

STUDIO REVIEW

GATES RADIO CO.

QUINCY, ILLINOIS

JUNE, 1948

SA Speech Input Line Industry Sensation

COMPANY'S GROWTH DEMANDS VARIOUS CHANGES IN PERSONNEL



FRED GRIMWOOD



F. W. WENTURA



F. J. PIPPENGER

Personnel changes which were most significant of the growth and expansion of the Gates company were announced this last month. Effective with the new fiscal year, Fred Grimwood, former Chief Engineer was made Vice President in charge of Research, Engineering and Sales Coordinator. At the same time Francis Wentura was moved up from the post of Assistant to that of Chief Engineer. F. J. Pippenger, formerly in charge of sales and Advertising, will now devote his entire time to advertising.

These changes were effected to allow Mr. Grimwood more time for the long range program of company expansion

and product development. It is expected that he will spend larger amounts of time at the company branch offices and personal customer contacts, also working directly with development projects, both at Quincy and at the various government research laboratories.

Mr. Wentura will immediately assume all responsibility for the engineering of equipment manufactured at Quincy.

Mr. Pippenger will be in complete charge of all company advertising, and correlated activities including public relations. Trade publications, catalogues, brochures, instruction books, as well as the Studio Review, are now under his direct supervision.

OUTSTANDING DESIGN ENTHUSIASTICALLY RECEIVED

The complete new line of Gates speech input equipment designed as the Silver Anniversary series has been acclaimed by the entire broadcast industry. The points of superior design are so numerous and finely engineered that comparisons with previously available industry types of similar equipment are impossible. The entire series of amplifiers are now in volume production and currently being delivered to scores of stations. Custom built rack assemblies are also being delivered for complex master control operations and key terminal points.

Marked Changes in Design

We have noted some of the many improvements in the new SA line of Amplifiers and Power Supplies.

A thick aluminum chassis, which has been found to kill all circulating current hum, hitherto a bug to the engineer, has been incorporated in the apparatus. The cast aluminum housing blocks out FF, especially in installations where high powered FM and Television radiation are close to the audio amplifying equipment.

Special attention was given to the reduction of heat by means of natural draft effects in the housing, which lowers the operating temperature a great deal.

Complete serviceability is featured for convenient operating maintenance. Built in illuminating 6 volt lamp, two permanent locating pins for holding the back chassis plate, as well as drop down front door, are major features of this line.

Technical Quality of the Finest

While a lot of practical engineering and advance thought has been put into this new line of equipment, the basic function of performance has likewise been emphasized far past any industry standard or practical operating point.

(Continued on Page 8)

MIDWEST MEN IN FOR A RECHARGE

During the week of May 17 to 21 the various members of the sales staff of the midwest territory held a series of pep talks and round table discussions. Plans were made for the coming fiscal year. New items were discussed. The meetings were under the direct supervision of P. S. Gates and Fred Grimwood. Various other department heads participated in the discussions including Bob Kuhl customer order department; Les Sielman, credit department; John Bowers, purchasing department and Dick Eickmeyer of the catalogues, circulars and sales promotion department.

The two day conference culminated in a banquet in the Lincoln Douglas dining room attended by those mentioned above as well as other Gates department executives.

* * * *

While snooping around the factory we noticed a large new air conditioner being installed in the engineering room with vents into the Sales room and Laboratory. This is probably one of the most welcome improvements made in that part of the factory. It will help to keep these engineers cooled off this summer.

WHEN YOU APPLY TO THE FCC

Applying to FCC? If you are applying to the FCC for a new broadcast station of any class and are not otherwise in business at the location picked out, be sure and do the following at the time your application is filed.

1. Notify the postmaster of the city and give him your proper business address or local residence address.
2. Notify the telephone company.
3. Notify the Western Union office.
4. Notify Railway Express Agency.

The reasons for the above are that we have found that quite frequently government agencies and parties interested in the application, even up to and including FCC, have had mail returned marked "Unknown."

