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The Broadcast Engineers' Journal



NBC Engineers on leave to the Army. Lt. V. U. Tervola and Major W. R. Brown, meet somewhere in North Africa

Vol. 11, No. 3

MARCH, 1944

Since 1934 . . . Of, By, and For The Broadcast Engineer

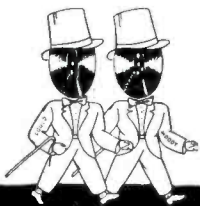
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THE BROADCAST ENGINEERS' JOURNAL

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Volume 11, No. 3



March, 1944

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THE BROADCAST ENGINEERS' JOURNAL

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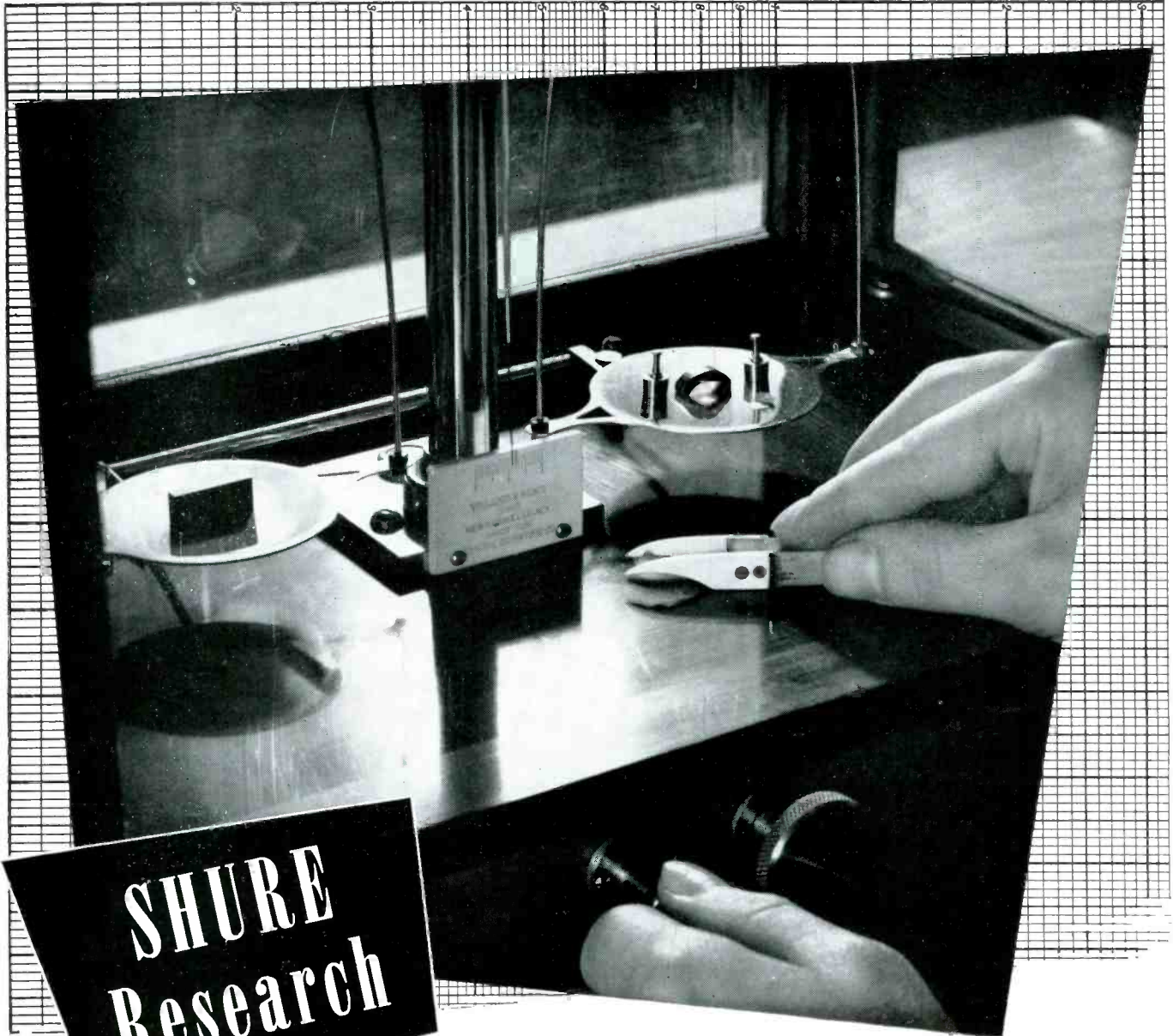
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Elemental Electronics — Part III

Vacuum and Gas-Filled Tubes : By Jordan McQuay

THE tubes used in the circuits of electronic devices vary over a considerable range of type and classification of use. All of the familiar audio and radio vacuum tubes are employed, often in more or less conventional stages. But their use and operation under some unusual circumstances will surprise and astonish the radio or sound engineer uninitiated in the science of electronics.

Since distortion plays such an important part in electronics, the operation of certain ordinary radio vacuum tubes under fantastic operating conditions is common practice. For instance, a simple triode or tetrode designed for, say, a plate voltage of 200 volts and a normal grid excitation of about 3 volts, may be used in an electronic circuit with a driving grid voltage as high as 100 to 150 volts! Complex pentodes may be connected to operate as class B triode or class C pentode amplifiers. Certain video (television) tubes may carry audio frequency and a half dozen mixed radio frequencies at the same time. A number of high-mu, beam and special amplifier tubes are used merely as switching devices. But *distortion* is the output quality of a vacuum tube desired mostly in electronics work. To obtain a very high degree of distortion, tubes are often used merely as a *portion* of the source generator of complex or non-sinusoidal wave shapes. Once the proper wave shape has been obtained, by various trick combinations of stages acting and reacting together in conjunction with the tube, amplification and high-fidelity reproduction of the resultant wave shape is highly important. Thus, on the one hand, every effort is made to deform and misshape a wave shape by *controlled distortion*, but once the desired non-sinusoidal wave shape is formed, it must be passed to later stages *without* suffering any *unwanted distortion*.

Vacuum tubes used for video or wide-band reproduction must possess a very wide frequency response, and tubes originally developed for television amplifiers generally are employed in such high-fidelity or wide-band electronic circuits. Wide-band amplifier circuits are extremely important in electronics, in order to preserve the detailed intricacies of certain complex non-sinusoidal wave shapes.

Since information concerning the general characteristics of all normal audio, radio and video vacuum tubes can be obtained from any good radio manual, this information will not be here repeated. Information concerning the use of these vacuum tubes under unusual operating circumstances will be contained in future chapters of this series on Elemental Electronics.

In the manufacture of ordinary (radio and audio) vacuum tubes, as the name implies an attempt is made to remove as much air as possible from the glass or metal envelope. In the case of gas-filled tubes, however, a specific gas is

introduced purposely into the tube instead of air. The most common gas thus employed are nitrogen, argon, neon or mercury vapor. These gases will ionize when present within an electrostatic field, permitting a conduction. This current flow (through the gas or gas vapor) is always accompanied by such phenomena as glow, corona, or spark or arc discharge. In a gas-filled tube, the voltages on the electrode control not only what amount of plate current flows but *when* it flows. Thus the gas-filled tube can be considered as a precise form of electronic switch.

The gas-filled tube is normally capable of conducting much higher currents than the ordinary vacuum tube. In certain radiolocation circuits, these tubes may conduct currents as high as 100 amperes. It should be noted that the gas-filled tube also present a rather low impedance to the external circuit with which it is connected.

There are three principal types of gas-filled tubes: the diode, the triode or *thyatron*, and the neon (glow discharge) tube.

The gas-filled diode is more popularly known in the form of the mercury vapor rectifier. But the diode is found with a number of other gases, and having various internal constructions—to achieve certain specified electronic effects. The chief importance of the gas-filled diode is that it has a very low voltage drop across it which does not vary with current. The diode also has a comparatively high current-carrying capacity. The current drawn from one of these tubes is never greater than the saturation current of the cathode, since any attempt to exceed this current will cause the voltage drop across the tube to increase very rapidly—and soon reach the point where positive ions striking the cathode will damage the heater element of the tube. This action causes a brilliant shower of incandescent material within the envelope, torn from the heater shell. Further (general) data on gas-filled diodes may be obtained from any advanced text on radio engineering.

If a grid or third electrode is added to the gas-filled diode, the tube is known as a *thyatron*. The gas-filled triode or *thyatron* has wide and extensive use in electronic circuits as a switching device, due to the action of the grid electrode in aiding or retarding ionization within the tube. The general theory for the action of gas-filled tubes holds in this case. After ionization is achieved, the tube conducts very heavily with a low voltage drop. The usual function of the grid electrode is to *start* the high flow of current, or to cause the tube to “strike.” As long as the grid is held sufficiently negative so that ionization does not take place, the tube will not pass current. However, if the grid becomes positive enough, the gas ionizes and conduction of current takes place. Once

(Continued on Page Five)

Star Gazing with Gordon

By Bert Pruitt

WE ONCE heard an announcer say the heavenly bodies stimulate the imagination of all astronomers. We were working at the transmitter at the time and Art Butler was checking up on us so we went ahead filling some batteries. What few words we did hear of the announcement were sufficient make us realize that the same statement could be applied to the Earl Carroll Vanities. There's one slight difference between gazing at the heavenly bodies overhead and the ones in Earl Carroll's Vanities. You do not need a telescope to stimulate your imagination in the latter case.

Since we've mentioned telescopes, we believe it would be etiquettely proper to introduce Lee Gordon to the BEJ readers without further ado. Lee subscribes to the Journal and remembers us at Xmas each year! Kilocycle etiquette can be given a generous definition under such circumstances.

They call Lee "Stubby," and he's as patriotic as they make them. That being

the case, we'll practice patriotism by shortening Stubby to Stub. That will help conserve our dwindling paper supply and consequently make it possible for our munition makers to make more shotgun shells loaded with buckshot. That will naturally make the Japs run faster and we'll be able to reach Tokyo much sooner than we would if we hadn't written this about Stub.

Stub's an amateur astronomer . . . a good one, too. When the weather permits you'll find him out in his backyard at 12937 Lake Ave., aiming the business end of his telescope at the stars. He's on talking terms with every little star and he's as familiar with the Big Dipper as you are with an ordinary three-quarter-ounce-shot-glass. He likewise dabbles in mathematics occasionally. He once figured how long it would take you to pump your way to the Moon on a bicycle. He showed me the figures but they were far too complicated for me to remember. He says a person leaving Cleveland, for a bike

trip to the moon, should take several hundred tons of razor blades along in order to be able to take that Saturday afternoon shave that does so much to impress your boss when he's looking for executive material. We have never been able to balance a bike, or impress a boss, we we'll just forget about shaving while astride a bike several thousand miles above Brecksville, Ohio.

We'd heard a lot about Stub's telescope capers so we decided to go out to his house and take a squint through his star enlarger.

