

STUDIO REVIEW

GATES RADIO CO.

QUINCY, ILLINOIS

OCTOBER, 1948



EXPANSION PROGRAM

Expansion Well Under Way

Production To Be Speeded Up With Fabrication of Items Now On Slow Delivery from Outside Suppliers.

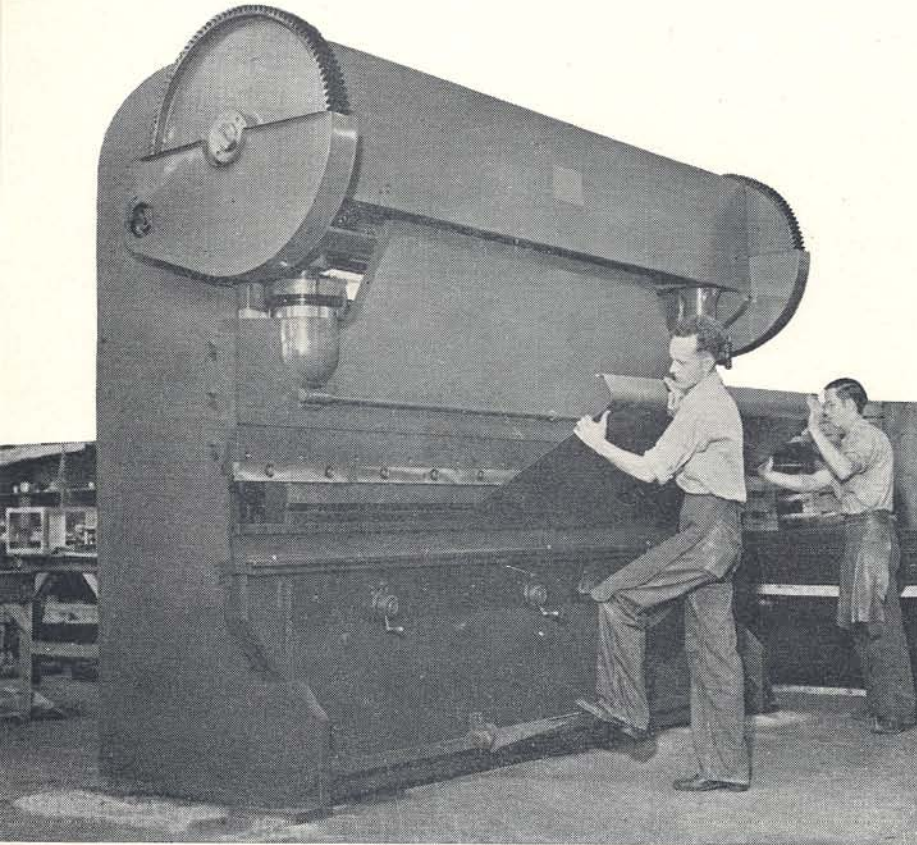
An expansion program of major proportions is well begun in the metal processing plant at Gates Radio Company. When completed most of this part of the manufacturing will be done on new machinery of much greater capacity and usefulness than is now available.

The first of many units that goes into this program is the press brake which shapes flat steel sheets into various cabinet parts. It handles heavier and larger sizes than has heretofore been possible and will assure the manufacture of better cabinets and large sheet metal parts.

A power shear is coming soon that will cut steel to the proper size for use in the big brake and other smaller metal working machinery here, and will do it much faster than before.

Other new machinery already in use is the welding equipment shown below and the metalizing spray used to coat steel with copper.

These additions to the equipment cost considerable money but insure faster and better processing which in turn means better equipment and service when the customer buys from Gates.



The large brake in operation. Louis Benal and Virgil Hall of the Sheet Metal Department forming some of the new cabinets now in production.

Reading from the left at the bottom of the page are Frank Bruening with the metalizing spray, Hank Anderson in the center, and to the right, welding cabinets and chassis with the new and very up to date equipment which has been installed.



