The RADIO AMATEUR NEWS

Volume 1 APRIL, 1937 Number 1

10¢ PER

The Radio Amateur News . . .

"THE MAGAZINE WITH ALL THE NEWS FOR ALL THE AMATEURS"

All Amateurs and Amateur Radio Clubs are cordially invited to use these pages for their activities . . . let's get together and make this a real magazine.

Published monthly in the interest of Amateur Radio

by W6CL, Bert F. Ayers at 1315 East 58th Place, Los Angeles

The Radio Amateur News

"The Magazine With All the News For All the Amateurs"

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.We invite all Radio Amateurs and Radio Clubs to contribute articles to this magazine, although we reserve the right to censure articles unfit for publication. .

.This magazine is printed entirely for the benefit of Radio Amateurs and "the more dope, the better," however this magazine is not responsible for statements made by contributors and do not guarantee any statements or circuits published to be correct; we will endeavor to check the authenticy of same.

"THE RADIO AMATEUR NEWS" is published by W6CL, Bert F. Ayers, 1315 East 58th Place, Los Angeles

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Mutterings of an XYL

By V. MORGAN (XYL of W6NOF)

Women may have woes to bear
As countless wives could tell,
But you can get an extra share
When you're an XYL.

Your home, or should I call it that—
It's littered everywhere.
Solder on each dress and hat
And tubes on every chair.

Friends we've lost, they came, they saw,
They won't forgive the wrong
Of ringing our front bell and draw
An arc three inches long.

Within the door they stand and stare
At turmoil, wires, muss—
Earthquakes really don't compare.
For cyclones come to us.

An hour here, they yawn, they wish
That they off once more,
As husband talks his gibberish
They edge out towards the door.

When leaving they will always say,
"Poor dear, what can you do?
It's pitiful he's turned that way—
And such a nice guy too."

Our meals are always waiting cold,
I sometimes say, what next—
All life just waits and so why scold
When he finds hot DX.

But in my heart despite this gab
It answers, "What the hell—
You know you lie—you'd fight, by grab
to be an XYL."

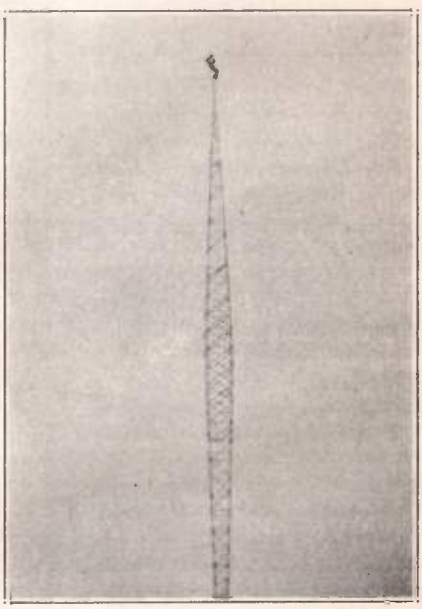
▼

All tram cars in Melbourne have been fitted with loud speakers which announce the names of the stops. Sorry, but the driver does the announcing.

Darwin Was Right!

For a long time the public has been dubious of Darwin's theory of evolution but it took a ham to prove his theory. In the picture we see a 100 ft lattice tower belonging to W6LFC who found, to his dismay, that the rope broke and slipped through the pulley.

After pondering for several hours, he asked himself the question, "Was Darwin right?" Yes I believe so! Off he went and picked up FMK our old friend Aldo Bussi to climb the pole and put the rope back in place.



You can see for yourself FMK sitting on top of the pole, apparently realizing no danger at all. Our only solution to this must be "Darwin was Right!"

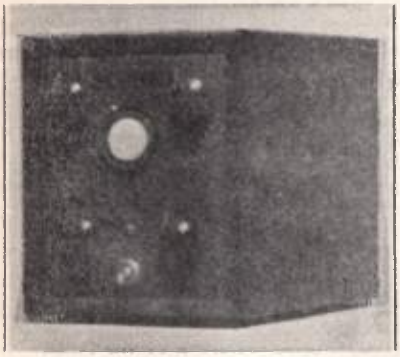
But we will go further and say that this is a moral story—be sure the rope does not come thru the pulley—or else.

If, after reading this magazine and you like it, or can suggest something that might be better, or something special you would like, drop us a line, we will be glad to hear from you.

An Inexpensive Cathode Ray Oscilloscope

By E. Marvin Hopkins, W6LGR

Since the introduction of the 913 cathode ray tube it has been possible for the average amateur to build and own an oscilloscope.

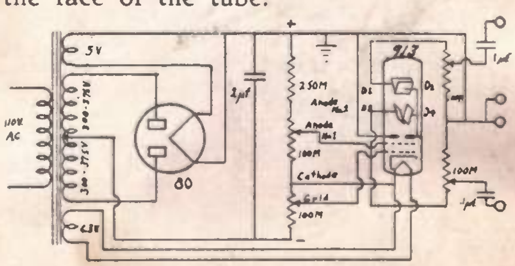


The oscilloscope is in no way limited in its application and can readily be used for the study of wave shapes, measurement of modulation and peak voltages, adjustment and location of faults in transmitters and receivers, etc.

The circuit is conventional and almost exactly that given in the RCA bulletin accompanying the tube. The change in the circuit is to provide some method of controlling the amplitude of the voltages to be applied to the vertical and horizontal deflecting plates. No provision has been made for an A. C. sweep voltage, except by an external connection, because of the fact that the scope was designed primarily for the purpose of checking the percentage of modulation by the use of trapezoidal patterns. For work where a 60-cycle sweep is necessary the A. C. voltage can be connected to the horizontal deflection plates by means of binding posts on the back of the scope. The 1mf condensers placed in the vertical and horizontal voltage leads should be of a high voltage type because of the peak value of the A. C. voltage to be applied to the scope.

As far as the mechanical construction is concerned pains were taken to make the scope as compact as possible. The complete unit is built in a metal box 6x5½x8 inches. The tube itself is mounted on two strips of angle iron, one mounted on the front of the box and extending back about half the way and another one from the top of the box down about two inches, the socket is mounted on the strips of angle iron. The socket has to be rebuilt so that the tube can be rotated in order to have the vertical and horizontal deflecting plates in the right plane. The power transformer is mounted on the bottom of the box and no chassis is used so that there would be more room for the other apparatus. Four binding posts are mounted on the back of the box, for connecting the voltages to the vertical and horizontal deflecting plates.

For checking the percentage of modulation connect the R. F. voltage to the vertical deflecting plates and the audio voltage to the horizontal plates. To check the carrier of a phone or c. w. transmitter connect the R. F. voltage to the vertical deflecting plates and the 60 cycle sweep to the horizontal deflecting plates. For a perfect transmitter you should obtain a rectangular figure, any a. c. component in the signal curves the top and bottom lines, even to the extent of forming figure 8's. The scope can be used to neutralize the transmitter by applying the R. F. voltage to one set of deflecting plates, and adjusting the neutralizing condenser until there is no longer a line on the face of the tube. In other words adjust the neutralizing condenser until there is only a spot on the face of the tube.



An excellent discussion of the figures that will be obtained with a scope will be found in the back issues of QST and Radio, the current handbooks, and John F. Rider's "The Cathode Ray Tube At Work."

The Los Angeles Flood

By Harold Rider, W6OEF

Once again the amateurs came to the rescue in the recent Los Angeles Flood, although it was no where near as serious as those in the east but any flood is serious and little do most people know of the great work done by these boys.

It was on the evening of February 13, 1937 that the first QST was sent out by W6HUM for portable 160 meter transmitters and portable mobile 5-meter equipment. W6MQS was the first to respond and immediately moved his 160 meter fone rig to the American Red Cross Headquarters at Pico and Vermont.

