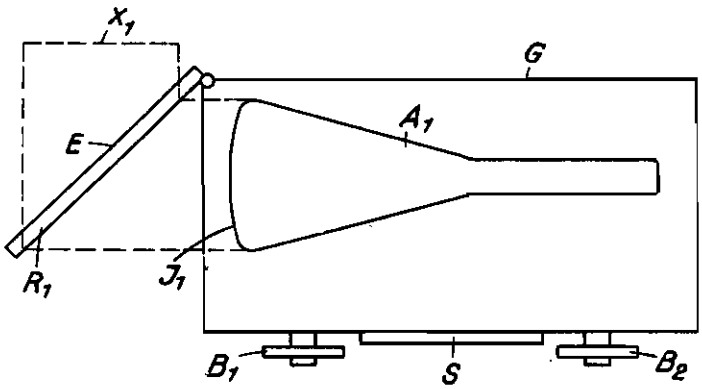
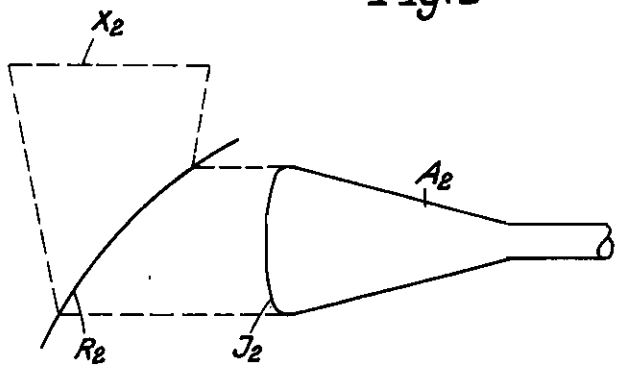


Fig. 2



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ALIEN PROPERTY CUSTODIAN

COMBINED TELEVISION AND RADIO BROADCAST RECEIVERS

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This invention relates to combined television and radio broadcast receivers and consists in certain features of novelty which will appear from the following description and be pointed out in the appended claims, reference being made to the accompanying drawing, in which

Fig. 1 schematically illustrates one embodiment of my invention, while Fig. 2 is a modification over the design shown in Fig. 1.

It is a known expedient in the art of television to provide a mirror in front of the fluorescent screen of the cathode ray tube in order to project the image at a given angle toward the observer. The cathode ray tube of this type of receivers has been arranged in a cabinet with its axis in the vertical direction and with its fluorescent screen directed upwards. The upper part of the cabinet is then provided with a hinged cover having a mirror attached to its inner surface. In television reception, the cover may be opened to a predetermined extent so that the image occurring on the fluorescent screen will be reflected toward the observer by this mirror. This arrangement involves the advantage that there is sufficient space on the front panel of the cabinet for the loudspeaker and for the various adjusting knobs and push buttons. However, the above described type of television receivers is not well adapted for use as a table set since the image reflecting mirror would be above eyesight on account of the considerable height of the cathode ray tube.

It is an object of this invention to overcome this disadvantage in a simple and reliable manner. In the combined television and broadcast receiver according to my invention, the cathode ray tube is placed with its axis in the horizontal plane in a cabinet the side-wall of which adjacent the fluorescent screen of the cathode ray tube being hinged at the rear wall of the cabinet. The hinged side-wall carries on its inner surface a mirror which is adapted to reflect toward the observer the television image which in video reception is produced on the fluorescent screen. The opening for the loudspeaker, the adjusting knobs and the radio station scale are arranged on the front panel of the cabinet.

This arrangement is particular advantageous in connection with small receivers specifically adapted to receive radio broadcasting performances, since the entire front panel may be disposed for attaching the loudspeaker, the radio station scale and the various knobs which are required for adjusting such reception. A further advantage consists in the fact that the cathode ray tube for video reception which encounters certain endangerment may be protected by a cover during radio reception. The adjusting knobs for video reception may also be placed within such cover. The reflection of the image at the mirror places a virtual image at a greater distance as seen from the observer which is very important for the effect of the image.

Referring to Fig. 1, reference numeral G indicates a cabinet in which a cathode ray tube A1 is arranged with its axis in a horizontal plane. The left side-wall E is hinged at the rear wall of the cabinet and carries on its inner surface a mirror R1 through which the image being produced on the fluorescent screen J1 of the cathode ray tube A1 may be observed when the hinged wall E is in a position as shown in the drawing. A station scale S and the adjusting knobs B1 and B2 are positioned on the front panel of the cabinet G. The television image thus produced during video reception appears to the observer as a virtual image at $x1$.

The above-described arrangement may be modified in such manner that a concave mirror R2 replaces the plane mirror R1 of Fig. 1. It is thus possible to obtain an image of equal size as in the arrangement according to Fig. 1 by using a smaller and shorter cathode ray tube since the square-shaped image on the fluorescent screen J2 of the cathode ray tube A2 may be slightly distorted by this spheric mirror. It is also possible to replace the spheric mirror by a cylindrical optic and a plane mirror in cooperation therewith. The video image thus produced on the fluorescent screen J2 sets up a virtual image at a point $x2$ as seen from the observer.

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