

THE BROADCAST ENGINEERS' JOURNAL
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The Broadcast Engineers' Journal

JUNE - 1944



“Honest, I am sending an SOS!”

VOL. 11
No. 6

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Of, By, and For The Broadcast Engineer

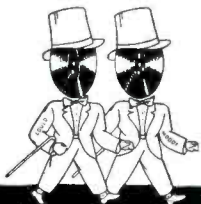
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THE BROADCAST ENGINEERS' JOURNAL

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Volume 11, No. 6



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THE BROADCAST ENGINEERS' JOURNAL

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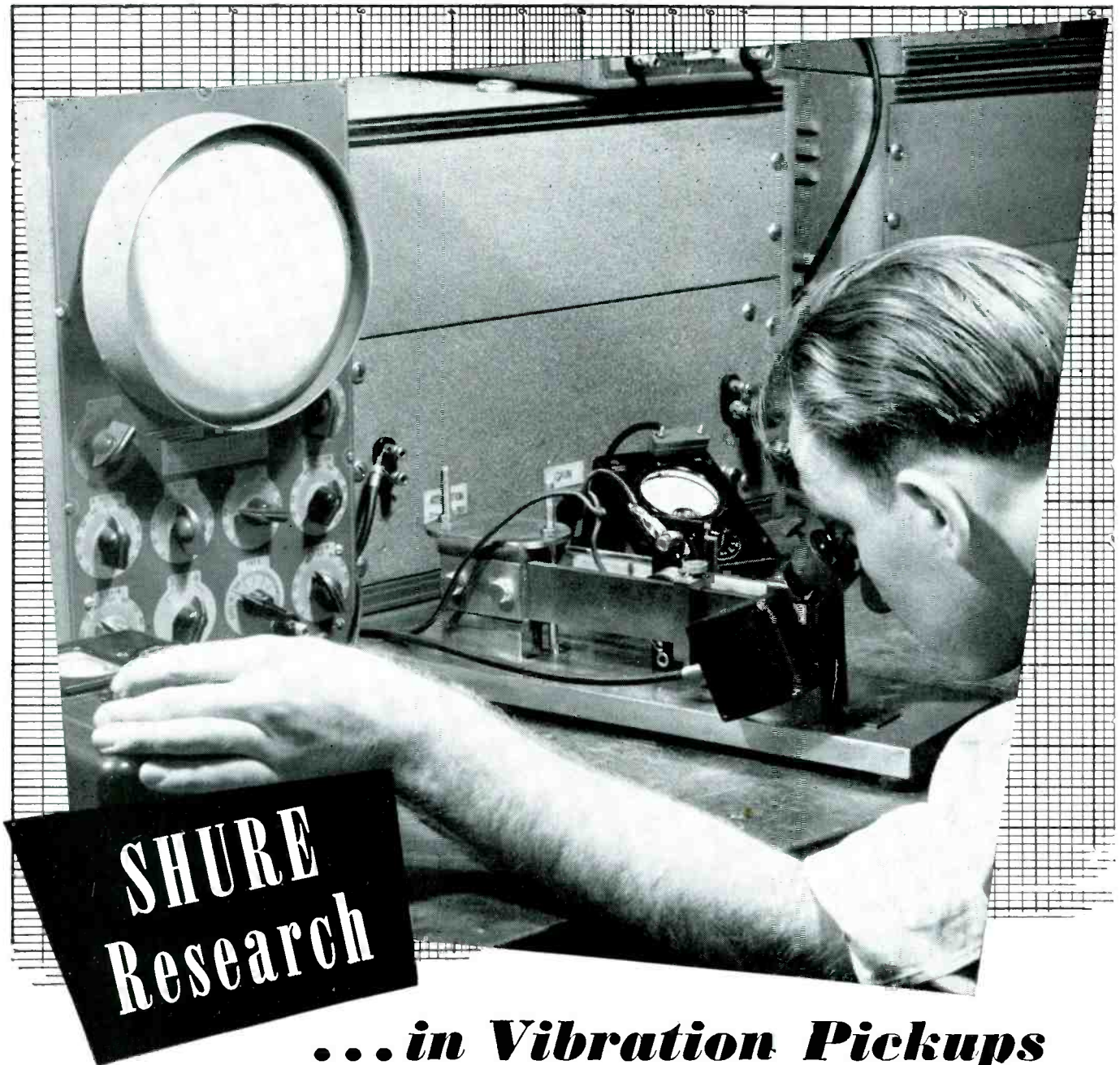
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N.A.B.E.T. ACTIVITIES

Petrillo Grab of Turntables Exposed

With the NABET contract's possible termination in June, and the radio industry in a state of unrest caused by the national emergency, Petrillo decided that the time was ripe to claw his way into the technical field of radio, using NABET as a stepping-stone. With this in mind, he appeared before the officials of NBC, Blue and WOR, demanding jurisdiction over the operation of turn-tables; he completely disregarded the fact that this is a technical operation which has been performed by radio engineers for years, and does not in any way require the knowledge of trumpet playing. It may appear strange that the employers would agree to any such arrangement without a fight, but as you know, the musicians have almost unlimited power to harass and coerce the networks by refusing to furnish live music. It is alleged that Mr. Brown of IBEW and Mr. Petrillo of AFM made a deal: Mr. Petrillo was to force NABET into IBEW, for which Mr. Brown would turn over jurisdiction of all turn-table operation, disregarding the three-year contract now existing between IBEW and CBS which gives this right to the radio men of IBEW. The radio men of IBEW were not given a chance to vote on this matter—in fact, they knew nothing about the Brown-Petrillo contract which so vitally affects them. It now develops that had NABET joined IBEW, Petrillo would have sprung the contract and double-crossed both NABET and the radio men of IBEW.

The pressure was put on. Rumors were rife to the effect that NABET would join IBEW any day. As a matter of fact, this caused greater unity and determination among the membership to repel and fight any affiliation with IBEW.

For many years, NABET has had amicable relations with the companies. NABET members have labored diligently and by their efforts have made enormous contributions to the radio industry. While so engaged we have minded our own business, which we feel was a firm policy, and still is a firm policy. By the same token, we believe that our accomplishments in radio, our continued right to earn a livelihood in our profession, and our right to belong to a union of our own choice belong to us alone, so that when any person or organization attempts by any method to devalue us of these property rights, we intend to fight that person or organization, "come hell or high water".

NAB Board Passes Resolution Urging Resistance to Petrillo Pancake Policy

(From May 15th BROADCASTING)

Following is the full text of the resolution adopted by

the NAB Board of Directors at its meeting in Washington May 10, expressing opposition to the "platter turner" crusade of AFM President James C. Petrillo:*

Whereas, James C. Petrillo, President, American Federation of Musicians, has in the April issue of the official journal of his union commended to the locals of his union a plan to force upon the broadcasting industry and in particular upon the smaller units thereof, the employment of more than 2000 additional unneeded members of the Musicians Union, and

Whereas, the sole duties of these unneeded union members will be that characterized by Mr. Petrillo as pancake turning, namely, to place records and transcriptions on turntables, a minor and incidental part of the work of others now employed by all broadcasting stations, and

Whereas, Mr. Petrillo in the City of Chicago has succeeded in imposing this made work upon some broadcasting stations at a salary scale of \$90.00 a week for a 25 hour work week, and

Whereas, Mr. Petrillo in sworn testimony before a Committee of the United States Senate has stated that to force broadcasters to utilize members of the American Federation of Musicians as pancake turners is "not sound" and "is a mistake".

Now, Therefore, the NAB is determined in its opposition to this unjustified and needless employment, and urges its membership of broadcasters to resist any demands of the American Federation of Musicians to employ such pancake turners, and

Further, that the NAB pledges its support and aid to all broadcasting stations which resist these demands as contrary to the best interests of labor, industry and our nation.

* Appended to the resolution was the transcript of Mr. Petrillo's testimony before the Senate subcommittee to investigate the transcription ban in January (BROADCASTING, January 18, 1943), in which he said that he thought the unionization of record turners was a mistake, but that the Chicago stations okayed it.

WLB Issues Status-Quo Request on May 31st Pending Decision

NBC, BNCL, and WOR advised the WLB's Acting Disputes Director, Leonard Berliner, they would comply with his request to maintain the status-quo.

N.A.B.E.T. has threatened to strike legitimately if the companies gave effect to a contract with the A.F. of M. under which the latter union would get jurisdiction over turntable operations, which strike notice is still in effect.

(Continued on Page Twenty-three)

Elemental Electronics — Part VI

D. C. Restoration

By Jordan McQuay

ONE of the important characteristics of the diode vacuum tube is that it permits the conduction of current when the plate is positive with respect to the cathode, and is non-conducting when the plate is negative. This characteristic is utilized in rectifiers and detectors for the production of a wavering direct current from an original alternating current. Such circuits are quite familiar, and may be found in any text book on power or radio engineering.

The important thing to remember is that when a single diode is employed for such rectifying action, plate current flows on one side of the reference level in the form of pulses of roughly $\frac{1}{2}$ -sine-wave shape. Electron flow will only take place from cathode to plate, when the plate is actually positive with respect to the cathode. There will be no passage of electrons when the plate is negative.

This principle of diode operation is used in the d.c. restorer or clamping circuit.

A circuit which clamps either Positive or Negative amplitude extreme of wave form to a given reference level of potential is known as a clamping circuit.

A typical clamping or d.c. restorer circuit is shown in Figure 1. When a non-sinusoidal wave (a square wave, in this case) is applied to such a circuit, the action can be analyzed graphically by the curves shown in Figure 2.

