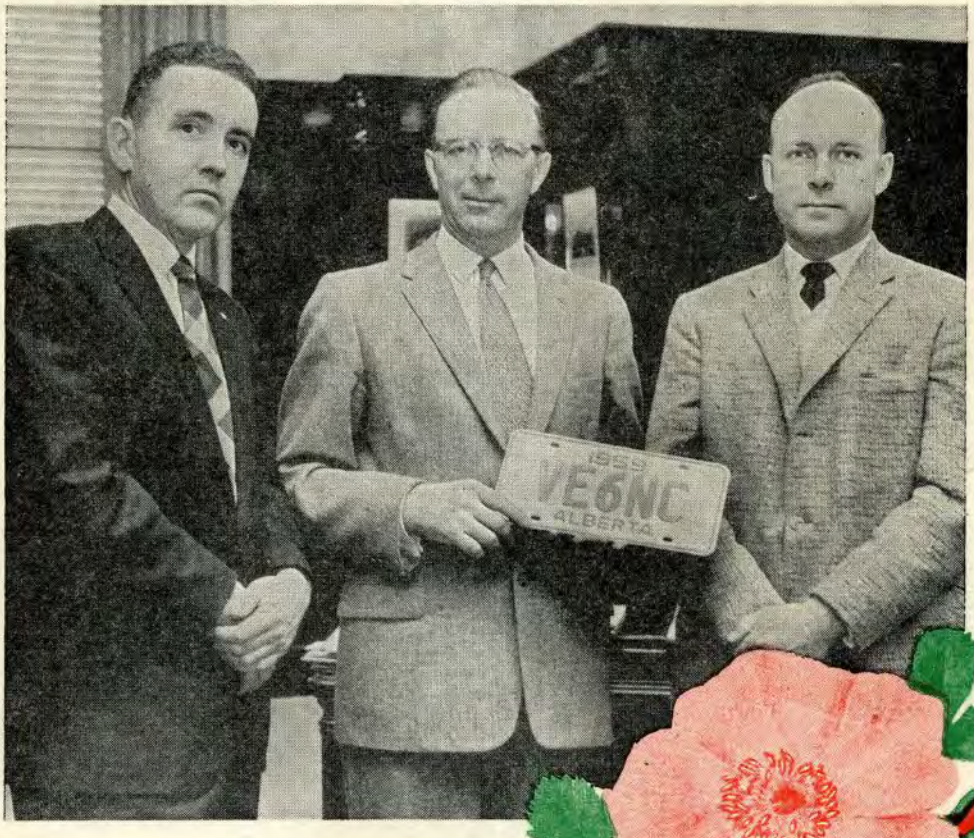
The CANADIAN AMATEUR

Vol. 1 No. 2 Published in the interests of the Radio Amateurs and Experimenters of Canada

A Salute to VE6 Land



FEBRUARY, 1959

40¢

History in the making . . .

Our cover this month, depicts an historic moment for the radio amateurs of Alberta. Premier E. C. Manning has in his hands, the first set of special license plates which bear the call of the Northern Alberta Radio Club. A moment after the picture was taken, the Alberta Premier presented the plates to the gentleman on his right, Mr. Kenneth G. Curry, VE6KC, President of the club, while Mr. Art Craig, VE6BY, left, proudly assisted.

