

# TWICE EACH WEEK THERE'S MUSIC IN THE AIR

Concerts by Radio, to an Audience Scattered Over 700,000 Square Miles, Is Only One Instance of Wireless Sport, and Two New Yorkers Are Having It

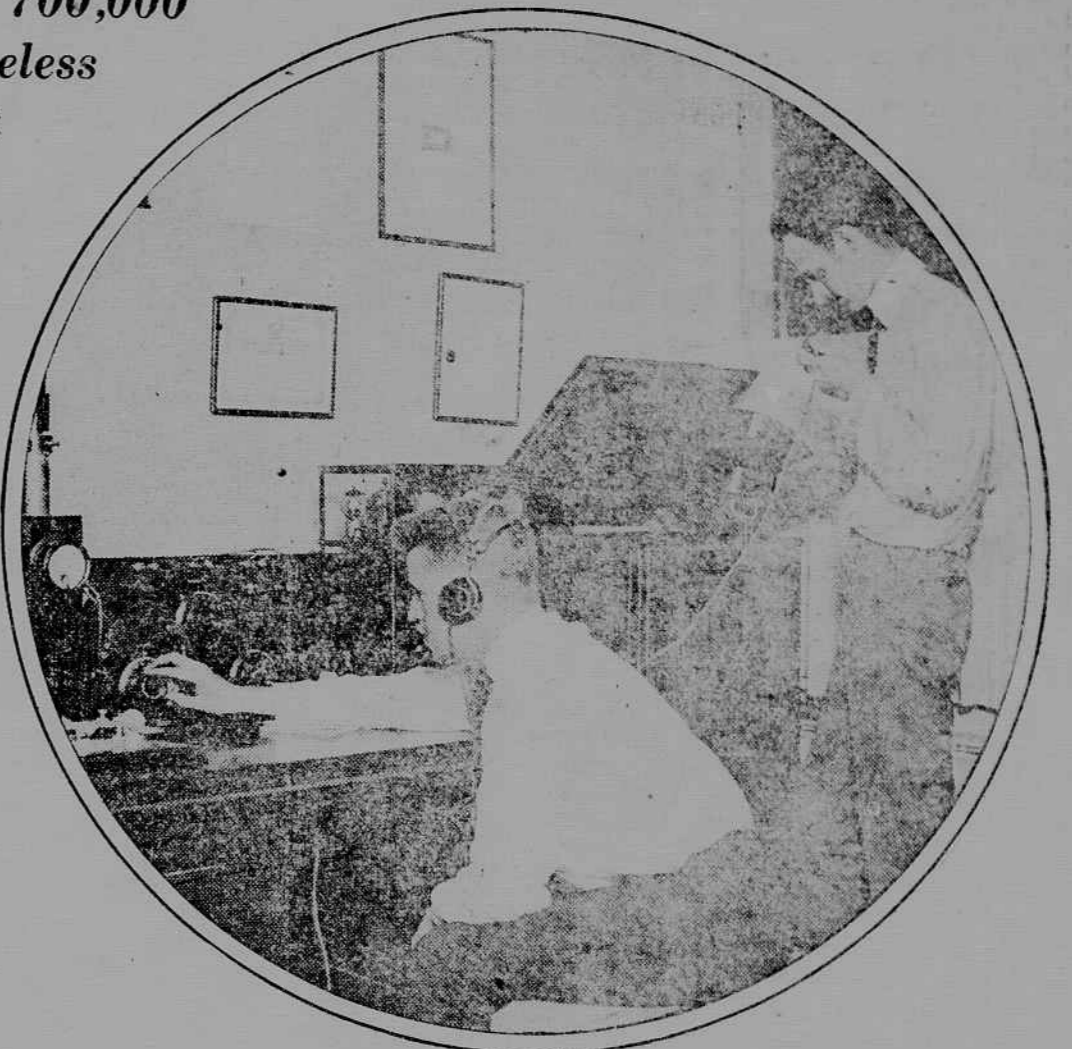
By KENDALL BANNING



A wall full of postcard acknowledgments and phonograph recitals of concerts picked up by land and sea



Concerts: Thursday evenings, at 8, and Sundays at 6:30. Audience: All radio stations which care to listen in. Range, 700,000 square miles



A phonograph record by wireless. Release the spring and it will be audible anywhere east of the Mississippi

A FEW weeks ago, when the battleship fleet cast its anchors in the Hudson and began sending out its radio messages like the phantom tentacles of an immeasurably colossal octopus, one of the navy wireless operators chanced to come into contact with a young woman amateur radio fan in a remote corner of New York, who was experimenting with her instruments, and if one is a wireless fan one devotes practically every evening to this most fascinating hobby.

