

THE BROADCAST ENGINEERS' JOURNAL
ED. STOLZENBERGER, EDITOR
116-03 91ST AVENUE, RICHMOND HILL 18, N. Y.

POSTMASTER: IF UNDELIVERABLE FOR ANY
REASON, NOTIFY SENDER, STATING REASON,
ON FORM 3547. POSTAGE FOR WHICH IS
GUARANTEED

F. A. GEHRES WGBF-WEOA
2232 E. POWELL
EVANSVILLE 14 IND
S148

Sec. 562, P. L. and R.

U. S. POSTAGE
PAID

New York, N. Y.
Permit No. 2961

The Broadcast Engineers' Journal

MAR.
1945

Since

1934...

Of, By,

and For

The Broadcast Engineer



WOW PHOTO BY MUNKHOF

Capt. "Bill" Eddy Addresses WOW Guests

FLASH!

**NY-NLRB Trial Examiner
Upholds NABET... See Page 2**

**VOL. 12
No. 3**

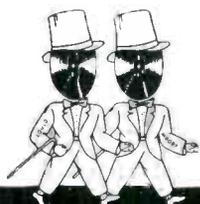
GOULD-MOODY "BLACK SEAL" GLASS BASE INSTANTANEOUS RECORDING BLANKS . . .

RECORDING AMERICA'S POWERFUL VOICE

Transmitter of America's Powerful Voice is Radio . . . awake twenty-four hours a day . . . talking to our friends and our enemies . . . transporting Broadway and Hollywood and the girl next door to the boys over there . . . building morale on the home front.

Recording America's Powerful Voice . . . in leading broadcasting stations from coast-to-coast . . . are Gould-Moody "Black Seal" Glass Base Instantaneous Recording Blanks. Made entirely of glass, "Black Seals" are as thin as aluminum, thereby eliminating the necessity of recorder adjustments. No foreign inserts . . . no metal grommets . . . no ageing, hardening or deterioration. Every disc has four holes . . . center-flow thread action . . . may be played back for months without appreciable loss of fidelity. Enclosure of your preference rating extensions with your order will expedite deliveries.

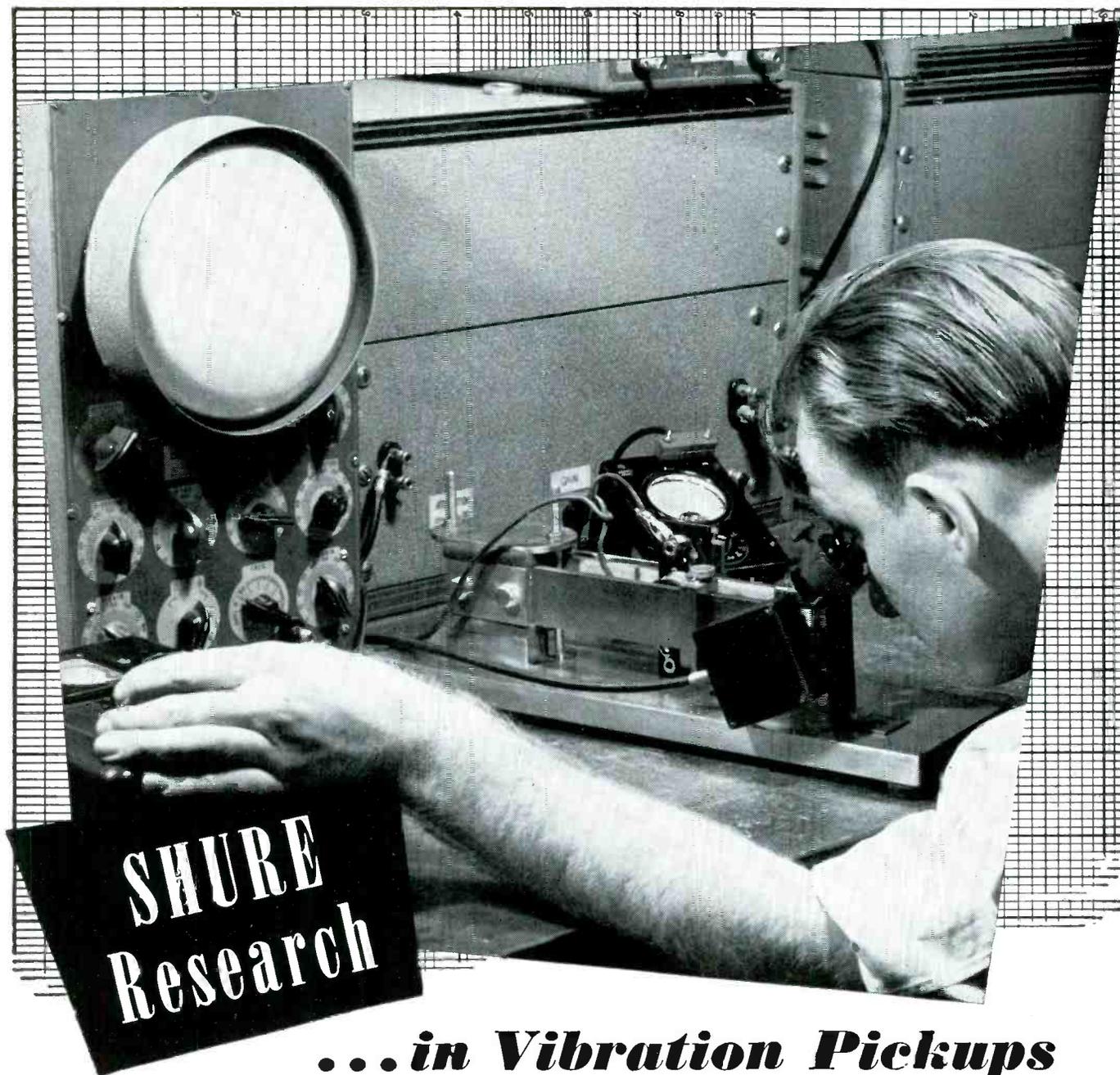
SHARE YOUR BLOOD WITH A WOUNDED SOLDIER
— donate a pint to the Red Cross today



THE GOULD-MOODY COMPANY

RECORDING BLANK DIVISION

395 BROADWAY, NEW YORK 13, N. Y.



...in Vibration Pickups

Shure research has pioneered in the development of vibration measuring instruments. These instruments are important in the determination of leakages in water pipes, the vibration of machinery, buildings, electrical appliances. Among its many uses, vibration pickups have been successfully used in locating termite infested wooden members. Shure engineers have devised special vibration actuators and special standard pickups capable of measuring vibration accurately throughout the greater part of the audio frequency range. Another significant contribution is the development of integrating networks which permit the measurement of either acceleration, velocity or displacement with a single Vibration Pickup.

SHURE BROTHERS, 225 West Huron Street, Chicago
Designers and Manufacturers of Microphones and Acoustic Devices



Summary of N. A. B. E. T. Activity

SINCE our last issue reported the NLRB-Petrillo hearing held in New York on Jan. 30th, it has been announced that the NLRB Trial Examiner in the Jan. 30th case has recommended to the NLRB in Washington that NABET be sustained in its charges of coercion and refusal to bargain on the part of NBC and ABC (Blue); testimony also brought out the networks' awkward position due to pressure on them by Mr. Petrillo's threats of reprisals against the networks unless the networks ignored the NLRB and gave the playback jobs to musicians instead of continuing this work as part of the studio engineer's normal duties. We will report the final decision in the case as soon as it is rendered.

NABET has fought the engineers' battle with the Petrillo forces single handed, to the benefit of ALL the broadcast engineers, regardless of their union affiliation. So far, NABET has succeeded in preventing Petrillo's attempted encroachment into the legitimate work of the broadcast engineer.

We believe it to be in the best interests of our NABET members and all other broadcast engineers to know the IBEW's attitude toward broadcast engineers in general; their official publication clearly states and demonstrates the IBEW's INHERENT POLICY OF COERCION. We are reprinting from the Feb., 1945, issue of *The Journal of Electrical Workers and Operators*, the official IBEW publication, Mr. Tindall's report to the IBEW broadcast committee; Mr. Tindall is CHAIRMAN of the broadcast committee: his expressions are indicative of the kind of thinking that guides the IBEW and which have made the IBEW so repulsive to the great majority of the broadcast engineers. However, in spite of Mr. Tindall's attitude, NABET intends to continue the fight in behalf of ALL the broadcast engineers. Mr. Tindall's report follows in full:

Memorandum

In the opinion of this writer, the problem of greatest immediate importance confronting this committee is the elimination of NABET from the field of broadcast organization.

You have all seen the amount of publicity given to this allegedly "independent labor organization" by the trade paper *Broadcasting*, the (perhaps unofficial, but nevertheless articulate) mouthpiece of the National Association of Broadcasters. This is readily understandable when one considers that it is worth a cool million per year to NAB to

keep its ill-whelped offspring active in the field of broadcast organization.

The threat of NABET, as a labor organization, to the I.B.E.W. in the broadcast field is negligible. The possibility of its membership being used as an entering wedge by some other labor group, such as the IATSE, the CIO, or (this is not outside the realm of possibility) the A. F. of M. is, however, not to be dismissed without serious thought. It is for that reason that I urge the immediate and determined steps be taken to dispose of this competitor.

The plan which I wish to submit for your consideration as a means of accomplishing this end is briefly outlined as follows:

Action Urged

The NABET, being without experienced leadership and without adequate funds for effective organizing or for legal services must depend upon desertions from the ranks of recognized labor organizations for any increase in membership. I urge strongest disciplinary action against any member of the Brotherhood who may be found to have joined, or to be advocating membership in, NABET, as well as vigorous economic pressure upon any employer dealing with NABET. Having no tradition of success in overcoming such obstacles, one or two defeats in this field will halt any expansion of NABET membership.

The writer is firmly convinced that if NABET were to lose any considerable segment of its present membership the whole group would soon disintegrate and the remainder could, with little organizing effort, be brought into the Brotherhood.

Vulnerable Group

The most vulnerable group of any consequence within NABET is composed of the technical employees of the Blue Network. The reasons for this are several. Many of these Blue Network technicians have been members of this elite social club known as NABET for only a short time; others have been, in the past, members of legitimate labor organizations; consequently, this group will be more amenable to the organizing efforts which our members (aside from, and in addition to, the efforts of our paid organizers) can bring to bear on them.

The Blue Net has limited facilities for the production of radio programs and must, therefore, originate many shows in theatres and other "off premises" locations. In many such locations we of the I. B. E. W. can prevent Blue Network employees from working off the premises of the employer, thereby causing these employees loss of work and the employer additional expense. This does not mean merely forcing "stand-by" men from the Brotherhood, but, whenever possible, a prohibition of NABET operation.

Due to these same limited facilities of the Blue Network, the Blue is faced with the necessity of constructing additional facilities. In many areas in which the Blue operates, the I. B. E. W. can, through Building Trades pressure, halt construction of such projects. It is needless for me to point out that a few experiences of this sort would indicate to the management of the Blue Network the advisability of establishing friendly relations with the I. B. E. W.

The results of the above could be aug-

mented and expedited by some competent member of the staff of the I. O. who would contact Blue Net management shortly after the pressure had been applied on the first large construction job which the Blue may undertake.

In short, the program consists of those three offensive steps which must be organized, prosecuted and coordinated by the I. O. and must take effect simultaneously in all areas:

1. A member-to-member organizing campaign.
2. Harass employee and employer at every possible point of program origination and on every construction job.
3. Proper approach to management by some member of the I. O. staff who can deal on an even footing with corporation executives.

The success of this plan will depend entirely upon the calibre of the man the I. O. might place in charge—and let me add at this point, it would be a full-time assignment for several months. Such a representative must gain and hold the confidence of the broadcast membership—confidence in him and in the necessity for such effort as this plan calls for. He must have sufficient age and experience within the labor movement

to enable him to secure the cooperation of heads of Building Trades and City Central bodies. He must be able to deal effectively with corporation executives. It is obvious that such a man cannot be one graduated from a broadcast station to the payroll of the I. O. as to date none of these have had adequate labor experience or shown the degree of competence for such a job. To me, at least, it is equally obvious that the job of opening the way for complete I. B. E. W. broadcast organization is sufficiently important to warrant the assignment of the best organizer the Brotherhood may have available. The I. B. E. W. would be infinitely better off in utilizing the services of such a representative and as a consequence, get the job done in a year or less, than to risk the encroachment of the CIO, the IATSE or the A. F. of M. upon its jurisdiction in the broadcast field.

While the foregoing has focussed its entire attention upon the Blue Network, it is not the writer's thought that we should overlook any opportunity to harass NBC, or any other employer of NABET—on the contrary, we should make our weight felt wherever possible. The Blue Network has been singled out for special attention as it is the writer's belief that good strategy calls for a concentration of pressure upon the enemy's weakest position.

The International President appreciates the fine work of this committee and their endeavor to be helpful in giving them pertinent facts that are so essential to the welfare of our Brotherhood.

THE BROADCAST ENGINEERS' JOURNAL

Ed. Stolzenberger
Editor

Coordinator..... F. R. Rojas

Volume 12, No. 3  409 March, 1945

Contents Copyright, 1945, by A.T.E. Publications, Inc.

TABLE OF CONTENTS

	Page
Summary of NABET Activity.....	2
The Clamp Circuit—Part II.....	5
Washington News.....	8
New York News.....	10
From up the Mohawk.....	11
Chicago Chapter Chatter.....	12
Los Angeles News.....	14
From San Francisco.....	15
Omaha News.....	16
Hudson Chapter News.....	20
From Rochester.....	22
From Hollywood.....	23
Dixie News.....	27
FM-Hi-Fi Program Circuits.....	28
Short-Wave Transmitters Wage War.....	30
Do Not Become Unduly Alarmed.....	31

THE BROADCAST ENGINEERS' JOURNAL

Trustees: V. J. DUKE, H. E. HILLER, G. B. RILEY, R. A. SCHLEGEL,
H. E. MEYER

Treasurer..... C. W. PHELAN
Assistant Treasurer..... D. J. MOLONEY
Staff Writers..... JORDAN MCQUAY; TOM MCKAY
Contributing Photographer..... SERGEI DE SOMOV

ASSOCIATE EDITORS

Chicago..... A. W. HJORTH
Cleveland..... NORMAN M. DRYSDALE
Denver..... GEORGE POGUE
Detroit..... DAVE STEWART
Dixie..... REX COSTON
Engineering Chapter..... V. J. DUKE
Hollywood..... NORMAN DEWES
Hudson Chapter..... RICHARD H. DAVIS
KFI-KECA..... E. F. WILMSHURST
Mohawk..... HORTON C. MOSHER
New York..... G. F. ANDERSON, JR., GIL McDONALD
Rochester, N. Y..... ARTHUR KELLY
San Francisco..... JACK VAN WART
Washington..... R. E. SHENTON
WLW-WSAI-WLWO..... BOB BROCKWAY
WOW, Omaha..... BOB RUDD

The Broadcast Engineers' Journal is a privately printed monthly publication issued by A.T.E. Publications, Inc., a corporation of the State of New Jersey. Address all communications to Editor's office: E. Stolzenberger, 116-03 91st Avenue, Richmond Hill 18, L. I., N. Y. Telephone Virginia 9-5553. **THE BROADCAST ENGINEERS' JOURNAL IS THE OFFICIAL PUBLICATION OF THE N.A.B.E.T.**

Advertising rates and information supplied on request. Subscription, \$1.50 per year; \$3.00 for three years. Single copies, except Christmas Yearbook, 25c; Christmas Yearbook free to subscribers. All remittances in advance. Foreign: Add postage.

Nothing appearing in The Broadcast Engineers' Journal shall be construed to be an expression of The Broadcast Engineers' Journal or the National Association of Broadcast Engineers and Technicians, but must be construed as an individual expression of the author or authors.

NATIONAL N.A.B.E.T. OFFICE
930 F Street, N.W., 415 Atlantic Bldg., Washington 4, D. C.
A. T. Powley, President



This War ...

is daily emphasizing the importance of dependability and permanence in all of our equipment.