The Wild Rose — Floral emblem of Alberta

The Canadian Amateur

VOL. 1 No. 2 Feb., 1959

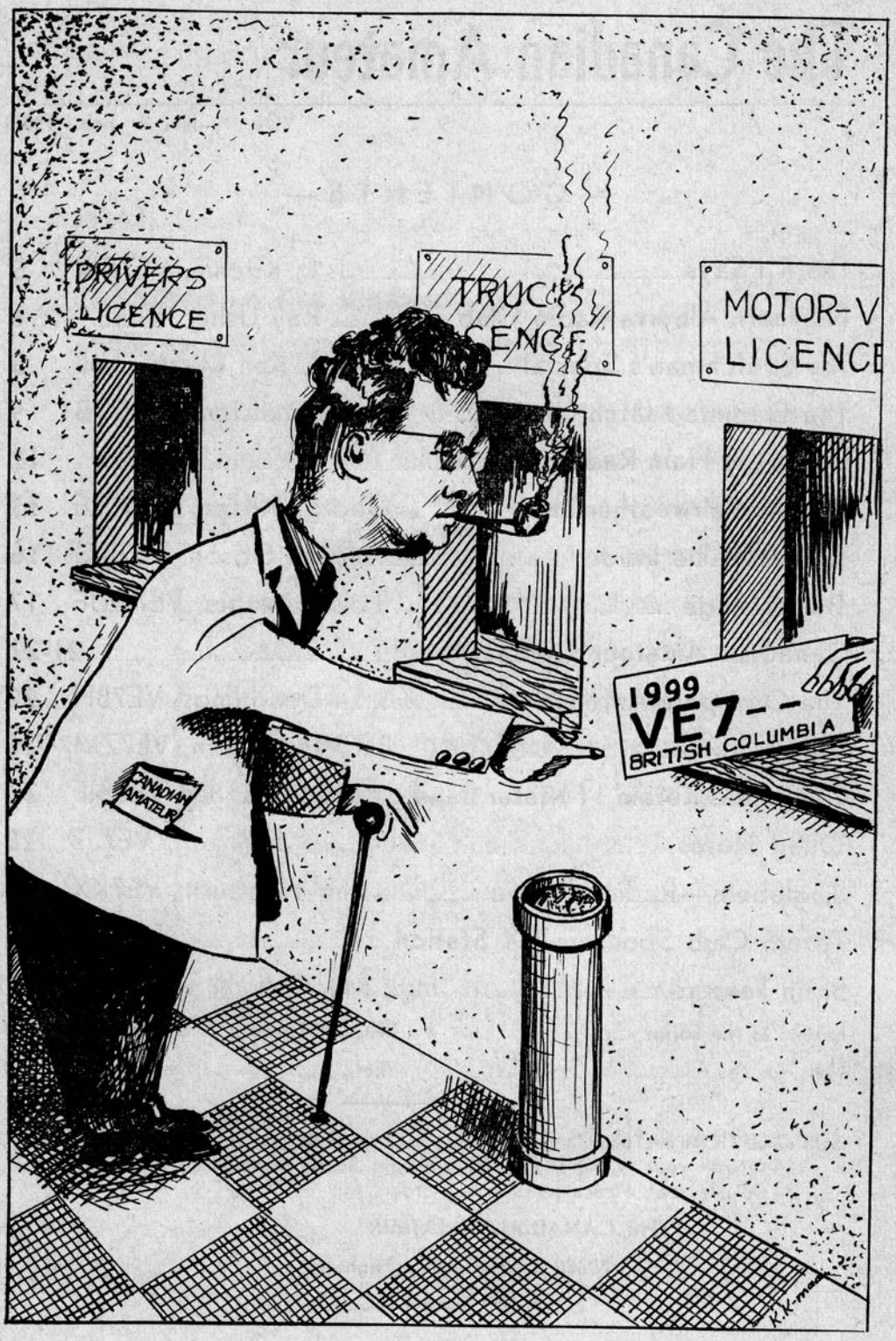
—CONTENTS—

SUBSCRIPTION RATES: Canada and the U.S.A., $3.00 per year. All other countries, $4.00 per year. West Indies, Central and South America, Air mail 2nd class, $8.00 per year. Please send money orders to:

"THE CANADIAN AMATEUR"

10328 Trans-Canada Highway

North Surrey, B.C., Canada.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AMATEUR

The Canadian Amateur — Published monthly by The Radio Experimenters of Canada at 10328 Trans-Canada Highway, North Surrey, B.C., Canada

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YL Editor ..... **Lois Gillespie, VE7AUF** **Technical Editor—**
DX Editor ..... **Bill Wadsworth, VE7ZM** **Gordon "Ing" McCallum, VE3DWN**

EDITORIAL

Canadian radio amateurs, and amateurs to be:—

Once again, a hearty greeting to you all. Please bear with us if we appear a little excited about what happened when our little book began to find its way into the homes of amateurs everywhere. Nothing but a stone could remain cool after all the wonderful things that were said, and written about the new magazine.