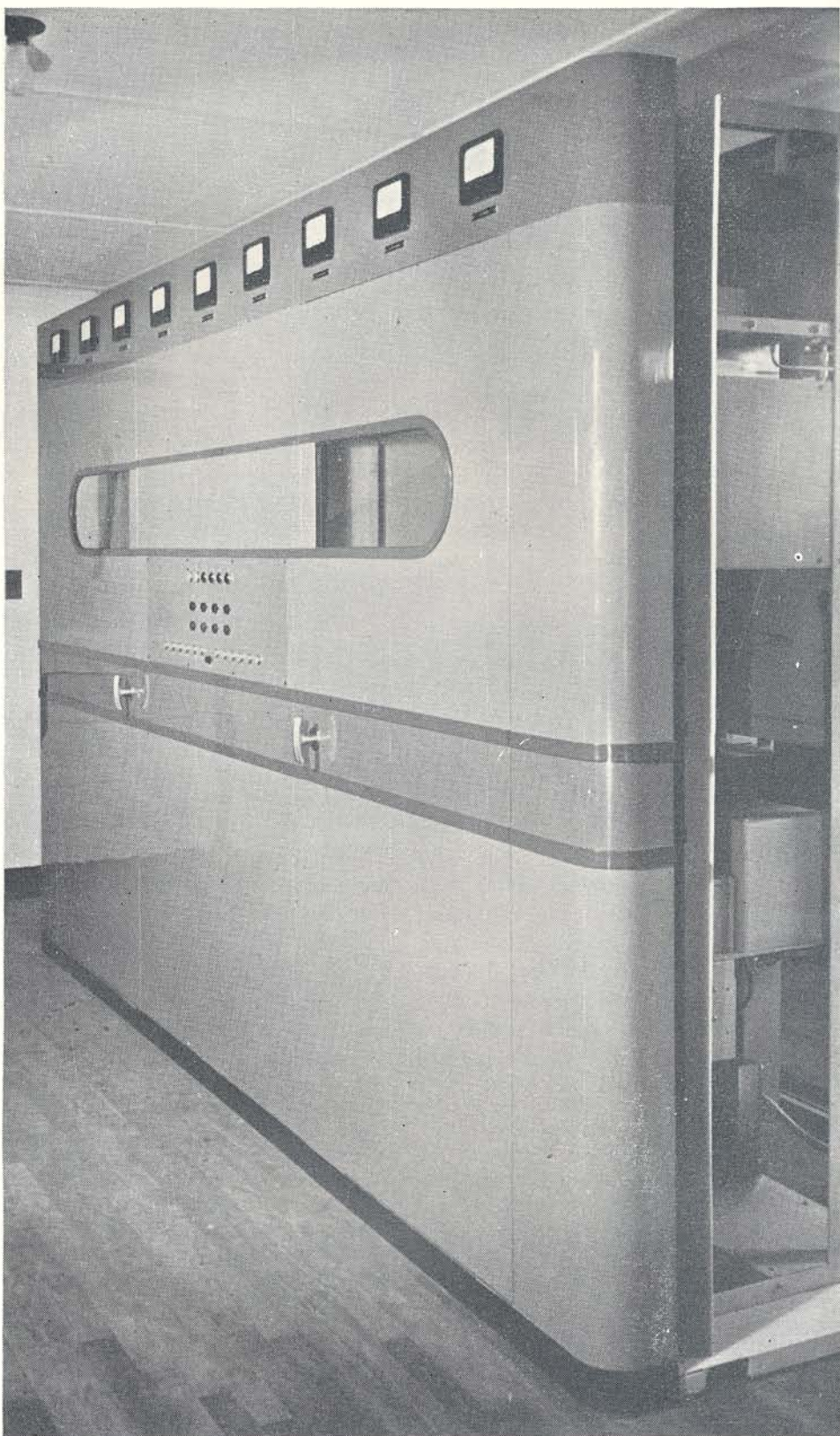
This can result in the station being dropped from the list of many important free transcription services, it means that your mail regarding all industry matters is returned and other things of similar nature can occur. It means that you will obtain all delivery of services and important mail at the same time it is intended for you rather than at a much later date when your business office is established. While the FCC records generally reflect the exact location of the applicant's principal address, this information is not too easily available to the rest of the broadcast industry.

Oh yes, another good idea when applying for a new facility is to call up the nearest Gates Sales Engineer and place a contingent order for the equipment (at least the basic parts, transmitter, console, etc.). Once this matter is cared for, your worries on that line are over. Contingent orders give full protection against model changes. Pricing terms are made firm at the time of the acceptance of a contingent order and there is a definite delivery preference obtained by this simple procedure. The contingent order takes a small deposit, 5% of the total. This is refunded if for any reason your application before the FCC is not granted. Your contingent order is also very good evidence of earnest intentions to operate your facility quickly and amounts paid on these orders can be included as an asset on your balance sheet sent to the FCC. Gates will gladly supply additional copies of the contingent order for use as an exhibit in your application.