The radio conversation between the two immediately assumed a personal character, and the "sparking" became something more than merely electrical. Detailed descriptions of the two impromptu correspondents were followed by names and addresses, and the conversation concluded with a dinner and theater invitation. In order to be sure that the two would identify each other upon their first meeting they arranged to be at a certain spot on Broadway and Forty-second Street at a specified moment, and the dress of the lady in the case, as well as the uniform of the radio operator, was described at length.

That the budding romance was suspiciously started on its way may be duly attested by the score or more of witnesses among the amateur radio fans who listened in upon the flirtation and who showed up at the appointed place and time to take a look at the twentieth century Romeo, who had not merely climbed a rope ladder to his lady's chamber but had literally reached up into the night air, stretched out across the water and over a great city and snatched romance out of clear space. For the flirtation had been heard, word for word, by between 5,000 and 10,000 amateur radio folk within a radius of a hundred miles or so.

In all radio communication one can never know how many ears are eavesdropping. In the New York district alone there are about 20,000 amateur radio operators who can show licenses issued to them by the Department of Commerce, which long ago gave up the hopeless task of suppressing the amateur and wisely adopted the alternate course of recognizing him and treating him like the human being that he is and regulating his activities so that his messages would not jam the air to the interference of commercial and government business, much of which is now being transacted by radio. In the whole country there are said to be about 200,000 licensed amateurs, and the number is growing daily.

In addition to these, there are innumerable others who have neither the equipment nor the authority to enter the vast, mysterious realms of the ether, but who take delight, nevertheless, in listening in with the aid of simple and inexpensive instruments; they are, in effect, silent guests of the great company that hold intercourse every night throughout not only this country but throughout the whole world. For the wireless is no respecter of geographical boundaries.

As a matter of fact, radio communication is held daily by the powerful professional instruments in New York with Paris, London, Japan and with South American cities. The amateur is restricted to less powerful machines that cover smaller territories, but even with these necessary limitations occasionally some remarkable demonstrations are made of the possibilities of the amateur transmitters, which are usually confined to 200, 300 and 450 meter wave lengths, as compared to the professional instruments, that go as high as 10,000 meter wave lengths.

At present the vast potential force of amateur wireless fans is largely unorganized, so far as governmental agencies are concerned. To obtain authority to send messages as an amateur, to be sure, must satisfy the Department of Commerce that he or she is a person of responsibility, with proper radio equipment and an experience and proficiency that may classify him in one of six grades. He then gets his license and is set loose to do pretty much as he chooses so long as he observes the clearly defined traffic rules of the air.

He mustn't, for example, steal information that belongs to the other fellow. He mustn't give away secrets that he may pick up in his exploration tours through the air. He mustn't impersonate any one or send fake messages. He must always identify himself by giving

his station number, which is assigned to him when he gets his license and which is listed in a little book which is in the hands of every operator in the country. He must confine his radio work to the wave lengths specified in his license.

In other words, to be an accredited radio amateur one must be a regular fellow, willing to play the game according to the rules, clever enough to know wireless telephony and telegraphy and to understand his apparatus, and responsible enough to handle the occasional serious work that comes his way.

For the work of the amateur is not all play. For example: When Congress recently started out on its economy program and cut down the appropriation of the War Department, such drastic savings had to be made that some branches of the service were reduced to real extremities. The appropriation for telegraph and telephone service for the Signal Corps in the 2d Corps Area was reduced to a mere \$1,200 a year—a fraction of what has heretofore been considered a minimum. By rigid economy—by using the mail instead of the wires and by taking out trunk telephone lines from headquarters—the army scraped along for the first forty-five days on \$600, or half the yearly allowance. How was the army to get along for the other 320 days?

