

THE BROADCAST ENGINEERS' JOURNAL
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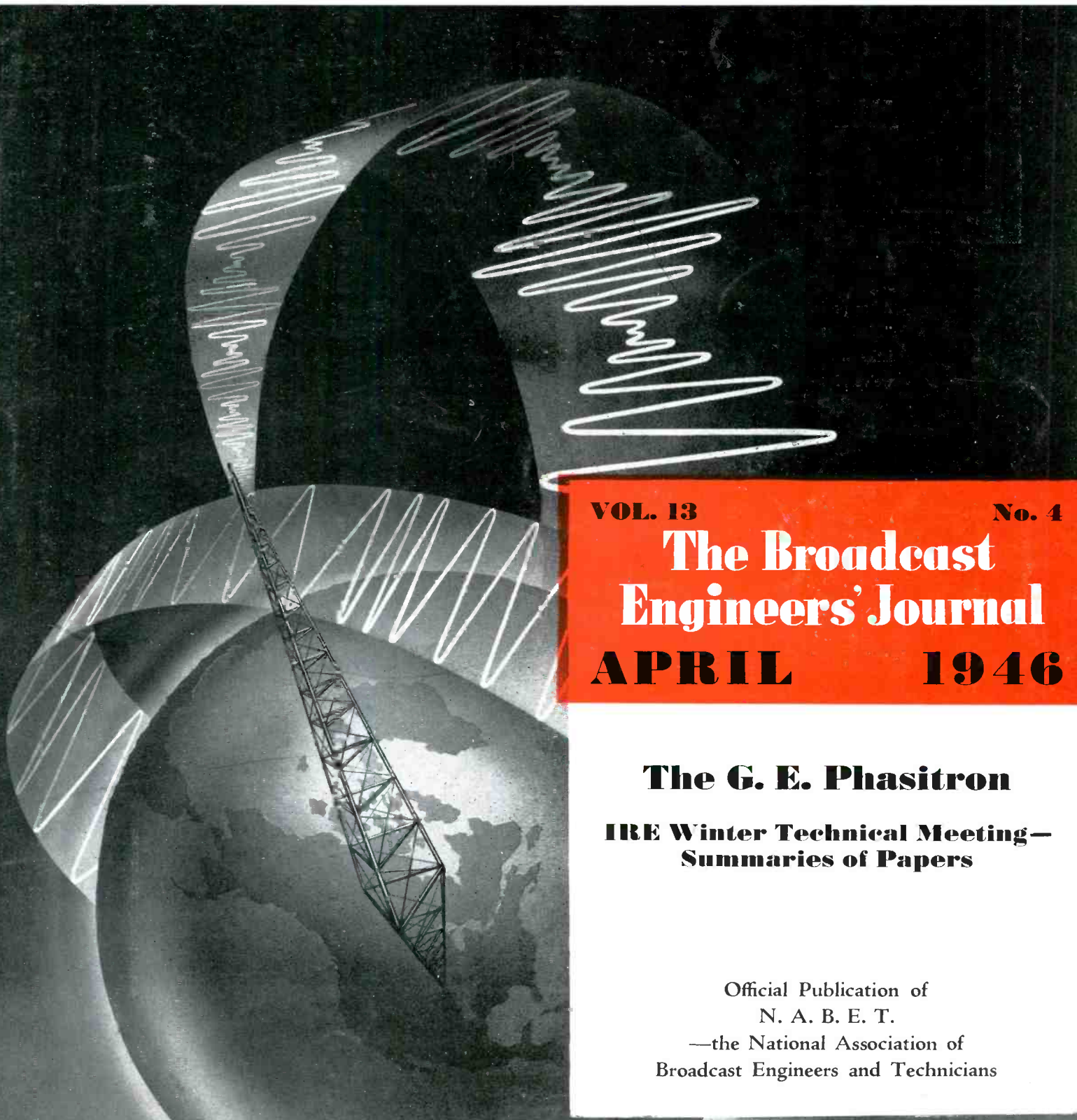
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The Broadcast Engineers' Journal

APRIL

1946

The G. E. Phasitron

**IRE Winter Technical Meeting—
Summaries of Papers**

Official Publication of
N. A. B. E. T.
—the National Association of
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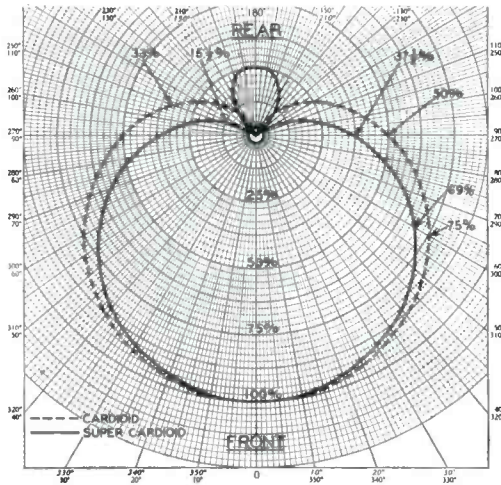
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THE BROADCAST ENGINEERS' JOURNAL

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NATIONAL N.A.B.E.T. OFFICE
 Room 501, 66 Court Street, Brooklyn 2, N. Y.
 A. T. Powley, President

NABET ACTIVITY

March 7, 1946.

NEWS BULLETIN

During the month of February, the following stations have joined NABET:

KDKA, Pittsburgh
WBZ, Boston
WBZA, Springfield, Mass.
WPTZ, Philadelphia (Philco Television)
WROK, Rockford, Ill.

NABET is demanding that FCC order 91-C be repealed. This order was issued as a war-time emergency measure and permits the use of third-class operators. Many independent stations, particularly through the South, are now employing third-class operators even though first-class men are available. These stations are advertising for third-class operators at \$80.00 per month, and, I am sorry to say, obtaining operators who are willing to work for those wages. You can readily see that if this situation continues, the overall wage rates of transmitter operators will be lowered and their value will consequently decrease. The National Association of Broadcasters, with the help of many independent station owners, is making an effort to have this order enforced on a permanent basis.

In cooperation with the National Office, I ask that every NABET member who learns of stations employing third-class operators notify this office. Also, please report any unemployed first-class operators, either NABET members or not.

The Philadelphia Chapter, comprising Stations KYW, WFIL and WPTZ, have been granted a charter by the National Council. The Syracuse Section of the Rochester Chapter have petitioned this office for a charter and the National Council is now voting on a motion in this matter.

I have also received a petition for a charter from the Pittsburgh Stations KDKA and WCAE. A motion will be submitted shortly.

Negotiations are under way for contracts with the ABC/NBC Traffic and Communications Departments. We have notified management of Station WHEC, Rochester, that we wish to open the contract for wage adjustments. Mr. Schnepfer is negotiating a contract with the management of WROK, Rockford, Ill. I expect to go to Boston next week to certify WBZ and WBZA, and, at the same time, discuss contract matters with the Boston and Springfield members.
A. T. POWLEY, President.

Washington Office Report for the Month of February, 1946

On February 1, 1946, the National Representative was forced to strike WAGA, in Atlanta, Ga. Through the considerable effort of President Powley, this strike was successfully concluded on February 6, 1946, and contract negotiations were re-opened. The strike was due to failure of management to negotiate with representatives of the National Office.

In January, a dispute at WBIG, in Greensboro, N. C., was settled. This dispute was due to the Company's violation of the contract. Restitution was made by the Company in this particular case, but less than two weeks later the Company again violated the contract in much the same manner as it had done before. The National Representative, after some correspondence, advised the Company that it wished the points at issue to be taken to arbitration.

Radio Station WLEE, in Richmond, Va., has been organized, and a Petition of Certification has been requested of the NLRB.

The WOL contract negotiations were terminated by the Cowles Broadcasting Company when it refused to negotiate further with the National Representative concerning wage increases. WOL is one of the leading stations in Washington, D. C., and is paying the lowest wage scale in the City. This station was formerly represented by ACA of the CIO. The wage proposal of the Company would still leave Radio Station WOL the lowest paid station in the City. It was, therefore, necessary to take a strike vote and issue a strike notice. The Manager of the station referred the case to higher authorities within the Company and they, in turn,

(Continued on Page Seven)

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that is 100%
Of, By and For
the
BROADCAST
ENGINEER

Attention Broadcast Engineers!

- NABET is a dignified union *worthy* of your support.
- NABET is an *effective* union, Of, By, and For the Broadcast Engineer *exclusively*, operated upon and dedicated to the principle that every member has a *right* to know what is going on in the union's "front office."
- NABET is controlled by its *members*; they have the right to vote on all matters of union policy. As a NABET member, you would have the *right* to Okay any actions which your President might take.

Contact any of the following officers for further information

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The 1946 Winter I. R. E. Meeting

Summaries of Technical Papers, Alphabetically by Authors' Names, Continued from Last Month

By Ed Stolzenberger

No papers are available in preprint or reprint form nor is there any assurance that any of them will be published in the Proceedings of the I.R.E. and Waves and Electrons, although it is hoped that many of them will appear in their pages.

72. Two Multichannel Microwave Radio-Relay Equipments for the U. S. Army Communication Network.

Raymond E. Lacy

(Coles Signal Laboratory, Red Bank, N. J.)

Radio set AN/TRC-5 and radio set AN/TRC-6 are described whereby the U.S. Army Signal Corps has pioneered in applying the art of microwave techniques to communication equipments in order to provide transportable multichannel radio-relay sets for interconnection with high-grade voice circuits. An explanation is given of radar-type pulsetime-division methods of modulation which eliminate the relatively cumbersome carrier-frequency terminal equipment usually associated with a multiplex system. Audio performance and radiation characteristics are shown which presage a microwave epoch for long-lines communication.

82. Capacitance-Coupled Intermediate-Frequency Amplifiers.

Merwin J. Larsen

(Stromberg-Carlson Company,
Rochester, N. Y.)

The design and performance of capacitance-coupled intermediate-frequency amplifiers is discussed, with particular emphasis on applications to television receivers. Experimentally obtained curves are presented as an aid in selecting the circuit parameters necessary to produce flat-top frequency response for various operating ranges. The design of capacitance-coupled traps is treated theoretically, and experimental evidence is presented to show the validity of the theoretically predicted results.

62. The General Problem of Crystal Rectifiers.

K. Lark-Horovitz

(Purdue University, Lafayette, Ind.)

A blocking layer at the boundary of a semi-conductor and a metal is assumed. Discrepancies between theory and experiments are explained on the basis of multicontact potential theory. The radio-frequency behavior, studied on the basis of a contact resistance and contact capacitance in parallel, with a spreading resistance in series, indicates that different assumptions are necessary for different semiconductors.

Theories of contact rectification assume a blocking layer at the boundary semi-conductor (SC)—metal with a ratio of its thickness t to mean free paths l of electrons in SC determined by the number n of electrons

and their mobility b as determined from Hall effect and conductivity: $t \ll l$ diffusion theory, $t \approx l$ diode theory. The DC characteristic is then given by an equation of the type $i = i_0 (a^V - 1)$ ($a = e/kT$)

Discrepancy between theory and experiment $i_{obs} \neq i_{th}$ is explained on the basis of multicontact potential theory. (Applications: Surface treatment and adsorption). The RF behavior studied on the basis of the usual model: contact resistance in parallel to contact capacity and in series with a spreading resistance indicates the necessity to assume different models for different semi-conductors.

58. A Three-Beam Oscillograph for Recording at Frequencies up to 10,000 Megacycles.

George M. Lee

(Central Research Laboratories,
Red Wing, Minn.)

Transit-time distortion is a fundamental limiting factor in the application of high-speed cathode-ray oscillographs to the recording of high-frequency voltages or fast transients. A three-beam, high-speed, micro-oscillograph is described in which the transit-time reduction in deflection sensitivity is calculated to be but 4 per cent at 3,000 megacycles and 40 per cent at 10,000 megacycles. Single-sweep oscillograms of 3,000 and 10,000 megacycle oscillations and 10-9-second transients are shown.

40. Cascade Amplifier Klystrons.

E. C. Levinthal

(Sperry Gyroscope Company, Inc.,
Garden City, L. I., N. Y.)

The theory of operation of a three-resonator klystron amplifier is discussed for the case of small-signal operation. An analogy between the operation of a cascade amplifier and velocity modulation by a saw-tooth voltage is demonstrated. Some calculated values of tube parameters are given which yield theoretical efficiencies in the neighborhood of 74 per cent. Data are presented which verify the production of greater efficiency for large-signal operation.

17. Ultra - High - Frequency Television Receivers.

Harold T. Lyman

(Columbia Broadcasting System,
New York, N. Y.)

Combined black-and-white and color television receivers, both in direct-view and projection types, have been developed in the Columbia Broadcasting System laboratories. These receivers operate in the television band between 480 and 920 megacycles with sight and sound on one carrier. Details of circuit design, mechanical layout, and performance data will be presented.

73. Enemy Radio and Radar Equipment.

Lieutenant Commander E. L. Luke and
John C. Link

(Naval Research Laboratory,
Washington, D. C.)

2. The Role of Electronics in Anti-aircraft Gun-Fire Control.

Captain F. B. MacLaren

(Ordnance Department, Frankfort Arsenal,
Philadelphia, Pa.)

During the war, our major caliber anti-aircraft equipment advanced from an essentially mechanical system to one employing electronics as a vital part. A detailed description of the circuits involved in associated radar, computer, servomechanism and proximity-fuze components, compared with equivalent enemy material, will explain the high degree of effectiveness obtained in combat. However, many improvements are still needed in electronic systems to supplement the defense against weapons such as the German V-2 rocket, especially if augmented with atomic power.

49. Application of Radar Techniques to Aircraft Fire-Control Systems.

Major E. A. Massa, Captain I. Paganelli and Captain Fred A. Best, Jr.

(Radar Laboratory, Air Technical Service
Command, Dayton, Ohio)

This paper discusses the basic problems involved in airborne fire control systems and the three basic types of radar systems which have been developed to solve these problems. A more detailed description of several of these equipments, including equipments which depart from conventional radar design, are presented. The advantages which have been gained by the use of the radar in this field are listed and analyzed.

