

# L I S T E N

By J. S. St

*"This is W S Y, the radio phone broadcasting station of the Alabama Power Company, located at Birmingham, Alabama. To enable you to tune your instruments we will now play a phonograph record selection \* \* \*"*

**T**HEN, for a period of an hour, a high-class entertainment is given for the benefit of thousands of listeners—from northern Michigan to southern Louisiana.

The radio craze has taken this country by storm, and it is impossible to accurately state the number of receiving sets now in existence. However, this number is very large and the audience is an appreciative one, judging from the number of letters received by W S Y. To illustrate the popularity of these concerts, it was announced one evening recently, preceding the concert of a noted jazz band, that this band as an encore would play any selection called for over the telephone by listeners at receiving stations. This announcement precipitated such an avalanche of telephone calls that the radio operators were obliged to call for mercy and asked that no more requests be telephoned in.

W S Y is housed in space in an unpretentious brick building, this space being divided into two rooms—one for the operators and the other for the entertainers. The broadcasting equipment is located in a small ante-room and a large inner room is arranged for the entertainers. The furnishing of this room is Spartan-like in its simplicity, and consists of a table, a chair, a victrola and a piano. Hanging from the walls around the room are transmitters and it is through these transmitters that the speakers, singers and other entertainers broadcast their efforts. It is, of course, necessary that silence be observed at the broadcasting station, as even slight sounds will carry forth and be received by listeners. This silence seems to wear on the nerves of the entertainers, and folks who are hardened to a physical audience confess to a certain fright, or rather a "foolish" feeling that is the direct result of an unresponsive audience. This feeling soon passes, however, and the entertainers soon become like movie actors—extremely critical of themselves and endeavor to play up to their silent audience.

A great deal of speculation has been indulged in by novices in regard to the radio phone and listening by means of receiving sets, is comparatively simple. Speaking for the benefit of the unenlightened, the best way to visualize the ac-



*Above is the room where entertainment is broadcasted to an unseen audience.*

*Above is broadcasting equipment of W S Y.*



tion of the radio phone is to compare the ether (which exists everywhere in the air) to the smooth surface of water. Throw a stone in smooth water and waves start in widening circles until the momentum is gone. The radio phone discharges electrical waves in the air in the same manner, and these waves are picked up by receiving sets within the circle of momentum. Most receiving sets are comparatively simple and consist fundamentally of an aerial of horizontal wires drawn taut in the air, at some distance above the ground, from which a wire runs to the receiving set itself, consisting of a coil, a detector and head sets. The set is usually grounded to a convenient water pipe.

The broadcasting distance of a transmitting station varies, of course, with the size of the instrument, and it may be stated in passing that the range for "W S Y" is 500 miles, although this radius is often extended several times that distance under certain favorable conditions.

## I N G I N

J. THIERLAND



To the left, the Happy Six Orchestra playing for radio.

Letters from radio "bugs" in southern Louisiana and along the Canadian line testify to the ability of the broadcasting station W S Y to travel many times its estimated range.

The arrangement for broadcasting programs calls for a great deal of time and effort on the part of the man to whom this duty is delegated. Richard Johnson of the Publicity Department, who so well performs this duty for W S Y, combines the ability of an impresario with the scent of a bloodhound, for he must constantly be on the lookout for new talent to render entertainment to his extremely critical audience; and, unlike professionals, he cannot call on a booking agency, but must find and develop his own talent.

The development of W S Y is due primarily to the ability of Mr. B. F. Burch, who enjoys the distinction of being the first man in the employ of Alabama Power Company to consider radio seriously. His first amateur efforts were

quickly followed by more serious work, and recognizing these efforts his superiors detailed him to make a study of this science, upon which the first radio work was completed by this company. However, the duties of Mr. Burch in other directions were so onerous that he could not devote his full time to radio, and the work was taken up by Mr. George Miller, who at the present time is acting in charge of the broadcasting station and is doing development work of inestimable value, Mr. Burch acting in a consulting capacity. To these two men is due the fact that the Alabama Power Company is able to broadcast night after night an entertainment that provides a source of delight to the simple farmer in his country home, as well as the wealthy city man in his palatial residence.

At present there are two hundred and fifty-three broadcasting stations licensed and in operation in the United States. Most of these stations are concentrated, either north of the Mason-Dixon line and west of the Mississippi, or on the Pacific coast. There are practically no stations as yet in that part of the west that lies just east of the Rockies. And the installation of stations has only just begun in the South, W S Y being one of the first.

Radio is playing a great part in aiding Uncle Sam in fighting forest fires, and has already saved the United States millions of dollars.

