

SKYWIRE

THE CANADIAN RADIO AMATEURS' JOURNAL



OCTOBER 1949

Montreal, Quebec, Canada

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BY TURNER



Amateur

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SKYWIRE

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.....EDITED BY - FENWICK JOB, VE2TH.

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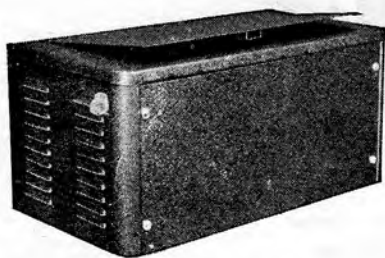
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SKYWIRE EDITORIAL AND BUSINESS ADDRESS -----

VE2TH, 284 Guilbault Ave., Longueuil, Quebec!

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11" Front to Back
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Standard Finish — Black Wrinkle

Optional Finish — Gray Hammerlin
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Type	Description	Height	Panel
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1492	Hinged Top Assembly		
1493	Cabinet End	5¼	Use 1473 or 1483
1494	Cabinet End	7	Use 1474 or 1484
1495	Cabinet End	8¾	Use 1475 or 1485
1496	Cabinet End	10½	Use 1476 or 1486
1497	Cabinet End	12¼	Use 1477 or 1487
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1444F	8x12x3	#1253	Transmitter 30 W.	1.60
1444G	8x12x3	#1264	Modulator 15 W.	1.60
1446D	10x17x3	#1252	30 W. Amp.	1.95
1447D	12x17x3	#1256	60 W. Amp. 60 Cy.	2.20
1448D	14x17x3	#1256	60 W. Amp. 25 Cy.	2.44
1448E	14x17x3	#1254	Transmitter 150 W.	2.44
1448F	14x17x3	#1255	Modulator 75 W.	2.44

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SIDEBANDS

This month, for the first time, more than 2100 Canadian amateurs will receive introductory copies of Skywire. From the southernmost section of Ontario to the Arctic Circle cities of the Yukon and North West territories, from Labrador and Newfoundland on the East, to Vancouver Island on the West, hams in all ten provinces of the Dominion will be reading these pages and wondering what Skywire represents.

A new and untried idea ? Perhaps so, partially. The objective is to be of service to the VE hams and Canadian amateur radio clubs while at the same time, providing a purely Canadian Magazine for not only the amateur, but for his family as well.

~~First~~ All the many clubs across the country, holding meetings at regular periods, need some means of notifying members of meetings and club activities in advance. A number of clubs are large enough to put out a bulletin to the members, but this represents a steady and unwelcome drain on the club treasury to pay the costs entailed - or an imposition on a member who may have office duplicating facilities,

and can be joed for the job. In other clubs, the roster is small enough that a list of phone calls made by some ardent member, gets the gang out.

Skywire, to be of service to the amateur, will make available to ALL clubs in any part of the ten provinces, space for publicizing such things in advance. Club secretaries are invited to forward news of club meetings, station activities and the like to the Editor, for inclusion in this magazine.

To interest the VE hams, there will be articles of a technical nature, written by them! Material on how YOU built your equipment is wanted from all over Canada, and accepted material is paid for by Skywire at space rates which are very attractive. Why make the technical pages purely VE????

Take a look at the leading U.S. ham publications. How often have you seen an article from this side of the border ? Go back fifteen years, and you'll find our representation hasn't been good. And yet, proportionately on a population basis, there are as many hams in this country as in the U.S.

It seems reasonable to assume that we're not just a bunch of parrots, but that we've developed some fine equipment too that has never been publicized - and should have been!

Thus, contributions are wanted from YOU, the reader, of any nature in the technical line. These contributions will be acknowledged in each case, and those accepted carry with acceptance a healthy fee to compensate for your work, time and expense involved in the development of the idea. - It is our belief that the VE's have had the ability right along, but perhaps didn't have the opportunity!

Similarly, to expand the magazine as rapidly as possible, and in this way appeal to all interests, voluntary contributions are **also** wanted about the DX you've been able to work - your VHF results and your own general station activities. A postcard sent to the Skywire editorial address will be sufficient. And it will let the other fellow know what you're doing regularly.

Has Skywire any " political axe to grind "??? No, very definitely not. Skywire supports ARRL as the

best organization in the world through which amateur radio is supported, but your political views in ham radio are your own. Skywire is representative of no club, organization or association in any way.

As advertising supports any publication, so should these carefully selected advertisers be supported by you. They are in business only because you create a demand, and will be of service to you in every possible way!

Skywire needs your support to be successful too. If you enjoy reading this issue, and the ones to come, say so to your fellow amateur. Our mailing list will be increased to include subscriptions which are available to to any experimenter or amateur. Rates are **low (\$2.00 per year)** in order to make it possible for everyone to subscribe and be a part of Skywire, directly and indirectly.

Let us hear from YOU - soon. And don't miss reading page 19 of this issue.....

Fennick Job 2TH,

SILENT KEY - Killed in the recent air crash involving three prominent doctors in the Laurentians was Russell N. Holmes, MBE and VE3KT, of Toronto. Russ was a widely known pilot and amateur whose passing leaves a hard-to-fill gap in ham ranks.

MINIATURES!

by

Tommie Lott, VE2ACF, exG2CIN!
Methods Engineer, Northern Electric, Montreal.

This miniature 25 transmitter was really designed and built as one small stone to kill three large birds! First, for portable and emergency uses such as F.D. Secondly as a mobile rig in a car (when I get a car) and lastly as the rig about the shack that can quickly be put on any band, and will not always be in the process of rebuilding just when the rare DX is coming through. So far, it has been in use at the home QTH while the QRO rig is being rebuilt - and many successful DX contacts have been made on 10 and 20 meter phone with folded doublet antennas only!

A glance at the circuit on page 26 in this issue will show that it is perfectly straightforward. A 6C4 oscillator, followed by a pair of capacity coupled 6C4's as doublers, with the second now link coupled to the grid circuit of the P.P. 6AQ5 PA stage, which is modulated by another pair of 6AQ5's. These in turn are driven by a transformer coupled 6C4, and a 9001 as the mike amplifier.

It is possible that the use of a

trick oscillator circuit, higher frequency crystals, or tetrode doublers or quadruplers might have resulted in slightly better efficiency or the use of fewer tubes, but 6C4's being cheap and plentiful seemed ideal.

Mechanically, the rig was designed to fit into a BC-221 case which was available - hence the greater height than necessary. This extra space however, is utilized to hold the spare coils and crystals during transit. The rig was built on a standard 1441 (5" X 9") unit - a Hammond chassis and as can be seen in the photo's on page 7 the modulator section is separated by two aluminum shields, one $8\frac{3}{4} \times 4\frac{1}{4}$ " above the chassis, and the other $8\frac{1}{4} \times 2$ " below, from the RF section. Another shield $3\frac{1}{2} \times 4\frac{1}{4}$ " serves to support the PA tank circuit and so screen it from the grid input side. The PA tank uses the National coil, series AR16S, with the other coils being homewound. The PA grid coil shown in the photos is wound on an English form, but a National XR16 would be ideal for this coil. The extra tube that may be seen in the modulator line up is for use as a

Don't miss the boat - see Page 19

October, 1949

Page 5

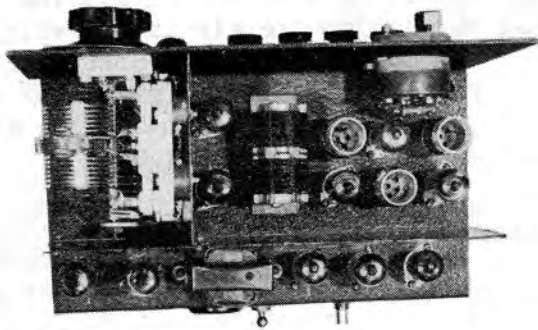
reactance modulator, should FM operation be desired to economise on battery drain. Since this circuit has not yet been tested, no detail is given on it.

Construction of the rig is quite straight forward, although with so little space to spare, care must be taken to keep all leads as short as possible - and a long and narrow tip must be used on your soldering iron.

After the components are assembled the modulator section should be wired and tested (by means of a 4000 ohm dummy load) - then the sub-chassis shield is bolted into position, with a notch being cut in it to allow passage of the RF section filaments, B plus and the ground return leads. Then the RF section is wired and some idea of the placement of parts may be obtained from the photos. Note that the PA grid coil is wired so that the grid coil of one 6AQ5 is adjacent to the plate of the other, thus giving a certain amount of neutralization - the remainder of which is provided by small lengths of Systoflex(plastic)covered wire, approximately $1\frac{1}{2}$ " long, soldered to the plate pin socket connections of each tube, with a similar piece soldered to each opposing grid connection on the stators of C4. Each pair of wires thus forms an adjustable condenser of very small capacity, for neutralizing.

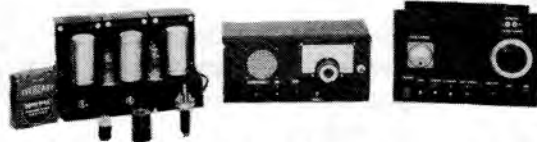
Metering of the various circuits is done by the meter M which is any meter of small diameter of 5 ma. or less movement. The one actually used here was a 0-150 micro-amp meter taken from some captured German army equipment. As a variety of meters may be used, no values are given for the series resistors. The meter is used to measure the voltage developed across the cathode resistors of the various stages, and should be calibrated against another meter, switching through the various circuits. A two pole switch is used as the meter polarity must be reversed to enable the PA grid current to be read.