Portable W8GHA then sprang into action and set up his 160 meter fone rig at Culver City, which was later removed to the Venice Pier. The flood conditions in Venice were quite serious and the boys lost no time in getting their 160 meter fone and the 5 meter portables into action. Due to receiving conditions and the quick installations W6MQS was not able to receive the station at Venice and W6GVT at once acted as a go betewen, this worked out very well as W6GVT experienced no difficulty in receiving the Venice station.

A very good job was done by W6NXW in keeping the frequencies clear during that time and assisting in flood traffic. Our hats are off to W6EQ in Lennox, the only amateur station in that district in communication with the Red Cross Headquarters. He operated his rig with the floor of his shack covered with water, which, to say the least, was most embarrasing.

W6MXX acted as relief operator at Venice and W6ESK also brought his 160 meter fone rig into play at the Red Cross Headquarters at Los Angeles, acting as a relief station.

W6OHW was in charge of the sea scouts operating 5 meter portable mobile units at Hawthorne and Lennox. The water was steadily rising at these points and traffic was being handled fast and furious.

The 5 meter net control station, between the 160 meter fone station at Venice and the 5 meter units operating in boats in the near vicinity, was operated by W6KSX.

It is hard to realize the amount of traffic that was handled and the hardships that some of the boys went thru. W6MQS left San Diego on Saturday morning, February 13th, drove to Los Angeles in the rain, operated his station all Saturday night and all day long Sunday, then drove back to San Diego late Sunday night. Due to the rain and washed out roads he did not arrive in San Diego until Monday morning. For 24 hours, W6GVT never left his transmitter, while portable W8GHA burned the midnight oil. The same is true of the 5 meter mobile stations who labored all night in the cold and rain.

The water reached a height of 7 feet in some places and between 300 and 400 families were evacuated from their homes with considerable loss to their property. All kinds of traffic was handled, including several hospital and doctors' orders for medical supplies.

The 5 meter mobile units which were operating from small boats were in constant communication with the 160 meter outlying stations and were, to say the least, playing a very important part in this battle against the elements.

Mr. Al Gordon of the American Red Cross is to be congratulated along with the following amateurs who took part in the program.

160 METER STATIONS

W6MQS	W8GHA	W6ESK
W6GVT	(Portable)	W6OEF
W6NXW	W6HUM	W6OHW
W6EQ	W6MXX	

5 METER STATIONS

W6OHW	W6KSD	W6KSX
W6HPD	W6JPP	W6MYG
W6ASW	W6MLR	

Portable Power from Ford-T Generator

Much has been said about emergency equipment to be used for possible major disaster work or a more pleasant thought is field work, or an outfit to take with one on their vacation. The thought behind this article is that most amateurs have their hands full without taking time out to build special low drain battery equipment.

Most amateurs could use the receiver and low power transmitter or key the exciter unit of their rig if only they had 110 volts A. C. when the power fails. Portable power plants most always go farther than the bottom of the average amateurs pocket and is out of the question when the YL or XYL likes to go places every Saturday night. Amateurs are not entirely out of luck if they don't mind a little work, for a model T Ford generator can easily be rewound into a 110 volt alternating current generator with a minimum of labor. If properly built it will deliver up to 200 watts at 110 volts with no overheating.

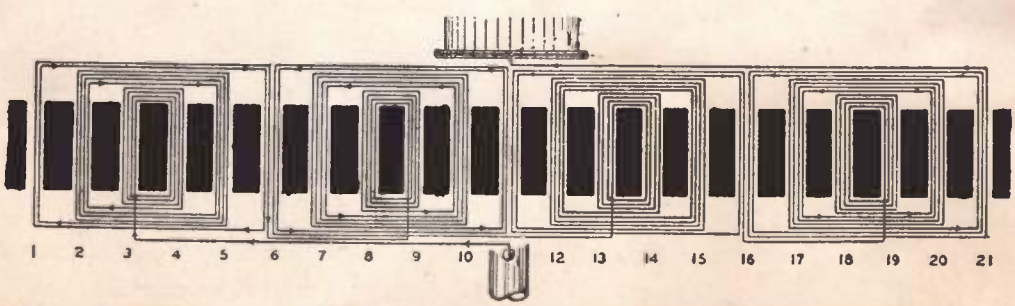
All that is needed is a generator with or without a burned out armature coils to be used as the alternator. New coil windings will be placed in the slots. After taking the generator apart some tool such as a screw driver or ice pick is used to pry the old windings from the commutator after the wedges have been driven out of the slots. To finish the job of cleaning, all insulation must be cleaned from the slots in the armature.

The wire for the rewinding of our power plant is one pound of No. 25 S. C. E. magnet wire and enough insulating paper (be sure it's the kind used for this work) to line the slots on the armature, also 21 thin wedges, and enough bakelite varnish to soak up the windings when finished.

The commutator must be made into a single ring on which a single brush that is insulated from the body of the generator will be the terminal of the 110 volts. The winding on the armature is one continous winding with one end soldered to the insulated commutator ring and the other end will be soldered to the shaft as the common ground. To make a ring of the commutator a heavy wire is soldered around the commutator to short out the bars. The 110 volts the amateur wishes to use will be taken from the common ground and the one brush left on the finished alternator.

The procedure of winding is as follows. The gear end insulating lamination is held in place with by a fibre washer; loosen this and remove old lamination and slip on the new and fasten in place with a little cement or glue. Cut the other end insulating lamination in half and cement in place on the commutator end.

Insulating strips next are laid down into the slots to line the walls and this insulating material should extend out about 3-16 of an inch past the ends of the core so they can be folded over the insulating ends previously placed on the core. Cut 21 pieces of .007 insulating paper 2 and 1-2 inches by 1 and 3-4 inches, to be placed in the slots before laying in the winding. This paper that line the slots should also extend an 1-8 inch above each slot so it can be folded



down on top of the wire after winding so the wire willl not be injured when the wooden wedges are driven in to finish and make the windings permanent. These wooden wedges which fill the mouth of each slot can be obtained from any armature winding shop along with the insulating paper. It might even be a good idea to get the owner of the shop to give you a price on the winding of this armature as it might, you know, be every bit as cheap as buying all the necessary material.

To begin the winding one must number each slot with a colored pencil so they will correspond with the numbers on the slots on the drawing. One end of the wire is made fast with tape or other means on the gear end of the shaft and starting at slot No. 3 you wind approximately 80 turns in slots 3 and 4. Pack the wire down tightly into the slots every few turns with some blunt tool, for one must be careful not to spoil the insulation on the wire.

From slots 3 and 4 you go to slots 2 and 5 and wind 80 turns and from slot 5, the wire goes to 1 and 6 and place in full forty turns, and you have finished winding one of the four poles.

Next you wind the remaining three poles, always being very careful to follow the drawing. The end of the wire should come out from the slot No. 21. Before one goes farther they should make a test to see if the wire insulation is broken and the wire is grounded. It might even be a good thought to test after each coil to see if there is a ground it might save much work. When you find there are no grounds the paper is folded in on top of the winding and the wedges are driven home.

The wire that started the winding in slot No. 3 is soldered to the shaft for the common ground and the wire end coming from slot No. 21 is soldered to the insulator commutator ring.

Now that the armature is wound and finished it needs only to be dunked in the varnish and put in a fairly hot oven and baked until the bakelite varnish becomes a good cherry color.

The case of the generator with its field coils is cleaned and some of that ham rig paint put on the outside would not hurt the looks any.

The lead s from the field coils are brought off to the D. C. 6 volts used to excite the field. The field coil across a battery only draws about 2½ amperes. All brushes are removed from the frame of the generator except one that is insulated from ground and this brush picks up current from the commutator ring, this brush is connected to the insulated cutout terminal on the generator frame. The 110 voltage will come from the grounded shaft and the output terminal.

