

BROADCAST NEWS

Edited by
E. JAY QUINBY

NUMBER 6

JANUARY, 1933



THE TALLEST RADIO TOWER IN AMERICA

AT THE BASE OF THIS 878' ANTENNA MAST MAY BE SEEN THE BUILDING IN WHICH THE NEW 50,000 WATT RCA TRANSMITTER HAS BEEN INSTALLED FOR STATION WSM, OF THE NATIONAL LIFE AND ACCIDENT INSURANCE COMPANY, NASHVILLE, TENN.

Published Occasionally and
Copyrighted 1933 by
RCA VICTOR COMPANY, INC.
CAMDEN, N. J., U. S. A.

WSM Goes On High Power

By GEORGE D. HAY (The Solemn Old Judge), Publicity Manager, WSM

PRESENTING a fast moving programme depicting the high lights of its service, WSM, The National Life and Accident Insurance Company's new fifty thousand watt station with its 878 foot tower (America's highest antenna—see illustration on Page 1) was officially dedicated to public service on Saturday night, November 12th and again one week later with a network programme extended as a very unusual courtesy by The National Broadcasting Company. The second programme was carried by NBC's associated stations on the red network.

Best wishes were extended to The Shield Station by many of NBC's outstanding artists who broadcast during the first hour and a quarter, beginning at 10 o'clock central standard time, from New York, Cleveland, Chicago, Denver and San Francisco. The network programme shifted to the studios of WSM at 11:15, at which time Edwin W. Craig, vice-president of the company, in charge of radio activities, thanked the National Broadcasting Company and associated stations for their tributes, made a brief talk to the radio public, and presented "WSM On The Air!"

A New Giant

Mr. Craig said in part: "As we join the ranks of America's radio giants, we realize not only our increased opportunities, but also our heavily increased obligation to the public service. Our constant desire and our constant effort shall be directed toward the fulfillment of these new opportunities and these new obligations. Ladies and gentlemen, I present to you the new WSM!"

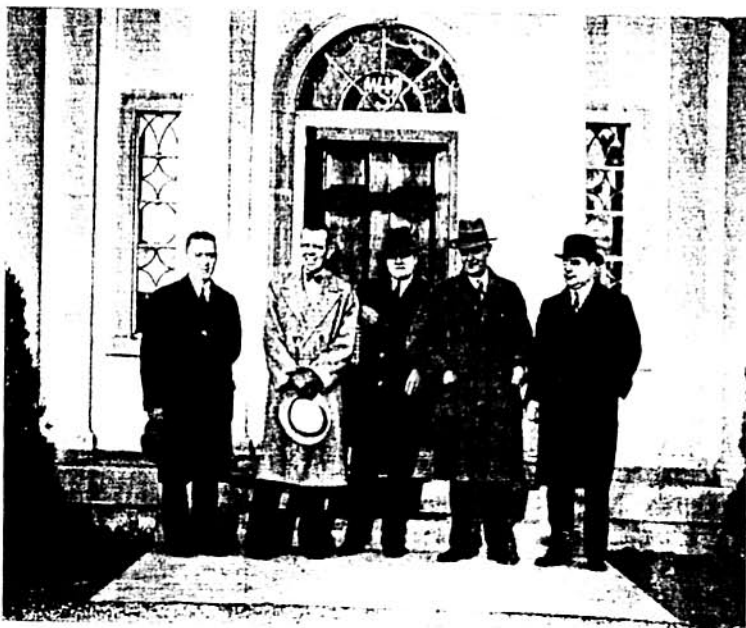
On November 12th, C. R. Clements, executive vice-president of The National Life and Accident Insurance Company, in officially dedicating the new station said in part: "On October 5th, 1925, Radio Station WSM, owned and operated by The National Life and Accident Insurance Company, of Nashville, Tenn., made

its initial broadcast over the air on the latest improved 1,000 watt transmitter.

"After a year of broadcasting, realizing the demand for better service, it was decided to increase the power of the station, and in January, 1927, we began broadcasting on our new 5,000 watt transmitter. Due to the rapid progress in the art and to

Knox Company, of Pittsburgh, Pa., a single radiating tower, 878 feet high, which, I am informed, is the highest radio tower on the continent . . .