With the diode connection as shown in Figure 1, it is desired that the (input) square wave be transferred below

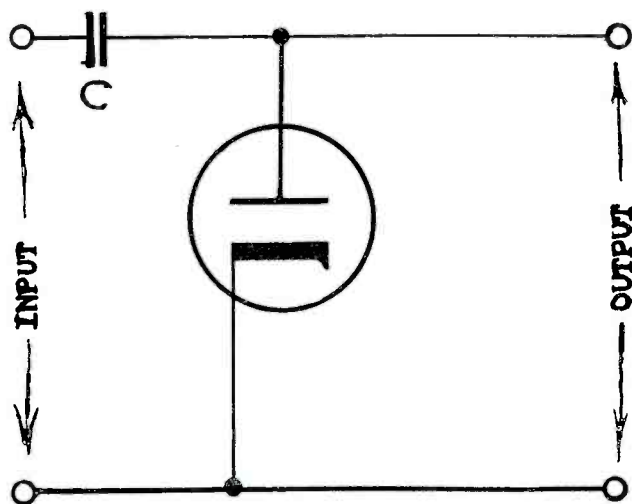


Figure 1 — Typical D - C Restoration Circuit

the zero reference level. The shift in axis occurs because the diode can conduct only when its plate is positive with respect to the cathode. Therefore, the condenser C will charge through a fairly short time constant on the positive half cycles and tend to discharge through a very long time constant on the negative half cycles. This action continues until

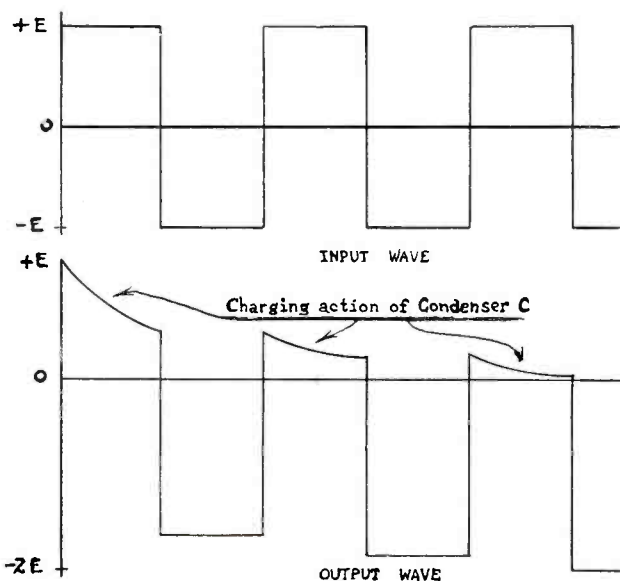


Figure 2 — Voltage waveforms showing the INITIAL action of the D-C Restorer Circuit in shifting the axis of a square wave of voltage

a charge has been built up on the condenser just sufficient to shift the input square wave below the axis, as shown in Figure 2.

If the connections on the diode tube are reversed, the shift will be in the opposite direction moving the square wave from above the zero reference level.

In practice, some sort of a load resistance usually appears across the output terminals. The effect of this resistor is to cause some discharge of the condenser C during the non-conducting half cycles. This, in turn, causes the positive or negative peak of the output wave to extend slightly beyond the zero axis instead of just touching it.

The function of clamping may be performed at the grid of an ordinary triode or pentode as well as in the diode. Any element of a vacuum tube, if made positive with respect to the cathode, attracts electrons from it. On the other hand, any element made negative with respect to the cathode repels electrons and has no current flow. Thus the grid of any tube acts as the plate of a diode and can produce the same clamping action as that of Figure 1.

Clamping circuits make possible the application of two signals, one above the reference level, and one below, to an electronic device—such as the cathode ray tube. Thus, two phenomena can be viewed and compared at the same time. Without the clamping action both signals would merely vary about the sweep line and prevent an examination of their relative amplitudes and wave shapes.

Clamping is also encountered in the production of sweep circuits on a cathode ray tube. If the sweep voltages do not

(Continued on Page Eleven)



THEY SINK THE U. S. NAVY ONCE A DAY!

SINCE the battles of the Coral Sea, Bismarck Sea and Midway, the Jap admirals show little inclination to tackle our fleet. But that doesn't bother the Tokyo radio stations. They sink the U. S. Navy once a day and twice on Sundays.

Laughable, yes. But not so funny when you consider that this is just one small example of how our enemies use their radio. Other examples are not so amusing.

To these creatures, radio has no purpose but deception. It's a tool for whipping men into a frenzy of hate and brutality.

Compare their use of radio with broadcasting as we know it. Here, radio is *free*. Supported solely by advertising, it is a part of the American system of private enterprise . . . a highly successful part that has developed until there are now more radio stations than newspapers in many major centers.

Only because American radio is supported by private enterprise can the six stations of the National Broadcasting Company—the 135 independently owned stations affiliated with NBC—provide the world's best entertainment, the most competent news coverage, the finest educational and cultural programs.

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A Service of Radio Corporation of America



Television sees Democracy in Action

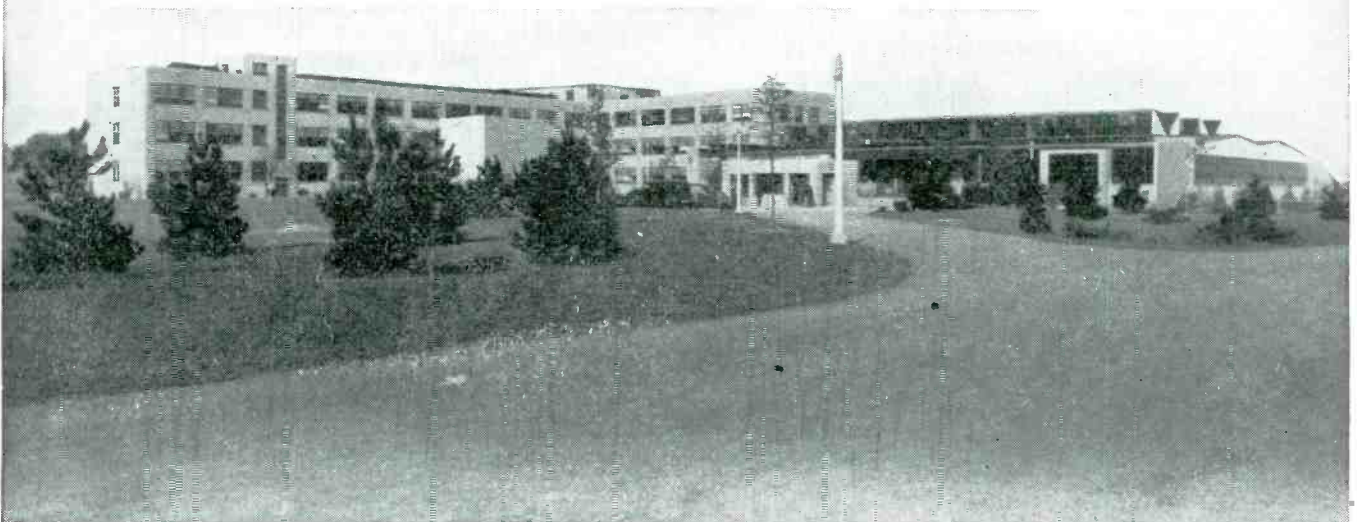
● AMERICANS have always been eager to share in the political life of our Democracy. This year, the two great political conventions will be filmed in Chicago and the reels will be rushed to New York for broadcasting over WNBT, NBC's pioneer television station.

Four years ago, in 1940, WNBT made television history, by directly telecasting the Republican Convention at Philadelphia and by broadcasting films of the Democratic conclave in Chicago.

When Peace comes, a greater and more widespread television audience—expanding into mil-

lions of homes equipped with RCA television—will see as well as hear Democracy in action . . . thanks to the new super-sensitive television camera, and other radio-electronic devices developed in RCA Laboratories.

Today, RCA research and engineering facilities are devoted to creating the best possible fighting equipment for the United Nations. Tomorrow, RCA—Pioneer in Progress—looks forward to supplying American broadcasters, and the American public, with still finer radio, television, and electronic instruments.



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HUDSON CHAPTER NEWS

By Richard H. Davis

SORRY that we missed the last issue of BEJ but with a change of assoc. editors here, the reporters of the various departments took themselves a bit of a vacation! Several were seen tilting the "water of life" at some of the local "coke" joints.

With the recent 26 year ruling, several 1A prospects have been seen to be walking instead of slinking.

BOB BARKEY ex FM TE stopped in recently while passing through to a new assignment in the Signal Corps. He has put on a few pounds . . . his uniform is beginning to fit.

The victory garden talk around WOR is mostly of onions due no doubt to the acute shortage in the hamburger camouflage in this area.

"MAC" REID Remote Supervisor was heard to complain about the heavy rain halting his garden work but he claims that it's an ill rain that doesn't do some good. He now has three legal size trout in his fish pond due to the adjacent stream overflowing!

Capt. Clifton Foss ex SE in from Casa Blanca looking swell and sez that NY sure smells good!

"Lew" Tower MC is working on a new invention centering around self-operating patch cords . . . got any dope on that Hindu rope trick?

PASSING THRU: CHARLIE SINGER ex T Supvr now in Operational Research Branch looking good and in a heck of a hurry sez that radio is really somethin' to look forward to. . . Cy SAMUELSON EX MC now with two bars on his collar teaching Radio ala Army at Ft. Monmouth. . . Joe WALDSCHMITT ex FM now on a special assignment all OK but misses the "cokes" in the hinterlands . . . has some swell stories when the "end" arrives! . . . "Giff" CAMPBELL ex SE now at Pine Camp, N. Y., reports that he and the army are doin' fine.

The Bamberger Broadcasting Service, that's WOR, has applied for Tele Outlets in Phillie and Washington.

The new master control ROOM INSTALLATIONS completed in time to make the air conditioning appreciated by the collective members of MC engineers.

Danny" EHRENREICH recently of the army and more recently SE now transferred to Production Dept. good luck Danny.

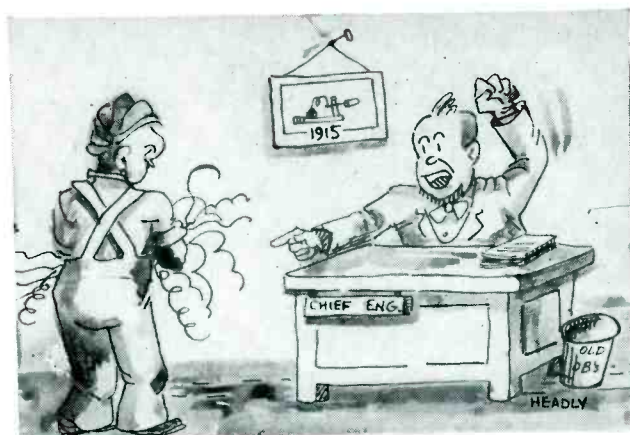
"Howard DONNIEZ" MC appointed Chairman of Elections for Hudson Chapter. He is also growing his own tomatoe plants for his victory garden . . . after two weeks, two sprouts have appeared but as yet not identified!

E. BERGMAN ex SE who used to do the "Wee Hour" recorded shows now with the OWI in iceland. . . Breitegger and Taylor now doing the early AM chores. They say the mornings are just "peachy" with the bright

sunshine etc and the "slaves" dashing to work in the underground when they are going home,

"GERRY" (Wanna Rassel) BARTON handling the Xavier Cugat-Dubonnet shows while Cugat is on tour.

NEW MEMBERS—recent additions to the Hudson Chapter of NABET include Abromatis, Albrecht, Breitegger, Pollack, Williamson, Zajac in SE; Aprile, Langley, Penner, Troy in sound; DeLannoy, Ennis, MacInerney in Recording; and Ryan at Carteret Transmitter.



"Chief, look't the swell salvage I found in our Victory Garden." "But Ogilvie, that's our ground system!"