38. Secondary-Emission Cathodes for Magnetrons.

J. W. McNall, H. L. Steele, Jr., and
C. L. Shackelford

(Westinghouse Electric Corporation,
Bloomfield, N. J.)

A few weeks before Pearl Harbor, an investigation was begun at the Massachusetts Institute of Technology Radiation Laboratory on cathodes for microwave multicavity magnetrons. The cathode used for such tubes was an indirectly heated oxide-coated cathode. It was known that the cathode temperature increased considerably due to backbombardment by electrons when the magnetron was operated, and, in fact, it was believed that

(Continued on Page Seven)

The General Electric "Phasitron"

By E. L. Robinson

Electronics Dept., General Electric Co., Schenectady

Technical description of a revolutionary new General Electric FM transmitter circuit using a new modulator tube called the "Phasitron"

GENERAL ELECTRIC's prewar FM broadcast transmitter circuit employed a master oscillator and reactance tube for producing frequency modulation. The frequency stabilizing circuit employed a crystal oscillator as a reference and electronic means of comparing the average output frequency of the transmitter with the reference frequency. The correction factor of approximately 150 to 1 for any frequency deviation was applied to the reactance control tube through a delay circuit to avoid demodulation. The performance characteristics of this prewar circuit complied with all requirements of the FCC.

The percentage frequency stability tolerance of the FCC for the new FM band is now one-half the prewar tolerance. Rather than complicate our prewar reactance tube circuit with the necessary refinements we sought a new approach to the problem of obtaining a better circuit and investigated several entirely new ideas. This resulted in the development and adoption of the new FM modulator tube (named the "Phasitron") and circuit described in this article. The tube was proposed originally by Dr. Robert Adler of Zenith Radio Corporation of Chicago, Illinois. In the development of the tube and circuit, basic ideas were contributed by Dr. F. M. Bailey and Mr. H. P. Thomas of General Electric's Electronics Department.

The performance features of the new FM transmitter circuit are:

Direct crystal control using a single crystal

Modulation independent of frequency control

Less distortion

Lower noise level

Better frequency stability

Extremely simple, direct, and reliable

The purpose of the modulator tube is to make possible the introduction of comparatively wide phase excursions at audio rates in a crystal controlled radio frequency carrier voltage. The audio response characteristic of the circuit is such that the output of the tube is wide-swing Frequency Modulation. A schematic block diagram is shown in Figure 1.

The structure of the modulator tube, shown in Figure 2, is the basis around which this circuit is built. Figure 3 shows an enlarged cutaway view of the tube elements.

Anode No. 1 and Anode No. 2 are at positive d-c potential and draw electrons from the cathode. By means of the two focus electrodes, these electrons are formed into a tapered, thin edge disc. This disc with the cathode for its axis lies between the neutral plane and the deflector grid structure and extends out to Anode No. 1.

The deflector grid consists of 36 separate grid wires. These wires are lettered A, B, and C in Figure 3. All of the A wires are connected together, all of the B wires are connected together and all of the C wires are connected together. Figure 4 is a developed view of this grid structure and the neutral plane.

The output of a crystal controlled

oscillator (Crystal frequency = Carrier frequency \div 432) is amplified and fed into a phase splitting network which converts the single-phase radio-frequency voltage to three phase. This three phase voltage is applied to the deflector grid as shown in Figure 4. Phase A connects

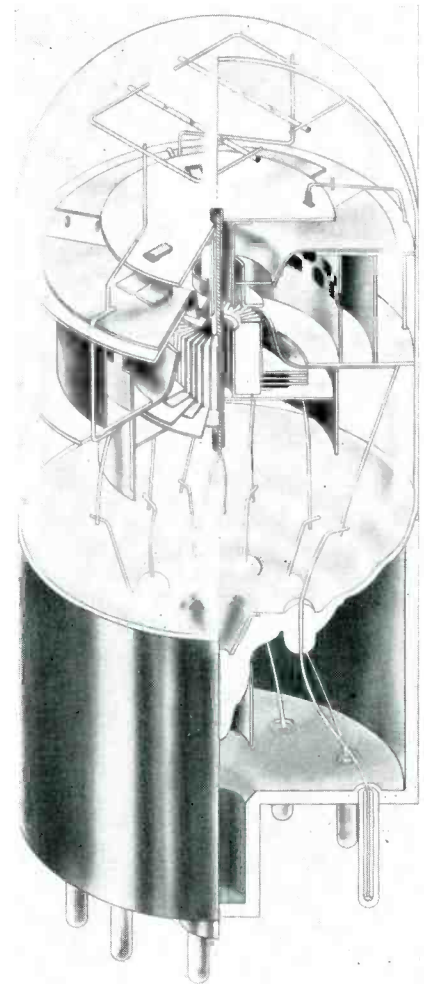


Fig. 2

to the grid wires marked A, phase B to the B wires, and phase C to the C wires.

Referring to Figure 4, the deflecting action on the disc of electrons passing between the deflector grid and the neutral plane is as follows: At Instant 1 Figure 4 grid wires A are positive with respect to the neutral plane while grid wires B and C are negative. This results

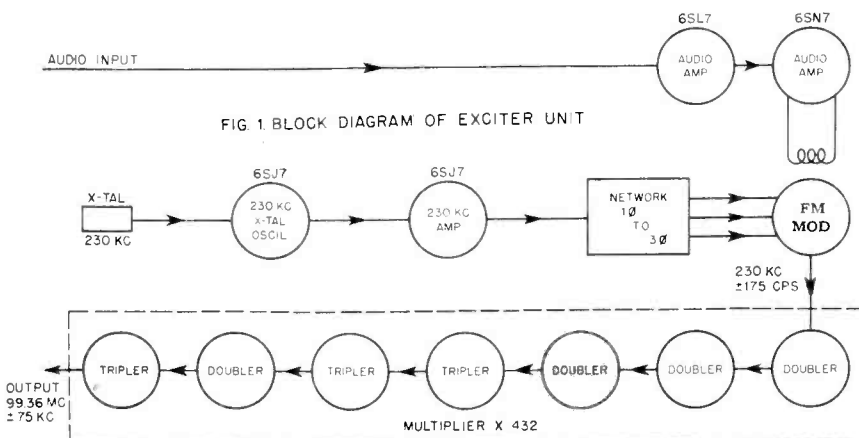


FIG. 1. BLOCK DIAGRAM OF EXCITER UNIT

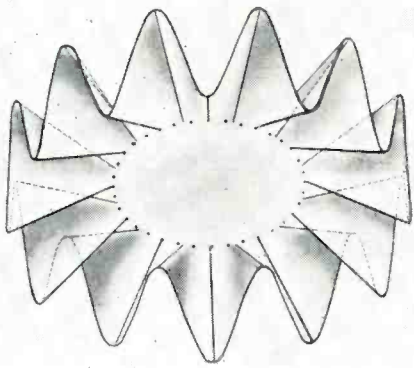


Fig. 5

in deflection of the electron disc as shown in Figure 4. Shown in perspective the disc would appear as in Figure 5. At Instant 2, one-third of a cycle later, grid wires B are positive and wires A and C are negative. The resulting deflection would be as shown at Instant 2 Figure 4. The serrated edge of the disc would appear to have moved the space of one grid wire during the time interval between Instant 1 and Instant 2. With the three phase voltage applied to the deflector the disc shown in Figure 5 appears to be rotating.

Figure 6 shows a developed view of a portion of Anode No. 1. This anode has 24 holes punched in it. Twelve above the plane of the electron disc and twelve below. The rotating serrated edge of the electron disc impinges on this series of holes. At an instant when the disc edge is lined up as shown by the solid line in Figure 6, most of the electrons pass on through to Anode No. 2.

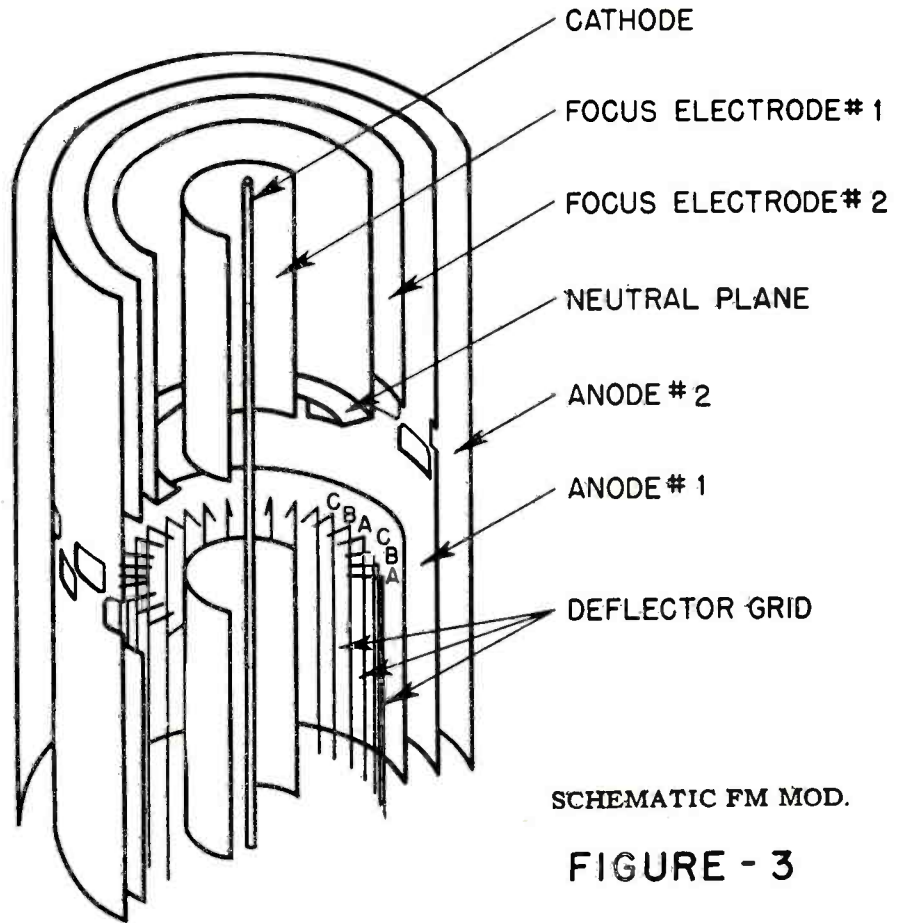
One-half cycle later the edge of the disc has moved on to the position shown by the dotted line in Figure 5. At this instant, few, if any, electrons get through to Anode No. 2. Thus, the current flowing to Anode No. 2 varies sinusoidally at the crystal frequency. Also, it can be

seen that any variation in the angular velocity of rotation of the electron disc will result in phase and frequency variation in this output current.

A coil is placed around the tube as shown in Figure 7. The magnetic field resulting from a current flowing in this coil is perpendicular to the plane of the electron disc. The electrons travelling radially out from the cathode toward the anodes through this field have a force exerted on them in a direction perpendicular to their path and perpendicular to the direction of the magnetic field. Thus, an angular displacement is introduced in the rotation of the electron disc, causing phase shift in the output current as explained above.

Audio frequency current flowing in this coil causes audio frequency angular displacements to be superimposed on the rotation of the electron disc. Thus, we obtain audio frequency phase shifts in the output current (Anode No. 2 current). This current flowing through a load impedance develops a phase-modulated radio-frequency voltage whose average frequency is that of the crystal.

It can be seen that if a d-c voltage is applied to the coil, the magnetic field set up introduces a fixed angular displac-



SCHMATIC FM MOD.

FIGURE - 3

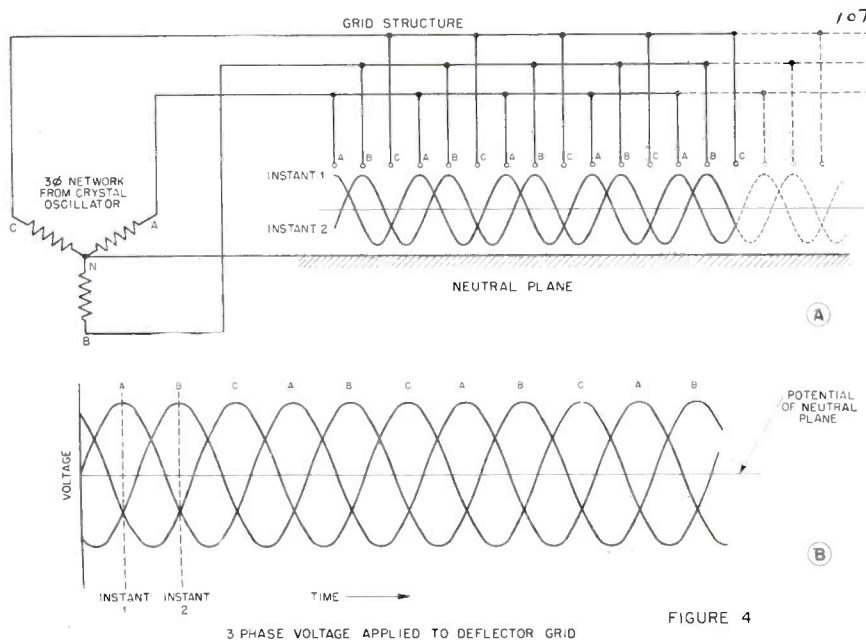
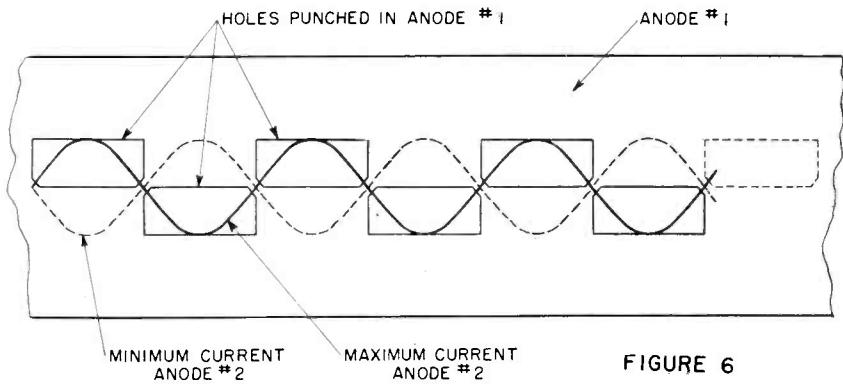


FIGURE 4



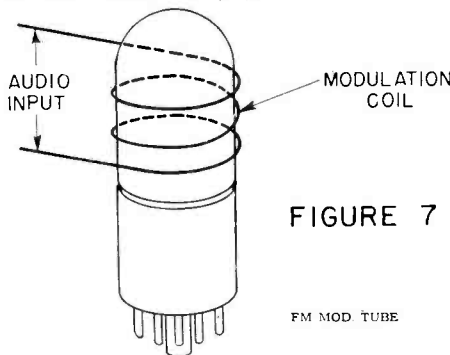
ment in the rotation of the electron disc which then continues rotating at the same rate. Therefore, we have direct crystal-controlled phase modulation.

