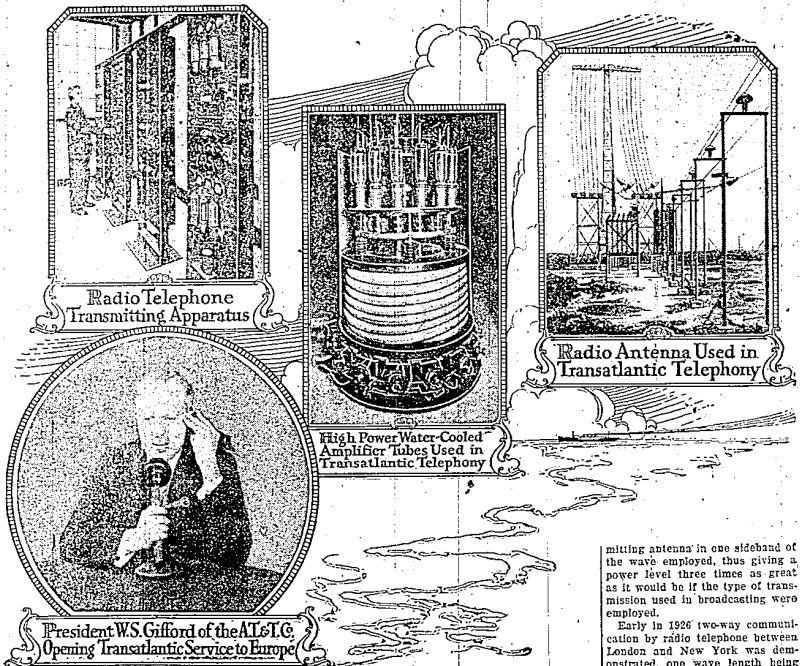


TRANSATLANTIC RADIO TELEPHONY IS RESULT OF RESEARCH WORK TO IMPROVE WIRE SERVICE



President W.S. Gifford of the A.L.S.I.C. Opening Transatlantic Service to Europe

WEST FARMINGTON

Frederick and Edward Hewitt of Grosse Pointe Park were Sunday guests of Alden and Wendel Green.

The East Walled Lake extension clothing group met at the home of Mrs. Fred German, Wednesday, February 9. An all day lesson was taught by their leader, Mrs. Emma Kurtz, and the group was very much pleased to have with them, Miss McDonald, the extension clothing specialist of Michigan State College, who assisted with the lesson. The lesson was on color and the trying on of colors on different types of people.

The home demonstrating group of East Walled Lake will meet at the home of Mrs. Edward Grammer for an all day meeting. The forenoon will be taken up with the clothing project on color, the afternoon will be on home demonstration work from the Michigan State College under the leadership of Miss Doretha Kurtz.

Mr. and Mrs. Arthur Green and Mr. and Mrs. Starr Graham, attended the W. M. B. class meeting at Walled Lake, Monday evening, held at the home of Mr. and Mrs. James Brown. Ice cream and cake was served to about 30 guests.

Irma Currin of West Farmington and Emma Woodworth of Walled Lake spent one night last week with Miss Ethel Graham.

Mr. and Mrs. Arthur Green attended the Exchange Club banquet at Walled Lake, Tuesday evening. The Exchange Club of Pontiac entertained the Walled Lake Exchange Club.

Miss Ethel Graham entertained a party of about 25 young people Saturday evening. For entertainment they played Pedro. The ladies first prize was awarded to Miss Irma Currin and gentleman's first prize went to Tim Roach. The consolation prize for the ladies was given to Miss Mildred Giegler and the gentleman's consolation prize to Clare Avery. After the games of Pedro, other enjoyable games were played. A very lovely lunch was served at 12 o'clock.

Marjeta Wilson helped to serve at a banquet given by the seniors for the juniors held at the Walled Lake consolidated school, Wednesday evening.

Mrs. Arthur Green attended the home demonstrating meeting of extension work of Michigan State college held at Pontiac in Miss McDonald's office, Monday.

John German is confined to the house with a bad cold.

Mrs. Fred German reported of seeing the first robin. Spring is on the way.

Sunday dinner guests at the home of Mr. and Mrs. Charles

Heliker were, Mr. and Mrs. L. W. Giegler and family of Hartland, Mr. and Mrs. Irvin Knapp and son William of this place.

Mrs. Emma Kurtz spent Monday at Ferndale, visiting a friend there.