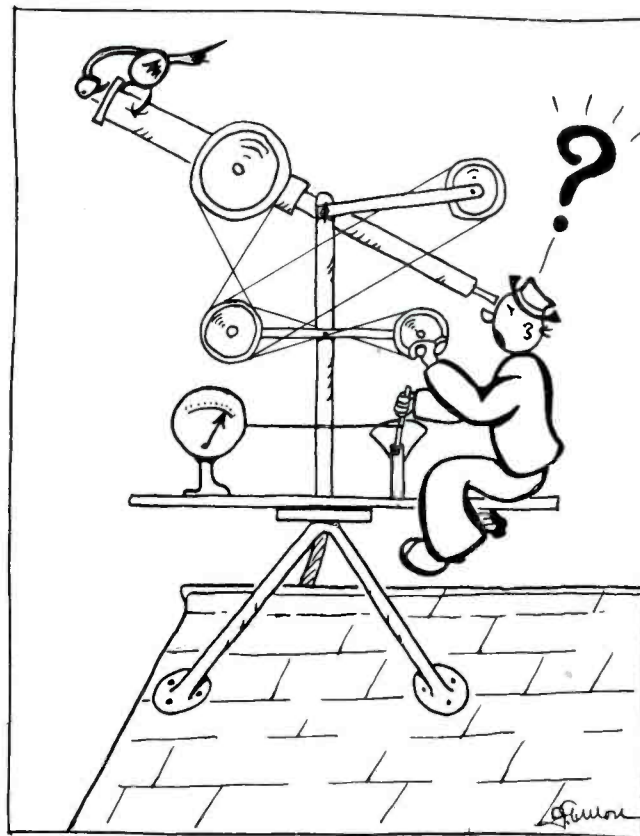
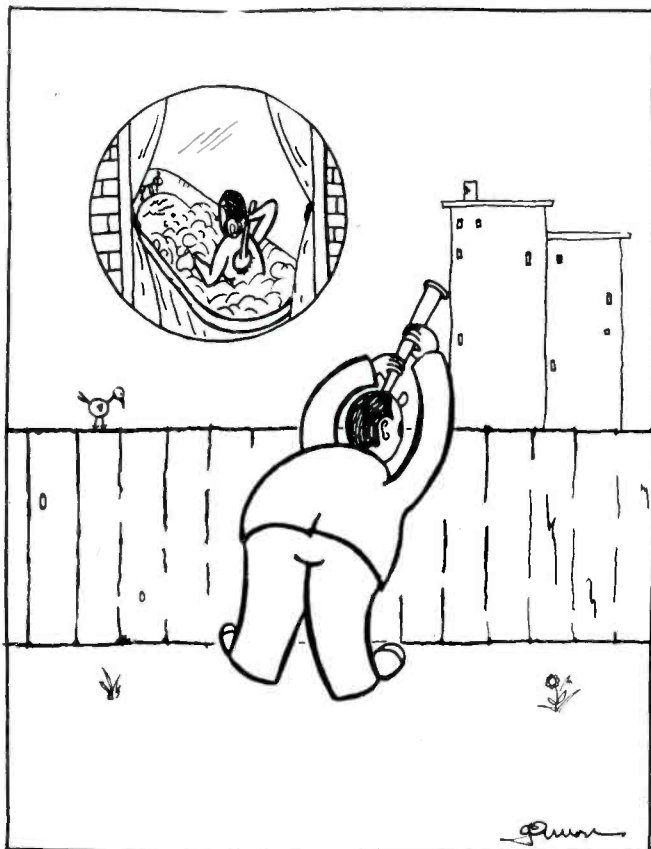
"It works this way," said Stub, cranking a couple of gadgets. "This swings it vertically and this one gives it a horizontal sweep."

"It goes in every direction at the same time, doesn't it?"

"No . . . I haven't been able to make it go backwards yet."

"Stub, I'll bet the maker of this telescope got the idea from a battleship!"

"What makes you think that?"
(Continued on Page Eight)



ELECTRONICS

(Continued from
Page Three)

the thyatron is conducting *the grid has no control* over the plate current, until the grid is reduced to almost zero—at which point deionization takes place and the triode is rendered inoperative. As normally used in electronic switching and radiolocation work, the thyatron is simply an on-off switch forming a very low resistance path when "on", and an infinite impedance path when "off". Certain properly constructed gas-filled tubes can be made to ionize and deionize as rapidly as 5000 times a *second*.

The neon glow lamp or neon bulb is a cold-cathode or glow-discharge tube. The cathode may have the same shape as the plate, permitting current to flow in either direction depending upon the polarity of the applied potential. The firing potential is much higher than the hot-cathode gas-filled (diode and triode) tubes, and the neon tube is somewhat erratic in operation. When alternating current is applied to the neon tube, both electrodes are surrounded by a glow discharge. This tube is used as a switching device, a voltage regulator, a current detector, a current direction indicator, and certain other uses.

Cathode ray tubes are special electronic vacuum tubes of a construction permitting the *visual observation* of voltage and current wave shapes. A complete discussion of these tubes will be given in next month's chapter of this series of articles.

The development of the science of electronics—which covers an extremely wide range of operative radio frequencies—has given rise to a great deal of research and development of radio operation within the ultra-high frequency spectrum, sometimes called *microwave* transmission and reception. A number of highly ingenious vacuum tubes have been developed for use at these extremely high frequencies, and they are all of revolutionary design and operation. While these u-h-f tubes were originally designed for electronics transmission and reception, their general development and use are more particularly related to radio—rather than electronics. For this reason, material on ultra-high frequency tubes and microwave circuit theory and operation have been purposely omitted from this series on Elemental Electronics—and this specialized information will appear from time to time in future issues of the Journal.

IT'S A SMALL WORLD

Tommy Cox used to handle Mary K. Brown's programs at WTAM, Cleveland. Then the war came along, and Tommy got a commission in the U. S. Army Signal Corps. He received a telegram from Washington addressing him as Captain Cox. The telegram came Tuesday AM ordering Tommy to be in San Francisco Saturday morning of the same week! Tommy made it and was soon over in Australia.

Captain Cox and Mary K. Brown met there in Australia! Miss Brown is back in Cleveland after having spent 20 months as a Red Cross Canteen Service Director in the Southwest Pacific.

Captain Cecil Bidlack (WTAM Eng) had a similar experience when he met Captain Berl Rubenstein somewhere in North Africa. Captain Rubenstein was Director of the Cleveland Institute of Music before receiving his commission in the Army.

— B. PRUITT.

HEY MAC- GET IN ON THIS!

SERVICE MEN... KEEP SENDING THOSE LETTERS!

"Bill Halligan says that all the contest entries he's received so far have been swell—he wants more letters tellin' about actual experiences with all types of Radio Communications equipment built by Hallicrafters including the SCR-299!"



RULES FOR THE CONTEST

Hallicrafters will give \$100.00 for the best letter received during each of the five months of November, December, January, February and March. (Deadline: Midnite, 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.

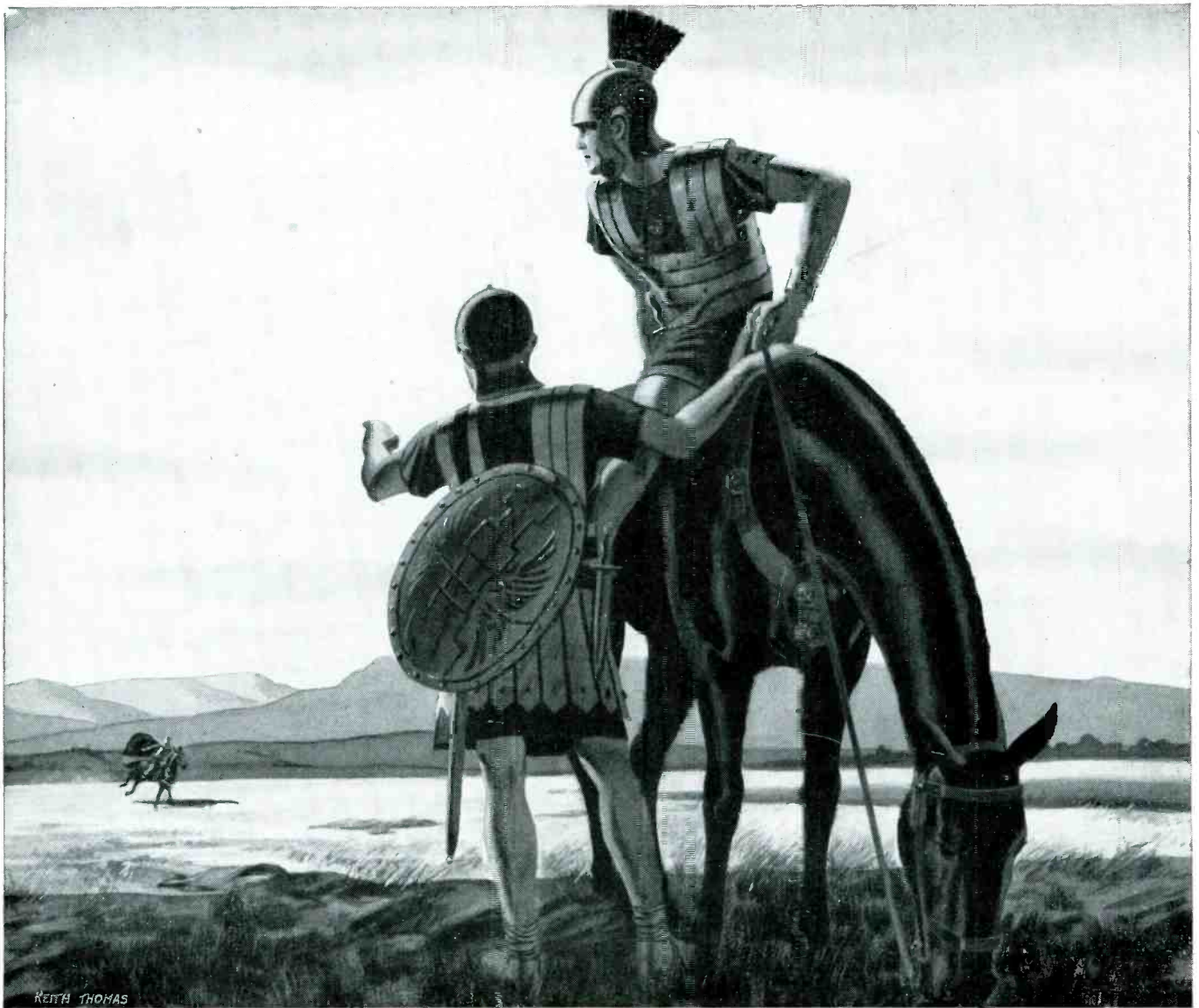


MILITARY REGULATIONS PROHIBIT THE PUBLICATION OF WINNERS' NAMES AND PHOTOS AT PRESENT... MONTHLY WINNERS WILL BE NOTIFIED IMMEDIATELY UPON JUDGING

BUY MORE BONDS!

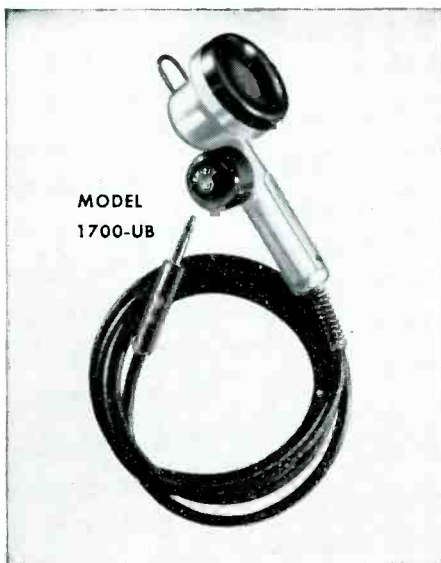
hallicrafters RADIO

THE HALLICRAFTERS CO., MANUFACTURERS OF RADIO
AND ELECTRONIC EQUIPMENT, CHICAGO 16, U. S. A.



History of Communications Number Two of a Series

COMMUNICATIONS BY ROMAN POST RIDERS



In the early days of the Romans and Phoenicians the fastest means of communication was the post riders, who carried news and War dispatches from the battle front. As fleet as their horses might have been, their speed does not begin to compare with electronic voice communication. The twist of a dial and the pressing of a button—in the flash of a second the message comes through. Clear cut speech transmission with Universal microphones reduces error and expedites the delivery of the message.

Today Universal microphones and voice communication components are being used throughout the world on every battle front filling a vital need and "getting the message through."