The modulation-induced angular phase displacement of the rotating electron disc can be compared with a similar action which is characteristic of a rotating synchronous machine. At no load, the synchronous machine rotor is aligned with the three-phase rotating magnetic field of the stationary armature winding. However, the external application of load results in a displacement of this alignment in direction and amount determined by the load. Nevertheless, for any normal load the steady-state rotor speed remains constant.

The modulation coil is driven with a push-pull voltage amplifier tube. That is, the amplitude of the audio voltage across the coil is constant with varying audio frequency. This means that the current flowing through the coil decreases with increasing audio frequency because the coil is almost a pure inductance over the audio range. The magnetic field strength, and thus the phase swing of the output

current, therefore decreases (6db per octave) with increasing modulation frequency, effectively giving us frequency modulation.

The block diagram of Figure 1 indicates a total of twelve tubes (10 radio frequency and 2 audio) used to arrive at the fully modulated 100 megacycle carrier frequency. This carrier frequency is crystal controlled, using a single crystal. This system of modulation permits extremely wide modulation swing at low distortion and provides excellent signal to noise characteristics. Noise and distortion figures may be found in the



NABET

requested a meeting with the National Representative. This meeting has been set for March 5, at which time it is hoped that the differences between the Company and the Union may be amicably resolved.

During the month, Mr. Powley visited the Washington Office and a meeting was held with representatives of the Federal Communications Commission, at which meeting order No. 91-C was discussed. The repeal of order No. 91-C has been asked by NABET. This order is a war-time measure permitting the use of third-class licensed men at transmitters when certain conditions are met. Radio Stations throughout the country have been prone to employ third-class men purely from the standpoint of saving money by paying sub-standard wages. In a number of cases, first-class men have been laid off and replaced by third-class men at much lower salaries. In the case of Atlanta, Ga., third-class men were brought from other stations owned by the Fort Industries Company and used as strike-breakers.

Suggestions have also been made to the Federal Communications Commission regarding changes in their questionnaire forms aimed at providing a better classification of wage scales. In the past, these

(Continued from Page Three)

classifications used by the Federal Communications Commission have been so grouped together as to make the average salary payments in the Engineering Departments considerably lower than the average should be. These lower figures have been consistently used by radio station owners in contract negotiations as arguments against increasing engineers' salaries in their own organizations.

C. A. ALLEN, National Representative.

Staff Writer Jordan McQuay has a large number of technical articles scheduled for publication in *Radio News* and *Radio-Craft* during the coming year, covering electronics, radar, and television.

If fellows using RCA 82-B monitor amplifiers have had the same experience as we at WFBR, they have been replacing the 5U4G rectifier tubes quite frequently as this tube seems to go sour after 2 or 3 months of service. We found that the newer 5R4GY has a much longer life in the same service and will directly replace the 5U4G without any changes, having the same base and the same E_f and I_f . In a control test with four amplifiers under identical conditions, two 5R4s lasted over a year and one is still going strong. The two amplifiers using 5U4Gs required replacement three times respectively during the same time.—Bill Hoos, WFBR.

specifications for the different General Electric Company transmitters.

This new circuit will be used in all General Electric FM broadcast transmitters. Shipment of the first units started about March 1, 1946.

I. R. E.

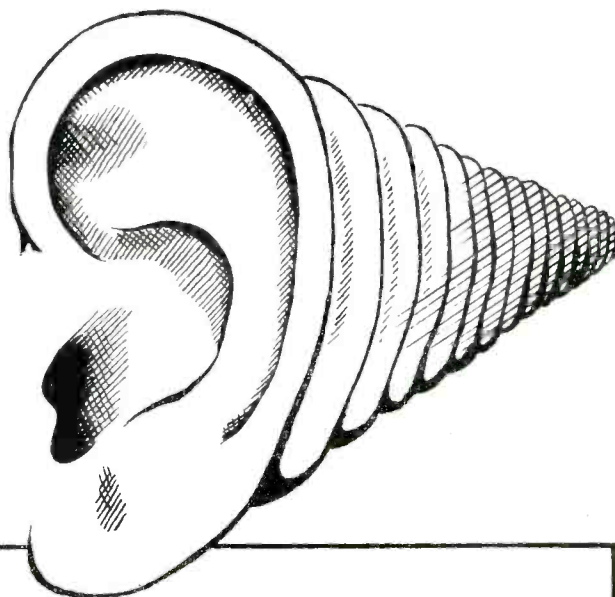
(Continued from Page Four)

most of the emission current was not of thermionic but rather of secondary origin. Realizing that the electron back-bombardment of the cathode would impose undesirable limitations on the duty cycle and maximum average power at which magnetrons could be operated, it was decided to investigate the feasibility of using a cold secondary emitting cathode in place of the thermionic one generally used. Since bombardment of the cathode can occur if the magnetron is oscillating, and since the magnetron will oscillate only if there are electrons available in the cathode-anode space, it is obvious that an auxiliary primary emitter must be provided. This emitter is required to supply, however, only enough current to initiate oscillations in the magnetron. At the Radiation Laboratory, many different materials were used as secondary emitters, including beryllium, aluminum, nickel-barium alloy, thorium, and silver-magnesium alloy.

At the beginning of 1943, this project was discontinued at the Radiation Laboratory and was taken up in the Westinghouse Lamp Division Research Department. The work was directed along several lines including investigations of activation processes, methods of cooling the secondary-emitting cathode, investigations of several more materials, testing at higher duty cycles, studies of the effects of heating, measurements of the secondary emission yield of the surface, and correlations of these yield measurements with the maximum peak emission currents obtainable for various voltages and states of activation.

(Continued Next Month)

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from HOLLYWOOD . . . By Norman Dewes

BLOOMERS . . . Spring . . . UpJohn's . . . SSA . . . ice . . . coffee . . . 6000 . . . kids . . . desert . . . weeds
smoke . . . balloons . . . organs . . . 288 . . . BROOKE

WELL . . . hold yer HATS, fellows . . . and we DO mean hats . . . 'cause here we come AGAIN . . . the CAPS are Coming, tra-la-la-la, and PFHOOEY on you Night Editors, typesetters or whomEVER it may be whom GROUNDS us on our lowers . . . it's column-time again in California, and on Sunday afternoons you can get into your car and inside of half an hour be out strolling among them . . . that's California for yuh, no matter WHAT it is, inside of half an hour you can be out strolling among it . . . there must be a little SPRING in the air here too, because while we were in the Funk and Wagnalls (Desk Standard edition) looking up how to spell "blossoms," we noticed the two words immediately ABOVE, and they were "bloomer" and "bloomy" . . . and alongside was a picture of a gorgeous GAL playing tennis and WEARING the things, which the text says are " . . . a costume of loose trousers . . . worn by women with or WITHOUT an overskirt" . . . sometimes they wear 'em out HERE with or without EITHER . . . and then comes the word "bloomy" and it says "1. Abounding in blooms; flowery. 2. Covered with bloom, as a fruit." . . . which is JUST how we feel . . . today has been one of THOSE DAYS, when the only place to be and the only thing to be doing is down at Balboa, with a THING in one hand and sailing yer boat with the OTHER . . . which we WEREN'T, tho, having had to be working, so now it's just a matter of popping down another pellet of UpJohn's Special Formula No. 2 which we are taking for a slight case of the SNIFLES, with beer chaser, but which seem to have OTHER effects . . . sorta living up to their NAME, maybe . . . and getting ON, with the Column . . . Oh, MAY-Y-Y-bel, honey, fetch Daddy another lil' pellet and put another bottle of chaser on the cubes, there's a GOOD girl . . . and always REMEMBER, Stolzie ole' pal, ole' PAL . . . when it's Column-time in California, it's six ayem in Noo Yerk . . . so o-O-O-O, ALL TOGETHER, fellows,

Pardon us if we boast when we toast
Cal-i-forn-"i"-ay-y-y,
Where each plum and each cherry
Is as big as a ferry . . .
And From San Pe-dro to Fres-no
No maiden there says "No" . . .
Oh, MAY-Y-Y-bel . . . !!!

★ NBC ★

NBC . . . (some time LATER . . .) this, or rather LAST month saw the formation of a VERY exclusive sassity at Radio City, namely, the NBC Sidewalk Superintendents Association, with classy membership cards issued by Sid Strotz, Western Division V.P. to agency peepul, press and trades . . . card

entitles member to sit in the specially constructed Viewers' Gallery on the roof of the old Building, from whence can be viewed the erection of the NEW one . . . spot is a favorite noon-hour nook too, since construction has progressed too far to see anything from the ground but a bunch of CEMENT . . . WE were viewing the scene recently with our FAVORITE producer, Dick Woolen, who still OWES us for this plug, and we got to thinking what a fine thing it would be for us to jump off the roof into one of the big supporting columns being filled with wet cement, thus perpetuating ourselves as a columnist, and establishing a concrete basis for Dick to play a supporting role for NBC, he having always wanted to be an actor, etc. . . . decided AGAINST it finally, however, since one column wasn't BIG enough for us BOTH, and we couldn't BEAR to be apart, with solitary biers in separate piers . . . this seemed to CALL for a, so we shook hands solemnly, wiped away our tears and strolled arm in arm over to the Key Club where we HAD one . . . dropped down to Maintenance for some chit-chat with Frank Figgins, NBC Maint. Super and his GREMLINS, and Frank was unveiling the first post-war microphones to come out of Noo Joisey OUR way . . . they were nice, virgin 44-B's, but finished in cow-pasture green instead of chrome . . . Frank and ALL of us are GLAD to see 'em tho, WHATEVER their color . . . we all got to shooting the chat, and Frank was reminded of a favorite PROBLEM from his collich Physic days or SOMEWHERE, where there is this cake of ICE suspended in the air and all around the ice is a relative humidity of 99 44/100 percent . . . (some tie-in with P & G, probably . . .) and the moisture given off by the ice raises the relative humidity another 86/100 percent and vat happens??? It RAINS under the cake of ice . . . well, we were all finally convinced that it COULD happen, and then Oscar Wick wanted to know (Oscar ALWAYS wants to know SOMETHING . . .) how Frank could get the cake of ice to SNOW, and maybe have little HAILSTONES yet . . . Frank started to get out his slide rule, and Murphy says, "Hey, what shall I do with this ice?" and everybody had to go anyway, so Winkler got some paper cups and we broke it up . . . ANOTHER of those NBC Memos out recently, to the effect that " . . . employees of the Company NO LONGER shall take time out during the work day, to leave the building for coffee. Please be guided accordingly." Memo was addressed to Messrs. Pickett, Adams, Figgins, Culley, Carencchini and Thisted, and caused NO LITTLE consternation . . . lounge lobbying was to the effect that it CONFLICTED with page 103 of "NBC and You" wherein it tells about

how NBC employees may take occasional "relief periods," to leave the building, stroll around, etc., which would SEEM to cover the coffee clutches . . . ANYWAY, just call ANY front office around 9:30 am ANY ayem and see who DOESN'T ANSWER . . . yessir, it's ABC for Me, say us, huh . . . just got a mimeo memo telling that the NBC A.A. is throwing a DINNER-DANCE in the California Room of the Hollywood Roosevelt . . . assume the Press is invited, NATCHERLY, so will report LATER on what happened . . . feel certain SOMETHING will . . .

★ ABC ★

ABC . . . is on the prowl again, questing for studios and has lit for the nonce at 6000 Sunset Boulevard, while extensive re-modeling is going on at the Playhouse at Sunset in Highland . . . "6000," as the new quarters are already familiarly known by, has just been completed as a sort of Radio Center, owned and operated by Frank Burke, Sr., head of KFVD in Los Angeles . . . joint is located down the street aways from Radio City, midway between CBS and KMPC's new lay-out . . . building houses one large audience studio and several medium and smaller studios as well as quite extensive recording space and offices, all available on a rental basis to whomsoever NEEDS 'em . . . Hlyd office of "Broadcasting" has already moved in and we are VERY pleased to announce that the Hlyd Chapter of NABET also has office space therein, with a phone, a desk, a chair, a gaboon and ALL modern conveniences . . . quite a few ABC shows emanate, or p'raps we should say EMIT from 6000 now and the studios are veddy moderne, with polycylindrical diffusers, ambient P.A. systems and perfectly FASCINATING mixer panels, simply LITTERED with knobs 'n dials . . . acoustics are a bit DIFFERENT from what we are used to at Radio Citee, but RESULTS are being obtained by our expert knob men . . . if we can get Ragsdale off his aperture, maybe it will give with some photos of the new place . . . Baxter, our Junior Philharmonic kid, has DONE IT again . . . is proud papa, as of 10:45 ayem February 18th, of Brian Thomas Baxter, boy, 7 lb. 5 oz. and bright RED HAIR . . . at Huntington Hosp in Pasadena . . . Brian has a big brother Dickie, age 15 (months) and when Brian cries, Dickie recalls HIS childhood days and CHIMES IN, in HARMONY yet . . . Mom is doing fine, but Pop had a breakdown after the event and caught the flu . . . we call young Baxter "Symph" for short, as he is "that way" for symphony orchestras . . . does the Symphonies for Youth show with Wallenstein at the Philharmonic and it is SAID that when the Boston Symphony comes on, Tom gets off
(Continued on Page Ten)

Washington News

By John A. McCollom

WASHINGTON, D. C. is the city from which have come great proclamations and edicts. For many years we have grown to expect many administrative, legislative, and judicial decisions of vast magnitude to emanate from Washington. One of the most recent of these seems to seal our doom. Apparently there can be no more NABET Journals; because there can be no longer a NABET; because there just aren't going to be any radio engineers or technicians. It's illegal. This breath-taking news was brought to us by Sherman Hildreth. Seems he was stopped by a motorcycle cop after driving past a traffic light of one color or another, and after a brief interview received a slip of paper bearing his name, license number, address, and "Violation, Radio Engineer."