Three New Sales Engineers Added to Gates Personnel



GEORGE RUSSELL CHAMBERS

Mr. George Russell Chambers has been added to the sales engineering staff in the Washington office. Mr. Chambers came to Gates highly recommended as a radio engineer from experience gained in various radio fields. He managed radio stations in Jacksonville, Florida as well as St. Augustine, Florida. Russ worked as a radio consultant for several years in Washington, D. C. before joining the Army as Radar officer, serving under Admiral Nimitz in Guam, Saipan, Iwo Jima and other Pacific bases. After his discharge he was radio engineer for Columbia Broadcasting Company in New York City, leaving this to return to Florida as Vice President and manager of his own station.

Russ is the proud father of a young son and lives in East Falls Church, Va.



RICHARD E. KAISER

Richard E. (Dick) Kaiser is traveling through the states of Ohio, lower Michigan and Kentucky. Dick is another one of those fellows who was smitten by the radio bug while quite young. He was engineer at stations in Aberdeen, S. D., and Bismark, N. D., prior to his entry in the Armed Forces during the War.

As a captain in the Signal Corps he was stationed in India for some time in connection with radio and radar installations. After the War he returned to the northwest as Chief Engineer and assistant manager of a station in Billings Montana.

Dick has now moved to Springfield, Ohio, and is working out of that town. He is married and has two charming daughters.



ROBERT M. WARE, Jr.

Robert M. (Bob) Ware, Jr. another sales engineer for the midwest territory hails from the deep south. Prior to his employment at Gates he was a partner in Radio Station WBHB Fitzgerald, Ga. He was Radar Field Engineer for the Signal Corp during the War and worked on many of the radar installations.

Bob's genial personality is one of his greatest assets. Although he loves the South . . . he says "Illinois is very beautiful and it also snows here." By February and March we know he will really begin to "enjoy" that snow. He is working out of the Quincy office in the states of Illinois, Missouri, Kansas, and parts of Arkansas. Bob's wife and two children are moving to Quincy in the near future where they have purchased a new home.

RADIO STATION WJAG NORFOLK, NEBRASKA

Radio Station WJAG is one of the oldest stations in the west and is an ardent booster of Gates equipment. They received one of the first BC1E transmitters delivered after the war and to date not a letter of complaint has been received from them.

Mr. Gene Huse is the owner of the station while the management is under the able direction of Mr. Art Thomas. Mr. Frank Wiedenback is the chief engineer.

Stan Whitman, the Gates sales engineer for that area, says it is really a "neat and powerful little station."



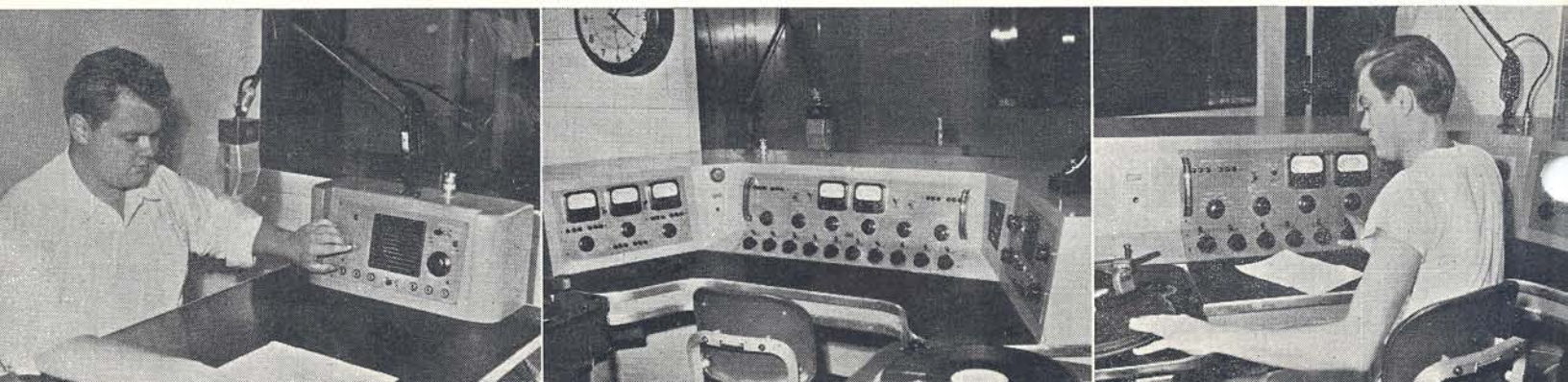


WSOY....

