

programme—one for old-time receivers, the other for the new. But when a similar suggestion was made in the United States, experts replied that the new line definition would introduce programme technique that could not be received by the outmoded apparatus.

While the Television Committee of Great Britain considered the advisability of standardizing British television with the definition (525-line) used in the United States since 1941, interested organizations in the United States were hotly arguing about retention of the present system or a change to either 735-line standard or a 1000-line standard. They are still arguing. Reasons for the controversy are more complex than in Great Britain.

### Crowded Spectrum

The line standard is determined by the region in the radio spectrum to which television is assigned. The present assigned region lies between 50 and 300 megacycles. With all the services now in operation this region is already overcrowded—added to which is the almost immediate prospect of having to reserve greater space in radio services to aviation and navigation (among other things). Television broadcasters are restricted to channels 6 megacycles wide. In such channels a 525-line picture is the maximum, but the upper reaches of the spectrum are as yet untenanted; there is space for no one knows how many services. Here, it has been proposed, television could be allocated some 30-odd channels, each 16 megacycles wide, in the region between 500 and 1,000 megacycles, giving wider bands for better pictures and more bands for competition.

This change and the resultant technical differences would entirely outmode present television equipment—both receivers and transmitters—in the United States an investment estimated at about \$22,000,000 by both public and manu-

facturers. But, the exponents of the plan say (a company interested only in the programme side of television, not the manufacturing of equipment), it is wiser to scrap this pre-war investment rather than let it grow in time to perhaps \$250,000,000. The objections (from the groups concerned with the manufacturing, not the programme side of television) have been no less vigorously put forward than the plan. Experts from the groups went to France, where it had been reported that French television, developed during the German occupation, with a 1,015-line definition, was a marked improvement on pre-war services from either Great Britain or the United States. The reports from these experts varied: 1,015-line high-frequency television, it was found, was (a) as yet not practicable; (b) perhaps feasible; (c) completely out of the laboratory stage, working perfectly, ready for commercial development. It seemed it all depended which stable they came from. Sooner or later the Federal Communications Commission will have to clear the air and decide the definition standard.

### Methods of Financing

Finance, too, necessarily must take an important place in the future of post-war television. The British Television Committee in its report stated that arrangements for financing the television service must depend on the methods chosen to finance the B.B.C.'s sound broadcasting services after the war. The aim should be to make television self-supporting as soon as possible, although that would clearly not be possible in the early stages of development. Television licenses of £1 a year, and cinema television licenses (the amount of the fee and the date of its introduction to be decided later), were suggested. No recommendation was made about sponsored programmes.

For financial support television in the United States will have to rely heavily

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An approximate equivalent of the image of 525-line television, standard in the United States since 1941, is the 45-screen half-tone block on the upper half of the opposite page. Inset is a 25-screen half-tone block, equivalent of a 525-line television image enlarged from standard size to 18 in. by 24 in. The lower picture is an 85-screen half-tone block, the equivalent of an image of 735-line definition that will be possible in the television of the future.