< Model 1700-UB, illustrated at left, is but one of several military type microphones now available to priority users through local radio jobbers.

UNIVERSAL MICROPHONE CO., LTD
INGLEWOOD, CALIFORNIA



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

Attenuator Reference Sheet No. 2

By Ely I. Bergmann
Studio Engineering Division, WOR

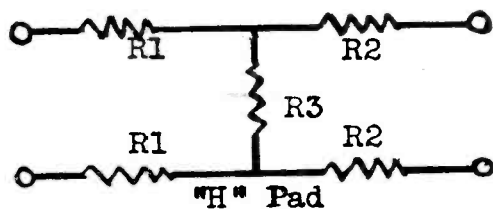
ATENUATOR pads as used in broadcast stations can be described as a network of resistances whose attenuation, when inserted in a circuit, will not alter the overall frequency characteristics of the circuit.

Pads are generally used to (1) match two circuits having either equal or unequal source and load impedances, and (2) introduce a definite loss in db in a circuit.

Other uses of the pad are (a) bridging a program line to be used for monitoring purposes; (b) isolation of lines and equipment; (c) isolation of broadcast equipment from telephone company lines, to prevent reflection; in such cases, a loss of six to twelve db is used.

Tables 1 and 2 will be found useful in selecting a particular pad with the attenuation desired; with subsequent tables in preparation, the data will be of handy use to the station engineer.

Resistance values may be $\pm 5\%$ without causing a mismatch, and will not alter the pad value by 0.5 db.



500 ohms in — 500 ohms out

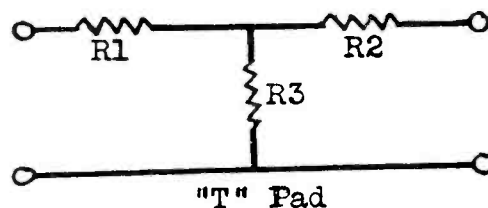
Table 1—500 to 500 Ohm "H" Pads

DB Loss	R1	R2	R3 (Ohms)
1	14.3	14.3	4332.
3	42.7	42.7	1419.
5	70.	70.	822.
10	129.6	129.6	351.
12	149.	149.	267.9
15	174.5	174.5	183.6
20	204.5	204.5	101.
25	223.3	223.3	56.4
30	234.5	234.5	31.6
35	241.	241.	17.8
40	245.	245.	10.
45	247.	247.	5.6
50	248.4	248.4	3.1
60	249.	249.	1.0

These tables contain values of Symmetrical Pads. Tables of unsymmetrical pads will follow in future issues as will symmetrical pad values of impedances generally used in broadcast stations.

Table 2—500 to 500 Ohm "T" Pads

DB Loss	R1	R2	R3 (Ohms)
1	28.7	28.7	4332.
3	85.5	85.5	1419.
5	140.	140.	822.
10	259.7	259.7	351.
12	299.	299.	267.9
15	349.	349.	183.6
20	409.	409.	101.
25	446.6	446.6	56.4
30	469.	469.	31.6
35	482.	482.	17.8
40	490.	490.	10.
45	494.	494.	5.6
50	496.8	496.8	3.1
60	499.	499.	1.0



500 ohms in — 500 ohms out

APPLICATIONS FOR TELEVISION STATIONS FROM FCC REPORT NO. 1517, FEB. 25, 1944

Philco	— Channel 9, New York City (180 to 186 mc)
Philco	— Channel 4, Washington, D. C. (78 to 84 mc)
WGN Inc	— Channel 4, Chicago, Ill. (78 to 84 mc)
NBC	— Channel 1, Cleveland, Ohio (50 to 56 mc)
NBC	— Channel 1, Chicago, Ill. (50 to 56 mc)
NBC	— Channel 3, Los Angeles, Cal. (66 to 72 mc)
NBC	— Channel 4, San Francisco, Cal. (78 to 84 mc)
NBC	— Channel 2, Denver, Colorado (60 to 66 mc)

BASIC RESEARCH!

An NBC New York Maintenance Engineer with a sense of humor made the following log entry: Studio Engineer reported organist jumping off seat due to receiving shocks through head-set monitoring phones. Careful investigation and experiment indicated that organist could be lifted 4 inches per db above zero. (Reference level 1 milliwatt in 600 ohms.) It is felt that this figure could have been improved by exploration of the frequency spectrum but further investigation was curtailed due to lack of cooperation on part of organist. Replaced phones with pair not grounded to case.

Star Gazing With Gordon

(Continued from Page Four)

"Well, I once saw some sailors aiming the trunks of trees at an island off the coast of California. They were on a battleship and they aimed those tree trunks exactly like you work this thing . . . but I have never been able to figure out why they would play at war with logs aboard a battleship."

"Those were probably fourteen-inch guns . . . this is a telescope . . . you can see thousands of miles through it!"

"You can. Well, lets search the coast of California and see if they are still on that ship out there."

"The ship isn't off the cost of California. Tojo could tell you that!"

Stub told me to take a squint through the scope. I adjusted my eyes to the small end of the telescope. The end felt colder than a dog's nose in February. One look was enough to convince me I had been missing a lot here on earth. That one look told me plenty about the inefficiency of my high school teachers. They had made vague statements about

such things as the atmospheric pressure and other debatable conditions up there near those planets, but never once had my teachers explained the moon as being what it actually was as I stood there looking at it from Stub's back yard. I could plainly see a large crack running its entire length and it looked to me as if a wedge shaped piece had been knocked from the side nearest me. When you look at the moon with the naked eye it has a clear appearance with the exception of a small portion which shows a dog jumping over a woodpile. Stub's scope plainly disclosed the fact that the moon was covered with a thick film of black coal dust. That, however, wasn't what made me bite off the end of my cigar. I could plainly see several highways angling off to the right and left sides of the moon. And a big owl stood in the middle of one of the highways. He was looking me squarely in the eyes. Never had I seen such a big owl . . . his eyes were as big as inflated

basket balls and his feet were more like something that belonged to the ankles of something created by H. G. Wells. "Stub," I said, "when I was a youngster I used to recite ditties that said something about a cow jumping over the moon while a cat did something in a fiddle and I . . ."

"That was just a childhood fairy tale . . . nothing to it!"

"I wouldn't doubt it," I agreed, "but what's that overgrown owl doing there in that highway just to the left of the moon?"

"Did you say an owl?"

"Yes . . . he's standing about thirty feet from the moon and he's there in a road that looks twice as wide as the Lincoln Highway. And there's a big crack in the moon."

"Let me take a look!" Stub was excited. Had I unexpectedly discovered a new univese that had eluded the astronomers for many centuries? I could visualize myself becoming a fixed milestone in the astronomy world.

"You," began Stub, shaking with laughter, "you've focused this scope on a street light over on Detroit Ave . . . and that highway of yours is the property of the Ohio Bell Telephone Co.!"

"Stub," I said, "What time do you rehearse 'Do You Remember' tomorrow morning?"

"Forget about the owl," says Stub, "you should have been here the night Hal Metzger came out for the first time."

"Hal Metzger . . . why he's our Program Director."

"That's him . . . he's quite an astronomer . . . but he wasn't that night two or three years ago. I'll never forget it. We were standing here in the yard and Hal spent about an hour looking through the scope. He didn't say a word or move an inch. I could imagine him try to solve some of the many mysteries lurking there behind a milk pail somewhere along the Milky Way. Well, just imagine my surprise when he suddenly turned to me and said he'd heard rumors of there being a man on the moon. "But Stub," says he "I've never even dreamed that the man is married!" I asked him what he meant and he told me to take a look for myself. I did and what do you think I saw, Pruitt?"

"Well, let's see . . . I'll bet the man and his wife were out fishing in a rowboat."

"No! I knew you'd never guess it . . . Hal had the scope pointed at an apart-

RUGGED

Accuracy and dependability are built into every Bliley Crystal Unit. Specify **BLILEY** for assured performance.

BLILEY ELECTRIC COMPANY
ERIE, PENNSYLVANIA

Bliley Crystals

The advertisement features a central illustration of a tank with a soldier on top, set against a background of flags (Army, Navy) and an eagle. A circular inset shows a Bliley Crystal Holder with a dial displaying '2412 Mc 21 C'. The text 'RUGGED' is prominently displayed in large, bold letters. Below the tank, there is a testimonial about accuracy and dependability, and the company name 'BLILEY ELECTRIC COMPANY' is printed. At the bottom, the brand name 'Bliley Crystals' is written in a stylized script.

ment window over on Clifton Boulevard!"

"That's a good one! They weren't fishing then?"

"Not by a long shot. They were there in the bedroom hanging new window curtains!"

"That's a good one!"

"Yes, I thought so too. Say, did you know there has been a new universe discovered?"

"No, it's news to me. Who found it, where?"

"Someone in an observatory in South Africa. They believe this new universe to have a climate somewhat similar to ours and its quite possible the place is inhabited!"

"No! Say Stub, that makes me as nervous as an announcer making his first local. Did they say whether or not the climate is adaptable to the growth of watermelons?"

"It's possible . . . but why should that make you nervous?"

"Stub," I says, "how long would it take a watermelon to reach earth if it accidentally rolled off a hillside up there in that new universe?"

"Thousands of years . . . and did you ever stop to consider how small you would look down here if an astronomer up there took a look at you through this telescope?"

"Well, let's see . . . about the same size as I look to Niles Trammell and O. B. Hanson from New York?"

"Much bigger than that!"

The Universal Microphone Co. Ltd., Inglewood, Cal., doing business as such since 1928, will be known hereafter as the Universal Microphone Company.

The stockholders and board of directors of the corporation elected to dissolve the corporation, and filed certificate with the California secretary of state and the Los Angeles County Clerk.

James L. Fouch and Cecil L. Sly, president and vice president of the former corporation and its principal stockholders, have organized a partnership and have taken over the assets and the liabilities of the Universal Microphone Co. Ltd.

The partnership will continue to conduct the business of the former corporation. Operating at the Universal Microphone Company, the partnership has announced that officers will continue to be James L. Fouch, president; Cecil L. Sly, vice president and treasurer, and Durwood D. Allen, secretary.

UNREHEARSED DRAMA

By Bert Pruitt

Officials of radio stations have listened to many assortments of strange statements and requests. Someone wants to put his pet squirrel on a coast to coast hook-up. And who hasn't heard the one about the man who wanted to audition his singing dog. Then there seems to be any number of cat owners who have taught their kittens to sing The Star Spangled Banner. Talking bullfrogs and preaching crickets are a dime a dozen in any radio station. And of course there's the fellow who had devoted an entire lifetime trying to figure out why a grasshopper jumps instead of walks. Such things as those, however, are to be classified as the run-of-the-mill brainstorms.

C.B.S. received a visitor one day who really had something to offer. The visitor's eyes were sparkling like two ice cubes lying in your kitchen sink. "I", proudly boasted the visitor, "get heavenly direction from Shakespeare!" Shakespeare and I are dissatisfied with the present-day interpretations of 'Hamlet'. I insist on doing a program for C.B.S. under the title 'Hamlet' in Heaven!"

God's gift to radio became a daily visitor at the C.B.S. studios. Stu Wells decided something should be done. "You", he said to the daily visitor, "see Shakespeare often?"

"Every night!" proudly boasted the visitor.

"Well", advised Stu, "get him to sign this release and you are on the air!"

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The Great American Invasion

or, Georgia Schtumpf on My Mind

By Tom McKaye

AUTHOR'S NOTE: Amos Q. "Doctor" Killfidget, ex-radio technician and neophyte army private, has been besieged by trouble ever since that fateful day when a misunderstanding about his advanced age brought the Doctor into the ranks of the "GI." Not all of his army troubles and mad adventures can be recorded here, due to the desire of army officials to "forget" some of the experiences of this slightly screwball and fabulous radio character.