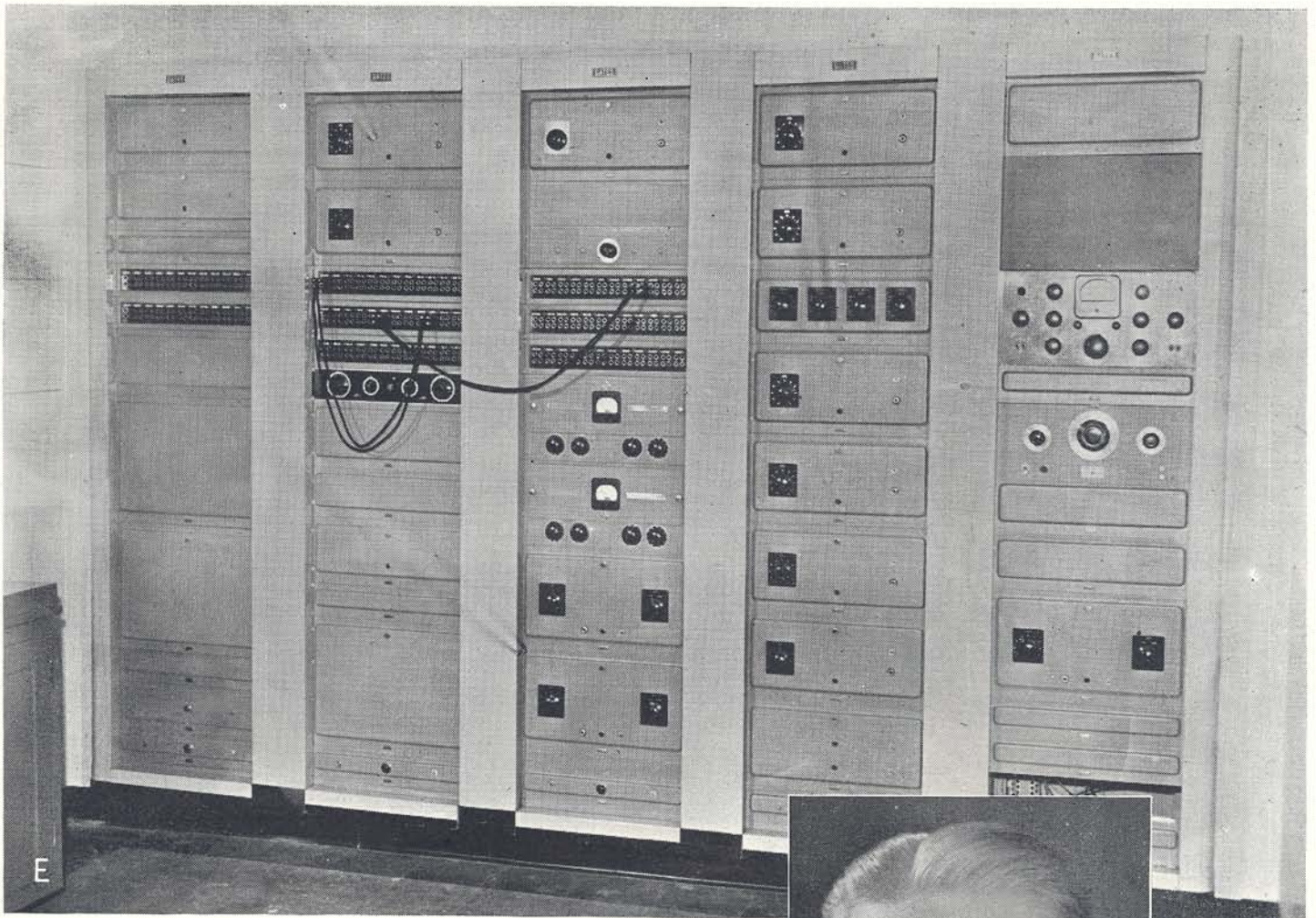
On the Air With New Radio Station

On August 22, WSOY went on the air with their new radio station. A more beautiful installation has yet to be found in this area. The station is FM and AM with provision for later development in television and facsimile. The complete installation was worked out by Merrill Lindsay the general manager and Milburn H. Stuckwish, technical director.

The entire studio amplifier system was custom built by Gates Radio Company according to specifications drawn by Mr. Stuckwish.