— This Is "G" Year —

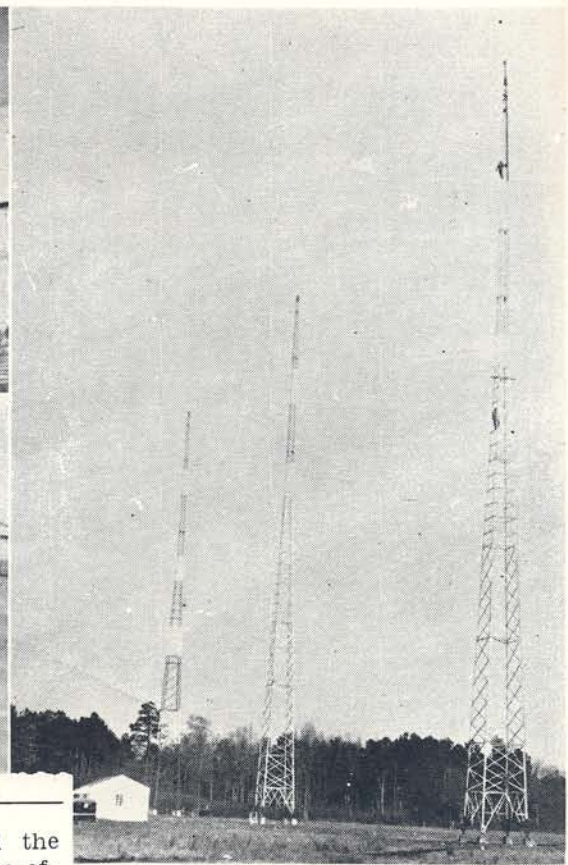
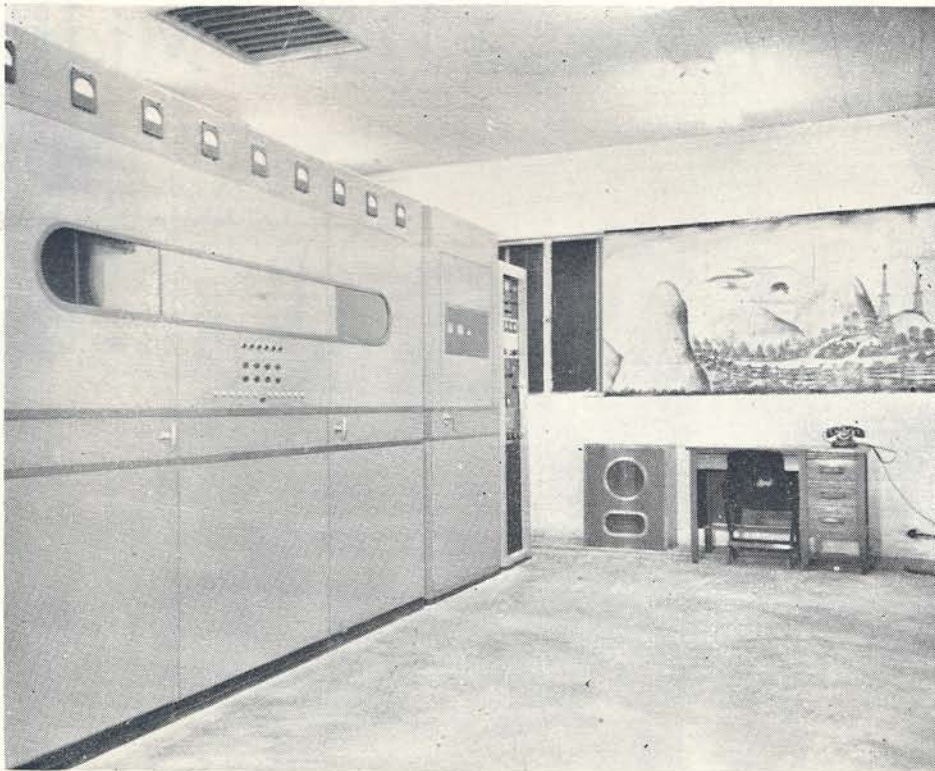
FLASH!!! FLASH!!!

As this paper goes to press two qualified engineers joined the Gates organization. Mr. George Russell Chambers of St. Augustine, Florida, and Mr. Richard Kaiser of Springfield, Ohio. Mr. Chambers will work out of the Washington office and Mr. Kaiser will work out of the Quincy office. More about these men next issue.



BURLINGTON, VERMONT, WCAX

One of the many Gates BC 5 KW installations on the air is that at Burlington, Vermont. Located in the historical countryside around Lake Champlain, this station has been enjoying excellent coverage. They are broadcasting on a directional night and day pattern and have their phasing equipment located at one of the towers instead of with the transmitter. This required a special type of engineering for the Gates designers. Many favorable comments have been received regarding this station.



TUSCALOOSA 5KW ON THE AIR

Figure 1 shows the three-tower directional antenna systems employing three self-supporting towers.

Figure 2 shows the complete Gates 5KW installation with directional phasing equipment in matching cabinet.

WJRD is located in Tuscaloosa, Alabama, the home of the University of Alabama, and is owned by Mr. James Doss, pioneer broadcaster of the south. The station is managed by Eugene P Weil. Lee Rector is Chief Engineer.

WJRD has long been a user of Gates broadcasting equipment, having Gates speech input equipment over ten years of age, which gives such satisfactory performance that they would not consider other than the Gates BC-5A transmitter for their expansion program.

Plans for a 10KW FM installation are now being completed and scheduled to go on the air some time during the fall.

WBMS—FM ON THE AIR

Typical example of the high order of Gates' service and flexibility occurred last month when Radio Station WBMS-FM at Boston, Massachusetts decided that they should start operation in an absolute minimum of time. Almost exactly one week from the time that a firm order was in the hands of the Gates Radio Company a complete 3 KW FM installation, including a Gates' FM-10 Ring Antenna, bazooka section and all pertinent accessories were operating in Boston, Massachusetts.

This high speed operation was carried on through the closest coordination of

both the customer's activity and the Gates' manufacturing. Delivery was effected from Quincy to Boston with all equipment being handled by a furniture van and driving through from Quincy to Boston using a relay of truck drivers. The wheels literally did not stop.

At the exact moment that the equipment was in position at Boston, Bill Parker, Gates' FM engineer, was standing along side to make preliminary adjustments and commence operation.

The broadcast signal is reported as excellent throughout the Boston area and our hats are off to WBMS and all parties for this very successful high speed operation.

Mr. Laurence Harry of the West Coast is very fortunate in having a new home in Pomona. He was unable to secure phone connections until just recently, but it soon will be installed he will be within easy reach of L. A., 25 miles to be exact. One of his proudest and most unique possessions we are told, is a lawn sprinkler that waters the area in a square instead of a circle. One for each yard, front and back, and doesn't cut any corners.

* * * *

Ginny to new little neighbor boy: "Little boy, I need a loaf of bread from the store. Do you think you could go for me?"

Neighbor Boy: "No, but I heard Dad say he could in a big way."

* * * *

A minister attempting eulogy in a funeral sermon: "We have here only the shell, the nut is gone."

VACATIONS AUGUST 21 THRU SEPT. 6

Following its annual custom the Gates plant will again be closed this year for vacation. However, instead of only one week, the employees will enjoy a two week vacation from August 21 thru Sept. 6. In anticipation of this shutdown please send in your orders early for immediate delivery. A skeleton crew will be maintained, however, for emergencies that will arise in the field.