"Soon after we began broadcasting, arrangements were made with the National Broadcasting Company to handle their chain programmes and the most cordial relations have



LEFT TO RIGHT:—MR. STEVENSON, VICE-PRESIDENT OF THE NATIONAL LIFE AND ACCIDENT INSURANCE COMPANY; ED. W. CRAIG, VICE-PRESIDENT OF THE NATIONAL LIFE AND ACCIDENT INSURANCE COMPANY; NILES TRAMMEL, VICE-PRESIDENT OF NBC, IN CHARGE OF THE CHICAGO OFFICE; C. R. CLEMENTS, VICE-PRESIDENT OF THE NATIONAL LIFE AND ACCIDENT INSURANCE COMPANY; AND GEORGE MCCLELLAND, ASSISTANT TO PRESIDENT NBC. THIS PICTURE WAS TAKEN BY I. R. BAKER, AT THE ENTRANCE TO THE TRANSMITTER BUILDING OF WSM.

the demand for greater power, the Federal Radio Commission allocated a certain number of high-powered stations on cleared channels to each radio zone. Having a cleared channel and being mindful of our obligation to the public, we applied to the commission and were fortunate in having one of these high-powered stations allotted to us.

"We immediately purchased and have just completed the erection of the latest model RCA Victor transmitter of fifty thousand watts, over which we are broadcasting tonight. In addition to our new high-powered transmitter, after extended investigation, we installed the latest design antenna developed by the Blaw-

been maintained with this splendid organization . . ."

C. A. Craig, chairman of the board of the National Life, in dedicating WSM when it first went on the air in 1925, said: "Recognizing its great value to our people—commercially, educationally, socially and religiously—and mindful of the wonderful service and splendid entertainment given, it shall be our earnest endeavor to conduct a station that will reflect credit on our community and uphold the highest standards of radio."

Guests and Guest Artists

Among the guests at the opening of the new WSM were Harold A. LaFount, acting chairman of the

W S M



HARRY STONE
STATION MANAGER, WSM



J. LESLIE FOX
COMMERCIAL MANAGER OF WSM



EDWIN W. CRAIG
VICE-PRESIDENT OF THE NATIONAL
LIFE AND ACCIDENT INSURANCE
COMPANY, WHO IS IN CHARGE
OF STATION WSM, AT NASH-
VILLE, TENN.



J. H. DeWITT, JR.
CHIEF ENGINEER, WSM



GEORGE D. HAY
PUBLICITY MANAGER,
WSM

Federal Radio Commission; George F. McClelland, Niles Trammel and Frank Mason, officials of the National Broadcasting Company and I. R. Baker of RCA.

Guest artists were James Melton, internationally famous tenor and member of the Revellers Quartette, who began his radio career at WSM several years ago, and "Smiling Ed" McConnell, one of radio's greatest entertainers, and a former member of the WSM staff. Lambdin Kay, "The Little Colonel," director of WSB. The Atlanta Journal, who was present at the opening of WSM and was in charge of the arrangement of its first programme which went on the air

on October 5th, 1925, appeared as guest announcer on November 12th. In addition to Mr. Kay the following staff announcers of WSM handled the microphones: Harry Stone, A. W. (Tiny) Stowe and George D. Hay (The Solemn Old Judge).

The Network Show

The network show on November 19th was opened at 10 o'clock by Don Bestor and his orchestra from New York. This was followed by an announcers' frolic. Then the scene shifted to Cleveland, from which point Gene and Glenn, well known comedy team played high jinks for a time. Then Ben Bernie, "The Old

Maestro, Himself," assisted by "all of the lads," displayed their usual originality for a few moments. The Commodores, a quartette of male voices, came through with several delightful numbers to close the Chicago show.

Francis Craig and his orchestra, Nashville boys who started at WSM, were in high spirits when their turn came to do their bit which was broadcast from the NBC studios in Denver, Colorado. The scene shifted to San Francisco where "Numb and Dumb" put on a screamingly funny bit to be followed by Anson Weeks and his orchestra.

From the studios of WSM in

Nashville at 11:15 the following staff members put on "WSM on the air!"—The opening was made by the WSM Male Chorus in a Stephen Foster medley. There followed "Three on a mike," with Velma Dean, Marjorie Cooney and Betty Waggoner; the Fiske Mixed Double Quartet from the home of the Fiske Jubilee Singers; Deane Moore, entertainer; Beasley Smith and his orchestra in a dance number; John Lewis, baritone; the Vagabonds, Herald, Dean and Curt, male trio; the WSM Piano Twins, Beasley Smith and Marjorie Cooney; Lasses White and Honey Wilds, minstrel sketch; Ruth and Red, harmony team; The Pickard Family, cabin door songs; Johnny Payne, popular pianist, and the WSM Male Chorus closed the show. The music was under the supervision of Alvin Masten, WSM's musical director. In addition to the above, the following appeared on the preceding studio programme, which was broadcast at 8 o'clock on November 12th: Mary Cornelia Malone, soprano, and Daisy Hoffman, pianist; James Melton, tenor, Ed McConnell, entertainer; Margaret Ackerman, Justine Dumm and Christine Lamb, Claude Sharp and Priestly Miller, vocal soloists; the WSM Mixed Quartette, composed of Margaret Ackerman, Christine Lamb, George Nevins and Ovid Collins; Kenneth Rose, violinist; Mrs. Lawrence Goodman, Edward Loessel, Lawrence Goodman, and Reita Smith.