Mr. and Mrs. Earl Reinas, of Plymouth, spent Sunday with Mr. and Mrs. William Kurtz.

West Farmington School Notes

Mrs. Boyning visited us Thursday.

The seventh grade has been studying Michigan and are now making a product and drawing map of their state.

The honors in spelling go to Ola and Otto Regentik, Claude Luce, Robert Button, Clyde Button Georgia and Vlasta Regentik, Eveline Bush, Eugenia Regentik, Mary Gatterl, Byron Wikom and Dorothy Roggenkamp.

The second grade is studying "The Star Spangled Banner". The third and fourth grade language class is having Bible lessons to tell and read.

The pupils and teachers enjoyed a well filled Valentine Box Monday afternoon.

Mussolini Put Stop to Habitual Loafing

Mussolini has saved Italy hundreds of thousands of dollars by putting the so-called "two-hat men" out of the government offices, Ida M. Tarbell writes, in McCall's Magazine.

The story of Mussolini forcing government employees to begin work at nine o'clock circulated over Italy, creating a deeper impression than any number of new laws could have done. Going to work at nine o'clock was something new. It was a sober reality that everybody understood, and hard-working men and women, who went to work long before nine rubbed their hands with glee.

"There was a large class of what was spoken of facetiously in Italy as 'two-hat men'. These were men who, having no work to do in positions of honor which they drew salaries and who wished to be on the safe side, owned two hats, one which they wore daily, and their business, and one which they kept hanging in their offices. If their superior inquired for them, an attendant said, 'He is somewhere about, because there is his hat.' It was a great joke, but not a joke to Mussolini's liking and almost as soon as the nine o'clock rule was established, the order went out to cut off the payroll all 'two-hat men.'"

By R. T. BARRETT

AN AMERICAN telephone engineer sat in Paris on the early morning of October 21, 1915, headphones clamped to his ears. For ten-minute periods each night he made precise but urgent of wartime communication needs—the French government had turned over to engineers of the American Telephone and Telegraph Company the great antenna atop the Eiffel Tower, for purposes of experimentation in radio telephony. Night after night this man had been waiting and listening—and hearing nothing. The allotted period for this particular night had all but expired. There remained only a few seconds for his colleague, sending his voice out through space from Arlington, Va., to "sign off." A few seconds—but enough.

"And... now... good... night."

Words—only faintly distinguished to be sure, but distinguished, nevertheless—had been spoken in America and heard in Europe. Transatlantic radio telephony had been accomplished.

The other day—on January 7, 1926, to be exact—the same man, given a rifle order, sat in London, again with headphones at his ears, again an actor in the romance of radio telephony communication. Again he was waiting—and listening. But he was no longer straining to catch a few words as they came through the way through the ether. He was the Bell System's representative in London during the official opening of regular commercial telephone service between England and the United States, made possible through the cooperation of the British General Post Office and the American Telephone and Telegraph Company.

Eleven Years of Progress

During the eleven years which separate these two events, the development of radio telephony has advanced with seven-league strides. Much radio history has been written. Much more remains to be written. In order that the opening of regular telephone service between England and the United States may assume its proper relation to past and future radio developments, it may be worth while to call attention to the fact that

radio as it exists today, both for broadcasting and direct communication purposes, has been made possible largely because of the results of research carried on in order to improve and extend the range of wire telephony.

One of the essential factors in radio telephony is the vacuum tube, the improvements of which may very largely be traced to the research carried on by telephone engineers in adapting it for use in telephone repeaters.

It was about 22 years ago that Bell System engineers first used a telephone amplifier, or repeater, as an experiment on one of the lines between New York and Chicago. The effect was equivalent to shortening the line by about 300 miles. After this experiment the engineers declared:

"We now know that some day we shall be able to talk across the greatest distances, whether over land or over water."

(With the completion of the Transcontinental Line, between New York and San Francisco, in 1915, three types of repeater were tried out on the circuits, one of them employing vacuum tubes. Such was the success attending the use of this type of apparatus that it was selected for intensive development from then on. Collateral with the research and experimental work in vacuum tube repeater development were experiments in the use of vacuum tubes for radio purposes. By the autumn of 1915 Bell System engineers had succeeded in talking by radio from Montauk Point, L. I., to Wilmington, Del., to St. Simon's Island, Ga., and to San Francisco.