"HAX" HADDEN supvrs MC and "Mac" REID teaching the "ins" and "outs" of studio and remote operations to newer men . . . wonder if they instruct on the technique of calculating milage?

"STRETCH" ALBRECHT SE can reach all four turntables in studio eight while sitting down . . . claims he got that way from swiping jam from the top shelf.

"Sam" MARSE rumored to go into the Navy but these guys in the "Theatres" are almost strangers . . . coming in only on Tuesdays . . . hi. Well, Tida Ada as they say in Java.

MORSE CENTENNIAL — May 24 1844 — 1944

In this year of total war it will not be possible to properly celebrate the transmission by Morse of his famous message, "What hath God wrought?"

To quote directly from the May issue of *Relay*, "Morse showed the world how to communicate with wires; Marconi showed how to do it without them. Radio will celebrate this freedom of communication on December 12, 2001, one hundred years after the day Marconi's historic signal first flew over an ocean."

SAN FRANCISCO NEWS

By S. A. Melnicoe, K. Martin, A. Wauchope

BY appointment of Chairman "Al" O'Neill of the San Francisco Chapter the triumvirate listed above will endeavor to supply the news from the Golden Gate. Like that Scotch candy maker we "hope u like our stuf".

The shortage of plastic materials is bothering C. T. "dark glasses" Stevens, SE, somewhat. He has difficulty keeping up with the orders of enthusiastic friends for his plastic jewelry. NBC-SF actresses and fem producers proudly wearing his products.

Bob "let's eat" Shover, RE, and **Hal** "more dough" Ashby, FE, on special trip to Pit River country for dam opening. They're still talking about that steak dinner at Willows. Rumor has it that Ashby will transfer to the sales staff shortly.

Sid "snafu" Blank, SE, and **Don** "soldering iron" Hall, ME, in conference on a super-doooper arrangement for speaker in Blank's living room. Drawing board and all involved.

Tobe "the law says" Hamma, SE, moved to San Rafael in a house swap. Commutes an hour each way and likes it fine. Says he may establish those law offices there.

R. C. "nemo" Butler back from his vacation with all his 235 pounds rested up. He's in recording for the vacation reliefs.

Andy "more mikes" Andresen practically an absentee these days with all the Coca-Cola shows hitting this way.

Cliff "garden authority" Rothery selling bulbs right and left with Dunnigan, Kolm, Mitchell and "Bev" Palmer among his customers.

Art "Iron Man" McDermott, graveyard shift specialist, has outlasted three announcers so far. Art is known as the only man who sleeps standing up with his eyes open.

Jim "let's table it" Summers, MCD, reading the mail from Comdr. Sugg which suggests that Lt. Comdr. Callahan may soon be among those returning to the States shortly from South Pacific duty. Cal will be welcomed by all.

Charlie Pease, remember him, New York gang, is now in charge of engineering at the SF OWI office.

W. "wee Willie" Watson, SE, telling that Oakland judge that three bucks is too much for going thru a red light, but paying it pronto when two days in the bastille was suggested as the alternative. Willie claims the light was yellow.

FLASH—Elma Oddstad, beautiful SF engineering secretary, announces her intention—no, not that one, he's out in the South Pacific—to engage in engineering activities more than ever by becoming an apprentice. Wonder whether Acting Chief Greaves and she see eye to eye on it.

Ralph Stubbe, TE, KPO, moved to Palo Alto. Some of the gang pitched in and helped him. He's hard at it in

that big Victory garden and supplies the staff at PO with vegetables and fresh eggs.

Speaking of eggs, **E. E.** "efficiency" Jefferson, MCD, cleans up his chicken house and fertilizes his garden in one operation. Production is up to 290 eggs a month and any hen that doesn't meet production standards ends up in fricassee.

Mort "graveyard shift" Brewer, TE, now attending special "Communications Networks" course offered by Stanford. He and **Andy Wauchope**, TE, spent the other evening swapping tales about the "Pierce," KDNV, after running into one of the fellows who saw her go down two years ago.

Barron, FE, and **Melnicoe**, FE, wondering if those Sacramento trips are a jinx to the mobile unit. One flat for Frank and two for Sam on trips to pick up Gov. Warren's remarks.

KGO staff welcome **E. E. Nickels**, TE. Nickels, an old timer, comes from the teaching staff of the Oakland Trade School.

"Shorty" **Evans** looking at the "volunteer oats" on KGO grounds. Mowing time coming up. Incidentally, the "orchard" has five apricots this year. Does RF help grow 'em? Or is it the pruning?

Hank "cross-word puzzle" Dunton, TE, planning a backyard vacation. **Herb** "Victory garden" Kramer growing a new crop of blisters. **Jim Ball** haunting the radio shops for parts to build his mother-in-law a new radio, that's devotion! And rumor has it that **Shorty Evans** and **Jim Blanchett** guessed right on the sixth at Bay Meadows and came home with a mittful. **G. Irwin** has a story to tell about a pile of 1000 bricks that suddenly appeared before his home! We'll get it for next time.

Recent visitors at NBC-SF.—**Lt. Bob Brooke**, USN, and **Bob Woods**, ATC, **Les Culley**, Hollywood, checking up with **J. Alam O'Neill**, SF Recording supervisor.

Norman Tapper, SE, back at work after a long siege in the hospital. Glad to see you back, Norman . . .

That's our maiden effort. Thanks to everyone for your cooperation.

IN MEMORIAN

San Francisco Chapter of NABET and his many friends in professional and amateur radio mourn the passing of **A. E. Eldredge**, transmitter engineer at KGO. He was stricken March 3, 1944, after putting in more than 12 years at this transmitter. Quiet, unassuming, conscientious—"Al" will be missed by all of us. Requiescat pace.

YOUR WAR BONDS are buying the electronic equipment that is winning our war.

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UNIVERSAL MICROPHONES IN MILITARY APPLICATION



Universal takes pride in producing these three types of Microphones at the request of the U. S. Army Signal Corps. These units represent but a small part of the skill and experience which has produced over 250 different types and models made available to our customers. From Submarine Detectors to High Altitude Acoustic units, Universal's Engineering experience has covered World War II.

These Microphones built without peace time glamour have every essential of military utility. When peace comes, Universal Microphones, with many innovations of design and accoutrements, will enter upon the post-war scene. Universal includes among its electronic communication components, in addition to microphones: Plugs, Jacks, Switches, and Cord Assemblies.



UNIVERSAL MICROPHONE COMPANY
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LVU — Logarithmic Voltage Unit

By Beverly F. Fredendall
NBC Engineering Department, Chicago

AT THE present time there are two power measurements commonly used by communication engineers. These measurements of power are the db and the VU. In addition to power measurements there is a need for a convenient voltage measurement. In fact, the need has been so great that many people, including the author, have used such terms as "voltage db" when they wish to express, on a logarithmic basis, the voltage at some point in relation to a reference voltage. When one uses the term "voltage db" he should always assume a fixed impedance, otherwise confusion as to the measurement will result . . . and usually does.

In order to clarify the present confusion which has resulted from the use of power terminology, such as db and VU, in place of voltage terminology a new unit is needed. The new unit with its new name should be calibrated on a logarithmic scale for the sake of convenience. Such a unit is herewith proposed. It is called LVU which stands for Logarithmic Voltage Unit. The zero LVU reference voltage is 0.775 volts. It differs from the VU scale in only one small particular. That difference has to do with impedance. The VU scale is a scale which expresses power flowing into a fixed impedance of 600 ohms. Zero VU is that power, amounting to 1 milliwatt, which flows into 600 ohms. In order for power to flow, there must exist a potential difference of 0.775 volts across the terminals of the 600 ohm load. If the load were other than 600 ohms the VU meter would still require the same potential difference of 0.775 volts to indicate zero VU, but the power would no longer be 1 milliwatt and the meter would be "wrong". Hence the confusion!

The new unit, LVU, is entirely a voltage measurement and will overcome this difficulty because it will always respond to and indicate voltage across a load whose impedance may be any value whatsoever.

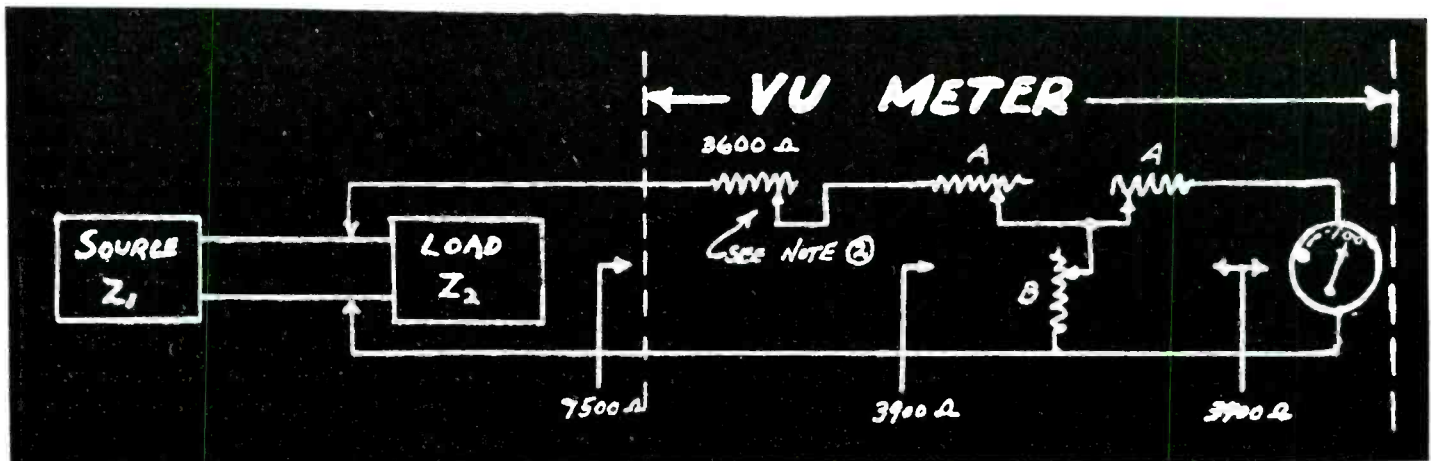
Technically the LVU may be defined by

$$LVU = 20 \log \frac{V}{.775}$$

For convenience this has been worked out in the accompanying table in order to illustrate actual values in terms of volts. Illustrations in the use of this new term LVU will now be considered. It is based upon the use of the VU meter and the RCA 69-A, B distortion meter.

To measure voltage levels considerably below +4 LVU it may be accomplished by permanently assigning an amplifier to the VU meter.