This is especially true of
**Radio Recording
Equipment**

The Test of Time has proven

**SCULLY
Master Recorders**

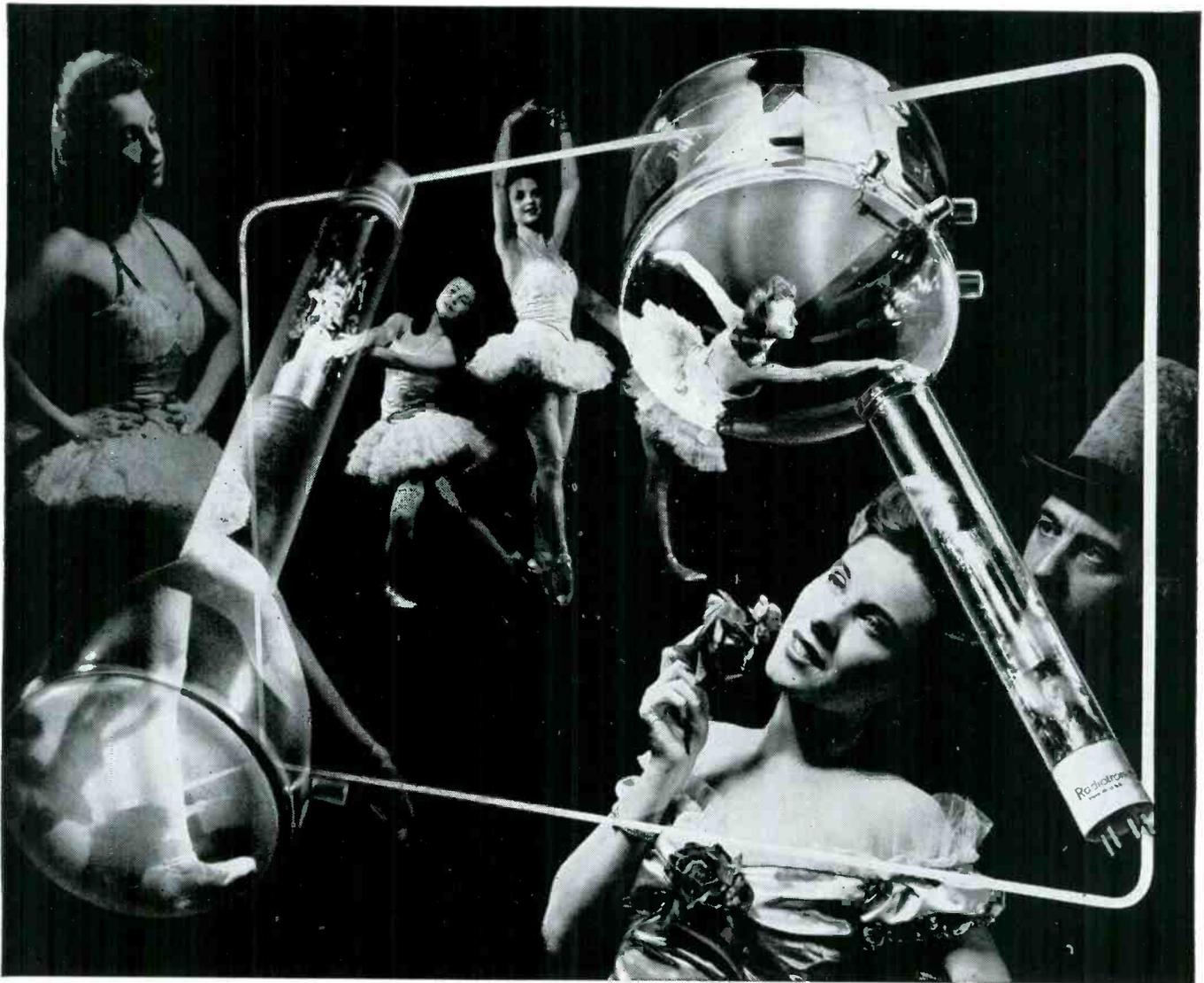
to be unsurpassable as precision,
superb recording machines

BUY U. S. WAR BONDS NOW
and plan to install
SCULLY MASTER RECORDERS
After the Victory!

**SCULLY
Machine Company**

62 Walter Street Bridgeport, Conn.

Telephone BRidgeport 4-5300



How Television Got Its Electronic "Eyes"

As revolutionary as airplanes without propellers—that's how much electronic television differs from the earlier mechanical television!

Whirling discs and motors required for mechanical television were not desirable for home receivers. Pictures blurred and flickered.

But now, thanks to RCA research, you will enjoy all-electronic television, free from mechanical restrictions—"movie-clear" television with the same simplicity of operation as your radio receiver.

Such "let's make it better" research goes into everything produced by RCA.

At RCA Laboratories, world-famous scientists and engineers are constantly seeking new and better ways of harnessing the un-

believable forces of nature...for mankind's greater benefit.

Electronic television is but one example of the great forward strides made possible by RCA research—opening the way for who knows what new miracles?

When you buy an RCA radio or phonograph or television set or any RCA product, you get a great satisfaction...enjoy a unique pride of ownership in knowing that you possess the finest instrument of its kind that science has yet achieved.



Dr. V. K. Zworykin, Associate Research Director and E. W. Engstrom, Director of Research at RCA Laboratories, examining the Iconoscope or television "eye"—developed in RCA Laboratories for the all-electronic television system you'll enjoy tomorrow.

RADIO CORPORATION of AMERICA

PIONEERS IN PROGRESS



CLAMP CIRCUIT

(Continued from
Page Five)

C_2 for low frequencies if these frequencies are to be attenuated. Operating V_2 with positive grid bias also causes attenuation of positive-polarity waves due to increased grid current and plate circuit saturation, when the operating plate voltage is low. This causes partial suppression of the leading-edge wave, as indicated in the wave shape drawn just above the grid connection of V_2 . Almost all of the useful grid voltage-plate current curve of V_2 is taken up by the negative trailing-edge pulse. The trailing edge is most often used, although with negative bias the positive leading-edge pulse could have been passed on to the clamp driver. It is assumed that in this instance the delay obtained by using the trailing edge is desirable.

Differentiation inherently causes large loss of amplitude. Consequently V_2 is provided as an amplifier. Its operation is normal, resulting in the wave-shape shown on the grid of V_3 . Coupling to V_3 is direct, to provide enough positive potential on its grid to overcome the effectively negative bias due to R_8 . The amplitude of pulse on the grid of V_3 , and its bias adjustment should be such as to provide a very small amount of grid current.

V_3 provides push-pull output. The output voltage waves are shown above the plate and cathode connections, and should be precisely similar waves of opposite polarity. To obtain equal amplitudes R_8 and R_9 are usually somewhat different in value, and these values should be adjusted to provide good equality in pulse output. If this is done no great trouble will be experienced in adjusting the "clamp balance" potentiometer R_{12} . Exact symmetry of pulses should not be expected, however. Due to the presence of R_8 the plate resistance of V_3 is quite high, making plate-to-ground capacitance more effective than is usual in rounding the pulse corners. The source impedance of the pulse from the cathode of V_3 , on the other hand, is very low, giving good high-frequency reproduction. This inherent difference in the wave shapes will not adversely affect the clamp operation under ordinary conditions.

The two output pulses are coupled to the dual diode V_4 through blocking condensers C_3 and C_4 . Their values are such that C_3 and R_{11} in series with one half R_{12} produce a time-constant long in proportion to a pulse cycle. Similarly, $C_4(R_{10} + R_{12}/2)$ should be larger than $1/f$.

As previously explained, a bias builds up across R_{10} , R_{12} , and R_{11} in series. Point "A", the arm of the "Clamp Balance" potentiometer, will be at the same potential as point "B" during the diode-conducting times, since "A" and "B" are similar points of a bridge circuit. If, then, the arm of the "Clamp Balance" potentiometer is set at the electrical center of R_{11} , R_{12} , and R_{10} in series, this will be at zero potential, and point "B" will be clamped to zero. In certain applications, however, it is desirable to clamp "B" to some point other than zero potential. In such a case, the desired voltage is inserted at the point marked "Y". Such a voltage would be required, for instance, when the clamp is used in the grid circuit of a kinescope for DC restoration, if brightness control by grid bias is desired.

The "Clamp Balance" potentiometer R_{12} provides, also, some control of the ac balance of the clamp. The wave at point "B" should be watched closely while the potentiometer is operated, leaving it set at that point which results in minimum residual output. Even when the diode circuit balance is best some pulse from the clamp current is likely to appear at point "B". This pulse will be at least partially integrated by C_5 through R_{15} , producing a saw-tooth wave-form. This saw-tooth should reverse polarity as the "Clamp Balance" potentiometer arm is moved through the balance point. This minimum saw-tooth obtainable should be very small if the design is good.

Given a maximum peak swing of either polarity on the grid of V_6 of twenty volts, the pulses from V_3 should be reasonably greater than 20 volts. A safe value of peak pulse amplitude would be 35 to 40 volts, a value easily realized with conventional triodes.

In all well-known video coupling circuits, R_{15} will be a value below three thousand ohms, fulfilling adequately the low source impedance requirement. The value of C_5 depends upon the actual tubes used, but in general it should be only large enough to provide a flat horizontal pedestal with the clamp working; the time-constant of C_5 and the circuit leakages should be long in proportion to the clamp cycle.

It is generally considered good practice to derive at least part of the grid bias for the clamped stage from a cathode resistor. In the case shown, V_6 is a cathode-coupled stage, with R_{10} and the load resistance providing the re-

quired potential drop. During the period between pulses the grid circuit resistance of such a stage is quite high, making cathode bias advisable. If additional bias is required, it should be inserted at the point marked "Y".

Limitations of the Circuit

In any circuit there are possible adverse effects which should be understood, and against which safeguards should be raised. The following discussion lists some of these in order that they may be avoided at once, rather than as the result of experience.

It has become quite usual to combine R_{11} , R_{12} , and R_{10} into one potentiometer. The entire bias developed by the diodes therefore appears across the "Clamp Balance" potentiometer. This bias is always large in proportion to the grid bias of the clamped stage. Accidental or rough adjustment of the potentiometer may result in its arm being far from electrical center. In such a case the clamped grid is held at the potential of the point at which the arm rests. Since one side of the potentiometer is highly positive, the clamped tube may lose its bias, or be biased highly positive, resulting in overload of associated resistors and possible ruin of the tube. Or, if the potentiometer arm is off-center negatively, the stage may be biased enough to produce saturation or complete cut-off. To avoid such difficulties the resistors R_{10} and R_{11} are inserted as fixed limits on the potentiometer. They are dimensioned to permit the use of a potentiometer large enough to care for normal tube and resistor tolerances, but too small to permit large errors of adjustment. Adjustment of the potentiometer is facilitated if a plate current indication for the clamped stage is provided. As a preliminary setting the potentiometer should be set in such a way that there is no change in the plate current when pulses are applied to the clamp. No video signal should be present during the adjustment. The direct current balance-point of the potentiometer may be quite different from the alternating-current balance point. This will be true when the two pulses supplied to the clamp are of different amplitudes. Since final adjustment is usually made to provide best ac balance, the dc balance should be acceptable at that point. Careful equalization of pulse amplitudes will accomplish this result.

It should be borne in mind that interfering frequencies close to the pulse frequency cannot be controlled adequately by the clamp. Attempts to eliminate frequencies having large change of am-

plitude during the time of the clamp cycle will result in "horizontal tilt" during certain portions of the field period, producing stripes of annoying intensity. Although all lines will begin at the proper black level, during that period when the interfering wave is increasing positively the lines will shade toward grey on the right-hand side of the picture. When the interference is of negative polarity they will shade toward black. However, proper design of the amplifier preceding the clamp circuit should provide sufficient attenuation of these frequencies to eliminate their effect almost entirely, and permit the clamp to function only as an instrument for re-establishment of vertical pedestal and blanking.

Pulse timing may be critical in some instances due to a peculiarity of the clamped wave shape. If it is the intention to clamp on a narrow flat portion of the wave, the pulses should always be derived from the wave itself if this is at all possible. Use of a multivibrator, or deflection yoke pulses under automatic frequency control conditions may introduce shifts in pulse timing which would cause the clamp to operate when the input wave is not flat. In such a case the whole following line will be clamped to the wrong potential, producing stripes of polarity opposite to that of the signal at the clamping instant. If, for instance, the clamp time is so late as to get into picture time, and there is a white area on the left edge of the picture, the lines which should start white will be clamped to the black level, and a dark streak will appear to smear away from the white area, across to the right edge. When a steep portion of the input wave itself is used to make clamp pulses, timing once set will always be good. The problem then is the simple one of provision of proper fixed delay.

Although, due to bias on the clamp diodes, only the pulse tips are actually used, it is generally desirable to provide clean pulses. If the pulse waves are erratic in shape, it is difficult to get good mirror symmetry. In such a case, steep portions of the wave will be transmitted to the video circuit even though the diodes are cut off. This is due to the diode capacitance. The clamped tube grid circuit is very high impedance during the cut-off period, making the few micro-microfarads capacitance of the diodes a fair coupling condenser. Pulse "troughs" should be free from rapid rates of change.

The use of R_{13} is optional. It is included in the circuit diagram as an indication of a means by which the capaci-

tance of the two diodes may be isolated from the video line. In extremely wide-band circuits this may be of some importance. A value of approximately 10,000 ohms is usual. The use of this resistor may produce inferior results if the clamp pulses are of too short duration to permit complete discharge of C_5 . The discharge path impedance is usually near 7500 ohms. With C_5 set at 250 micro-microfarads, 63% discharge is obtained in about 2 microseconds. Usually more complete discharge is required, making necessary at least twice the clamp-closed time. With R_{13} added to the discharge path, the discharge time becomes 4.2 microseconds for 63% discharge, and about eight microseconds for even fair performance. Under some circumstances the flag portion of the signal wave may not have a duration sufficient to permit such a wide pulse as R_{13} makes necessary.

A rather serious problem arises if the clamp circuit is used when random high frequency "noise" is present. Ordinarily, noise appears in a television picture as short black or white lines having a duration equal to the noise period. However, when a clamp is used it is possible that a noise burst will occur during the clamp period. If that noise has a large energy content, it may add or subtract from the effective blanking amplitude, and the clamp level will be changed, making the whole following line differ from its proper brightness in the opposite polarity from the noise pulse. Consequently an interference which would ordinarily be a short white dash becomes a dark line across the whole raster. Thus noise, in some instances adding to the black level, and in others subtracting from it, can produce a field of rapidly changing stripes one line wide, affecting both contrast and definition adversely.

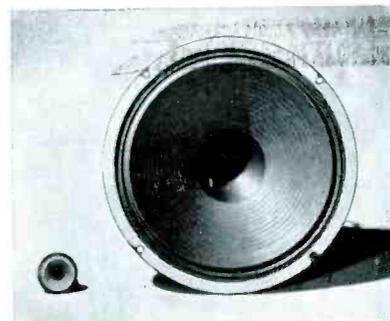
Figure (7) has shown triodes as pulse amplifiers. For the sake of clarity of function, some circuit details are omitted. Among these are oscillation suppressor resistors in both grid and plate leads. It is recommended that where large positive pulses appear on grids a resistor of two or three hundred ohms be used immediately at the socket terminal. Plate parasitic suppressors need not be used if point-to-point wiring with no interposed wires is used. If terminal board mounting of plate resistors is used, a suppressor value of fifty to one hundred ohms provides a useful safeguard.

Conclusions

With care in design and good judgment in application, the clamp circuit described will give excellent perform-

ance of a type not duplicated by any other circuit. The advantages accruing to the user of a clamp circuit in simplification of low-frequency design, reduction in low-frequency interference, reduction in the number of large circuit elements, control of amplifier operating points and saturation effects, and accurate direct current component restoration, make this circuit an important asset to the video designer. Its simplicity and ease of design should provide an ample basis for broadening application as new circuits and new uses are discovered.

A complete new line of loudspeakers engineered to cover the entire size range from 2" to 15" is announced by Permoflux Corporation, 4900 West Grand Avenue, Chicago 39, Illinois. Speakers are true dimensioned and diaphragms are graduated in $\frac{1}{2}$ " steps up



to and including $7\frac{1}{2}$ " with other standard sizes up to 15". The line will provide power handling capacities from 1 to 20 watts and is designed to give acoustical output in 2 D.B. steps. A new magnetic alloy which provides an actual magnetic efficiency of at least three times that of pre-war type magnets, results in considerable weight savings. All speakers are completely dust-proof with metal parts rust-proof finished.

New A.I.E.E. Publication, "Electric Power Distribution for Industrial Plants" developed by the AIEE Committee on Industrial Power Applications. Paper cover, approximately 8" x 11", 109 pages, available for \$1.00 from the AIEE, 33 West 39th St., New York.

This is not an AIEE Standard, and the recommendations are not intended to be mandatory or restrictive. The report is intended to promote the use of sound engineering principles in the design of electric power distribution systems for industrial plants and in the selection of equipment for these systems.

AT press time, President Al Powley has just returned from a nine-day journey to New York City, Albany, Schenectady and Springfield, carrying on his duties as National Head of NABET. Powley's activities in the big town consisted of attending the final hearings of the complaint case which was fully covered in last month's **Journal**, obviating the necessity for further discussion.

In Springfield, at station WSPR, Al attended the hearings in connection with certification of the technicians of that station previous to their selection of NABET as their exclusive bargaining agent. Al reports smooth sailing up there, with no snags apparently in the offing.

Less favorable reports come from WGY Schenectady, where the company has refused to grant wage increases and specifically defined vacations which the employees previously enjoyed under the old ATE organization. According to Powley, one more hearing will be held, which, if the improvements asked for are not granted, will give rise to certification of the difficulty as a wage dispute.

Unofficially, Powley also returned to Washington with a cold, and the fatigue brought about by a "lousy train ride". No mention was made as to whether either of these was certified by the WLB.