The studio equipment was designed so that programs can be put on the air in all four studios; one going on AM, one on FM, a third sending a program out on the network and a fourth sending an audition to one of the private offices. In two seconds any of these programs can be switched to one of the other outlets. Mr. Norbert Jochem supervised the construction at the Gates factory.



- B. One of the three announcer studio control panels, from which he can select the control room into which he will work. Jack Olmstead is before the microphone.
- C. Master Control Room operating console showing distribution panel, dual mixing panel and monitor control panel.
- D. Auxiliary Control Room control panel from which many disc shows originate. WSOY Engineer Robert West is at the controls.
- E. Section of the studio control racks.
- F. Milburn H. Stuckwish, technical director of WSOY, Decatur, Ill.



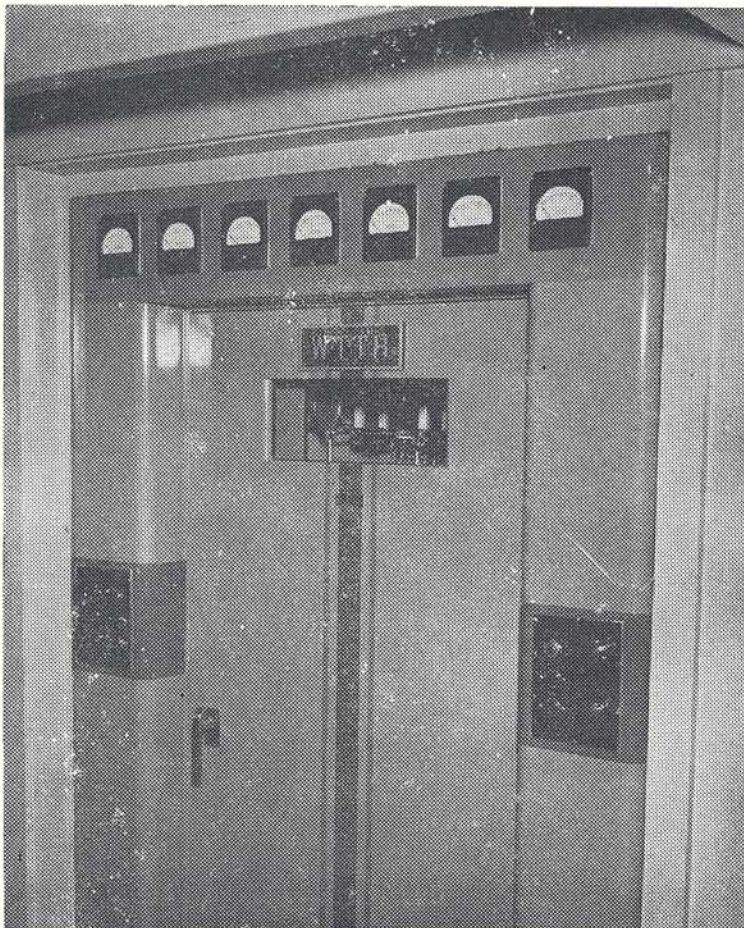
FM Nightmares In the Winter Time

During the winter of 1947-1948, which was perhaps the first winter that FM stations of any magnitude operating on the new 88-105 megacycle band were in use, many disastrous things happened due to snow and ice, that were costly to FM broadcasters. As we all can profit by experience, it is felt that a few comments in this editorial might be helpful, particularly to those FM stations that have gone on the air during the present summer and have not experienced some of the difficulties of last winter.

The ring type FM antenna, by-and-large, has been subject to wide variances because of snow and ice, as the load on the transmitter is governed largely by the correctness of tuning in the antenna system. It is easy to see where the accumulation of snow or ice on an FM antenna of the ring type can sometimes in a few seconds change the entire characteristics of the installation. These characteristics will change so rapidly that the transmitter operator, busy with his logging entries or other duties in attending the AM transmitter, and in some instances playing transcriptions, will not quickly observe the meter readings and note the change. The resultant damage is frequently the loss of power tubes in the final radio frequency stage of the FM transmitter. Usually 250 watt transmitters are not bothered to any great extent by changing loads as far as damage to the tubes is

concerned but as the power becomes higher the damage, by reason of change in the antenna system, is at a closer margin. One 10KW FM station in the northern part of the country had a high loss in final power amplifier tubes, primarily caused by lack of de-icing equipment in the ring type FM antenna. Another station had a defect in the top connector of the coaxial cable, allowing a small accumulation of moisture which did not bother in the warmer months but when turning to ice in the colder months changed the characteristics so badly that the operator was unable to maintain any consistency of load conditions.

