

# RADIO INCREASES SHIPS' SAFETY BY SURVEYS OF SEA

WASHINGTON.—(AP) Use of radio and sound transmission thru sea water is revolutionizing the methods of hydrographic surveying and increasing the safety of mariners. H. Lester Jones, chief of the United States Coast and Geodetic Survey, declares.

In his annual report Mr. Jones says that the method known as radio acoustic sound ranging has reached a stage of dependability and accuracy which, while not guaranteeing perfect performance under all conditions, warrants official endorsement. It has more than doubled the accomplishments of ocean surveying parties in regions of prevalent adverse weather conditions, as it permits the making of surveys during foggy or rainy weather and during the hours of darkness, he says.

The sound of a beam as the survey ship travels through the water is recorded by two or more shore stations which automatically send wireless signals to the ship as soon as the sound arrives. This is a measurement of the distance of the ship from each station. Knowing the location of the shore stations by previous surveying, the three sides of a triangle are known, from which the ship's position can be computed.

On the ship is a timing device, a chronograph, comprised of a strip of paper like a stock ticker tape on which two lines are drawn by pens that may be deflected by magnets. The first of these pens is operated by a chronometer so that it makes a mark in its line each second, and the tape is drawn at such a rate that the distance between seconds is about one inch. The second pen may be connected either to a sound receiver or a wireless receiver.

The shore stations are equipped with a complete wireless transmitter and receiver, and a sound receiver is placed out in the water from a few hundred feet to a mile from shore, depending upon the depth of water and severity of the surf. A cable connects the receiver to the shore apparatus where the weak sound signal is amplified sufficiently to operate a relay and send a radio signal to the ship.

British Broadcasting Co. Puts Photos in Programs

DAVENTRY, England.—(AP) Broadcasting of "still" photographs has been added to the programs of the British Broadcasting Corporation transmitted here from 5XX, starting every afternoon at 2 o'clock, London time. The Fulton-graph system is used.

This move is in answer to the plan of the Radio Television company to broadcast television into England from a Continental station. Previously it had been announced that the British Broadcasting Corporation would demonstrate television, but this failed to materialize. The latter people then reached an agreement with a French station.

A photograph of King George was the first to be publicly broadcast in England. It required nearly four minutes to complete the operation, but at the end of that time it was taken from the air in London, 70 miles away in fair condition.

The Fulton-graph receiver is in two parts, the smaller of which is the receiving panel and the larger the clockwork-driven machine with synchronizing equipment on which is supported a roller, to which the sensitive receiving paper is attached.

Captain Otto Fulton, inventor of the system, superintended the reception in London of the king's picture. He used an ordinary portable radio receiver with an outside aerial, his picture receiver replacing the speaker.

The success of the picture broadcasting and the official backing

# Christmas Play By Helen Norris



Helen Norris, hailed as the first radio playwright to gain fame, has written a Christmas vehicle for the KGO Players entitled "Frankincense and Myrrh," the serial curtain on which will rise Thursday night, December 20, at 7:20 o'clock.

All of Helen Norris' knowledge of the radio drama was acquired in her home, hundreds of miles from KGO, where the little shut-in sat night after night making an intense study of radio technique.

HARVARD PLANS TO RUN DOWN ORIGIN OF PIPE SMOKING

CAMBRIDGE, Mass.—(AP) Question whether tobacco smoking originated exclusively in America is raised by archeological finds now en route from Africa to Peabody Museum of Harvard.

The smoking riddle and other secrets of equatorial Africa in the centuries preceding the modern white man's arrival there are contained in materials excavated during 1927 and 1928 by a Harvard expedition headed by Frederick H. Wulfsberg of the Harvard museum. Mr. Wulfsberg has returned ahead of the archeological finds.

The expedition was sponsored by the Bureau of International Research of the Laura Spellman Rockefeller fund, and consisted of Frederick H. Wulfsberg, Patrick T. L. Funnell and Milton Katz. Its purpose was search for archeological material in the Sudan which might throw light on the movement of populations there, and the study of pygmies. The students of the pygmy still are in Africa.

Clay objects were found which may have been pipe bowls. They were far down in a mound which appeared to be many hundred years old.

The bowls will be subjected to chemical analysis for possible traces of tobacco, hemp or perfume as the most likely mixtures which may have been smoked in them. Mr. Wulfsberg says that identification of tobacco smoking would be unexpected, as the bowls appear to antedate the discovery of America.

Several village sites were excavated. The most pretentious was at Gouffet, in French Africa. In this mound, adjacent to a modern town, four layers of ashes and the cultural archeological materials in them indicated four villages had existed, each of the last three on the ashes of its predecessor.

Mr. Wulfsberg found present-day Africa growing up socially. His expedition had a negro cook whose father had been a cannibal. It had also a Mohammedan guide. One night Mr. Wulfsberg heard the cook

# Wet Towel Newest Microphone Device R. C. A. COMBINE WITH W. U. ARRANGED FOR

LONDON.—(AP) Sir Harry Lander has invented a device to improve the broadcasting of the voice.