Private Amos Q. Killfidget arrived without fanfare at the vast Infantry training school in Georgia. Almost forgotten were his previous horrible experiences that had led to his transfer to "foot soldiering."

"The exercise will probably do me good," insisted the venerable old man. His chief exercise in civilian life had been confined to lifting mugs of hot toddy at Joe's Place, and chasing girls around city blocks.

Not that Killfidget was a wolf. It was mostly the spirit of youth surging within the old fossil, a spirit that never seemed at rest. Some of this spirit *might* have been due, of course, to the enormous quantity of hot toddy within which he was almost constantly submerged.

And here he was at the Infantry school, complete with two barracks bags loosely filled with what equipment he had not given away or lost during his long train ride. Absent from either arm of his GI shirt were stripes of any kind. After eight months in the army, Killfidget was still at the bottom of the ladder: a basic private. No more, no less. But this was the least of his worries.

Since he was of lowest rank, he could never be demoted. This saved his various commanding officers a great deal of time and work. Killfidget was invariably getting into some sort of trouble, persistently as a song-plugger at a network radio station, consistently as the Arlington time signal, perpetual as station breaks.

"Nothing like being in the Infantry," exclaimed the Doctor, breathing deeply of the dusty Georgia air.

But a week later private Amos Killfidget had other words and other phrases to describe the infantry—and the Georgia dust. For they marched him up and they marched him down, and then

they marched him some more. All day long, march, march, march, march.

And there was a drill sergeant named Miller, who showed little appreciation for the Doctor's lazy indifference. Sgt. Miller was something of a holy terror, and Sgt. Miller didn't like Private Killfidget. As the dusty days ground by, one by one, the Doc found more and more of his spare time taken up with special details that Sgt. Miller had thoughtfully arranged to keep the old man busy.

The day the sergeant discovered Killfidget had a canteen full of hot toddy on a route march, Miller's oaths could be heard for miles around. He nearly broke several blood vessels that day, and even the old-line regular army sergeants blushed at Miller's string of epithets.

But the Doctor didn't mind.

"I've been sworn at by experts," he would remark casually, whenever the sergeant lost his temper.

Killfidget had his own way of getting even with the drill sergeant, by always marching out-of-step. This was particularly noticeable when the company was marching in the presence of high-ranking officers. It invariably happened every Saturday afternoon during the parade review by Colonel Sunday.

Killfidget, indeed, was the thorn in the side of Sgt. Miller.

And Killfidget stood regular KP duty, every day.

Perhaps the two were related.

But the good Doctor will never know for certain. After two months of peeling potatoes, washing dishes and marching out-of-step, Killfidget awoke one day to a life without the drill sergeant. For Sgt. Miller had been sent away to a mental institution near Bound Brook, New Jersey.

That night the entire company went a.w.o.l. They threw a big party in honor of Doctor Killfidget at a bar in the neighboring village. The successful loss of Sgt. Miller was probably the only important thing Killfidget had accomplished during his army career.

Toasts rang back and forth throughout the evening, and much hot toddy was consumed by all concerned. It might have gone on forever had it not been for the arrival of a carload of Georgia crackers, a bevy of buxom biscuits, an assortment of southern cookies.

Then it was that Doctor Killfidget met Georgia Schtumpf, a local debutante whose background was as colorful as the inside of an old stove. Her chief claim to fame was that she could drink 250 steins of home brew, without taking a breath. She was also a professional wrestler. She weighed either 310 or 340 pounds, depending on whether or not she had on her shoes.

To say that she took a liking to the tall, gaunt Doctor Killfidget, is putting it mildly. Within fifteen minutes they were very chummy indeed, and the Doc was sitting on her lap.

"With me in this army," he explained, between gulps of hot toddy, "the war should be over in no time at all. Maybe tomorrow!"

"Gee," said Georgia.

The Doctor looked down tenderly into Miss Schtumpf's delicate, pale, crossed eyes and said:

"Some night when the general can spare me, we should ride around the countryside."

"Gee," said Miss Schtumpf, gladly accepting the proposition.

At about this time the party began to disintegrate, with Doctor Killfidget at the helm and chiefly responsible for running the ship on the rocks. Gesticulating wildly with a cup of hot toddy, the Doctor was explaining the intricacies of frequency modulation to the collection of corn-fed cookies when the lights went.

They not only went out, but they stayed out. And it was not due to any power line failure.

"Where am I?" moaned Killfidget, moving unsteadily toward a big desk, trying to peer through the toddy-drenched mist that surrounded him.

"Killfidget!" thundered an authoritative voice from the misty shadows.

"Um?"

"Are you supposed to be standing at attention?"

It took a long, long time for the truth to filter through Doctor Killfidget's erratic brain.

"The C.O.!" he whispered, at last. "How did he get in this trailer? We didn't ask him to——"

"Killfidget!"

"Yes, sir?"

"Your army record is as unbelievable as

a soap opera without commercials," said the C.O., a captain named Gootee. "I can't understand how one soldier can get into so much trouble."

"Puzzles me, too, sir," explained Killfidget, the fog beginning to lift. "It seems that every time I——"

"Going to give you one more chance," said the C.O.

"Um?"

"I'm putting you on guard duty for the next 45 days. If you don't buckle down to business by then, well—— well——"

"Yes, sir?" queried the Doctor, hopefully.

"——then you'll have to go back to KP again."

"Oh." The old man was crestfallen. "I thought maybe——"

"That's the trouble, Killfidget. You think too much."

"Yes, sir."

"And you have one particularly bad habit!"

"I have?" The Doctor was very much surprised.

"Don't you know," said the C.O. "that I have decided to stop drinking on this post?"

A light came in the old man's eyes.

"Well, that's fine, sir! But I hope you don't want me to stop, too!"

And so Private Killfidget became a sentry.

But his duty as guardian of the law, defender of army rules and regulations, champion of army causes, and general watch dog was limited to one night.

For some reason or other, most of Doctor Killfidget's strangest adventures *always* happened at night. A grim reminder of his almost-forgotten days as a civilian.

And the officer-of-the-day seemed to be the focal point of Killfidget's guard-duty troubles.

Following a two-hour lecture on general orders and the responsibilities of a sentry, the sergeant-of-the-guard posted Killfidget at the most remote post on the camp.

Sometime after midnight, the O.D. came tearing through the underbrush in the darkness, startled the Doc from his dozing reverie, and then propounded a sudden question: "What," asked the O.D., "is general order seven?"

Killfidget scratched his snow-white hair. "Darned if I know."

"Come, come!" said the O.D., a lieutenant named Brown. "You're not much of a sentry." He tried again. "What is general order three?"

Killfidget thought a minute, then: "Darned if I know."



"I only did my patriotic duty!"

"Don't you know anything?" stormed the O.D. "What did the sergeant-of-the-guard tell you when he posted you here?"

Killfidget beamed.

"He said, watch out for the O.D. He's a jerk!"

But the Lieutenant didn't get mad.

Not much he didn't.

Fifty minutes later he had concluded a long tirade against the learned Doctor concerning the duties of a sentry, and departed into the darkness leaving Killfidget with mingled thoughts; most of them unprintable.

"Must challenge everybody three times . . ." repeated the Doctor, loading cartridges into his M1917 rifle.

A twig cracked somewhere in the forest darkness.

"Who goes there?" he blared, his voice breaking under the sudden strain of emotion and responsibility.

The answer came back brusque and authoritative.

"Colonel Sunday! Urgent business!"

Killfidget noisily slammed the rifle bolt in place.

"Who goes there?" he screamed again, his voice once again breaking into many tired pieces.

"Colonel Sunday!" came back the exasperated answer. "I'm on urgent business!" There was a slight rustle of underbrush, much closer now.

The Doctor unlocked the safety catch. "You'd better start running, Sunday!" he shouted into the darkness. "I challenge just one more time, and then I start firing!"

Suiting the action to the word, Killfidget yelled out another vague challenge, and peppered the air with wild, aimless shots from his rifle. He never had learned to shoot a gun.

There was much thrashing of bushes and underbrush, and a renowned colonel departed hastily from the region of the sentry post. This gave the good Doctor a feeling of deep satisfaction, and he carefully reloaded his firearm for future visitors.

"If Miss Schtumpf could only see me now!" he sighed, "Dear, dear Georgia. My true love."

He could almost hear her saying "Gee!" And then the old man's reverie was disturbed slightly.

A platoon of Military Police suddenly materialized from the darkness behind him, grabbed his trusty rifle, threw an old burlap bag over the Doctor's head, and carted him away to the guard house. The Doctor, it seemed, had made a large mistake. His breach of military etiquette had sorely outraged Colonel Sunday. Private Killfidget was no longer a sentry.

Back in the cell room, at the rear of the Provost Marshall's office, the Doctor brooded over life and fate, and hot toddy, and Georgia Schtumpf.

"If they'd only put me in the Signal Corps," he wailed. "The only thing I know anything about is radio."

But even that is a matter of speculation.

The Court Martial lasted four days. It would have been over sooner, but Killfidget kept dozing off during im-

portant testimony. Sometime during the third day he was awakened and asked if he had anything to say in his own defense. Whereupon the veteran radio mechanic scratched his head, yawned quite broadly, glanced at the grim and silent circle of officers around him, and went back to sleep.

But they were very lenient.

Since he didn't actually kill the colonel, he was sentenced to the guard house and hard labor for two months.

Killfidget didn't mind sleeping in the guard house at night, since he generally slept there every night anyway. But he disliked the "hard labor" during the day-time.

During his first three days they made him collect garbage, paint a flagpole, mow several lawns and wash all the windows of the Officer's Club. The following days were to be spent on a road gang, repairing the various byways on the camp.

At the end of the third day, Killfidget was entertaining some strong desires to go "over the hill" and see his new heart-throb, Georgia Schtumpf.

"We could have a gay time, Georgia and I—and maybe a jeep," he mused, as the bars of "taps" came floating through the barred windows of the cell room. The rest of the "convicts" were sound asleep, and snoring noisily.

"I wonder," he said, half aloud, "if Georgia is waiting for me at that little tavern in the village?"

A scuffling outside was followed by the rattle of keys, and the cell door opened. A new M.P. sergeant stuck his head inside.

"Got an order for the release of Private Willie State."

The Sergeant looked quickly around the room. Killfidget was the only one awake. "Are you Willie State?" he asked the Doctor.

Opportunity had knocked, but loudly! "Sure thing!" said Killfidget, jumping up from the bunk. "Don't tell me I can leave this place!"

"That's right," said the Sergeant, following him out, and locking the cell door behind him. Fortunately the outside office was deserted. There was no one about who could recognize him.

Two minutes later he was standing out in front of the guard house, a free man, in a free world, with thoughts only of hot toddy and Georgia Schtumpf.

It was late, and transportation was at a low ebb. In fact, it was nonexistent. "Have to get off the post," mused the Doctor. "These apes are liable to pick me up again."

At such times, the Doctor's capacity for lucid thought is as enormous and exaggerated as his determination.

From a nearby telephone booth he put through a call to the Transportation Corps on the post.

"Hello, hello," yelled the old man, with impatient authority.

A sleepy-voiced lieutenant was at the other end of the line.

"This is General Szrdtz!" blared Killfidget, rattling the receiver in the Lieutenant's ear.

"What was that name again, sir?"

"Szrdtz! General Szrdtz!" answered the Doctor, sliding lightly over the profusion of consonants. "Need a jeep! Right away!"

The Lieutenant was undecided.

"Well, I suppose so. But I—I—what was that name, again, sir? I didn't get—"

"General Szrdtz!" blasted Killfidget.