Anybody remember W2GU, W1GK, W2HVV, or W3JNV? All those calls have belonged to L. A. McClelland whom NBC welcomes back as studio engineer in Washington. Mac was a major in the Army Air Forces specializing in airborne radio communication work. After his discharge in May, 1945, he worked for RCA Mfg. Co. and returned to NBC, February 15, 1946. His hobby of pounding brass (#0 mtrs. preferred) which dates back to 1921 has a rival in sail boating. Mac says he regrets having sold his thirty foot ketch "Blue Felix" and is looking for something to replace it. Can one of you New York announcers spare a yacht?

Sure signs of Spring at WMAL transmitter. Charlie Fisher spotted the first robin and two blue jays on March 3, and J. C. Williams is blossoming forth with a mustache, one of those parabolic oriental types.

K. B. Williams, NBC field supervisor, claims his Sunday remotes go from the sublime to the ridiculous, beginning with a program from Sligo Church in the morning, and concluding with another at the zoo in the afternoon. The zoo program is really tough to handle. With both hands clutching faders,

Keith continuously dodges and ducks to avoid the various missiles aimed at him by monkeys and elephants. He kicks his feet at the snakes that coil themselves around mike cables. Falcons and condors perch on his head. In the confusion he gives a time check to a gorilla, and looks in a kangaroo's vest pocket for a missing piece of field gear. One of these days we'll hear of him trying to play golf on the lynx.

Nick Close, NBC Recording Supervisor, has done much to remedy the tendency of transcriptions to jump grooves at the start. The fault is often the center hole of the disc being too large. Nick's clever idea is to run two parallel strips of Scotch tape across the hole on the under side of the disc. When the transcription is placed on a turn table, the pin pushes up between the two strips of Scotch tape and brings just enough tape along with it to make a snug fit. Try it!

Our many thanks to Marvin S. Cooper, Jr., for keeping us posted on the WOL branch of NABET. Here, in his own words, is Marvin's contribution for this issue.

"We engineers at WOL are now in progress of negotiating our first NABET contract with the management. Since joining NABET, we are pulling together in a team that would be tough to duplicate anywhere. Harmonious relationships are again the order of the day.

"Our sincere thanks are extended to President Al Powley and National Representative Clarence Allen for their swell cooperation and directives in guiding WOL into the NABET fold, thus joining us with the great guys at WRC and WMAL here in Washington, D. C. This local now proudly boasts of 3 major network key stations in our nation's capital, namely: NBC, ABC and MBS.

"Being a new member of NABET, WOL is catching on quick. We have divided our staff into 2 studio groups, 1 transmitter group, each with its councilman and alternate officially recognized. We are planning on doing business both for and with NABET, so



—keep an eye on us or we'll catch you older brothers napping.

"A bit of gossip in passing, but of particular interest to WOL, is the fact that the management has announced we will increase our power from 1,000 watts to 5,000 watts about the first of April of this year with facsimile, color television and F. M. soon to follow. Our new transmitter is all ready for installation as soon as the building and towers are completed. There will be more about this in the next issue, when we know more, I hope.

Signed, Marvin S. Cooper, Jr."

Just to prove that no one reads this column, we insert this request for you, dear reader, to send this reporter information on the origin of the word NEMO as used in radio broadcasting. After canvassing the NBC gang in Washington, and searching in the Congressional Library, just a few possibilities have been unearthed. One is that NEMO in Latin means "no man," or "no one," hence, from the studio view point, a program arriving from a source other than a person present. Another is based on the Greek NEMOS, meaning "a glade" or "a wood" from which one might deduce NEMO to infer that a field engineer is somewhere in "the sticks" (or zoo). Still another version refers to Nemesis, the Greek goddess of retribution and vengeance. Some field jobs really have been an engineer's Nemesis. And then Funk and Wagnalls' says this: "NEMO, same as nema: a suborder or other division of dipterous insects with thread-like many-jointed antennae, as in gnats!" Aw gnats!

Hollywood

(Continued from Page Nine)

in a vacant studio, pipes the moosic into the monitor speaker, turned WIDE OPEN, and CONDUCTS the orchestra, personally, with a BATON yet . . . well, we ALL get our kicks in ONE way or another, and we say to Tom 'n Nancy, CONGRATS from yer brother engineers . . . Neat placard appeared above Bull-etin Board in Lounge recently with a pitch for Desert Manor, 565 Calle Ojo, in Palm Springs . . . Reservations by Carl H. Lorenz, Eng. Dep't ABC . . . natch-erly, we INVESTIGATED, but found it to be on the LEVEL right out in the desert and a VEDDY lovely spot . . . just the place to hole up and get AWAY from It All for a few days, basking in the Sun, etc.

. . . we would spend MORE time down there if only there was someplace to sail our boat, but Mabel sez "Look, now, ain't there something to do besides sail boats, hey . . ." so we replied, "Baby, there sure as H— IS . . . !" and here we are at Desert Manor again . . . (Give us another shot of UpJohn's, willya honey . . . and knock the cap off of another THING while yer out there . . .) And while we can REMEMBER it, lettus tell you the one McGaughey (ABC SE) told us about the Hollywood wolf who invited the Beautiful Blond up to his apartment for dinner . . . (Stolzle, we've gone over this one several times, and it seems OK, altho we don't UNDERSTAND it . . . hope YOU can . . .) well, to make a long story SHORT, she CAME, but all she got was

a titbit . . . we say, all she got was a TITBIT . . . that's a JOKE, son, and if you can figure it OUT, lettus know . . . just a flash from the KECA Transmitter this month . . . Chief Rex Bettis reports via the P.L. that the durn sheep-herder who annually pastures his flock of bleaters on the site has MOVED ON again, leaving the plot without any weed-chewers . . . Rex sez the durn weeds will soon grow 5 or 6 feet high in NO time (they're CALIFORNIA weeds, remember . . .) unless somebody keeps 'em CHEWED DOWN . . . don't look at US, Bud . . . what does yer man Smith do in his spare time . . . and ANYWAY, sez Rex, the durn sheep-herder departed with a particularly GOOD-LOOKING black sheep, with blue eyes, that was a FAVORITE of Rex's.

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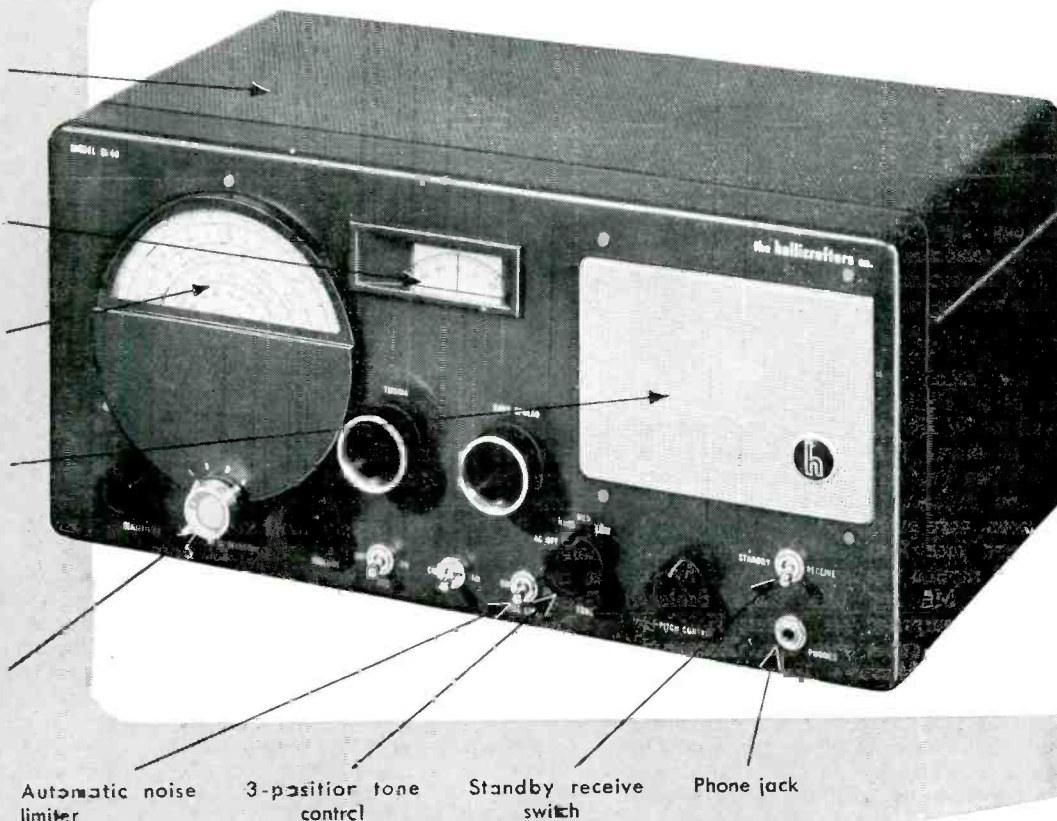
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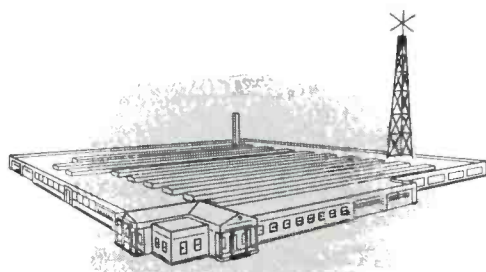
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**By
Jim
Carter**

Hudson Chapter News

GOOD MORNING, good afternoon, good evening; darned if that wasn't a heck of a short day; that's because of the rate of speed we do things today. Yesterday, New Year's, today, April, spring is here, tomorrow, summer vacations, next week, Thanksgiving, and darned if it isn't another year on us.

Parties and more parties. Boy, oh boy, did we have a nice time at the Astor Gallery the other night. One hundred and twenty-eight of an eligible one hundred forty employees of WOR, all with the company ten years or more. The second anniversary of WOR's Ten Year Club. The cocktails smooth, the food delicious, entertainment a la Nat Abramson, very good.

Maestro Jack Roth and his lively band, furnished rhythm and music, enjoyed by all, particularly Mr. and Mrs. Ralph Schlegel R.E. Ralph surprised his "Better Half" by inviting her to dance with him. Congratulations, Arthur Murray's lessons sure did pay off.

As we see by the picture, the boys turned out in full force to wish Jack Poppele, WOR's Vice-President in charge of Engineering, success and good health in his new office.

The surprise party for Jack was an out-

standing affair with Mrs. Poppele, Misses Virginia and Lorraine Poppele as gracious hostesses. Jack, with a tremendous mustache and tricky chef's apron, showed Herman Berger S. E. the art of carving a deliciously roasted turkey. Johnnie Cook S. E. served up the liquid refreshments, while Eric Herud S. E. was official dish carrier.

The boys enjoyed viewing the "Track Meet" at Madison Square Garden via Television and Jerry Barton found out that "The Boss" really plays a mean game of "Gin."

Jerry Barton (Big Name Bands) remote engineer, wishes he could have a full page to extol the courage and wonderful spirit of the boys that he meets in his tours to the various hospitals. Sgt. Bronski is just one of the courageous boys that Jerry mentioned to me. He says "That lad deserves credit, tail gunner, crashed, burned almost beyond recognition, thanks those plastic surgeons, for doing or performing miracles for him."

Makenzie Reid F. E. planning a winter vacation at Virginia Beach, with the Missus, visiting his daughter and son-in-law, Lt. Harrington. During a recent week-end visit at V. B. Mac. was rudely awakened by a honking sound. Mac. reached for the PL only to find the sound came from real live Wild Geese.

Tom Batson S.E. leaves us to rejoin Pan American World Airways, as Ground Radio Opr. in Africa, good salary, keep and no taxes. Good luck Tom and let's hear from you.

Dick Davis T.F.D. Supv. just waiting for April 15th to go trout fishing in his own well stocked stream. We may pay you a visit one of these days, Dick.

Dick Borner T.F.D. returned from Florida

winter vacation redder than the well known tomato. Had a swell time, but not quite long enough.

Ted Kasna T.F.D. Flight to and from Tuscon, Arizona, sorry it had to be on such a mission Ted, but bet you are sold on flying now. Missed you and Mrs. at the party.

Champion of Year Book Sales, Herb. Sutcliff S.E. now on the all night shift, we miss you around the day watch. Wonder if we will hear from Bob Stankus. Ex. S.E. back in Army?

Mr. and Mrs. Preston Yeomans, Rec. made their debut on "The Better Half." Pres. says the better part is that it is more profitable than "Overtime" and no taxes.

They say that Paul Baldwin sure can take it. He did a swell job when they got him out of bed to handle recording tlc. for N. Y. C. Disaster and Control Commission during recent closedown of business in N. Y. C. He kept right on plugging through for some twenty hours, nice going Paul.

They may be new faces to you boys in Recording, but we of the Studio Group, are pretty familiar with John Paul Jones Ex. S.E. and Fred Spurr Ex-S.E., treat 'em nicely or we won't let you keep 'em.

Pappy Hawkins, Rec. back on nights again, can't work in the sun light and just loves the moon. Where does he get that Pappy stuff? (We have three and four youngsters).

What is this item? Frank Ennis, Rec. has been duly elected to the high office of Curator of the Ralph Schlegel Museum. Admission is free and Frank will be pleased to conduct a tour and explain each exhibit.

Old-timers gather around Jack Poppele in honor of his elevation to Vice-President of WOR. From left to right: Messrs. Boyle, Waldschmid, Content, Davis, Hoffman, Borner, Campbell, Schlegel, Donniez, Stanford, Garufy, Gambling, Miss Lorraine Poppele, Messrs. Cook, Singer, Jack Poppele, Franke, Harkins, Riley, Urlass, Barton, Miss Virginia Poppele Mrs. Poppele, Messrs. Hadden, Herud. Also present but not in the photo, were Messrs. Reveal, Berger, MacReid, Kibling, and Morse.