An R.C.A., 69-A, B distortion meter if available may be used to advantage by first setting the "calibration" gain control of the amplifier at zero LVU reference level, corresponding to 0.775 volts. This voltage may be determined by adjusting the input voltage across a parallel combination of: (a) the 69-A, B meter and (b) a VU meter until the VU meter reads 4 VU below the 100 mark while its associated attenuator is set at the 4 VU marking. Where no attenuator is associated with the VU meter the scale reading for Zero LVU will still be 4 VU below the 100 mark since the most sensitive position of the VU meter requires +4 LVU to make it read 100 divisions, and in turn this corresponds to zero db loss in the associated attenuator. Do not be confused by the fact that where an attenuator is connected permanently to a VU meter its dial marking corresponding to zero loss in the attenuator is marked 4 VU. This, again, corresponds to the most sensitive indication of the VU meter and is +4 LVU voltage level. When so calibrated this 69-A, B meter can be used to bridge any impedance or circuit from 1 ohm to 600 ohms and indicate or measure voltages all the way down to -70 LVU. It can thus be used to measure the voltage on the input of a pre-amplifier which is in the neighborhood of -60 LVU, or the input to



Logarithmic Voltage Level in LVU (see Note 1)	Voltage across any impedance specified	Attenuator Loss db	Ohms in Arm A	Ohms in Arm B
4	1.23	0	0	Infinite
5	1.38	1	224.3	33801
6	1.54	2	447.1	16788
7	1.73	3	666.9	11070
8	1.95	4	882.5	8177
9	2.18	5	1093	6415
10	2.45	6	1296	5221
11	2.75	7	1492	4352
12	3.08	8	1679	3690
13	3.46	9	1857	3166
14	3.88	10	2026	2741
15	4.36	11	2185	2388
16	4.89	12	2334	2091
17	5.48	13	2473	1838
18	6.15	14	2603	1621
19	6.90	15	2722	1432
20	7.75	16	2833	1268
21	8.69	17	2935	1124
22	9.75	18	3028	997.8
23	10.9	19	3113	886.3
24	12.3	20	3191	787.8
25	13.8	21	3262	700.8
26	15.4	22	3326	623.5
27	17.3	23	3384	555.0
28	19.5	24	3437	494.1
29	21.8	25	3485	440.0
30	24.5	26	3528	391.9
31	27.5	27	3566	349.1
32	30.8	28	3601	311.0
33	34.6	29	3633	277.1
34	38.8	30	3661	246.9
35	43.6	31	3686	220.0
36	48.9	32	3708	196.1
37	54.8	33	3729	174.7
38	61.5	34	3747	155.7
39	69.0	35	3764	138.7
40	77.5	36	3778	123.7

ATTENUATOR TABLE

a studio program amplifier, also approximately —60 LVU, or any intermediate point in the many circuits normally found in a communication system.

One tremendous advantage in using this type of measuring device is that the impedance of the circuits under observation need not be any specified value, such as 600 ohms, as is required and implied when using the term VU. It can be any value whatsoever since it is the **voltage** we

are measuring and not the **power** into a fictitious 600 ohm load.

In practice the measuring procedure is simple. Suppose we are to measure an extended circuit to determine whether or not the complete system is functioning properly. Using a source of tone from an oscillator, whose output impedance may be any value, connect it in multiple across any part of the circuit, called point A. Adjust the oscillator output voltage to that value which will be normal at the output of the circuit, called point B. Point B is usually a location where a VU meter is connected permanently. In order to measure the voltage level in the convenient LVU logarithmic unit, first "bridge" the 69-A, B meter across point A and measure the voltage at this point. This observed voltage in LVU is thus the proper voltage level normally associated with this part of the circuit. Next, the normal voltage level at progressive points along the circuit can be measured and tabulated for future reference. Then, at some future date when trouble is suspected on the circuit the same procedure is repeated and tabulated voltages compared with previous readings to determine the precise location of trouble.

The accompanying diagram shows the schematic of the VU meter and its 3900 ohm constant impedance attenuator, and the accompanying table shows the value of resistance for each arm of the attenuator. The attenuator is used to reduce the sensitivity of the measuring circuit so that voltages greater than 1.228 volts (+4 LVU), can be measured.

NOTES:

(1) This unit "LVU" (Logarithmic Voltage Unit) is an absolute voltage measurement on a *logarithmic* scale and differs from Volts which is also an absolute *voltage* measurement but on a *linear* scale. It can be used to express the *voltage* across an impedance of *any* value whatsoever. However, it is the same digit number as the *power* unit "VU" (Volume Unit) when the load resistance is exactly 600 ohms.

(2) Always used and considered a part of VU meter. Small adjustment to correct for change in meter sensitivity.

(3) Attenuator data taken from Weston Catalogue.

ELECTRONICS

(Continued from Page Four)

always start from the same reference point, the trace itself does not begin at the same point on the screen each time the cycle is repeated. Therefore the trace would be jittery and quite erratic. If a clamping circuit is inserted between the final sweep amplifier and the deflection element, the voltage from which the sweep signal starts can be regulated by adjusting the d-c voltage applied to the clamping circuit.

In the interests of accuracy, the term *d.c. restorer* is rather misleading. The d-c component present in the output wave has nothing to do with any d-c component that may or may not be present in the input wave. No matter where the input axis is, the positive or negative peak of the output will lie on the zero axis.

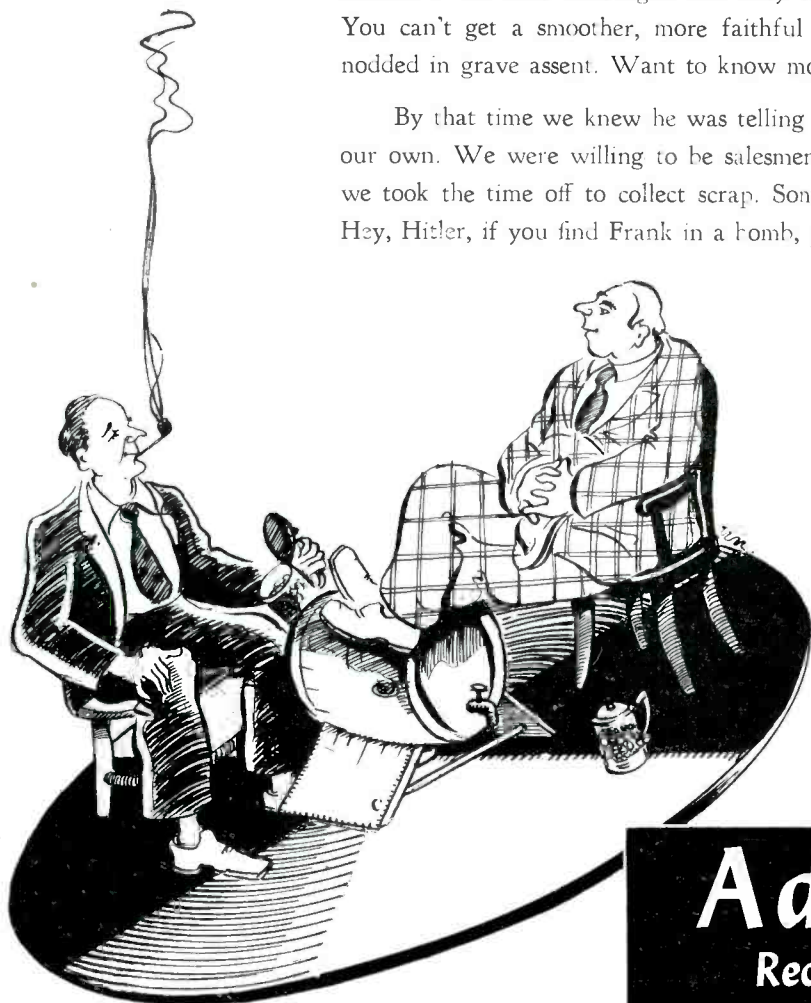
ONCE UPON A TURNTABLE...

*Listen, my children, and you shall hear of Frank and me
and a keg of beer. What am I saying? What AM I
saying? It was only yesterday that I heard my first
recording made with an Advance Recording Blank,
and today, children, I am nothing less than mad about them.*

Just once upon the turntable, the Advance man said, and if you're not convinced of their superiority then you can have my five-dollar hat. I didn't need any hat, but I could have traded it and Frank in for a sirloin. Shoot the cutting, at double or nothing, I said. Today, children, I've got no hat, no sirloin, but Frank and Advance Blanks.

The man said that Advance Recording Blanks are manufactured with the emphasis on quality, rather than quantity. And he said that each is inspected individually . . . which we could have guessed by looking at the mirror-like surface of the ones we bought. Not only that, but their tone is out of this world. You can't get a smoother, more faithful reproduction anywhere. Frank and I nodded in grave assent. Want to know more? the Advance man screamed.

By that time we knew he was telling the truth, because we had already cut our own. We were willing to be salesmen for Advance ourselves. But, instead, we took the time off to collect scrap. Somewhere along the line we lost Frank. Hey, Hitler, if you find Frank in a bomb, please send him back.



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Broadcast Engineers' **12** Journal — June, 1944

BLUE DOINGS *from Hollywood*

By Norman Dewes

SPRING . . . was a little late this year, but she's here now in all her glory . . . pert skirts breezing along the Boulevard, reminding you of ice-cream sundaes topped off with an Easter bonnet . . . breath-taking clouds of loveliness, but it's all U.C.* . . . white shoes and summer suits shyly emerging from winter hibernation . . . poppys in bloom along the roadside . . . convertibles with tops down . . . lovely bits of wild life scampering about in shorts . . . sunglasses . . . vacations . . . gardening . . . fishing. SPRING . . . in California.

HIGHLIGHTS . . . **Ragsdale** makes the short-snorters . . . **Baxter** nuptials consumated . . . **Denny's** Buick gets the hot foot . . . more 1-A's . . . mikes get pants-ed . . . **Red Ryder** runs over . . . fire in the building . . . **O'Kelly** is Aprilfooled . . . **Doty** stoops to regret it . . . the **Chef** teething.

QUITE an **EXCITING TIME** for a few minutes, when **FIRE** was discovered in the script room of Studio "B" . . . your reporter came to work to find halls filled with **DENSE SMOKE**, announcers and engineers running up and down with hoses and extinguishers, and **MANY OTHERS** just running up and down. Everything **IN THE DARK**, so we grabbed an emergency electric black-out lantern from the equipment room and revealed the fire to be in one of those **FIRE-PROOF** waste baskets, which was putting out more **SMOKE** than a dozen smoke bombs. Flames finally subdued by announcers led by **Larry Keating**, and engineers **Oscar Wick** and **Lew Winkler**. All emerged triumphant, but sporting **SOOT SUITS** with a **DINGE TINGE**. Spent the next half-hour in shop trying to remove smudges and **EYE SHADOW** with carbon tet. **Oscar** looked positively **FASCINATING**. (Note: If any credits omitted, it was because we couldn't **SEE** you.)