"Have to have a jeep. Right away! Sending my driver Killfidget over for the jeep right now. That all right?"

"Why—uh—I guess so, General. I—uh—"

"Okay! Okay!"

And that was how Killfidget happened to be speeding through a remote section of the State of Georgia early one morning, in company with a blonde lovely named Miss Schtumpf, when the United States had its biggest invasion scare.

After partaking freely of hot toddy in the nearby village, the Doctor and his over-ripe tomato, were looking for a quiet place to park. Bouncing merrily along in the jeep was far from a pleasure ride for the rotund Miss Schtumpf, however.

"Hey, Doc!" she yelled, as Killfidget took another corner on one wheel and jumped over a low picket fence. "Stop this jip, or I yam gonna git out an' go home!"

The jeep came to a jolting stop in the middle of a cornfield. It was then that Killfidget realized most of his night's traveling must have been cross-country.

"Must have missed the road when we left town," he grinned.

"Didn't ya never drive no car before?" enquired Georgia.

"It's been about twenty years, I guess," surmised the Doctor, peering into the darkness of the unfamiliar country-side. "Geel!" said Miss Schtumpf. "We should oughtta bring some hot toddy down wit' us."

"Yes," confessed the Doctor. "I could certainly use a bit right now. Why I—"

He stopped suddenly, and gripped her chubby arm.

"Whatsa matter, huh?"

"I could have sworn I saw some—yes! There they are!" Killfidget pointed vaguely toward a clump of cottonwood trees.

"There who are?" asked Georgia, frightened by the mysterious prattling of the Doctor.

"Electrons!" pronounced Killfidget.

"Huh?"

"Hundreds of them! Look! There—and over there!" His voice was nervous and cracked; the Doctor was serious, very serious.

"What?" inquired Georgia.

"Electrons! Hundreds of them!"

"Whatsalectron?" asked Miss Schtumpf.

"I never saw so many in my life!" The Doctor was trembling.

"Gee!" said Georgia. "Is that bad?"

"Bad?" chided Killfidget. "Why, it's an—an invasion. That's what it is!"

"Gee!"

"An invasion!" pronounced the Doctor. "Whatcha gonna do?"

"Have to warn the country-side!" explained Killfidget, shifting into second as the jeep went bouncing across the cornfield.

Miss Schtumpf was visibly awed, between hiccoughs, to think that she was participating in another Ride of Paul Revere.

The jeep jumped a ten-foot ditch, landed on a highway, and went tearing madly back toward the sleepy village.

"To arms! To arms!" screamed the Doctor, pushing the gas pedal half-way through the floorboard.

"Gee!" mumbled Miss Schtumpf.

The jeep was wide open when they reached the village, and not a light could be seen anywhere. Killfidget slid to a screaming stop, almost throwing the hefty Georgia over the windshield—if there had been a windshield.

"To arms! To arms!" screamed the old man, his voice cracking under the great emotional strain. "Invasion!"

Lights began popping on all over the town, windows were filling with people in nightgowns.

"Invasion!" bleated Killfidget. "Pass the word along! Arouse the country!"

"Who is it?" called out a retired banker, named Rife.

"Electrons!" yelled Killfidget, honking the jeep furiously.

"Gee!" murmured Georgia.

None of the aroused citizens knew exactly who or what electrons were. But from the lone soldier's frantic excitement it was obvious that a full-scale enemy invasion had begun.

Almost immediately the sleepy village was transformed into a mad, bustling center of international importance. The

news of the invasion was electric. Slightly modified and exaggerated versions traveled outward by telephone, telegraph and radio.

The streets were soon crowded with people from the surrounding territory. Everyone was intent on marching to the scene of battle, brandishing clubs, butcher knives and other handy instruments. Private Killfidget supplied vague directions as to the location of the mass invasion, and then he and Georgia Schtumpf retired to the sidelines to watch the excitement.

The Doctor's own army camp was notified of the enemy invasion by the town constable, a man named Thornbury. The entire camp was aroused, fully armed with all available weapons, and set out on foot to fight the enemy. Other camps were also notified, and the region was soon besieged by battalion after battalion of khaki-clad soldiers. The highways were clogged and choked for hundreds of miles in all directions by motor transports, light and heavy tanks, and thousands of jeeps loaded with second lieutenants. Thirty flights of bombers took off from Atlanta, arrived just as dawn was breaking, and spent the entire day circling over the region. A trailer park on the outskirts of town, suddenly increased from 5 to 8,500 trailers, and a

detachment of 500 Military Police were landed by parachute to maintain law and order. The population of the village, which had totalled two hundred souls the day before, was estimated at nine o'clock that morning to be about 850,000—not counting 4 sailors, who were accidentally caught in the rush of the crowd streaming out of San Diego and made the long trip to Georgia under protest.

By ten o'clock all the counties in that part of the state were thoroughly saturated with literally hundreds of thousands of soldiers and civilians thrashing through the underbrush and wooded regions in search of the elusive enemy invasion troops. By that time almost everyone had forgotten about old Private Killfidget.

But events had worked out amazingly well for the old codger.

Four new bars were opened in the town, to take care of the tourist trade. And to one such emporium had migrated Doctor Killfidget and his true love.

"Two more hot toddy's," ordered the Doctor.

"Gee!" hiccupped Miss Schtumpf. "You're—hic—wonderful! My hero!"

"Tut, tut!" said Private Killfidget, modestly. "I only did my patriotic duty!"

"Gee!" said Georgia.

Shortly before noon, twelve generals from Washington arrived at the scene of Doctor Killfidget's amazing discovery, and the invasion was officially declared a hoax. Then people began to wonder what had happened to the gaunt, slightly tipsy old soldier, who had started all the excitement. These citizens did not have kindly feelings toward the Doctor, and a number of them even suggested that the kindly old man be carved up into extremely small sections.

Someone remembered seeing Killfidget and Miss Schtumpf at one of the bars, and the mob started back to town with more than a slight vengeance. Fortunately, however, a platoon of M.P.s arrived in the nick of time, seized the well-soaked form of Doctor Killfidget and removed him quite forcibly from the confines of the saloon. He cut quite a figure as they marched him away to the Black Maria. Georgia watched them as they tossed her lover into the truck and drove off toward the camp.

Private Amos Q. Killfidget was certainly a hero, even if he did have to stay in the guard house until Christmas. Private Killfidget was certainly a great lover, even if he was the most hated man in the entire state that morning.

"Gee!" said Miss Schtumpf.

END

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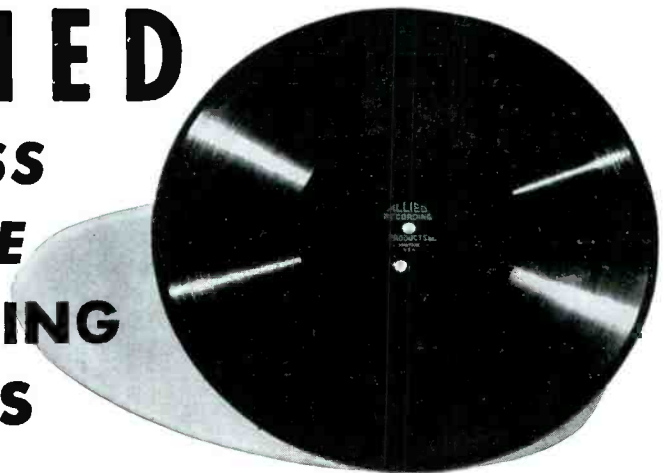
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New York News

By George F. Anderson, Jr.

FEBRUARY, a month that can't make up its mind as to the number of days it should have—the month of leap year proposals—and here in New York it is a cigar month.

John Pawlek, SE NBC, passed out the cigars earlier in the month in celebration of the birth of a baby boy, name Donald. Donald is the second child and also the second boy in the Pawlek family—and Cantor has five girls.

Harry Hiller, our estimable Chapter Chairman, also informs us that he has passed the second milestone in his career as a Grandpappy, with the birth of his second grandchild in this leap year month.

John Lustgarten, apprentice, has taken a week vacation and is devoting the time to a honeymoon. Having said "I do" to a lovely young lady.

The mail in the lounge is starting to pile up since Bill Glasscock has gone on the road with the Coca Cola—Morton Downey show, and we are debating whether we should inaugurate a service charge for the storage of his mail.

Ed Schabehar, Rec., disappears daily from the recording room and if anyone is interested in his whereabouts, he can be located in a small cubbyhole adjacent to studio No. 5C, where he spends his leisure adjusting and calibrating recording heads (we mean cutting heads).

Among other fliers near and far is one of the Blue's famous engineers, Mr. Norbert O'Leary, no relation to a Mrs. O'Leary of Chicago fame. Bert is in the CAP, and every Friday he gets a birdseye view of what the Atlantic looks like.

Milt Kitchen, MCD, is another who is planning to get a look at the water. Milt has purchased a cruiser, and intends to again do a bit of sailing this and the following summers.

Fred Walworth, FE Blue, has just returned, at this moment, from the Coca Cola trip with Bill Glasscock and he reports that the gang from New York now in Hollywood and points west are looking fine and that they send their regards to us here in New York.

Fred says that it is very pleasant in California, everything very restful, everyone living only ten minutes or so from their work and none of the hectic haze that is prevalent here in the East.

The latest report that we have on Captain Dickson's whereabouts is that he is at the present time enroute to assignment with his combat camera unit somewhere in the Pacific area.

That's all for now.

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☆ and again, ☆
☆ and again . . . ☆
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The Dream Singer

By Bert Pruitt

RALPH KIRBERY is not a stranger to many of the Journal readers, especially those working in the radio stations in New York City. Some will remember Ralph as the "Dream Singer" whose pleasing voice used to thrill the listeners back in the 30's.

Ralph stopped in to see his friends here at WTAM the other day. The bars on his shoulders showed that we should address him as Lt. Kirbery. He is a First Lieutenant in the Air Corps Army of the United States. He's stationed at the New Castle Army Air Base, Wilmington, Delaware.

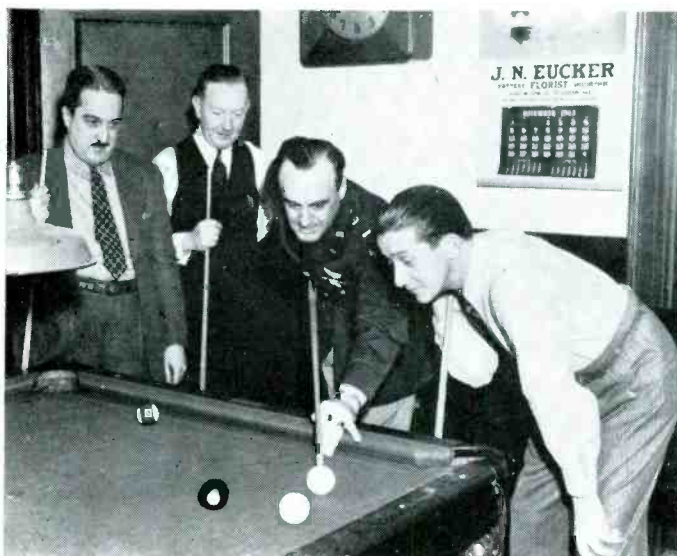
The ex-Dream Singer came to Cleveland to fly a B-17 back to the east coast. This bomber, which carries many scars received at various battle fronts, was used in conjunction with a Cleveland recruiting drive.

Flying a bomber from Cleveland to the east coast is duck-soup to Lt. Kirbery. The Flying Lieutenant returned from China where he spent several months ferrying planes to the various battle fronts. He's piloted B-17's, B-24's and B-26's! And he's flown them to many remote sectors of the world!