Are we going into competition with NBC on personal tours?

I would say that Bob Doherty, Rec. must be an optimist to be letting his wife draw up plans for a house when we were trying to find them an apartment.

We have a little dope on that guy Max Urlass, T.F.D. It seems that Recording reports that he is assisting Ralph Schlegel run some curves on recording equipment, but I happen to know that we better keep an occasional eye on the V. I. and the guy's name is Max Urlass.

Glad to hear that Danny Conover's wife is much better—(looking) due to Danny's faithful nursing. Irene is Sweet Danny.

Oh, so Bart Simpson, Rec. is a Tax Expert. We always knew that Bart was quite a boy. But you have to get both columns to balance before I'm going to let you help me.

Geo. Corey, Rec. will soon enter the field of international Transcriptions along with WOR's Spanish recordings, Geo. is putting 'em out in Chinese. The boy is good, at least we can't understand Chinese.

Note to either the hard working editor or the equally hard working local treasurer, Ed. Stolzenberger or Abromatis. Seymour Getter, Rec. is waiting for his first copy of the Journal. P. S. he is a member in good standing. (Mr. Getter: Up to this writing, the Journal has not received the orange-colored (similar to your Nabet Dues Card) Journal authorization card which will automatically put you on the mailing list starting with the next issue. Personally, I will be very glad to put you on our mailing list just as soon as I am permitted and authorized to do so.—Ed. S.)

Jack Carney, Rec. asked Frank Ennis, Rec. a Jerseyite, if the Hudson Tube was a diode

or a triode. Frank is working on that one on his slide rule.

Our maintenance man John Bartels, Rec., bumped the gain control on one of the turntables the other day, with a ladder; Jim McInerney, Rec., wants to know if the gain was stepped up?

The whole gang in Recording will get their meals in cafeterias as they want them served on "Platters."

We have heard of the voice, the body, the suit and now comes the coat. Play-boy Jack Carney, Rec. With a coat that is positively out of range. Egg shell white with ingrown epaulettes. Whew, guess I better lay off that stuff.

73. Jim.

P. S. Every one wishes Jim Chapman the best of luck on his new assignment with Mutual Broadcasting System.

From BALTIMORE . . . By William Hoos

SEEMS to be slim pickings for news this month from Baltimore. Maybe it's the short February month since the last deadline, but we haven't been able to dig up much this time.

The FCC has come through with conditional grants for FM in Baltimore. WFBR, WCBM, and WITH are among the stations for which channels will be provided in the new FM band. So far we've heard nothing definite as to the final plans for the new outlets. Baltimore has had no full fledged FM broadcast service up to now, with the exception of an experimental station which was operated on the old band at 43.4 mc. for about a year by WITH.

As to amateur activity, it seems that yours truly is the only active ham to date in the Chapter, but activity is looking up. We've had W3FDJ fired up on 10 meters and have been bucking the QRM on the CW end of the band with 150 watts to a 35T. So far we haven't worked any of our NABET brothers. Others here who are planning to get on are Al Goldbach, W3VD, and Sam Houston, W3DKE, of WCBM, who are building rigs. Howard O'Day, Larry Taylor, Butch Stockslager, and Al Rhine tell us that they are planning to see the RI soon to find out if they can qualify as amateur ops. From reading the other columns it seems there's quite a bit of ham interest in each. We wonder if there couldn't be another Worked All——contest started; WANC—Worked All NABET Chapters, with the glory going to those of our members who work a brother NABET member in each of the Chapters.

Dick LaCourse, USN, former part time SE at WFBR, has dropped in to visit us several times recently. He's stationed at Bainbridge, working to get men out of the Navy. Says his turn won't be too long now and maybe by the time this gets in print, Dick will be back in civvies.

WFBR Transmitter Supervisor Bill Kelly has bought a new (for him) home, and moved to the Baltimore Suburbs. It's in Catonsville at 6 S. Bellegrove Rd. Bill can still see the antenna tower lights from home, even though he is six miles away.

Another recent WFBR announcer has gotten a net show. This time it's Irwin Elliot who is MCing the Borden County Fair on Columbia, Saturdays, 1:30 P.M., EST. Win was with us here for about three years before his entry into the U. S. Maritime Service. We also will hear Ken Williams as the Cream Oil Charlie of the Woody Herman Show (ABC). Ken also was with us as an announcer at WFBR until recently. Lots of continued good luck to both of these fellows and pass our regards along to them if you happen to be turning the knobs on their shows.

Doings at WITH

By Alex

The youngest broadcast station in Baltimore, has started in it's

sixth year of broadcasting, rounding out the fifth year with a party in gala fashion. The party was held in the Gold Room of the Park Plaza Hotel, by the entire staff, in honor of Mrs. T. Garland Tinsley, Sr., owner of WITH. There was plenty of dancing to the music of our staff orchestra. Ample supply of liquid refreshments were on hand at the private bar, in the foyer. After much dancing and clowning around, a buffet supper was served. Mrs. Tinsley officiated at the cutting of the birthday cake. Everybody seemed to have a good time. Many of us were feeling no pain until the morning after, when several of us discovered the lost weekend.

Al Hedrick one of our TE's, recently discharged from the Navy, and newly married, is looking for a house. After a futile search throughout the City, he gave up in despair. Being a persistent fellow, he thought he would tackle the problem in a different manner. This time he would start from the ground up. Al found an ideal plot of ground in Mt. Washington, and many signed papers later he thought the worst problem was solved. His troubles were only beginning. Al hasn't found enough lumber to make the forms to build the foundation, not to mention the house. I would like to offer a suggestion, Al. Plant trees on your land and raise your own lumber. They would mature about as fast as it will take to bust the bottle-neck in the building materials!

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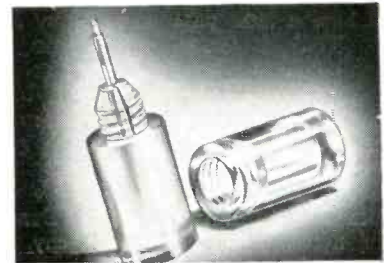
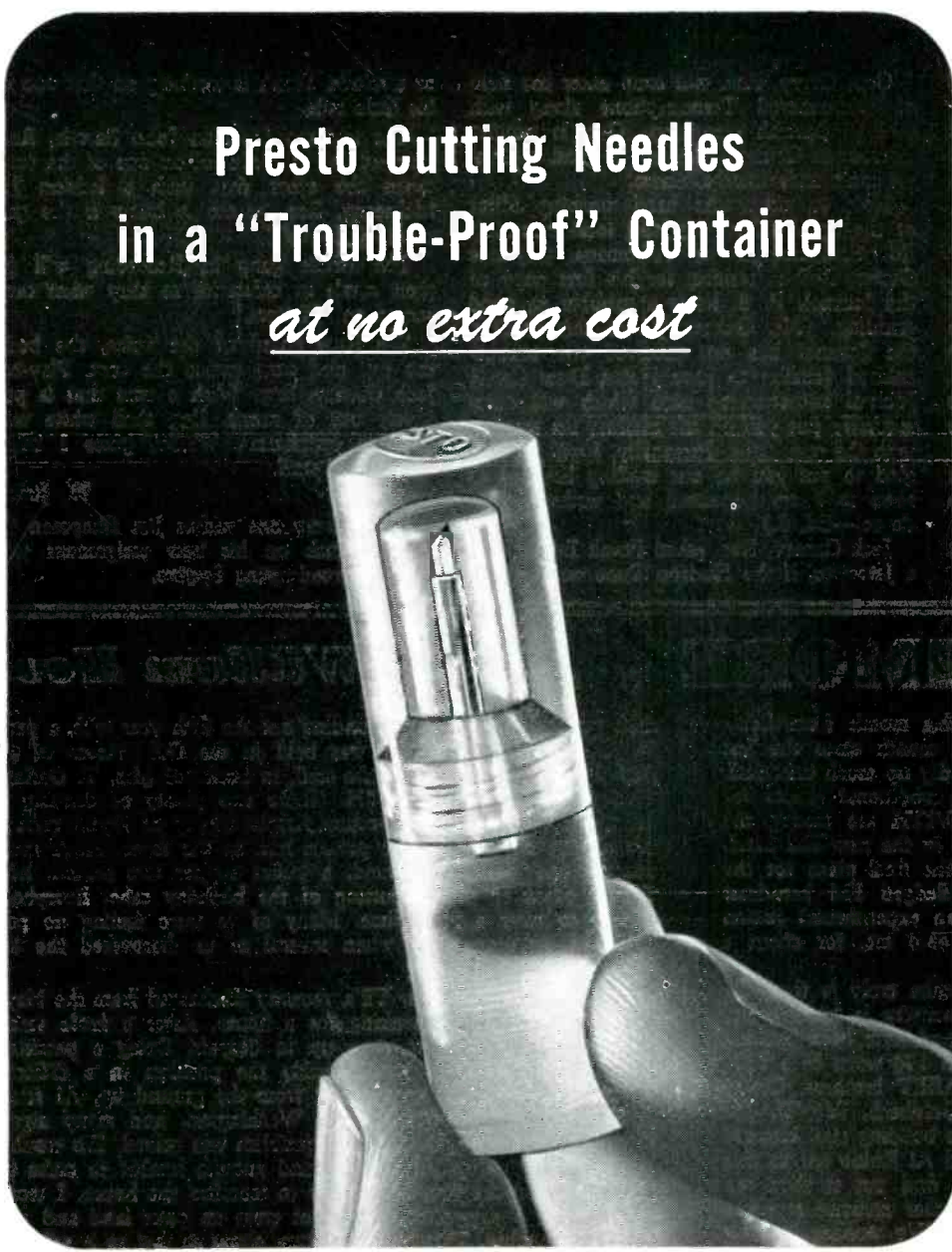
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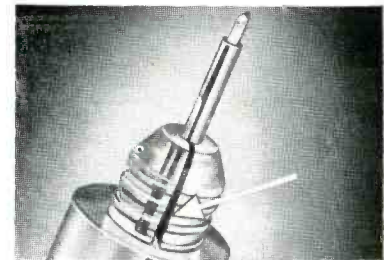
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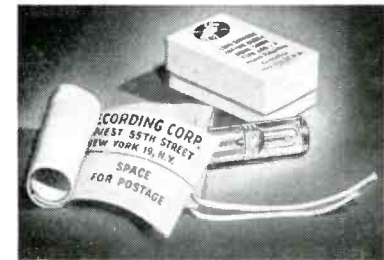
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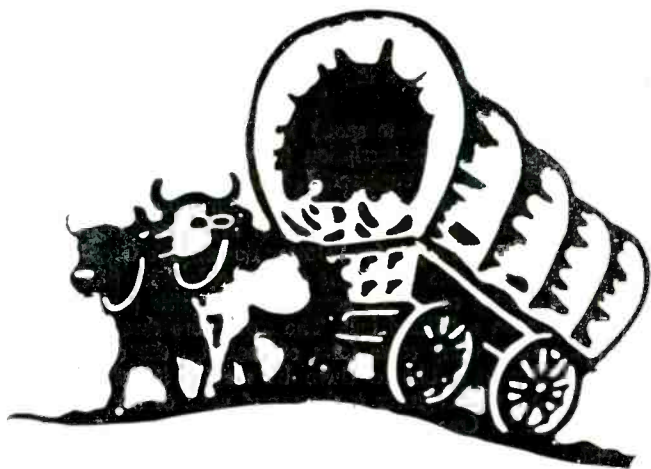


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WORLD'S LARGEST MANUFACTURER OF INSTANTANEOUS SOUND RECORDING EQUIPMENT AND DISCS



Omaha News By Bob Rudd

"Ham" News

THIS writer has noticed with every issue of BEJ since Nov., 1945, there has been more and more mention of Amateur Radio. It's a sign of the times and it means that once more those interested, may pursue their beloved hobby.

In practically every Chapter's column, there has been mention of "ham" activities: everywhere the boys are getting back on the air! Three cheers and howling coronas, and we don't mean cigars either! If by now you haven't realized it, it's time to tell you that this is leading up to something. Yes it's leading up to the story of how one of our esteemed and beloved brothers put up an antenna so that, he too, might be among those calling geegoo shen, geegoo shen*.

* "Geegoo Shen" literally translated with modulation reduced to 100%, means "CQ Ten."

The writer knew this was going to happen. For some time he has noticed the gleam in the eye of Chairman Glanton and the occasional walks he has taken around the grounds stepping off distances. This accompanied with a certain absentmindedness indicated that his thoughts were not entirely on the business of broadcasting.

One day a small 41W Hallicrafter receiver appeared on the premises. Oh, oh, something was about to pop. The receiver worked fine on "ten" and each incoming signal was ohed and ahed over at great length.

This went on for a few days then DR comes in and says, "Say, what kind of an antenna would you use for ten—I been thinking—" "Yes," I says interrupting him, "I know, so why don't you quit stalling around and get busy." In no time at all a fine two band antenna was made up and ready for hanging. Then came the day, Jan. 3rd, DR comes in and says, "Say, this is a pretty nice day—" "Yes," I says, interrupting him as is my usual wont, "let's hang it this afternoon."

DR got busy immediately and after only a brief moment for thought, laid out a plan of action. He decided that he would string the antenna from one of the guy wires of the 454 foot antenna tower to the chimney of the house. This would give him a North-South antenna, which here in the middlewest, is most advantageous. We ask no questions at the time but had our doubts.

DR's next move was to throw a wire up over the West guy wire. After much maneuvering and trials, he finally landed a small wire up over the guy right at the first insulator. This roughly, some 45 feet above ground, would give good antenna height, but how in heck was the antenna to be fastened up there? But to go on. A half inch rope was tied on the end of the wire and pulled up over, then to this was tied an inch manilla rope. Getting this inch rope over was quite a job as it was heavy and awkward to handle. DR finally pulled it up and over. "Now what?" I thinks.