We have received some terrific material for the "Letters to the Editor" page. One was so nice, so different, we must tell you a little about it. VE7ADF's XYL happens to be VE7ADR, whose name, by happy coincidence, happens to be "Alberta." She writes in part—"Our heartiest congratulations to the new Canadian Amateur. I was so thrilled with it that I took it to bed with me last night!" Charles, my boy, that's life! Please accept our condolences.

Your Canadian Amateur magazine has started to roll, and as we head out across our great Dominion, we first stop to pay tribute to the province of Alberta. Meeting and making friends ,via amateur radio with so many throughout this vast area, qualifies us, we feel, to speak with authority on the warmth and hospitality of the people who make Alberta their home. Tenacious and resourceful, they have helped win for Canadians, respect the world over.

It was the application of these qualities by members of the Northern Alberta Radio Club, that brought recognition by their government in the form of special —call sign, car license plates to the amateurs of Alberta. The officials who, by their vision and co-operation, helped bring about this happy conclusion, must receive the plaudits of amateurs everywhere. They have, by their action, given new hope to those of us who work for, and look forward to receiving a similar reward.

The Canadian Amateur sincerely believes that other provinces in Canada should strive to emulate their Albertan brothers. By having proper representation, meet and confer with authorities, they should soon enjoy the same measure of success as that of our VE6 neighbours.

To fairly distribute the credit to the many deserving hands, without whose efforts a successful result could not have been reached, is beyond the scope of we mortals, but we do know that everyone concerned will be forever grateful for the unselfish, untiring efforts of Art Craig, VE6BY. On behalf of your fellow amateurs, Art, the Canadian Amateur salutes you. Your spirit has set an example for those of us who appear disinterested in the future of the Canadian radio amateur.

Letters to the Editor

This magazine welcomes constructive criticism and will publish all such articles in future issues. No letter will receive attention unless signed by donor. The space on this page is limited, therefore, we request your letters be concise and to the point. All material shall become the property of The Canadian Amateur.

Editor, Canadian Amateur,
Dear Sir:—

I note your comment in the first issue of the magazine, and I wish to amplify my previous remarks I am a 99% fone man and a 1% CW man. In order to get my license I was required to take an examination under the local RI. As everyone knows this is a code test and a written technical test. After one year I took the advanced examination at this point, I could have put my key in mothballs as long as I adhered to the regulations. Some amateurs do!.

I feel that the department should reclassify all amateurs in both cw and knowledge every three to five years. This would insure that all could read morse, and that their technical knowledge would be slightly higher than the transmit-receive switch of the latest Whiz Bang 2-2 transmitter.

May I congratulate you on your magazine, it will fill a long standing need for Canadian Amateurs.

73,
Steve Chisholm, VE3ATU

P.S. My cheque is attached for the first year.

Editor's Note: After tangling with these VE3's for over 20 years, I really should have known better than to have bluffed one of them. Incidentally, next letters to the editor's page most likely will be printed on asbestos.

1899 Lakeshore Rd.,
Sarnia, Ontario,
Canada.
1st Feb., 1959.

Dear Editor:

It has been noticed that cw operation in the Canadian phone segment 3725 kcs to 3800 kcs and also the international phone frequencies of 14,150 kcs to 14,200 kcs has been increasing. The stations using these frequencies on cw are predominantly U.S. licensed.

The European member societies of the I.A.R.U. have unanimously adopted a system of Band Planning, which was approved at Stresa I.A.R.U., Region 1. Conference 1956.

Certain segments were designated for Telegraphy and certain sections for phone, and other frequencies for phone and telegraphy.