Ralph was in WTAM'S 1100 Club shooting pill-pool with Lee Gordon, Tom Manning and Gene Carroll when we walked in. "Bert", says Tom, aiming a cue at someone dressed in a snazzy uniform, "you remember Ralph Kirbery, don't you?"

"Sure do", we said, shaking hands with the Flying Lieutenant.

Bull shooting was added to pool shooting. Ralph told us, between shots, how he met a fellow from his home town while over in Algiers. The meeting wasn't that simple however. Ralph had been ferrying bombers over to Africa for some time. He knew Capt. Ralph Nixon, from his home town, was stationed somewhere in Africa. Letters and inquiries failed to disclose the whereabouts of Capt. Nixon. Months went by and Ralph made numerous trips back and forth across the Atlantic. Then he received orders to deliver a plane to an outfit in Algiers. He delivered it,



(Left to right) Lee Gordon, Tom Manning, Lt. Ralph Kirbery, and Gene Carroll

and sure enough, the outfit turned out to be the one Capt. Nixon is with.

Ralph has a roll of "Short Snorter Bills" that would choke a hippopotamus. The bills are from the various countries he has visited and each bill is systematically filled with signatures of people he has met while glob trotting high above Mother Earth and her ribbon microphones. Lt. Kirbery showed us an invasion dollar. One end of it was pasted to a peso from the Philippines and the other end is hanging on to a strange looking bill he picked up while in Bagdad.

The Dream-Singing-Flyer appeared on the Spang show while here in Cleveland. Being on the Spang program seems like old times to Ralph. He came out to Cleveland in 1936 and did a long run with Spang here at WTAM. He also recalls having been sponsored by "Mohawk Rugs", "Cascoria", "Enna Jettick Shoes", "Chevrolet", "Lipton Tea" and many others.

So to Ralph we say, congratulations for mastering the art of flying the mighty Flying Fortress as well as mastering the art of singing!

White Star for Army-Navy "E" Awarded to Shure Brothers

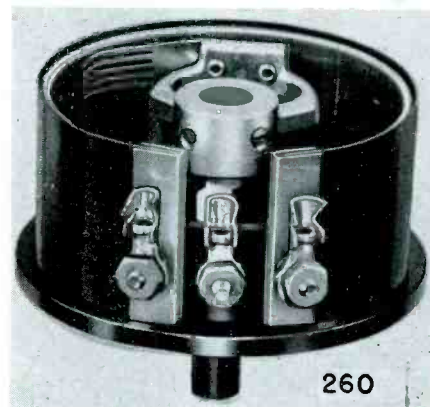
The White Star for continued meritorious production has been added to the Army-Navy "E" Flag of Shure Brothers, designers and manufacturers of Microphones and Acoustic Devices, Chicago. The White Star Award was presented by Lt. Colonel Nathan Boruszak to the men and women of Shure Brothers on December 15, 1943 at an impressive and stirring factory meeting. The White Star Award is the fulfillment of a pledge made by Shure Workers to keep producing "Microphones for Victory," when the first Army-Navy "E" was awarded to them approximately six months ago.

Improved Potentiometers by DeJur-Amsco

Precision potentiometers which can operate for 2,500,000 revolutions at 360° continuous rotation in both directions, for 24 hours a day are among the types brought forth by the DeJur-Amsco Corporation of Shelton, Conn., in its 1944 listing of units designed for a variety of electronic and industrial techniques.

Among the ten-odd models included in its bulletin are Types 260, 275, 261, 260T, and 291. Outstanding feature of this group is the fact that extremely close tolerances are used, which require

winding equipment built especially for DeJur.



Washington News

WRC — WMAL

By R. E. Shenton

IT IS usually the practice in a column of this variety to refrain from mention of personal actions or thoughts of the writer. Sometimes, however, a word or two creeps in to mar the objectiveness of the opus. Forthwith is the creepage.

Your editor, and you can have him, R. E. Shenton, works in the new NBC-Washington Recording Room as a recording engineer, having recently been removed from the studio group because his long white beard interfered with effective gain riding. The room in which he functions is one flight up from the studio level, and is completely cut off from the outside world except for two circular staircases and three telephones. There are no windows in the room, so that the night man feels just about the same as the day man as far as his work goes; incandescent light furnishes the only Vitamin D to be found. The whole place has the atmosphere of a sultry midsummer afternoon immediately before the champion thunderstorm of the season. But we digress. . . . Being cutoff from the outside world as he is, the editor finds it difficult to keep in contact with his engineer friends, and their antics. He does not see the fascinating operation of the Master Control Board as he did when the Scullys and Prestos were located in a remote corner of the room hous-

ing that flattened Christmas tree. People from the front office almost never come up to the "Bat Cave", as one of the boys calls the Recording Room. Sometimes a whole week will go by, and there will be no visitors.

Now that the doleful picture is presented, we can proceed with the sequel. Not many evenings ago, this unfortunate editor was recording a special Treasury program off of the Blue Network lines. Having consulted the program schedule, he knew that there was to be a feed from Walter Reed Hospital, but, being isolated from operations, that was all he knew. Well, the switch came; there was no customary "Go ahead, Washington", such as one usually expects. The nature of the show dictated that more subtle cues be used, so the listener would be unaware of the switch except for the fact that the participants would tell of their whereabouts. The switch from New York to Washington was perfect, and instantaneous in the strictest sense of the word. The feed was impeccable, and the return switch was so immaculate that even the most critical could not find fault. The recording engineer was highly impressed with the prowess of his colleagues, and remarked about the beautiful display of the art to a visiting studio man shortly after the conclusion of the program. Then, and only then, came the revelation that made this event truly memorable. The lurid report was something like this. Ten minutes before air time, neither of the lines from Walter Reed Hospital was working. The usual floor pacing and patch cord poking ensued, and just a few minutes before the zero hour one line decided to work. This left no PL circuit, of course, on which the Field Engineer could receive his cues. So he borrowed a portable radio from a recuperating service man and, monitoring the local Blue outlet—WMAL, was able to perform the switching job of the century. The engineer who did this fine job was none other than Sam Newman, just recently released from the Signal Corps, in which he was a First Lieutenant. Maybe there is something to this GI training after all.

To separate one anecdote from another, let us mention that Lieutenant Harold Thomasson of the USAAF paid us a visit early in March while traveling from MIT to Boca Raton, Florida. Harold is a communications officer, and finds to his amazement that he has been in the Army a whole year. Yes, the time does fly, even as the AAF. Incidentally, Lieutenant Thomasson is interested in meeting some local female talent, local, that is, to Boca Raton. Any readers having cousins, sisters, friends, etc., there, might write him at that place, enclosing snapshots, specifications, and anything else pertinent. Merely another service performed in this column.

You may remember reading last month about Jim Weaver's experiments in ocular dynamic tension, and how he managed to convince himself and his two eyes that they could get along without the cheaters. Well, to all you followers of the art, let me advise you that Mr. Weaver has just recovered from an attack of the measles, which, as you probably know, leaves one's eyes in rather bad shape. So Jim has his glasses back on, although he orates as how he will start in again without them with fresh vengeance when his eyes get back to pre-measle condition. He insisted that I mention that he had the genuine 100% American-type measles, not the German ones which have been outlawed for the duration. Come to think of it, isn't it fitting to name something as pleasant as the measles after the Nazis? Or is that a rash statement?

Then there is the story of Johnny McCollom, rather

(Continued on Page Seventeen)

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LOS ANGELES NEWS KFI KECA

By H. M. McDonald

EMPLOYEES of KFI-KECA were again presented with bonus checks at Christmas time by Earle C. Anthony, Inc. The majority of the recipients speedily converted "the gift most appreciated" into War Bonds. The Employees' Christmas Party, replete with refreshments, entertainment, and presents for all, was voted a huge success by the 125 who attended, and will probably become an annual affair.

Lt. Norm Leonard, ex KFI-KECA studios, writes from the New Hebrides that he is soaked constantly—with either rain or perspiration.

A V-mail Christmas card from Lt. Willard E. Edwards, U.S.N., somewhere in the Pacific, reports excellent reception of KFI at Midway and Palmyra islands. He was at KFI transmitter for several years before going to Lockheed in 1940.

Rex G. Bettis has returned to KFI-KECA studios, after working on NDRC projects for the past year and a half.

Willard B. Guimont, with airlines around Chicago before coming to KFI-KECA studios about a year ago, has joined the Navy.

Our sincerest sympathy to Carl Estep whose two-year-old son drowned in a small pond recently. Carl, formerly at KFI-KECA, and now engaged in NDRC work, was in the East at the time.

KFI-KECA Supervisor C. W. Seamans, whose lot it is to answer fan mail re signals of these stations at distant places, says he's flooded with reports from Australia and New Zealand lately, both KFI's 50 KW and KECA's 5 KW being heard there regularly.

John Signor, formerly at KGU Honolulu, KFRC and OWI San Francisco, and now returned to the Merchant Marine, writes KFI-KECA studio engineer Bill Erickson from New Guinea that "KFI levels are O.K."

R. F. DeRoy, ex Washington stations WJSV/WTOP, WWDC, and WMAL, is now at KHJ, the Mutual outlet here.

Norol Evans is back at KFI transmitter after a three months absence, part of which he spent duck and deer hunting in Oregon.

Lyman Packard of KFI, going through the chairs of the Elks Club at Anaheim, is "Esquire" at present. If his duties are like those of Esqy, the pop-eyed, blond-mustached gent who gives the double-O to lovelies on the cover of Esquire each month, he's already a past master.

Those of us who were unable to attend T. E. George Tokar's waffle supper, due to a combination of inclement weather, 30 miles distance from the studios and three gallons per coupon, really missed something. In addition to other things, Rancher Tokar served generous slices of home-cured ham from his own porkers. Dinner was followed by bridge, Carl Sturdy winning the contract prize money.

2nd Lt. L. D. Patterson, ex KFI transmitter, writes, from "somewhere in Australia", of being ousted from his comfortable quarters in a stable to a hot mosquito-infested tent at "Headquarters".

Engineers who've recently visited KFI-KECA studios included: Earl Howard Carter, formerly at KLZ Denver, RCA Photophone Denver and Kansas City, and more recently at Lockheed Aircraft here; Robert A. Binkey, ex

WCAE Pittsburgh and WHJB Greensburg, Pa.; Marvin D. Meyers, ex WBAP-KGKO Dallas and KSO-KRNT Des Moines; Charles Edwards ex KGFJ, KRKD and KMTR, here; Don Price, formerly Supervisor at KOIN-KALE Portland, just back from the Islands where he installed submarine detectors for the Navy.

Carl Olson, with Buffalo stations WKBW and WGR since 1929, also dropped in on us a few days ago. Eddie Miller, studio engineer at NBC Hollywood, and Bob Moss, Production Manager of the Blue at Hollywood, were formerly at those same stations. Milton V. Horn, with Buffalo's WBEN from 1929 until recently, is now with CBS-KNX Los Angeles. Another caller, Earl W. Smith, formerly at WKRO Cairo, WPAD Paducah and WLAP Lexington, and now in the Merchant Marine, tells of hearing KFI while in the Indian Ocean, off Perth, Australia, a few months ago.

KMPC Beverly Hills reports: Lloyd Sigma, former Chief Engineer here and now a Captain in the Signal Corps, is in England. Earl Lieske, former studio engineer here and long an aviator, is teaching flying at an Army primary training school near Phoenix, Arizona. Hal Bender, formerly at KFAC and KGER, and Mel Cody, ex KFOX and Radio Central, are at the studios of this "Station of The Stars".

Kenny Ishell, 15 years in radio around Los Angeles, is testing transmitters for Lockheed Aircraft in Burbank.

Aldo Bussi, a civilian engineer with the Fourth Fighter Command for the past year, has resigned, to become a manufacturer's representative (Burgess, etc.) with V. T. Rupp.