The Organization

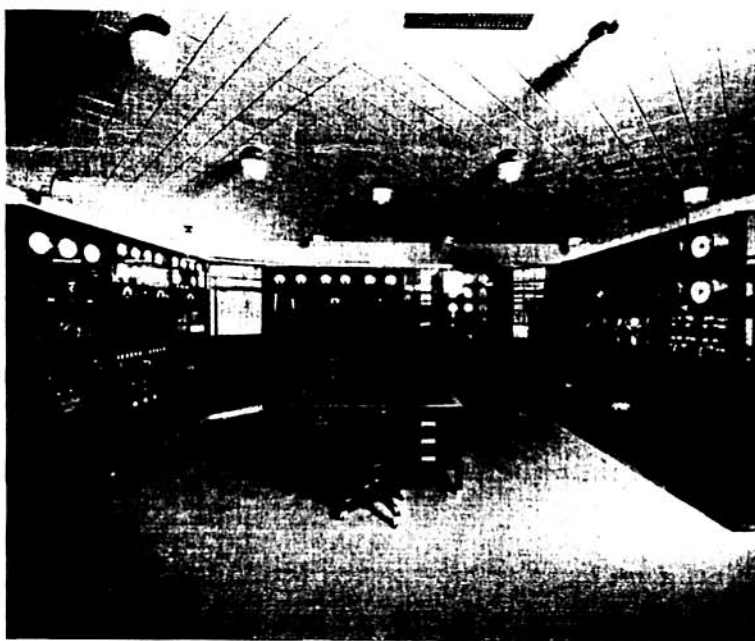
Under the supervision of E. W. Craig, WSM's large staff is headed by Harry Stone as station manager. Mr. Stone is one of Nashville's pioneer radio men and has had wide experience in all branches of the broadcasting. The departments are headed by men who have been in the game many years. They are as follows: George D. Hay, (The Solemn Old Judge) publicity manager; J. Leslie Fox, commercial manager; Alvin Masten, musical director; A. W. (Tiny) Stowe, continuity writer, and J. H. DeWitt, Jr., chief engineer.

WSM's slogan, "We Shield Millions" is an established fact in radio as well as insurance.

The Power Supply

The question of reliability is one of particular importance in the large broadcasting station of today. The amount of money being spent on talent justifies a rather large

Electric Power Company, and the other of 13,200 volts which is routed from Muscle Shoals north to the station. The two lines terminate at the corner of the station property where an outdoor substation is located. This substation has two banks of single phase transformers, which step the respective line voltages down to 2,300.



TRANSMITTER ROOM OF THE NEW WSM STATION

expenditure on equipment designed to insure the minimum number of interruptions of programs.

In the years past, the limiting factors affecting reliability were found in the transmitting equipment itself. In present day equipment, such improvements have been made that reliability centers largely around the power and program circuits feeding the station.

At WSM the necessity of a reliable power supply was particularly stressed. As a result, this installation is believed to possess features that may be of interest.

First of all, it is necessary to provide two separate power circuits to the station with their sources of supply so separated geographically that local storm conditions will not affect both circuits simultaneously. Two such circuits are provided at WSM, one of 11,000 volts from the eastern network of the Tennessee

In addition to these transformers two grounding banks are provided, one for each circuit. The purpose of the grounding banks is to provide control voltages and currents for the various operating relays to be described later.

Underground Cables

Three underground cables, one of which carries the control circuits, connect the substation with the transmitter house. One room in the basement is devoted to switch gear and metering equipment. Here two 2,300 volt solenoid operated oil circuit breakers are located; one for each circuit. These breakers are so connected that the two 2,300 volt power circuits may be paralleled on to the transmitter load circuit.