It involves nothing more costly than a towel soaked in water. The towel is placed over the microphone and has the effect of emphasizing the singer's voice, and at the same time softening the sound of the orchestra.

British Broadcasting Co. officials were a little sceptical when Sir Harry insisted on having a wet towel before he would face the microphone. Such a request had never been made in the studio before. But when the expert in the listening cabinet signalled that it was yielding excellent results, astonishment turned to delight, and Sir Harry beamed a canny "I told you so" out of the corner of his eye.

The radio manufacturer is turning more and more to the newspapers as the proper medium thru which to advertise his products. Particularly is this true with the set maker. The radio magazines that have survived the stabilization of the industry carry a very small portion of the radio advertising nowadays. Most of this is for parts, for which the demand has slumped down considerably.

NEW YORK, Dec. 7.—(AP) Directors of the Radio Corporation of America today authorized the formation of a subsidiary to take over its communications business.

It has been reported in Wall street recently that such a subsidiary would be formed in order to effect an operating combination with the Western Union Telegraph company. Actual merger of Radio with Western Union is prevented by the White act.

Wall street has heard that a new company may be formed to control both Western Union and the communications department of Radio.

Reallocation of the broadcast band quickly demonstrated that the "bioper" or oscillating receiver still is present in force. These relics of the early broadcasting days which yelped and howled before tuned radio frequency stepped in as a cure-all have been having a merry time since November 11, station moving day. The chance of getting distance stations again and the fact that the dial location of a station was to be found again brought them out.

National Broadcast Programs of Week

Monday, December 10

General Motors Family Party, 6:30 to 7:30 p. m.—Coming three thousand miles across the continent from New York to the Pacific coast, a General Motors family party will be broadcast through NBC System stations tonight from 6:30 to 7:30 o'clock. Pacific standard time over stations KFI, Spokane, KOMO, Seattle, KGW Portland, KGO Oakland and KFI Los Angeles.

The program will consist of popular musical comedy hits by a concert orchestra under the direction of Frank Black, a quartet and two soloists, Nancy Holbrook, soprano, and Robert Adams, tenor. Among the selections will be songs from "The Boatmen," "Hold Everything," "Three Cheers," "Show Boat," "The Desert Song," "The Connecticut Yankee."

Wednesday, December 12

"Roads to Romance," 9 to 9:30 p. m.—The weekly journeys of "Jack and Ethyl" have been on the air for almost a year. During these months this program has been endorsed by chambers of commerce and other leading civic organizations throughout the west. The Associated "Motormen" are constantly revealing to auditors interesting bits of information of historic, romantic or other value concerning sections of the three Pacific coast states, over stations KFI, KOMO, KGW, KGO, KPO, and KFI.

With a log that months and months of usage had made the location of a station on the dial as familiar as one's front door, call letter announcements were not so important. Now with nearly every station in a new berth, starts are different. When one starts out to learn where his standby are, in addition to other stations he would like to mark up, he must spend an entire evening building a log that in the past, with frequent call letter announcements, didn't take more than an hour.

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# People's Electric Store

212-214 West Main Medford Phone 12



**Toaster**  
Sturdy nickel-plated toaster—holds two slices of bread. Heating element guaranteed for 1 year—complete with cord. **\$5.00**

**Waffle Iron**  
It's easy to make those delicious golden brown waffles with this electric waffle iron. Heavy cast aluminum; guaranteed heating element. Special **\$10.00**

**Percolator Set**  
Just what Mother or Wife has been wanting. Nickel-plated electric percolator set, consisting of tray, sugar bowl, creamer and percolator. A real Christmas gift for only **\$15.50**

Countless Other Gift Values

Warming Pads	\$5.00	Electric Grills	\$12.50
Electric Iron	\$3.95	Electric Curling Irons	\$1.65
Egg Cookers	\$5.50	Electric Popcorn Popper	\$3.00

It's a Good Cause—Buy Christmas Health Seals!

and the Mohammedan arguing in tree had no such branch. French, each attempting to prove a servant problem has been created that the other was descended from steel, at least for archeologists, by the arrival while his own family the automobile. Mr. Wulfsberg said all camp work. This time, with most of their own sailing.

Fifteen years ago, on a previous limited carrying capacity of an expedition that traveled on foot into track. During the process of he found it easy to hire help for help. The archeologists had to do a great deal of work. This time, with most of their own sailing.

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Buy the Christmas Gift that will bring the most happiness to all the family—and that means an

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All this is yours with the turn of the dial of an RCA Radiola. The most powerful—the most sensitive—the most selective, the BEST sets in radio. There's an RCA Radiola for every pocketbook!

Model 60—\$210.00

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Buses leave from Hotel Jackson

Leave Medford—

A.M.	NOON	P.M.	P.M.
8:20	12:00	2:20	8:25

Leave Ashland—

A.M.	NOON	P.M.	P.M.
8:50	12:30pm	2:50	8:55

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