Wally Gee is with the F.C.C. in San Leandro.

Daniel Boone, with an honorable discharge from the Army, is back at KFOX Long Beach.

Calvert Applegate, formerly Supervisor at KFVB here, has joined the engineering staff of Western Electric in New York. Myron Schradermeier, formerly at KFAC here, takes his place at KFVB.

Washington News

(Continued from
Page Sixteen)

reminiscent in nature, but perhaps more charming because of this quality. Back in the beautiful days of ham radio, Mac decided to join the clan, so he studied up his theory, and copied commercial CW stations 28 hours a day for several days until he was primed to the gills for the quiz. Well, he went to the FCC, and started to copy the letters that he heard in his headphones. He smiled, heaved a sigh of relief as he found that the letters and numbers came to him fluently and effortlessly. He wrote them down, one by one, without error, until the tape ground out "dah-dit-dit-dit-dah". This floored Mac; none of the commercial stations he'd copied had used such an outlandish character, so he shook his head, wrote down a dash and decided he would try to fill the gap in later. For our non-Morse readers, let us explain that this — . . . — character is the CW man's way of making a dash, so Mac was just about twice as sharp as he thought he was. Maybe Mr. Dunninger has an answer for that one.

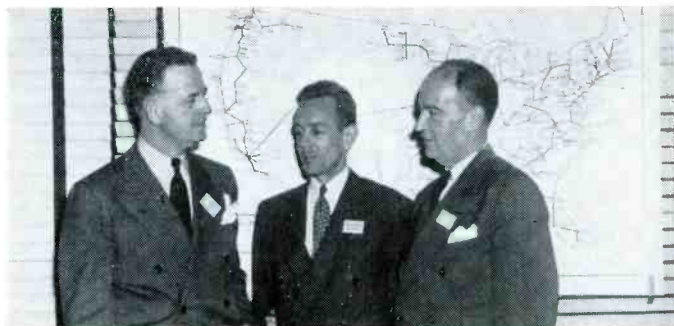
And so the part-time Recording Engineer folds up his typewriter once more and silently steals. Dit-dit-dit-dah-dit-dah!

HUDSON CHAPTER NEWS

By Herman G. Berger

CONGRATULATIONS

A CERTAIN man in Master Control was looking for a raise. Well, not only he, but all the Master men got a raise. Yes, sir, one day the carpenters came in and raised the floor by 4 inches!



Left to right: J. R. Poppele, WOR Chief Engineer; Andrew Poole in charge of Mutual Traffic; and F. R. MacFarland, Program Service Manager, A. T. & T.

Brief highlights of the first Technical Advisory Committee, Mutual Chief Engineers, follow. Place: Ambassador Hotel, New York City. Present:

E. K. Ackerman	WHK, Cleveland
H. E. Adams	WIBC, Indianapolis
H. G. Berger	WOR, New York
B. Boyle	WOR, New York
W. J. Carter	CKLW, Windsor
R. H. DeLany	WHK, Cleveland
H. L. Hadden	WOR, New York
P. B. Harkins	WOR, New York
C. C. Harris	WIP, Philadelphia
Truett Kimzey	Texas State Network
Geo. Lang	WGN, Chicago
Harry Lubke	Don Lee Network
H. H. Lyon	WOL, Washington
F. R. MacFarland	AT&T, New York
H. B. Miller	WOR, New York
A. L. Poole	MBS, New York
J. R. Poppele	WOR, New York
R. L. Raabe	WRNL, Richmond
G. D. Robinson	WOR, New York
I. B. Robinson	Yankee Network
James Schultz	WCAE, Pittsburgh
R. J. Sinnett	WHBF, Rock Island
D. J. Tucker	WRR, Dallas
Geo. Wilson	WKRC, Cincinnati
N. J. Zehr	KWK, St. Louis

The meeting was called to order at 9:45 AM by Mr. Poppele, who talked briefly about the purpose of the meeting and then introduced Mr. Miller McClintock. Mr. McClintock gave a very comprehensive talk on Mutual's past accomplishments and outlined the aims and hopes for further growth in the future. His talk was from both engineering and business standpoints, and was very well received by all.

Next, the prepared agenda was taken up for general discussion:

At 12:30 a recess was called and lunch was served, during which time a talk was given by F. R. MacFarland, Program Service Manager, American Telegraph and Telephone Co. Mr. MacFarland spoke on the functions of the AT&T and its associated telephone companies to network broadcasting.

After lunch the meeting resumed with the afternoon agenda. Mr. Andy Poole, in charge of Mutual Traffic, answered all questions in regard to Mutual's switching plan of the entire network, a copy of which was hung on the wall.

It was decided to hold another meeting about the first week in March, at which time a committee would set up a regular meeting schedule, which they thought would be about every four months in different parts of the country.

At about 5:30 PM the meeting adjourned, after which a general tour of WOR was in order, followed by an invitation to attend a joint meeting of AIEE and IRE at the Engineering Societies Building with an exhibit and lecture on captured German and Japanese Army Communication Equipment by Major General R. B. Colton, Signal Corps, U. S. Army.

Tuesday night, February 29, a joint-going-away-party was given Paul McDonald and Ed Anderson. Paul left WOW October 1 last, to go into electrical instrument design and manufacture. Ed left February 28. He goes with Western Electric in the electrical design engineering division. After about four-weeks' preliminary instruction in Chicago, he will be located in Lincoln, Nebr., where W.E. has recently opened two large plants. Luscious top sirloin steaks were served and all NABET members of Omaha Group were able to attend! Very nice pocket knives (pre-war) with leather cases were given to Ed and Paul as small remembrances from the WOW gang. Ed had just ended ten years at WOW. Good luck, fellows!

Membership applications have been given to Cy Hargman of WOW staff and to Beauford Eaves of KODY. We need operators with telephone firsts — one for WOW and one for KODY. Will try to have more news the next time. Regards.—Roy Glanton, Omaha Group.

EX-NBC ENGINEER PRAISED BY GEN. ARNOLD

Clarence G. Stoll Pres Western Electric Co
I wish to express my own appreciation and that of the Army Air Forces for the invaluable assistance given by two of your Engineers CMA Mr Eh Sharkey and Mr HL Clark CMA who working in the field under most difficult conditions made it possible for the Army Air Forces to take the offensive with telling effect against Japanese shipping in the South and Southwest Pacific areas under conditions which would normally have made such operations impossible. These men are to be highly commended for the thoroughness and skill with which they discharged the tasks assigned to them

(Signed) ARNOLD WASHN DC

H. G. Clark was a WTAM transmitter engineer for six years and left last year to do Army work with Western Electric Co.—B. P.

CHICAGO CHAPTER CHATTER

By Arthur Hjorth



Major L. L. Washburn

Major L. L. "Wash" WASHBURN, NBC studio engineer on-leave born Terre Haute, Ind., Oct. 15, 1906, where it is assumed he grew up as a boy, finally graduating from the University of Illinois with an E. E. First with Wisconsin Telephone Co., in '27 then to Graybar at Chicago in '29, thence to Boom (Tweet) Electric & Amplifier Co., in '33 when NBC grabbed him up for field at the World's Fair.

CHUCK "works all the shifts around-the-clock" CORLISS of NBC Control is a member of three police departments, Harvey, Homewood and Lansing. By virtue of his ability to keep their radio equipment in operation he is able to tour these three villages with police escort. BILL "Skokie-Valley-Flash" COLE, please note.

Recently while in studio 'C' with WMAQ's Early Bird Show, DON J. WILSON disemboweled his watch and in the confusion of opening a fader lost the hour hand. Hours later, ARCHIE, Production Chief of studio 'X', was still searching for Don's missing hour . . . hand. Dick Wehrheim has another customer.

Since GEORGE "sign-the-petition" MAHER, NBC NITE STUDIO sold his apple orchard in Arkansas he has no more limbs to leave himself out on.

MAUREY DONNELLY of WLS STUDIO was rushed to the hospital for a serious operation resulting from stomach ulcers. Councilman Donnelly reported recovery slow but satisfactory.

Only news from the 'Q' transmitter is that EMERSON SQUIRES piled into a twenty-foot snowdrift recently while doing forty miles per hour (no, musta' been 35) on the way home from 'Q'. 'Q' news commentator ALDRED reports that it took four men and a dog three days to dig him out or maybe it was three hours. What was the dog for? Having no other news from this group it is assumed they are all alive and well and happy since the transmitter is heard on the air occasionally.

WENR transmitter Group report their Chief, Homer Courchene, has given them all an extra stick of peppermint candy since his lovely wife Lenore presented him with a baby boy of 8.6 uufd capacity, February 19th!

Lieut. HOCKIN, NBC engineer-on-leave, stopped in Chicago for a few hours recently, just back from Guadalcanal. Asked for comment, he said the place had no 'B or B'. (beer or babes).

Lieut. CURTIS L. PIERCE, Chicago Field Engineer-on-leave, (BLUE or NBC?) has announced a production. Good wife Catherine presented him with a baby boy on St. Valentine's Day. Lieut. PIERCE is stationed at Buffalo. Information via busy Field Supervisor M. W. RIFE.

Sweet memories of the words "I DO", will faintly tinkle during April for Elisabeth and W. T. Knight (17 years), Eva and R. A. Mingle (16 years), Estell and Dick Wehrheim (16 years) and newlyweds (nearly) Vitalis and Clarence Wise (10 years).

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San Francisco

By Bob Shover

Radio Goes to Sea, as Described by Bill Baldwin of the Blue

THE thrilling story of the shakedown cruise of one of the United States Navy's newest ships—a deluxe submarine tender—was brought to life in a series of exclusive broadcasts to KGO and the BLUE Network from 10:45 to 11:00 a.m. Monday through Friday, February 28 through March 3. Titled "Radio Goes to Sea", the series featured recorded interviews by Bill Baldwin with practically all the crew members, and recordings made by Clark Sanders of the firing of some of the ship's automatic weapons.

Bill Baldwin, Blue Network special features director, and Clark Sanders of the BLUE engineering staff, complete with recording equipment, were chosen to broadcast to the United States direct from a ship at sea during wartime—for the first time in radio's history. The skipper of the 20,000-ton vessel, Capt. Robert W. Berry, USN, gave Baldwin and Sanders the run of the ship—and in the three days they were at sea the pair recorded approximately three full hours of the doings of this huge Navy ship going through its paces—visiting the foundry, machine shop, carpenter shop, sickbay, kitchens, engine rooms, wardrooms, signal bridge, etc.

In order to get a perfect reproduction of the cruise, Sanders took aboard an ND-10 and associated equipment—a portable cutting table and approximately 300 feet of mike cable. . . . Two RCA mikes were used, an 88-A and a 50-A. The total weight of this equipment ran close to 500 pounds and according to Baldwin, some of the best laughs of the entire trip was watching Sanders hauling this apparatus up and down "ladders", as the Navy calls them. . . . Cuts were made on four different decks, necessitating the moving of the equipment each time. However, for the cutting of any material on the top two decks, an office "topside" was turned over to the boys and from then on everything was peaches and cream.

Interviews conducted by Baldwin included almost every-

one on the ship—giving a complete and interesting story of just how one of our ships at sea is manned and what takes place during a shakedown run. Heard on the Monday through Friday series of broadcasts was the skipper, Captain Barry; Joseph A. Moore, Jr., president of the Moore Dry Dock Company of Oakland, which built the ship, and signalmen, gunners, ship's cooks, bakers, butchers, doctors, dentists, machinists, and other members of the crew—all of whom were enthusiastic about their new ship and are ready to tackle anything in the way of repair work for our submarines in the Pacific.