This alternator can be driven by many kinds of portable power. One suggestion is to mount it on the auto permanently driven by the fan belt, as a quarter horse power motor will drive the alternator to 200 watts before the motor is stalled. A switch can come to the dash from the battery to the field winding.

The cycle of the alternating current of this or other alternators is controlled by the speed of which the armature is turned over. About 2,000 r. p. m. is the correct speed and the size of the pulley you use on the shaft plus the idling speed at which the car motor will turn over must be taken into consideration when the alternators speed of 2,000 r. p. m. is being worked for.

The voltage from the alternator will climb far above 110 volts if the load is dropped at any time below 200 watts; therefore if the receiver draws less current than the transmitter when power is thrown from one to the other, a dummy load must be placed along with the receiver when power is transferred from transmitter back to receiver.

An A. C. voltmeter on the dash will keep the voltage to about right by adding a 50 ohm, 200 watt capacity rehostat unit connected in the power line will give the desired voltage.

This power supply need not be driven from the engine of the car but can be made really portable by a little clever work on the part of yourself. Junk yards

(Continued on page 26)

WITH The CLUBS

We would like to put in a word here about the Club News. Due to the fact that this is the first issue, time was scarce and we unable to contact all the clubs for their news, however we have had some promises for next month and chances are that all sections will be well represented Club Reporters should mail their news to W6CNJ, H. Allen Smead, 6901 Orchard Ave., Bell, California, not later than the 20th of the month.

We would like to compile a list of all the Clubs and would appreciate any information regarding their location, date of meeting and the officers. We feel that all amateurs and all clubs be well represented in these pages and club activities should be well advertised if you want the other amateur to attend your functions. This service is free to all clubs and amateurs.

Let's get together and have some of that information from the clubs because the other clubs like to know what is going on.

▼

THE UNITED RADIO AMATEUR CLUB

OUT OF THE AIR FROM ABOVE THE HARBOR

A very cordial welcome to our new magazine. May it enjoy much prosperity and the support of every amateur in our district.

Now that the winter is about over, all the boys are dusting off their five meter mobile rigs with a view of putting some licensed signals among the bootleggers.

Al Goodyear, W6ERT now in competition with Holland You ought to see his windmill—Says it's FB on ten wid lots of DX. The Mud Dux W6MDX has been sick and took a trip to the desert. Took his portable along, but we're still waiting to hear it.

Bill Bradford, W6HCF did such a good job on his portable xmitter that we put him to work re-building the club rig. Our legal light W6NDC, Arch Eckdale finally on ten wid his RK20 in the final. What are you saving the 150T's for, Arch?

We've looked thru all the Handbooks but haven't been able to find the answer as to how to cure the Dope of YLitis. The Treasurer would post a reward, but is afraid Dope himself would claim it.

Congrats to Charley Feay on his QST on 160 pre-Bell Club meetings.

Pete Bartelli, W6CLY and Al Sayer, W6IVG busy on QRR work for Los Angeles.

Our meetings are held every other Friday night and we invite all hams to attend. Speakers, Movies, Raffle and something new all the time.

▼

Ultra High Frequency Club of Southern California

President, Paul D. Langrick, W6PT
Vice-President, Chas. Dixon, W6NXQ
Secretary-Treas., Wm. Stone, W6FAV

With the great open field of ultra high frequency wide open the purpose of the Ultra High Frequency Club of Southern California is ot bring together all the Radio Amateurs and their vast store of ideas into one solid unit of working power. The meeting and assemblage of ideas is the one way to do this if you are to gain from the failures of your brother Hams.

The President Paul D. Langrick, W6 PT and the other officers of the club extend a most hearty welcome to all those interested in the ultra high frequency de-

velopment and also at this time let it be known that this is a Radio Club with a legal statis and none otherwise.

The meeting place of the Ultra High Frequency Club of S. C. is at Meyberg Electric Co., 21st and Figueroa Sts., at 8 p. m. on the first and third Mondays of each month.

All amateurs who have been in Radio any length of time know Paul D. Langrick, W6PT, the President and for those that don't they should, he has been with the Ultra High for a good many years and is well versed in his knowledge of the ultra high frequency spectrum.

The Club has in the past had many very fine speakers and it is the Club's policy to continue with the policy of trying to obtain the best speakers in the radio field for the members and their friends.

We invite all interested in either Red Cross and Forrestry nets as the activities of the Club are in the duties of that order.

The Club adjourns its meetings with f. b. prizes.

Look for News and Club activities in later issues of this magazine.

▼

The Los Angeles Radio Club organized and held their first meeting on March 10, 1937, having about 150 present. It was a gala affair and the speakers they have lined up will take care of the future in good shape. The meeting was held in the Royal Palms Hotel, 360 Westlake Avenue, Los Angeles.

President W6CNB handled things in first class order and some mighty fine prizes were on display.

From all indications this club will go to town in a big way.

We hope to be able to contact this club for some news next month.

▼

Another fine club is the Orange Co. Radio Club, holding their meetings in Santa Ana. More dope from this club will be obtained next month, and from all indications from our tours around their vicinity showed some mighty fine antennas, which probably indicates some real transmitters, Imagine iesie

W6LYM is president of their organization and from what we know of him the rest of those fellows must be swell fellows, and we are going to visit them next month to see what really goes on down there.

▼

The Long Beach club has reorganized and is now holding their meetings every second and fourth Fridays at the City Hall on the third floor.

▼

Frank Wiggins Trade School Amateur Radio Club

President, Albert Battalico

Vice-Pres., Albert Aroyo
Secy-Treas., Ruby Thompson.
Sgt. at arms, Charles Steele
Communications Manager, Ed Simon

A club of 67 members many of which are prominent amateurs.

Club Call, W6YAS

As time does not permit us to give all the dope for this month we will be back next month with some dope. The members are all working on some fine stuff and we will let you know about it.

▼

THE BELL CLUB

W6EJZ, President Feay is all smiles since he has been relieved of creating all the activity in the club and gives W6 LFC much of the credit.

W6GXM our S.C.M. is now a full fledged member of the club. Would not be a bit surprised if soon we have a nice drop in insurance rates out our way since he and W6WT are among us.

W6SJ from down Radio Supply way with friends were certainly welcome at club meeting . . . and how.

W6FMK has had outside speakers on every evening except one since the first of the year.

Twice recently we have been exceedingly fortunate in having the Editor of "Radio" W6BCX, Woodie Smith, as a speaker. giving us the dope on the new 50 watt exciter unit.

Earl, W6IGO has his hands full of late with many contests. He just gave at the last meeting the details of the QRP contest. The first prize will be a 35T with 2nd and 3rd prizes of Taylor T20's—seem to have taken hold. Dates of the contest will be from March 20 until April 5 with transmitters on display March 23.

In the contest run by W6IGO on crystal receivers, Mr. Young, Jr. was the winner.

W6OEF is doing alright for himself with such DX as Wyoming on 160 meters and no Kilowatt rig.

W6MQS has been transferred to San Diego, too bad; last time we were over to his QRA we got much good eats; first time ever had all the lemon pie I wanted to eat.

Larry, JWJ has been giving short, 10 minute talks on uses of Ohms law—not that anyone in the club needed it.

W6LGR, Marvin Hopkins, one evening displayed his 913 Oscilloscope. In fact he was liked so well that they asked him to speak on another evening on Cathode Ray Oscilloscopes and their uses to the ham.

Bell members were treated very fine the evening of Feb. 5th, when our Caravan went to San Bernardino in the course of the evening they visited the Police Station—almost forgot to ad they went to see the Police Radio Station—it also rained that night.

W6EJZ and W6PT went to Carlsbad when the Palamar Radio Club had their blow-out—again it rained — there has been made the suggestion that we have a speaker on swimming so members can get home from DX social functions.