All production schedules have been set up with this vacation plan in view. Therefore no shipments should be affected by vacations. Your cooperation is requested in order to give our workers a much needed rest.

A young bride was annoyed by her husband's presence in the kitchen while she was preparing dinner. And when he accidentally knocked her cook book to the floor, she flared up. Sally: "Now look what you've done. You've lost the place and I haven't the least idea what I'm cooking."

* * * *

First Doctor: "I see that you gave that little blonde a private room."

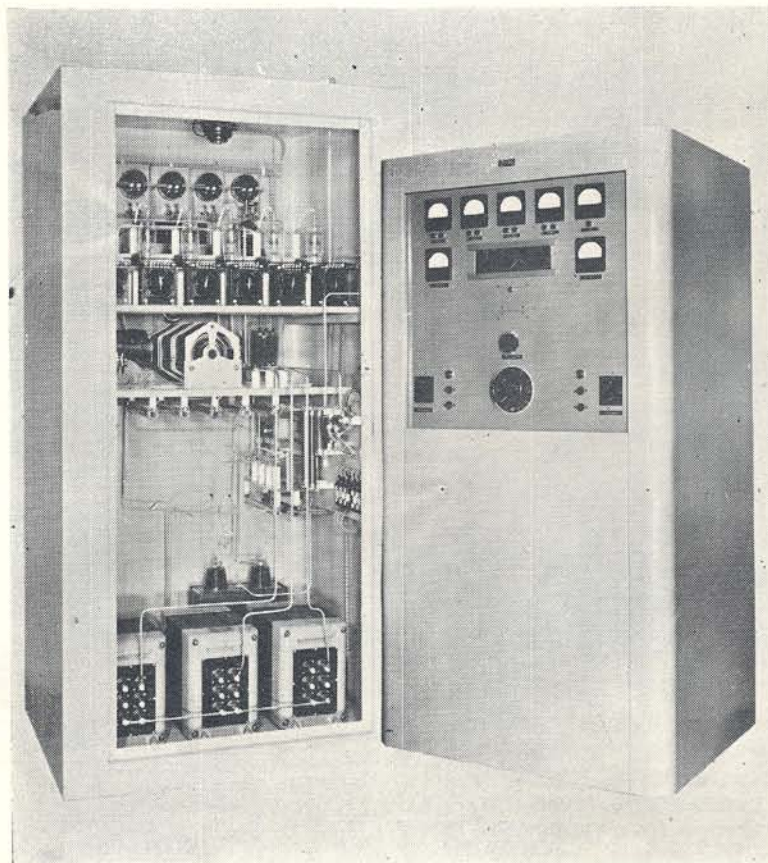
Second Doctor: "Yes, she was too cute for wards."

* * * *

Friend: "Why did you shoot your husband?"

Pretty young wife: "We couldn't afford a divorce."

Gates Engineers Burn Midnight

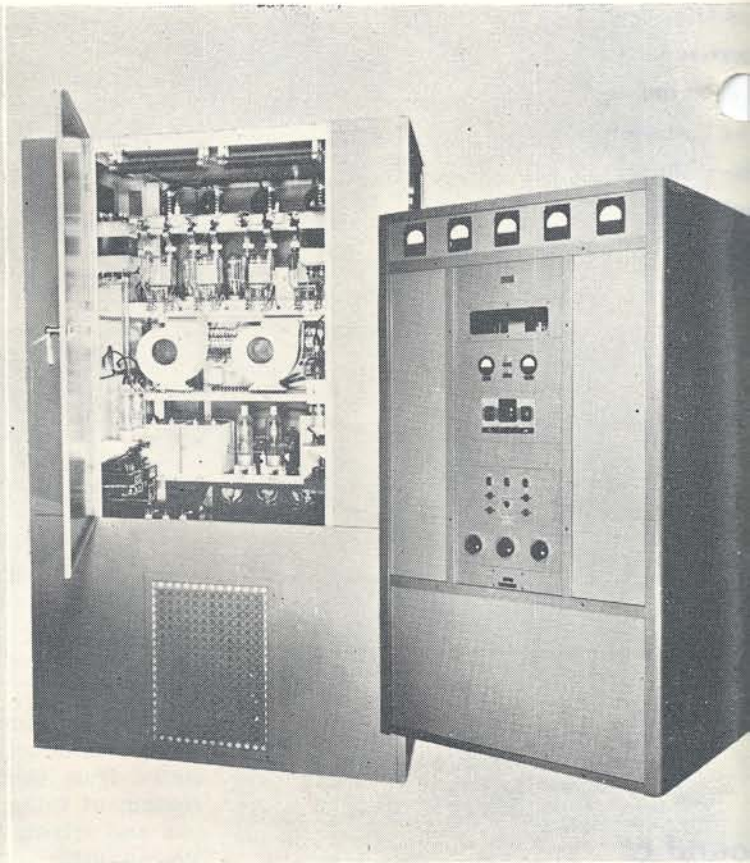


Specialized Equipment In Demand

Over the past several years the Gates company has delivered many units of non-standard equipment of special type which to the layman would appear to be unsuited for any purpose, but which perform a function not otherwise possible except to this specific laboratory. While the design of AM and FM broadcasting equipment is the principal function of the Gates engineers, a great number of special jobs involving high powered electronics keeps both the engineers and drafting department busy. A brief review of some of this equipment is shown on these pages.

