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RURAL LISTENERS-IN RATE GOOD SERVICE

Federal Radio Commission Want Better Things for Farmers and Others

WASHINGTON—(AP)—The farmer and small town listener are entitled to good radio and the Federal Radio commission is going to see that they get it, says Sam Pickard, member of the commission from the middle west.

"In the business centers and densely populated districts where most broadcasting stations are located, listeners get good service," Pickard said. "Outside the larger cities, however, where distant stations must be relied on, particularly in the South and parts of the middle west, reception often is poor."

Mr. Pickard's declaration of the commission's determination to protect the interests of the rural radio fan was made in connection with the announcement that plans are under way to clear at least 40 channels of interference.

"To the farmer," he said, "radio means more than an appreciated form of entertainment. The radio service of the department of agriculture and of agricultural schools is regarded by many as a vital business adjunct. One hundred six radio stations, in 37 states and the District of Columbia, were broadcasting farm and home programs of the Department of Agriculture November 1, all important in rural districts. More farmers depend upon radio information, so it is vital that they receive without interference."

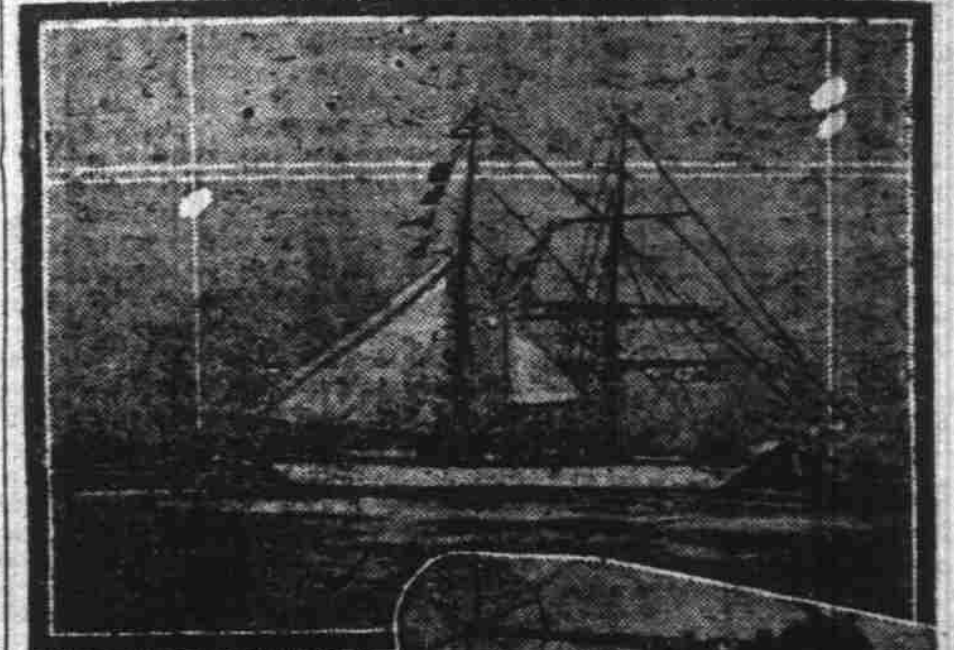
Thousands of farmers write to the department requesting programs having to do with the most economical way of fattening hogs for market, clover as a soil builder, improvement of country roads, control of disease in livestock and hundreds of other farm problems. One farmer asked for information on whether "to sell or not to sell the farm."

Farmers have complained that they frequently miss portions of the talk due to static, faulty enunciation, or too rapid speaking. For this reason, the department supplements the talks with printed information.

A North Carolina county agent quotes one of his friends as saying: "I wouldn't be without three things on the farm—radio, the telephone, and the automobile."

WIRELESS ETIQUETTE
Wireless telegraphy is used at sea as follows: In disaster to one's own ship to get help, in disaster to another ship to give help, for ship's business, for navigation, for the receipt of general news, for the receipt and dispatch of private messages.

NON-MAGNETIC SHIP READY FOR LONGEST SCIENTIFIC CRUISE



The non-magnetic vessel Carnegie (above), which explored all the oceans of the world in the interests of science, confronts another voyage of 110,000 miles for observation work. Capt. J. P. Ault (left) will command her. With scientific equipment a member of the crew (lower right) is measuring electric conditions of the atmosphere.

WASHINGTON—(AP)—Trim and staunch again, the non-magnetic auxiliary brig Carnegie is ready for a seventh voyage of scientific exploration which, if authorized by the trustees of the Carnegie Institution of Washington at their December meeting, will be the most comprehensive yet undertaken.