The amateur radio men came to the rescue. They gathered in the office of the chief signal officer of the 2d Corps Area, Colonel Edgar Russel, who is known to every army man as the distinguished chief signal officer of the A. E. F. They volunteered to transact official army business by radio fee of charge. Colonel Russel, quick to appreciate the value of such service to the army, as well as to the amateur himself, who has long been eager to get official recognition and to prove his value, accepted their offer. Then and there the amateurs organized the "Amateur Radio Reserve, 2d Corps Area, U. S. A.," and before they left Colonel Russel's office they had appointed an executive committee that was headed by Professor Alfred N. Goldsmith, head of the department of electrical engineering of the College of the City of New York and one of the foremost radio experts in the country; C. J. Goette, the traffic expert of the Amateur Radio Relay League; Major Kendall Banning, of the Signal Reserve Corps, and several other experienced wireless men. This committee, with the aid of Hiram Percy Maxim, the president of the Amateur Radio Relay League, and the heads of other amateur organizations, and of Charles J. McBrearty, the radio expert of Colonel Russel's own office, set to work with maps and wireless messages and letters to build up a radio network that will eventually cover the whole country—a network of public-spirited, capable amateurs who pledge themselves to respond to the call of any governmental department in time of emergency. The amateur has again and again, in time of fire

and flood, rendered invaluable aid. Now such aid is being organized on a national scale. Does Colonel Russel want to send a hurry-up message to Camp Dix? This is what happens: He merely telephones from his desk in New York to Lieutenant Paddock, in charge of the army radio station at Fort Wood, on Bedlow's Island. Lieutenant Paddock makes a record of the message, and at 7 o'clock that evening he relays the message to its destination at Wrightstown, N. J., by one of the three amateur routes that have been laid out, one of which is always on duty between 7 and 10 o'clock at night.

If the message goes by the "coast route," for example, it goes from Fort Wood to an amateur in Brooklyn, whose station is officially designated as 2-ARY. This amateur makes a record of the message in his log book and transmits it to another amateur at Long Branch, 2-AXB, who does likewise. From there it passes along to 2-PG at Freehold, who passes it to 2-PR at Lakewood, who sends it to Camp Dix—in all, a distance sixty miles. Ordinarily, these amateurs can handle five words a minute, or 300 words an hour, including corrections. As long as he does professional work each operator is permitted to retain the handsome certificate that establishes his station as a part of the network of the Amateur Radio Reserve and is authorized to handle the official business of the army.

That is one of the amateur's many contributions to his country in time of peace. In time of emergency such a force may be built up into a powerful instrument of defense. In the same way relays are being worked out between New York and such strategic

points as Plattsburg and Washington. Eventually the network will cover the entire 2d Corps Area, consisting of New York, New Jersey and Delaware, and will include at least 150 radio stations. In time that network will cover the entire country—ready to report fire and flood, to carry messages of help to and from the sick, to send out news of importance, to help the police run down criminals and to locate missing persons.

**T**HE radio game holds constant elements of surprise to the operator who listens in at night on the telegraphic and telephonic babble that fills the air. One never knows what he will pick up. To the uninitiated the noise is not unlike the night symphony in summer time of innumerable insects, some large, some small, some near, some far, busily jabbering away at each other in different keys and with varying speeds and tonal effects. As an undertone to the chatter of the code messages may occasionally be heard, a speaking voice, a shout of laughter or strains of distant music. As one manipulates the instrument and listens in at the various wave lengths one catches snatches of news from land and sea, bits of humor and pathos, that make the operator feel like some strange little god, unseen, unheard, but listening in upon the secrets of another world that knows him not and is engaged in its own little enterprises. It is the new kingdom of the air

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For a long time, in fact, the amateurs have been co-operating with the police. Is a motor car stolen in town? The police departments send out lists of license numbers of stolen cars every night, and every night that information is broadcasted by the amateur wireless fans and placed in the hands of the local officers for many miles in all directions. Many a country sheriff has put a new feather in his cap for arresting automobile thieves who believed themselves safely without the danger zone, but whose careers were halted by means of a wireless message picked up by a local radio fan—very likely a schoolboy with a home-made radio set rigged up in his attic out on the farm—who tipped off the local cops to be on the watch.