FLASH . . . **Tom Baxter**, one of our **YOUNGER** engineers, a **HAPPY GROOM** . . . got hitched in Riverside April 15th, a **SURPRISE** to everybody, including Tom's **MOM**. Lady's name is **NANCY** and they were **VERY HAPPY** for the first three days, then Nancy comes down with the **MEASLES!** Hubby now spending **REST** of honeymoon and specially arranged days off nursing Nancy's measles. Tom's schedule reads "**OFF, OFF, OFF** . . ."

CHEYENNE short-snorters caught up with **Ragsdale**, up there for a Coke show recently . . . was **HELPING** to entertain a group of lovely airline stewardesses after the show and enjoying the "pause that refreshes" when **SOME-BODY** in the party started the short-snorter routine. Not being one, they **KINDLY** allowed **Rags** to join, to the tune of **NINE BUCKS**. Sometime later the subject was brought up again, for the benefit of a new arrival and **Rags** discovered to his **HORROR** that he had just given the waitress **HIS**, to help buy a round. A **FRANTIC CHASE** ensued, and **Rags** rescued the bill from the till **JUST** in

time to make the two minute deadline. (Betcha the expense account caught h— THAT trip.)

OVERHEARD-IN-THE-BOOTH DEPT . . .

(Phone rings.) 1st voice: "Hello . . . Stop or Go?"

2nd voice (slightly indistinct, due to booth speaker running wide open): "Is the Blue producer there?" (giggles)

1st voice (not getting it all): "The new producer? Have we got another one?"

2nd voice (uncertainly): "Yes . . . he's Sid Goodwin."

1st voice: "A good one, huh? (belligerent) What's wrong with the ones we have now?!"

2nd voice (indistinct muttering): "Oh, I'll call back later." (bang!)

NO PANTS on mikes these days . . . new NBC decal designs out from NY and all mikes going around **SANS**, while pants (mike signs with **NBC/BLUE** lettering on 'em, fellows) undergoing remodeling. Good thing no **LADY** mikes around . . . guess ours are all **MALE** ones . . .

THE CHEF is cutting some **NEW TEETH**, store variety, and right out in **FRONT**, too . . . for several days you dialed **Denechaud** and got Lum 'n Abner . . . understand denture demise due to chomping down a succulent bit of **SHOSLICK**, but forgetting to remove the **SKEWER** . . .

SPEAKING of exciting moments, **Mrs. Denechaud** climbed gracefully into the family barouche the other day all set for a shopping junket or something, stepped daintly on the starter and . . . nothing happened. Rechecking controls, switch on, etc., she tried it again, with **DEFINITE RESULTS** this time . . . whole thing bursts into **FLAMES**. Surprised and disconcerted, she runs for a neighbor who grabs fire extinguisher and dashes to Buick, but extinguisher turns out to be **EMPTY**. Another dash for garden hose and flames finally flooded with water. Buick now in shop **AGAIN** and the Denechauds "riding the Big Red Cars".

STOOPING to retrieve some records out of the new Blue record file outside Recording, **Ben Doty** heard a **STRANGE SOUND** and upon investigation found his rear **WIDE OPEN** . . . Ben beats a hasty retreat, **BACKED UP** by a sympathetic fellow engineer, to the seclusion of Studio "M" where he remained until it **GOT DARK**. The **PAL'S** offer to go get a Page Girl with a needle and thread was **REFUSED** . . .

IT ALL STARTED when our **Miss Blue**, in a teehee mood, typed "And we're not fooling" across the top of a recent next day's schedule sheet and duly posted it in the lounge. **SOME WAG** notices it and writes underneath in big letters "**CX** . . . no Blue programs today". **O'Kelly**, breezing thru to check his call on his way home, gloms the **STARTLING NOTATION** and rushes schedule into **M.C.** They talk it over and decide perhaps the **F.C.C.** or some-

(Continued on Page Fourteen)

* Under convoy; that's all, brother.

More Chicago News

By A. W. Hjorth

WT. Knight, roving NBC and Blue studio engineer, now on vacation somewhere to the west, sold his home in North Hollywood recently. A few days after the new owner took over, the house exploded with the roof landing in a nearby canyon and the walls laying down nicely on the ground. Reason unknown. (?) Ask Brother Knight for details.

Lt. Raymond Limberg, NBC field engineer on leave, through Chicago recently. 'Lindy' claimed he had to search the corners of the studios to find anyone he knew. Now traveling for the Signal Corps out of Atlanta, Ga.

Dick Wehrheim of NBC's 'keep-'em-from-falling-apart' department and also president of the Fuddy Duddy Watch Company tells of a recent fire at a neighbor's house due to a short in the house wiring and pennies behind the fuses. Dick lectured his neighbor severely for his use of pennies as fuses and felt he had performed a good deed in so doing. Several days later Dick thought about the several years he had lived in his present home and had never blown a fuse. Wondered why. Investigation revealed ALL fuses were backed by pennies!

Ralph Brooks, NBC Maintenance, home from the hospital and recovering slowly by following a strict diet which includes NO Sieben's.

Supervisor **W. K. "Bill" Cole**, S.V.F., states authoritatively that a galena crystal rectifies because of its unilateral conductivity.

According to WENR-WLS **A. J. 'Andy' Forgach**, Lt. **T. G. Bombaugh** has moved his family to San Diego, California to be with him near his Communications School.

For four minutes recently WENR transmitter wasn't getting the stirring drama JACK ARMSTRONG. This thriller was routed through the two-by-four studio 'L'. Announcer had gone to 'X' after opening show. Pinkerton guard stationed near 'L' disliked the show and knowing the operation of the push-buttons from previous use of this studio on his listening post pushed the proper (?) button and killed the show to the transmitter. WENR engineer frantically cranked antiquated phone but resultant jingle in control was too feeble for detection by even a coherer immediately. Four minutes later normal service was resumed. Pinkerton slogan now is "We Always Have at Least One Eye Open and Our Finger on the Botton."

* * *

Springtime and May wedding anniversaries for Velma and 'Griff' Griffin of WOW (12 years), Carmen & Arthur Hjorth (2 years), Ethelyn and Jim Mehren of WENR-WLS transmitter (5 years), Marion and Hal Rawson of WENR-WLS (17 years), Doris & Alan Scarlett of NBC (2 years), Anne & Byron Speirs of the BLUE (12 years) and Inez & Minor Wilson of NBC Recording (16 years). Very popular month.

Welcome to new NABET member **Beuford Eaves** of Omaha Group, engineer at KODY, North Platte, Nebraska.

* * *

Professor **J. H. Platz**, NBC Supervisor and instructor of a Western Electric hush-hush course for Illinois Tech., parks his car daily in a dime lot near the Cicero training Center. Heading for NBC recently he gave the parking lot

attendant the usual dime. After a casual and then frantic search for his car he suddenly realized that it was parked on the street. Knowing Jim, we are sure he demanded his dime back.

* * *

A. J. Andy Forgach of WLS-WENR transmitter at recent Council meeting was dreaming on forthcoming vacation trout fishing at Cornucopia, Wis., in Lake Superior and later going after muskling's near Hayward, Wis. Sez he is shipping Violet to Texas during this trying time.

* * *

The Skokie Valley Music Publishing Company, Unincorporated, is the publisher of most of today's hit tunes, according to its president **Hunter Reynolds**. Contrary to rumor this company will continue to remain in business just so long as he keeps the postoffice box rent paid up.

* * *

The **House of Wilson**, in Bellwood, Illinois, has three residents, **Inez, Minor and 'Butch.'** Recently when Inez and Minor were returning home from somewhere they found members of the local constabulary parked in front of their home. With quivering voice, Inez quizzed the stalwart officers and learned that 'Butch' had been picked up by a squad car in the nearby village of Maywood and was at the moment a confined member of the Maywood bastille. Knowing the disreputable characters that 'Butch' associated with, Inez leaped into the Wilson chariot, leaving fond husband Minor perched on the curbstone. With a roar of motor and clashing of gears our heroine was off to the rescue of 'Butch'. Breathlessly arriving at the Maywood police station she soon learned that 'Butch' languished in a choice cubicle cell, under close guard, charged with kidnapping a resident of Maywood and attempting to cross the village line between Maywood and Bellwood. After paying a severe fine for 'Butch's' release, he was paroled in the custody of our heroine. Repentantly, 'Butch' clambered into the Wilson limousine to be severely reprimanded by Mrs. Wilson. For you see, 'Butch', a thoroughbred Texas long-haired shaggy-type registered dog, harbored a flea, purloined from a Maywood pup and was stealthily slinking toward his Bellwood residence when arrested. And the moral is, "He who carries fleas will be bit."

BLUE (Continued from Page Thirteen)

body HAS cancelled the Blue out, due to the WAR or something, and hadn't we better call 'em and check . . . when they notice the DATE at the top . . . April 1st! The RED FACES caused a rise of THREE POINT down in Air Conditioning. Heh.

GENERAL meeting the 14th of NABET Hlyd Chapter well attended and Blue well represented . . . quite a STIRRING CONCLAVE and many opinions vouchsafed by **O'Kelly, Lorenz, Eilers** and others . . . subject of engineers' FEES brought up, bringing out the EMERGENCY SQUAD to quell the riot. OUR SIDE won, however . . . Blue engineers all reluctantly say "Hasta Luego" to **Jimmy Brown, M.C.**, now a NAVAL OFFICER . . . we APPRECIATE his helpfulness and cooperation, which is a masterpiece of understatement . . . and wish him Godspeed . . . IN ANY EVENT!

Cleveland Chapter Holds Election

By Bert Pruitt

THIS is election year, so you wouldn't have to travel many miles down the Political Highway before you came across a good citizen willing to bet his last red point that a 4th term would be disastrous. And anyone prone to talk about the Fourth Term might be inclined to throw in a lecture about the American Way of Life or the Gettysburgh Address. And he couldn't do that without telling you that America without the Free Enterprise System would be somewhat like a bumblebee without his stinger!

The members of the Cleveland Chapter of NABET aren't deaf, so they naturally realize it is not indicative of sound judgment to point your 'A' card down a Political Highway during these days of gas rationing as applied to automotive power and not politics. We travel the insignificant highways here in Cleveland and that's how we got to Brecksville, Ohio, on May 14th without a political backfire.

Studio Councilman Barney Pruitt gave us all a call advising us there would be a meeting at Chairman Brandt's home at 8 p.m. on May 4th. This news in itself did not create a sensation. It took Frank Whittam to do that.

Word got around that Don Serafy had seen Frank Whittam coming out of a State operated store. Don insisted that he had seen six live soldiers peeping out of the basket Frank was carrying. This rumor spread like fire across a wheat field in Oklahoma during August. Interest in NABET immediately reached an all-time high. Everyone agreed that there is nothing that proves your interest in an organization like letting the world know you will attend a meeting any place at any time.