Tuning is quite simple. The output frequency should be at least twice, and preferably four times the crystal fundamental. When the output frequency is only twice the crystal frequency, V2 and L2 are removed, and a jumper is placed in the V2 socket (it is made from a burnt out tube with a thin wire soldered from Pin 5 to Pin 6). When the TX is used in this manner, C2 must be set at minimum capacity as it affects the crystal oscillator tuning. To tune up, the meter switch is first put to position A, and the crystal oscillator condenser is adjusted to give maximum dip(i.e. - minimum M reading). The same procedure is followed for positions B and C.

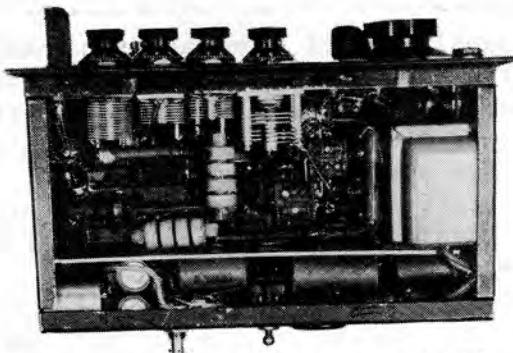


1. Top view of transmitter showing layout of components. Note shields between modulator section across the back, and the PA tank and grid circuits, for isolation. Final tank is National for 20 meters (AR16-20-S). Diagram & parts list on page 26 this issue.

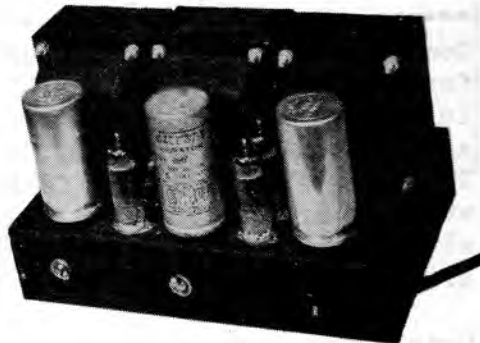
2. Front view of unit with all controls clearly marked. Meter is from captured German war equipment, but any small meter may be used in this application. Height of front panel may be reduced if desired.



5. The complete station - shown in relation to miniature 67½ volt battery. From left to right - the Universal power supply detailed at lower right of this page - the receiver - an 8 tube superhet for all bands, to be described in next issue of Skywire - and the transmitter itself - 30 watts input on phone, portable-mobile-emergency



3. Under chassis view showing careful layout required to fit all parts in small chassis. Note neutralization condenser wires (see text) just to left of wirewound resistor by modulation transformer. Note also, shield between R.F. section and the modulator wiring (removable).



4. View of Universal power supply used to power complete station. Using Hammond transformers and vibrators, this delivers 300 volts DC at 220 ma. from either 6 volts DC or 110 volts AC input. Schematic for this supply, and for receiver will appear in next issue of Skywire.

Then on position D the grid tuning condenser C4 is adjusted to give approximately 8 m/a of grid drive. Then on position E, the final tank is tuned to resonance and loaded to approximately 80 ma. by adjusting the swinging link coil of L5. After tuning up for the first time, the final should be neutralized by removing Bplus from all other stages and reducing the bias to $22\frac{1}{2}$ volts, giving a standing plate current of about 40 ma. The small neutralizing condensers described earlier are then adjusted until no sign of oscillation can be detected, either by movement of the cathode current meter, or by means of a small neon near the PA coil. When this has been done, a small drop of Glyptol or similar cement may be used to make the adjustment permanent. This method of neutralizing a final may be applied to any transmitter (by reducing bias) and is probably the most positive method of ensuring perfect neutralization.

=====

Good construction articles are constantly needed from Canadian hams, for publication in Skywire. It's worth your while to spend a few hours in writing up what you've done, since published articles are paid for at a very attractive rate, depending on the length and type of article. If you're able to tell a fellow amateur what you've done, you can write an article about it! Submit circuit diagram and write-up along with photos wherever possible. We'll contact you for further details if required, plus further photos for reproduction in Skywire.

Here's your chance to greatly reduce the cost of your equipment. An article published in these pages will pay you well! Send your material along immediately, to the business office address on Contents page!

Pssst - Page 19 this issue!

The final step before putting the rig on the air is adjusting the modulation level control on rear of chassis, to give 100% modulation. This can be done with an indicator, or C.R.O.

The power supply built for this rig fits the BC221 case too, and uses 3 Hammond 284-60, X mounting dual 115 volt AC/6 volt DC units. Three 6X4 rectifiers and three Mallory vibrators are used, but any power supply, generator or 115 volt pack delivering 300 v. at 220 ma. may be used according to the use you have for the rig. This power unit will be described in November Skywire, with all details, as will the rest of the station, an 8 miniature-tube superhet of very small size.

Circuit diagram of the complete transmitter appears on page 26 of this issue, ~~Allo-2 dynamic mike~~ was used, hence T1. Ital mike is usable by modifying input circuit.

GIZMO

by
Barrie Coleman - VE2BD.

Quite a number of hams seem to have built the Grid Dipper from a recent issue of CQ. I did - and one more attachment and it'll be washing the dishes - it does everything else!

It's a versatile addition to the shack, but when used as a freq. meter it requires an audio tone, so after much scratching of the old noggin, this audio oscillator came into being. It will work not only on any type of Grid Dipper, but anything else where such a tone is required.

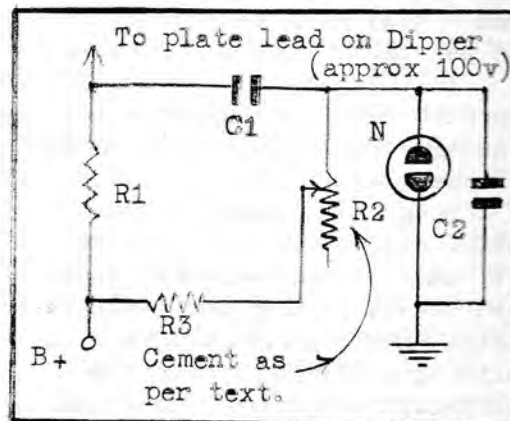
Construction of the unit is very simple, and a quarter watt neon bulb was used to save space as much as anything. The one megohm potentiometer shown, is used to vary the tone and a small section of the resistor strip was covered with speaker cement to provide a means of cutting off the audio note when not needed.

The pair of .004 condensers and the 1 megohm and 2 megohm resistor work with the quarter watt bulb mentioned. These values may have to be altered if you're using a larger size lamp. But the circuit components can be built

right around the one meg pot and the completed unit is small enough to fit into the Dipper case.

If the tone is not quite suitable for YOUR ear, the 2 megohm resistor may be replaced with another size. A lower value decreases the tone, and a higher one raises it.

The values shown in this diagram should produce a note in the 500 cycle range which is low enough not to be mistaken easily.



PARTS REQUIRED.

- C1 - .004 mica, postage stamp.
- C2 - .004 mica, postage stamp.
- R1 - 3,000 ohms, $\frac{1}{2}$ watt
- R2 - 1 megohm potentiometer.
- R3 - 2 megohm, $\frac{1}{2}$ watt
- N - quarter watt Neon bulb.

Turn to page 19 now.

NO BIAS!

by
Hal Elliott - VE2KS

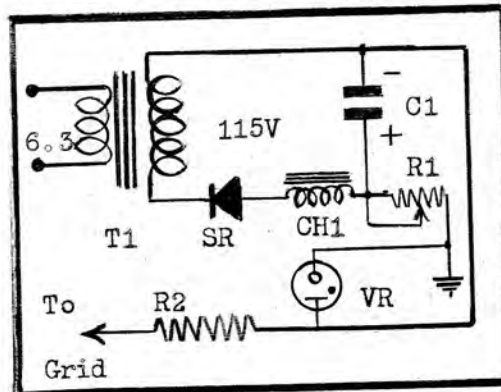
Bias supplies are usually a problem. B batteries are bulky, they are costly and have a life of a year or so at best.

Shortly after the war, we built a bias pack using a selenium rectifier which was quite neat, and mounted nicely within the final chassis. It did an excellent job until the key was pressed, when it promptly went West. These selenium units do NOT have a factor of safety of two as some might assume - they will take just 18 volts per plate without troubles.

Failure of this unit drove us to a standard transformer unit again which was used until a re-build went through this summer. Two supplies were needed and two we built, using again selenium rectifiers, after giving more time to studying just what should be done to eliminate the errors of the first design which obviously had caused the failure.

The circuit finally settled on is adaptable to almost any rig, and will perform beautifully for you without generating excessive heat. It's greatest advantage is the low cost, combined with small neat

physical size. It can be mounted in a spare corner of any chassis, underneath, or where convenient. The basic circuit is as follows.



T1 - Hammond 167-B (6.3v - .3a)
SR - 50 or 100 ma. Selenium Rect.
CH1 - Hammond choke, type 153.
C1 - 20 mfd., 150 volts or more.
R1 - 5,000 ohm, 10w, adjustable
Clarostat resistor.

R2 - as required for added bias.
VR1 - VR-105/30 tube.

Connect 6.3 side of T1 to final filament circuit secondary.

