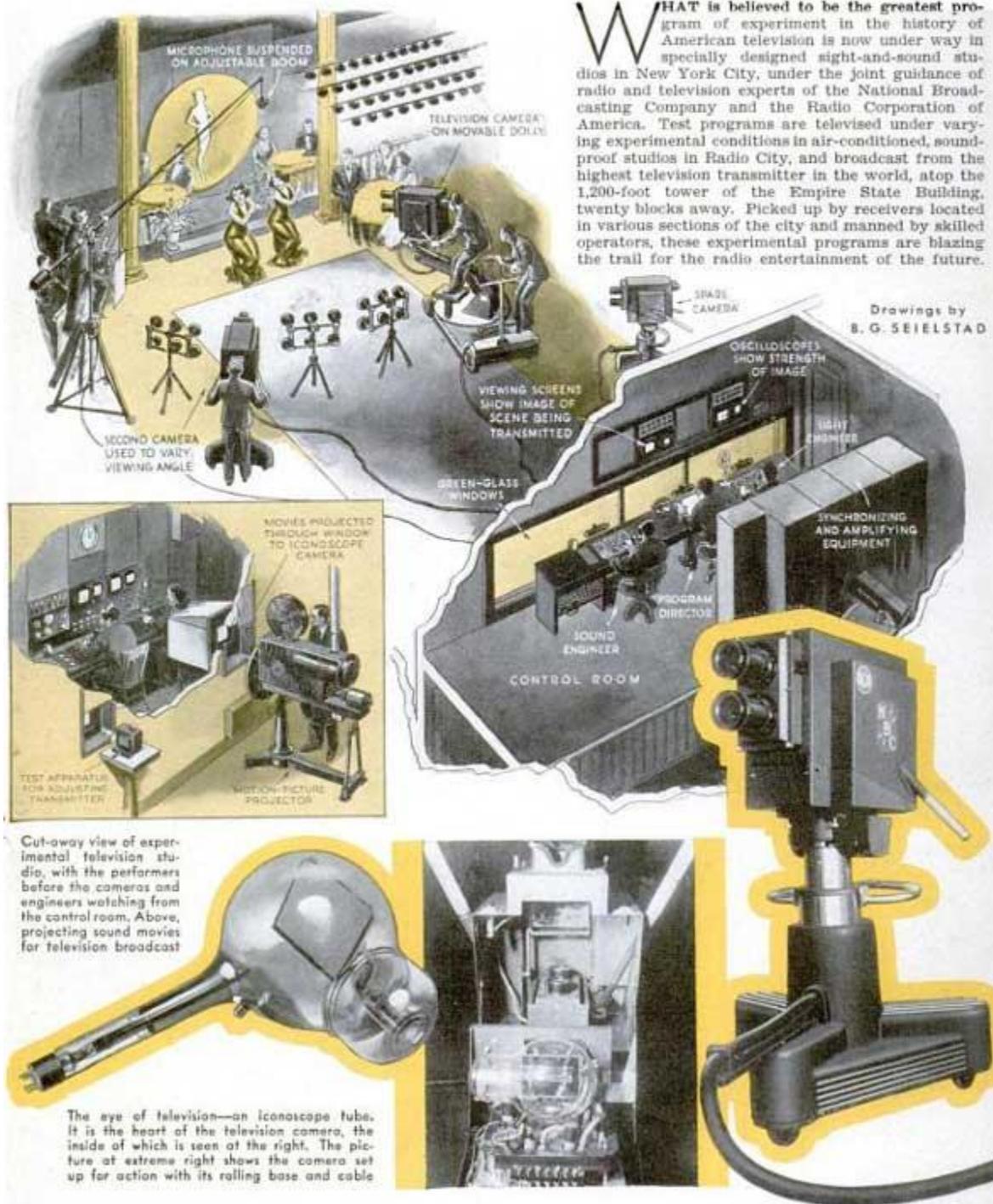


TELEVISION

...MODERN TRANSMITTING METHODS

WHAT is believed to be the greatest program of experiment in the history of American television is now under way in specially designed sight-and-sound studios in New York City, under the joint guidance of radio and television experts of the National Broadcasting Company and the Radio Corporation of America. Test programs are televised under varying experimental conditions in air-conditioned, sound-proof studios in Radio City, and broadcast from the highest television transmitter in the world, atop the 1,200-foot tower of the Empire State Building, twenty blocks away. Picked up by receivers located in various sections of the city and manned by skilled operators, these experimental programs are blazing the trail for the radio entertainment of the future.

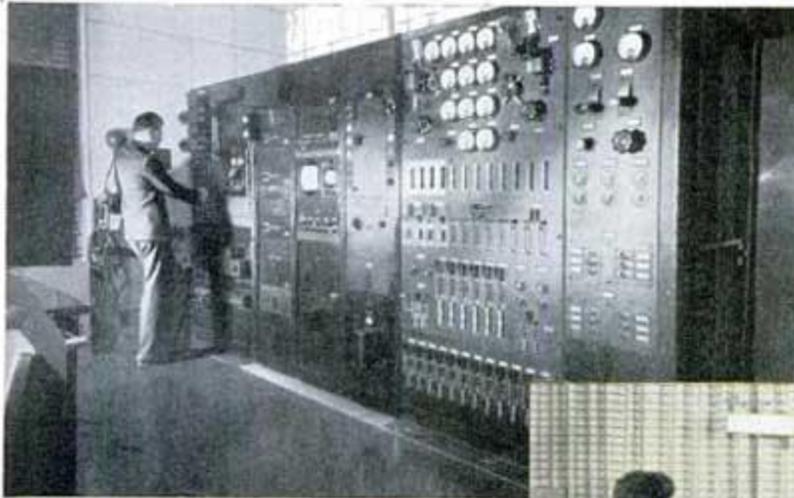


Cut-away view of experimental television studio, with the performers before the cameras and engineers watching from the control room. Above, projecting sound movies for television broadcast

The eye of television—an iconoscope tube, it is the heart of the television camera, the inside of which is seen at the right. The picture at extreme right shows the camera set up for action with its rolling base and cable

Gets a Trial

TESTED IN NEW STUDIO



Control panel in the RCA television transmitting station in the Empire State Building, New York City, to which programs are wired from the studios in near-by Radio City. At the far right is the antenna atop the world's tallest skyscraper



In the main studio, performers wearing special television make-up are bathed in brilliant light from great batteries of spotlights and floodlights. Their images are "scanned" by the television camera, and changed into a complicated series of electric impulses. Sometimes, several cameras are used to vary the view and make both close-ups and long shots possible.

Through a large glass window, covered with a green cellulose material to dim the glare of the studio lights, engineers in the control room can watch the performance while they manipulate a maze of operating controls. From the control room, the picture and sound signals, in electric-impulse form, are transferred through a special transmission cable to the transmitter in the Empire State Building and sent out on the air.

In another Radio City studio, standard 16 or 35-mm. motion-picture film is projected from a fireproof room through glass ports into a television camera in an adjoining control room. By means of this system, regular motion-picture features can be put on the air.

Through this experimental work, engineers hope to apply the finishing touches to the mechanics of television, take sight transmission out of the experimental stage, and establish it in its destined place beside radio in the American home.



How television programs are received in homes. Left, an image of a test manikin on the screen



Mobile studio for televising outdoor and sports events for relay to the high-power transmitter