Indiana State Police Radio Networks

This is the main control room of the Indiana State Police Radio System, Stout Field, Indianapolis, Indiana. The equipment used here is predominantly Gates. Many will recognize the two Gates Studioettes located adjacent to the WPHE call letter plates. J. M. Spade, maintenance engineer for the Indiana State Police System spent a great deal of time both in Indianapolis and the Gates factory planning the complex requirements for the centralized control of one of America's largest State Police networks. He states that the results exceed expectations for the new installation, and that additional equipments of this nature will be installed speedily.



Power Supplies Adapted For Particular Work

The special power supply shown to the left, above, was developed for a laboratory engaged in the analysis of foodstuffs and their various elements. The unit will deliver 10,000 volts at 600 milliamperes DC output. The series of meters across the top are for measuring both the output voltage and the load current. One big trick on this o



t Oil On Specialized Apparatus

was that the output had to be metered down to 1 microampere. This involved a host of problems concerning normal circuit leakage, corona current and meter protection. All were well in hand when the unit left the factory. General report back from the user is that the principal function of this unit is to separate elements in gasses by means of electrostatic fields.

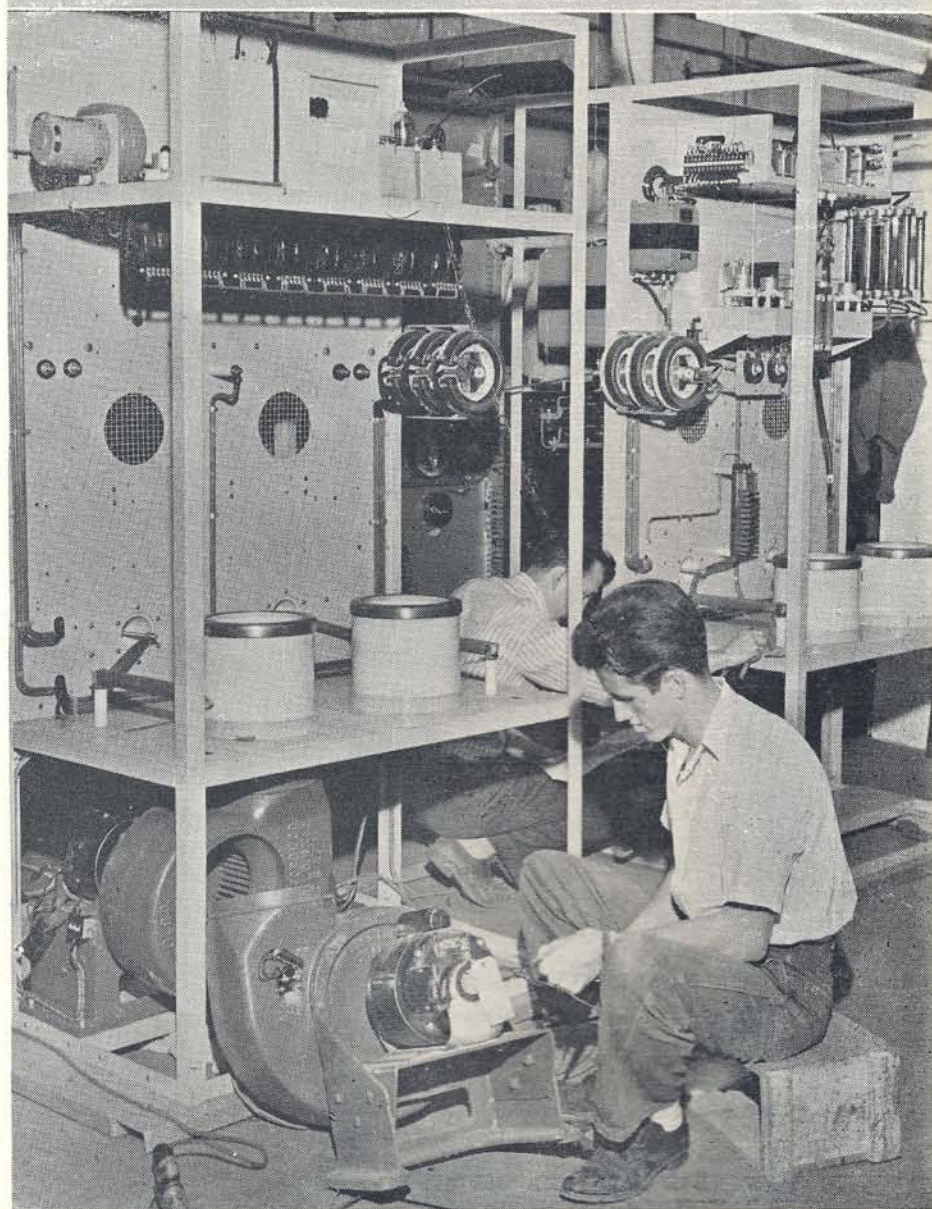
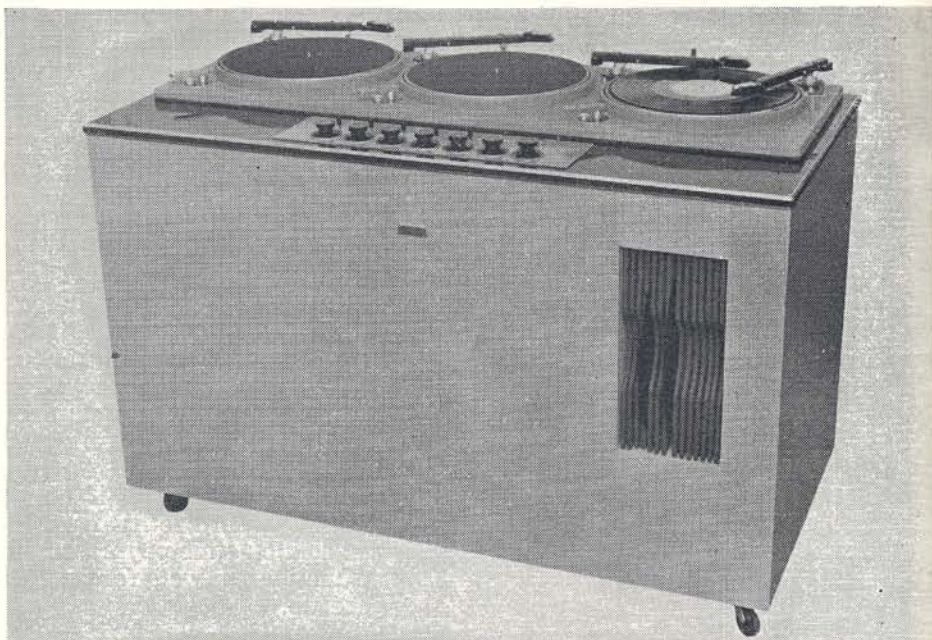
The second picture on the top of the opposite page is that of a 2500 watt shaker or Fatigue Amplifier. This type of amplifier is connected to an immense loud speaker moving coil mechanism and used for determining the natural frequency period of mechanical objects and to determine their breaking point. Amplifiers of this type have been delivered by Gates in all wattage ratings from 250 to 15,000 watts.