The amateur radio fan is a merry soul, as any one who has listened in upon his nightly talkfest can testify, and not the least of his ambitions is to entertain his fellows. And one of the amateur stations that shouldered more than its share of this particular burden, and in the process built up perhaps the greatest audience in the world, is Station 2-XK.

Station 2-XK is located in a private, detached residence tucked in an out-of-the-way corner of the Bronx. It is maintained by two young men, both of whom did valuable work

with the wireless during the war, one as radio instructor in the navy and the other as wireless operator on the steamship Susquehanna. One is Laurence M. Cockaday and the other is E. J. Quinby.

The walls of their operating room are plastered with postals received from radio stations that have heard 2-XK as far west as the Mississippi, as far south as Cuba and as far east as 800 miles off the Ambrose Channel lightship. These postal reports tell when and where the messages were picked up and describe the static conditions, the clarity of the messages and give other information that might be of value. And a large proportion of these postals tell of the clearness with which the Cockaday and Quinby concerts are heard.

For these two young men are gramophone fans as well as radio fans, and every Thursday evening at 8 o'clock and every Sunday afternoon at 6:30 they give two-hour concerts at a wave length of 375 meters for the benefit of any one who wants to listen in. In case you, Mr. Reader, are a radio fan who by some chance has failed to know about these musical affairs, you are hereby invited to join the company as often as you like and to bring your friends.

Usually these concerts are given by the gramophone. Sometimes, however, these enthusiastic impresarios induce a professional musician to play or sing into the machine. Once they packed fifteen members of the Rivoli Theater orchestra into their small workroom, and from 10 o'clock at night until 12:30 in the morning they rendered a classic program to an audience estimated at from 100,000 to 150,000 people, covering an area of about 700,000 square miles!

The music was picked up by vessels far out at sea. It entered farmhouses in remote country districts in distant states. In some amplifiers were rigged up, so that the radio concerts could be enjoyed not only by the whole family, but by the neighbors as well.

Not even Jules Verne conceived such a concert at that!

To understand just why Cockaday and Quinby go to all the trouble and expense in giving these concerts is to understand the amateur radio fan. He is usually young, always enthusiastic over wireless and ever ready to develop his hobby and to help along the other chap. Most of his evenings he spends literally "in the air." It is not unusual for Cockaday and Quinby, for example, to stay up with their machines until 1 or 2 o'clock in the morning. Anything that they can do to add to the interest of their fellow amateurs, any service that they can render in relaying messages, any information that they may come upon that adds to the sum total of radio knowledge, commands their time.

"We want to make this station the best amateur station in the country," Mr. Cock-

aday states. "Last month we relayed 384 radio messages; the record is 408 and we are out to beat it." And from his desk he picked up sheets of paper on which were inscribed the messages that he had picked out of the air that day. Most of them were personal; Uncle John had just arrived safely by motor in the White Mountains and is telling the folks in Baltimore about his trip; Sister Kate, in Connecticut, wants Brother Fred, in Virginia, to know that mother is better. All of these, ten or twelve, he had relayed along as they reached him.

"Don't you charge for this service?" I asked.

"No," he replied. "We just do it for the fun of it. We radio fans talk to each other, anyway, and we like to be of use to people. If you ever want to send a message to any one anywhere in the country, telephone me or drop me a postal and I'll see that it is delivered."

I took out a pencil and wrote: "When will your station be ready to relay messages for the Amateur Radio Reserve?"

"See if you can get that to my friend, Bill Mackey, over in New Jersey; his call number is 2-AQB," I suggested.

In a moment the reply came: "It is ready right now!"

Like fishing, the radio game holds constant elements of surprise to the operator who listens in at night on the telegraphic and telephonic babble that fills the air. One never knows what he will pick up. To the uninitiated the noise is not unlike the night symphony in summer time of innumerable insects, some large, some small, some near, some far, busily jabbering away at each other in different keys and with varying speeds and tonal effects. As an undertone to the chatter of the code messages may occasionally be heard a speaking voice, a shout of laughter or strains of distant music. As one manipulates the instrument and listens in at the various wave lengths one catches snatches of news from land and sea, bits of humor and pathos, that make the operator feel like some strange little god, unseen, unheard, but listening in upon the secrets of another world that knows him not and is busily engaged in its own little enterprises. It is the new kingdom of the air.