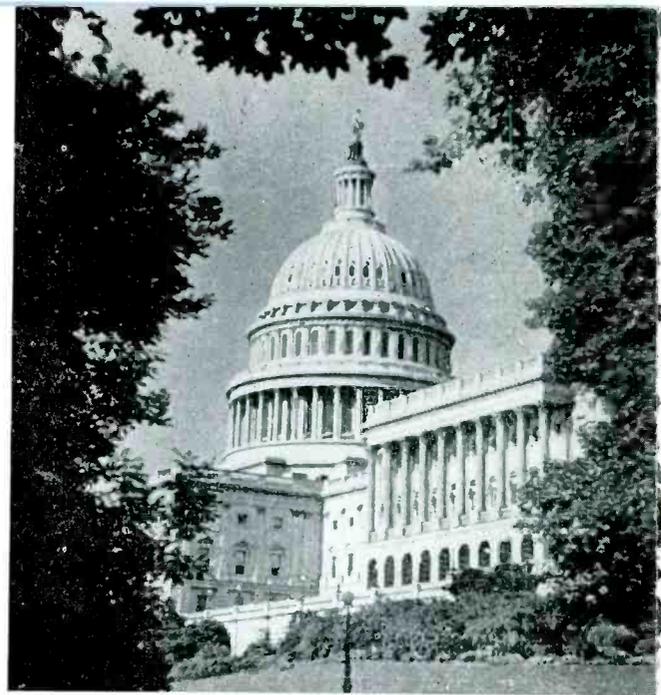
NABET Secretary, Clarence Allen, also returned to Washington at about the same time as Powley, and, we find, with a list of achievements quite worthy of attention. His first stopping place was WPTF, Raleigh, N. C., where he sought to conclude negotiations on their contract which have been under way since July, 1944. Allen reports that the local lawyers and conciliation commissioner had failed to reach any satisfactory arrangements, and were merely going around in circles. Apparently, Allen furnished the needed stimulus, because when he left WPTF after his brief stay, the local technicians boasted an 8 hour day, 40 hour week with two consecutive days off; recognition of the same holidays as all employees of the station, as well as a two-week vacation with pay, and a well-defined seniority clause. In addition, a proposed salary top of \$70 per week for technicians and \$80 per week for supervisors is imminent, subject only to the WLB's approval.

Following this first triumph, Allen pushed on southward to Atlanta, where he found at station WAGA that the

W
A
S
H
I
N
News
G
T
O
N
By
R. E.
Shenton

station manager had upset all of NABET's procedure by substituting a contract of his own, declaring that this was the only one that would be considered. Pointing out that the NABET contract was the only one that **could** be recognized, Allen arranged a meeting with the manager and the conciliation commissioner, plus other important figures. Reporting that he was too ill to attend the planned meeting, the station manager once more prevented any progress on the case, and so, having failed to gain any satisfaction through normal methods, Allen was forced to post a strike notice. While in the commissioner's office to inform him of the strike notice. Allen was told, much to his surprise, that the men were already away from their posts, and that the station had been off the air for several hours. Somewhat amazed, Allen discovered that all technical employees scheduled to work had suddenly been taken ill, following the technique of their station manager, and had been quite unable to report to work. With a twinkle in his eye, Allen soon had the men back to their jobs, however, and when he left Atlanta, all indications pointed to a speedy approval of the NABET contract. The station manager has recovered, in more ways than physical, we hasten to hope.

Allen returned to Washington from Atlanta, and departed almost immediately for WCAE Pittsburgh, where the former IBEW technicians are promised better things by the approval of the WLB of NABET as their sole bargaining agent. Discussions and negotiations will be well underway when this appears in print.

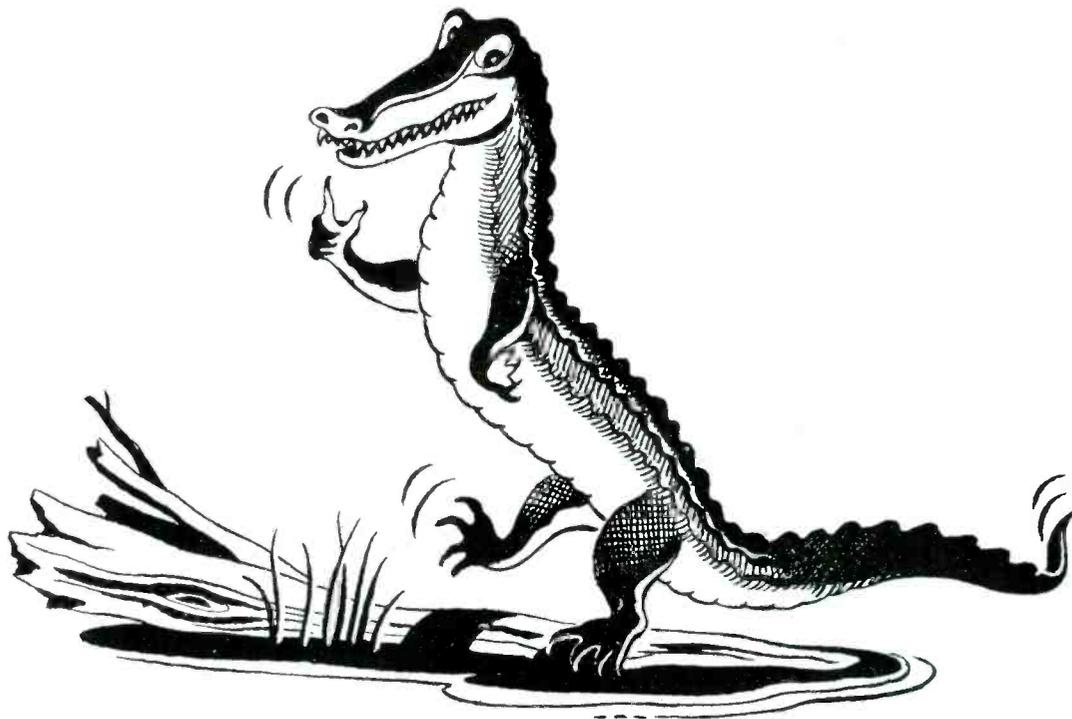


And so, the transient executives have splendid results to show for their wearysome and widespread travels—and NABET grows and grows, thanks to them.

We would like to express our deepest sympathy to Studio Engineer Jim Meline for the recent death of his mother in Winston-Salem, North Carolina. And at Jim's request, we would also like to express his personal thanks, as well as the thanks of all his NBC-Washington colleagues for the splendid hospitality and friendship offered him by Phil Hedrick, Technical Supervisor of WSJS, and by Harold Essex, Station Manager of the same station. Because of their thoughtfulness and aid, Jim's difficult trip and sojourn were made much easier, and plans which would have been difficult to arrange in a strange town were brought about much more easily. After returning to Washington for the funeral services, Jim found that Messrs. Hedrick and Essex had continued their kindness by sending flowers from North Carolina as a final expression of their sympathy. Surely such fraternalism among NBC stations serve as a model for future relationships.

John Rambo McCollom, 8 lbs. 2 oz. on January 23 has the distinction of being the first Junior Op of 1945 among NBC-Washington technicians; our congratulations to Pop Johnny McCollom, SE, and his wife. He also has the distinction (?) of being the last mentioned individual in this month's column—73.

Hep at the age of one hundred



Here's an alligator who's hep at the age of one hundred. While long life might come naturally to him, it has to be built into a recording blank. The makers of **Advance Recording Blanks** have invested years of research and sound reproduction knowledge to produce discs that give greater fidelity over longer periods of time. **Advance Blanks** can be played over and over again with no apparent distortion or loss of clarity. And, if that isn't sufficient to recommend them, they are flat and stay flat throughout their lives, and they won't deteriorate or warp with age. Their threads are well behaved, and they have no surface noise. In short, they are all that good recording blanks should be. Run a few off on your turntable . . . and be convinced.

Advance
Recording Products
Company

36-12 34th STREET • STILLWELL 4-7837 • LONG ISLAND CITY, N.Y.

Roll Out Your Dollars . . . Here Comes the Red Cross Roll Call



—Photo by Joe Conn

N. Y. - NBC NEWS

By George F. Anderson, Jr.

THE day dawned clear and bright with the sun reflecting off of some three to twelve inches of snow. Sorry, this is supposed to be some news of doings here in New York but the weather got me.

Well, our own Clarence "Westy" Westover, studio, had a very interesting and intelligent answer recently from the WPB. Westy went to a local supply house to purchase some precision wire wound resistor for an ohmmeter that he was constructing and was informed that he had to have a priority to purchase them. He called the WPB and a young lady answered. Westy then proceeded to tell her what it was that he wanted and he went into great detail describing the resistors and what they were used for.

The following is as close to the original conversation that followed as is possible: "I see, well just a minute, please," then a long and silent pause and then came the axe. "Mr. Westover?" "Yes." "Are the resistors that you want motor driven?"

P. S. He finally received the precious certificate.

Master Control this month, February, saw some changes. Arthur Holub was made Transmission Engineer in place of Whitney Baston and Whit became Training Supervisor.

Arthur and Whitney now occupy the room referred to a while back as the "Scream Room". Among the apprentices that Whitney is training are two young lady apprentices Engineers for studio work.

Fanfare . . . Applause . . . V for Victory

On January 26, 1945, at 11:30 P. M., Mrs. Anna Smith presented to John Alfred Smith, of Maintenance, a smiling happy son, Donald Alfred, weighing five (5) pounds and twelve (12) ounces.

Anna and John have two other children, Doris, sixteen, and John, aged five. Congratulations John, and where are the cigars?

Maintenance now has a team of The Three Old Men.

N. Y. - BLUE NOTES

By Gil McDonald

ON February 25, The Blue Network takes its first step onto television. The first show to be televised will be "Ladies Be Seated," which will originate at WRGB in Schenectady. A Blue Studio engineer will do the audio mixing at the premier and it is planned to follow the same policy for the future shows which will be telecast over Dumont in New York.

New Faces—Latest newcomer to the studio group is **Rueben Owings Dorsey**, late of the USNR, and claims WOR - WOLS - WIS - WBT - WDRW for his experience. Welcome OM.

We also lose two of our best studio men this month. **Jim Daugherty** transfers out to Chicago, his home town, and **Ed. Watkins** moves to Georgia, where he becomes Chief Eng. and part owner of a 250 watter. Good luck to both of you fellows. You will be missed by all the boys here in New York.

Larry Williams went home to Buffalo a few weeks ago on his days off and got himself marooned in the worst blizzard in years. He says the snow banks were taller than the train.

Bob, "The Smiling Irishman," **Dougherty**, from Blue Field, is all happy again. His recently cancelled trip to Florida has been reinstated, and all is well again.

That's all for now. **Cul** and 73.

Messrs. Gundrum, MacQueen and Maloney, as yet no information is available as to their duties and the best answer that could be obtained as to the origin of the name was, quote, "Ask Them," unquote.

Sherman "Shoim" Atwood has bidden bye bye to Maintenance and joined Chester Rackey's, Audio Facilities Group. Sherman is now going to find out how the other half live.

(Continued on Page Eleven)

FROM UP THE MOHAWK

By Horton C. Mosher

Maude Ellison (WGY SE) came back from a Christmas holiday with a sparkler. It all started back some time ago when Maude was doing a show with Gordie Randall's orchestra. There was something about the drummer that caught her eye; whether it was his curly black hair, his drumming, or his smile, we can not learn. At any rate Pat DeBlasio played as he had never played before and made the biggest hit of his life. We don't see Pat so much any more as much of his time is taken up with his pupils. The wedding day has been set for Jan. 20th, so by the time you read this, Maude will be Mrs. Pat DeBlasio and they will reside at 112 Front St., Schenectady, New York. . . .

The long-legged bird has been hovering over 208 Union Street, Schenectady, N. Y. That address seemed very familiar to us, and on looking it up we found that Stan and Mrs. Godell live there. Stan is one of the ops on WGeo and WGEA and being a quiet guy never let us in on the secret! . . .

Jan. 5th, Perky Blizzard had a house-warming and invited all the girls up for the evening. Maude was quite surprised when it turned out to be a shower for her. The men were not invited, so we can't tell just what happened that evening! . . .

The boys on the hill, Billings, Schumacher, Durkee, Lewis, and Reardon are getting quite adept at snow-shoeing. When we speak of the hill, we mean up in the Helderbergs, where the WGFM and WRGB transmitters are located. It is about 20 miles from Schenectady and some 1,400 feet above it. Although we don't have much snow in

the city, there seems to be plenty up there, and when the wind blows the fellows say it always blows the hardest over the hill. They never start out unless the snowshoes are in the cars as they never can tell when they will get stuck in a drift and have to walk the rest of the way. Some of us softies offer a word or two of sympathy when we see them start but they always laugh and say, "We love it." By gosh, I believe they do. Some time we'll tell you about the wonderful layout they have up there to make them comfortable in case they get snowed in. . . .

If any of you heard a strange noise one day during the first week of January, it came from Art Reardon, one of our riggers. Art was installing a new safety ladder on the tower at WRGB studios. One section of the ladder had been pulled up with tackle blocks and the rope tied to the truck while Art climbed up to bolt the ladder fast. While he was busy doing this, someone jumped in the truck and started away. However, it had not gone far before Art cut loose with a yell that would even stop time. In spite of the fact it was a cloudy day, some said it was blue for a while. Reardon says that all he said was, "Hey, where you going with that truck?" . . .

Paul Adanti (Television) ended the old year right. He discovered that he had another week of vacation coming to him, so took it at Christmas time. It wasn't such a bad idea, but we wonder what an ardent trout fisherman like Paul would do with that time when the trout streams were frozen over. However, he says he had such a wonderful time playing with the kids and got a much-needed good rest.

NEW YORK NEWS

(Continued from Page Ten)

Carlos Clarke, also from Maintenance, has bidden fond farewell and transferred to the Lab where he will be engaged in new construction work.

Alfred Christopher returned to work recently after an attack of one-day pneumonia. Lumbago to him.

Last month saw GB Butler, Walter Mullaney and Harry Alexander very busy. GB was with George Foster, who was here in New York with the Jack Benny show, GB says "Foster can have it," Walter was traveling the sunny South with Charlie Norman, who was doing the Bob Hope show, and Harry Alexander and GB Butler on Kay Kyser's Kollege.

Something new has been added. Two starbird microphone booms were recently put into use here in New York studios and reports so far indicate that they are very well liked but all the comments then end with, "Why aren't there more than two of them, and why didn't we have them sooner than this?"

Tony Hutson and Irving Grabo, Field, have been doing quite a bit of traveling these past few weeks with "America's Town Meeting of the Air," by now they know the State of Pennsylvania inside out.

A standard question these Saturday evenings at about

8:45 P. M. is, "Well! how many slow fades tonite?" and the one of whom this question is asked, is the lad who is known as "Mr. George Vose's Understudy"—**Gilbert Markle.**

The coffee situation in the lounge is in fine shape except for the lack of sugar. Here in New York, sugar is not only rationed but also scarce. However, we do manage to get a pound or so a week, and with the use of condensed milk we keep the pot boiling. Oh, yes, one nite, not so long ago, some person or persons unknown was kind (?) enough to make off with the contents of the kitty.

Ted Hahn, MCD, recently decided to sell his Buick and was offered \$1,100 for it. Driving home one nite he hit a patch of ice and last week he sold the remains for \$650.

No physical damage to Ted, but you should have seen the Buick.

Jack Holmes of Recording tells us that he has heard from John Morrissey and that John is now in the European battle area with the U. S. 1st Army and from Hawaii we hear that Fred Frutchey has been touring the Southern Pacific, with the USN and is again back in Hawaii.

Oh, yes, for a final line or two, we might note that George Anderson has changed his designation from Studio Engineer to that of Field Engineer as of February 14.

DID YOU BUY A BOND LATELY

Chicago

Chapter

Chatter

By *Arthur
Hjorth*



Photo by R. R. Jensen

Major Paul Clark stopped by to see the gang on his way from a secret place and heading for another secret point somewhere around the globe to install some secret equipment (sounds like Dunninger).

Formation of the Chicago Chapter Philharmonic orchestra is underway with the only legit musician **Kermit Slobb** to conduct. Kinda' unbalanced group at present with nearly nineteen pianoists and only sixteen available instruments, seven violinists, including one fiddler, **Al Otto**, **Dick Wehrheim** can double on the Hawaiian guitar and concert pianoist **Chuck Corliss** can double on the slide trombone. We also have one cornetist (without a cornet), **John Ralston Miller, Esqr.** In dire need of a drummer and some reed instrumentalists. **Don Fitch** claims he can oomph a bass horn. Concert dates will be announced in a later issue.

Herb Wyers, formerly of WLS, has joined the **Blue** studio group. Welcome to the fold.

According to the Chicago Tribune **Emerson G. Squires**, while driving back to the "Q" transmitter from a television class was checking his visual acuity using the vertical telephone poles for horizontal lines. Became so engrossed he neglected to observe that there was a minimum distance from which you could safely conduct the experiment resulting in a folded fender but no personal injuries.

Ralph Brooks uses a Quaker Oats box slide wire tuner and a crystal detector

to feed local stations to his home p.a. system. According to the reliable witness, **Ralph**, becomes disconcerted by the catswisker jumping from the highly sensitive point on the piece of galena and spends much time dashing to the cellar to manipulate his unique receiver.

Smokey had a nervous breakdown. **Smokey** went to a doctor. **Smokey** should eat more raw meat and take vitamin B1. **Smokey** has improved. **Smokey** no longer has the jitters nor do his spots jump. **Lou** and **Ada Heiden** are very happy. **Smokey** is reputed to be a Dalmatian dog.

Walter Lanterman found his missing test leads performing a vital function in the **Jim Platz** multi-vibrator, electronic switch layout set up for the television classes.

Al Otto leaves for Arlington Heights about 8 each morning. The Northwestern local made every stop along the way. **Al** was unhappy so he voiced his sadness to **Pat Gallicchio** of the North Western Hour. Two weeks later the train made only one stop 'tween Chicago and Arlington Heights. **Al Otto** is happy.

Jim Platz tuned two pianos last month. **Ed Holm's** cat had kittens. "**Marty**" **Martin's** bees are still hibernating.