By this time it was noon and I was off duty. Outside I approaches DR and says, "Well, let's get it up—why wait?" "What do you think I have been killing myself out here for, if it wasn't with the idea of putting it up?," says he.

"Oh," says I, but how are we going to get it up there?" "Well," says DR, "You know those three ladders out in the garage?" "Yes," I says rather absently. "Well," continues DR, "we'll get those ladders and then tie them all together with rope. Then we will tie the big one inch rope on one end and pull them up until they are resting against the guy wire. After that, all we will have to do is to climb up the ladders and tie the pulley in place, put the half inch rope through the pulley and there you are!" "Oh, Brother," thinks I.

The ladders were tied together with strong sash cord, the big rope was attached and, of course, now all that was left was to pull them up. Not so fast. We couldn't budge them! The pinch on the rope where it crossed over the guy wire, was too great. The combined weight of DR and the writer wasn't enough to budge them an inch. We finally started them moving by one lifting the weight of the ladders while the other pulled on the rope. After much grunting, lifting and pulling they were drawn up and the rope was tied to the bottom rung of the bottom ladder. This gave a grotesque likeness of a rope ladder with the exception that a rope ladder hangs straight down. Our ladders were too long to hang straight down. The bottom section touched the ground, yet if it were removed the affair would be too short. With the bottom ladder resting on the ground, the thing assumed the appearance of an L or perhaps a Z with the top horizontal half removed would be a better description. Brother, what a contraption! Well, to get on with the story.

DR secured one end of the half inch rope, the pulley and the hook to fasten the pulley on with, and fastened them to his belt with a piece of wire and started upward. Yours truly was on the ground. Your darn right, I'm not climbing up there! Besides who ever heard of trying to climb ladders lashed together and then suspended from a cable with an inch rope! "Nuts to it," I thinks.

DR did fine until he got to the top of the first section, then the whole thing shifted and started to twist. This caused the ropes securing it to the next section to slip, thus leaving the ladder hanging by one corner. "My God," I thinks, "He will be thrown off there and killed." "I can throw myself under him if he falls, but maybe he will kill me, too." "Why, oh why, did I ever say I would help him with this thing. Surely there must be some other place we could hang it." Looking about proved this wrong. "Oh, well, I'll stick it out," I thinks, getting a better grip on the ladder. "Hey, what are you doing down there?," DR says. "For gosh sakes hang on to that ladder while I retie these ropes!" Retie the ropes! Well, he did just that, too. I managed to hold the ladder straight somehow while DR untied, then, retied them, and made them more secure. This shifted the whole thing again, but at least the strain was evenly divided on both sides of the ladders. The vertical section (it had been vertical) was now hanging at an angle and if DR continued up the same side that he was now on, he would be hanging away from the ladders. "This will stop him," I thinks, but, no! DR gets a good grip on the ladders and then climbs around to the rear of it where his weight was now against the ladder thus: He climbed on up to the third section and pretty soon arrived at the top. He clipped the hook around the guy wire and fastened it so that it would not shake loose, then put the rope through the pulley. Just as calmly as that!

"Why couldn't I be like that," I says to myself, safe and sound on the ground. "Why am I such a coward." The ladder started shaking and I looked up. DR was coming down again. "Bah Rudd, you coward," I says. "Say that really did the trick didn't it," DR says, after his descent. "Yes," I says weakly, "that did the trick and me, too." "I'm too weak to move for at least an hour and I still say your nuts, though I gotta hand it to you." "Ok," he says, "now how about the other end." "I'm going to fasten that on the chimney up there where the "eye" is."

We unlashed the ladders and carried them back to the building where we lashed them together again and hoisted them up to the fifty foot chimney. We guyed the ladder to a tree to keep it from

(Continued on Page Sixteen)

Dixie Chapter News : : : By D. Gordon McCrary

EDITING is not a field in which this writer is experienced, further perusal will prove. However, our good friend, and former control operator, Rex Coston, resigned to devote full-time to furthering his education at the University of North Carolina, Chapel Hill, N. C., where he is majoring in music. Our best wishes to Rex in his endeavors.

Some time ago on a trip to New York City (quite an event, being my first) we were shown through NBC's Studios. Arthur Fredericks, WPTF Announcer, and I, were furnished a special guide in the person of Captain Jim Coleman, to whom we owe a special thanks! Engineer O'Leary gave his solemn word to look after Coleman's welfare. (O'Leary and Coleman understand the need for same.) In the course of our tour, I remember the engineers as a swell lot of guys. Thanks to Ted Clements, O'Leary, Rodenback, Thompson, Joe Silva, Bob Johnson, Charlie Bennis, Jerry Sellar, Phil Falcone and others of the NBC Staff, who were so helpful towards making our visit both pleasant and interesting.

Plans for enlarging the Insurance Building, which houses the WPTF Studios, with four additional stories at an estimated cost of \$200,000 were recently announced. This addition, it is rumored, will enable WPTF to enlarge studios. The Insurance Building, owned by the Durham Life Insurance Company, was completed in 1942, and is Raleigh's largest and most modern building, with fourteen stories.

Waldo Rood (T. E.) and Joe Stephenson (T. E.) have recently returned to duty after several weeks' illness. Glad to see ya back boys!

Hunter Wall (S. E.) has recently sold his former business, a service station. (All the laurels aren't for Hunter, his wife, rumor has it, did the work and personal observation proves this) and is now buying and selling used cars in his spare time—when he can find them. Recently, his personal car was stolen from his front yard and with no used cars on hand, Mr. Wall (who lives quite a few miles from town) had to hitch-hike to and from work. Business must be good, or is it?

Frank Colvert (T. E.) pulled his rig out of the attic, blew off the dust and then discovered he had to rebuild his power supply. After obtaining crystals from someone for a try-out on 10 meters, he was confronted with getting a suitable antenna with limited space. Finally, he wound up by having to tie one end to the corner of his apartment and the other end was stretched through a neighbor's back yard and secured on a telephone pole. On the first test, Frank discovered he was radiating a signal across town at "S 9 plus or minus," that is, according to reports from across town. Evidently someone, as well as Frank, decided his trouble was his antenna and proceeded to cut same from telephone pole. In a conversation with Frank a few days ago, it was decided that some gentleman with spurs as part of his equipment had obligingly used his side-cutters. Frank's call letters are "W4DOP"—give a listen.

Note: To the boys interested in amateur photography . . . had it ever occurred to you the many uses to which the aluminum base transcription disc can be put? Howard Sugg (T. E.) and I, being interested in photography, find there are many practical uses for same. For instance, they can be used to make very nice reflectors for darkroom safelights, reflectors for flood lamps, film carriers, and similar uses to the photographer. Our wives found that these discs make very decorative centerpieces for tables, covering the center holes by a small vase. In case you're interested and find it difficult to remove the coating from these discs, just place them in a vessel of boiling water from ten to about fifteen minutes and this coating peels very easily, sometimes in one sheet, leaving a very bright, smooth finish with no scratches. Others of the engineering staff are putting these discs to similar uses and have found them also good to make chassis.

Glancing at the Announcers from the Control Room—The other day Dave (Orsen) Smith, our very able nine o'clock news reporter, was scheduled in Studio "D" for a break and E. T. (which

incidentally was a one-minute spot.) Due to his late arrival, there wasn't time to pull the transcription from the files and cue it on the turntable. Just as the engineer, J. Willard (Curley) Dean, was ready to pull the hair from his head (hair positively singular) Dave came dashing into the studio out of breath and signalled for the mike to do an ad lib job for "Doctor So-and-So's Great Medical Discovery." Due to this guy's gift of gab, when he finished this spot, he had Curley convinced completely that this product might well grow hair on a billiard ball. The story goes that one "bald" engineer has been using some foam of tonic on the scalp, and it isn't for falling hair. Should there be results, it will likely be short-lived, since this engineer is the proud papa of a new son.

Sinky Reports: One can meet the darndest characters in 'PTF. Being the caretaker of the community center of 'PTF . . . Studio D . . . I meet everyone from down to up and you would be surprised at the characters one can meet. You could hardly classify them into groups, rather all alike in position but definitely different in character.

Starting in the middle, which is a good place to begin if you don't know which end is up, there is one Bill Alsbaugh, Staniloose by nickname, as a result of a beach trip in '45, it seems Bill had some interesting dreams . . . one of which was related to this reporter on the early shift. It seems to take place in a bedroom (as all good dreams do, except those caught between records in the wee hours of the morning). However, on with Bill's dream . . . there was a green goat no less, who had a message of great importance, but there was a loophole, the dream goat only spoke in Spanish and our dreamer understood only English . . . thus, no message related.

Staniloose prepared himself for future dreams by conferring with 'PTF's language expert, "Dr. Robert Brand," newscaster, only to dream of shaving cream and razor blades floating around all nite. One can't win, can one.

Another character I see often is the colored janitor of the Insurance Building . . . home on WPTF . . . John Mason, every evening at the click of the "On the Air Light" here comes John with a broad smile and the gold a' shining. There is always a word for the weary and the control operator, too. It is often wondered how soon the studio would fill with paper if there were no John, indeed a good man, this John.

Speaking of characters . . . all the 'PTF staff has one or two things in common, character or not! A few years ago when Barnum said, "A sucker is born every minute," indeed, all America was all-out to back up this circus brother. During the recent holidays (Christmas to be more explicit) some of us got the cigarette lighter gift, the old standby, others stood by and made light of our ill-fortune . . . only to turn up later with a miniature flint and steel set burning full force. Maybe the cave man did spend much time with fire building but he didn't spend his hard earned money, too! There are lighters from the match size to the ones in which a little engineer could direct a fire building process from inside.

Then, there's the one about that typing man . . . J. Willard Dean, it seems that all typed matter, which consists of the log, requires many long hours of steady pecking . . . Dean's main typing period is during all rat-races—being an expert at buttons without taking time to quit typing, Dean just stabs at buttons right and left—quite a genius this fellow! Perhaps a beautiful secretary would help.

How about it boys, should we each have a beautiful secretary?

OMAHA

(Continued from Page Sixteen)

blowing over. The lashings were necessary because the ladders were not a set but rather odd lengths and widths. I thought pulling the ladder up at the other end was risky, but after seeing the ladder leaning up against a fifty foot chimney, pulling it up with a rope made it seem much safer. This venture was indeed risky for there were no hand holds after the top of the ladder was reached!

(Continued on Page Eighteen)

new

FM ANTENNA ISO-COUPLER

By JOHNSON

**For Feeding FM Antennas Supported
on Base Insulated AM Tower Antennas**

The Johnson Frequency Modulation Antenna Iso-Coupler isolates the AM and FM systems and properly couples the FM transmission line across the base insulation of the AM radiator.

Shown at left is a Johnson FM Antenna Iso-Coupler ready for installation in the tuning house. Although the Iso-Coupler is normally supplied in a specially designed cabinet, it is available for mounting in an existing tuning house or can be combined with Johnson AM Antenna Coupling equipment.

POWER RATINGS:

AM up to 50 KW FM up to 10 KW

FREQUENCY RANGES:

AM 550-1600 KC FM 88-108 Mc

FM LINE IMPEDANCE:

Unit is available for matching either 50 or 70 ohm lines from transmitter.

AM ANTENNA IMPEDANCE:

Provision is made for correcting the effect produced by the FM Iso-Coupler.

SHIELDING REQUIREMENTS:

Low Stray fields, no shielding of Iso-Coupler is required.

PRESSURIZING:

Provisions have been made for pressurizing the FM line through the Iso-Coupler.

ADJUSTMENTS:

All adjustments within frequency range are easily made. Adjustments are broad and stable.

The Johnson FM Antenna Iso-Coupler incorporates top quality materials: high conductivity copper tubing, grade L5 steatite insulators, and aluminum corona shields. The entire unit is of rugged low-loss construction. Available for use with this coupling unit or for any FM or television installation is Johnson V.H.F. COAXIAL LINE which has extremely low loss and reflection characteristics, yet embodies superior mechanical strength.

The complete line of Johnson Broadcast products includes: AM Antenna Coupling and Phasing equipment, Coaxial Lines, Tower Lighting Filters and Chokes, Pressurized Capacitors, Variable Capacitors, Inductors, Tube Sockets, R.F. Contactors and Current Transformers.

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Double-Talk from KGO

By Ken Martin

NEWCOMERS' DEPARTMENT

E. H. MOORE., reported last issue as a new member of the "GO" transmitter staff, worked a very short time, and resigned.

Moore was replaced by Mr. Otis Hill, an old-timer in the game, widely known in local radio circles and most recently Superintendent of Communications for Hawaiian Airways of Honolulu, where he made his home for nearly 20 years. Mr. Hill, his wife and two daughters, are making their home in the Bay Area, living in El Cerrito for the present.

Another Engineer, acquired to round out our staff, in compliance with the new contract, is Milton Cooper, lately of Sacramento, KROY Chief Engineer, KFBK, KGDM, Western Electric Co., and Field Engineer for the Submarine Signal Company. Mr. Cooper makes his home in Berkeley with a wife and four children—Milt takes top honors as the station's "family" man!

Welcome to our shop, gentlemen—make yourselves right at home.

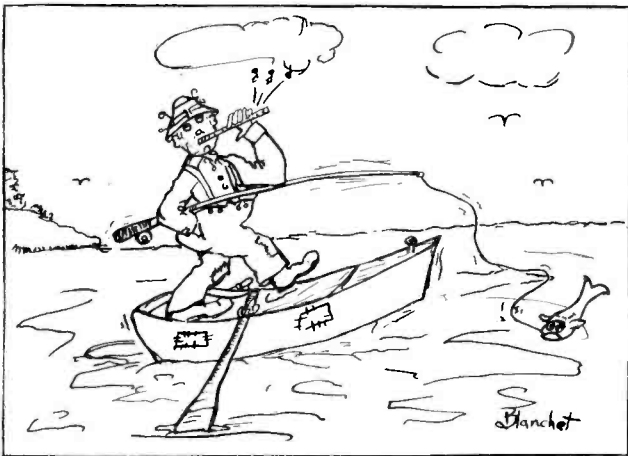
For sale or trade: One good steady midnight watch. 10 per cent extra to right man. See George Irwin.