One item is rather hard to report and that is of the one minute of silence that was observed for our late member, W6-NVU, Roy Derry, because of his silent key.

W6NHZ was given applause for the letter of congratulation he received for his perfect copy of the message sent out on Navy Day.

W6LAK said he would not enter QRP contest for there would be no fun working low power as he is an old hand at QRP.

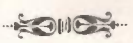
W6LFC and W6AM have their heads together making plans for famous out of town amateur notables to address the club. Better stick around when these big events take place; Not that our regular line of speakers are not better than good. Will be just your tuff luck if you miss any.

Those who were not present the night Mr. Homsey from the U. S. monitoring station in San Pedro gave the romantic side of a radia inspector's life, with stories of the actions of the bootleggers, missed much.

W7FAR that Charming XYL of W7-CHK (the new members from the north) had no sooner gotten settled than the house was sold from under them. And the last I heard Harry was out trying to find a new QRA.

REMEMBER:

Anything that an amateur does is news . . . if you have any pet circuit, design of transmitter or receiver . . . things that might interest other amateurs . . . shoot them through to W6NGQ and he'll do the rest. Incidently, save your pictures for our picture contest coming up very soon . . . Prizes are being arranged now.



Harold Rider, W6OEF, is on the lookout for something different in the line of 5-meter mobile equipment, maybe you have something to get him all hot and bothered about.

And "Lefty" W6GHU, needs all that DX News for his column, you can probably catch him anytime on 20 meters—if not his QRA is 4670 Gage Avenue, Bell, California, a postal card will do the trick nicely.

Also old Bill Driml, W6NAT, is wandering around with a camera under his arm looking for a good story about a rig, he is just as likely to drop in on you as not.

By Ray Harmon, W6GHU

Instead of ahemmin' and ahawin' around trying to think of something clever to start off this little session, we'll just start with some of the results of the DX contest. More of the dope could have been had except for the fact that none of the fellers are home anymore now that the contest is over. It seems that one of the gang that had a good score, douses all the lights in the house when he hears a "hi" tapped on the door or blown on the horn. Showing what a 90 hour stretch with the earclaps on will do to a fellow.

To begin with the scores on the west coast doubled those of last year in nearly all cases. W6CXW being the top man (to date on the west coast, with a seemingly impossible score of 114,000 points due to qsoing 7 countries on 3.5 mc, 40 on 7 mc, 60 on 14 mc, and 35 on 28 mc. A total multiplier of 142. CXW used two rigs in the tests, one for 10, 40 and 80 mtrs and the other one permanently on 20 mtrs. Both of these rigs used 1 kw input to a pair of 150T's. Henry thinks he could have done better if more time had been available for putting up atennas before the tests, as it was, he only had nine.

W6GRL wound up with a score of 94,000 pts. This score would have been exceeded considerably except for the fact that Doc's Receiver went haywire the first night of the contest and not a contact was had during the whole first day. Rumor has it that W6GRX has a score of 90,000 points, but there was not time to verify this as he is busily knocking them off in the fone contest. This shows what good opping and taking advantage of conditions can do. 400 watts.

W6KRI seems well satisfied with his results in the contest. Dale was on for only 70 hours but wound up with a multiplier of 99 and a score of 53,000. He also got five new countries (CT1, YS, ZK, HS and FM8) to make his total 116 countries worked.

W6KIP came through with a nice score of 35,260 points. This is really a good score when one considers that Alex was not home in the evenings, due to work. So he lost out on quite a bit of the rare Evening stuff. Alex uses a 150T in the final on all bands. His multiplier coming from 20 countries on 7mc., 35 on 14mc and 27 on 28mc. He also added some new ones to his list. (YM, YL and HS). This gives him 88 countries and 33 zones. W6KBD gives his score as being 15,000, which is some going as Art is one of the low power lads of the district. He uses a 35T with about 200 watts. Art's pride and joy is that long wire antenna of his. This antenna seems to stretch about six feet each storm but that merely adds a half an "R" to his reports, pointing due west with a nice tilt, this antenna places KBD right up in the top in Africa. His score is 84 countries and 36 zones.

W6MHH "Rapid QSY Warner (one hour per band) bought a nice shiny RME 69 for the contest and managed to romp off with 15 European qsos in one night (Recvr? ?). Has two VEE beams and uses 4-801's in final with 500 Watts. Although on for only a short time he managed to get 9000 pts and 18 new countries.

And of all things, could you imagine anyone rebuilding during a DX contest? No, we couldn't either but, that is just

what that "210 club" boy W6GAL did, and just so he could enter the fone DX contest. It's astounding the depths hams can descend to. Now has 102 countries by the official lists and 105 by the "210 Club" count.

Boy! How that ole 28mc band kicked through this year. W6BAM qsoed 19 different European countries there. No dope on the rest but, understand that he uses a Taylor 814 with 500 watts and a 66' zepp to give him a score of 26,000 points.

K5AY appears to be safely in the world lead with a tremendous score of 256,000 points. Some ops. W1SZ will give CXW a good run for his money, 1SZ has a multiplier of 145 and a score of 114,500 points.

XE2N topped his last year score but still far behind K5AY, got little over 200,000 points.

When you see the QRA of W6HEW you can really appreciate his score of 12,500. Mort's shack is about 50 feet from a large suburban street car line. The noise is so terrific that Mort can hardly hear his own sig in the receiver let alone those of DX! Yet, he pulled 'em out to the tune of 48 multipliers. Living in the city, Mort has turned to the erection of phased half waves for beam antennas and these are now proving their worth as his score is climbing every day. It stands at 64 countries and 30 zones now.

A W9 (Yeah, Becker, we work one every once in a while too) tells us that he logged 105 W stations out of the bands. Of these 21 were W6's. Their calls are being forwarded to ARRL and their scores disqualified. Looks like the FCC will have to send all those nice pretty pink and green slips via the QSL bureau to keep the postage down.

Speaking of out of the bands. That seemed to be the only place to listen for Europeans this year as the only other QRM out there was from other Europeans. Another rare one that added a new country to nearly everyone's list was HS1RJ in Siam on 14380 kc. FM-8AD was also a rare one on all bands, CXW QSOed this one on 3.5 mc.

This old timer W6OEH is having an awful time wrking DX. It seems Dyer has only 32 countries but of these 17 are in Europe and 3 in Africa. Sez he can't raise any of the hard stuff like CM, K5, KA, etc. Yeah must be tough. He uses a 210 final with 280 watts. Having chisled this 210 out of GHU it ought to be good for 20 more watts.

Aha! We get some dope from the 20-40 Club gang. Although rebuilding, (what! more rebuilding?) and a general lack of time kept a bunch of the fellows off the air, two of the gang went into the contest in a big way. W6FZL, operated by both FZL and HX, who combined for the contest ran up a big score of 75,208 points by working 31 countries on 28 mc., 52 on 14 mc., 32 on 7 mc. and 4 on 3.5 mc, for a multiplier of 119. Used pp 150T's, 1 kw. and two antennas, one a 7 mc swf hertz and a 14 mc. "Q."

W6JBO ran the boys a hot race with a score of 72,240 points, these were amassed by working 35 countries on 28 mc., 52 on 14 mc., and 22 on 7 mc. for a multiplier of 109. Four antennas in use there—two 7 mc. swf hertz, a 14 mc "Q" and two half waves phased and vertical for 28 mc.

W6FKZ managed to get in a little time and made 36 contacts in 27 countries. This gang of fellows are all DX hounds and will be found on the air any time DX is good, bad or otherwise.