St. John's College somewhere in Missouri, has a four year course consisting of the reading and studying of more than three hundred of the classics in every field. **Lee Tolleson** and announcer **Hugh Downs** aspire to com-

plete this course on their own. Their goal is a book every nineteen days. Calculated to finish in seven years. They will then be so intellectual that an interpreter will be necessary to converse with them. Has any one else a unique hobby or a secret ambition?

Flash!!! R. S. Davis is also a violinist. He also was recently burned by the **Leo Mulatz** dissementator of ultra-violet rays. No one has been burned by the horses recently. Possibly because there are no horses running 'cept those 'tached to milk wagons and they only walk.

Book Review

AN INTRODUCTION TO ELECTRONICS

By *Ralph G. Hudson*

Published by Macmillan Co., 93 pages, approximately 6" x 9". The author is Professor of Electrical Engineering at MIT. His thorough knowledge of his subject makes possible this presentation in its simple but accurate form. This book explains the science of electronics and its modern applications in terms that will be understandable and useful to those with only an elementary knowledge of mathematics and physics. It gives the reader a clear and scientifically exact knowledge of the modern theory of the constitution of matter and the nature of an electric current in a gas, a liquid, a solid, and in a vacuum. The text is well illustrated.—EdS.

5 YEARS AHEAD OF ITS TIME

FM
AM
CW



27.8 to 143 Mc
Covers old and new FM bands

hallicrafters Model S-36

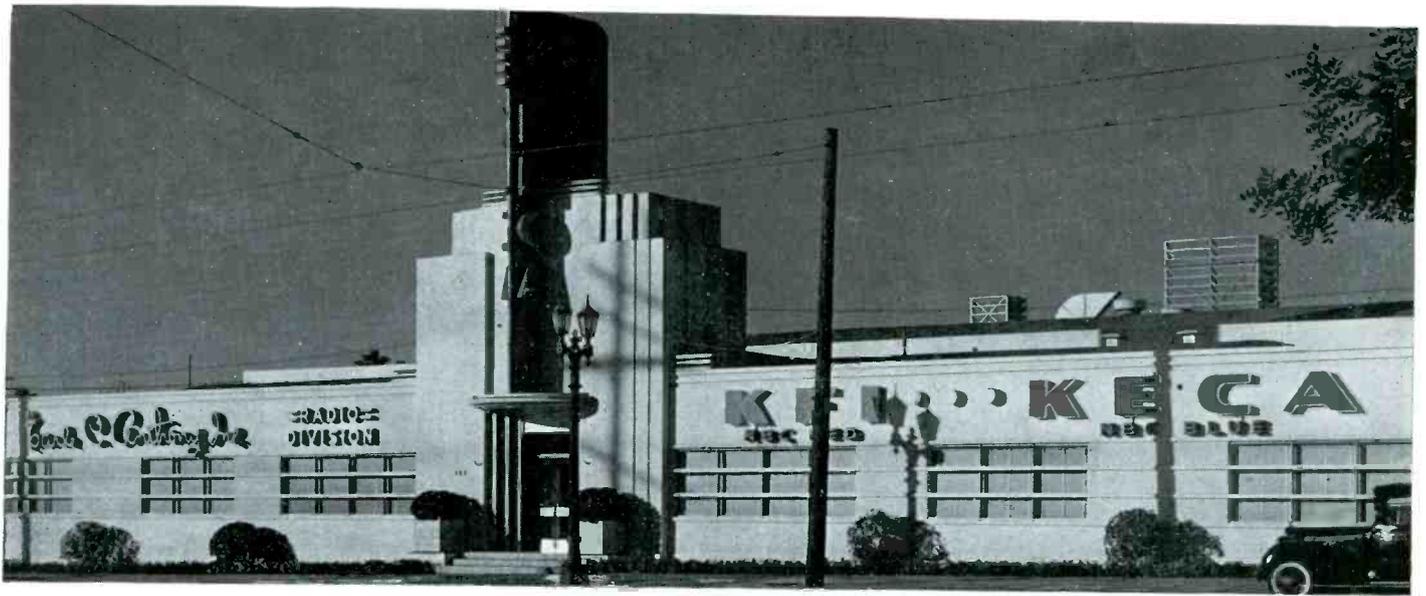
EXACTLY five years ago—in 1940—Hallicrafters introduced a very high frequency communications receiver with a range of 27.8 to 143 Mc. This model was clearly five years ahead of its time in its anticipation of new and exciting possibilities for superior performance on the higher frequencies. Today Model S-36 stands by itself as the only commercially built receiver covering this range. It is outstanding for sensitivity, stability, high fidelity. With its extraordinary VHF versatility it is ready for immediate application in the ever widening fields of FM and higher frequency development work. Engineering imagination at Hallicrafters is reaching out beyond the next five years, beyond the present known limits of radio technique so that Hallicrafters equipment will continue to be always ahead of its time, above and beyond your best expectations.



BUY A WAR BOND TODAY!

hallicrafters RADIO

THE HALL-CRAFTERS COMPANY, MANUFACTURERS OF RADIO AND ELECTRONIC EQUIPMENT, CHICAGO 16, U. S. A.



LOS ANGELES NEWS

By
E. F. Wilmshurst

Fifteen Second Furlough . . . !!
THAT'S what KFI gave the families of scores of G. I.'s fighting it out on our many battlefronts, when hundreds of front-line soldiers were able to speak a quiet word of greeting to their own family circle on this Christmas Day.

The reporting of this job may not necessarily come under the heading of Technical News, but it was such a fine contribution to Public Service and so well received, that it seems to rate more than a little favorable mention.

The idea of gathering in hundreds of short transcribed personal greetings from soldiers scattered on our fighting fronts in Italy, France, England, Australia, Hawaii, China, India, the Philippines, and many other points, was conceived and put into operation by Mr. Gil Paltridge, manager of the KFI Public Service Department. The operation of assembling the greetings was started just a few short weeks before Christmas. The greetings had to be transcribed at the war fronts and then shipped to us by plane. The men chosen, were of course men enlisted from this Southern California area. As will happen, in such a scattered venture, some of the transcriptions were lost in transit, such as the Australian discs, which had to be transmitted to us from a master copy by shortwave.

You in the trade will have a good idea of the mass of detail involved in assembling several hundred of these spots, dubbing them, along with a local transcribed introduction and then scheduling each greetings separately, at an EXACT time during our twenty-four hour Christmas Day broadcasts. The

greetings had to be placed during local identification periods and set up within the structure of all local sustaining and commercial time, as it was not possible to disturb network service. Local sponsors gladly included as many of these greetings as they could squeeze into their program time, trimming their commercials to almost a whisper. All KFI spot time for the full twenty-four hour period was cancelled to make space for the soldiers Christmas messages.

Our staff put in many busy hours telephoning and telegraphing each soldier's family and notifying them that their absent G.I. would talk to them on the radio on Christmas Day and advising them of the exact time that the voice would be heard. This called for careful scheduling and timing, for in some cases, as many as 12 to 14, separate greetings had to be run off in a fifteen minute period. It was a credit to Andy Potter, producer, as well as an alert technical staff, that about three hundred of these transcribed spots were aired without a single error.

As a further nice gesture, Mr. Ryan, KFI General Manager, gave the green light and we have re-dubbed each of these messages, together with an opening tribute voiced by Announcer Russ Stewart, onto individual 78 rpm discs, and they have been mailed to each of the families of the soldiers as a 1944 Christmas gift.

A telephonic survey has been made in which 610 conversations were completed. It disclosed some interesting as well as very gratifying figures. However, the real satisfaction did not come so much from the statistics as it did from the expressions of appreciation

on the part of the listeners. Some were profoundly touching in their gratitude. There isn't any doubt, that on future Christmas's, many a family tuning KFI will experience a glow of friendship at the memory of another Christmas, made a bit less lonely through a brief radio visit from their, "G. I. Abroad".

Lissajous Ghost Haunts TRK-120 . . . !!

It was many years ago that Raymond Moore, KFI Chairman, started his search for "Radioshangrila". The search finally ended when Ray acquired a palace on the Outposts Estates, overlooking much of Los Angeles, as well as the Hollywood Bowl.

"Now," said Ray, "I can sit back and let radio come to me, free of Reet-pleat and harmonic-beat, for I have the perfect radio receiving location!"

But alas, this Edenlike state was severely threatened last month when the Warner Brothers proposed to erect a Frequency Modulation and Television station on the Outposts Estates.

A petition has been circulated objecting to the proposed construction on the grounds of interference and reduction of property values. Mr. Moore, as a member of the protesting residents, has been rehearsing his speech and the way it comes thru the ventilating system from the shop, I'd say that he will make a good case of it.

The McDonalds (H.M.M.) held an open house party for the KFI KECA personnel . . . those who miss this party, which is held during the Christmas week, usually regret it for the rest of the year.

Seymour Johnson is back on the job

(Continued on Page Fifteen)

from San Francisco

AFTER the 4th of February the bachelors ranks of the San Francisco engineering staff will have been blitzed to a point where there will be but two remaining members. These two contend that they will have to endure but five more leap-years and then old age will protect them. The latest member to exchange vows is Art McDermott, SE, who said, "I do" with Virginia Jeffries, formerly with the KGO Music Rights Department. They were married Sunday, February 4th, with Darlye Hutchins, NBC announcer, as best man. We all wish Art and Virginia the best of luck. (Art and Virginia, that sounds like a BLU show . . . Oh, well.)

There's nothing more interesting to one who has been a landlubber all his life than the stories and lies that some of the old timers in our staff give out



Art McDermott, San Francisco engineer, explains the controls in Studio G to his fiancée, Virginia Jeffries

when there is a lull in activities. Most of this select group are veterans of many years at sea and when Cassidy, SE, gets started describing the situations that came up along "Ship Street" in Hong Kong all contribute their experiences. The classic yarn concerns an episode aboard ship when the purser and Cass were feudin'. The trip was a long one and tension was running high between Cass and the purser. The crisis came when the purser brandished a .44 and threatened to settle the beef by killin' Cass dead by shootin'. The purser was so shakey, that when the .44 went off it was aimed at his bunk and the bullet penetrated the bunk and the new white dress uni-

★
By
Jack Van Wart
★

forms which were kept in the drawer under the bunk. Result. San Francisco engineering continues to be plagued with Cassidy tales.

Sid Blank, SE, continues to bewilder the engineers and announcers with his Webster-like vocabulary, which he summons at will, to administer verbal chastisement to his victim.

C. T. Stevens, SE, and G. B. McElwaine, field supervisor, still volunteer a day per week to the U. S. Coast Guard as temporary reservists serving aboard the harbor patrol boats. Mc is based in San Rafael flotilla 14 and travels 20 miles each way to report for his all nite watch. Steve is based in San Francisco flotilla 11 and serves his 12 hours all day Thursdays. A lot of credit is due these fellows. Harry Puccetti has succumbed to a new mania. He grabs all the paper money he can get his hands on and tears it into two pieces . . . What guy.

Radio Recording Division of the National Broadcasting Company has opened an office in San Francisco. Heading the new office will be Robert Z. Morrison, Jr., formerly of the New York staff PP. San Francisco engineering welcomes seven new members assigned to the Dixon transmitters, namely Cletus Ray Stirewalt, William C. Osborn, Harold E. Bennett, Beverley W. Southwell, Ira Fay Gardner, Hurlburt Anderson, and James W. Townsend.

Crosstalk from KGO

By Ken Martin

Jim "Granddaddy" Blanchet, they call him now—is arguing his way out of those cigars deemed overdue on such auspicious events, despite the contrary attitude of the remainder of the staff. Granddaughter and Grandfather both doing nicely and Jim has been heard loudly boasting it may be his first but not his last.

James Irving Ball, 38, of Massachusetts, and for 13 years connected with



KGO Transmitter as TE, recently died. Jim came to KGO with a splendid background of experience in marine, point-to-point and broadcast stations on the West coast and was noted and liked for his technical ability, friendliness and imperturbable good nature. Jim signed 30 in the log of life last December and is sorely missed by his watchmates and many friends in the radio industry.

To round out the watch, James Wallace Downs, TE, recently of Blue, Chicago, has joined the KGO Transmitter staff. Wallace comes to us following service at several mid-western stations. Wallace is six feet three inches tall and will come in mighty handy when it comes time to polish the barnacles off the KGO antenna.

Visitors: G. Fisher, ex-TE, and now identified with local FCC as Inspector, dropped in to renew his acquaintance with the rig and staff alike.

Los Angeles

(Continued from
Page Fourteen)

His is a job involving many maps and a smoking slide-rule and the eventual result will be the FM installations on Mount Wilson. Welcome back SFJ!

Tom Darling is back with us, after a few months absence, during which he was employed by the Henry Mfg. Co., working on the development of Plastic heating through thermo application of RF voltages.

Wilbur "Alex" Alexander, veteran of Master Control here at KFI, has applied for and gotten an extended leave of absence. "Alex," being a photographic enthusiast as well as an authority on Death Valley, will probably spend a lot of time capturing some more of those gorgeous desert scenes.

The KECA studios at Sunset and Highland are nearing completion at this writing and the staff expects to pick up and move sometime in March, if things go according-to-plan.

OMAHA NEWS . . . By Bob Rudd

MEET THE BOYS

D. ROY GLANTON, second eldest of five children, was born May 2, 1900, on a farm, near Stephenville, Texas. The Glanton name can be traced back several generations to Scotland but more recently, to the early settlers of the South. Springing from a thrifty and industrious race, it's only natural that farming should follow generation after generation. Being endowed with the pioneering spirit, Roy's father pushed westward into the great undeveloped land of Texas where he met Roy's mother—a native Texan.

Here then, with an occasional change from one farm to another, Roy spent all of his boyhood and part of his young manhood. "Times" were never "flush" with the Glantons and hard work was necessary to keep things going. There was always the cotton crop to get in, then the task of keeping it free of Johnson grass and later the Boll Weevil had to be eliminated before the crop could be harvested. This was a morning to night job, and a hard one. Roy learned early the meaning of hard work, and to this day he is very seldom idle. He always rises early and in the summer months may be found in his garden or among the shrubbery trimming or hoeing, as early as six A. M.

He, with the other Glanton children, attended the one-room school house where they were taught the rudiments of "readin', 'ritin', and 'rithmetic". At the age of fourteen (1914) he was forced to quit school and to take up the duties of a man on the farm. His father needed his help as the demand for cotton and beef cattle became greater and greater, due to the demands of Europe, which was then on the brink of war.

He worked and stayed with the family until he was eighteen years old. This was in 1918, and by this time the United States was at war. His brother and sisters were able to help now, so he decided to leave the farm and learn the trade of an auto mechanic. He went to Ft. Worth, Texas, where he was given a job as apprentice auto mechanic in a garage. On the farm he had always shown a great aptitude for machinery, so it was not at all unusual that a farm boy should take up mechanics. He was paid the handsome salary of seven dollars a week and later was raised to nine dollars a week. He stayed at the garage until 1920, and then went to work for the Texas Company at the refinery in Dallas, Texas. Two weeks later he was sent to Sherman, Texas, to work as a fireman at a pipeline pumping station.

It was while at Sherman that two very important events occurred. He met Miss Marguerite Reeves, who was later to become his wife, and it is odd but nevertheless true, that at about the same time he started studying radio. He took the ICS radio course and when the opportunity presented itself in 1923, he went into partnership

with a friend and opened a small radio supply store.

His first stock consisted of one hundred and fifty dollars worth of 200As-201A's, batteries, vario-couplers, etc. As his business grew he started building and selling "kit" type neodyne radios. He stayed in the radio business until the spring of 1927 and then sold his half of the business to his partner. His experience in the radio store had proven to him that radio held a great future. He decided that a "commercial ticket" was the key to that future, so with this in mind, he went to New York and entered the Radio Institute of America at 326 Broadway.

The course lasted one year. That year is very vivid in Roy's mind. He attended classes all day, and then worked evenings to help pay his tuition. On his days off, and they were very few, he usually would manage some trip up the Hudson, or to some other scenic spot. His many pictures show that he got around quite a bit, despite his full schedule.

In June of 1928 he received his First Class Commercial license. In his life it was a great step forward. That future was getting closer and closer.

His first job came in July of 1928 as operator aboard the oil tanker **SS Topila** (KKE) of the Southern Pacific Steamship Company's "Morgan Line". The **Topila's** main course lay between the Atlantic coast ports and Texas and Mexican gulf ports. He worked this run until December and then left the ship at New Orleans for a job at KRLD, Dallas. He worked at KRLD until May of 1929, and left there to come to WOW where he has been ever since.

Roy was with WOW only a year when he returned to Sherman, Texas, to marry Marguerite. After an extended honeymoon trip through the West, he returned to Omaha with his bride.

Through the years with WOW Roy's quiet friendly manner has gained him many friends and the respect of all. As the station grew he grew with it, in experience and in the ability to get things done.

In 1935 when WOW moved its facilities and increased power, Roy assisted in the installation of the transmitter, and he spent many a night at the transmitter building after having worked his regular shift. The experience and knowledge gained by this work helped him later, for in the spring of 1943 he was made Transmitter Supervisor.

In the spring of 1942, WOW's engineering department chose NABET as their bargaining agency and could think of no better man to be their Councilman than Roy. He negotiated our first NABET contract and later the KODY contract in 1943. He has been re-elected twice since that time. To say that Roy has done a fine job as Councilman, is putting it mildly.