Of course, there is always a cure and the cure in the case of ring type antennae is to be sure that good de-icing equipment is provided. It is recognized that climbing a tall tower and installing de-icing equipment is not a simple job, but it is much simpler in warmer weather than it is in the middle of the winter. We cannot urge too strongly your taking other than a critical attitude in being sure that your FM radiating system is properly protected in the form of de-icing equipment for winter time. We recommend that you buy the de-icing equipment from the manufacturer of your FM antenna. Some types of FM antennae such as the Pylon do not require de-icing equipment, but particularly if you are a user of a ring type FM antenna, take heed. P. S. Gates



Radio Station WTTH and WTTH-FM Port Huron, Michigan

Radio Station WTTH and WTTH-FM began operations December 6, 1947, with AM broadcasting from sunrise to sunset and FM from 6 a. m. to 10 p. m. An area of some 5,600 square miles, famous as the vacation land of Michigan, is covered by these stations with music, news and general entertainment.

The Times Herald Company, publisher of the Port Huron Times Herald with a daily circulation of 28,000, is the owner of WTTH. Mr. Louis A. Weil, president and editor of the Herald, believes that radio and the paper are inseparable and are the main sources of public information as servants of the people.

The station has four studios, two completely Gates equipped control rooms and administrative offices. The stations operate separately, maintaining their own transmitting equipment, yet are capable of carrying the same programs simultaneously. A 457-foot antenna now in use is claimed to be one of the tallest in the state, and makes frequency modulation programs available in all Eastern Michigan.

The AM transmitter, a Gates Model BC1-E, fur-

nishes a radiated power of 1,000 watts while the Gates 10 Kw FM transmitter and antenna system produces 22,000 watts.

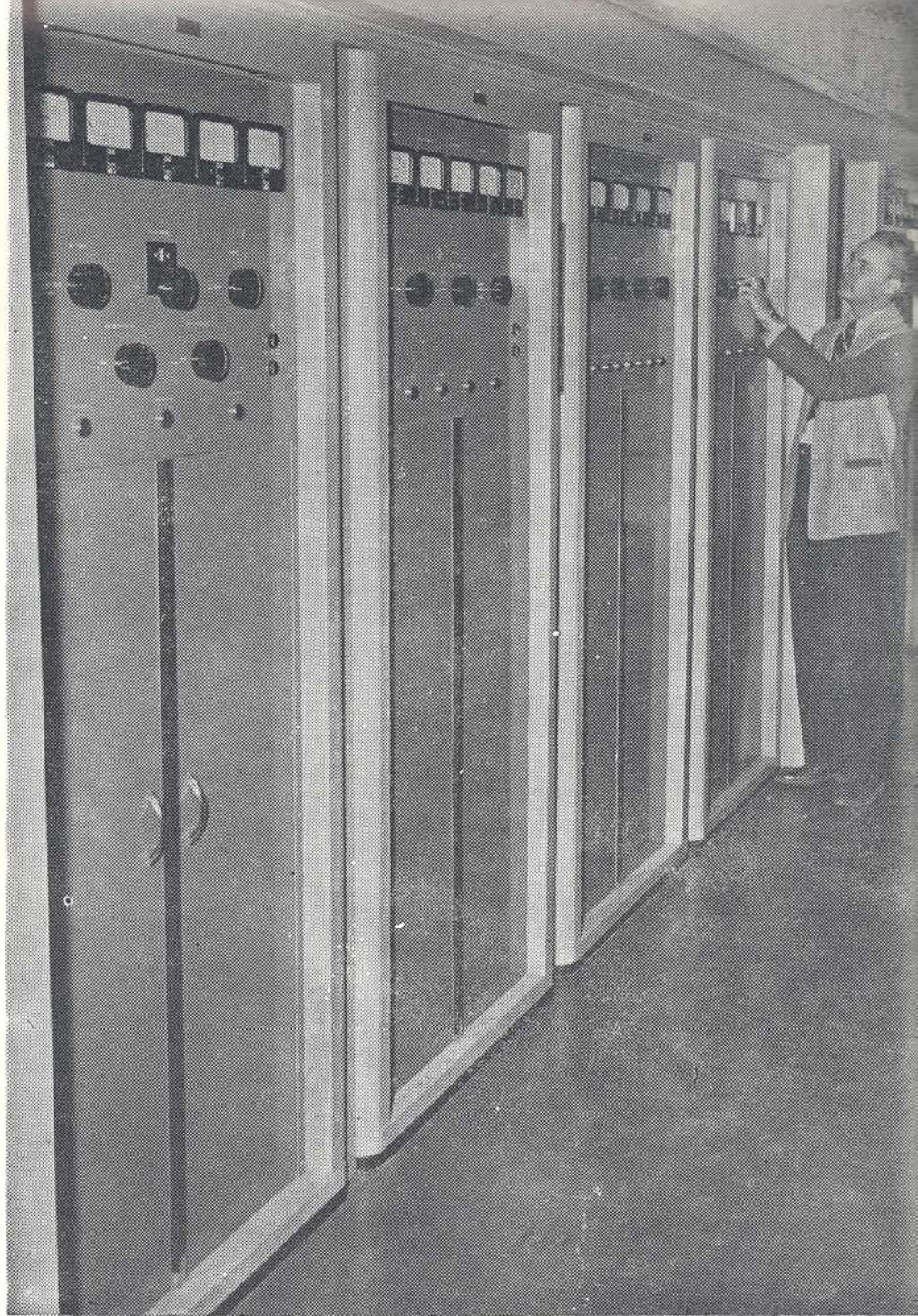
Associated Press and United Press teletype machines keep radio newscasters abreast of all timely events of the world, nation and state, while a staff of Port Huron reporters provide the radio station with local news.