It is a noteworthy fact that in each of these cases the voice as received was carried back to the sending point by wire—significant proof that even in these early days, the clearly recognized objective of radio research was the linking of the radio and wire systems, so that where radio could be used advantageously, the two systems would provide a single, unified service. The result of keeping this objective clearly in mind through more than a decade of development has been that when the American subscriber wishes to call London today, he does not have to go to some special radio telephone station, but places the call exactly as he would any long distance call to a point within the United States.

Vacuum Tube Development

For the purposes of these early radio experiments, the Bell System laboratories produced a tube with a rating of 25 watts, and shortly after this a complete radio telephone transmitter, employing 500 of these tubes and capable, it was estimated, of radiating about one-half kilowatts of useful power. It was this apparatus that was used in talking to Paris in 1915, and shortly before, to Honolulu, Hawaiian Islands.

When tests of transatlantic radio were resumed in 1921, a new and much more efficient type of tube was used. This was a water-cooled tube having a power rating of ten kilowatts, or about 400 times that of the earlier type of tube. In these experiments, the use of an electrical filter made it possible to concentrate all of the energy projected from the trans-

mitting antennas in one sideband of the wave employed, thus giving a power level three times as great as it would be if the type of transmission used in broadcasting were employed.

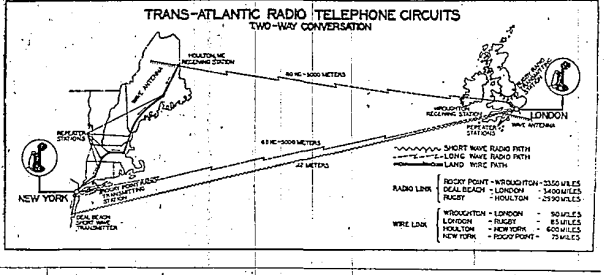
Early in 1926 two-way communication by radio telephone between London and New York was demonstrated, one way length being employed from east to west and another from west to east. Since then a voice-operated relay, which is an adaptation of the so-called "echo-suppressor," used on long telephone cables to prevent the speaker being confused by hearing his voice coming back to him over the radio apparatus both in the United States and England. This makes it possible to transmit in both directions with a single wave length.

How the Circuit Runs

Two sending and two receiving stations are, however, employed, as they were in the public demonstration of last year. From New York the circuit runs by wire to Rocky Point, L. I., thence by radio to Wroughton, England, thence by wire to London, thence to a transmitting station at Rugby, thence by radio to Houlton, Maine, and thence by wire to New York. Containing transmission to a single wave length not only helps to "conserve the ether," but is of assistance in overcoming static and avoiding interference from high-powered radio telegraph stations.

In addition to the radio circuit above described, for which a long wave length is employed, an emergency circuit has been provided from Deal Beach, N. J., to London, using short-wave apparatus developed as a result of Bell System research.

Many problems remain to be solved before twenty-four hour service, all the year around, can be promised with any degree of assurance. For the present, transoceanic service is being given only between the hours of 8:30 a. m. and 1 p. m., New York time.



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SUNSHINE SAMMY
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Other Keith Acts and
BESSIE LOVE and WILLIAM HAINES in "LOVEY MARY"

Dreaded Leopard Not Proof Against Bullet

For ten moist, murmurous Indian nights a British captain sat behind a bush with an elephant gun on his knees, waiting for Satan, says Time. On the other side of the bush a goat was tethered, for it was known that Satan had an appetite for goats.

For seven years the Black god had padded on cat feet over 350 square miles of western Garhwal; in that time he had killed 125 humans, snatching them in village streets, at the very doors of houses. Sixteen Indian shikaris, paid by the government, had shot at him and missed; gun traps, arsenic, cyanide and prayer had not hurt him.

On the eleventh night the captain heard the thud of paws, flashed his electric torch on a black and yellow Presence with jewel eyes that leaped out of the forest upon the goat's back. His rifle roared; he knew that his aim had been true, but when he sprang forward to look he found the goat lying dead in a pool of blood, with the marks of incredible claws in his back. There was nothing else, no dead marauder. The captain turned upon his gun-bearer a face in which horror white-flickered. Could it be—

Next day they found a dead leopard 50 yards down a ravine. There was a bullet in his heart. His length was 7 feet-10 inches, and he was very old—so old that his years could not be reckoned.

Tax Notice

After February 15th I will be at the Banks on Tuesday, Friday and Saturdays only.

Pay your taxes before March 1st and save time and money.

ARTHUR P. COE,
Township Treasurer.

Advertise it in the columns of The Enterprise