In view of the success of their planning, I would request the views of your readers, with the suggestion that this matter be forwarded to the Canadian Director of the A.R.R.L. for his consideration.

It is acknowledged that U.S. Novice stations are allotted the overlap of 25 kcs from 3725 kcs to 3750 kcs, and that they are restricted, but the General and conditional licensed U.S. stations have the same cw privileges as the Canadian amateur, and whereas the Canadian Amateur by unwritten agreement do not operate cw in the segment 3800 to 4000 kcs, it would be a friendly gesture if an arrangement could be negotiated between the U.S. and Canada to plan that the U.S. stations do not operate cw in the frequencies of 3725 kcs to 3800 kcs.

With reference to the 14 mc band, it is regularly observed that if a D.X. station is heard on phone, a U.S. station attempts recognition on cw with resultant Q.R.M. This should also be subject to discussion.

Further to the above I have just been informed that the Western Massachusetts Novice Net has commenced operation on 3744 kcs.

Yours truly,
Rowland, VE3AML.

THE RI SAYS . . .

By J. E. Kitchin, VE7KN — Supervising Radio Inspector of B.C.

Up to and including the 1957-58 licensing year, radiotelephone endorsements were shown on the station license and were not a function of the Operator's Certificate of Proficiency in Radio.

On April 1st 1958 the Regulations were changed and the station license now shows what "schedule" of frequencies the station is authorized to use. The frequency schedules also indicate the types of emission authorized for the various bands, provided that the Operator has the required qualifications!

It therefore became necessary to have some other method of indicating the qualification for operation on the restricted radiotelephone bands and this has been done by means of the Certificate.

A licensee authorized to use the 10 and 11 metre phone bands should be in possession of an Amateur Certificate endorsed for this qualification. If he is authorized to use all the restricted bands he must have this indicated in one of two ways:—

1. By an endorsement on his Amateur Certificate.
2. By obtaining an Advanced Amateur Certificate

Those who fail to take action in this connection before March 31st of this year may find their radiotelephone privileges dropped so, if you haven't already done so, you should protect your radiotelephone privileges in one of the above mentioned ways.

Holders of First and Second Class Certificates are not affected by this but they should see that their Certificates are up to date and either issued or validated under the current International Convention (Buenos Aires 1952).

A suggestion was made in the Canadian Amateur for January regarding the matter of checking TV receiving antennae. A TV installation is a "private receiving station" and section 4 (1) (e) of the Radio Act provides for regulations in this respect.

Radio Regulation 14 therefore states: "No person shall install, erect, or construct in any area in Canada designated by the Minister for the purpose of this Section, an antenna for a private receiving station unless such antenna is installed, erected and constructed in conformity to specifications as set forth in Schedule I."

The Specification referred to covers design and construction of masts, the use of chimneys and vent pipes for supports, anchors and guy wires, insulators, etc.

It will therefore be seen that authority for the supervision and control of receiving antenna already exists and any Municipality may apply to the Department of Transport for authority to enforce the provisions of the Regulations in this respect. Places which have already done so are Oak Bay, Vernon and Kimberley in B. C. Drumheller, Alta. Lloydminster, Kamsack and Swift Current in Sask. Chapleau and Owen Sound in Ontario.

The procedure would be for any interested person or group to bring up the matter before their local civic council and request that such action be taken. ●

(Editor's note: It is hoped to make this a regular feature of the magazine and all information under this heading will be edited by Jim Kitchin, VE7KN, Supervising Radio Inspector, B. C., therefore it will be authentic and factual. We might suggest that this feature alone could well be worth the price of a subscription).

Northern Alberta Radio Club Nearing It's Fortieth Year

The Northern Alberta Club welcomes the Canadian Amateur, and hopes sincerely that the magazine will be successful in it's effort to be a voice of the VE hams.