This unit passes 30 mils of rectified grid current. For higher values (e.g. PP812's) the VR's are paralleled with a 100 ohm, 1 watt equalizing resistor in series with each tube. You can use this unit for biasing a final well beyond the cut-off value.

This isn't page 19!!!!!!

SELECTIVITY PLUS!

by
Art Ashton - VE2JK

One rainy Sunday afternoon - glad of a chance to stay home, I edged over to the receiver and with the odd sly glance at the XYL, turned on the switch!

Tuning 20 and 40 C.W. (fone men wait for a minute) and trying to unscramble some of the stuff, I decided that something drastic was needed to fix the situation. Either that - or find a new home since most XYL's frown on that type of noise. Homes are too hard to find to consider that aspect of it, so I went to work and the result is the following unit.

In QST for September, 1948, there are two articles - one on page 16 a peaked audio amplifier for any Communications receiver - and on page 53 - Triple Conversion for the communication receiver. Put these together and there you have it. We decided to combine the two with a few modifications. How the two articles got into QST with 37 pages 'tween them I don't know, for they belong together, and they are now!

Ed's Note: Photos used on pages 7 and 13 are through the courtesy of Gerry Barolet, VE2MG.

Essentially the unit consists of a highly selective 85 kilocycle intermediate frequency amplifier made from parts salvaged from a BC-453A, followed by a peaked ONE kilocycle audio amplifier which has variable selectivity!

In the original article in QST, a diode detector was used. This has now been replaced by a Hi-Q detector which results in better selectivity. Also, here, the screen (or oscillator) anode of the 6BE6 miniature has been voltage regulated to give better stability when the selectivity control is varied to accommodate different input levels to this unit.

The operation of the unit in spite of its apparent complexity is very simple. Like any highly selective device, it requires a little care in using it, but any operator will find this gadget a very real help on the crowded ham bands today. The actual cost entailed in construction expense is slight in view of the results obtained. Since the exact I.F.'s used here are available surplus in the U.S., a duplicate can readily be made.

N.B. - Page 19, this issue.

October, 1949

Page 11

If the same 85 kc IF's can't be located, almost the same results could be obtained by using a good 455Kc I.F., padded down to about 100 kc. Note that it might take an extra stage of amplification in the secondary intermediate frequency amplifier (100 kc) to obtain the same skirt selectivity unless you alter the coils on the substitute IF's.

OPERATION OF THE UNIT:

1. C.W. It is possible to tune in a C.W. signal on a crowded band and then eliminate just about everything but the signal you are hoping to work. Key clicks or thumps on a heavy signal next to a DX station are greatly reduced. Similarly a rough note is cleaned up considerably because of the extreme selectivity of the audio channel, which becomes 30 cycles in the maximum position.

By the way, it might be well to note that one change from the original QST article is made in the audio filter in this adaptation. A cathode bypass condenser

reduced to 10 mfd. from 25 results in less hum in the output of the super-selective Q5'er.

The second phase of it's usefulness will appeal to the phone men.

For PHONE - AM and PM - a selective I.F. channel attenuates the higher audio frequencies and the signals tend to boominess. Just advance the 1 kc. selectivity control a little - the lower frequencies are dropped, resulting in a more intelligible signal. Carrier hum, power leaks and ignition noise can be reduced in the same way.

3. For S.S.S.C. a sharp I.F. channel is a must, if full advantage of this new phase of our operations is to be taken. And SSSC is being heard more and more every day.

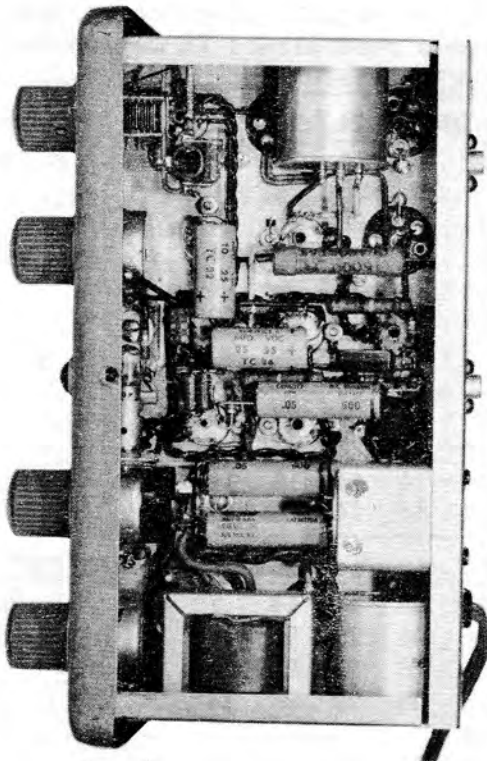
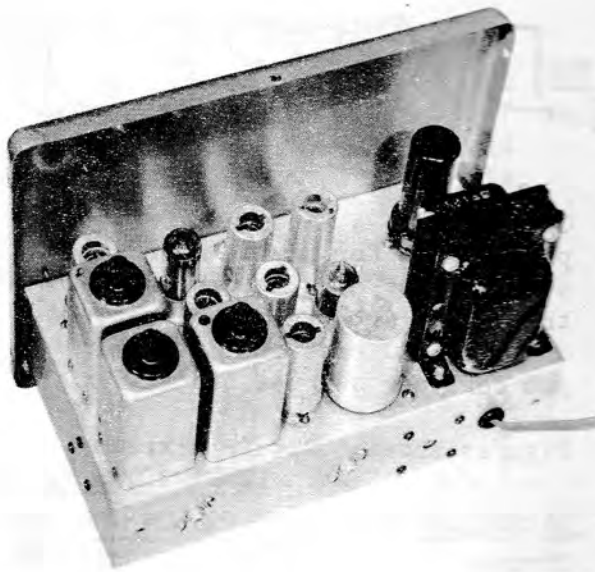
Yes - your receiver must be very stable and so must the incoming signal for best results. Further information may be obtained from the original articles in QST!

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IMPORTANT INFORMATION FOR ALL CANADIAN AMATEURS//BT.

If you're enjoying this issue of Skywire, mention it to other Canadian hams. Introductory copies have been mailed to more than 2100 VE's and VO's, in all TEN provinces of this country. Some of your QSO's won't have received a copy and will be interested in your opinion. Yearly subscriptions to Skywire may be obtained at just \$2.00 per annum - this amount to be mailed to the business address.

A READ
Q5 R.



CIRCUIT
DIAGRAM
PAGE 20

BY
ZJK



DX PREDICTIONS

Prepared by C.B. McKee, Engineering
Division, CBC International Service.

On these pages are shown frequency predictions for ham communications over various circuits to most of the world, from the major centers of Canada. Choose the city near you for your own use.

usable frequency via F layer, and don't take cognizance of Sporadic E effect which may enable unexpected and unpredicted distances to be covered on frequencies higher than those shown on the chart. Figures shown under the times read direct in megacycles.

Figures shown indicate maximum

PREDICTIONS FOR NOVEMBER, 1949

<u>SACKVILLE TO:</u>	<u>00</u>	<u>02</u>	<u>04</u>	<u>06</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>	<u>18</u>	<u>20</u>	<u>22</u>	<u>AST</u>
Europe	7	7	7	14	28	28	28	14	14	7	7	7	Mc/s
Africa	7	-	-	28	28	28	28	14	14	14	14	14	
Caribbean	7	7	7	14	28	28	28	28	28	14	14	14	
S. America.	7	7	7	14	28	28	28	28	28	14	14	14	
Australia	14	7	7	7	14	14	-	-	-	-	-	14	
U.S.A. - West	14	14	14	7	14	28	28	28	28	28	14	14	
U.S.A. - Cent.	14	14	7	7	14	28	28	28	28	28	14	14	
U.S.A. - South	14	14	7	7	14	28	28	28	28	28	14	14	
Vancouver	14	7	7	7	14	28	28	28	28	28	14	14	
Watrous	7	7	7	7	14	14	28	28	28	14	14	14	
Toronto	7	7	7	7	14	14	14	14	14	14	7	7	
Montreal	3	3	3	3	7	14	14	14	14	7	7	3	

<u>MONTREAL TO:</u>	<u>00</u>	<u>02</u>	<u>04</u>	<u>06</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>	<u>18</u>	<u>20</u>	<u>22</u>	<u>EST</u>
Europe	7	7	7	14	28	28	28	14	14	7	7	7	Mc/s
Africa	7	-	-	28	28	28	28	28	28	14	14	14	
Caribbean	7	7	7	14	28	28	28	28	28	14	14	14	
S. America	7	7	7	14	28	28	28	28	28	14	14	14	
Australia	14	7	7	14	14	14	-	-	-	-	-	14	
U.S.A. West	14	14	14	14	14	28	28	28	28	28	28	14	
U.S.A. Cent.	7	7	7	7	14	28	28	28	28	28	14	14	
U.S.A. South	14	14	14	14	28	28	28	28	28	28	14	14	
Vancouver	14	7	7	7	14	28	28	28	28	28	14	14	
Watrous	7	7	7	7	14	14	28	28	28	14	14	14	
Toronto	3	3	3	3	7	14	14	14	14	7	7	7	
Sackville	3	3	3	3	7	14	14	14	14	7	7	3	

