

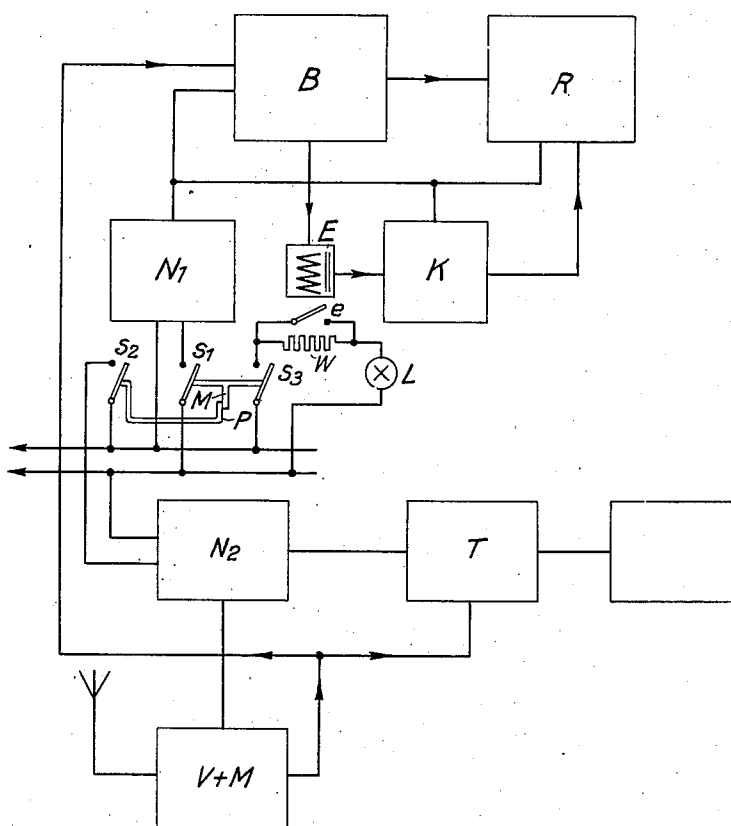
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TELEVISION RECEIVER

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TELEVISION RECEIVER

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3 Claims. (Cl. 178—5.8)

This invention relates to television receivers, and more particularly to new and useful improvements for increasing the service of such apparatus.

Television receivers generally comprise one image-responding or video system and one sound-responding or audio system. In order better to utilize the television transmission apparatus there is provided for the intervals in which no video signals are being radiated means for transmitting as a radio program only the audio part of a television transmission. In the transmission of such a program it is necessary so to equip the television receiving apparatus that the video and audio parts can be independently switched on. Were such provision not made, the video part will always be switched on while only the audio receiver is being used. As a result too much power would be consumed and the video tubes would be unnecessarily strained; through a switching arrangement for separating video and audio reception the use of the television receiver becomes more complicated. It is possible, for example, that the operator can forget to turn on the video part or, on the other hand, leave the same switched on while using audio reception.

The above-described mistake can be eliminated by the disclosed invention. It is proposed that the switch for energizing the video and audio parts be of such nature as only to allow the video part to be switched in when the audio is already energized. Furthermore, a signal is to be released, when the video part is switched in during the absence of incoming synchronization impulses.

Our invention will be more readily understood when considered in conjunction with the following description and sketch, which shows a block diagram of the essential elements of a television receiver and the control apparatus constituting the invention. The incoming mixture of video and audio frequencies is amplified in the ultra-short wave stage V+M, whereupon video impulses are fed to amplifier B, and audio to amplifier T and hence to the sound signal output O. In the video amplifier video impulses are separated into picture and synchronization impulses, which are delivered to the cathode ray tube R and to the Kipp generator or time-base circuit K respectively. In this application two power packs N₁ and N₂ are employed, N₁ supplying power for the video amplifier and N₂ supplying power to the audio circuit and the ultra-short wave stage. N₂ is applied to the power circuit by switch S₂, and N₁ by S₁. Through the

lug M, P is shown schematically as only being able to apply power from N₁ to the video amplifier when power is being fed to the audio amplifier over S₂ and when the ultra-short wave stages are already switched in. A third switch S₃ is coupled with S₁ and thus a signal lamp L can be operated.

An impedance W, which can be shorted out by a relay contact e, is arranged in series with the signal lamp. Relay E is fed from synchronization impulses and operates when the video part of the set is switched in and when it is possible at the same time to receive a picture. At this time contact e opens and lamp L is only weakly illuminated because impedance W lies in its circuit. When the picture reception only is not possible, that is, only audio signals are transmitted, the relay E is not energized. Under such conditions, the contact e must close, and allow the signal lamp L to shine brightly. Now the operator recognizes that no video signals are being transmitted and can shut off the video part of his receiver.

Another signal lamp L₂ is provided for the audio switch and is extinguished by switching in the video set so that it cannot be disturbed by picture reception.

What is claimed is:

1. In a television receiver comprising means for picking up video and audio signals, means for visibly reproducing said video signals, means for audibly reproducing said audio signals and video and audio switches for rendering said means effective, mechanical means interlocking said switches operative upon closure of said video switch for closing said audio signal switch and upon opening of said audio signal switch for opening said video signal switch.

2. A television receiver according to claim 1, further comprising a signal lamp operatively associated with said video amplifier, and means responsive to said video signals during switched-in condition of the video part, to weakly illuminate said lamp in the presence of incoming video signals and to brightly illuminate said lamp in the absence of video signals.

3. A television receiver comprising means for picking up video and audio signals, means for audibly reproducing said audio signals, means for visibly reproducing said video signals, circuits interconnecting said means for reproducing said video signals, a relay included in said circuits responsive to the reception of video signals, a resistance connected between the tongue and a contact of said relay whereby said resistance is

short circuited when no video signals are being received, video and audio switches for rendering said means effective, means interlocking said switches operative upon closure of said video switch for closing said audio signal switch, and upon opening said audio signal switch for opening said video signal switch, a circuit from a source of potential including said resistance and

a lamp arranged to be completed on closure of said video switch, whereby said lamp is brightly lighted when no video signals are being received, and dimly lighted when said relay is energized due to the reception of video signals.

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