Will Irwin, the distinguished "World War Correspondent," sees in the radio something infinitely greater than a mere instrument for entertainment. He conceives it as a medium for bringing the scattered peoples of the world into contact and eventually into understanding, for as he says: "Leagues or associations of nations, tribunals of arbitration, Pacific pacts, will serve but little if peoples keep up those old hatreds and suspicions which results mainly from poor acquaintance."

One of the most valuable services ever rendered by a radio operator in this country was performed by an amateur, one Charles E. Apgar. It was he who made phonograph records of the mysterious code messages sent out by the German station, Telefunken, located at Sayville, Long Island, N. Y., and furnished evidence to the United States government that compelled them to take it over. These code messages were being sent to the German's great receiving station—P. O. Z.—at Nauen.

We now have the radio church, which is growing at an amazing rate. The first church in the

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# OUR BROADCASTING STATION

By G. K. MILLER

WHEN approached for an article for this, our radio issue of Powergrams, the writer was at a loss as to just what phase of our broad field to write upon. It seems, though, that as we have had a success with our station with which our highest hopes never compared that every one would like to know just what we have here at W S Y and how we do it.

The interior views of the station shown elsewhere will give a fair perspective of our arrangements to start on, and now we will all make ourselves comfortable and look the situation over further.

We began assembling the set about the middle of last January with intentions of using it for purposes of operation of the system exclusively. The broadcasting feature came up, though, and materially changed our plans.

We began looking around, then, for a suitable location, and after considering several possibilities the present location, which is on Powell Avenue and between Nineteenth and Twentieth Streets, in Birmingham, was selected.

At first, only a small space was rented from the Southern States Equipment Company and the station installed. The work of installation required considerable time, as our radio linemen were few in numbers. We called upon Mac's gang, though, and as ever they proved that they could always put the job across, no matter what it was. A rather amusing situation arose out of this, though, for one of the gang, no names being mentioned, applied for the position of radiopatrolman. You'll have to get Mac to account for this, though.

As mentioned before, our space was small at first and not very much thought was given to the programs, but we began getting letters from points outside of Birmingham and then the situation took on new life. We had a visitor one night, no less personage than our president, Mr. Martin himself. He gave a short (four-minute) talk and after he had spoken to our "thousands of listeners" gave our station the once over. The next day we had carpenters, painters, inside wiremen, carpet-layers, and even piano-movers, and we built a whole studio in one day, and that night had more comfortable quarters for our artists.

Every day we made adjustments in our apparatus and no doubt those who had receiving sets about the last of April will remember something like this, "Hello Jones, Hello Gadsden,

Mary, Mary, quite contrary, 1, 2, 3, 4. How do you like the sound, etc., etc."

Well, letters began coming in faster and faster from enthused radio fans over the country and that was when the Publicity Department got busy and worked out the programs, as we have them now. Artists were gathered in from all parts, and it is still a mystery as to how it was done unless we can lay the credit at the feet of Mr. Balwin's able assistant, Mr. Dick Johnson, who ever since his rat days at Auburn had a way of his own with the ladies.

We have been on the look out for improvements all along, and even since the pictures were made there has been the addition of a power amplifier, 400-volt storage battery, filters, etc., which have improved our transmission very materially, and it is very gratifying indeed to have the favorable comments we have had from Florida, New York, Michigan, Kansas and Oklahoma.

The station has been in operation continually from the first, and judging from reports our transmission has become more and more perfect. The improvements that have been made have been aided greatly by the assistance of Mr. P. C. Pogue, only a few months with the company, with always the guiding hand and watchful eye of our superintendent of distribution, Mr. G. H. Middlemiss, who is directly responsible for this new development.

To go into detail about methods of voice transmission, how it is amplified and how the high frequency antenna current is generated and modulated would require a technical article of great length. From the photographs you can see our general layout and the writer would take genuine pleasure in going into more detail with those who care to give our station the once over. While in Birmingham let's get acquainted.

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world to conduct a service by wireless was the Herron Avenue Presbyterian of Pittsburg, Pa., early in 1921. This experiment proved so successful that a great number of churches in different parts of the country are now conducting their services by wireless.

Few realize the wonderful work being done in this as well as other parts of the world by the Secret Service of the Air in apprehending criminals.

Plans are now under way in England to

develop radio on a large scale, but along different lines from the recent expansion in America. Up to this time the British postoffice department has made the use of radio apparatus by private persons almost impossible, owing to the licensing system which applied both to receiving sets and to sending apparatus.

As soon as restrictions are removed, it is understood that the Marconi company will establish a large transmitting station, and that receiving apparatus will be loaned out at a charge which will probably not be more than that of the ordinary telephone installation.

In the meanwhile, in Alabama U. S. A., W S Y is doing its utmost to render a service to the people and carry on at the same time research work to benefit radio development, and to make possible its application to the operation of transmitting lines and generating stations in central station industry.

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