DX PREDICTIONS FOR THE MONTH OF NOVEMBER, 1949

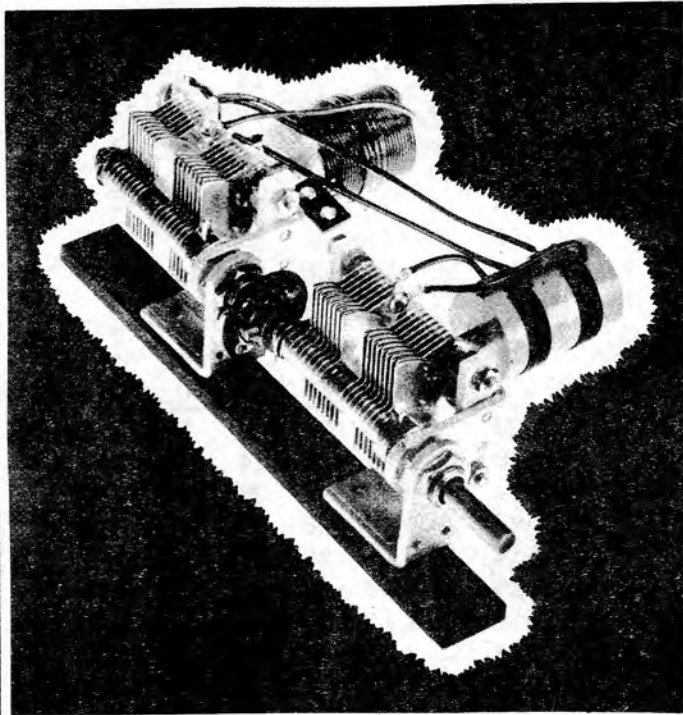
<u>TORONTO TO:</u>	<u>00</u>	<u>02</u>	<u>04</u>	<u>06</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>	<u>18</u>	<u>20</u>	<u>22</u>	<u>EST</u>
Europe	7	7	7	14	28	28	28	14	14	7	7	7	Mc/s
Africa	7	-	-	14	28	28	28	28	28	14	14	14	
Caribbean	7	7	7	14	28	28	28	28	28	14	14	14	
S. America	14	7	7	14	28	28	28	28	28	14	14	14	
Australia	7	14	14	14	14	14	14	14	28	28	28	14	
U.S.A. West	14	7	7	14	14	28	-	-	-	-	-	14	
U.S.A. Cent.	7	7	7	7	14	14	28	28	28	14	14	14	
U.S.A. South	14	14	7	7	14	28	28	28	28	28	14	14	
Vancouver	14	7	7	7	7	28	28	28	28	28	14	14	
Watrous	7	7	7	7	14	14	28	28	28	14	14	14	
Montreal	3	3	3	3	7	14	14	14	14	7	7	7	
Sackville	3	3	3	3	7	14	14	14	14	7	7	7	

<u>WATROUS TO:</u>	<u>00</u>	<u>02</u>	<u>04</u>	<u>06</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>	<u>18</u>	<u>20</u>	<u>22</u>	<u>MST</u>
Europe	7	7	7	7	14	28	28	28	14	7	7	7	Mc/s
Africa	7	7	7	7	14	28	28	28	28	14	14	14	
Caribbean	14	14	14	7	14	28	28	28	28	28	14	14	
S. America	14	14	14	14	14	28	28	28	28	28	14	14	
Australia	14	7	7	7	7	14	14	14	28	28	28	14	
U.S.A. West	7	7	7	7	7	14	14	28	28	28	14	14	
U.S.A. Cent.	7	7	7	7	7	14	14	14	14	14	14	7	
U.S.A. South	14	14	14	14	14	28	28	28	28	28	28	14	
Vancouver	7	7	7	7	7	14	28	28	28	28	14	14	
Toronto	7	7	7	7	14	14	28	28	28	14	14	14	
Montreal	7	7	7	7	14	14	28	28	28	14	14	14	
Sackville	7	7	7	7	14	28	28	28	28	28	14	14	

<u>VANCOUVER TO:</u>	<u>00</u>	<u>02</u>	<u>04</u>	<u>06</u>	<u>08</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>	<u>18</u>	<u>20</u>	<u>22</u>	<u>PST</u>
Europe	7	7	7	7	7	14	14	14	14	14	7	7	Mc/s
Africa	7	7	7	7	14	28	28	28	28	28	14	14	
Caribbean	14	14	14	7	14	28	28	28	28	28	14	14	
S. America	14	14	14	14	7	28	28	28	28	28	28	14	
Australia	14	7	7	7	7	7	14	14	28	28	28	14	
U.S.A. West	7	7	7	3	3	7	14	14	14	14	14	7	
U.S.A. Cent.	14	14	7	7	7	14	28	28	28	28	14	14	
U.S.A. South	14	14	14	14	14	28	28	28	28	28	28	14	

To all ~~other~~ Canadian districts, use the foregoing charts, to obtain DX paths to them from Vancouver or area.

DX PREDICTIONS FOR NOVEMBER '49



MB-20 MULTI-BAND TANK

Switch to Safety with an MB-20. The tuning range is from 3.45 to 8.5 Mc. and from 12 to 30 Mc. Tuning any of these frequencies is obtained simply by turning the knob to the proper setting. No plug-in coils or band switching is required.

JACK SHIELD

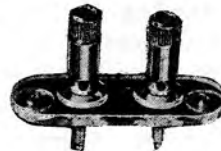
JS-1,

For shielding small standard jacks mounted behind a panel, or on the ends of extension cords. Indispensable for reducing hum pickup.



FWG

A Victron terminal strip for high frequency use. The binding posts take banana plugs at the top, and grip wires through hole at the bottom, simultaneously, if desired.



Sole Distributors in Canada

CANADIAN MARCONI COMPANY

ESTABLISHED 1903

MARCONI BUILDING, - MONTREAL

VANCOUVER

WINNIPEG

TORONTO

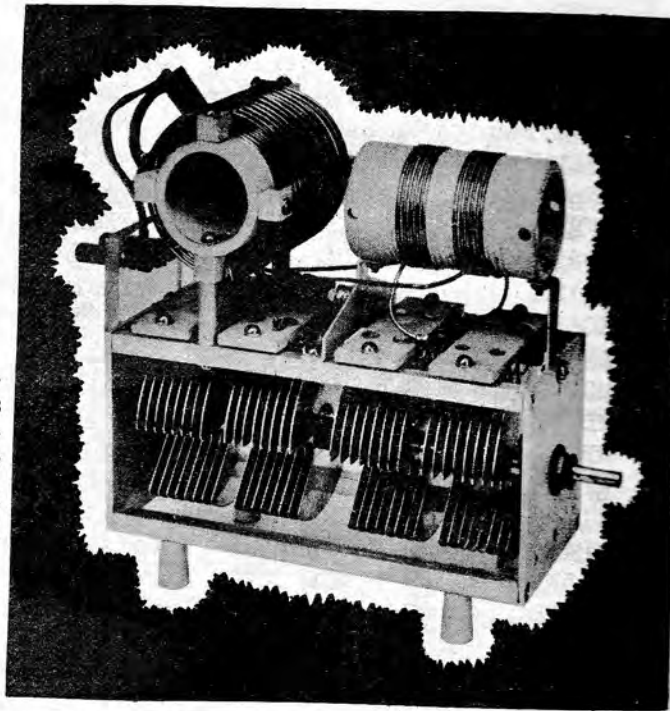
HALIFAX

ST. JOHN'S, NFLD.



TYPE MB-150 MULTI-BAND TANK

The MB150 is intended for use in transmitter stages where the plate input is approximately 150 watts or less (i.e. approximately 100 watts output). The tuning range is from 3.45 to 8.5 Mc. and from 12 to 30 Mc. Tuning any of these frequencies is obtained simply by turning the knob to the proper setting. No plug-in coils or band switching is required.



COIL FORMS

These small coil forms are of molded polystyrene, open at one end and closed at the other except for a hole which permits mounting by a single 6-32 screw. A size for every application.

Symbol	Outside Diameter	Length
PRC-1	3/8"	3/8"
PRC-2	3/8"	1/2"
PRC-3	3/8"	3/4"
PRD-1	1/2"	1/2"
PRD-2	1/2"	1"
PRE-1	9/16"	3/4"
PRE-2	9/16"	1"
PRE-3	9/16"	2"
PRF-1	3/4"	3/4"
PRF-2	3/4"	1 1/4"



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MARCONI BUILDING, - MONTREAL

VANCOUVER

WINNIPEG

TORONTO

HALIFAX

ST. JOHN'S, Nfld.