Alphabetically we find W6ADP who has 121 countries and 39 zones, W6-CEM with 62 countries and 28 zones, W6FKZ with 70 countries and 30 zones, W6FZY with 100 countries and 37 zones, W6JBO with 81 countries and 33 zones, W6JFJ with 39 countries and 24 zones, Oh yes, almost slipped by—W6FZL has 87 countries, 33 zones.

Ought to be ashamed for bringing this up, but it seems that W6GHU just couldn't stand the strain of trying to keep 210's from jumping outa their bases, crystals from drifting like U2AZ usta last year and trying to get in a DX QSO once in a while, has decided that a little rebuilding should be in order now. So if you hear him with a note

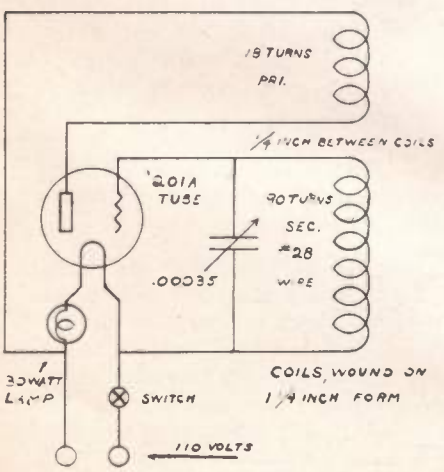
(Continued on page 26)

HINTS And KINKS

A Broadcast Oscillator to Calibrate Frequency Meter

The thought of using the broadcast stations who keep their frequency at better than five cycles of their assigned frequency has long been a practice of the amateurs. Many amateurs who have frequency meters do not like to rebuild them with a broadcast oscillator incorporated in the completed instrument.

The oscillator in the diagram is just the thing for this purpose of calibrating or rechecking the calibration of your frequency meter. A very good point in its favor is the minimum of cost to build



in both time and matrial. All parts should be found in the odd sorts box except the possibility of not having a shielded box in which to build the oscillator.

When the frequency meter is warmed up it is only necessary to beat note some broadcast station whose harmonic falls in the amateur bands with this broadcast oscillator; then beat note your frequency meter with this broadcast oscillator and you have one point on the curve of your meter. A very nice curve can be made by a series of harmonics taken from broadcast stations through the use of a BCL receiver, the broadcast oscillator and frequency meter. The limits of the amateur bands can well be found and calibrated on your frequency meter by the multiple harmonic of some broadcast station.

Most amateur instruments used to measure frequency have the bad fault of not being able to hold their calibration over any period of time. This instability of the meter can come from many things which tends to move along the calibration curve on the graph and make the meter inaccurate, such as aging of the tube in the hetrodyne meter, change of plate voltage, temperature, or accidental movement or changing of parts. As the curve on a whole does not change but just moves along the calibration dial of the meter; W6BCX made a very good suggestion that a trimmer condenser be placed in the frequency meter and brought out on the front panel of the instrument to a small knob. By the use of this trimmer condenser and the broadcast oscillator (and the frequency meter well warmed up) the curve of the meter can be checked and swung back to calibration by one check with the harmonic of some broadcast station.

Coil Dope

How often have you wished you had some really good coil dope around the shack? This is not a hard item to make and is really very effective. A few minutes spent in looking for odds and ends of celluloid, old tooth brushes are ideal

(don't let the XYL catch you getting it). A trip to the local hardware store, or paint store for some banana oil (about 10c worth will be plenty) and a small amount of acetone is all that is required.

Put your odds and ends of celluloid in a bottle with the banana oil, add a little acetone and let it set for a few days, allowing the celluloid to completely dissolve. An occasional stirring of the mixture will make a better job of the dissolving. If when the celluloid is dissolved you find your dope is too thick, merely add a little acetone and you can make any consistency you wish.

If you will drill a small hole in the cork of the bottle, you can insert a small art brush in the dope and it will always be ready for use.

The cost of this dope is well within the means of all us, and at the same time you have a coil dope which dries in a few minutes, is elastic and not at all brittle.

▼

TWO 01A's REPLACE 80

Not good practice but it will work very nicely when an emergency comes and you can not get that new '80 at once. Take two old tubes such as '01A that have good five volt filaments and an extra tube base and go to work. Hold the two tubes so that their bases are together and the filament prongs of each tube touch and then solder. Then bring wires from the parallel filaments down into the filament prongs of the extra tube. Next short the grid and plate of one tube and bring a wire down to one prong in the extra socket and do the same to the second tube bring the lead to the remaining base pong.

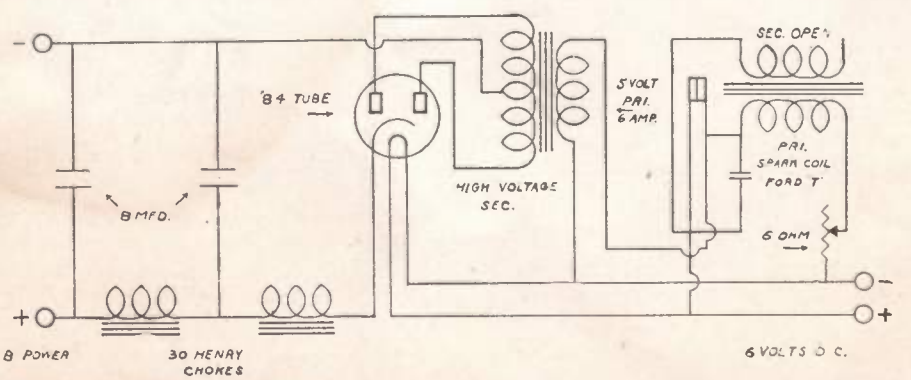
A Ford T Spark Coil Power Supply

Now that transmitters for emergency work is the topic on lal tongues, the first thought that comes before the amateur who plans such a transmitter is, where will the power come from. Hams are just like any other kind of people when it comes to trying to get something for nothing, therefore in this case we will start with a six volt storage battery. This power supply will be of the vibrator type and should work most small rigs or receivers if the current drain is not too great.

The junk box is the place to start building as most of the parts can or should be found there. The power transformer should have a primary winding for five volts that can take at least six or more amperes. The secondary winding should have at least six hundred each side c. t., the ratio of the winding is about seven turns per volt so the current will not be great enough to burn the points in a short time.

The unit should be mounted on a wooden base so a sound proof box or case can be put over it when it is in use. After the unit is wired and the first test is run the contacts are adjusted until it gives the highest pitched note plus the highest reading on a voltmeter in the circuit.

Two additional notes on the power supply's best operation is that of filing the points often to keep rid of pits. Also the finished job will be more likely not to be noisy when used on a receiver if the filaments come direct from battery.



The Olden Times

By Ex-6AWE

As I think back several years ago to the days of Model T Ford spark coils and crystal detectors I wonder how many remember paying from $1 to $1.50 for a crystal that you couldn't hear much on; of winding coils 4 inches in diameter with a dozen taps and a slider; of several hours of hard work finally getting the thing hooked up to a pair of earphones that cost $15 and then setting tense for several more hours to hear a few dots and dashes from some distant station about 20 miles away. Boy what fun!

I will never forget my first spark transmitter . . . a Ford coil, a spark gap made from two pieces of heavy wire and a key. DX worked, 5 miles if lucky.

This was before the World War, and licenses to my knowledge were not required. About a year later we were informed that we would be required to have a license if the signals could be heard beyond the state boundry, so with the idea in mind of increasing power a license was procured.

The next step was a great advance in radio as someone had brought out a gadget called a vacuum tube.

We bought one of these tubes (audion 3 element tubes). Three leads out of one end and two leads out of the other end. This tube had two filaments and cost $9.00. With the aid of several more hours hard work, a variable 43 plate condenser, a grid leak and condenser made by suspending two pieces of tinfoil from two parallel wires with a piece of waxed paped between them, a storage battery and 45 volt B battery and the same pair of headphones, we could hear most anything. Ah! Voices! The Catalina Island phone and the broadcast stations that were on 360 meters We next procured a ¼ kw. spark and soon after went high power with a (California) KW rotary spark transnmitter.

