

The Federal Communications Commission, with Washington headquarters and many branch offices, regulates amateur radio, gives examinations and issues licenses, just as it controls all wire, radio, TV and similar communication. The American Radio Relay League, with headquarters at West Hartford, Conn., is the organization of radio amateurs and issues information and material on how to get started in amateur radio.

Boys and girls of 9 to 10 have been able to qualify for amateur radio licenses. There are no age limits. Thousands of amateurs are men and women who have radio as a hobby just as others play golf, go fishing and build furniture in a home workshop. The average age of America's 90,000 amateurs is now about 33, although in 1926, when radio was younger, amateurs were younger with an average age of 26. Now there are many well over three score and ten still pounding their keys joyfully or talking with distant radiowave friends of long standing, most of whom they have never seen.

Some amateurs have very elaborate "rigs," as the receiver-transmitter combinations are

called. Many of them build their own even in these days of production-line equipment. Some amateurs get pleasure from building up and tearing down to try out new ideas and improve their sets and their knowledge.

Networks of radio amateurs, organized as rigorously as our military reserves and volunteer firemen, are ready and in frequent operation as an aid to the nation's communications, available to the military, the Red Cross and other such agencies for emergency use. The portions of the radio bands available to amateurs are busy with signals day and night. Even language is no real barrier in talking overseas for there is a Q code that substitutes for frequently used phrases no matter what language the distant amateur speaks.

Amateur radio transmissions are limited only by the dimensions of the earth. It is an everyday occurrence for experienced amateurs to talk around the world. Even novices find no difficulty in communicating several thousand miles.

Unseen and unheard by most of us, radio amateurs bound together by their electromagnetic waves have created their own united world.

Science News Letter, July 14, 1951

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1 in. x 1 in.			2 in. x 2 in.		
Stock No.	Per In.	Price	Stock No.	Per In.	Price
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2126-Q	85	.75	2134-Q	85	1.50
2127-Q	110	1.00	2136-Q	110	2.00
2128-Q	120	1.00	2137-Q	120	2.00
2129-Q	133	1.00	2138-Q	133	2.00
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2131-Q	175	1.00	2140-Q	175	2.00

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MEDICINE

Children Want Health

➤ **YOUNGSTERS** want good health and will quickly improve their physical status when nutrition teaching is put on a personal basis, Anne M. Clemmons of the University of Kentucky and Harriet Williams, Lexington Junior High School, Lexington, Ky., found in a study of 80 ninth-graders.

At the opening of the experiment, more than 58% of the class were on a downward trend of growth. This high percentage was discussed in class and it was agreed by all that irregular habits of sleeping and eating as well as extra activities over the Christmas holidays were the probable causes.

Each child brought out the reasons he thought applied to his case, such as competitive basketball or a job which was more than his body could take care of at his stage of growth. As examples of the effectiveness of this discussion, one boy gave up basketball and another a job. Both tried to improve their food habits and both were back to their expected curve of growth in six weeks, wiping out their previous sharp drop.

At the end of six weeks, three weeks after the close of the nutrition lessons, the students were again weighed and measured. This time 50% of the class showed an upward trend in growth. Classroom discussion showed that changes in the growth trends were due to application of the principles learned in the nutrition lessons. For instance, one boy had gained in spite of the same work which he had carried on in the former period when he had showed

a downward trend. His explanation was that he had improved his nutrition enough to care for the extra activity.

Details of the study were reported at the meeting of the American Home Economics Association in Cleveland.

Science News Letter, July 14, 1951

PHOTOGRAPHY

Photos Made Without Washing, Save Water

➤ **PHOTOGRAPHIC FILMS** and prints can be finished without the customary washing in water in a new process developed by the U. S. Army Signal Corps at Fort Monmouth, N. J.

The process is particularly suitable for military forces in advanced areas where water is scarce. In addition to eliminating the need for water, it decreases the processing time. It is about ten times faster for films and twice as fast for prints as conventional methods.

Specially formulated Amidol developer, a stop bath and stabilizer solutions are used. The heart of the new stabilizing process is a solution containing thiourea. Water-resistant photographic paper is also used. This cuts down drying time.

In ordinary photo processing methods, films and prints are fixed in a hypo bath to remove unexposed silver salts. In this process the thiourea converts the unexposed silver compounds to a light-insensitive form.

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