Frank Whittam, John Disbrow, Harry Caskey and the author drove into the Brandt driveway at exactly 8:00:32 p.m. The entire Cleveland Chapter, with the exception of those working, was present.

We went in and so did the 4th-termers. But that's defying the Constitution before we give the voters their legal rights. Here's what actually happened.

We had discussed most of the pending problems when a dog began barking in Brandt's front yard. Harold went outside to investigate and someone asked what we thought of the idea of putting Harold in for the 4th-term. A certain dyed-in-the-wool Republican almost fell out of his chair and a well known West Side Democrat was the only person present who cracked his face with a smile. The rest of the faces looked like frosty window panes at 4 a.m. on February 17th. It looked like the Constitution would be respected.

Then the dog stopped barking and Harold proceeded to prove that he is an expert politician as well as an expert engineer. He came back in the room and was carrying a live soldier under each arm. Then Mrs. Brandt came walking in

with a tray of large and small glasses. The large glasses each contained an ice cube and the small glasses lead the casual observer to estimate the size as approximately 1½ ounces!

Our jovial Chapter Chairman then became an instructor in chemistry. He first poured a generous quantity of a red colored fluid into the large glasses containing the ice cubes. That demonstration alone was good for swinging five votes over to the fourth-term faction. Some, however, were still skeptical, so Harold poured some Coca-Cola in with the other fluid.

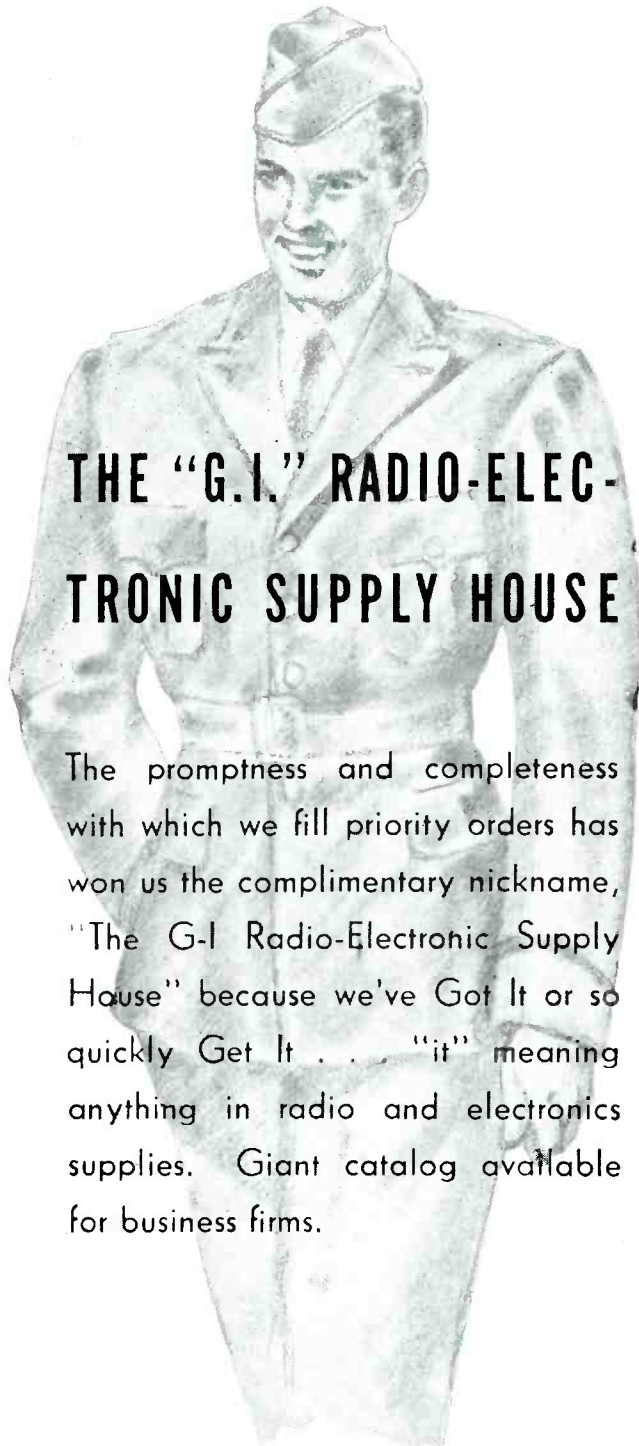
"Boys," explained Harold, "years ago, while taking a bicycle trip through Southern China, I was peddling down a cow path one balmy August afternoon when I heard a terrible scream coming from a poppy field slightly to my right and about 50 yards ahead. I could tell the scream was that of a woman so I peddled furiously and arrived in time to see two Japanese sailors racing a Kimona clad Chinese girl through the poppy patch."

"Did you save her?" That question came from nine engineers.

"Yes," continued our Chairman smiling proudly, "I was fortunately carrying two condenser microphones that I had

(Continued on Page Sixteen)





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promised to deliver to the Mayor of Swatow. The two villains were running in the same direction I was peddling and they were about two feet apart. The girl had a lead of about ten yards and the Jap sailors were gaining rapidly. I pumped like a seven-day-bike rider, clutching a condenser microphone in each hand. I shot full speed ahead, stuck out my two fists and caught one Jap behind the left ear and the other one behind the right ear. This finished both Japs, but one of the microphones became microphonic!"

"How about the Chinese maiden?"

"I saved her and she turned out to be the only daughter of a big-shot War Lord. He was so overcome with joy he invited me out to his mansion and gave me a secret formula for mixing a drink that had been kept a secret in the cellars of the Fung Family for sixty-two generations. Mr. Fung explained that one sip of this mixture is sufficient to cause all engineers to forget about such things as opening up at 4 a.m. And Mr. Fung said the bitterest of enemies invariably become lifelong pals after partaking of this mystery highball that never until now has been mixed for any other than an Oriental . . . Boys," said Harold, "Here's mud in your eye!"

Everyone raised his right arm, tilted back his head and drank deep of the mystery drink. This went on for an hour or so, and by that time the most reserved men in the Cleveland Chapter of NABET had become the loudest. Studio engineers and transmitter men began jabbering like jaybirds in a cherry tree in May.

Harold rapped for attention and got it about fifteen minutes later. "Boys," said he, "it's time to elect officers!"

"I nominate Brandt!" This nomination was made by the dyed-in-the-wool Republican!

"I second nomination!" exclaimed the fellow who had been worried about the Constitution.

"3rd it!"

"4th it!"

"5th it!"

"6th it!"

After it had been 44thed, someone said there must be a slight mistake inasmuch as there were only twelve members present. We all came to the conclusion that forty-four is a lucky number so the election came to a happy end with Harold Brandt becoming the first 4th-termer in the history of Cleveland NABETing.

Harold pointed a finger squarely at Frank Whittam and Frank became a 4th-termer Secretary-Treasurer. Barney Pruitt repeats as Studio Councilman and I'd be a heartless culprit if I failed to mention the fact that Mrs. Brandt called us into the dining room where the sandwiches were stacked like cordwood at a sawmill. We drank coffee and ate sandwiches and soon agreed that Mrs. Brandt is the best sandwich maker north of the Mason-Dixon line.

Let's have more elections more often at Brandt's!

NEW YORK NEWS

By George F. Anderson, Jr.

WELL here is June again, that pleasant month of Brides, Bugs, and Buds. Here in New York, the RCA Plaza is bursting with flowers and Hurley's Beach is overflowing with visiting NBC and BNC'ites!

Army T 5th Ted Kruse busy chatting with BNC Bill Glasscock and Navy Lt. Rudy Bauer talking to both. While from London BNC Bob Massell is interviewed over the Blue Network, shortly after his arrival in England.

Ensign Victor Bary, USNR, announces the arrival of Victor Alexander Bary on April 11th. Vic is stationed in Clinton, Okla.

Lt. Charles Younger, AUS, is at present at the Signal Corps Photo Center, Astoria, Long Island. Charlie has been out West making training pictures and is now engaged in make more at Astoria.

We had a visit from Dewey Sturgell the other day after his arrival in New York from Honolulu, where he has been for the last year or two doing some work for the Navy.

Courtney Snell FE NBC, who has been busy doing the Waring show for the last two years is recuperating from an operation, and while he is absent, GB Butler FE NBC is riding again on the Waring Crew.

Dorson Ullman SE NBC, is now doing his bit for NBC in MCD, as vacation relief supervisor, and he reports that as yet he has not observed the carrier tallies blinking at him.

Eddie Gundrum ME NBC is also a vacation relief supervisor in MCD, along with Dorson. And since WEAJ and the Red Network is now running 'till 3 AM, it is keeping the boys very busy.

Artie Hollub has now taken Jerry Sellar's place in MCD since Jerry left for an undisclosed, as yet, position.

On May 1st, Fernando (Fritz) Rojas, transferred to Audio Facilities. We know that Fritz will produce excellent results in his new position and from all the New York Operations Staff we send Good Luck.

The Recording Department also informs us that their traveling cook, Fred Frutchey, is at the present in "Deah Ol' Lunnun Town" and is sampling the various type of entertainment afforded in London.

And from Jack Stody formerly SE BNC, we find that since entering the Army as a Lieutenant, he has traveled around quite a bit here and abroad and is now Captain Jack Stody and is stationed at Manchester, New Hampshire.

We now have quite a sizeable group with identical and similar last names in engineering to-wit: R. Ward and N. Ward; G. Butler and J. Butler; J. MacDonald and G. McDonald; J. Daugherty and R. Dougherty, and finally, W. Simpson and P. Simpson. Needless to say, when a call comes in for one of them there is some questioning done as to who is wanted. So long till next month.

NEW LETTER CONTEST for SERVICEMEN!



ELEVEN 1st PRIZE WINNERS IN 5 MONTHS IN CONTEST No. 1!

Yes sir, guys, the hundreds of letters received were so swell that double first prize winners had to be awarded each of the first four months and there were triple first prize winners the fifth and last month . . .

SO—HERE WE GO AGAIN!

Get in on this NEW letter contest — write and tell us your *first hand* experiences with *all* types of Radio Communications equipment built by Hallicrafters including the famous SCR-299!

RULES FOR THE CONTEST

Hallicrafters will give \$100.00 for the best letter received during each of the five months of April, May, June, July and August. (Deadline: Received by midnight, the last day of each month.) . . . For every serious letter received Hallicrafters will send \$1.00 so even if you do not win a big prize your time will not be in vain. . . . Your letter will become the property of Hallicrafters and they will have the right to reproduce it in a Hallicrafters advertisement. Write as many letters as you wish. V-mail letters will do. . . . Military regulations prohibit the publication of winners' names and photos at present. . . . monthly winners will be notified immediately upon judging.