DX QTH'S

Reprinted from Short Wave Magazine

EASTM - Tomas Morales, Box 8, Laguna, Tenerife, Canaries.
EA6EG - Box 324, Palma, Majorca.
F9Qu/FM8 - C. Bernicot, %CGT, Fort de France, Martinique.
FF8MM - Box 207, Dakar, French West Africa.
FF8GP - G. Pijeu, Chef Reseau Radio, Gac, Fr. W. Africa.
FF8PM - Box 566, Dakar, French West Africa.
FQ8SN - % SCKN, Brazzaville, French Equatorial Africa.
HZ1KE - British Military Mission to Saudi Arabia, Taif, MELF
KG6FH - Box 100, Guam, Marianas (ex-J9SIR)
KH6VX/KB6 - % C.A.A. - Canton Island.
MD7GR - G.H. Rathbone, Evridiki St., 28, Famagusta, Cyprus.
MD7WE - % RAF, Nicosia, Cyprus.
MF2AA - Maj. M.H. Carrogher, HQ VG, Police, Trieste.
MI3GH - APO 843, % PM, New York City.
MI3UU - Box 222, Asmara, Eritrea.
MP4BAC - RAF, Sharjah, Trucial Oman, Persian Gulf.
PJ5KP - % W6MEK, 2719 Richie St., Oakland, California.
PK4KS - Tan Koon San, Pangkalpinang, Banka, Indonesia.
PK6XZ - Swortlaan 3, Macassar, Celebes.
PK5RU - Box 25, Bandjermasin, Celebes.
PZ1QM - Box 679, Paramaribo, Surinam.
SVØAL - Maj. A.L. Faverman, 45 Nikis St. Salonika, Greece.
VK2ACC - Farm 54, Fivebough, Leeton, N.S.W.
VK4SI/VR1 - Ren Foster, Navy Base, % 3234, Box M33, F.P.O. San Francisco
VP2AJ - APO 855, % PM, Miami, Florida.
VQ3SS - PO Box 457, Dar-es-Salaam, Tanganyika.
VQ3AA - S. Tanner, Traffic Dept., E. African Rwys, Dodoma, Tang.,
VQ3AD - % C.I.R., Arusha, Tanganyika.
XZ2TH - 75 Montgomery St., Rangoon, Burma.
YN1FTB - F.T. Brown, U.S. Embassy, Managua, Nicaragua.
YK1AC - A. Rabbar, Salhie Shouhada St. Damascus.
YS1RA - U.S. Embassy, San Salvador.
ZB1AJX - 18 Bugela Bldg., Fr. of Wales Rd., Sliema, Malta, G.C.
ZD4AC - J.C. Breakell, Box 933, Accra, Gold Coast.
ZP2AC - Box 512, Asuncion, Paraguay.

Curiosity pays on opposite page

CURIOSITY

We're kinda curious! How many of you readers, if offered something for nothing, would make the effort required to get that something? Skywire this month will reach more than 2100 hams! As an extra bonus, we're offering - ABSOLUTELY FREE - a fine NATIONAL ICN DIAL - the latest illuminated type - and for this all we need is YOUR name, address and amateur call. Send a note with this information to Skywire Editor, 284 Guilbault Avenue, Longueuil, Quebec right now. That's ALL you need to do! From all the mail received, one letter will be drawn, and to the writer goes that National ICN Dial for the new rig. Anyone can win! And since Skywire is now reaching hams from coast to coast, in all ten provinces, we'll give ALL of you time to get your entry here. The drawing will be made Wednesday, November 16th - three weeks away, and the winners name will appear in the next issue of Skywire. The dial will be shipped postpaid the night of the drawing to the lucky winner. It could be YOU! If you feel lucky, send more than one entry and increase your chances. ANY AMATEUR OR XYL IN CANADA IS ELIGIBLE! Write now!! We're curious? Are you interested in something for nothing?? Your answer will be your entries by return mail. Drawing will be made by a non-amateur and it could be your letter!!!!!!!!!!!!!!

YOU ARE CORDIALLY INVITED TO PARTICIPATE IN THE THIRD DX CONTEST - ALL EUROPEAN!

Sponsored this year by the Czechoslovak Amateur Radio Society, CAV.

The contest periods are:

CW section : November 26th, 1949, at 00.01 Greenwich time, until
November 27th, 1949 at 24.00 Greenwich time.

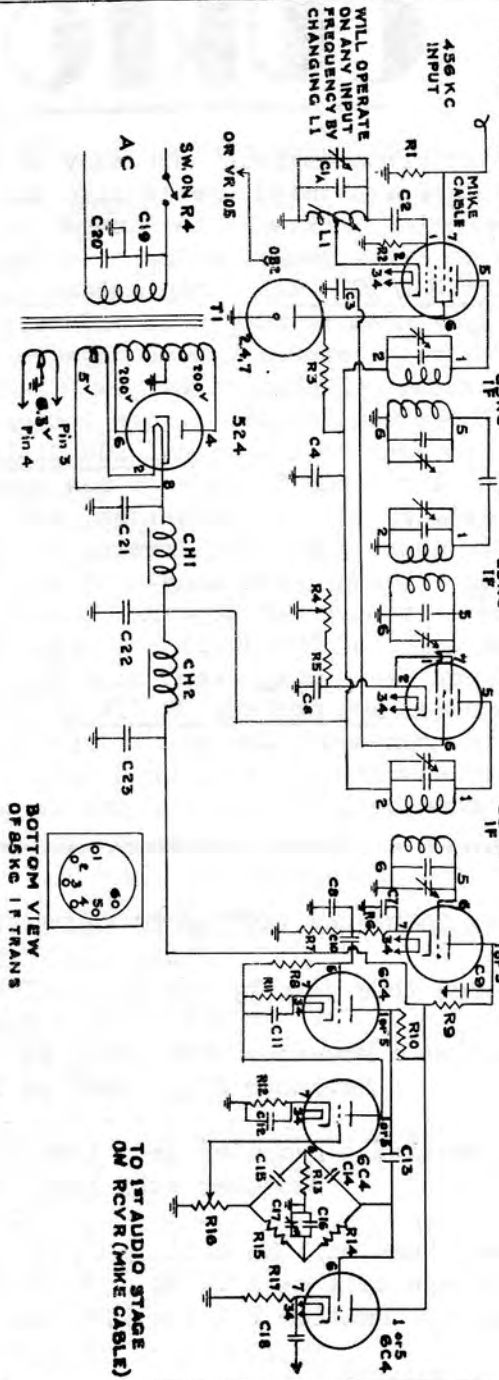
Phone section : December 3rd, 1949, 00.01 Greenwich time until
December 4th, 1949, 24.00 Greenwich time.

European hams will be calling CQ AW (CQ All world) Stations outside Europe will call CQ EU (CQ Europe). Contest rules in QST !
Further information ? Write CAV, Box 69, Praha 1, Czechoslovakia.

October, 1949

HEY! THIS IS IT ----- Page 19

**GIMMICK AROUND DIODE
PIN OF THE DET. IN RCVR GBE6**



- R1, R7, R13 - 100M
- R2 - 22M
- R3 - 5M - 10WATT
- R4 - 10M BIAS CONT WITH SW.
- R5 - 100 Ω
- R6, R10, R17 - 56M
- R8 - 1MEG.
- R9 - 39M
- R11, R12 - 1500 Ω
- R14, R15 - 220M
- R16 - 2M25G. POT. AUDIO TAPER SEL. CONT.
- R17 - 500M MFD. MICA
- R18 - 500M MFD. MICA
- R19 - 500M MFD. MICA
- R20 - 500M MFD. MICA
- R21 - 500M MFD. MICA
- R22 - 500M MFD. MICA
- R23 - 500M MFD. MICA
- R24 - 500M MFD. MICA
- R25 - 500M MFD. MICA
- R26 - 500M MFD. MICA
- R27 - 500M MFD. MICA
- R28 - 500M MFD. MICA
- R29 - 500M MFD. MICA
- R30 - 500M MFD. MICA
- R31 - 500M MFD. MICA
- R32 - 500M MFD. MICA
- R33 - 500M MFD. MICA
- R34 - 500M MFD. MICA
- R35 - 500M MFD. MICA
- R36 - 500M MFD. MICA
- R37 - 500M MFD. MICA
- R38 - 500M MFD. MICA
- R39 - 500M MFD. MICA
- R40 - 500M MFD. MICA
- R41 - 500M MFD. MICA
- R42 - 500M MFD. MICA
- R43 - 500M MFD. MICA
- R44 - 500M MFD. MICA
- R45 - 500M MFD. MICA
- R46 - 500M MFD. MICA
- R47 - 500M MFD. MICA
- R48 - 500M MFD. MICA
- R49 - 500M MFD. MICA
- R50 - 500M MFD. MICA
- R51 - 500M MFD. MICA
- R52 - 500M MFD. MICA
- R53 - 500M MFD. MICA
- R54 - 500M MFD. MICA
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- R75 - 500M MFD. MICA
- R76 - 500M MFD. MICA
- R77 - 500M MFD. MICA
- R78 - 500M MFD. MICA
- R79 - 500M MFD. MICA
- R80 - 500M MFD. MICA
- R81 - 500M MFD. MICA
- R82 - 500M MFD. MICA
- R83 - 500M MFD. MICA
- R84 - 500M MFD. MICA
- R85 - 500M MFD. MICA
- R86 - 500M MFD. MICA
- R87 - 500M MFD. MICA
- R88 - 500M MFD. MICA
- R89 - 500M MFD. MICA
- R90 - 500M MFD. MICA
- R91 - 500M MFD. MICA
- R92 - 500M MFD. MICA
- R93 - 500M MFD. MICA
- R94 - 500M MFD. MICA
- R95 - 500M MFD. MICA
- R96 - 500M MFD. MICA
- R97 - 500M MFD. MICA
- R98 - 500M MFD. MICA
- R99 - 500M MFD. MICA
- R100 - 500M MFD. MICA

BE GROUNDED
CHASSIS - 5" x 9"

LADIES PRESENT

This column is more particularly for the feminine side of the ham household, but since the items discussed are usually electronic in nature, the OM can bring himself up to date, on what, other than amateur radio, is going on in the world. For instance:

Here's something new which may spread like wildfire. A men's clothing store in Detroit had a hunch that it might be able to get some extra business from the window shoppers who passed after store hours, so the management installed a meter for taking orders. If someone passing by sees displayed an article he wants, he puts a quarter into an aluminum box and speaks into a microphone giving his name, address and the number he sees on the item he wants. His voice is recorded on tape which is played back in the store the next morning. Then the store sends the article to the customer and bills him for the price tag amount, less the 25¢ he used to give the order. And thanks to the gadget, the store has been making about 25 extra sales a week after closing hour. And this may prove to be a fine merchandising idea for other firms, in the future. Large field for a small idea!