Known as "Tex" to all of us, he has many hobbies and interests. He is intensely interested in all of the natural sciences, especially archaeology, having worked spare time in the field with the Archaeological Department of the Nebraska Historical Society. Marguerite and son Dillard are also interested in Archaeology and have assisted Tex with several excavations. He is a great outdoor man and the WOW grounds are proof enough of his ability to

(Continued on Page Eighteen)



D. Roy Glanton, Councilman of Omaha Section of NABET

"My Make-Believe Ballroom Needs Transcription Equipment That's Really Rugged!"

Martin Block



"That's why our installation is PRESTO"

"Our PRESTO transcription turntables get a real workout here at WNEW," says Martin Block, popular announcer and director of the *Make-Believe Ballroom* program. "We keep them running almost continuously throughout the day. And they're giving the same fine, clear reproduction today that they gave when we installed them years ago. As an announcer, that means a lot to me. It's a nice feeling to know that my transcribed show is getting out 'in good voice!'"

From users of PRESTO equipment all over the country comes the same story: "It's rugged, it's dependable, it stands the gaff!" The increased use of transcribed material in wartime broadcasting has placed a heavy burden on all recording and playback equipment. PRESTO users—including many of the major broadcasting stations—have found that their equipment is handling the job with ease. That's because PRESTO devices are products of integrity—built to do *more* than will ever be expected of them.

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

PRESTO

RECORDING CORPORATION

242 West 55th Street, New York 19, N. Y.

Walter P. Downs Ltd., in Canada

OMAHA

(Continued from
Page Sixteen)

keep things neat and growing. Boating and sailing are among his accomplishments and as a boy on the gulf coast, sailed everything from a cat boat to a four masted gaff-rigged schooner. He loves hunting and fishing and in the fall spends what spare time he has, with rod and gun. **Tex** is a ham—W9GTC—and was very active on forty and twenty meters before the war. He has worked the world several times.

Tex has one son, **Dillard**—thirteen years old. He is a student at **Benson High School**. The **Glantons** reside in the five-room apartment located in the transmitter building.

Gene Edwards, MC, for the hour long **Fallstaff** show, enjoyed the **Yearbook** as a whole but jumped us for referring to announcing as—"a fate worse than death". **Gene** says it isn't worse than death. **It's Just Fate**. Ha. If any other announcers happened to feel hot under the collar after reading this remark, we were only fooling. (Oh, Yea?)

President John Gillin, Jr. received a thank you note from **Pvt. Richard E. Peck** for the \$10 Christmas check that he received. **Dick** is stationed somewhere in Italy. Best of luck **Dick** and keep those "V" mails coming.

Al Maller (SE) has popped up with another idea. He is quite active in **WERS** and has been doing a bit of experimenting with antennas of one sort and another. The "vertical Plane," similar in appearance to the "turnstile" antenna, and the "J" antenna seem to be popular among the Omaha **WERS** gang. **Al** feeling that perhaps the pattern of his antenna (half wave using quarter wave horizontal ctpe and quarter wave vert ant) could be improved, decided to make one using a little different construction.

Working for a radio station and having access to some old sixteen inch aluminum recording discs, he got the idea that perhaps he could use the discs as a counterpoise and dispense with the horizontal rods that are used in most antennas of this type. He arranged them so that the vertical portion of the antenna mounted on an insulator in the center of one disc, then four more were arranged, clover leaf fashion, at equal intervals around the center one. This gave him a twenty-four inch span from the center of the main disc to the extreme outside diameter of any of the other discs. The vertical portion of the antenna being twenty-four inches, this made him a nice half wave antenna with a large base capacity.

Al mounted the affair on the roof of his house, thus putting his antenna about thirty-five feet above ground. It loaded up beautifully when fed with a co-axial cable line. His reports in every case have been double that received from his old antenna. All reports were taken from "R" meters and none were accepted by ear. Stations up to seven miles have been worked and all give him readable signals. **Al's WERS** call is **KHKN-40**.

Paul McDonald, an inactive member during 1944, has paid his national and local dues, and is now back on the active membership list again. **Paul** was with **WOW** about seven years and then left the station to go into research work, which he is still doing.

Paul is an old timer in the television field and is considered one of the best informed men on the subject in this area. A few years ago while with **WOW**, he built a television transmitter, complete with **RCA Iconoscope**

and video amplifier. Construction of the video amplifier was slow and exacting so desiring to test the transmitter out, speech equipment was built and the transmitter was placed on five meters. Running a 100 watts input into the final—feeding a dipole antenna, dozens of five meter stations were worked.

Paul moved the transmitter to his home where he intended to complete the video section and put it on the air. Before he ever got the picture amplifier finished he received an offer from a local radio school to buy it. He sold the equipment and it was moved to the school where it functioned very well. The writer had the pleasure of seeing this equipment in working order. It was used in regular class work for teaching students the technique of scanning and focusing.

Paul was active on five and ten meters before the war and his "ham" shack was the envy of all who visited it. When that happy day comes that hams can once again return to the air, **Paul** will probably be one of the first ones on the air; all of his equipment is there ready and waiting.

Glanton, McGowan and Rudd treated the studio boys to a steak dinner at **Marchio's**, January 4. **Joe Herold, Glenn Flynn, Chief Kotera, Al Maller, Louis DeBoer and Tom Daily (Sports Dept.)** were the guests from the studio. **Cy Hagman and Waldon Seih** were unable to attend due to holding down their respective shifts at the transmitter and studio.

There is one thing about these dinners that we don't understand: How does it come that the ones paying the bill are always such fine fellows until after the steaks have been eaten and the financial details taken care of, then suddenly they become "Dispicable Nyrophrites?" **Messrs. Glanton, McGowan and Rudd** had no sooner paid the bill than the rest of the gang started hurling epithets and do you guys think you are anyway?"—"My gosh, who do you guys think you are anyway?"—"Why you dead-beats haven't bought us anything for almost two minutes now"—"Doggon, if I couldn't do better than this, I'd give up," etc., etc. We ask you—Is THAT NICE?

Louis DeBoer (SE) reports that his **WERS** rig is getting out much better since he changed his antenna coupling system. Reports of **S7** at a distance of five miles is not unusual. **Louis** is using 2 **7A4's** in **PP** using parallel rods to match plate impedance. He is running about 18 watts input. The antenna is a twisted pair feeding a doublet. His call is **KHKN-21** on a frequency of 113.5 mc. Long skip is favoring this section of the country at the present time so information from anyone hearing the Omaha gang would be greatly appreciated.

We welcome **Ray Olson (anncr.)** back after his three and a half months with **NBC** in **Chicago**. **Ray** was heard on several local **Chicago** shows and several commercial and sustaining shows on the network. He regretted having to leave **NBC** but the problem of finding a place to live for his family was so great that the return to **WOW** and **Omaha** was necessitated.

KMA ENGINEERS VISIT WOW

On January 17, **Franz Cherny** and **Walter Ely** of **KMA** visited **WOW** for the purpose of obtaining first hand information about **NABET**.

After showing them through the transmitting plant Councilman Glanton and the visitors retired to the Glanton apartment and over cakes and coffee prepared by Mrs. Glanton, discussed the facts relating to contract issues, advantages and procedure in NABET membership.

Mr. Cherny and Mr. Ely discussed at great length their reasons for desiring NABET membership and we were impressed with their fair minded attitude. Their demands seemed quite reasonable and when they both expressed their desire to be fair in every way to their employer, and to consider the facts from every angle, it left us with the feeling that they were the type of men NABET wants.

Councilman Glanton gave them several sample contracts, a copy of the NABET constitution, minutes and proposals of the national convention at Cleveland, and enough application blanks to cover the Engineers at KMA.

After an all afternoon discussion, they were guests of the Omaha section at Marchio's Steak House, where they were plied with food and drink.

Mr. Cherny said that a meeting will be held with KMA officials and a decision will be given later.

January 18, the staff were guests of WOW and 20th Century-Fox at a special showing of "Keys of the Kingdom" shown at the 20th Century screening room. When the lights came on at the end of the picture, there wasn't a dry eye in the house. Sissies.

WOW SPONSORS TELEVISION MEET

Radio station WOW sponsored "Television Night" at the Omaha Advertising Club meeting held at the Fontenelle Hotel, January 23.

The meet was well attended and some four hundred guests were there. It was amazing to find so many people interested in a subject that so few of us know anything about. Its quite obvious that when the day comes and television gets the "go ahead" signal—Omaha will have an eager audience. WOW plans to be the first on the air with television. Great plans have been formulated and a television license has already been applied for. Several locations have been carefully inspected and a sight will be chosen soon. KOWH of Omaha (BLUE) has also applied for television facilities.

After dinner was over the prominent guests of the evening were introduced by Bill Wiseman of WOW and things got under way. Mr. Dick Hooper of RCA acted as MC and introduced the principal speakers of the evening. Mr. Steve Pozgay of GE spoke first and pointed out the systems that will be used to bring television programs across the country. Overland systems similar to our present day networks will be used but instead of transmission by wire, television signals will be carried over co-axial cables. This system being very expensive at the present time may delay transmission to the middle west for a while but another system using relay stations will be put into use as soon as equipment is available. Mr. Pozgay told of the possibilities of television in the field of advertising. He said that it would be quite possible for a department store (for example) to televise a style show direct from their show rooms by a simple system using a remote circuit much as remotes are picked up now. Another possibility will be the use of inter-tel to distribute television to hotel rooms and apartment or even homes, by a circuit between

control room of a television station and the point where picture is to be viewed.

Mr. "Cy" Wagner of Billboard magazine was introduced next and gave an interesting talk on the psychological effects of television from both the educational and advertising standpoint. Mr. Wagner said that television is going to need people that have "Ingenuity and Imagination". He called it "Imaginuity". This newly coined word left an quite impression on the audience.

Mr. Wagner pointed out that television would be a medium of advertising that would have terrific selling power. He elaborated upon this by saying that people would be much more interested in buying something that they could see at the same time the merits of the product were being extolled.

The Billboard representative felt that the expense of producing a television show would not be prohibitive if, as he said, "Ingenuity and imagination are used". He has seen excellent television shows produced, using only three actors and with as little as ten hours of rehearsal.

The speaker that everyone had been waiting for, Capt. "Bill" Eddy (USN) was introduced last, and the entire gathering, to a man, stood and gave him a tremendous ovation. The talk that followed was broken down into simple non-technical language that all could understand.

Captain Eddy told the audience that RADAR had contributed greatly to the advancement of television in that problems relating to it were applicable to television in many ways. Also, that the use of Radar had created a backlog of men that would have skill in ultra high frequency work, and would be able to work right into the television field and help man the hundreds of stations that would eventually come into being.

Mr. Eddy said that television will be black and white to start with and will be as clear and sharp as any photograph. Movie theaters will be able to project pictures 15 x 20 feet without distortion or loss of perspective. The post-war television receiver in the home may be any one of three types and price will be a deciding factor on how much television the public will get for their money. If a family has \$200 to spend, they will be able to buy a good television receiver that will produce a picture on a five inch television tube. If they have \$300 to \$350 to spend, they will be able to buy a receiver that will project the picture on a screen 18 x 24 inches. If money is no object and a family has \$600 to spend, a receiver having facilities to pick up AM & FM signals in addition to reproducing phonograph records, as well as the television stations, will be available.

"Electronics is the field of the future," said Mr. Eddy. The industrial possibilities of electronics and its applications are tremendous. Its quite possible that in the future, instead of heating the house, the people in it will be heated. The tempering of metals and numerous other uses are already a reality. Even cooking is quite possible and in fact has been done experimentally. With electronics, "You can call your shots," said Mr. Eddy. He pointed out that the employment picture in the new age of electronics looked good and that electronics in general "has a rosy future".

After Mr. Eddy's talk Mr. Hooper threw the meeting open for the purpose of answering questions. The interest shown, was keen. Mr. Hooper did a marvelous job of answering but questions pertaining to a specific subject

(Continued on Page Twenty-two)

HUDSON

NABET

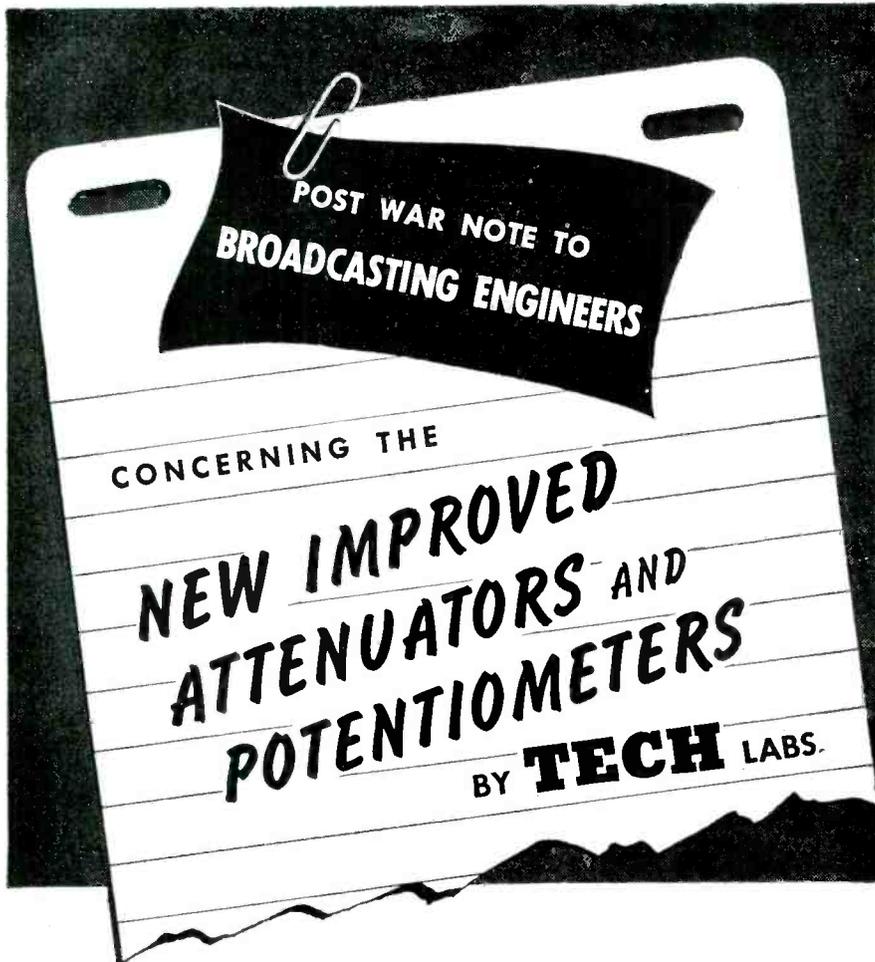
WITH the blizzards roaring outside and the coal short in the cellar we wonder what its like down in the hot climes where we've heard a snow storm is just a news item. Well, we'll ask **Jerry Barton, RE**, who is doing the Sammy Kaye show from Florida. He's been getting quite a nice tan but we hear that he'll be coming home soon as the show changes networks.

Ralph Willey, TE, saw his son, Guy, who is a Fortress pilot as he was passing through to a new assignment. He didn't have much to say about his flights over Germany.

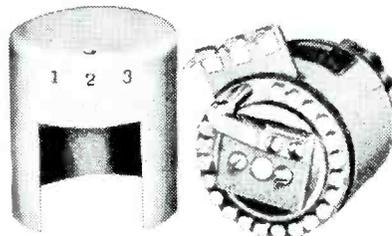
Bob Barkey, ex FM, still in Belgium as his card said. **Neil Spencer, ex SE**, in France with the Third Army . . . **Bill Boher, MC**, now Asst. Supervisor . . . **Mac Benoit, SE**, back to his old stands after a seige of Gripe, etc. . . . **Jim Chapman, SE**, has a new deduct named Patricia Ann, everyone is doing well including the proud pappy. **Jim Mullins, SE**, doing the night shift which he says is better than getting up early . . . **Chas. Thropp, MC**, an amateur astronomer, is building a new telescope . . . He has a new six inch mirror almost completed . . . **Howard Donniez, MC**, on winter vacation . . . lucky guy . . . **Hax Hadden, MC Supervisor**, is getting ready for post war radio, in fact he has nothing left except two small sets. One of 'em actually works . . . **J. Garlinger, SE**, looking as if he were hearing wedding bells . . . hi . . . **Jack Byrne**, busy thinking up gags for his new "Better Half" show, which is back on the air . . . **Dickenson, SE**, raising a nice crop of stuff on his upper lip . . . he expects to get it trained any day now . . . **Ed. Boquist, SE**, who has "looking for 35Z5 tubes" and "song writing" for hobbies recently had a song sung by Jay Johnson on the full net. It's called "I'll Sing You My Love Song". Ed says it looks good! . . . **Al Nilson, RE**, prefers the "Savoy Ballroom" nemo due to the excellent transportation furnished to and from the studio.

Gus Gustavson sound effects as reported in a previous report did not

Broadcast Engineers' **20**
Journal : March, 1945



All our modern production facilities, manpower and materials are engaged in supplying our armed forces with quality electrical resistance instruments. Once the Victory has been won, Broadcast Engineers everywhere can rely on Tech. Labs. for prompt shipment on precision attenuators and potentiometers.



TYPE 600

- Stainless silver contacts and wiper arms eliminate the necessity of frequent cleaning and result in less noise.
- Better insulation and moisture proofing result in superior performance.
- Improved mechanical construction — pinned rotor hubs and detent gears—results in longer trouble free operation.