Sound Effects Table For Puerto Rico

Another special engineering task in recent months was that of a sound effects table built for a radio station in Puerto Rico. This table was primarily designed for the reproduction and mixing of special sound effect records as used in broadcast studios. This was accomplished by three precision dual speed turntables, and four magnetic phono-pickups, a mixing system and booster pre-amplifier feeding into a four stage high fidelity amplifier which in turn drives an external speaker.

15,000 Watt Audio Amplifier

Photograph to the right show the partially completed, very high-powered audio amplifier. This audio amplifier will deliver 15,000 watts of high fidelity energy from an output transformer that has impedance matching taps from three-quarters of one ohm upward. The loud speaker mechanism into which this energy is delivered is roughly the size and shape of a full size barrel. This energy is used for various laboratory purposes both mechanical and acoustical.





TED CILES

The above solid citizen is Mr. Theodore A. Giles, the Gates engineer responsible for all general field work. Mr. Giles has coordinated the organization and supervised the installation of various types of Gates equipment from coast to coast.

Ted has been in radio virtually since its invention, and for nearly a score of years prior to his association with Gates he was in charge of broadcast stations of 5KW power. His widespread experience gives him the capability of quickly sizing up any broadcast technical situation and evaluating its status with minimum delay.

Typical work done by Mr. Giles has been installing and adjusting Gates FM equipment up to 10KW power, measuring and adjusting all kinds of transmission lines and antennae, maintaining uninterrupted station operations through major equipment shifts, and other similar projects requiring high technical skill and engineering accuracy.

Ted's list of industrial friends stretches literally from coast to coast.

GATES STUDIO REVIEW

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What Makes a Price Tag

Once in a great while we hear from a customer the logical remark—"It must be better because it sells for more money." The Gates position has always been that of a fair and not exorbitant price policy and those who have used the post-war Gates line will readily agree. It is always as good as the highest priced, and very frequently better. We thought a few words on the subject of what makes a price tag, would be of interest.

During war years it was not strange to find one of our competitors making a Gates item, and we at Gates making that of a competitor. Obviously cost breakdown sheets were interchanged. In almost every instance the charge for material was no more on one cost sheet than another—they ran very close—at times Gates was a few cents high and at other times a few cents lower than a competitive cost sheet on the same item. We can thus conclude, at least from the above, that as far as materials are concerned all manufacturers come up nearly the same. This is logical, for after all a transmitter, no matter what the make, takes so many coils, condensers, meters, transformers, etc. The important fact is that no manufacturer is going to be foolish enough to make a quantity of one, five or ten thousand dollar items that is other than the best he knows how to build, as he knows if they are inferior, non-acceptance by the customer could jeopardize his financial standing. Furthermore, as much equipment is sold on time payments, he also knows that this equipment must keep on functioning well for at least three years, or Mr. Customer will get his ire up.

Thus, why the difference in price? Why, for example is a Gates product a dollar, when seemingly the same thing from another company is twenty cents or more higher? The reason is indeed other than materials, and as wages for good workmen are high everywhere we must look to other reasons. In the case of Gates we feel that our specialization develops efficiency. We have, we believe, learned ways of doing things better in less time because our business is tuned to one thing—that of making broadcasting equipment.

Another equally important factor is that every Gates stockholder works for Gates—remember not a single outsider holds a share of Gates stock. This means genuine interest in production efficiency and equipment quality. It also means that instead of a large amount of stock holders to satisfy there are only those who work for Gates—so if a decision is made to put profits back in the business, which is always the case, then these working stockholders are satisfied with a very modest dividend because they know each year their stock becomes more valuable and their job more secure.