TAPE RECORDER EQUIPMENT ADDED TO GATES LINE

The Magnecord Recorder has been added to the Gates line. In order to standardize the equipment a PT6 rack amplifier along with the PT6-A basic recorder mechanism, are sold as a combined unit, thereby having both the recorder and playback mechanism ready to record up to 15,000 cycles at high speed and up to 8000 cycles flat at slow speed. This is professional equipment which will make your recordings essentially as good as the original.

An unique arrangement for portable use is also available. Rather than have four or five styles, this same unit is suitable for your remote work by merely adding a carrying case to the order. The rack amplifier can be slipped into the case. In this way the pickup equipment remains standardized and the broadcaster can now have the complete recorder which operates at zero vu input, in a portable carrying case and he simply connects his remote apparatus, such as dynamote, etc., to the recorder input. When he gets back to the station he can slip the amplifier back into the rack and it instantly becomes a rack recorder.

The recorders may be placed in another room, or any distance from the point of pickup, which is a good feature where the broadcaster does not desire to disclose to the audience that the program is being recorded for delayed broadcast.



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GATES STUDIO REVIEW

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WASHINGTON 4, D. C.—Gates Radio Company, Warner Bldg., 13th & E. Street, N. W. Phone Met.-0522, 0523.

WATERLOO, IOWA—Stanley B. Whitman, 246 Baltimore. Phone 6098.

NEW YORK, N.Y.—L. J. Cervone, 917 Castle Hill Avenue. Phone TA 3-2548.

HOUSTON 3, TEXAS—Houston Radio Supply Co., LaBranch At Clay. Phone Capital 9009.

ATLANTA 3, GEORGIA—Specialty Distributing Co., 425 Peachtree St., N. E. Phone Atwood 4406

MONTREAL, QUEBEC, CANADA—Canadian Marconi Company, 211 St. Sacramento St. Phone MA-7081.

FCC RULING ON EDUCATIONAL INSTITUTIONS AND FM

With the new ruling of the FCC educational institutions can now operate 10 watt FM with the restrictions on monitors and other elaborate studio equipment eliminated. Many colleges, universities and larger high schools will install FM in the near future.

Gates, for some time, has been talking and selling FM to educational institutions. With this new ruling an FM packaged deal has been made available consisting of:

- 1 10 watt transmitter complete with tubes and ready to attach to antenna and studio equipment
- 1 SA 89 station control unit
- 1 CB-10 transcription turntable for lateral pickup complete with preampli-

fier, etc.