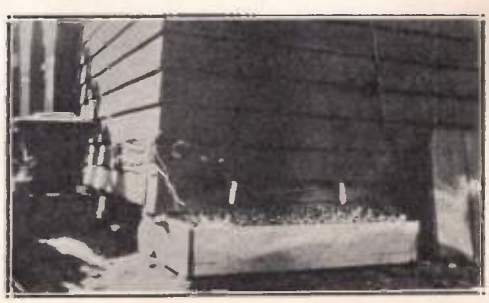
From what I heard, some of the boys were having more or less trouble with their rotary gaps made with phonograph records, (ask W6CL about this). In fact I thought the war was on when visiting one of these stations when the segaments from the phongraph record began flying all around us (we were lucky to come out alive). After this experience I decided to build a gap that would hold up and really made up a fine one.

The general run of antennas was anywhere from 3 to 6 wires and as long as we could get them on spreaders about 6 to 12 feet long.

Some of the old timers may remember that in the old spark days if you heard a station calling CQ, before you called him you sent the letters AN, meaning will my signals interfere with anyone? If anyone heard your AN and thought you would QRM him he would come back with the letters IM, meaning, stand by you will QRM me.

The old spark transmitters were so broad that a station would cover about one fourth of the band.

Next came the 5 watt transmitting tube, which when bought cost just about as much as a house and lot but after much saving we finally went for a tube transmitter. At this time we had no rectifying tubes and we either had to use straight A.C. or build a chemical rectifier, consisting of all the pint jars or tall jelly glasses glasses you could get from the neighbors. In these we used a solution of Borax with lead and aluminum anodes. This type of rectifier was very hard on the power transformer and the voltage output was low.



Typical Chemical Rectifier outside the shack (Note the pole transformer)

HAMIN' AROUND

XYL (to OM wandering around the room): What are you looking for?

W6NAL: Nothing!

XYL: You'll find it in the box where the candy was.

▼

XYL, W6NMY: Just suppose we women should go on strike?

W6OAQ: Go right ahead, I've got a peach of a strike-breaker in mind.

▼

W6LYM: You should have been here at nine. Steno. Why, what happened?

▼

Pop W6LIZ, a hill-billy of the Southern California Ozarks, had wandered off into the woods and failed to return for his supper, so the young Tolliver went out to look for him. He found him standing on a little hill.

Gettin' dark pappy, he ventured.
Yep!
Suppertime Pappie.
Yep!
Airn't ye hungry?
Yep!
Wal, air ye comin' home?
No.
Why aint ye?
Can't.
Why can't ye?
Standin' in a b'ar trap!

▼

W6E?—WE ARE TWINS

We are twins and look alike. When we were at school my brother threw an eraser and it hit the teacher, she whipped me. She didn't know the difference but I did. I was to be married but my brother arrived at the church first and married my girl, she didn't realize it but I did. But I got even for all that. I died last week, and they buried him.

▼

Visitor: How far is it to Long Beach?

Native W6FMO: Wa'al I don't rightly know, but I'll call Forrest, Forrest'll know. He has traveled all over, he's got shoes.

▼

W6CUH: I'll endorse your cigarettes for $50,000.

Tobacco King: I'll see you inhale first.

▼

LYM: When I was in Washington I couldn't make my radio work at all.

CNB: What kind was it?

LYM: It was an AC model.

CNB: No wonder! Don't you know that Washington is DC?

By Bill Driml
W6NAT

Last week I dropped in on W6MSQ in Inglewood, who was just erecting a ten meter rotary beam antenna (matched impedance). Naturally I walked into something I couldn't very well get out of, so I proceeded to help him put it up.

Not to bore you with our hard work I will skip that and go on to something a little more interesting . . . that is, we went into the shack, which was similar to most amateur shanties, about 10 x 16 feet in size, neatly finished inside with two real comfortable chairs (personally built by (MSQ).

Across the left end of the shack is the operating table, about 6 feet which had on its top (naturally) a receiver, monitor and a control switch for the transmitter. The receiver is a Patterson 16 specially constructed by MSQ's specifications. I might interupt here and say that I had always heard and worked MSQ on 160 and was curious to see what was behind all that carrier . . . imagine my embarrassment when I walked into a real first class TEN METER station .

As I was saying, on the right was the transmitter, consisting of a 53 oscillator, 807 buffer and push-pull T-55's in the final.

His speech consists of a condenser mike (home brewed), 2 stages of 6C5's into a 6C5 into a 6C5 into pp 2A3's driving a pair of Class B T-55's as his modulators. The transmitter is rack and panel 5½ ft. by 19 in. x 20 in.

Well we sat down to the rig and proceeded to work 2 states right off, he had already worked several countries and the reports were something startling. I promplty went home and put my rig on ten (resulting in a loss of a pair of 6L6's and a pair of 10's).

5 METER Activities

By Harold Rider, W6OEF

At the time this is being written conditions on the band seem rather slow, due to the comparatively few stations taking advantage of the fine opportunities this band offers.

Summer is fast approaching, and the portable mobile units running around the band should be good. With a little experimenting with antennas and a little more power, the writer is going after some real DX on this band. While on this subject I might say that it is rumored one of our well known California Amateurs is holding regular schedules with a W3. Between now and the next issue we are going to confirm this report and obtain an article from him. It is understood that both stations are using crystal controlled rigs and superhets. We might add that W6QG, Santa Ana, sure burns up the ether on 56 mc. and probably has a K6 on his list.

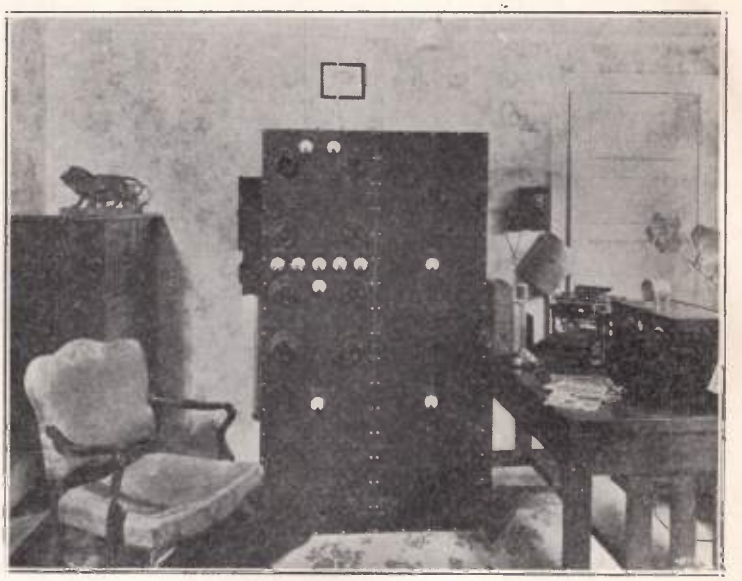
While listening around the band our old friend W6EDD was heard radiating plenty of rf. W6NH, Compton was coming in R9. W6OFP building up a nice rig. From what we hear W6MGQ is also rebuilding. What has happened to Don Draper, W6GXM, he hasn't been heard on lately.

As I have said before, this station is going to conduct 56 mc. experiments and will welcome any QSO's. I am going to take in the Ultra High Club this month, because from what I hear, there is plenty of real dope to be had from that group of fellows.

That's about all for this month fellows but let's get together and send in some dope. I know that there is plenty of activity on this band and want all the information I can get. Anything in the line of circuits, hints and of course a few pictures of your rigs wouldn't hurt a bit.