TYPE 700



MANUFACTURERS OF PRECISION
ELECTRICAL RESISTANCE INSTRUMENTS

15 LINCOLN STREET, JERSEY CITY 7, N. J.

CHAPTER

News

By
Richard H. Davis

switch to a certain network that %&'\$' bird was decidedly wrong! Don Williamson, SE, doing some fine cartoons of the characters around the studios . . . Ed. Boquist, SE, and Ed. Pearson, Announcer, have their own private line when they get to checking programs without fear of eavesdroppers, they both speak Swedish . . . Al King, SE, an ex-trumpet player who refused a job with Leo Riesman a long time ago, recently had another offer when he went to the Waldorf to check the balance . . . hi . . . Wiggy Breitegger, SE, has been awful quiet lately . . . Gene Clark, SE, now appearing on the stage for the show, "Guess Who?" spinning records . . . Has any one got an idea what happened to studio 10 or what happened to "Guess Who?" . . .

New Faces . . . E. L. Saunders, SE ex WEEI . . . ex-Coast Guard and more recently in commercial radio engineering . . . Henry Linton in Recording . . . ex-Bureau of Standards . . . George Washington U. . . hobby . . . chemistry . . .

RECORDING—Bob Lee has moved his family from Middletown, NY, to their new home in East Orange . . . Bob is looking for some real home cooked meals from now on. Danny Conover busy as a bee chasing cycles through the recording amplifiers . . . Paul Baldwin turning out lots of Juke Box Platters . . . Bart Simpson in the other day which is unusual because Bert is a night owl . . . Pappy Hawkins up at the Guild Theatre, riding gain on the big orchestras . . . So far the VU meters still have pointers . . . George Cory also busy with the Longines program.

Leon A. Faber of The James Knights Company, Sandwich, Illinois, manufacturers of quartz crystals and frequency standards, announces that a license agreement has been recently negotiated with the Western Electric Company and that The James Knights Company will manufacture electronic equipment under their patents.

Broadcast Engineers' 21
Journal : March, 1945



MIRACLE of Design!

"World's Smallest Transformer"

If you have a space or weight saving problem you'll want to know all about this remarkable new midget transformer—how it was developed by Permoflux engineers with new materials and manufacturing methods—how it was made small enough to be incorporated directly into the cases of earphones and hand-held microphones.

You'll be interested too, in knowing about its many application possibilities and about its outstanding operating efficiency and uniform response characteristics. This transformer can be produced to meet your own special design requirements.

Permoflux welcomes inquiry from design engineers about this new midget transformer. Write for our complete technical catalog listing Permoflux transformers, speakers, headphones and other acoustical devices.

BUY WAR BONDS FOR VICTORY!

TRADE MARK
PERMOFLUX
PERMOFLUX CORPORATION
4900 WEST GRAND AVE., CHICAGO 39, ILL.
PIONEER MANUFACTURERS OF PERMANENT MAGNET DYNAMIC TRANSDUCERS

from Rochester Chapter NABET

By Arthur Kelly

ALL things considered, it has been a quiet month in the Rochester Chapter. Since our last column went to press the most important event that has occurred was the Chapter's first meeting since Stations WHEC and WHAM became N.A.B.E.T. stations. Representation from Rochester's three stations, WHEC, WHAM and WSAY was perfect. The gathering was even graced by the presence of Rochester's only young lady operator, Miss Beryl Shay. Looking around at all the boys from the three stations she suggested to me that she felt out of place, being the only Miss present. I assured her that such was not the case and, from observation from time to time, I guess the boys (the unmarried ones, of course) greatly enjoyed that ray of sunshine in the smoke filled room. Chairman Charlie Snyder, he of the colorful and dynamic vocabulary, caught



Here's the photo of the year! Using infra-red atomic exposures, the Rochester Chapter has "bingoed" the scientific world with this first photo of a Lortnoc Renob (that's control boner spelled backwards). This creature, shown crouching behind a WHAM remote amplifier, is the phantom responsible for ground-hum on your remote lines; plus three peaks when you swear you are gaining seventy; dirty grains in the middle of a program; power failures and P.A. feedback. When Ken Gardner, Chief Engineer at WHAM, discovered this gremlin in his nemo room, he quickly disposed of him with a deadly beam of polarized piezo from his quartz watch fob.

himself just in time on two or three occasions when the proper descriptive adjective he was about to use might have burned the ears off Miss Shay!!

Well, to get back to the meeting, the most important business discussed concerned the running of the local Chapter. Adoption of by-laws governing meetings, payment of dues, financial resources, etc., took up the major portion of the meeting.

A visitor to Rochester is said to have asked a life-long resident of the city what Rochesterians do in the summer time. Well, answered the resident, if it happens on a Sunday we play golf. That is just a trifle distorted (summer usually lasts three or four days) but nevertheless again

brings up the subject of the weather. Rochester is going through its worst winter on record. And none knows it better than our broadcast transmitter men. At WSAY the gang has it quite easy because the transmitter is located in the heart of downtown. WHEC's transmitter is located toward the city's outskirts and the boys face the problem of transportation to a certain degree. At WHAM however the transmitter is about eighteen miles out in the country and is situated on a hill back off the main road. The WHAM transmitter boys will always remember this winter because it marks the beginning of their careers as snowshoers. Some of the boys have bought snow shoes to make the trips to and from their cars more pleasant. Alex Gressens, WHAM's heaviest, found one pair of web feet inefficient so he bought two pair and wired them in parallel to carry the load.

A couple of issues back this column carried the names and "ham" calls of the Rochester gang. Our records were incomplete as they did not include the "ham" call of Hank Boyce, WHAM transmitter man. Hank, who lives in Canandaigua, N. Y., has the call W8RVS.

Rochester's transportation may be pretty well tied in a knot due to storm conditions but that had nothing to do with the "on time" arrival of the stork at the home of Bert Allis, WHEC Transmitter operator. Glory be, it was a son, Jan Gilbert. Another radio operator, no doubt! Congratulations to Bert and Mrs. Allis.

OMAHA

(Continued from
Page Nineteen)

were turned over to the other three guests, where direct answers were given.

After the meeting was concluded, the audience was allowed to visit the Austin and GE exhibits set up in the room. The Austin Co. Engineers, builders and designers of television studios, had an exhibit of a miniature television radio city. This miniature was complete to movable stages and rotatable control room.

The GE exhibit shown by Mr. Pozgay was a wire recorder. He demonstrated it to those interested and allowed any one to put there voice on wire after which he reversed the mechanism and played it back to them. It's the first wire recorder that has been shown in this part of the country and it aroused much interest. We imagine Mr. Pozgay has had enough recording to last him for some time.

It was a great evening and Ad men as well as radio men, expressed their appreciation of the facts given them. We certainly know now what to expect in the future and as Captain Eddy says—"It's Rosy".

VITAL STATIC

Happy Birthday to Joe Herold and Glenn Flynn. Joe's birthday is March 8, and Glenn's, March 22. Congratulations to Louis DeBoer as he starts his second year with WOW. Louis started March 15, 1944.

from HOLLYWOOD

By Norman Dewes

Balboa, Calif. Feb. 11, 1945.

WELL, we're doing the column this month from in front of a blazing log fire, with our pencil in one hand and a mug of hot buttered rum in the other . . . the wind is whistling around outside and up on the ocean front the waves are beating on the beach and here we sit, smoking our pipe and RELAXING . . . after a glorious day of swimming, sailing and sunbathing. To your obvious question of how many mugs of rum does it take to write stuff like that, we reply . . . not very many or none at all, 'cause its de troof . . . every syllable. The answer is, of course, CALIFORN-I-AAY . . . where when it rains it rains champagne, etc., etc. Get a copy of the song and sing it over to yourselves, you guys back in lil' old NY, while you turn GREEN, if you're not already BLUE with the cold we've been hearing you've been having . . . our newspaper tonight (we never listen to the D—radio!) screams "Blizzard Toll Rises . . . Heavy Thaw Treatens NY Area with Floods, following Unprecedented Fall of Snow." Just for the record and with NO intention of making anybody envious, we repeat . . . it was a SWELL warm sunshiny day down here, with a fine stiff sailing breeze and us getting sunburned . . . in FEBRUARY. (You're breaking my heart, om—Ed. S.). The fire in the fireplace feels good this evening tho, and we some times think winter at the beach is as good as, or even better than summer . . . not so many people around, not so hot and just as much fun . . . (mix up some more GROG, Mable, and take it easy with the spices . . .) the TAG to this True Story is . . . we turned down two other invites to come down here this weekend, one was to go fishing and the other to go skiing and ice skating! All together now, gang, Second chorus, CALI-FORN-I-AAY . . . where the . . . okay, we'll stop, and if you haven't already thrown the magazine at the wall, please CONTINUE . . .

THE FOLLOWING . . . was transcribed earlier for release at this more convenient time . . . in other words, we brought along a handful of old envelopes, old scripts, old unpaid bills, old memos from DENNY, and a few

old uncashed checks, on the back of which we've jotted down notes for the past month on Happenings in the Hollywoods . . . and NOW, as we sit here before a blazing log fire, with our pencil in one hand and Mable . . . er . . . that is, a mug of hot buttered rum in the other, we're trying to recall if this stuff REALLY HAPPENED, or were we laboring under a Scotch and plain water, please, not TOO much ice, and Mable honey, throw another log on the fire, that's a baby—did anyone ever tell you . . . okay, okay . . . we'll write our column, BUT FIRST . . .

LET'S SEE NOW . . . hope STOLZIE can read this stick stuff . . . no mill down here and not much lead left in our pencil, so if some of this comes thru in lipstick, blood, or dyed water made from wringing out our socks in it, please excuse and thanks . . . While we're on the subject of STOLZENBERGER, we out here in Hollywood would like to say that Stolzie did one HEL-LUVA swell job on the Yearbook issue . . . we have received many compliments from agency people, actors and actresses, and even from people who seldom NOTICE the engineers . . . the whole deal thruned out VERY FINE and Stolzie and Staff are to be PROUD . . . especially of Page 49 (see page 49 of the Yearbook). OUR comment is WOW! . . . and thereby hangs a tale . . . when we sent in the order for THAT ad, it called for a quarter page only, with just a HEAD shot of de-Lovely de-Beryl, cropped from the 8 x 10 still . . . but SOMEHOW, the thing got OUT OF CONTROL and LOOK WHAT HAPPENED? Snamf, snamf, snamf. Stolzie, you DEVIL . . .

WELL . . . let's report the Changes Dep't first . . . we welcome back Captain Frank Figgins, recently of the Signal Corps and now back again at his old job of Maintenance Supervisor for NBC, Hollywood . . . Frank spent about two years with the Signal Corps, was Maintenance Super before he left and studio field engineer in Hollywood before that, having joined the company in 1934. The fellows celebrated his return with a barbecue in the Maint. Shop, with M. E. Lew Winkler as Chief Cook and RE Ross Miller as

maitre-de-hotel . . . the barbecue being a FIRE which darn near burnt the joint down. Thing was caused by a soldering iron touching off some celluloid covers over the amplifier schematics and you shoulda seen the smoke . . . Ross Miller came strolling thru, wondered at all the COMMOTION and then grabbed a GASMASK and put it on but FORGOT to open the intake valve and almost suffocated before he discovered what was wrong . . . he was trying to figure it all out while standing under the fire door, when it cut loose and came down, with Ross barely escaping with his pants . . . and we DO mean BARELY. Capt. Figgins' return as Super returns Johnny Morris, who had been holding the job down for him, to Studio/Field and with a bit of a ceremony as the attached pix illustrate! Johnny, incidently, has been doing a swell job of holding down troubles and failures . . . keeping the circuits clear and the relays clicking . . . he has instigated many improvements and additions to the engineering facilities during his tour of duty and turns things back to Frank in tip-top shape, together with a well-trained and able staff of assistants, even if they DO look a little out-of-this world (see first pic). Other recent arrivals and departures include a new man in Recording named Harvey Hoag, a 1-C from the Army and an experienced radioman . . . he replaces Ray Provost, who complained about the weather . . . (one day feeling a DRAFT on the back of his neck and joining the Merchant Marine) . . . Ray, who wasn't with us long, is out at sea somewhere under FORCED DRAFT (how CORNY we get) pounding brass by this time. The BLUE (PAHdon us, the ABC) is getting a NEW ONE too . . . one Edward J. Conture from the East . . . an old station man and formerly with Blue in NY, sez Denny, he comes to us from WEEI in Boston . . . haven't seen the boy yet, as he starts the 19th of Feb. . . . will report on his ACCENT, etc., next issue. New NBC S/F is Gene Durhan, who recently left KFSD in San Diego as Chief Engineer . . . another graduate . . . KFSD has furnished many fine men for the networks,

(Continued on Page Twenty-four)



(LEFT) "Johnny is bid tearful adieu by Maintenance Crew . . ." L. to R., Lew Winkler, MC; Johnny Morris, ex-MS; Al Gage, MC; Oscar Wick, MC; Raoul Murphy, MC. (CENTER) ". . . receives warm welcome in Field Shop . . ." L. to R., Art Brearley, S FE; Johnny Morris, ex-MS; Joe Kay, FS; Craig Pickett, Operations supv. (RIGHT) ". . . and courteous assistance from fellow worker." Left, John Morris, ex-MS; right, Art Brearley, S FE.

HOLLYWOOD

(Continued from Page Twenty-three)

among them Bob Brooke, now Navy, Johnny Fraser, now ditto, AND youah Reportah, so far 2-A, but practicing up on his code! We're gonna call Gene Durham "BULL" . . . NATHCHERLY, sez RE Hal Lea, the pixie of the Recording Room . . .

The addition of Jack Daniels, an OIL man from San Fran, as Recording Clerk, completes our additions for this month . . . and the total of engineers is 35 for NBC, 10 in Recording, 17 in Studio/Field, 4 in Maintenance and 4 in Master Control, not counting 5 Supervisors, who don't count anyway . . . they CAN'T . . . (How corny CAN we get????). The BLUE of ABC has 12, also not counting Supervisors . . . cause they ain't any TO count . . . more's the pity. Denny is Engineering Manager and that's IT . . . and is he busy . . . and does he need an assistant . . . YES HE DOES . . . you open the office door and our Miss Blue Miss Wendt gives you a WILD LOOK and screams, "They went that way . . ." Incidentally, if you don't think it's a job keeping track of the Life and Loves of the above enumerated some 50 suspicious engineer characters, you're OFF . . . we get our face slapped MORE TIMES . . .

STREETSEENS . . . Crosby, in an

SINCE 1922

SUN RADIO

HAS BEEN
America's
MOST COMPLETE
★ *Source of Supply* ★
for

RADIO PARTS • TUBES
INDUSTRIAL ELECTRONIC EQUIPMENT
AMPLIFIERS and SOUND SYSTEMS
BROADCAST and COMMUNICATIONS APPARATUS
F/M — television — A/M

★

IMMEDIATE DELIVERY FROM STOCK
ON OVER 10,000 ITEMS!

Write on your company letterhead for FREE 800 page catalog

SUN RADIO 212 FULTON STREET
& ELECTRONICS CO. NEW YORK 7, N. Y.
Tel. BArcley 7-1840

old battered slacks 'n jacket, with the Pipe and the Hat . . . and Jack Benny, in a huge overcoat and Dinah in the arm of her hubby, and many other toppers walking thru the Parking Lot from rehearsals up the Street past passers by, with NOBODY giving 'em a tumble . . . but let 'em so much as step foot out of the Artists Entrance after their shows and they call the riot squad . . . the fellows in a parking lot up the Street playing badminton during slack periods . . . theatre marquee along the Boulevard showing the names of Truman Bradley, Bill Goodwin and other announcers who are now movie stars too . . . and lobby cards billing announcers who are radio stars too . . . such as our Wendell Niles . . . the Voices are doing alright . . . the Morning Line-up at Thrifty Drugstore across the street, where we stand for ciggies each ayem, wondering if we will MAKE it before they run out, and up to the curb pulls a big Army MP on a motorcycle and he enquires what the line is for . . . thinking perhaps it was maybe some VIOLATION of Army regs to stand in line at that hour of the morning or something, we quaveringly reply that we HOPED to get some cigarettes . . . WELL, the MP sez, "Here, I've got a couple of packs and I don't smoke, so take 'em" and he shoves them into our VERY surprised hand and roars away on his motor . . . a New twist . . . the drive-in joint out in the Valley which advertises Horse Meat for pets . . . lean and tender . . . and right in front in big neon letters a sign sez, "Sandwich—Drive In" . . . and across the street another joint sez, "Free Parking for Helicopters and Autogyros" . . . and down Vine Street two beautiful girls riding bicycles in SHORTS, pursued by the stares of sidewalk citizens . . . and across the street from where we eat breakfast, a block or two from NBC, there lives a guy who used to be an AIR RAID WARDEN or something . . . and has a dog which is trained to HOWL whenever it hears a siren, so the guy will be sure to wake up . . . there aren't any more air raid alerts anymore, but the pooch STILL responds to the siren's call and lifts his bazoo and CUTS LOOSE whenever a police or fire dep't vehicle goes by and the guy comes running out and chases the mutt around trying to shut him off, but he simply dodges the rocks, shoes, etc., and goes on howling. To pay it off, when everything settles down again, the police or

(Continued on Page Twenty-six)

A

A



ALLIED

*The Name to Remember for
Quality in Recording Discs*

ORDERS SHIPPED PROMPTLY

**ALLIED RECORDING
PRODUCTS COMPANY**

21-09 43rd Ave., Long Island City, N. Y.