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Denver News

By K. N. Raymond

SNOW—snow—and more snow is the order of the day here in Denver, there are those that are wondering if that long awaited spring will ever get here. Your Editor was snowed in for two days on a recent nemo pick-up at the Mountain training center of the skii troopers. However, with the usual supply of one show and plenty of—historical interest—the time was sipped away. Our Chief Sup. Peregrine however, was not quite as fortunate as he was compelled to skii 13 miles to the nearest town to secure transportation to the fair city. However, such is the life of a radio engineer.

The Denver Chapter acted as host to several engineers of KVOD, Denver's Blue affiliate at a recent NABET luncheon. Those attending were, Vince Corbett, Freddy Mendenhall, and Joe



THE KOA TRANSMITTER GROUP

Reading left to right — Garland Dutton, Frank Nelson, Russ Thompson, assistant station engineer; George Anderson, Roy Carrier, station engineer; Blair Dobbins, Carl Nesbitt, Joe Turre, and Rudy Raeke, building maintenance

Summers. Since this group is now no longer associated with any organization, it is hoped that they will see fit to join the ranks of NABET.

* * *

KOA Wins G.E. Merit Award For 1943

The 1943 Merit Award presented by General Electric each year to the NBC or Blue operated station maintaining

the most nearly perfect operating record goes to Station KOA, Denver. The results of the competition for the 1943 award are as follows:


Station	1943		1943		
	Program	Time	Total	Delay	
	hrs.	mins.	hrs.	mins.	secs.
KOA	6689	31			42
WMAQ	6886	17		5	41
KPO	8446	06		6	56
WEAF	6691	55		10	56
WGY	6847	03		42	05
WJZ	8735	30		53	38
KGO	8456	0		59	38
WTAM	8264	32	1	07	39
WENR	8323	15	1	47	31
WRC	6793	29	2	07	58

The record of 42 seconds is especially noteworthy because of 24 hour operation at KOA during 1943. Maintenance time was so limited that a special inspection routine was necessary, based on 9 years experience with the present equipment.


* * *

The other day a nice charming lady walked into the Mastercontrol and announced that she was Ann Dunaway from San Francisco, the west coast's only woman NBC operator. She said that she was on her vacation and had a stop-over between trains. With that introduction the local wolves, Supervisor Morrissey and Morning man Finch, took over. After an inspection tour of the studios and watching Shrednik perform, the boys took her to lunch. All kidding aside, the visit was enjoyed by everyone and we are hoping that some of the other fellows and "girls" will be able

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to stop in and see us—the welcome mat is always out!

O. B. Pierce, last year's summer relief at the transmitter, returns to the fold again this year. G. Dutton, a dyed-in-the-wool transmitter man for years, comes down to the studio as summer relief to find out what the heck those studio men do with their time. D. Dobbins and G. Pogue are tied up with the business of the forthcoming election; the boys promise to have the ballots out early this year. G. Carpenter is having troubles—all of his plants that he was going to set out this spring, have been held up due to the snows and they are doing a good job of growing in the garage next to the old Ford. Milt Hall leaves on his vacation with lots of plain and fancy painting in store. Aubry Blake has now acquired the other half of married life—a HOUSE—looks like plenty of nights at home by the fire, with paint brush and broom in hand.

Geo. Anderson is still trying to figure out how he TRADED for that swell receiver that he recently acquired. Joe Rohrer proved himself a fine fireman during a fire that burned his garage. With handkerchief in hand he went in and rescued the faithful Studdy that brings him to work each morning, before the flames could get to those recaps. However, he had to sacrifice lots of radio junk that is dear to the heart of any radioman.

Commander Neal is about to get his sailing craft out and put her in shape for the coming season.

Well, that's about all that is going on here in Denver; the rest of the fellows are just stirring a bit after their hibernation for the winter season.

Los Angeles News

By H. M. McDonald

Commander William Beltz, of the Bureau of Ships, and former manager of RCA broadcast transmitter sales here, was in Los Angeles recently on his way back to Washington, after an inspection tour of "points West."

Lt. Comdr. Lindley Winsor, former manager of KOK (Mackay) here for ten years, and on active duty in the

(Continued on Page Twenty)

Broadcast Engineers' **19**
Journal — June, 1944

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WPTF - Raleigh

By Rex Coston

J. WILLARD DEAN was elected Chairman of the Raleigh section of the Washington Chapter of NABET in the annual election of officers. Dean, who will be remembered by the readers of the Journal as the recent WPTF columnist, succeeds J. Guy Beard as chairman.

Among the other newly elected local NABET officers is Waldo Rood, who moves from his old position as Sec-Treas to that of Vice-chairman, replacing H. Felton Willians. The new sec-treas. is Nick Pieler, and on the executive committee are (CS) Alton Tripp and Joseph Stephenson. Dean is representing the Raleigh section at the general meeting of the Washington chapter this month. Rood will also be taking over this column in the near future, and I can promise you that with his wit your reading will be interesting.

Retiring chairman Beard is leaving the fold to join the field engineering



J. WILLARD DEAN

force with Western Electric on May 9. Immediately before joining the WPTF staff in October, 1941, Guy was Chief Engineer of WKPT in Kingsport, Tennessee. He has been on the engineering staff of WWNC in Asheville, N. C., and has also done work with police radio during his many years in the field. Just before Guy left, the boys invited him out to the transmitter to help them eat barbecue.

Everyone has eaten so much barbecue lately that we are beginning to assume a swine-like air and just run around and "oink" at each other.

L. A. News

(Continued from Page Nineteen)

South Pacific for the past 22 months, is back in San Diego, where he will be Assistant District Communications Officer. He pounded brass for the Navy at South San Francisco and Wailupe during the last war.

Second Lt. Leland Patterson, ex KFI transmitter, is in Australia "doing technical work in GHQ" and has received a citation ribbon for good work on the last operation. He reports hearing from Lt. Norman Leonard (ex KFI-KECA) now in the New Hebrides, and 2nd Lt. Vincent Grater (ex KHJ here) now in New Guinea; both installing radio stations thereabouts.

Kenny Isbell, formerly with KFI-KECA, and more recently with Lockheed Aircraft, is now in the Navy, radio-man 2nd class, stationed at San Diego.

Ray Moore, Maintenance Supvr. at KFI-KECA studios, spoke on "Problems of Television Receiver Installation" at the March meeting of the Society of Television Engineers. Klaus Landsberg of Television Productions (W6XYZ) is president, and Curtis Mason of KFI-KECA is secretary, of the Society this year.

If you have not been using or have not yet tried Allied's New Glass Base Discs, a trial will convince you of their merits and superior quality — at no premium in the cost to you. We invite you to try this disc — that is how we obtain new customers. We feel certain that you will

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New Television Stations

From FCC Report No. 1549:

Alfend & Brown, St. Louis, Mo. Channel No. 4.

From FCC Report No. 1554:

Tower Realty, Baltimore, Md. Channel No. 4.

From FCC Report No. 1558:

Int'l Detrola Corp., Detroit, Mich. Channel No. 2.

From FCC Report No. 1559:

Jam Handy Org., Inc., Detroit, Mich. Channel No. 1.

From FCC Report No. 1561:

RCA, Camden, N. J. Channel No. 5.

Jacksonville Broadcasting Corp., Fla. Channel No. 1.

From FCC Report No. 1564:

King Trendle Broadcasting, Detroit. Channel No. 2.

Assoc. Broadcasters, San Francisco. Channel No. 6.

From FCC Report No. 1566:

United Detroit Theatre Corp., Detroit. Channel No. 4.

From FCC Report No. 1567:

Station WOW, Inc., Omaha, Neb. Channel No. 1.

From Report No. 85

(Rules and Regulations, May 17, 1944):

The Commission on May 16 amended Section 4.226, Multiple Ownership of television stations, so as to substitute "five" for "three" in the last proviso with respect to the number of stations constituting a concentration of control of television broadcasting facilities in a manner inconsistent with public interest, convenience, or necessity. (Commissioner Durr dissented.)

The Commission concluded to issue the following statement:

"In making grants of more than one television station license to one concern, the Commission will give consideration to the development of a nationwide television service, the geographic relation of the various proposed locations, and the public need for the proposed service at such locations."

The Universal Microphone Co., Inglewood, Calif., has re-issued the Stroboscope for bulk distribution to the trade. The firm published the device some years ago on a "cost price" base, but the present edition will be distributed gratis.

Printed on heavy stock with complete instructions, the setup will include individual folders in which to preserve and file the Stroboscope.

Distribution will be from the factory in Inglewood with sufficient space on each for trade imprint of individual firms. Universal's factory representatives may be contacted by jobbers, while dealers in turn can get their supply from wholesalers.

Although, in general, this procedure will result in speedy delivery of the giveaways, in instances where this routine is not practicable the trade can contact the factory direct.

Designed to work at 33-1/3 or 78 RPM, under a light of 25, 50 or 60 cycles, the Stroboscope is the generally accepted method of determining the exact turntable speed for high quality reproduction of phonograph records and transcriptions, thus enabling reproduction with true pitch and tempo.

Radio and recording studios, as well as individual owners of phonographs, radio-phonos and recorder combinations are the natural prospects for dealers to pass on the Stroboscope in building up a prospect or a mailing list.

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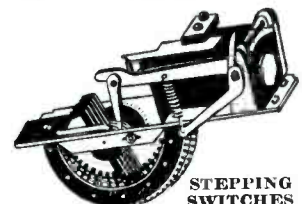
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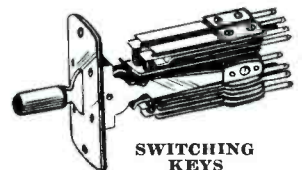
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A.R.R.L. Celebrates K. B. Warner's Twenty-fifth Anniversary

A TESTIMONIAL dinner honoring Kenneth B. Warner on his twenty-fifth anniversary as secretary and general manager of the American Radio Relay League was given at the Hotel Bond on April 26th by the members of the League headquarters staff.

David H. Houghton, treasurer and circulation manager of the organization, was master of ceremonies. Principle speakers were Lt. Col. F. E. Handy, communications manager of the ARRL, and Lt. Arthur I. Budlong, assistant to Mr. Warner, both of whom are on military leave of absence. They paid tribute to Mr. Warner's long years of success-



Left to right — Lt. Col. F. E. Handy, communications manager of A.R.R.L., on military leave; K. B. Warner looks over his testimonial album; David H. Houghton, treasurer and circulation manager, who functioned as MC

ful leadership and pointed out that the present high regard in which amateur radio is held is largely due to his untiring efforts.

The high spot of the evening was the presentation of a bound volume containing nearly 400 letters of congratulation from government officials, officers of the Army and Navy, leaders in the radio industry, and many prominent amateurs. An interesting sidelight is the fact that although the entire radio industry knew of the preparation of this book it was successfully kept secret from "KB" until the actual presentation.