Don't forget, send in all dope for 56 mc. to Harold Rider, W6OEF, 1443 W. 82nd Street, Los Angeles, California.

Amateur Radio Station W6MMU



Things can be said about the kilowatt fone stations in or around Southern California but the San Joaquin Valley is coming right along and is now aided by this fine compact station.

The photo shows that Bill Fawyer has an eye for neatness when he built his rig. The line up of the R. F. section of the transmitter is as follows: A 47 crystal driving a 210 first buffer which is link coupled to an Eimac 100T second buffer, which in turn is link coupled to push-pull Eimac 250TH's in the final. All of the different stages have their own power supplies and when on the high taps could put out a very nice kilowatt but Bill is very modest and only runs a few hundred watts.

The second rack of the transmitter houses the complete speech and modulator unit with their power supplies in the bottom of the rack. A Turner crystal microphone is fed into the first stage of speech which is a 6J7 resistance coupled to a 6C5, transformer coupled to push-pull 6C5's, transformer coupled to 2A3's that are drivers for the heavy duty carbon anode Taylor 203A's in Class B. With the throttle wide open and power supply on high tap, the limit is only, say a fat half kilowatt of audio.

The receiver is a Patterson, PR-10 which Bill says he would not trade for the new low frequency receivers, but is on the look out for new developments in superhetrodyne receivers with peak performance between 14 mc. and 56 mc. for his high frequency work.

Each unit is mounted on steel panels with terminal strips so that they can be removed at any time to be worked upon. When it came to neutralizing the push pull final 250T's it was found that the neutralizing condensers need only be one plate each, brought up to a short distance from the grid caps of the tubes, at least it looks to be only about 1 mmf. of condenser that does the trick.

A good tip to take from W6MMU is that all high voltage leads are carried from their respective power supplies thru leads made from high tension automobile ignition wire. This is the wire that is used between the ignition coil and the spark plugs and has an insulation that stands over 10,000 volts and is just the thing to carry a mere couple of thousand volts run along side of the steel frames and panels without fire works.

The boxes on the side of the transmitter are switch boxes with controls over each power supply and termination of leads from the operating table. At some later date relays can also be mounted in these boxes for remote control.

Five-Meter Directional Antenna

Those who have won their spurs in the high frequency field have often wished for a simple antenna for both transmitting and receiving. Such an antenna is the Squirrel Cage, brought out by John Reinartz in the past, and now quite extensively used by the commercials. The writer has seen many an antenna array in and around Southern California, but the Reinartz is conspicuous by its absence. This antenna is not so bad to look at and should not draw so great a fire from the XYL when a ham tries to build one for his roof. All that is necessary is one pole or mast, that can be rotated in any direction.

Reinartz, W1QP, on the evening of his lecture at the R. C. A. studios last year, told of a simplified system using one half of the squirrel cage; that is, taking an eight foot copper tube and forming it around a barrel into a circle with the ends of the rods coming within four inches of touching each other. The next move in making this antenna is to hang it up to something with a string, leaving the open side of the letter C pointing away from the station one wishes to work. To put this antenna into action it is only necessary to bring the lead from the rig to the copper tubing antenna at the bottom of the circle. This is very near the spot a straight rod antenna would be fed.

This antenna should be the berries for 5-meter hunts, and don't let anyone tell you that this antenna, when it has its open side away from a station, will not tell you in which direction that the station is from the receiver. This should be just the thing to get the QRA of some "bootlegger" that is always getting in your signals and hair.

One evening while the fellows that were working on experimental lineup for their rigs for the National Air Races were running some tests at bout 4 a. m., one car load of amateurs went forth into the night and drove around the near by blocks with a transceiver and talked to the home station. At the home station they were using a single C Reinartz and they could really tell in which direction the car was, while being told of false directions as to their exact location.

In the tests at the Los Angeles Municipal Airport on the Sundays before the Air Races were held, a regular spuirrel cage was used, and the 5 meter stations in the Venice area would give reports of R9, but when the cage was turned with the open end toward the Venice stations, they would give a report of R to R1—if they could hear the signals.

If this single C works so well around 56 mc. why wouldn't the same thing hold true of 28 mc.? At least the cost could not be very great and if the commercial stations are getting results around ten meters with this type of an antenna . . . why not the amateurs?

More About Directional Antennas

By going to the telephone today a person can contact 68 countries. In 1936 the service of the U. S. was extended to include Kenya, Africa; El Salvador; and the islands of Tasmania, Bali Jamaica and Puerto Rico.

This overseas telephone service thru the medium of the radio makes it possible to connect by telephone with 93% of the world's 36,800,000 telephones. One half of the world's telephones are in the United States.

These overseas communications are made through three radio centers geographically located on the coasts of the United States so that directicational antennas will most simply drop the signal into the desired part of the world that contact is being made with.

The first is the west coast station in San Francisco, the second on the east coast and the third station is in Florida.

The American and foreign telephone companies of course use very good equipment along with fair power but this is not the reason for their distance

contacts at almost any time. They spend much money and time building directional antennas both to receive and to transmit with and to this alone gives the great degree of success which they have.

VU7FY, the first WAC amateur radio phone outside of the United States had one very hard handicap to overcome in the form of, that no ham in India can have an input of over ten watts. He holds regular QSO's with American hams and without the aid of mirrors unless you call a directional antenna a mirror.

If the commercial who must get messages through or the amateur who is handicapped by compulsory low power turn to the directional antenna as a means to an end why do most North American amateurs on the higher frequencies shove up the power on their clothes line antenna when they wish to work that foreigner? The amateur motto should be bigger and better beams with with more efficient transmitters, at least that sounds like the moral of this story.

Wooden Call Letters

Many is the ham who wished he had his call letters cut out of wood or other material, but it took a scotchman of the call letters W6FDO to find where to get them cheap. I have heard of noses that were made for business but that scotch boy can find the places.

In the back of his machine (that is, his rear window) he has wooden cut out letters around two inches high mounted on heavy wires and hung from the top of the window frame. Clever people these scotchmen.

In some 5 and 10 cent stores on Broadway near seventh street (in the basement) they sell these wooden letters and figures. This is where the catch comes in . . . for the price of these wooden letters are all of one cent each. If you want details down to the last minute, things such as how to paint these raw half inch thick letters you had better get the final details from Mack in person. It has been said that if one palms off a 5 cent cigar on him, he will open his heart and tell you almost all.

The Breting "14" Communication Receiver

By the Breting Radio Mfg. Co.

Since the introduction of the now famous Breting 12 our Engineering Department, ever alert to the changing trends in the industry, have through their research work developed several new innovations which have been incorporated in this most modern radio receiver, the Breting 14.

The Breting 14 — A communication type receiver especially designed and engineered to meet the exacting requirements of the amateur and the professional experimenter.

The ability of Breting engineers to successfully design a receiver which meets the most rigid tests has been proven through the wide acceptance of its products. No greater testimonial need be offered.

Our experience has proven that the technically minded user of a communication type receiver is also susceptible to the charm of fine reproduction and because of this we have not overlooked this important feature. The efficiency of the audio system in the Breting 14 will delight the most critical and hi-fidelity in the true sense of the word.

Frequency Coverage: 34,000 to 550 Kilocycles in five bands.

Tuning Unit: The tuning condenser is divided into seven sections, paralleling two sections allows full coverage on the broadcast band and on the same set of coils. Individual sections only are used for high frequency tuning to secure the best possible LC ratio.

All coils are individual for each band, and as each set is switched into operating position the dial is automatically rotated to indicate only the band that is actually in use.

All bands use one stage of R. F. with the exception of the 15,500 to 7,000 KC band, which uses two stages. This gives greatest amplification where needed most . . . the 20 and 40 meter amateur bands.

The first detector and oscillator are of the screen coupled type and work very efficiently on 1C meters.