The KGO employees Whingding, held at the Marin Town and Country Club last Friday, October 5th, was attended by George Irwin, Herb. Kramer, Otis Hill and this reporter, representing KGO Transmitter. We aren't at all sure what kind of an impression we made on the other KGO Employees but the situation was kept well in hand, although certain TE's were overheard muttering bitterly that we seem to be the only people working for KGO sans secretaries!

We learn by the old reliable grapevine that our good friend and colleague, Jack Van Wart, SF Journal Editor, has *looked* and is *willing to leap*. Date rumored to be Sunday, October 21st but full details are unavailable at this writing so a full round-by-round report will not be made at this time. Nevertheless, for the brave Jack, our heartiest congratulations—you're an intrepid young feller after all, Jacques!

Herb. "Dudley" Kramer—snorting rambunctiously about last issue's bull session, blatantly denies mouth statements attributed to him—you can't do this to me, he says. But it was a good story while it lasted, anyway. Herb., and think what you have contributed to literary annals! Or whatever.

At hand is an "on the scene" account from ex-watchmate, J. Wallace "Upson" Downs—he of the feet—from KINY, Juneau, Alaska, where Wally is reputedly top man on a totem pole and a confirmed canned salmon and wax candle gourmet. By way of a dig, Wally confesses he misses the nourishing aroma of the tideflats surrounding GO transmitter—this from a 6 foot 4 giant



—Pic of 'umble reporter "playing" fish he DIDN'T get!

tipping the beam at 128 pounds! We're still getting your Journal down here, Wally, how about getting in the buggy and telling Ed Stolzenberger to route it the short way to Alaska, eh?

Jim Blanchet, the renowned cartoonist, is first of the station "Hams" back on the air. Jim has been giving his 2½-meter transceiver an awful beating but reports a disappointing lack of YL's on the ultra ultras. Come now, Jimmy!

Myron Case has completely given up his earnest efforts to perpetrate his "Utopian Watch Schedule" over which he has expended considerable sweat, tears and swears. Near's we can dope it out it was to have consisted of all play and half work on an overtime basis. In a final statement to his adherents Myron quotes "You just can't make both ends meet!" unquoteim.

Since no one at GO will hearken to my vacation tales, I'll commit them here—refraining from telling about the "dear and bare" encountered at Yosemite—they tell me this gag has a good set of gray whiskers. Fishing was "turrible"—members of the finny tribe ran in schools and all of ours were caught from the kindergarten. I'll not trouble you with my sorrowful yarn about the "big one that got away" simply because no big one got away. That was Mort Brewer's patent. We caught some 3 and 4 inchers (which we r'un back—for benefit of our legal-minded brethren) and then some big ones—all the way up to 6 inches—the largest of which we are having mounted. It will look swell in a dinner ring. Anyway, that late in the season, all one meets is educated fish. On that last morning at Tuolomne when the line froze to the eyerings of the pole, we called off our piscatorial pursuits and headed for warmer climes. Well, okay, nobody believed it here, either. Mort Brewer, TE at KPO, reports somewhat better luck up on Eel River, but of course he moans unintelligibly about the granddaddy of steelheads that "got away." Let's get together, sometime, hey Mort?

Classified Ad Section: For Sale—1 lot at corner of 103rd Avenue and Sunnyside Street. \$10,000. Gene Nickels, KGO Transmitter. (Doesn't think much of it, does he?)

"Moneybags" Irwin is ready to invest in stocks and—oops—bonds. That glint in his glacier blue eyes is not for naught! How about a tourist camp on Russian River, George? We'll all drop in to visit you, come vacation time.

Flash—J. Wallace Downs reports from KINY, Juneau, Alaska, that consumption of candles in the far north has dropped off in favor of modern epicurean incandescence—the gobbling of light bulbs. Gourmets are rated in wattage directly proportional to size and quantity of bulbs consumed. Tungsten filament types seem to be causing several gastronomic disturbances and creating a lively market for a well-known alkalizer. Ken

OMAHA

(Continued from Page Sixteen)

After the thing was set and made secure, DR inched his way up the ladder, holding on with one hand while he held the wire that was to fasten this end of the antenna to chimney, in the other. He finally reached the top of the ladder where he paused for breath and then carefully he dug his free hand into the edges of the bricks until finally at the top of the chimney he reached over the top and got a hand hold on the inside of the chimney. Thus steadied he hooked the wire on the "eye" and fastened it by several deft twists with a pair of electrician's pliers. The return trip was just as dangerous but he eventually reached the ground safe and sound. "Well, there she is, now you go out and pull up the other end." This I did. "Isn't she pretty," was his final comment. The writer was too scared and tired to say anything.

Since that time I have recovered my breath and strength, so will say a few words while I have the opportunity: If you guys out there hear W9GTC on 10 meter phone, please give him a buzz, for any guy that wants to get on the air bad enough to risk his neck, deserves a QSO—nay many QSO's. Thanks.

SOUTH

By
Bert Pruitt

RADIO offers splendid opportunities to anyone who aspires to be a second Horatio Alger. Instead of the country boy going to the big city to conquer and succeed, one could give the story a modern twist without poo-pooing the theory that "If at first you don't succeed, try, try again!"

What would be a better idea for a story than this can of shoe polish lying here on the table in front of me? The compass tells us that there are four directions leading away from this can of polish. For our first story we could chart a course due south, thereby making it possible for some unsuspecting farm boy to make a fortune without having to ride a crowded bus or train to seek his fortune in a city.

First, we would have a program on station WUHU. This program would be sponsored by a shoe polish concern. Farm boys go up in the hay loft to pitch hay down to the livestock before they catch the morning school bus, therefore, we would have the Shoe Polish Program take the air at 6 A. M., Monday through Friday.

We could begin the program with a rooster crowing. The contented 'moo' of a jersey cow could be used if some careless engineer broke the 'rooster crowing record.'

That would be followed with a musical rendition such as "Old McDonald Had a Farm." Then we'd come in with the first commercial. This commercial would be written to the effect that all successful men and women shine their shoes every day. We'd make the commercial personal . . . make each listener feel that we had written it especially for his benefit.

The farm boy would be tossing hay down to the empty manger when we took the air with "Old McDonald, etc." This would immediately make him forget about the coming examination that he had failed to prepare himself to meet. And that, incidentally, is of prime importance. Make the prospective buyer forget his troubles before you shoot a commercial at him!

We now have our hero in a jolly mood, so if everything goes smoothly, we will not have to try, try, again.

We begin the first commercial just as he socks his pitchfork into a pile of clover hay. He freezes in his tracks when he hears us say that all successful men and women shine their shoes.

It would be appropriate at this time to reveal the fact that our hero is in love with a cute little thing who sits immediately to his left each day in class. He hasn't been making much headway in his attempts to thaw out his lady love. This puzzles him. "Just why," thinks he, "doesn't she return my wink?"

Then we make our commercial. "Ah!", thinks our hero, "that's it! She doesn't love me because I haven't been shining my shoes every morning before I go to school!"

Our hero glances down at his shoes and gasps with

amazement. There between his feet lie ten one-thousand dollar bills!

Our hero pockets the money, tosses down some more hay, then goes to the house and shines his shoes. The school bus comes along and guess what happens?

His sweetheart gets on at the next stop, looks at his shoes, sees they are shined, then throws her arms around his neck and proposes. It's leap year, so he accepts and they live happy ever after!

P.S.—We can still go North, East and West. That assures us of three more success stories to be found in this shoe polish can!

Newest radar set on the market is strictly for fishermen. Developed by Bendix, it's even called "the fisherman's radar". Installed in the bottom of small ships, supersonic impulses radiate downward and are reflected by bottom of the sea. Distance required for reflection, measured electronically, gives depth of the water. Instrument can locate fishy ledges, and is of important use to trawlers. Set can locate submerged obstacles to navigation.

* * *

Largest inflatable piece of rubber ever made was the pneumatic breakwater controlling the waves on the Normandy beaches during D-day operations. The one-piece rubber unit was 200 feet long, 25 feet high, held in place by steel-and-concrete anchors. Six-foot Channel waves were reduced to mere ripples.

* * *

Under cover and without fanfare, sixteen skilled German scientists and technicians arrived in the U. S. recently, under heavy military protection. Experts in their field, the Government plans to squeeze and cajole knowledge from them concerning a number of scientific fields. Four of the men were Diesel experts, four were transportation specialists, one had worked with heavy water in Bavarian laboratories, and the other seven were once Germany's top men in radar and electronics. They've since been swallowed up in mystery, working now under strict control of Army-Navy experts.

* * *

Another important by-product of radar, *Pulse Time Modulation* was recently unveiled by International Telephone and Telegraph as another top-secret war development. System permits 24 or more simultaneous channels on a single u-h-f carrier frequency. Multiplex service could apply to telephone conversations, broadcast radio, and the like—but not television. Technical trick in accomplishing pulse time modulation is *timing*. A synchronizing pulse is followed by 24 pulses of a few microseconds duration. Position of each of these 24 pulses can be varied *with respect to time*; in others words, each pulse can be modulated. Cycle of sync pulse and 24 following pulses is repeated about 10,000 times per second. With proper coding and decoding apparatus the 24 channels can easily be "sorted out" in comprehension. Equipment was developed by Federal Telephone and Telegraph, and used by the Army during the war for u-h-f link relay service. RCA also has a multi-channel pulse modulation relay system, but it's still under heavy secrecy control.

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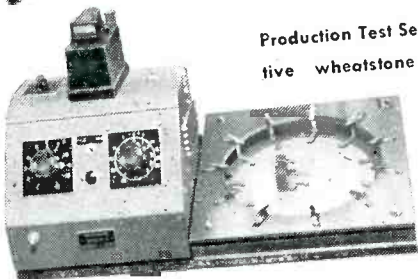
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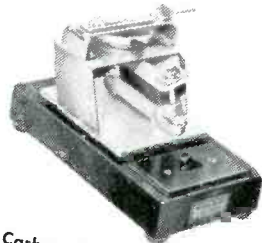


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ROCHESTER

By Art Kelly

FOR some time, engineers of Stations FWAGE and WOLF in Syracuse, have been members of the Rochester Chapter.

This is because the Syracuse men joined NABET after the Rochester Chapter was formed. Their group was small at first, naturally, so the National office asked them to become affiliated with the Rochester Chapter. Now, their membership has grown to the extent that they have requested Mr. Powley to grant them a Charter. According to Don Muir, Chairman, they plan to call their group the Onondago Chapter. So NABET grows.

A recent election among the Syracuse group has appointed the following men as officers: At WAGE the Transmitter Councilman is Earl Williams . . . Studio Councilman is Bob Ardner. At WOLF the Transmitter Councilman is Don Muir. Don is also Chairman of the group but will only retain the Transmitter Chairmanship until another man can be elected to the office. WOLF's Studio Councilman is Paul North. The Syracuse Group, the Onondago Chapter, if you please, has a membership of 16 members.

In Rochester many things are happening. Nelson Smith, WHAM Control, has left radio to join the electronics division of Eastman Kodak Company. Nels had 16 years of operating under his belt. The boys gave him a good send-off . . . you know what I mean . . . a party, present, etc.

Preparing for Television, Ken Gardner, WHAM's Chief Engineer, is conducting a technical Television course for the WHAM-WHFM ops. The course is conducted once a week for all ops, but in order to reach all the men, Ken repeats the course twice a week. On two weeks, when Ken was out of town, the course was conducted by George Driscoll, Director of WHFM operations. During George's lectures, the boys learned a few of the difficulties encountered in getting an FM transmitter on 98.9 megacycles.

Two of the WHAM boys who left for war service are Ray Gondeck and Walt Harrison. Both boys are now back. Ray will be in the Control Room. Walt will resume his old job at the transmitter.

In the WHAM Control Room, Chairman Charlie Snyder is spending his spare time in painting the interior of his house . . . and getting back on the air. Elmer Grabb has just completed a terrific vacuum tube volt meter. It's a high class job and looks strictly commercial. Fred Ambrose has given up radio servicing (especially for relatives—no profits). Bum Holly has completely recovered from his foot operation and gets around without difficulty. Bum lives on the shores of Irondequoit Bay. The Bay and Lake Ontario are away above normal level and Bum is getting pontoons ready to convert his eight room home into a houseboat. Al Barrons is converting the attic of his home into a study.

At this writing I have no specific info from the WHEC boys so I assume that

Broadcast Engineers' **20**
Journal for April, 1946

everything is normal and going along smoothly. At WHAM's transmitter, Walt Malone is devoting his spare time to running a Gravel Business. His father recently died and left a thriving pit. Walt has expanded facilities and says business is fine. John Vrindton of the WHFM staff (that's WHAM's F.M. job) took a weekend trip to Saranac Lake recently. It was a nice trip except that John needed a dog team rather than a car. He left Rochester in one of the season's worst snowstorms.

PITTSBURGH

By Frank E. Henry

An opening introduction is in order for the members of our Pittsburgh Chapter. Introducing from left to right are: Howard McClelland, Chapter Chairman; James Greenwood, formerly Lt., USNR.; E. E. MacCosbe, formerly Lt. Col., AUS.; Clinton Prewitt, formerly Civilian Technician, USN; Clarence Fabin, R. H. Gray, W. C. Stuchell, John J. Freund, James Doll, and yours truly, formerly ACRT, USNR. While introductions are still in order, we had the pleasure of meeting NABET President, Mr. Powley, last week during his stay in Pittsburgh, first impressions were extremely favorable.

The threatened Power Strike in Pittsburgh last week kept the boys here busy, what with setting up temporary studios at the transmitter in preparation for the threatened power shutdown. At the transmitter we have an emergency power plant. An International 4 cylinder 62½ KVA AC outfit. The same type the Navy used extensively in the Pacific as a lighting plant for advanced bases. We are happy to report that we are all back to normal now, but any day we may find ourselves back out the transmitter again, because the strike is not yet settled, just suspended.

As a closing thought we pay tribute to a former member of our staff, Helen Obsharvsky, a grand girl who did a grand job during the war-time emergency. God bless her and the thousands like her for their help. As they say in the Navy, "Well Done."