Other things contribute to the price tag—advertising, maintenance of property, administration, stock turnover, etc. For these Gates has managed wisely and helped further to offer better products for less.

It is certain that those that must charge more are not enthusiastic about Gates prices. Actually Gates prices average about 20% less. Not a large figure until we start talking about a multi-thousand deal—then it is real dollars.

With all this Gates is considered the number one place to work in Quincy, Illinois. Employing actually more people than during the war. The working conditions are ideal considering that over half of the plant is airconditioned, recesses are enjoyed each morning and afternoon, with rolls and coffee served to all. A soft ball team is sponsored, made up of the men of the plant, plus a basketball team and men and ladies bowling team. There is no piece work or time studies to produce hastily made equipment.

In short, we at Gates know we make mighty fine material and we are proud that our production efficiency and other improvements makes possible a modest price tag. The establishment of a selling price that is fair is part of good business procedure. Likewise a fair return on the sale in the form of profit is the reason for being in business. The cost of the product and the amount of the profit determine the selling price. By efficiency our cost is lower and being satisfied with a modest profit is the reason for present day moderate Gates prices—there is no other reason—there can be no other reason—.

P. S. Gates



The Gates employees have entered wholeheartedly in the sports program for the summer and are included in the city softball league. Although the first game was played under the handicap of little practice, they are all enthused about winning this year. An added incentive was new suits of flaming cardinal red with white trimming. Gene Hildebrandt is the manager of the team.



NATURE BOY, THEY CALL HIM

About the same time Fred Grimwood moved into new offices, a few weeks ago, a mother sparrow hawk set up house-keeping about six inches from the window just behind him. She faithfully guarded her two eggs thru all the chatter and commotions her presence caused, until bright and early on the morning of June 11, she presented Fred with twins. It is still too early to say whether Fred will tame the little creatures or if they will answer the 'call of the wild.'

Due to outside "interference" no static was forthcoming the last couple of issues. To bring you up to date:

Mr Art Myers made a quick trip to Chicago to complete plans for the formation of a new department for the fabrication of large cabinets and enclosures. More details about this change in a forthcoming issue.

* * * *

Included in the many visitors who called at the plant was our tall, jovial Texan George Winston, the Dallas representative of Houston Radio, who flew up to Quincy with a prospective customer. George, a true, native Texan, when asked how he could drag himself away from "God's Country" down thar' informed us that he always carried a doctor's prescription to tide him over. Nonchantly he produced a bottle from his vest pocket labeled "No. 1111105..... Dr Crow.....PURE TEXAS AIR..... To be inhaled twice daily while out of the state."

* * * *

The office force at the factory underwent a siege of measles. Les Sieleman of the Credit Department broke out with a rash but, of course, we thought it was just from worry over delinquent accounts until Mr. Petzoldt of the Accounting department and Wilma Cox of Purchasing Department had to stay home. Then Bill Penrose of Cost Department broke out with them. It was still a big joke until P. S. himself got them, didn't go home soon enough and had to be in bed for a week—So if you get a measly rash, take it easy! !

* * * *

Cupid has been working overtime with a "hitch" every Saturday for the sum-

mer. Herman Gerweler and May Daniels of the office; Bill Penrose of Cost Department; Sally Adair of Cost Department and Frank Bruening of Machine Shop; Charles Frese of Machine Shop; Dorothy Calhoun of Assembly Line; Alvina Anders of Stock Department and Virginia Sharp of the office.

* * * *

Husband: "What possessed you to choose lemon color for your new gown?"
 Wife: "It was because I had such a job squeezing it out of you."

* * * *

Teacher: "Johnnie, do you want to leave the room?"
 Johnnie: "You don't think I'm standing here hitch-hiking, do ya?"



The Gates exhibit, one of the most prominent at the NAB convention was well attended and the GY-48 and the SA-50 Console were constantly under the close scrutiny of the broadcasters who were impressed by the newest and latest innovations incorporated in these two units for the up to date broadcaster. The various executives who attended the convention were very much impressed by the West coast hospitality. See you all in Chicago next year.

SA Speech Input Line Industry Sensation

(Continued from Page 1)

Distortion is extremely low. Noise level on most units is from 75 to 80 decibels below a correct operating output. Fidelity from 30 to 15,000 cycles is flat within 1 decibel.

Standardization Gives Economy

The entire line of SA speech input equipment has been designed in such a way that items such as preamplifiers, line amplifiers, power supplies and terminal panels are interchangeable both between the SA-50 Console, various rack units, and special assemblies. This interchangeability means that, both for procurement and manufacture, considerable economics can be effected which directly lower the price of all equipment.

Officials of the income tax division received the following acknowledgement of a blank received by a citizen.

"Dear Treasury: I received your application blank. But I already belong to several good orders and do not care to join your income tax at this time."

* * * *

Reformer (speaking): "Friends, I am here to save the girls of your city!"