Intermediate Amplifier: 432-KC. Two stages. First stage link copuled, low impedance transmission line. Second stage, four tuned circuit band pass. This gives the ideal type selectivity with a wide top curve instead of the ordinary sharp peak and wide skirt, so commonly used, which produces critical tuning and poor rejectivity. All coils are Litz wound and tuned with non-drifting compression type trimmers. The over all selectivity is approximately 9 KC.

Crystal Filter: All sets are equipped with crystal filter, the first stage is seperated into two units and a low impedance transmission line is used to couple the two circuits. The crystal and phasing condenser operate in series position in the low impedance line. The crystal disconnect switch is operated with the same knob controlling the phasing condenser. All crystals supplied have only one peak.

Second Detector: A combination duodiode pentode controls the A. V. C. as well as providing rectification and is highly filtered to eliminate any R.F., in the audio circuit. The pentode part of the second detector acts as first audio stage and provides tremendous voltage amplification. A phone jack at ground potential is located in the plate circuit of the first audio and positively disconnects the speaker when the head phones are connected.

Audio Output: Two 6F6G tubes driven by a single 6F6G. The final stage is operated with 45 volts fixed bias and 365 volts on the plate, operating Class A at low volume and Class B at high volume, delivering 18 watts to the speaker. The output transformer is mounted in the receiver and carries a 200 ohm winding as well as a 2 ohm voice coil winding.

Meters: The R meter is mounted as part of the dial assembly and plugs into position very easily. This form of appli-

cation allows us to ship the meter independent of the receiver and thereby insures the safe arrival of this delicate instrument. The meter is calibrated to a new standard, enabling the operator to differentiate between a weak 10 W amateur phone and a 500,000 W broadcast station. The R units are selected from the standards published in the amateur call book and have no bearing on any previous R signal standards that everyone knows have been a hinderance rather than a help to the radio amateur operator.

Communication Switch: The communication switch disconnects the audio amplifier from the receiver and connects it to the posts on the rear of the chassis. This provides the amateur with an audio amplifier with sufficient output to modulate a final amplifier with 100 watts input, or it can be used as driver for any type final amplifier.

For crystal or low level microphones one or two stages preamplification will be required to drive the final tubes to their limit. A gain control is necessary for any type microphone, as the one in the receiver is not in use when the communication switch is in transmit position. Separate terminals are provided on the rear of the chassis to kill the RF portion of the receiver with the transmitter switch if the amateur so desires.

The Beat Oscillator is switched on independently and can be controlled from the front panel if so desired.

Noise Silencing unit: The second intermediate uses a 6L7 tube that is connected to a two tube noise silencing circuit. The gain of the noise silencing cicuit is controlled by the upper left hand control. This also carries a switch to open the heater circuit of the noise silencing tubes so that when the silencer is not being used, no current is being consumed by the tubes. This circuit eliminates loud individual clicks and it helps to diminish automobile noise considerably. it is not a cure-all for all static difficulties and should not be considered as a static eliminator.

Band Spread: The band spread is of the mechanical type and of sufficient width to allow accurate logging and easy tuning on either the amateur or short wave broadcast band.

BOOTLEGGER BLASTS BUM SOS

By Assinated Press
(W6KTY)

Kompton, Kalif., Mortuary 33, 1937

During the disasterous floods at Komp ton, an enthusastic Five Meter Non-Licensed Amateur, wired the Navy, to send a Coast Guard Cutter to rescue a sinking Japansese Fishing Boat, that was going down with all hand. This message was relayed to the submarine division of the Los Angeles Sherrif's squad who immediately went to their sucker. On arriving at the latitude and longitude given in the SOS they were unable to discover any evidence of any craft in distress, an immediate check-up disclosed the fact that the call was but a modulation test and was not intended for Broadcast purposes at all.

The last herd of the five meter experts, they were making their way overland to Washington D. .C, singing as they went along: Now we will ROWE, rowe rowe, etc.

Why in misprint does a ham try to get 95% efficiency out of his final, when 33.3¼ of it is HARMONICS? You tell 'em, I can't.

As an after thought, I think they think a harmonic is what Major Bowes uses on his Amateur Hour.

DANGER IN HIGH VOLTAGE!

Don Wallace, W6AM has a very good way in which he makes adjustments on his transmitters when the high voltage is on. His idea takes care of two things at one time; one is to have only one hand making the adjustments so the voltage, if on, will not have to travel along your arm and through your heart to some ground; and the second is that if the voltage does jump out and bite you, you will automatically shut off the power.

It is really quite simple as Don works it and has a spring power switch on the front of the operating desk and the transmitter is located back from it a short distance. The trick is that with a yard stick in one hand he holds down the power switch and with the other makes the adjustment on the rig; Should he happen to get across the high voltage he would probably jump thus causing the yard stick to fly away, automatically turning off the power, therefore no harm can be done.

One more suggestion is when playing with this kind of high voltage fire, a bright thing to do is to touch the equipment that might be hot with the back of your hand. If this is done and you do get bit, your hand will fly away instead of gripping the wire as the nerves of the hand will do, and lock if the inside of the hand hits something alive.

DX NEWS

(Continued from page 13)

like the "chirp of a sparrow," its coming from a nice new 100TH.

Here are a few last minute items that just came in. F8EO, 150,000 with 1050 QSO's; F3KH, 103,000 K7PQ 150,000 to 160,000 (worked W6GRX on 160, 80, 40, 20 and 10); G2PL, 74,000; UN2E 956 QSO's; EI8B 103,000; EI4J 84,000; W9TB 78,000; W5EHM 99,000, W1-TW 84,000.

Since this is a new magazine and a new column it will take a little time to find the great circle grapevine paths so that more DX news may be had. So in the meanwhile please send in all the news you can lay hands on or know of. Maybe you are not interested in what some other guy has done but, he may be interested in what you have been doing; so let's have it all. All brickbats will be appreciated (now don't all of you rush for the ink or the mill at once). Also any other helpful hints you may have. Please address all news pertaining to DX to Ray Harmon, W6GHU 4670 Gage Avenue, Bell, California.

▼

W6EJZ, Charley Feay is going to give the boys a run for their money. His 160 meter fone has always sounded fine but Charley is going high power and from the details given he is going to have a pair of 841's in the final with close onto 2000 volts on their plates. From what I get of the layout and how short the leads will be, lets me know how it will put out. Here's hoping we work the new f. b. rig soon.

▼

Model T Power Supply

(Continued from page 8)

in the cities have many gasoline motors of the one horse power class such as the gas engines used to drive rural washing machines, or motorcyle engines. By mounting the gas engine on a wooden base as would be a commercial job with your newly made alternator on the other end. For the excitation of the field another Ford generator can be driven by placing it so that the belt from the engine to the alternator also travels aver the exciter pulley. The alternator will put out running in either direction, but the exciter must run counter-clockwise as you face the commutator. This exciter does not make much of a load to the motor as it only takes about 3 amps to excite the field and because there is no battery the job is really portable.

For checking the frequency an electric clock connected in the 110 volt line will help in finding the speed at which the engine of the car should be run, or that of the gas engine, for when the second hand on the electric clock travels at the speed of that of a watch you have the same frequency as marked on the clock.

Ham Ad Section

Amateurs usually have something around they want to sell — some want to buy something—Therefore we have decided to have an Advertising section for this type of material. The rate for this department will be 20 words for 25 cents.

Send ad and money to W6CL.

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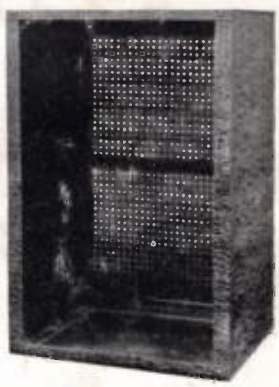

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