- 1 Type 556 cardioid microphone
- 1 MS 24 floor stand microphone
- 1 SA 10 monitoring amplifier
- 1 RD 122 base reflex loud speaker
- 1 Gates ring type antenna complete with mounting mast
- 100' 7/8" solid dielectric transmission line

Here, you have a complete outfit for broadcasting, for both studio and transmitter for less than \$3500. It is all that is necessary to do a swell job of broadcasting and well within the burget of most schools.

For additional information consult your Gates sales engineer in your locality or drop a line to the sales department of the factory and it will be sent to you.

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Ruth Howard and Family at Camp



Ann Young At County Fair



Elma Hobbs and Husband At Summer Camp.

Vacation Time is gone for another year. This year for two weeks we camped, traveled or helped the little woman at home. Now everyone is back at work trying to make up for the time we lost. The salesmen, however, did not take their vacations at that time, but continued to swamp us. Stan Whitman was in several times in the last months with customers and has now taken his fur-lined parka out of moth balls and headed north.

Larry Cervone flew in from Rhode Island and the East for a few days, and also to attend the FM convention in Chicago.

Laurence Harry, the west coast representative, was visited by Fred Grimwood who made a flying tour of the southwest and Los Angeles area.

L. I. McEwen spent his vacation in the New England states calling on some of the customers in that area, and generally taking life easy for a couple of weeks.

George Winston of the Dallas office is in line for congratulations, for we hear he took the fatal step during the last month!

Mr. F. M. Morris, Sr. and Jr., and Mr. M. F. Adams from the Atlanta office flew up for a few days, getting some first hand information on new merchandise.

NEW BOOKLET NOW IN PRESS

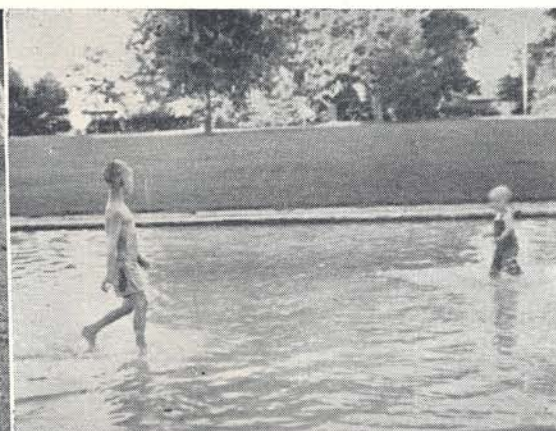
Subject of Standing Wave Ratios Discussed in Layman Terms

Any day now you will be receiving a booklet entitled "Standing Wave Ratios in the FM Broadcast Band." Sounds formidable doesn't it? Well it isn't going to leave you in a mental frenzy after you read it because the entire discussion has been made as simple as possible and still includes the facts essential in dealing with this problem.

Incidentally, standing wave ratios are important. You should know what

Picnic Enjoyed By Company Employees

Gates personnel spent a very enjoyable evening just prior to vacation at Reservoir Park. After a hilarious time during which many were called upon for various stunts and games, a delicious supper was served by the committee headed by Les Sieleman and Bob Flotkoetter. The youngsters especially enjoyed the outing. The pictures show little Mary Gates, P. S.'s youngest and Dean Decker, whose dad is in charge of second floor assembly line, comparing notes early in the evening, and Frank Schnier's boy in the large wading pool. The pool was a popular spot for many of the little folks.



the term means, how to discover whether they exist in your system, how bad they are and what to do about them. We believe that B. E. Parker, our FM and high frequency "brain" has given you something to think about in this booklet and that it is written so that even the owners and managers can appreciate the situation.

If by some chance you don't get your copy of "Standing Wave Ratios" drop us a card. We will send one immediately.

DEFINITIONS

A man with a wonderful vocabulary is one who can describe a shapely girl without using his hands.

Four kinds of women: Fat, skinny, O.K., and—Get-a-load-of-her! !

Imagination: Something that sits up



It wasn't all scenery out west. Little Patty Hildebrandt, father works in FM, found the bears most interesting in Yellowstone.

with the wife when her husband comes home late.