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**ELECTRONICS**

# Debate Double Broadcast

➤ YOU MAY soon be able to hear programs from your local FM station—minus commercials—in buses and commuting trains, while shopping, and on the job.

This is just one of the possibilities of a system being considered by the Federal Communications Commission that would allow FM stations to "multiplex" their broadcasts. In the process, two separate signals would be sent from the same tower using the same radio frequencies. One could be picked up by regular FM sets, the second, by special receivers in public places.

The additional program could be the same or different from the standard broadcast. Commercials could be cut out or others put in their place.

Dozens of FM stations and equipment manufacturers have asked for the right to produce this double broadcast. Other groups, such as the CIO and the American Civil Liberties Union, are protesting the system on the basis that it would violate a citizen's right to quiet and privacy. The FCC commissioners must make the final decision.

The ruling has been pending since Dec. 31, 1953, when the Commission asked interested parties to submit their opinions on the advisability of the scheme. The time taken by the Commissioners to decide the question is one indication of the difficulty of the ruling. Less complex proposals are decided in a few months.

The two signals that would come from the same tower are picked up on the same radio dial reading. The additional one, however, would come over at such high frequencies on ordinary sets that it could not be detected by the human ear. Although two simultaneous programs are being broad-

cast, only the standard signal could be heard on regular FM sets. The special sets include a device that could reject the standard broadcast and only pick up the ultrasonic one.

Multiplexing is only practical on FM broadcasts because at present there are too many technical difficulties in splitting up AM programs. Some engineers believe that if the system is used the quality of the standard broadcast would drop somewhat.

Science News Letter, March 5, 1955

## Questions

**AGRICULTURE**—How can trees be made into cattle feed? p. 152.

**BIOLOGY**—What is the name of the chemical that causes growth? p. 149.

**ELECTRONICS**—Why can an ordinary FM set not pick up the added program in the proposed "multiplexing" system? p. 158.

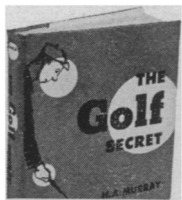
**METEOROLOGY**—Of what is the aurora borealis made? p. 153.

**PSYCHIATRY**—What is a music therapist? p. 150.

**PUBLIC SAFETY**—What are some of the radioactive products of an H-bomb explosion? p. 147.

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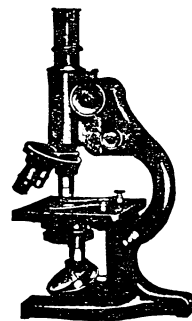
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