One appliance manufacturer is now showing a new 150 watt light bulb designed to modernize a table or floor lamp into one which gives indirect lighting. The new bulb's too fat, though, for resting inside most types of wire supports for the lamp shades, and so a conversion set is sold, with the new wire support, or harp as it is now called, being sold for 50 cents.

These radio prize jackpots aren't all they're cracked up to be. A survey of winners brings out two points. First, most them were disappointed at the final value of their winnings, and secondly, they felt they still had enough left to make it well worth while. Why are those jackpots less than the figures announced? Because, the announced value is the retail price total of everything named. However, unless the family was the size of a small army, you'd never be able to use everything up. And unless you're very lucky, you get only the wholesale price of anything you sell. Then too, the U.S. Government takes its' slice of the winnings in income tax.

There are a number of smaller headaches too - like calls from solicitors and salesmen, and your telephone ringing all the time.

Curious ? See page 19!

But as one lucky winner said - "In spite of it all, I ended up with a lot of things I wouldn't have had otherwise. I'd take another jackpot anytime. Another winner said she figures that she'd get about half the 25,000 dollars she won, when everything had been settled, but she's still away up and ahead. Incidentally, the FCC ordered a ban on all giveaway shows as of October first of this year, but the networks sought an injunction and the programs may be around for some time to come.

A quirk of nature, electrically speaking is in the news from Italy where for the third time in fifty years, lightning DID strike the same spot at Taranto, and for the third time, a man in the Primardo family was killed by it. Twenty-seven year old Rollo was killed in his backyard by lightning. And 20 years ago his father was hit by lightning in the same spot and killed by the bolt. Fifty years ago his grandfather suffered the same fate. That would have been one for Ripley!

Just in case you're worried - the U.S. Army has developed a new gimmick for warning of the presence of deadly atomic poisons. Pointing out that regular Geiger counters are too sensitive for an ordinary soldier or civilian, the Army said that the new instrument is designed to detect and measure

relatively large concentrations of radiation, such as would result from an atomic bomb blast.

The army announcement said the new gadget is designed primarily for use in training troops as radiation survey teams. In the event of an atom blast, such teams would go over the affected area to determine when and where it would be safe for humans to venture, and for how long they could remain there safely.

The term Geiger counter really covers a variety of instruments for measurement of radiation. The Geiger counter was invented long before the atomic bomb for use in labs to study radium and Xray. The trouble with the Geiger unit is that it is too sensitive. It will start chattering and waving its' needles if a radium painted dial of a watch comes near it. It also insists on reporting the presence of cosmic radiation which falls all over the earth from outer space. And persons who use the Geiger counters must be trained to distinguish this background count of cosmic radiation. Could be this snarls up communications sometimes too ??

Speaking of the atom - a report from Australia says that hand-picked teams of scientists from three countries are working on a secret weapon which may become

You're 3 pages past page 19!!!!!!!

the answer to the atomic bombs. A report carried in a Sydney newspaper recently says the new weapon involves the use of both radar and high frequency radio. It is based, says the paper, on the principle of exploding an enemy aircraft or missile in flight. This counter weapon is guided to the target by radio transmissions. If these experiments are successful, the new weapon would take the place of ordinary radar as the chief defence against enemy aircraft and explosive missiles. Among the group working on the experiments are German scientists, taken to Australia by arrangement with the British government.

By the way, the bat, the giant squid and the hornet and rainbow trout have all gone to work for the atomic energy commission. The hornet promises to be quicker than scientific instruments in spotting dangerous leaks in radiation. The other three are now being used in studies aimed at getting a better treatment for so-called radiation illness.

Serious radiation illness can result from exposure to the blast of an atomic bomb, but the sickness may develop accidentally, too, from exposure to radioactive materials or the mis-use of X-rays. Rainbow trout are being used to measure the possibly harmful ef-

fects of radiation on subsequent generations. Small bats are used too, because their wings are thinner than tissue paper, and so can be examined to watch the effects of radiation on the blood and circulation. The giant squid is used because it has unusually large nerve cells. Under the microscope, scientists are able to watch the effects of the radiation on the protective covering of the nerves.

Astronomers are learning much more about the remote regions of the Universe now. For the first time they are seeing the invisible. They do this by using radar to locate and measure heavenly bodies which are absolutely invisible to the most powerful telescopes. They send out radio signals in the general direction of the Milky Way and get back answers in the form of images on a radar screen. In daylight as well as darkness, they track invisible stars. At least 28 invisible stars have been located and much is now known about them - how big they are and so on.

Astronomers have also been studying meteors. Meteor showers leave electrical slipstreams which radar can pick up. It has been discovered that meteors are not solid chunks of matter, but showers of dust. Radar study leads scientists to believe that meteor showers are sometimes a million miles long!

Can YOU answer page 19's question?

TOWN AND COUNTRY

Monty Montgomery, VE2KG.

October 15th the Aurora which you read about in the papers, produced a short skip which brought in 10, 6 and 2 for hours, with 2 meters particularly hot. Lots of DX! The news locally this month, other than that is as follows. All VE2's. EP, getting closer to skywire, has moved rig into attic. AGF adding XYL to shack on November 19th. BR lost D-104 mike, as youngsters used it for pin target practice. BG finally got beam motorized and selsyn equipped. EX took down all antennas to repair and remodel before cold weather. IL contacted UF6PA in Zone 21 at last. UW, the QSL manager is QRT, awaiting the stork. BI has new house, new wife and no money for SX-42 he was eyeing recently. AJI new St. Lambert ham on 40CW and on 2 meters. RV building country house, seems to have forsaken ham radio. PK made nice QSO with MI3AB and HG finally hit KMGAM on Midway. AEL switched to PM and 100 watts on 10. ACM is trying to hit 2 meters with 304TH. Hi! FF looking for someone to go on 235 megs - any takers? AAU in Rosemount uses just 4 watts on 10.

AEL reports mid-Vermont contact with W3KWF portable-mobile at Burke Mountain, on Sept 9th. W3 was using 522 and 3 element beam vertically mounted on bumper? AHH formerly G3CJW located now in Montreal. MK had guy running to skylight on roof. Big wind - no skylight! IC - Red Lynburner, famous Sir Hubert Wilkins pilot, has moved to southern Ontario. LU just out of hospital, and making good recovery. BN - old Pop Rowland is back again in the Queen Mary Hospital. He'd like a card or a visit - watsa gang? BU maintains contact with son in Stockholm via ham radio. LC is selling out, we hear - there are few old CW men left. SP pounds 20 CW with 100 watts. BE, the CGM attended Halifax ARRL Maritime Convention recently. TY his QSY to Toronto was false alarm. ER is also new bridegroom - Oct 15. KG looking for more news from the local gang for the column. AHM operates all bands CW and 10 fone with 50 watts and S-40A. Next meeting of Montreal Club is Oct. 26th, Canadian Legion Bldg.

AMATEURS: Reporters are wanted to send activities reports from all districts of Canada for Skywire columns. Club secretaries, interested amateurs, SCM's are invited to send monthly reports on the various districts - closing date - the 10th of each months' publication date.

HOW'S UR OBS IQ?

A.R.R.L.

The following Official Bulletins from Hartford are reprinted for your convenience. In order to be up to date at all times, listen to the OB station in your area!

OFFICIAL BULLETIN #208, Sept 22.
The record for 2 way on 144mcs. has been extended again. Operating from an FM station site near Roanoke, Va., W4JFV worked WØEMS Adair, Ia., at midnight on Sept. 16 - more than 850 miles. Also worked were WØWZZ, 760 miles and many W8's and W9's. Greater distances might have been worked but for lack of stations west of Adair. WØEMS reports working W8EP, W. Va., about 800 miles. Next 6 weeks may give more opportunity for long distance work not only on 144, but on higher bands too. VHF men are asked to watch condx carefully and report unusual work to ARRL HQ at once.

OFFICIAL BULLETIN #209, Sept 28.
With assistance of amateurs active on 28 mc, ARRL yearly conducts on the air code practice program of those wishing to learn continental code. Current program is under way, but added volunteers are needed. Schedules may be arranged to suit your convenience. Combination of CW and voice transmissions is con-

sidered most effective. Schedules will be published in QST. Suggestions of conducting code lessons are available from ARRL. If you are on 28 mcs, willing to assist, notify Communications Dept. and complete details will be sent. AR

OFFICIAL BULLETIN #210, Oct 1, 49.
Briefly this deals with coming ARRL elections, and lists the candidates. VE's are reminded to vote for the CGM and alternate, by means of ballot which you have received now, if ARRL member.