The N.A.R.C. was formed in the latter part of 1921, just before the broadcasting boom started. The club started as a ham club, but was invaded by BCL members for a while and this caused many of the hams to abandon it for a time. The BCL's finally decided that their interests and those of the ham did not mix very well and they finally left the hams to their own devices. There followed a long, slow development period, which included the end of the spark era. This was helped enormously by the availability of cheaper radio parts and tubes, made possible by the very great interest in radio by the "do it yourself" radio builders of the earlier 1920's.

In attempting to obtain some information about the early days of the club, a lot of time was spent going through the reports in the early QST's and we came up with a very few . . . such as the following:

From QST for June, 1922, " . . . the manager is sadly in need of news from Edmonton.

October, 1922, "CFCN is on 275 metres with 100 watts of CW" . . . but that was a BROADCAST station in Calgary . . .

December, 1922, "4DQ in Vulcan is being heard in Vancouver.

April, 1923, and Edmonton finally made the station reports with this item . . . "4CL is very QSA in Vancouver." 4CL was Percy Field, now an engineer with DOT, down East, we believe.

While we are speaking of this period in the history of the NARC we should mention the names of some of the early members, some of whom are still around. Here are a few who come to mind . . .Ed. Taylor, 4HA, Frank Makepeace, 4AH, Ted Sacker, now 6BW, Charlie Harris, 4HM, Wally Beaumont, 6WB ex 4CU, Joe Dobry 6DR (don't remember his call), Ted Hawkins, 4EP and others we can't recall. Apologies to them; please forgive us fellows.

Your scribe's first association with the club was about 1927 so we can do better with the club's activities from then on.

Many interesting things have happened since then; for example, the first "five meter" activities about 1932. We even did some plan-to-ground work at that time with the aid of the Edmonton Aero Club, as it was then known. We had a lot of fun with Field Day back in the 1930's; we didn't work many stations, but we had some fun — just as we do today. We had a real expedition go through Edmonton on its way to attempt to go through the Rocky Mountains near Telegraph Creek. This was the famed Bedaux Expedition! they were equipped with special French vehicles —I think they were Citroens, which had made it over the Sahara Desert, but that Peace River mud was too much for them. The remains of the trucks are still up there somewhere. At any rate they had a ham operator and a station with them. I think he was jettisoned before they got very far, because Bedaux didn't have any use for radio, or something.

Then there were hamfests . . . we have had some dandies, such as the hamfest of 1939. We can't forget the 1958 hamfest, though. That was probably the best of all. Ask anyone who was there, or better still, ask someone who wasn't there, after he heard about what he missed. Who said everything

good happened 20 or more years ago? . . it just isn't so.

To go on with our history, we lost six years over that difference of opinion in Europe and Asia, which brings us to 1945, November 15th to be exact. We picked up about where we left off, but there were a number of silent keys and mikes.

War surplus . . . remember those 807's for 65 cents . . . electric ones, I mean, Hi. And WAC in a few days on 10 metres? WAC took 7½ years the way I did it . . . that was back in 1937. And Mobile operation . . . everyone has gone in for it. TV and it's effect on Ham radio. Remember those who said that Ham radio was through, and how wrong they were.

Let's stop reminiscing and think about the future. There is a bright future, in spite of some crepe hangers who are prediciting the loss of all the good amateur bands. I remember the same story before, about 1928 . . . it didn't happen.

In passing, I must say that I regret to see the tendency amongst so many hams to buy all their equipment instead of building it. I feel this has a tendency to make things a bit too commercial; to place a financial valuation on everything . . . so that it's trade-in value assumes a very important position. So much for that.

How about transistors and other new developments around the corner? I wouldn't be too much surprised, if a member of the good old NARC got the first QSL from the moon. I hope the card won't be made out in Russian, but even if it were, I for one, would be tickled pink to get it Hi!

Seriously though, the NARC started way back in 1921, that is true, but it is still going strong in this year 1959. We hope to be members of it in 1967, on the hundreth anniversary of Confederation. Let us look forward to new things as yet undreamed of, in the future; but, let's not forget the good-fellowship side of this, our most wonderful hobby.