Built in 1909 to make a general magnetic survey of the oceans, the Carnegie has added much to human knowledge in her six voyages about the world. But time and the elements had placed their mark upon her when plans were taken up for a seventh voyage of 110,000 miles, so for the last four months she has been undergoing a thorough overhauling in drydock at Hoboken, N. J. The rotted timbers have been replaced, the entire hull has been resheathed, and the interior has been rebuilt to a large extent to adapt the vessel to advances which have been made in research methods since her last two-year voyage of 64,000

miles into all the oceans of the world, ending in 1921. As planned, the seventh voyage will take the Carnegie once more into all oceans and all latitudes between 80 degrees north and 80 degrees south. Captain J. P. Ault, recently commissioned a lieutenant commander in the Naval Reserve, who commanded the vessel on her fourth and sixth voyages, remains in charge. He is a member of the department of terrestrial magnetism of the Carnegie Institution and a scientist of worldwide repute.

During the first six cruises the staff of scientists placed chief emphasis on the determination of magnetic elements and their changes with time and geographic position, furnishing the results of their studies without charge to hydrographic bureaus of the world for use in preparation of navigation charts.

Since the last voyage two observatories have been added, one for radio and electrical work and the

other designed for oceanographic investigation. An electrically operated winch has been installed to enable scientists to study the chemical composition of sea waters at different depths as far down as 20,000 feet, and a sonic depth finder has been provided by the navy department.

BIG DEMONSTRATION SIGNAL CORPS' WORK

Usefulness of Radio Beam Beacon One of Most Outstanding Achievements

WASHINGTON (AP)—Major Gen. Charles Saltzman, chief signal officer of the army, declares the demonstration of the usefulness of the radio-beam beacon was the most outstanding achievement of the signal corps during the year.

In his annual report to the Secretary of War, General Saltzman says:

"The radio beacon has given to the world a remarkable means of guiding airplanes on transoceanic and night flight. The use of two signal corps beacons in San Francisco and Hawaii was recently placed at the disposal of the participants in the Dole flights to Hawaii, whose airplanes were provided with suitable receivers.

"Another achievement during the year was the release to commercial aviation of the use of a new radio set for aircraft, designed by the signal corps. This set, known as the SCR-134, is built to provide the use of both radio telegraphy and telephony. It proved so unique and useful that the department of commerce requested that the specifications and drawings be made available for the use of commercial aviation.

"During the year, the signal corps radio net, with stations in many American centers, has handled 306,718 official dispatches for many departments of the government which formerly were transmitted by commercial companies. The saving to the government through this net amounted to \$179,824.

"The signal corps rendered important service to the people of Alaska by means of its cable system connecting Seattle with the principal cities on the south coast of Alaska and the chain of radio stations in the interior. The sum of \$287,921 was turned into the treasury of the United States from tolls on commercial messages transmitted for the people. In addition, the system handled, free of charge, official dispatches for various bureaus of the government, worth \$140,562.

"Development of the SCR-136 was completed during the year and the set is now in production. This

is a portable ground radio set for working with airplanes and includes as its source of power a gas engine driven generator, thus making it independent of a supply of charged storage batteries.

"The furnishing of meteorological information to flying fields on the military airways was greatly extended by the signal corps during the past year by the addition of the route from St. Louis to El Paso, via Muskogee, Dallas and San Antonio. Meteorological stations established at Hatbox Field, Muskogee, Okla., and Love Field, Dallas, together with the already existing stations at Scott Field, Belleville, Ill.; Kelly Field, San Antonio and Biggs Field, El Paso, exchanged reports by radio which made it possible for army fliers to know in advance weather conditions at destinations and en route. This service is a material contribution toward eliminating flying hazards and saving life and property."

Claims New Radio Record Gets Thirteen Stations

Thirteen is not an unlucky number for Arthur Maas of Smith River, California. He made what is claimed to be a new record for consistent distance radio reception by tuning in 13 broadcast stations across the Pacific ocean in less than an hour, between 3:46 and 4:30 o'clock in the morning. His log has been verified and he has witnesses to the reception who back up his claim. The stations heard by Maas are located in Japan, Australia and New Zealand where a total of 2 broadcast stations are listed between 200 and 800 meters. He uses a six-tube receiver with tuned radio frequency circuit having three stages of radio frequency. The tuning used is a single control with ganged condensers.

The Olympic games will be held next year in a huge stadium near Amsterdam, Holland, according to an answered question in Liberty.

There are twenty-four ribs in the human body, according to an answered question in Liberty.

