# TELEVISION on that the desire for home 

 receivers is increasing daily. Factonles are now turning out television receivers which answer all the specifications laid down by the British general post office. When the production machinery is running smoothly, a home television receiver of high definitian will cost no more than $\$ 100$ it is expected.The British Broadcasting corporation has admitted two companies in the field, both linked to American television interests. The Baird Television company uses the electron camera patented by the Farnsworth Television company of the United States; while the


All Photor (c) British Broadcasting Corp. Watching British Television Program, and Performers as They Appear in Broadcasting Studios

## TRIAL

Marconi Televisien company is closely linked with tho Radio Corporation of America and plans to use the "iconoscope," or electrical scanner, produced by Dr. Zworykin. The scope of Britain's television service will soon expand to take in movies as well as home entertainment. For the last six months Baird engineers have been working on a system for reproducing television images on fullsize moving-picture
 house screens.

This movie service is made possible by a method which allows the mov-ing-picture projection room to receive television images direct from some outside source. These images are immediately


Televising a Full-Dress Ballet and, Above, a Marionette Show, Thus Demonstrating the Versatility of the Equipment Employed
on film which runs through the regulation projector. Trials have already been conducted between Crystal Palace and a London moving-picture house. This movie service will be entirely different from that which is broadcast to the homes. It will place pictures of high definition before movie audiences, and it is expected, thereby, greatly to increase the revenue of moving-picture exhibitors.
"This new development," said Captain A. G. D. West, technical director of the Baird company, "will bring television of news events to all the cinemas, and will result

in enormously increased revenue for them. It may, in fact, revolutionize movie entertainment. Only a few years ago the movies were revolutionized by the advent of talking pictures. Within the next twelve months, we shall see a further revolution in the advent of television to the cinema.
"Instead of crowding around a loudspeaker to hear the result of the derby, as has been done in the past, people will be able to go to their local theater and see the event as it happens. Not only will day events be dealt with in this manner, but any night event will be screened exactly in the same fashion.
"Furthermore, a new cable development makes possible a thing which has hitherto been regarded as impossible-the transmission of what may be called distant events. These new cables will carry television signals without any loss in quality, and they make it possible to transmit news pictures for at least 700 miles."

As Captain West sees it, transmission on a 240 -line definition is the best that has
been developed so far. As engineers of the Marconi company see it, the best transmission is with a 405 -line definition.
"With our system of interlaced scanning," said an official of the Marconi company, "we make not only a picture of much higher definition, but one which is entirely free from flicker; the number of pictures is equivalent to fifty per second. The electric television scanner has all-round applications for studio, film and outdoor work. We have secured perfect television pictures in driv-


Sea Lion Playing a Saxophone during British Television Program, and a View of the Television Control Room
ing rain and dull weather. Several 'electric eyes' can be used on the same movie set, so that we can play tricks that are probably beyond the scope of the ordinary cinematograph camera."

As the supreme authority for British broadcasting, the British general post office has set up a supervising television committee. On the advice of the committee, the new television service is intended to be a free proving ground for any inventor who has a worth-while device to try out. All television receivers manufactured for Great Britain have the capacity

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to receive either on 240 or 405 lines. The transmission is on the wave band between six and seven meters.

In order that the public and unbiased engineers may decide the merits of 240 and 405 -line transmission, the committee has decided to have alternate broadcasts of the two definitions. One day, transmission will be on 240 lines, and the next day on 405 lines. The transmitters are under the same roof at Alexandra Palace, and their building was financed by the radio license fees paid by radio fans.

It costs about $\$ 2.50$ to license a home radio set in the British Isles. This fee may be increased as television develops. For the time being, a television receiver may be installed in the home without additional cost. The high-definition service in England makes it possible for fans to receive pictures that are as clear and contrasting as the best printed pictures. The picture size is now about twelve inches square, but it is easily possible to enlarge this with a magnifying glass.

The quality of reception on one the old television receivers is equivalent to the moving-picture definition in the year 1910. This transmission is only thirty lines, of course, and by comparison with 240 lines or 405 lines it is quite crude. But even about the crude television transmission there are some remarkable features. First of all, the television camera, like the movie camera, gives an excellent idea of perspective. But it goes even beyond the movie camera when it comes to giving an object relief, or a third dimension. A face does not appear flat, but one actually sees its spherical contour. The television performers make up quite elaborately. They paint their faces a ghastly white, using black lines for wrinkles. But with 240 or 405-line transmission very little make-up is necessary, and their faces appear quite natural.

And the sound part of television broadcasting is as successful as sound with moving pictures has been.


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