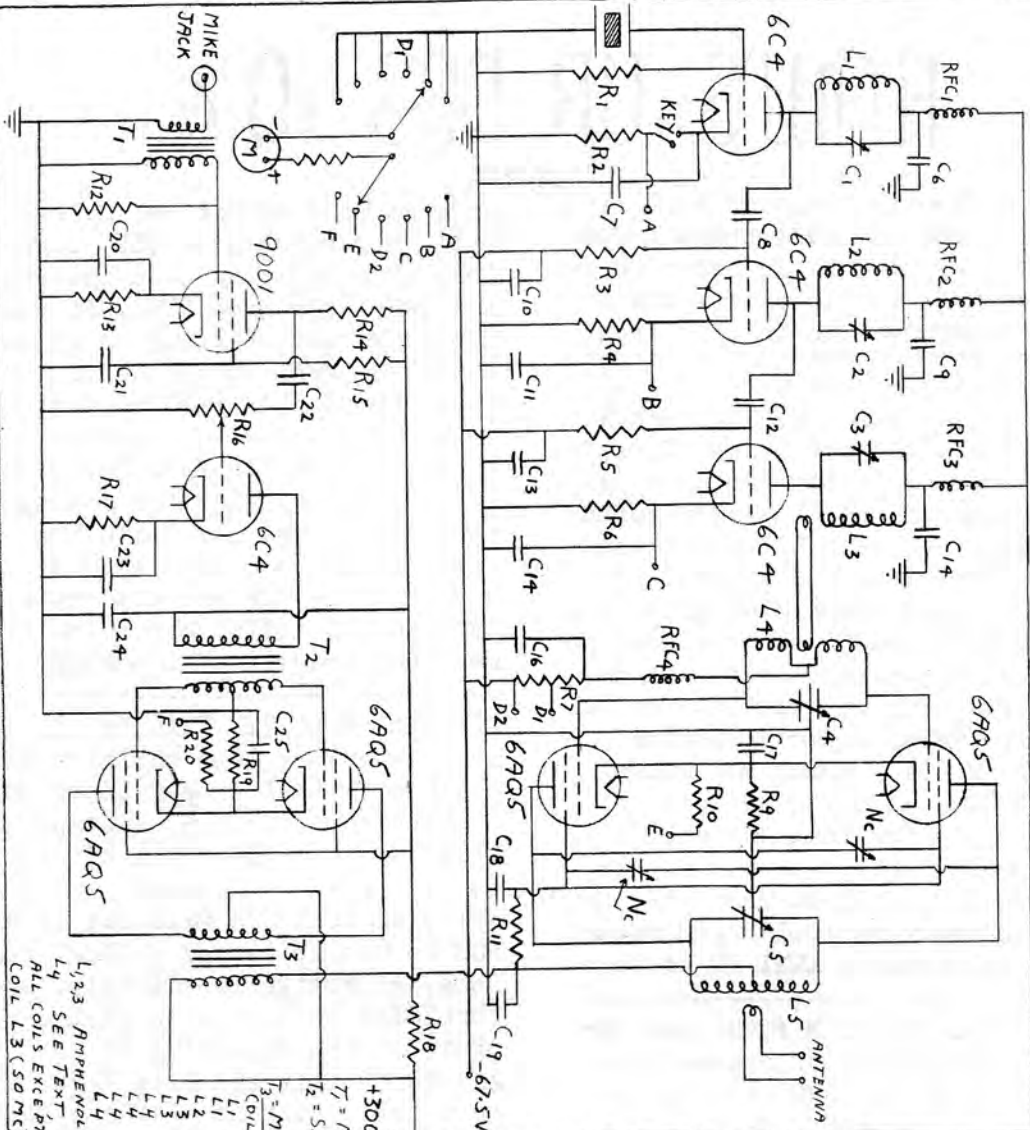
OFFICIAL BULLETIN #211, Oct 11, 49
This is a very long bulletin and deals with ARRL proposals to FCC on behalf of the U.S. amateur. These do not affect the VE hams.

OFFICIAL BULLETIN #212, Oct 17, 49
FCC on Oct 13 issued notice, U.S. hams, effective immediately, are forbidden contact with amateurs of countries objecting to Sec. 1, Art 42 of Atlantic City Regs. W's must avoid contact with the following countries - Austria, Burma, French Oceania, Greece, IndoChina, Indonesia, Iran, Israel, Lebanon, Madagascar and Dependencies, the Netherlands Antilles, Mauritius, Siam, St. Pierre-Miquelon, Togoland. Pass the word along - urgent!

Read page 19 this issue yet ?
October, 1949

Page 25

MINIATURE TRANSMITTER



- R1 = 25,000, R2 & 6 = 100, R8 = 250
 - R9 = 50, R10 = METER RES. (SEE TEXT)
 - R12 = 2.2 MEG, R13 = 2.7 K
 - R14 = 1.1 MEG
 - R15 = 2.2 MEG, R17 = 1,500
 - R20 = METER RES. (SEE TEXT)
 - (ABOVE VALUES 1/2 WATT)
 - R3 = 33,000
 - R5 = 25,000 } 1 WATT
 - R7 = 5,000
 - R11 = 5,000
 - R18 = 10,000 } 5 WATTS
 - R19 = 300
 - R16 = 1/2 MEG POT.
 - R1 = 75 MEG. VAR.
 - C2, 3 = 35 MME. VAR.
 - C4 = 25 + 25 MME. NATIONAL
 - C5 = 50 + 50 " NATIONAL STD 50
 - C6, 7, 9, 10, 11, 13, 14, 15, 16, 17, 18 = .002 MF
 - C8, 12 = .0001 MF MICR 600V.
 - C19 = .002 MF 600V MICR
 - C20, 23 = 4 MME 50 VOLT
 - C21 = 1/2 MF. 150 VOLT
 - C22 = .01 MF 350 VOLT
 - C24 = 10 MF 450 "
 - C25 = 8 MF 50 "
 - RFC1, 2, 3 = 2.5 MH.
 - RFC4 = 1 MH.
 - RFC5 = 2.5 MH, 100 MA.
 - +300V
 - T1 = MIKE TRANS. UTCO-1
 - T2 = SINGLE RATE TO P.P. GRIDS HAMMOND 134
 - T3 = MOD. TRANS THORPARSON T 211952
- | COIL | FREQ. | TURNS | WIRE | LINK |
|------|---------|---------|--------|------|
| L1 | 3-5 MC | 46 | 24 AWG | 4 T |
| L2 | 5-9 " | 34 | " | 3 T |
| L3 | 10-15 " | 16 | " | 1 T |
| L4 | 20-30 " | 7 | " | 1 T |
| L5 | 50-60 " | 4 | " | 1 T |
| L6 | 5-9 " | 18 + 18 | " | 3 T |
| L7 | 10-15 " | 8 + 8 | " | 3 T |
| L8 | 20-30 " | 5 + 5 | " | 1 T |
| L9 | 50-60 " | 2 + 2 | " | 1 T |
- L1, 2, 3 AMPHENOL L5 - NATIONAL AR16-S
 L4 SEE TEXT
 ALL COILS EXCEPT L3 (50 MC) CLOSE WOUND
 COIL L3 (50 MC) 1/2 INCH TOTAL LENGTH

HAMADS

Skywire Ham-Ads must pertain to amateur radio. Rates are 20¢ per word, per insertion for commercial advertisements - 4¢ per word for non-commercial, non-profit advertisements by licensed radio amateurs or experimenters. Full remittance MUST accompany copy! Print plainly; include address in word count. Closing date for ads, the 12th of the month of publication. Send to Editor!

R1155 receiver, S-meter, power supply for sale. Make your offer. Write VE2AEG, 5011 Gatineau Ave., Montreal - AT 6538.

New Hallicrafter Panadaptor, Model SP-44, 60 cycle. Ed Hill, VE2QE, 5657 Jeanne Mance St., Montreal. Price is \$80.00

National specialized communications receiver, Model NHU. Direct full vision dial covers complete range 13 to 62 megacycles. Xtal filter, BFO, limiter, carrier off noise suppressor (squelch) twelve tubes, black crackle table model, matching speaker, power supply - bargain at \$150. Also National CRU Oscilloscope at \$35.00 and C1 freq meter, Marconi at \$17.00. Write - Hamads - Skywire, 284 Guilbault, Longueuil.

Triplet 1632 type signal generator, 10 bands, 100kc to 120 mcs. Xtal oscillator, modulator, heterodyne detector built into carrying case. \$110.00 - VE2QE, 5657 Jeanne Mance St., Montreal.

Ham-to-be needs room, board and workshop facilities in central part of Montreal. Jim Kennedy, WE 2175.

Dual 10-20 meter Signal Squirter beam, four elements each band. Prop pitch motor turning. Complete with selsyns, indicator, relays, cables, roof tower, inductive coupling. Buyer must take personal delivery. No time to operate these bands. ~~Offers?~~ VE2TH, 284 Guilbault, Longueuil.

Transmitter section only SCR-522, complete, good condition. Also BC-221 AC operated frequency meter, almost new. \$20.00 for transmitter and \$45. for the BC-221 for quick sale. G. Montgomery, VE2KG, 109-A St. Charles, West, Longueuil, Quebec.

(Continued on page 28)

Marconi 1155 receiver, converted, power supply, speaker and cabinet, for 60 cycles - VE2QE, 5657 Jeanne Mance St, Montreal, Quebec.

BC-454 Receiver from SCR-274 Command Set. Covers 3 - 6.1 mcs. With tubes, not converted, aluminum finish. \$10.00. 1023 Manning, Verdun, phone TR4497 all day.

Genuine Jones Micro-match for sale, model MM-1 and in new condition. Phone EL 5140 evenings, or write VE2XZ, 242 Mt. Vernon, Montreal West.