MORE FROM CHICAGO

Margaret Squires proudly announces the arrival of a baby boy weighing seven and three-quarter pounds and to be christened David Guild. His older brother, Steven, age six, is very proud of David as is the father and husband, Emerson Squires of WMAQ transmitter.

Erna Lonie also announces that she and Clark are the foster parents of a little bull born to their one and only cow this past month at their seven acre country estate near the WMAQ transmitter where Clark spends a portion of each day.

Hollywood News

By Bob Jensen

A LETTER has arrived from Lt. (jg) Jim Brown, our former Hollywood chairman. He is assigned to the Brooklyn Navy Yard for a special four weeks' training course and then will be permanently assigned to the Bureau of Ships in Washington, D. C. Jim says the Navy works considerably over 40 hours per week and so far he hasn't seen any overtime checks. An expression of thanks to the Hollywood chapter was also given for the uniform presented to him as a farewell present. Lt. Brown's temporary address is: Franklin Arms Hotel, Brooklyn 2, New York.

Lt. Bob Schuetz (USNR) was a recent Hollywood visitor. He is now stationed in the Bay Area. Schuetz has had a long and varied record with NBC. For a time he was in the Audio Facilities Group in New York. He was in charge of the installation of equipment in the new Hollywood studios and was also head of the Radio Recording Division in Hollywood. Hope you will drop in again soon, Bob . . . Jim Cunningham, former NBC and Blue engineer became a bridegroom on the evening of May 17. His bride is Mary Heatherton of MBS, Hollywood. John Cravens, NBC studio, helped tie the knot in the capacity of usher. Mr. Cunningham is now doing War Research at M. I. T. in Boston . . . Maintenance Group has a new member in the person of Donald W. Baker. He joined NBC on April 22 and was formerly an Army Air Corps Radio Mechanic. Sez his hobby is blondes! Hollywood should be a good territory to work, Don. Here's to you . . . Les Culley has been appointed to fill a new position just created in the Recording Division. Hereafter Culley will be known as the "Western Division Recording Supervisor". Sil Caranchini will replace Culley as Hollywood Recording Supervisor.

Joe Kay and Hal Platt have been very busy this last month installing KNBH on top of the Hollywood NBC Building. Transmitter has a power of 500 watts and will operate on 2758kc. It will be used as an emergency feed to both KFI and KECA in case of line failure and will also be used as a cue link to mobile short wave equipment. Tests are being conducted for possible use between Hollywood and San Francisco, but no results have yet been announced. This transmitter is equipped to operate from the Emergency Power unit and will prove very valuable in case of failure of normal communications. It is another important link in NBC's effort to provide the public with better service.

FLASH: Word has just been received that Jensen has been elected Hollywood chairman by a vote of 36 to 28. Guess it really pays to stuff the ballot box!

N.A.B.E.T. ACTIVITIES

(Continued from Page Three)

Petrillo Also Complains Against AFL Pres. Green

The N. Y. Times under dateline of June 5th, reporting the AFM Convention in Chicago, has Petrillo complaining of Bill Green's AFL, in that the AFL has not protected the musicians against attempted jurisdictional raids from other unions. Quoting Petrillo, "I wouldn't be so spineless as he (Bill Green) is."

We were under the impression that it was a jurisdictional raid on N.A.B.E.T.!

Now Petrillo admits that N.A.B.E.T. is a union.

Sincere Appreciation

N.A.B.E.T. thanks the radio men of IBEW for their cooperative expressions of intention to resist encroachment by Mr. Petrillo on Engineers' jurisdiction over turntable operation.

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President A. POWLEY stresses importance of issue while Chicago Secretary MINOR WILSON records events.

BY SPIERS quizzes President A. POWLEY while Chicago Chairman FRANK SCHNEPPER reflects.

Effusive & orotical BILL KELLER amazes HUNTER REYNOLDS

MARY TROTTER and the GUIDING HAND.

WOW's ROY GLANTON and JOE HEROLD confab with BILL CUMMINGS and JIM PLATZ.

AL EISENMENGER quizzes the crowd, with MAUR KNOWLES on sidelines.

BILL KELLER, MAUREY DONNELLY and ANDY FORGACH contemplate.

Captions: Mary Trotter and the Guiding Hand. Effusive and orotical Bill Keller amazes Hunter Reynolds. By Spiers quizzes Pres. Al Powley while Chicago Chairman Frank Schnepfer reflects. Pres. Al Powley stresses importance of issue while Chicago Secy. Minor Wilson records events. WOW's Roy Glanton and Joe Herold confab with Bill Cummings and Jim Platz. Al Eisenmenger clarifies the issue, with Ralph Knowles on sidelines. Bill Keller, Maurey Donnelly and Andy Forgach contemplate.—Hjorth Photography

Chicago Chapter Chatter

By Arthur Hjorth

LT. DAVE KEMPKE, NBC engineer-on-leave on furlough from a siege in Brazil spent much of his spare time visiting around. Expects to take off for North Africa from here.

Biggest event of the year was a general meeting held in the Morrison Hotel Sunday nite, May 7th, with NABET President Al Powley. Most momentous motion ever before this chapter passed **unanimously**. We're not cooking with antiquated gas, NABET COOKS WITH ELECTRONS.

NBC engineer-on-leave Edgar L. Bernheim would like the world to know that he is now M-A-J-O-R BERNHEIM.

NBC Maintenance and Antarctic Explorer Ralph Brooks will return to work soon. If he doesn't follow the doctor's orders any of his friends will gladly pin his ears back.

H. L. "Pete Cavanah, NBC studio will be a June bridegroom. Many a young heart will miss the debonair (?) romance of our handsome "Pete". May his bride ever keep him on the straight and narrow.

Omaha Group News

By Roy Glanton

Joe Herold and Roy Glanton attended the Chicago Chapter general meeting May 7th. As usual, they were

royally entertained by the fellows and enjoyed the trip very much. They were amazed at the solidarity of the fellows in sticking together 100% in the crisis.

The Omaha Group had a meeting Tuesday night, May 9th, at the Omaha Athletic Club. A fine steak dinner was served. Lieut. (jg) Bill Dunbar was guest of honor. Bill has charge of all electronic equipment on the Baby Flat-tops operating in a certain portion of the Atlantic. A general discussion of the Petrillo situation was had and the Omaha Group voted 100% to stand back of Chicago.

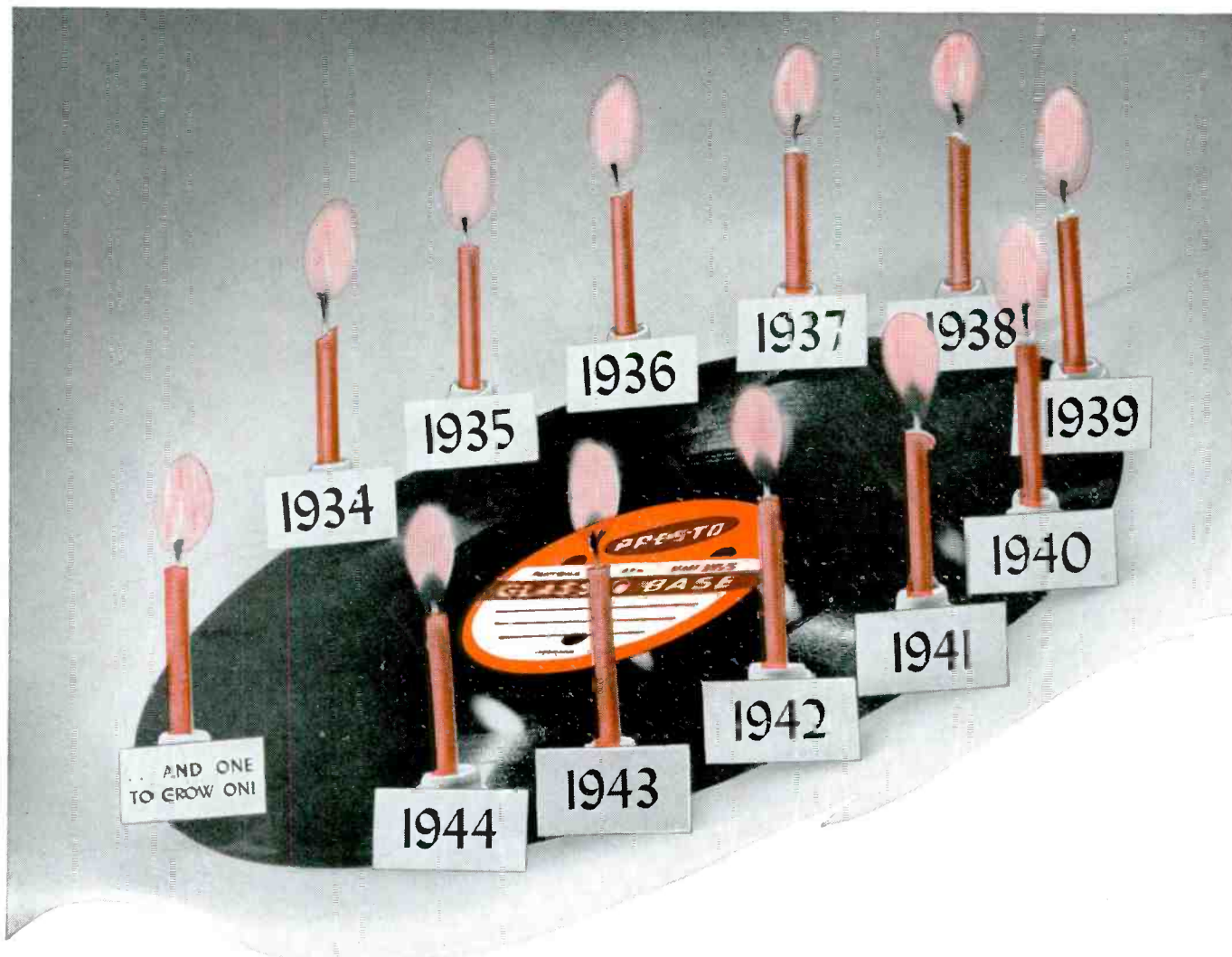
Overlooked a couple of items last time. April 3rd was WOW's birthday. WOW started it's 22nd year of service, having first gone on the air as WOAW April 3, 1923, "Tex" Glanton celebrated his??? (s-h-h 44TH (editor)) birthday May 2nd. Started his 16th year at WOW May 24th.

Vacations are in progress now. Everyone going no where in particular except to backyard Victory Gardens.

Mark McGowan's father passed away the week of May 1st.

* * * * *

June, the month of all lovers and we congratulate Mildred and Bill Cummings (7), Mary and Art Elkins (14), Mildred and "G" Flynn of WOW (6), Marguerite and "Tex" Glanton of WOW (14), Grace and Ed. Holm (9), and Vera and "Cy" Hagman of WOW (11).



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