Phone STillwell 4-2318

Cable: Allrecord, New York

JAMES KNIGHTS

"Crystal Controlled"

Frequency Standard



IMMEDIATE DELIVERY!

This is the ideal secondary frequency standard to check frequency of oscillators and transmitters, calibrate and align receivers, check frequency of received signals, band edges, etc. Useful many ways in laboratory or factory for making general frequency measurements or as a signal generator to provide frequencies every 10 kilocycles. Can be used in connection with an impedance bridge as a source of alternating voltage to accurately measure inductances, resistances and capacitances at various frequencies. Provides output up to 40 megacycles at 1,000, 100, and 10 kilocycle intervals. Descriptive catalog sheet on request.

Complete Price Only \$59.50

BUY MORE WAR BONDS FOR VICTORY



The JAMES KNIGHTS Co.
SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Hollywood (Continued from Page Twenty-five)

fire trucks returns to the station and the dog opens up with the ALL CLEAR . . . one of the minor post-war re-adjustments to be made . . .

WELL . . . we've filled the column with so much STUFF, there's not much room for anything else, but here's a few crosscuts from the log of the day as Josh Higgins used to say years ago . . . Albert "Cappy" Capstaff, the big building and lone wolf and former NBC SE, is no longer a lone one . . . was married in Yuma New Year's Day or thereabouts to a former NBC lovely . . . forgot to mention this last issue . . . Sax up to San Fran to look around and see new short-wave plant at Dixon . . . Art Brearley, NBC SE, now chief engineer of the NBC . . . according to his MAIL . . . sez for OB not to worry, Art'll see that he stays on with the company . . . WHO? . . . Lorenz, Blue SE, having a very HEADY lady on Hall of Fame show and seeking a SPECIAL mike for her, cause the glamor gal was INFANTICIPATING, to put it Winchelly . . . Banks, also Blue, raselting with Army show in "D" . . . with a 310 piece ork and 37 mikes . . . we counted 'em . . . only 12 cast mikes, tho speaking of mikes, you should see the Lorenz setup on one of our bigger shows . . . the musicians say every time they turn around, they find a microphone YOUKNOWWHERE . . . Life beginning for Lew Winkler, NBC ME, the kid was recently 40 and is sitting around WAITING for it to BEGIN! . . . sez HES ready . . . the Blue's Baxter or vice-versa, taking his 5th or 6th physical . . . was turned down last time on account of having a functional TACACARDIA . . . that we ALL had one of those . . . sez hes 4-FHA now or sump'n . . . Joe Kay, FS, promoting a new batch of tools for Field Shop . . . sez now Platt (his asst) can go to work.

Rhoda, the Beautiful Sec, tripping over a typewriter and banging up knees, ruining hose, etc. . . . looking very OBTUSE hanging heels up over the thing . . . Comegys in MCD hearing about it and is setting in Master Control and sees some legs come walking in, thru a cloud of Telco men, supervisors and hangers-on, so yells out "How's yer laigs, Rhoda?!" . . . ONLY in turns out to be Helen's laigs, belonging to the BLUE network . . . he got out of it nicely, however . . . NABET

(Continued on Page Twenty-Seven)

Broadcast Engineers' **26**
Journal : March, 1945

DIXIE CHAPTER NEWS *By Rex Coston*

WILLARD DEAN, chairman of the Dixie Chapter, announces that the N.A.B.E.T.-WPTF contract negotiations were completed and the contract was signed on January 30. The Dixie Chapter was honored, during negotiations, by the presence of Mr. C. A. Allen (NABET national sec.-treas.), January 26-30.

WPTF was well represented at the January 24-27 I.R.E. Technical Session in New York by the presence of chief engineer **Henry Hulick** and (SE) **W. P. Seagraves**. A topic of particular interest at the meeting was the new f.m. frequency allocation as was proposed by the FCC.

While in the big city "Skipper" Hulick renewed acquaintance with NBC's **Bill Duttera**, who was in charge of the installation of the WPTF antenna system.

Seagraves was cordially received by BEJ's editor and genial host, **Ed. Stolzenberger**. He also viewed the NBC audio and television facilities with keen interest. While in the NBC studios "proff" Seagraves ran into eng. **Johnny Pawlek**, who was recently in Raleigh with the "Truth or Consequences" show.

Have you ever played "honest John"? Neither had I until some of my co-workers obligingly offered to let me in a game.

Alton Tripp walked into the control room one day, where several of us were busily about the public's business, and nonchalantly said, "Let's honest John see who pays for the drinks this morning". I, being as thirsty as a fish out of water and always ready to flip a coin, answered, "Sure thing". After all this was probably just another way to odd man.

Willard Dean tore off several strips of paper and said, "I'll write the numbers down and the fellow with the lowest number buys the drinks". What could be more fair and simple? At last here was a game where the odds weren't so high!

Gordon McCrary looked out of the corner of his eye at his number and sighed, then he asked me what my number was. I really felt confident that I at least wasn't the loser, because my number was "2". But slowly my eyebrows dropped and my smile faded as I heard Dean say that he had "5,"

Tripp—a "3," and McCrary had a "4". Stung again, I thought to myself as I drank my milk shake, which for some reason didn't taste quite as sweet as usual.

I played "honest John" on several occasions, but I guess my luck was just a little on the sad side for I lost more times than I won. Then one day Tripp walked in again and said "let's play honest John". By this time I was getting pretty well fed up with this "goody-goody" game, and why shouldn't I—after all, I hardly ever won. But I didn't offer too much objection. Perhaps today would be my lucky day.

Dean went through the usual routine of making out the slips of paper with the numbers and dropping them in a hat. My face lighted up as I looked at my big number "5"! At last my lucky day had arrived, oh joy! How could I lose with such a high number, after all, the lowest number was probably a "2". I blurted out, "I've won fellows, you might as well not look at your numbers because I have a "5". Oh, fickle fortune, the hand of fate had slapped me in the face, for Tripp had a "6," McCrary a "7," and Dean had "8". This was the last straw. I jumped upon the console and raved madly as I pulled out the few remaining strands of hair, and cursed, "@\$%&!—@c1/2" (you can ask "gob" McCrary). I said, "Believe me, that's the last time I play any game called 'honest John,' if there is any game more dishonest than 'honest John' it must be 'honest Jack' or something. You fellows have been pulling my leg long enough, now out with it . . ."

Tripp turned around to my associates and with a sly gleam in his eye, said, "Boys, we've cleaned Rex enough lately, don't you think we had better let him in on our little secret?" I said, if they didn't spill it and quick, that I wouldn't let them know what happened in the last episode of "Portia Faces Life". I knew that would get them, and in two shakes of Cugat's gourds they were down on their knees begging for mercy. But the more I heard the more burned up I became, boy, was I mad!

If you are interested in trying this little skin game on your friends some time (strictly speaking, I don't urge you into it too strongly, after all friends

are hard to find these days, what with the "work or else" bill, etc.) here is how it works. When you write the numbers on the strips of paper be careful to make them all alike, then when the sucker (woe is me) tells you his number, all you have to do is call out a larger number and throw away your slip of paper. Simple, isn't it? Brrrrr . . . this fellow honest John must be a wolf in fox's clothing.

Besides his versatility in juggling verbs and adjectives, **Bill Alspaugh**, WPTF's latest addition to the announcing staff, is also a poet. Bill says that his style is a combination of Nash, Benchley, and Thurber, and here is his latest opus, especially for our benefit:

Did y'ever turn on your radio
And hear somebody satio
"We'll be back in just a single,
Meantime, here's a transcribed, jingle?"

Hollywood (Continued from Page Twenty-six)

orchestra and/or swing combo being formed from Hollywood Engineers who play musical instruments . . . looks like a nice group, with several who have done arranging and leading . . . we need a good, SOLID bass man at present.

FCC visits LA fir furst time in history . . . Safari arranged by Army and the boys looked over local stations and networks, with visits to Mt. Wilson, and Mt. Lee to inspect Television sites . . . NOBODY entertained 'em except Chamber of Commerce, for OBVIOUS reasons, altho they were being led around Hollywood by a prominent CBS official and when asked what RADIO SHOW they would like to see, picked Fibber McGee and Molly, on NBC . . . teehee . . . that's real diplomacy . . . just received an invitation to attend lecture on COMPULSIVE RHYTHM by Prof. Thurston Knudson at the Camargo Studios . . . demonstrated with JUNGLE DRUMS . . . will let you know WHAT HAPPENED . . . if its ANYTHING we need, it Compulsive Rhythm . . . we FEEL compulsive, just THINKING about it . . . oh MAY . . . ble . . . BCNU.

FM — Hi-Fi Program Circuits

An emphatic "Yes" came from the American Telephone and Telegraph Company, in answer to the question of whether the Bell System can provide program transmission channels which will meet the present and future needs of FM broadcasters with respect to high fidelity and freedom from noise and distortion.

The statement is contained in a 12-page brochure released today by the company which points out that the Bell System already is furnishing studio-transmitter links to the majority of FM stations now in operation. These links transmit a frequency band of 15,000 cycles as specified by the Federal Communications Commission. It was stated that present broad band "carrier" telephone facilities can readily be adapted for 15,000-cycle program circuits, if desired, by adding special terminal equipment.

For many years, the announcement says, wide frequency bands have been transmitted over these carrier systems which make it possible to send many telephone and telegraph messages over a single pair of conductors. This network of wide-band channels, blanketing the entire country, already is capable of transmitting frequencies of 15,000 cycles or more for telephone purposes. There are thousands of miles of intermediary telephone routes which can be similarly equipped for wide-band transmission.

In view of the prospects for a big increase in the number of FM stations in the immediate post-war period, A. T. & T. foresees the possibility that separate FM networks, with program sources of their own, may prove to be desirable. Whatever the broadcasting industry decides about grouping FM stations for separate networks and about the quality of channels desired, the Bell System will be able to furnish inter-city circuits of the kind needed including 15,000-cycle circuits if they are required, A. T. & T. says.

If other means than wire circuits should prove better or more economical for FM program transmission, the Bell System will use them, the statement said, citing as evidence of this the A. T. & T.'s projected microwave radio-relay system between New York and Boston. This trial installation is of a type which was under development by the Bell Telephone Laboratories before the war and is intended to test broad-band transmission by radio of various types of communications, including long distance telephone messages and television, as well as broadcast programs. It will apply to radio communication many of the techniques which have played an important part in the development of long distance telephony as well as adaptations of new techniques resulting from war developments. Directed radio beams will operate simultaneously in both directions and be relayed at stations situated about 30 miles apart.

The announcement reveals that the Bell System now serves standard radio broadcasters with more than 130,000 miles of program transmission circuits along telephone routes, inter-connecting radio stations regionally and from coast to coast.

Hoffman Radio Corp., Los Angeles, currently engaged in both army and navy war production but looking forward to post-war days, has appointed the Ralph L. Power agency to handle its radio trade magazine account. It has also appointed the Dana Jones Co., also of Los Angeles, to act as agency for its billboard and broadcast advertising campaigns.

Miniature Tube Advance May Mean Radio, Television, Phonograph in Compact Combination Console

Smaller home radio receivers and compact radio-television-record player combinations are foreseen as post-war possibilities as the result of new miniature electron tube developments in the laboratories and engineering departments of the Radio Corporation of America which were revealed at the winter technical meeting of the Institute of Radio Engineers at the Hotel Commodore, in New York City.

The results of recent investigations indicate, it was reported by R. L. Kelly, of the RCA Victor Tube and Equipment Department, that the development of power output amplifier tubes and rectifier tubes in miniature envelopes for home receivers has distinct possibilities.

It was pointed out that the development of these tubes will complete the necessary complement of miniature tube types for home receivers, other required types having already been developed. Typical savings of 20 to 40 per cent in equipment size are made possible by the smaller size of the miniature tubes, some as small as your little finger, and comparable reductions in the size of other components.

Presenting a paper jointly prepared by himself and N. H. Green, also of RCA Victor, Mr. Kelly described a growing variety of miniature tubes. Today, these tubes are helping to maintain instantaneous communications in a swift-moving global war; tomorrow they will help to provide improved television, FM radio, facsimile, personal radio, and other communications equipment.

New Tube

RCA Victor Division, Harrison, N. J., has recently made available to equipment manufacturers against WPB rated orders, a new thyatron designated as the RCA-3D22.

RCA-3D22 is a sensitive, four-electrode thyatron for use primarily in relay and grid-controlled rectifier applications. Having a sturdy and compact single-ended structure for industrial service, the 3D22 is conservatively rated to handle an average output current of 0.75 ampere in continuous operation.

Because of its xenon-gas filling, the 3D22 has a control characteristic which is essentially independent of ambient temperature throughout the range from -75 to $+90^{\circ}\text{C}$. It also has the desirable features of small pre-conduction current and low control-grid current—features permitting the use of a high value of grid resistor to give increased sensitivity with a high-impedance input circuit.

New Potter Electronic Counter

The Potter Instrument Company, at 136-56 Roosevelt Ave., Flushing, New York, announces a new two-decade Electronic Counter designed for industrial and laboratory uses. The Counter is actuated by a closing contact, sine wave, or pulse input, as from a photo-cell, at rates up to 1,000 cycles per second. Each decade divides by ten, giving a scaling factor of 100. The count for 0 to 99 appears on two banks of neon lamps. A telephone-type relay is connected to the counter output and the contacts of this relay close once for each 100 input cycles. These contacts are connected to an output terminal. A conventional electro-mechanical counter may be connected to the output terminals to extend the count to as many places as desired.

The NBC Blues, or Laments of a Mail Girl

You'll find that men are always wolves,
My mother said to me.
But I never quite believed her
Til I came to NBC.

They don't all have pointed ears
And I've never heard them howl
But if you wander through the halls,
You'll see them on the prowl.

One day I wore a sweater,
It made an awful hit.
You'd think they all were making one
They stared so hard at it.

And while we're on the subject
There's something else I'd like to know
They never say hello to me
They always say helloooooo.

They said that I would handle mail
That's what my job would be.
But before I'd been there long, I found
It's the male that handled me.

The announcers are the dangerous ones,
They're all so controversial.
No matter what I tell them,
They insist, it's all commercial.

From the front office to the basement,
They have an evil gleam.
I often have to pinch myself
To be sure it's not a dream.

But wait . . . I say I pinch myself
It really isn't I
It's not me you see who pinches me
But some engineer passing by.

A pinch would be O K, I guess,
And I really wouldn't care
If I could just be sure that it
Would end right then and there.

I don't know why they feel they can
Take liberties with me.
I never had such troubles
Till I came to NBC.

— by Charlotte Samuels
(NBC Mail Room — Hollywood)

The Hallicrafters Company, Chicago, producers of high frequency radio equipment for the Army and Navy, was represented at the recent Institute of Radio Engineers 1945 winter technical meeting held in New York City by R. E. Samuelson, chief engineer, Norman J. Foot, development engineer, G. W. Davis, assistant sales manager, and Cyrus T. Read, director of sales engineering. Included among the Hallicrafters display of war equipment during the session were the new S-36 and S-37, very high frequency receivers, which occasioned considerable interest among the attending engineers. The meeting was highlighted by discussions of the latest wartime developments in radio technique.

SOUND VALUES at TERMINAL RADIO

Deluxe 30-Watt POWER AMPLIFIER

Six input channels — 4 microphone; 2 phonograph. Controls — 4 microphone gain; 1 dual phono gain; 1 master gain; 1 treble cut and boost; 1 bass cut and boost. Double tone control for finest equalization. Wide range, hum and distortion free response. 4 — 8 ohm speaker sockets with switch to select speakers and proper impedances simultaneously. 500 ohm terminal strip for multiple speaker systems. Gray wrinkle steel case with handles and hinged top. Size 20 x 10 $\frac{3}{8}$ x 10 $\frac{1}{2}$, for 105-125V 60 cycles AC
Tubes — 6-6SQ7; 1-6SJ7; 2-6L6G; 1-5Z3

Model 6729 — Price \$57.15 Net with Tubes. F.O.B. N. Y.

In Stock! Utah Public Address Speakers

Model	Size	Voice Coil Impedance	Normal Power	Peak Power	Magnet Weight	Price F.O.B. N.Y.
8P	8"	6-8	7	11	5 oz.	\$ 3.38
10P	10"	6-8	9	14	12 oz.	\$ 5.44
€12P	12"	6-8	13	20	12 oz.	\$ 9.41
G12P	12"	8	17	26	46 oz.	\$14.26

Terminal Has Microphones in Stock!

Shure 55C Unidyne

Acclaimed as the best

Price, \$29.10
F.O.B. New York

Shure 717B Crystal
Economy Hand Microphone

Price, \$5.85
F.O.B. New York

Turner BX Crystal Economy
Microphone

Fits all stands

Price, \$5.85
F.O.B. New York

Electro-Voice V-1 Velocity
Ribbon Microphone

Finest of its type

Price, \$16.17
F.O.B. New York

Large selection of other
types by all manufacturers
in stock!

TERMINAL No. MS1 Floor Stand

11 lb. 12" diameter base.
Chrome pipe section. Positive locking clutch
Price, \$6.81, F.O.B. New York

No. MS2 ADJUSTABLE Table Stand

All chrome, weighted base
Price, \$3.72, F.O.B. New York

No. MS3 Table Stand

Same as MS2, but not adjustable
Price, \$2.95, F.O.B. New York

TERMINAL UTILITY Wall Baffles

Heavy plywood construction. Tan imitation leatherette finish

For 8-inch speaker

Price, \$2.00, F.O.B., N.Y.