The Canadian National, a railroad operated by the Canadian government, which has about 22,000 miles of track, is the largest railroad system in the world under one management, according to an answered question in Liberty.

NASH

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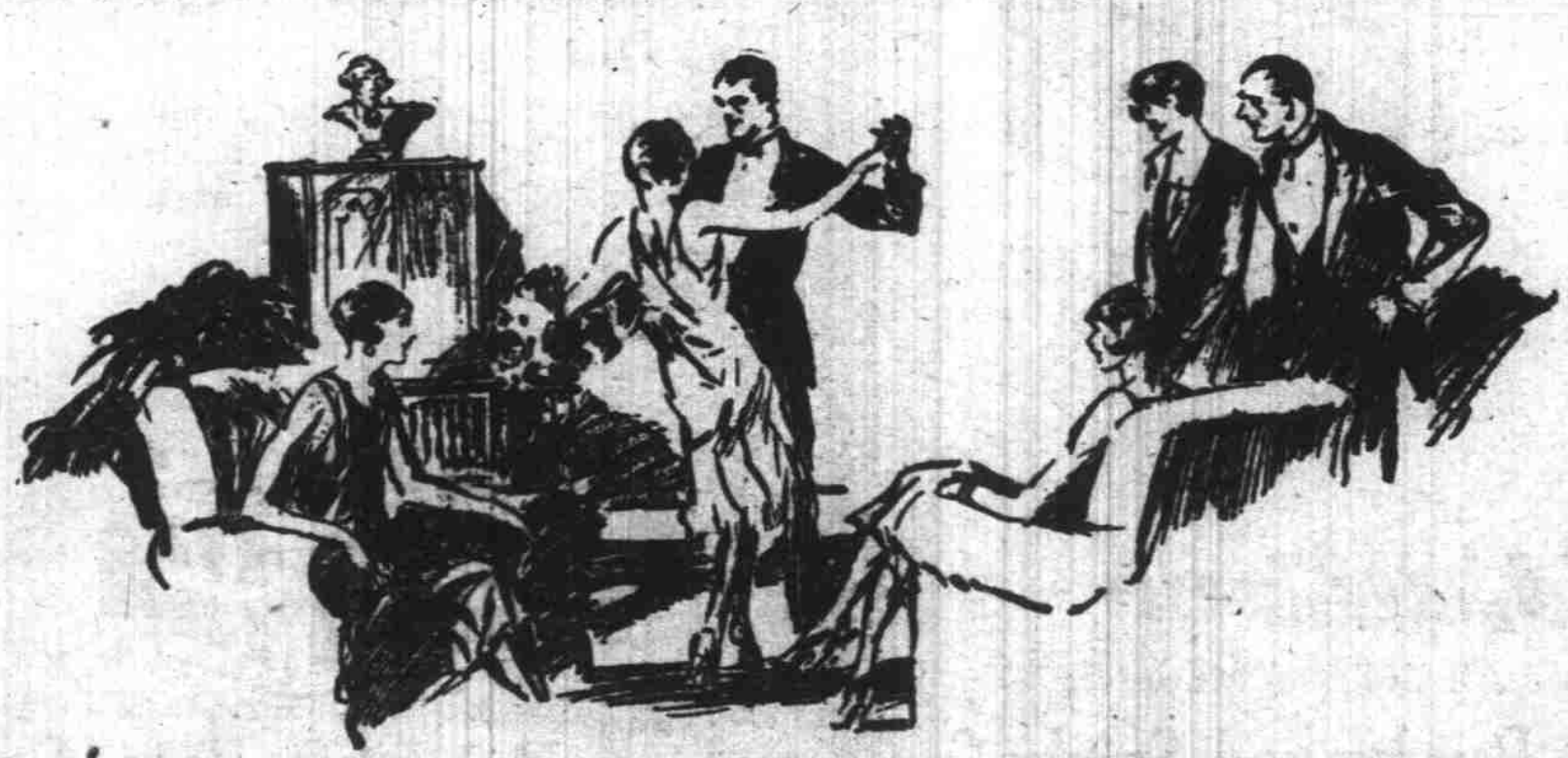
Give a NASH for Christmas

TODAY Nash inaugurates a special pre-Christmas exhibit at Nash showrooms throughout the country, and you are invited! For this is "Give a Nash for Christmas" week, and we cordially urge you to come in either day or evening and see the special display of new Nash models in our showroom. The perfect Christmas gift is a new Nash. And we have a SPECIAL CHRISTMAS PLAN whereby you



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