Not long ago a "QST" message came from Pittsburgh which was broadcasted all over the land, asking for help in locating a runaway girl whose mother was dying. The amateurs gave the item to the newspapers, and it was published far and wide in the hope that the message might reach the ears of the wayward daughter before it was too late. Perhaps it did.

Hugh Robinson, an amateur wireless fan of Keppert, N. J., once accidentally started the radio world and incidentally hung up a record by sending out by radio telephony a Harry Lauder gramophone record at the usual wave length of about 250 meters that was picked up by a radio station in Aberdeen-shire in Scotland. It happened, of course, that the static and other conditions were perfect, so that the atmosphere acted much as a huge whispering gallery that carried the music clear across the Atlantic. The Scotch operator made a written report of the strange occurrence, and it was not until this news was received by mail that Mr. Robinson knew just how far his humble little radio set had cast its waves.

Within the year Hiram Percy Maxim, one of the most enthusiastic of all the amateurs and one of the proudest of his amateur status, established a record by relaying a message from his home in Hartford, Conn., to San Francisco and getting a reply within nine minutes—an accomplishment that involved not only a high proficiency on the part of the amateurs who relayed the message, but a capacity for organization work as well. And before that another amateur, John Grinnan, of New York, carried on a wireless telephone conversation with another amateur located at a point west of Denver, Col., and his voice was heard as far west as the Pacific Coast. The significance of this feat may be appreciated when it is known that 1,000 miles is considered the professional limit for reliable commercial communications by radio telephony to-day.

## MAXIMS OF MARTY McMAHON

By Robert B. Peck

that Germany had pastin' three-sheets o' victory all over Argentina had made his little remark about sinkin' without a trace, a couple of Argentina's boats had the bad luck to sink just like he said.

"Now, Germany bein' an old country an' kinda set in her ways, an' Argentina bein' young an' harum scurum an' all that, an' the two of 'em bein' great pals anyhow, you might think nothin' more'd be said about it, that Germany'd say to herself: 'Well, the poor little boob's got to learn the ways of the world somehow an' it might as well be from a friend,' an' Argentina'd say to herself: 'Maybe she's kinda queer in her ways sometimes, but she's mighty high toned an' prob'ly's got the right of it this time.'"

"You might think that would be the way of it, but Germany ain't that kind. No, sir,

Germany got to thinkin' it over the last four years an' she thought Argentina's feelin's might be hurt, even if she hadn't said much about it, that Argentina might be thinkin' Germany intended some disrespect.

"There don't nothin' hurt Germany more, hardly, than bein' misunderstood, so she invites a minister from Argentina an' all his friends to come to Kiel. They've got the German battleship there, an' when the minister from Argentina climbs up to its side porch they run the Argentina flag right up to the top of the mast an' the Congressman from the district's there an' he steps forward an' makes a nice little speech.

"There wasn't no disrespect at all, he says, when them two boats was sunk. It was just an accident, he says, an' might have happened with anybody. Why, he says, there

ain't no flag that Germany thinks higher of than Argentina's, which showed it was a good fella by not mixin' up in a private scrap when it hadn't no call to. It gave him a lotta pleasure, and Germany, too, he said, to run Argentina's flag right up to the top of the mast of Germany's battleship.

"Naturally, him bein' a minister an' all, the fella from Argentina was pleased an' proud. It was mighty dignified, he said, an' left Argentina just as satisfied as a clam, not hollerin' fer anything at all."

"There's many a chowder I've been on that I wish now it had been held at Kiel, an' if ever the law allows 'em to have chowders again an' my thirst holds out, it's at that same Kiel we'll have it. My own opinion is that when that day comes you'll see the Congressman of the district stakin' it up a back alley an', if he's still around, this here minister from Argentina'll be close behind him. Those birds certainly would be a big hit at any chowder."