Kato electric plant, model 20A, delivers 110 AC at 300 watts, and 12 to 17 volts DC for battery charging. Remote starting! Best offer over \$70.00 takes it. Ed Hill, 5657 Jeanne Mance St., Montreal.

Transmitter, Marconi TR-50, 3 band (switching), 3 power supplies, 2 meters modulator. Enclosed steel cabinet, Call - Dit, DO 9140.

Panoramic receiver, 2.5 to 30 mcs., 5" CRT, ANL, BFO, xtal filter, 22 tubes, power supply separate, another 5 tubes, with receiver and power unit in matching cabinets. Offers ? phone VI2854, Montreal.

Used BC-375E transmitter, fone, CW, rated 150w, complete with tubes, 7 tuning units and antenna tuner - \$75.00. VE2QE, 5657 Jeanne Mance, Mtl.

VE2AGF has for disposal more equipment, to make room for an XYL. All cheap, there are receivers, transmitters, components, tubes. Write or phone - WE 2175 after 6, 1730 Dorchester W., Apt 29, Montreal.

Teleplex Code Machine and tapes. Cut your own and hear your fist. \$0.00 Price \$40.00 - also 2 - 810's at \$5.00, 2 - 872's at \$2.00 and 2-866A's at \$1.50. Ed Hill, 5657 Jeanne Mance St., Montreal, Quebec.

When sending advertisements to Skywire, be sure to mark your letter clearly - Hamads, and remit complete amount with advertising copy.

Amateurs - parts storage bottles, 4 3/8" and 3 1/8", straight sides, metal screw top - 6¢ each. Parts boxes, 5" x 8" x 14" of 1/2 inch wood, wire bound - 15¢ each. VE2QE, 5657 Jeanne Mance St., Montreal, Que.

DON'T MISS PAGE NINETEEN OF THIS ISSUE. EVERYONE IS ELIGIBLE!!!!!!!!!!!!

TELEVISION!

Although television in Canada is not a reality, and probably will not be for some time to come, in other countries of the world it is marching ahead so fast, that each month we try to keep you up to date on its' new phases by reporting in this column. TV has a humorous side, other than the shows themselves.....

It was bound to happen. A young man walked into a mid-West doctors office and complained of a stiff neck. What from, asked the doctor ? The reply??? - Six hour stint in a local bar the night before, watching a TV set!

And one of the best cartoon gags on TV seen so far shows an announcer badly beaten up and with torn clothing staggering into a TV studio to say - " There's another bug to iron out of TV. Now they recognize us on the street, and look what happened to me!

Perhaps you're wondering if TV will kill the neighborhood show and take movies into homes in the future ? Most folks would answer a big NO to that one. But a Washington lawyer thinks that movie house owners should begin

to do some worrying. Television is growing much faster than the movie people expected. There are four million television sets in use in the U.S. now, and the rough part of it is that TV is appealing most to the people who formerly went to the movies most frequently. People who aren't now buying television are people who seldom go. to the movies, anyway.

Also, the theater owners can't console themselves with the idea that television is too expensive. The brutal fact is that 60 per cent of all TV receivers are being bought by the working class people who are paying for them by staying away from the movies. What they formerly spent on the movies just about equals their weekly payment on the set.

In spite of the newest developments in the color TV field, one electronics expert says that this type of TV is still a few years away. He did say, however that TV pictures would probably be much larger and brighter next year.

C.E. Torsch, head of the picture tube television research for GE, says the invention of a new transformer will help improve TV sets

next year. He says the transformer which is easily installed in the present sets will cut power consumption 20 percent, and he adds that the transformers will make TV pictures brighter and sharper, along with enabling manufacturers to build larger projectors.

But Torsch says that color TV is still in the future for all practical purposes. He says color needs skilled operators on the receiving end (hams) and that the sets would be hard and costly to set up. Servicing too would be almost twice as difficult as on black and white sets. Says he in a quote - I haven't seen any color pictures in television yet that were practical for the home.

Talking about stiff necks as we were a page ago, the Chicago Chiropractic Society has diagnosed a couple of 20th Century ailments too. The names of these are Telesquat and Telecrane. And the victims are among those who are consistently exposed to a TV set. Dr. Stone, President of the Society says Telesquat is contracted by sitting on the end of the spine, instead of sitting up erectly. Telecrane is a disease peculiar to the eager TV watcher who leans forward to watch the screen. The society isn't worried about an epidemic - it just sees more pains in more patients necks in the future.

Is television hurting the eyes of those "looking-in"? One man says his dog went cross eyed, watching the set.

But doctors say there're no rays coming from a TV screen which can harm your eyes. But TV may help you learn about eye troubles you already had and didn't know of. A few people are going to eye-doctors complaining that to watch television makes their eyes hurt, or gives them headaches. Some people ask if there are any harmful radiations from the screen. From all the facts available, there's nothing to either idea. The explanation is simple - the person who complains may have a minor visual defect like near-sightedness or an astigmatism. Perhaps he doesn't read much, or otherwise use his eyes on close work. Then he gets a television set and he spends hours focussing on a small screen. His eyes have to work, and the eyes muscles and nerves get tired, and he gets eye fatigue.

Then the patient TV watcher finds he needs glasses. But he would have needed them if he had been reading books, or went to the movies every night. TV doesn't cause trouble - the trouble had existed and TV brought it out in the open.

People with normal vision get

INTERNATIONAL RADIO TUBE ENCYCLOPÆDIA

This Encyclopædia, which has been prepared under the direction of Bernard B. Babani, gives the operating characteristics and base connections of some 15,000 valves made throughout the world by approximately 164 manufacturers and includes all the Military, Naval and Service types of many countries produced during the war.

An indispensable work of reference to all amateurs, home constructors, radio service engineers, radio dealers, radio and electrical manufacturers, government departments, universities, technical colleges, research laboratories, etc.

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eye fatigue sometimes, if they sit too close, or too far away, or if the set isn't tuned properly. Holding the head in an uncomfortable position can cause a headache or neckache, and middle people may notice the fatigue sooner. At middle age, the eye muscles and even the lenses lose some of their elasticity.

Television makes your eyes work more than reading does. This is because of the flickering movement. The same is true of movies. But there you have a larger screen to look at and you probably won't stay in the theater as long.

There are some good rules to avoid eye fatigue. One is not to have the room dark. The darkness makes too great a contrast between the

bright picture and surroundings. That means more work for your eyes. Motion picture theaters are dimly lighted to save this kind of eye work. At home, keep at least a dim light on, preferably one behind you, or an indirect overhead lamp. Sit six to eight feet from sets with a ten or 12 inch tube - sit right in front with the screen at eye level. Tune in a good clear picture.

Magnifying lenses may help if the bigger picture is clear. Some studies indicate that the main value of colored filters is just psychological. The blue or green tints seem more restful, but there is no evidence that they are physically more restful to the eyes. One other thing - don't watch for too long a period!

The next

MEETING

of The Montreal Amateur Radio Club is to be held in

THE CANADIAN LEGION BUILDING, 1191 MOUNTAIN STREET!

Wednesday, October 26th, 1949 at 8.00 p.m. on the 2nd floor of the Legion - in the Auditorium. Be there!!!

ATTENTION : CLUB SECRETARIES! Skywire pages are at your disposal at any time to publicize, without charge, club activities, meetings, news. Notify your club members monthly through Skywire Magazine!!!

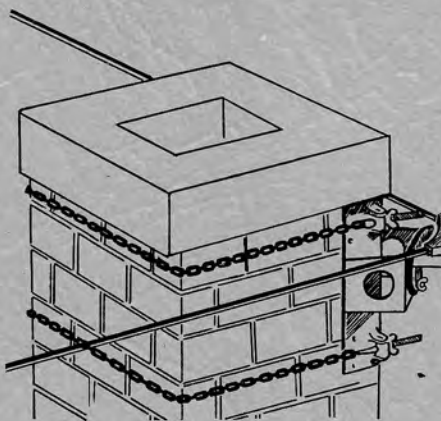
Did you read page 19 ?????

RADIO CENTRE NEWS

Supplies for Repairmen & Amateurs

De Luxe GROUND PLANE ANTENNA

The Ground Plane Antenna is made to withstand extreme weather conditions. One of the nation's leading antenna manufacturers built them to rigid Army standards at a cost of several times our low price.



Ground plane antennas are particularly good for increasing signal strength to other vertically polarized antennas such as used on mobile equipment. Also because of the low angle of radiation, it is quite effective for distance work.

This is a "Surface Craft" type of antenna consisting of a main antenna support structure, brass, painted grey.

Four brass rods form the Ground Plane.

Installation includes three radiators cut to the following frequencies 60-65 MCS --44", 64.5-71.5 MCS --38 3/8" and 71-80 MCS --33". Other frequencies can be covered by use of additional rods.

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Antenna similar to illustration but much sturdier!

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✓ Because you are served by "Hams" who talk your language, and know your requirements.

✓ Because we sell only quality merchandise produced by name manufacturers.

✓ Because we supply a Buying Guide Free to assist you in the choice of your purchases.

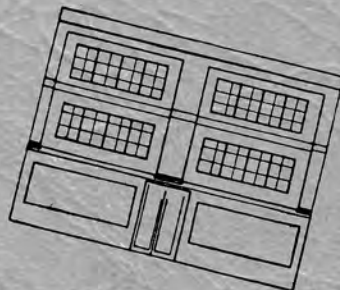


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