The signalman was interviewed just as he was sending a message by means of a light to an escorting blimp. The head dentist told that aboard this ship they can not only repair submarines—but can build an entire set of false teeth if they have to. The galley and mess hall provided good broadcast material, and it was learned that the ship can carry enough fresh food, meat, vegetables, fruits and fresh eggs to last for six or eight months for the 1100 crew members of this ship, and for the crews of the submarines attached to her. Baldwin, incidentally, says he put away the biggest and best steak he's had in two years.

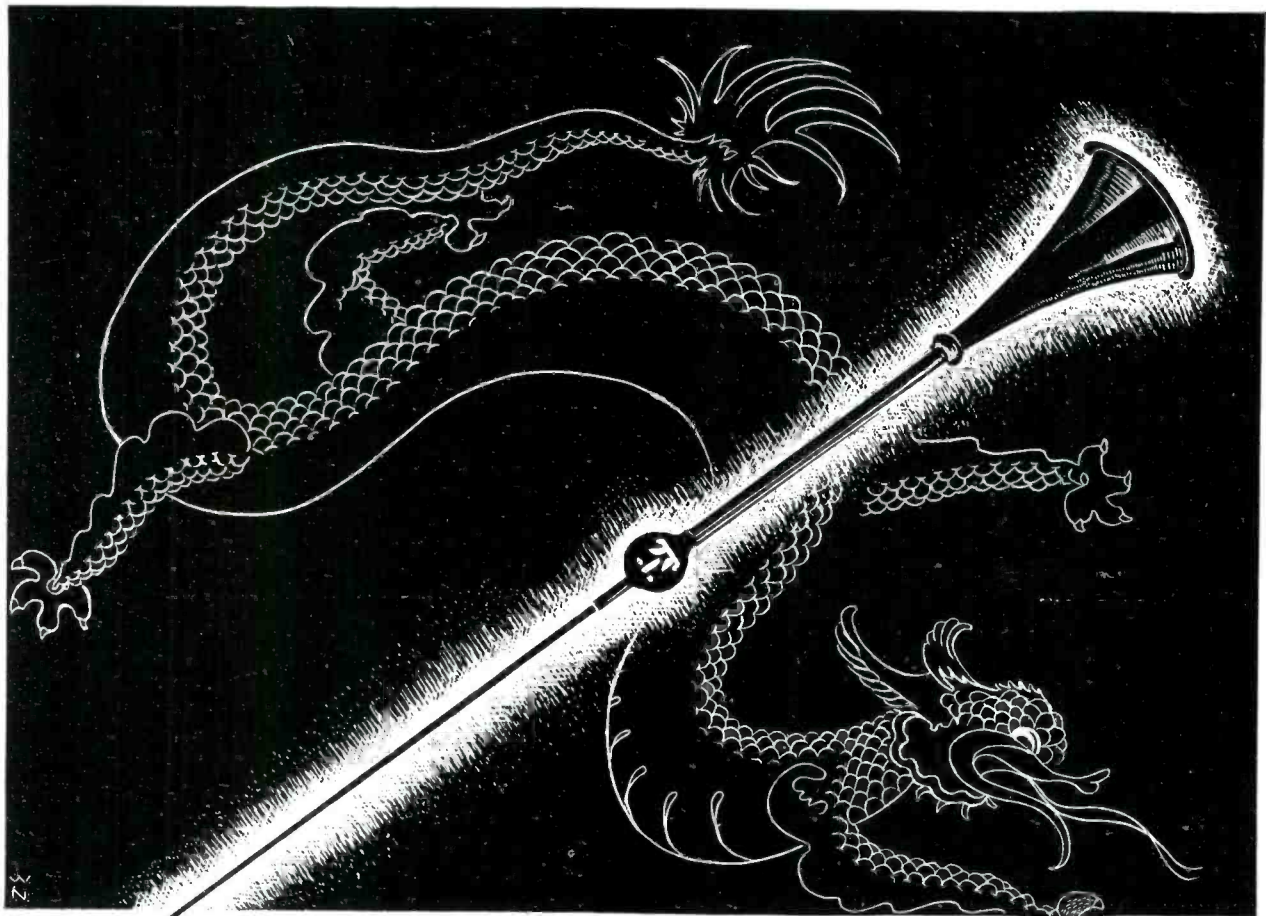
Another scoop on this exclusive series of broadcasts is some of the finest sound effects known of the firing of 20 and 40 millimeter automatic weapons, breaking away from this, general ship's noise, engine and funnel sounds and battle alarms. Sanders started out by recording the sound of the larger forward guns, but found out that they not only cut through the acetate transcriptions but halfway through the aluminum base of the transcriptions as well. So they decided to forget about the big ones and concentrate on the automatic weapons.

Yes, "Radio Goes to Sea"—and Bill Baldwin and Clark Sanders have come back with an exclusive and highly informative story for KGO and BLUE Network listeners—another in their series of action broadcasts about the war and the men who are taking part in it.



(Left): **BILL BALDWIN**, Special Events Director KGO-BLUE NETWORK, San Francisco, who recently told the Pacific Coast BLUE audience just what it was like aboard a new USN Submarine Tender plowing the Pacific Ocean on its initial shakedown cruise. (Right): **CLARK (RED) SANDERS**, KGO BLUE Engineer, takes a squint at the cutting being made of the recording of 40 millimeter guns aboard a new Submarine Tender somewhere in the Pacific Ocean during its shakedown cruise, which the Blue Network reported exclusively.

Official U. S. Navy Photos



THE LINGO ^{OF} THE LA-PA

In these past years, the Chinese have heard much military music. In this, as in all other matters, there is little similarity between the Asiatic and the European. Their scale of musical notes, their tempo, and their instruments are entirely different.

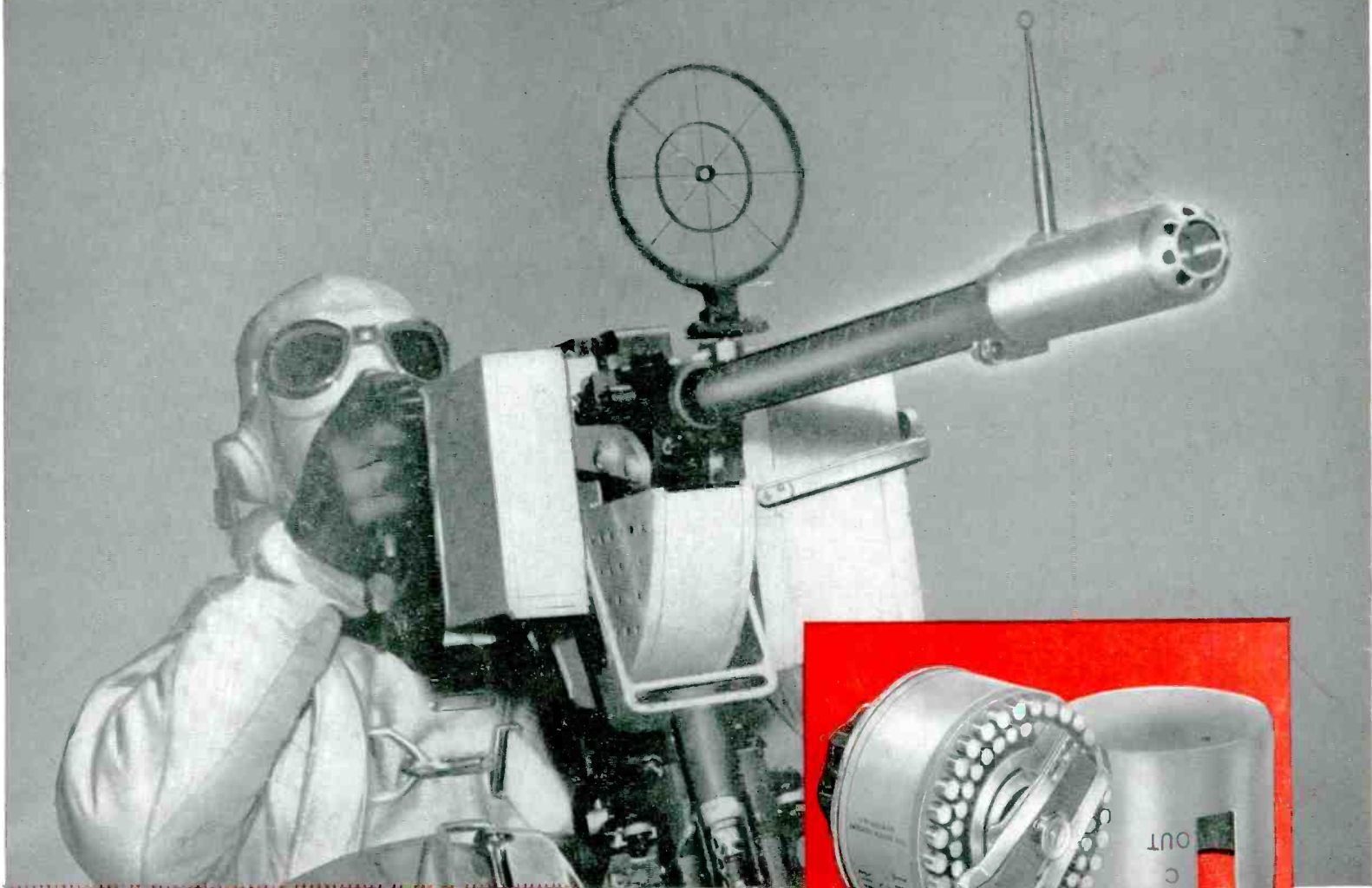
A popular Chinese instrument, used chiefly for martial music, is the la-pa. Although somewhat like a trumpet in appearance, it produces sounds, in the manner of a trombone, by lengthening and shortening a sliding section. The la-pa has less militant use, too. In wedding processions, in the hands of itinerant knife-grinders who use it to announce their whereabouts, the la-pa is a common sight.

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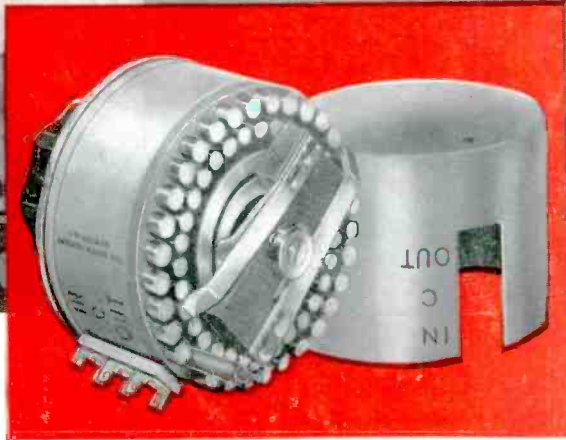
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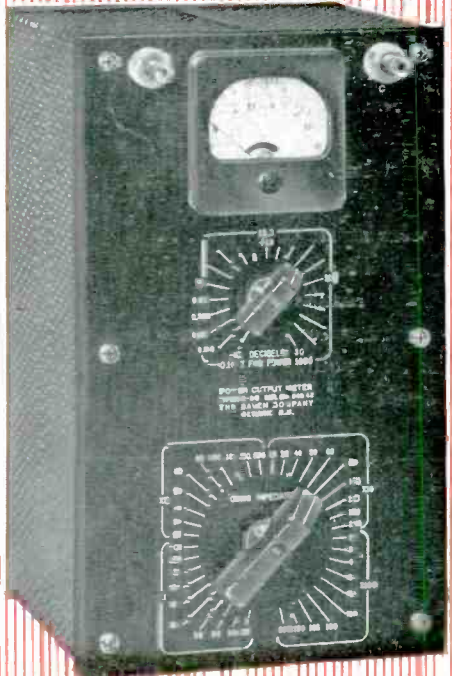
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