Crystal Ball Dep't

The Journals addressed to the following are undeliverable by the United States Post Office, for the reasons stated by the Post Office on P. O. Form No. 3547, as follows: Jessie Higgins Franklin (Dixie)—insufficient address.

Ens. Donald Hale—no record on this (Port Hueneme) base.

Don W. Serafy (Cleve)—gone.

Gifford Bixie (Pittsbq)—moved, left no address.

George C. Lenfest (Engrg)—not at address given.

John M. Norton (New York)—removed, left no address.

Charles Davidson (Hudson)—not found.

M. E. Patterson (Atlanta)—no such number.

L. E. Winn (Dixie)—unknown on Route 2.

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Television Engineering News

By Jack Irving



This Is NBC New York

By G. F. Anderson, Jr.

Photo by Joe Conn

THE Lincoln Day ceremonies in Washington, D. C., were a success, according to *Billboard* and *Variety*. With all the complexities of such a broadcast with three stations involved, the thing that impressed most reviewers was a press cameraman asking Eisenhower to place the wreath again because he had failed to get his picture the first time. One reviewer wrote that television shouldn't show things like that as they detracted from the program as a whole. Eddie Wilbur sarcastically observed that it would be a fine time for a shaving slide. Most reviewers, however, liked the piece of business and remarked that television was doing what it was supposed to do—show what happens when it happens.

The Memorial, for the benefit of those who haven't seen it, is a beautiful white stone edifice. The Washington Park Department, who must have conferred with the Hotel Bellevue Stratford in Philadelphia, gave orders that nobody in old clothes was to loiter about the front of the Memorial and thereby ruin the stately effect. Television personnel accordingly stayed in the background during the tests. On the day of the broadcast, men, black coats and numerous boxes of equipment cluttered up the general scene.

Carlos Clark, on audio, had a few anxious moments when an unscheduled speech was given by a gentleman obscured by a pillar. Clark could hear the speech on the band and announce mikes but couldn't find the speaker. The band saved the day by breaking in with a national air.

Steve Varley and Harry Samuels, whose poker playing abilities must have preceded them, were unable to get a room in Camden although Frank McArdle and Bob Long had paid for it the night before. Samuels and Varley drove the truck to Camden and Long and McArdle drove from there to Washington. Steve and Harry complained the lobby chairs are much harder in Camden than in Philadelphia. It is getting so the various house detectives are eyeing them askance.

The control equipment was housed in a small room in the Memorial. The room was small as far as horizontal space was concerned but rose to the full height of the building. It was cold and damp. Three small electric heaters were turned on and left going during the entire stay but it was like trying to heat the ice cap with a fire fly.

The camera set-up included the image orth which was inside

(Continued on Page Twenty-four)

WELL, as I was saying a few months ago, the excuse offered this month for no column last month is a long and rather involved one. It has to do with a hurried and unexpected trip for several weeks to that Land of Sunshine and Flowers—Florida. Walter Mullaney, FE; offered (he was told to) to write this column last month and before he could meet the February fifth deadline he was flying to Hollywood and Vine via the TWA Flagship, Constellation.

Walt had two quick trips between New York and Hollywood in two days' time. On his return trip, the plane hit one of those so-called air pockets, and Walto found himself carressing the roof with his head. He sustained only a slight cut on the forehead while several other members of the party were really hurt.

Someone has inquired as to the whereabouts of Walter Mullaney and George Butler, if they will read the above, a little information may be gleaned as to Walter and George is currently engaged in toiling for Television.

The past two months have seen many of the lads who served Uncle Sam come back to the fold.

An incomplete list would include Phillip Falcone, Harold Flood, Fernando Montillia, Charles Grey, Walter Brown, Arthur Perry, James Coleman, Charles P. F. (Doc) Dickson, and Theodore Kruse.

A long time back, a certain wager was made between Gilbert Markle and C. Westy Westover, regarding a certain individual appearing in the studio lounge with a pair of Gold Oak Leaves on his shoulders. The wager had to do with kissing a certain portion of Mr. Westover's anatomy while both were ice skating in the Rockefeller Plaza. Doc Dickson reports that he is going to make a gift of his Oak Leaves to Gil and Westy. No date has been set as yet for the performance.

Here is a bit of news from Boundbrook that is a few months old now but 'twas supposed to be in last month's issue.

Tuesday, January 8th, ten of the NABET Members of the Boundbrook Staff, met at the Stockholm Restaurant for a combined social and business meeting. Smorgasbord was something new for most of the boys and it turned out to be a pleasant surprise for the fellows with the big appetites. (Several of the group have now a reputation for enormous appetites.) Most of the group were set to call it quits when Mr. Crabtree and Mr. Turner announced

(Continued on Page Twenty-three)

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that they were ready for the main course, after three trips to the Smorgasbord table, and proceeded to order steak dinners. Those present with the normal capacity for eating, unbuttoned their vests, relaxed their waistline and hung on gasping—and ordered a somewhat less substantial dish. Mr. Turner having by this time finished his steak and left for the cloakroom and returned with two peanut butter sandwiches that he had arrived with, just in case. He downed these with the aid of an extra cup of coffee, after Mr. Crabtree had conceded to him the honors of the evening, but vowed that at the next meeting it would be different as he wouldn't eat a full dinner before leaving home for the meeting.

The Old Year finished unpleasantly for T. Danielsen, when the day before Christmas he drove to New York with his family to attend the NBC Christmas Party. Shortly after leaving the Holland Tunnel, his car was involved in a collision with a truck, caused by the icy condition of the road. The car was badly damaged but fortunately no member of his family was injured.

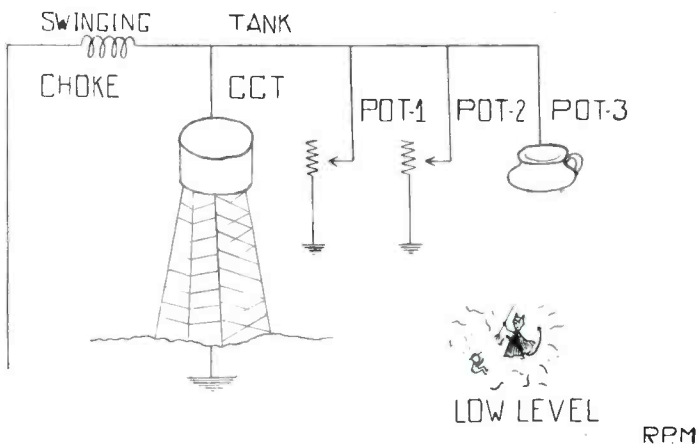
I can sympathize with you Dan, as I had a tire blow and cause the car to stop when it hit a stone wall.

Activity in Ham Radio is definitely on the increase; every time you drop into any of the radio parts stores you can meet a substantial group of NBC and ABC engineers, all engaged in trying to get the mostest for the leastest and get on the air the fustest.

Felix Ghirlando, FE, is currently engaged in accompanying Lowell Thomas on his journeys through the skiing resorts of Vermont and New Hampshire.

While in Florida with LT, I meet Al Nielson of WOR who has been in Florida with Gabriel Heater since last November; between Florida and California, at the present moment I prefer Florida; now try and sell me on California. So long for now.

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Must be "pictured" to understand clearly
Diagrammed structures to be.

Heising, Hertz — Hysteresis — could be
But no "pictures" implanted on me!
The aesthetic within me cries dully —
Revise it, oh teacher, van Scully.

Less of slide-rule, abstract, stark reality
Add bits of Schramm or Thurber banality
A light touch — sly smirk — perverted wit
The "picture" evolves bit by bit. — RPM.

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TELEVISION NEWS

(Continued from
Page Twenty-two)

the Memorial and the two other orths along the line of march. Congressmen at a receiver in a room in the House office building stood up and applauded the program at the finish. Soooooo, it must have been good.

Heino Ripp, Carlos Clark, and Warren Phillips took a sight-seeing tour of Washington by taxi. Six dollars for the entire tour was not bad. Phillips was the only casualty on the entire expedition. While panning on the freize at the top of the Memorial, he was forced to squat so low that the middle seam in the seat of his pants finally gave up and let the cold Washington breezes whiz through a three-inch rent.

A great deal of spare time was spent in playing old maid in Room 828. Phillips, who shared the room with your scribe, wanted to take a nap but settled for sitting room on a corner of the dresser.

The Louis-Conn fight, June 19, will be televised in four cities and they say it will have a different sponsor from radio. Radio, it is predicted, will get \$100,000 and television half that. Schenectady, Washington, Philadelphia and New York will receive the show.

The latest report is that 8-G will be ready the first of July.

Oggie Bowman knows how it feels to hang on the back of a fire engine when it suddenly hits a brick wall. That was the sensation created on the kine, he says, when the tripod head stuck as the camera was panned down to catch runners below the cage at the A.A.U. track meet. Frenzied efforts to loosen it gave the jitters to the viewing audience, according to Eddie Wilbur who was watching the meet at home that night.

Bob Stanton quickly explained and Variety, passing over the catastrophe lightly as a mere nothing, said the pickup couldn't have been better if it was planned that way. They meant, of course, the ability of the camera to pick up the shot put, pole vault



This picture of Jean Gibbon, singer on NBC television shows, was reproduced in more newspapers and other publications than the average NBC publicity photo. Why should we be an exception?

Engineering Chapter News

Audio-Video Facilities, Radio Facilities, Technical Services and Development Groups

By C. B. BERGLUND

THE NBC Navy is rapidly disbanding! Since last month's mention of Bill Resides' return, we can now state that Bill served for 25 months with the Bureau of Ships, Special Weapons Design Group in the Aircraft Section at Washington, D. C. His work was in connection with the control of jet propelled missiles. Bill attained the rank of Lieutenant Commander while in the service and is now back in the A-V group, but still apartment hunting. Allen Walsh spent a few days at station WIS, Columbia, South Carolina, recently, on a line equalization job. Being a native of South Carolina, Allen enjoyed a brief visit with the home folks while away from New York. No doubt Allen has now re-armed himself with enough Southern material to withstand any attacks from his erstwhile opponent, Bill Resides!

Fritz Rojas was a visitor at RCA Camden recently in connection with his work on processing of records. Al Saunders is swinging into the final or spring session of the duplicate bridge tournaments, held on alternate Tuesdays. For two years, Al has conducted the duplicate bridge sessions which have been widely enjoyed by NBCites. Good work, Al!

Tom Phelan and Joe Arnone spent several days in Chicago to study local broadcasting and studio problems.

From the Radio Facilities Group we learn that John Seibert and Fred Everett, ably assisted by Joe Costello, Paul Todd and "Pat" Paterson just back from the Navy, are engaged in installing new television and FM transmitters and antennas at the Empire State Building. The new transmitters will be modern in design and will be tuned to the new channels assigned by the FCC. NBC's television transmitter WNBT will be assigned to television channel 4 in the 66 to 72 megacycle band. WEA-FM will be tuned to FM channel No. 47, or 97.3 megacycles. Television operations are shut down during the changeover period but FM continues on a temporary basis.

Joe Costello and Paul Todd report much ham activity these days on 10 meters. Joe has a re-built 500 watt rig and finds the British and French stations coming in strongly.

Arnold Bacon and Frank Hanna of the Technical Services Group are converting the company-owned television receivers to the new television frequencies. Pete House, Frank Opsal, and Ed Prince of the same group are keeping the writer busy and vice versa, in planning the new television studio equipment for New York and Washington.

Johnnie Knight, Ex-Commander, USNR, is now Assistant Station Engineer at WNBT and WEA-FM. He recently returned to NBC after serving Uncle Sam for four years at the Underwater Sound Laboratories, New London, Connecticut. John will soon be on the 10 meter band with his station W2JJ.

Harold Miller and "Tex" Sweeny are back from the Navy and working at Empire State.

We hope to feature the fellows in the Development Group shortly when time permits. NBCing you soon.

and other events. Incidentally, an innovation was tried at that meet which worked out very well. No. 1 camera was set up but couldn't get a very good picture under the poor lighting conditions. A man was stationed on the P. L. and talked to the man on camera 2 and told him what field events were taking place during the races, enabling him to view them as soon as the race was over.

Joe Carpenter, "the lad" on the dolly in studio, says he has been having a lot of fun eating with the fellows in French restaurants. Joe says "the same" and so far has been pleased with the order.

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* * * *

From their Belmar, New Jersey laboratories, engineers of the Army Signal Corps made this memorable contact early in the morning of January 27th, while in the studios of WOR-New York, the Special Features Division of MBS were recording the event on an AUDIODISC. A few hours later, at a more appropriate time, the recorded program was broadcast to the nation.

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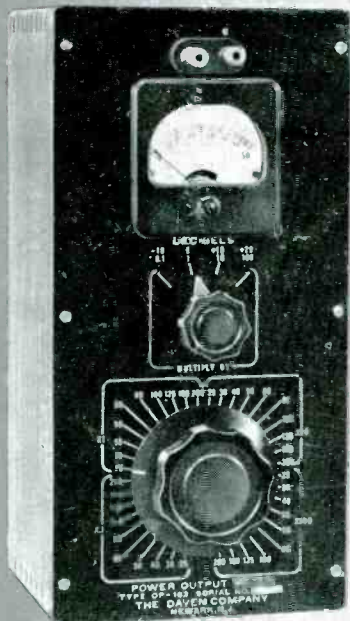
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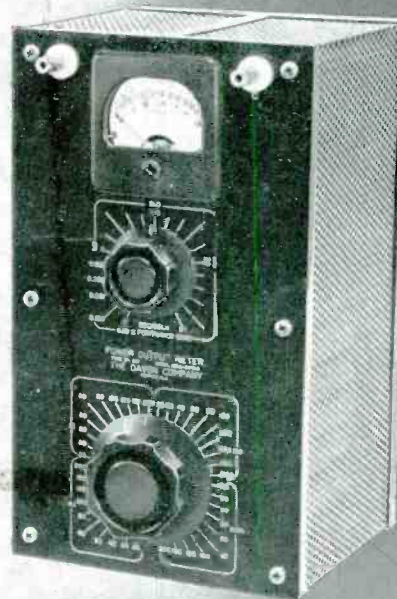
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