

## Color Pictures Sent by Television or Wire

Television pictures in full natural colors can be transmitted and received with experimental apparatus developed by Leroy J. Leishman, creator of a system for transmitting pictures by telegraph. The process requires the use of two color wheels or groups of prisms, one at the transmitting end and the other at the receiver. The pictures are sent three times faster than normal, each succeeding picture being relayed to the transmitter through a filter that selects the major color and holds back the rest of the light. Another color wheel at the receiving



*Two Views of Apparatus with Which Natural-Color Pictures May Be Transmitted and Received; the System Holds Great Possibilities for Television and Telegraphic Picture Service*

end reproduces the monochrome pictures in series of red, green and blue-violet images at intervals of one-forty-eighth of a second. So, at the end of one-sixteenth of a second, three separate pictures are received and combined to produce natural colors. Combinations of the three major colors create as many as 212 different shades and hues. Synchronizing the color receiver with the transmitter is accomplished by pressing a button until the right color combination is received. Patents also have been granted for using a

moving spectrum from groups of prisms instead of color wheels. The system may be used with scanning disk, cathode ray, mirror disk or vibrating mirror types of television and is suitable for direct observation of the pictures or for projected pictures. Pictures transmitted over telegraph circuits also can be sent in full colors by the method.