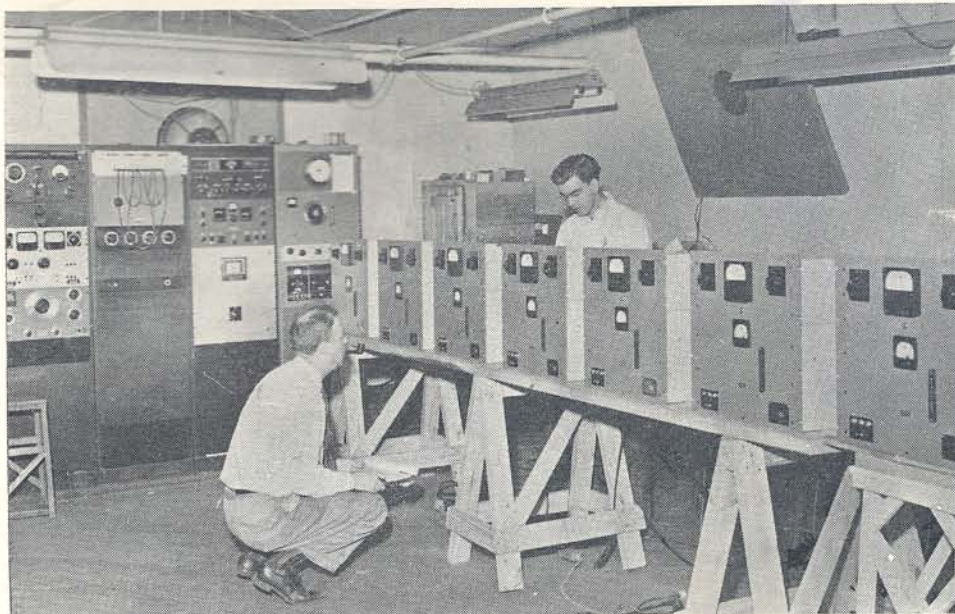
Man's Voice: "That's O. K. Save me a blonde, will you?"

"TESTER THOMPSON TAKES TRIP"

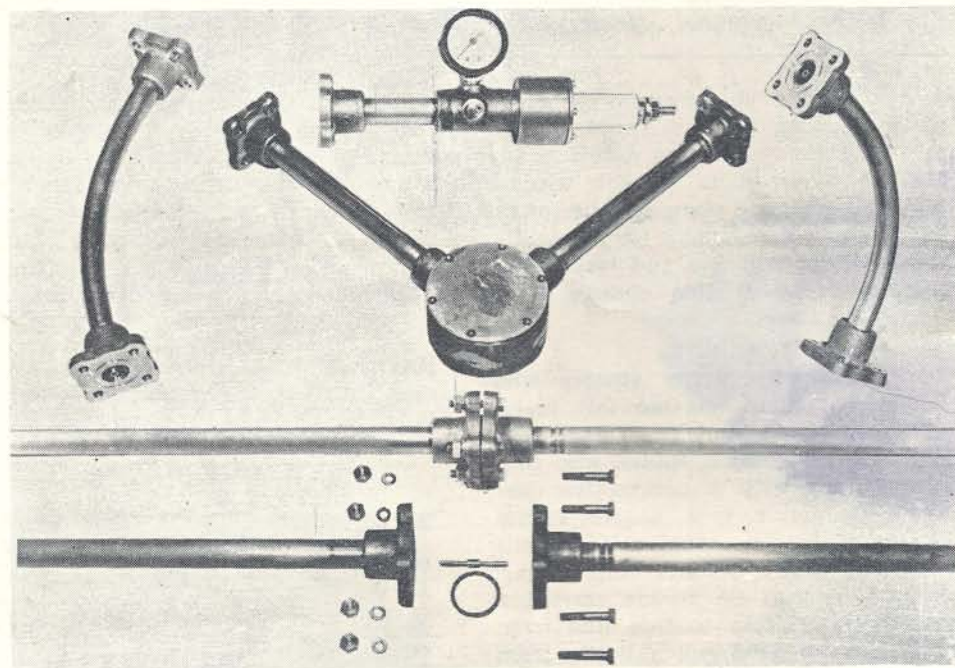
George Thompson, principal test engineer at the Gates Radio Company and formerly an inspector for the United States Army Signal Corps in the Gates plant, found himself on the other side of the fence. George made an extended air trip through the New York—Washington area inspecting research projects and laboratory developments. He brought back to Quincy literally pounds of reports and equipment analysis data which in itself was a remarkable job to be done in such a short time. George's 3000 mile trip was most enjoyable due to the splendid cooperation he received everywhere and flying weather was most excellent.

Incidentally, the recent improvements in air transportation in and out of Quincy makes it possible to deliver and order, received before noon, to any coast of the United States before midnight. So if you need a rush shipment call on us for this expeditious service. The only limit is that the floor load be no more than one hundred pounds per sq. ft. Numerous TWA and Mid Continent flights out of Quincy each day brings the factory now as close as the downtown wholesaler.

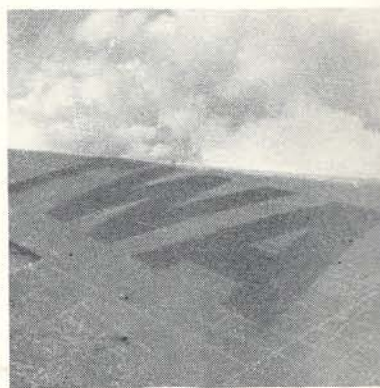
One of the pictures George brought back shows the Washington Monument in the distance taken from our Washing-



A run of the Gates Frequency Monitor being tested before shipment. Lou Evans, engineer in charge, and Wally Kabrick, at one of the check readings.



Fittings which are in the line of Gates Coaxial Cable. All are of the solderless connection type to make installation easy and fast.



ton office window in the Warner Bldg. If he had moved his camera a few inches to the left we might have had a picture

of the F. C. C. hard at work, since their office is to the left of the building in the foreground.