Each power circuit has four control relays associated with it. Three of these are of the voltage type and are connected respectively across the

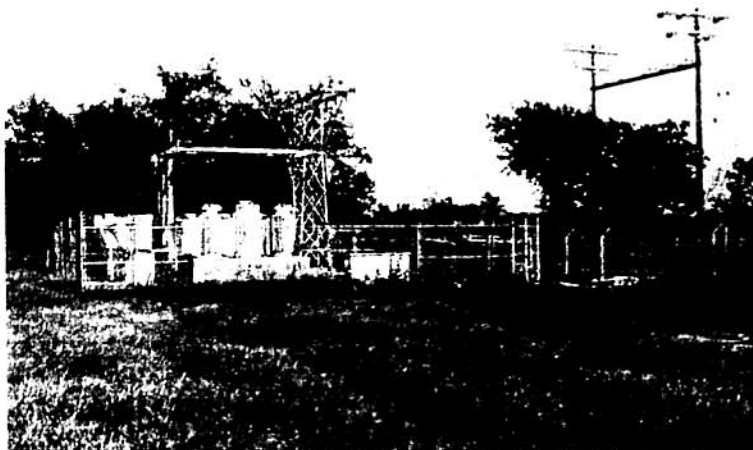
three phases. Operating voltage is obtained from the secondaries of the grounding bank of transformers at 220 volts. The fourth relay operates from a current transformer connected between the neutral of the primaries of the grounding transformers and ground; these transformers having a V primary connection and a delta secondary connection.

The control circuits for the two supplies are interlocked. In case of a phase short or ground on the line in use, one of the control relays operates and closes in the spare line through its oil circuit breaker. The control circuits are so adjusted that the bad line is disconnected $2\frac{1}{2}$ cycles later. The voltage relays are set to drop out at about 2,000 volts so that it is not

control switch is provided by means of which either power circuit may be selected.

In practice it is found that with the transmitter in full operation the lines may be switched back and forth without causing any break in the program. The efficiency of the automatic arrangement was demonstrated when an automobile struck a pole supporting the line in use, causing the wires to fall. Signal lights informed the operator that the spare line had been selected. However, WSM's listeners were unaware that any change had been made.

Much credit is due the engineers of the Tennessee Electric Power Company for working out so efficient a system.



OUTDOOR SUBSTATION AT WSM

necessary to have an actual short to cause changeover.

In the WSM installation, the recording meter panel, normally mounted in the power control unit, was moved to a position at the right side of the main rectifier unit as may be seen from the photograph of the transmitter. The lower portion of this panel has been made into a control panel for the power supply circuit. Here monitor lights are located which inform the operator of the condition of the two power circuits. Red lights show which circuit is in use. A neon light indicates synchronism between the two supplies. A con-

YOU WITH THE SLIP STICKS

Slide rule experts will enjoy working out this problem, just to keep in practice:

If $3\frac{1}{2}$ hens lay an egg and a half in $4\frac{1}{2}$ days, how long will it take half a hen to lay $5\frac{1}{2}$ eggs?

We offer half an egg for the best solution.

BARON: "You know Sharley, I once built a building that had a million stories."

CHARLEY: "A million stories? What building is that?"

BARON: "... the public library."

WHO BUT GEORGE CLARK COULD?

THE FOLLOWING IS QUOTED WITHOUT
CHANGE FROM THE NEW YORK HERALD-
TRIBUNE OF JAN 10TH, 1933.

"Technocracy! Team! Team! Team!"

dear f p a since i am a graduate of the massachusetts institute of technocracy i am well fitted to describe this new science to a gasping world our efforts so far have resulted in the introduction of the technocratical term sales resistance which used to be a few hundred ohms but which lately has approached an open circuit our innovation will be the use of the name sales voltage and the measurement of salesmen in volts per meter of height the average salesman is of what we call the battery type ranging from 1.4 to 2 volts then there is a smaller band called socket salesmen who vary in value from 110 to 220 volts and a very few supersellers who may rise as high as 100,000 volts brush discharge being prevented by the liberal use of hair slickum the final step in the series will be the adoption of the term sales current in place of sales volume and our daily acceptance would then be measured in sales amperes or slaps it would take too long to describe the entire system but let me say that his honor o brien would have been inducted into office by henries instead of pats and mikes if our system of inductance had been in use and if we technocrats had been openly in the saddle or rather at the controller not meaning berry also the police who kept the eager crowd if any at bay would have been of course the lines of force finally the question of non intoxicance of beer would be a matter of capacity i personally have a variable capacity let me say in closing that we technocricians would measure the depression wave either in k. c.'s or in s. a.'s depending on whether or not the protest of the salvation army would be heeded although the present cyclic disturbance is lasting so long that we had better measure it not in kilocycles but in bicycles yours technautocratically jorje clairek.