For 10-inch speaker

Price, \$2.80, F.O.B., N.Y.

For 12-inch speaker

Price, \$3.20, F.O.B., N.Y.

•Priority requirements change daily

•Write for catalog on Terminal Sound Specials

•Write us for up-to-date information on the items you need

Terminal Radio Corp. 85 Cortlandt Street, New York 7, N. Y.

Telephone WO rth 2 - 4415

Shortwave Transmitters Now Wage Radio War From Five Continents

CAMDEN, N. J.—The radio war against Nazi Germany and her remaining satellites will grow in intensity as several additional RCA short wave radio transmitters go into action during the next few months. This was revealed with the announcement by the RCA Victor Division of the Radio Corporation of America that it has shipped the last of a total of 23 such transmitters to be supplied by RCA during the past two years. Three additional RCA transmitters of this type have been completed and will be shipped within the next thirty days.

Already, RCA revealed, powerful 50,000-watt short-

wave transmitters of the RCA Model 50-SW type are in operation in seven countries and territories on five continents.

Installation of the rest of the transmitters which have now been shipped by RCA will raise to at least ten the number of countries and territories represented. The total number of transmitters of this type and power classification produced and delivered by RCA during the past two years is believed to be the largest number produced by any manufacturer in the history of radio.

First to "invade" the Axis and satellite nations, with words for weapons, shortwave radio transmitters helped to pave the way for the physical invasion now in progress. Keeping up a constant bombardment of news, education, and counter-propaganda that is heard and felt around the world, they are helping now to consolidate Allied gains and facilitate further Allied victories.

Among the RCA transmitters now on the air are seven operated for the Office of War Information, including five on the East Coast of the United States, one on the West Coast, and one in North Africa. Three of the East Coast stations are being operated for OWI by the National Broadcasting Company, a subsidiary of RCA; the other two by the Columbia Broadcasting System. The West Coast station is being operated for OWI by Associated Broadcasters.

First of the list of 23 to be installed was a transmitter purchased by the Brazilian government for Radio Nacional, government-operated station at Rio de Janeiro, which went on the air during the winter of 1942-43. The installation was supervised by John Dawson, RCA field engineer.

Next came Radiodiffusion Nationale Belge (the "Voice of Free Belgium"), at Leopoldville, in the Belgian Congo, and Radio Brazzaville, operated by the French National Committee for Liberation, in Brazzaville, French Equatorial Africa. These transmitters went on the air in the spring of 1943, Leopoldville preceding the Free French station by about a month. The Leopoldville installation was supervised by Walden Shaw, Brazzaville by Paul C. Brown; both are RCA field engineers.

Development of this type of transmitter was begun by RCA about a year before Pearl Harbor, when the increasing importance of high-power international broadcasting became apparent.

Rectifier, audio, and control circuits of the RCA 50-SW are much like those developed for the RCA 50-E Standard Broadcast Transmitter. The radio-frequency circuits, however, are naturally quite different, since the requirements of international broadcasting present problems that are not ordinarily encountered in domestic medium-frequency transmitters.

The inclusion of two separate and complete RF channels is a feature of the 50-SW which experience has proven very valuable as a means of quickly setting up or changing frequencies to any point in the range from 6 to 22 megacycles. The transmitter is laid out with power supply and modulator units in the center, so arranged that they may be switched to either of the RF channels, which are located to left and right of the central compartment. The switch-over requires no more than five seconds.

Each of the RF channels is complete from crystal to output amplifier stage, and contained in a separate compartment with separate interlocking system, so that one may be entered for work while the other is on the air.

If you require information on

INSURANCE

of any kind, call

HERBERT LEROY RICE AGENCY

10th Floor, RCA Building
Suite 1017

Telephone
NBC Extension 140

Aaron Lippman & Co.

246 Central Avenue Newark, N. J.

Radio and Electronic Equipment

We Expedite — Ask Anyone

Courmettes & Gaul OPTICIANS

55 West 49th Street
R. C. A. Building (Main Floor), New York

EYE EXAMINATIONS

Prescriptions Filled . . . Prompt Repair Work

Invisible Contact Lenses Fitted

Do Not Become Unduly Alarmed

By Bert Pruitt

THIS is written especially for the benefit of those who who have been employed in the technical departments of radio broadcast stations since the beginning of the war. Our subject is supervisors—those potentates of the MCD who must ever be on guard against such things as network feedbacks and perfect alibis concocted by studio engineers. Therefore, to the comparatively new studio engineers we say: do not become unduly alarmed if you should walk into the MCR someday and see the supervisor pitching quoits with Victor records. These kings of the Pre-Set-Banks must endure pain, pathos and punishment from day to day, so who are we, mere studio engineers, to criticize our superiors merely because of a neurotic condition we assume the other fellow to be suffering from?

After all, the supervisor has a perfect right to analyze our behavior and it's quite possible he may have anxious moments when the announcer tells him we were grinding gain with an inverted waste paper basket pulled down around our ears to protect ourselves from the falling sleet and rain that did not fall. So let's present a hypothetical case with the understanding that it's a mere assumption when we say the supervisor is the one most likely to cast an artificial fly into his bath tub with the hopes of landing a choice rainbow trout.

Now let's scoot back to the year 1934. Our beloved supervisor is sitting at the MCD and he's as happy as a humming-bird in June. He's reading the first issue of the ATE Journal and we must pause to explain to the new studio engineers that The Broadcast Engineers' Journal was formerly the ATE Journal. Old timers will recall the year 1934 as the year when numerous engineers had to be revived with smelling salts. The newer members of our organization may not have heard about the smelling salts episode so we'll tell the story as we remember it. Our memory is not perfect and we are not a John Nesbitt when it comes to story telling, so we shall expect you to interrupt us in case we fail to tell the gospel truth.

Once upon a time conditions were such that the broadcast technicians were continually altering their vests. In other words, they needed more money to make it possible to eat properly three times a day. These engineers had listened to announcers explaining to the working man what an improper diet will do to one's constitution so they naturally began to worry about their health. A meeting was held and they decided to form an organization called the A.T.E. Many people, including Vice Presidents of one of the big networks, were lead to believe A.T.E. stood for Association of Technical Engineers, but those of us present at the orig-

CAPPS*

SAPPHIRE is, and has always been, the only material for making cutting styli for high class recordings.

CAPPS* Patented Sapphire Styli (2187512) are the original and accepted standard for high class professional acetate recordings.

Imitated but not equalled

FRANK L. CAPPS & CO.

244 W. 49th STREET NEW YORK CITY

Telephone Circle 6-5285

* Reg. U. S. Pat. Off.

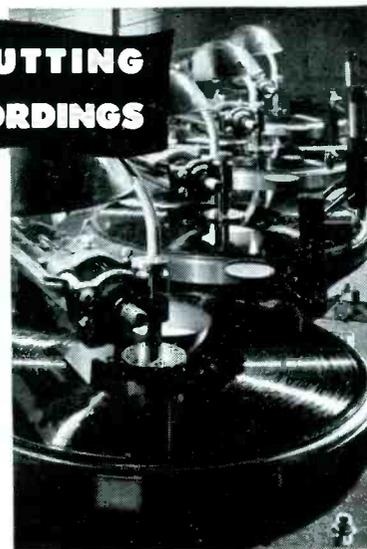
C O P I E S

**BY DIRECT CUTTING
OF YOUR RECORDINGS**

*33 1/3 RPM transcriptions
for broadcast or audition
use.*

24 HOUR SERVICE
*—packaged and shipped
from Chicago.*

*Aluminum based material
available for broadcast use.*



*Write for
complete
details and
prices.*

L. S. TOOGOOD
RECORDING COMPANY
221 N. LA SALLE ST. CHICAGO 1

inal meeting knew different. ATE really meant the past tense of eat!

Well, the technicians of ATE set up a wage scale they knew very well they'd never get and a lot of them fainted when all of them got it. And there's where the smelling salts saved the day. As time slipped by the technicians began altering their vests in the opposite direction and they sort of forgot about the lean years when they went to the cupboard with Old Mother Hubbard and got you know what.

Passing time erased memories of all those lean years so they decided to change the name of their organization to NABET which means, in the language of the Blackfoot Indian, "Get all you can while the gettin's good!"

Now let's take another look at our supervisor. He has finished reading the ATE Journal and is increasing the volume of his MCD loud speaker. By placing our right ear to the keyhole of the control room door we soon ascertain the fact that he's listening to a Daytime Opera! This is something new in the line of programming and our beloved supervisor is going for it like the carp went for the dough-ball. The farmer's daughter, Tilly E. Dally, pops the mustached villain over the noodle with a slab of stovewood and our supervisor jumps to his feet and loudly cheers the innocent young maiden from the sticks who has wisely thwarted the evil villain. The villain falls head first into a bed of nasturtiums and the supervisor forgets to set up the stock yard circuit, so you can well imagine what the Chief says to him later in the day. The year, as you will recall, is 1934, so let's speed up to 1944 before OPA decides to trim our 'A' cards again.

The trip proves to be uneventful so we park our car at East 9th and Superior Avenue. We place a buffalo nickle in the parking meter and hurry to the MCR where we find our supervisor who has aged ten years since we mentioned OPA. He has listened to Daytime Opera from 9 A.M. till 5 P.M. five days a week for ten years, so it isn't necessary for you to unsheath your Log-Log-Vector to convince yourself our supervisor has listened to approximately 16,140 programs during the past decade.

His hair is turning grey at the temples and he's as jumpy as a frog's leg in a hot skillet. He mistrusts everyone, and who can blame him? He's afraid his mother-in-law will put ground glass in his oatmeal, and what assurance has he that some overly-ambitious studio engineer is not filling the MCR water bottle with arsenic or strychnine? He has listened to the sound effects of women beating men over the heads with wagon tongues, so how can we criticize him when he shows distrust of stenographers, even though they carry lead pencils instead of wagon tongues to work with them each day? His loud speaker has daily revealed the fact that a wolf in sheep's clothing is likely lurking nearby with the sole intention of slipping a dagger squarely between his two most prominent ribs, so why should he be expected to trust the air conditioning man who walks into the control room with a hatchet or monkey wrench in his right hand?

And isn't it a well advertised fact that Hester Hornface, of the Split Bean Soup Program, is a two-timing-wench who would gladly plop you on the head with a microphone stand and show no more concern than you display when you flatten a mosquito with your fist? And what about that Judith Jukebox who takes the air five times a week? Did she or did she not K.O. her dear old grandfather with a frying pan when he tried to dissuade her from cashing in the \$25.00 War Bond he had given her for a birthday present?

Just who can the supervisor trust? Isn't it perfectly logical for him to assume his milkman may be injecting carbolic acid into each quart of milk being delivered to his home each day? The milkman could easily conceal the hypodermic needle in a quart of cottage cheese and no one would be the wiser! And what about the meter-man? Isn't it within the bounds of normal reasoning to think he might be a Nazi spy sneaking down into the supervisor's basement to plant a time bomb in his wife's electric mangle?

So you see, dear studio engineer, you should not be too hasty to jump to conclusions when you see your supervisor pitching quoits with Victor records . . . especially when you read this yarn with the realization that a studio engineer wrote it!

Here is something that Tom Daily (sports Anncr.) dashed off the other night while we were all together at Marchio's. It should give Transmitter Engineers all over the country a lift:

XMITTERCHATTER

By Tom Dailey, WOW, Omaha

Transmitters is things which send out stuff

Which is said by guys which live on the cuff.

Transmitter men is guys with chiggers,

Who scratch all day on a sheet with figgers.

Transmitter men is men of fame—

When there's a failure it ain't their blame.

They check and sweat and cuss and groan,

And beef like hell if called to the phone.

Transmitter men will live and work,

And never be known as a studio jerk.

Universal Microphone Co., Inglewood, Ga., just issued its first price list since Pearl Harbor. Twenty-seven carbon, dynamic and velocity types are listed in palm, stand, throat, lip, hand and cartridge styles. They range from a low of \$4 for cartridge carbons for experimenters to a high of \$28 for dynamic hand mikes. It is bulletin 1460, "Pre-Catalog Listing," and is a preliminary to the commercial catalog for all Universal items in 1945.

Manuel Ortiz, Jr., manager of the foreign division of the Hallicrafters Company, Chicago, producers of high frequency radio war equipment, has announced that the firm will greatly enlarge its export facilities after the war. As the first step in this program, the company recently removed its foreign division to larger quarters at 1791 Howard street, Chicago.



A NEW STAR IN THE ELECTRONIC FIELD



The stage is set for something new in Universal's line of products. Next month will bring the appearance of a new microphone to meet markets made by present and postwar demands. This will be the first microphone of its kind offered by Universal since the War. Universal has, since before Pearl Harbor, been manufacturing microphones and electronic voice communication components for the U. S. Army Signal Corps.

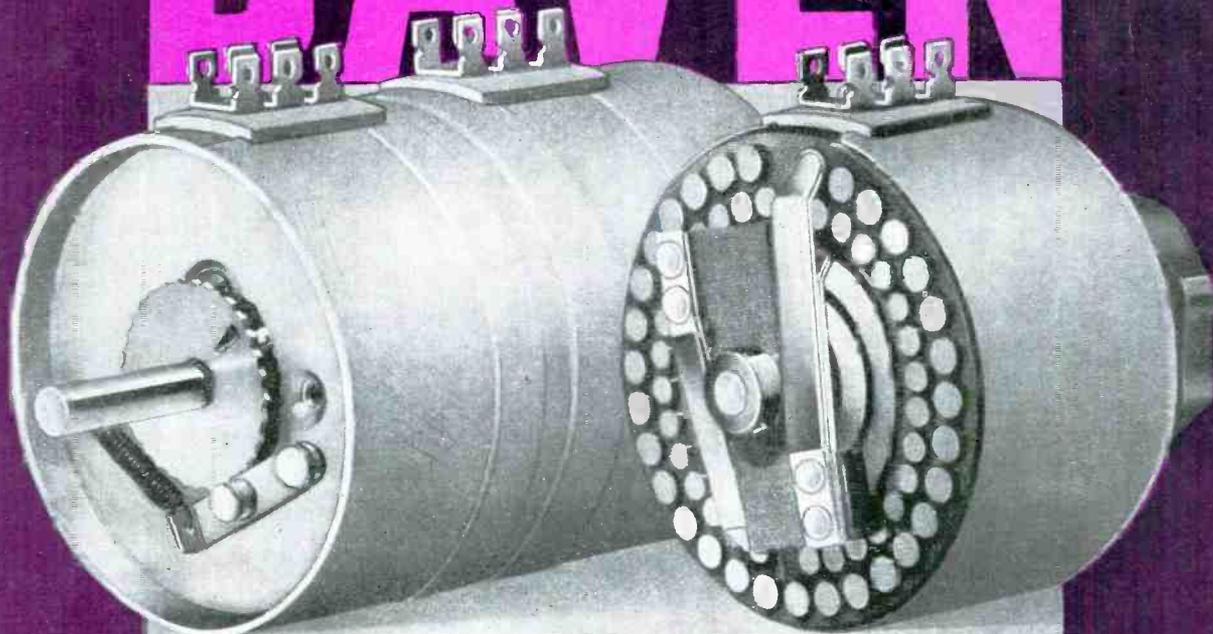
We are still pleased to manufacture all the microphones our fighting men require and we are pleased to make a new microphone to fill their and essential home front needs.

← Emblems of quality in war production

UNIVERSAL MICROPHONE COMPANY
INGLEWOOD, CALIFORNIA

FOREIGN DIVISION: 301 CLAY STREET, SAN FRANCISCO 11, CALIFORNIA · CANADIAN DIVISION: 560 KING STREET WEST, TORONTO 1, ONTARIO, CANADA

DAVEN



30 to 60 DAY DELIVERY ON ATTENUATORS

We've progressed a long way from those early war days when, regrettably, deliveries were too often a hope and a promise. While we're no way back to the luxury of filling many orders from the shelf, present production schedules assure prompt Daven Attenuator deliveries. Some standard models are available in small quantities for almost immediate shipment. 30 to 60 day delivery may be had on average quantities of most standard type Attenuators and many special types not requiring new engineering. Write for details on your specific requirements.

THE **DAVEN** COMPANY
191 CENTRAL AVENUE
NEWARK 4, NEW JERSEY

NEW FEATURES OF DAVEN ATTENUATORS

NEW DENTED GEAR: Large gear and roller mounted in recessed front end of cover, separate from resistive network, gives accurate indexing.

CERTAIN STOP: Extrusions of dent gear and steel attenuator cover form sturdy stop to rotation, eliminating rotor-hub strain of previous method.

IMPROVED SHIELDING: Sturdy, snug-fitting steel cover affords superb electrical and dust shielding and greater all-around ruggedness.

CAPTIVE TERMINAL BOARD: Bakelite board held securely in position, readily released; new, heavy duty solder lugs.

ANTI-FUNGUS TREATED: On request.

SILVER ALLOY CONTACTS: Switch arm contacts and returns made of tarnish-resisting silver alloy lowers internal resistance. Other metals optional.

SEPARABLE COUPLINGS: Feature of dual and multiple unit models, units easily separated for quick access to switch assemblies; simple, durable, foolproof.

SUPPORT THE RED CROSS ROLL CALL IN MARCH