Last of all, let us try to interest as many newcomers as we possibly can in Amateur Radio. We find the average age of hams is well over 40 now, certainly a far cry from the high school kid whom the average person associates with amateur radio. Let us all try for better public relations. That is what we, as members of the Northern Alberta Radio Club are trying to promote.

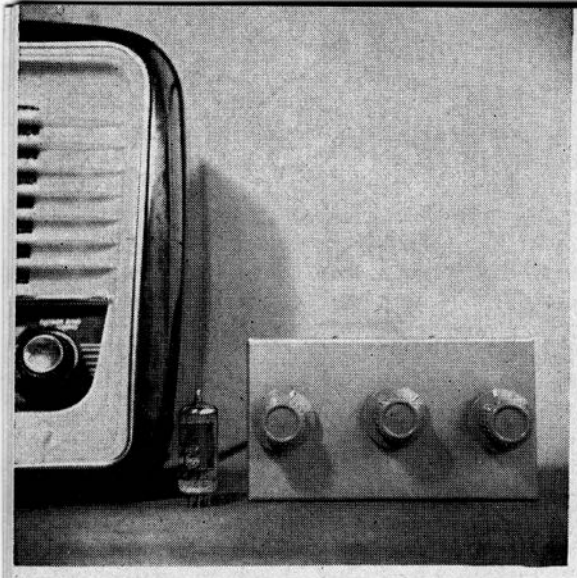
Ray Usher
VE6EA. •

Nets To You . . .

A very useful, but little publicized group of amateurs are banded together to assist, whenever possible, in the handling of messages into, what could be at times, hard to get at places. They are known as the Northern Net, operating on 3780 kc at 7.30 PST. VE7PG, Sparkey, their net control station, keeps the youngsters who comprise the net, in a firm hand, there will be no delinguency as long as he is at the helm. Incidentally Sparkey is 76 years young! Active checker-iners are as follows:

7PG, Terrace (Sparkey)
7AHJ, Terrace, (Ted)
7AD1, Smithers
7AGK, Burns Lake, (Harry)
7LL, Allison Harbor, (Ray)
7XP, Prince Rupert
7A1P, Babine Lake
7AOE, Kitimat
7AE4, Prince Rupert, (mobile), Pete
7BV, Courtenay
6ES, Gr. Prairie
7OZ, Pinchi Lake
7QJ, Masset, Queen Charlotte

A wonderful bunch of letters from the boys in Flin Flon — full of good wishes and support, prove they are fighters, the kind that will help the Canadian Amateur grow, grow, GROW!



The

Scotchman's Special

Converter uses one tube and home-made coils to cover the 40 and 80 meter bands, and will provide reception at the lowest possible cost. It can be used in a car or with any home radio, or can be used by itself with earphones. Truly, there's rejoicing in Aberdeen tonight!

How Cheap Can You Get?

by Ken MacNicholl

Many would-be hams are forced to delay or abandon their plans to get on the air due to a temporary "embarasse de richesse"; quite often, as in the case of students, some years may pass before financial solvency is reached. The price of commercial equipment is quite beyond some people's reach and, discouraged, they become absorbed in other activities. Amateur radio loses some top-notch candidates at this stage quite unnecessarily for equipment that is quite suitable for local work can be assembled for a surprisingly small amount of money.

Assuming that there is one home receiver available to start with, a complete amateur station can be assembled as follows:

Converter	$10.00
Revisions to radio	6.00
Phones, key, antenna	7.00
Frequency standard	15.00
Transmitter	18.00
Power supply	6.00
Complete Station, approx.	**$62.00**

This series then, will describe low-cost equipment that will get you on the air.

PART I

SHORT WAVE CONVERTER

This converter can be used to receive amateur transmissions on 40 and 80 meter bands and, due to the low Q of L2 (see diagram) it will also receive international short wave broadcasts on the 31 meter band. It has performed extremely well in the car with a 12BE6 tube and has been surprisingly stable even with large voltage variations. It can be connected to an AC-DC receiver by placing the heater in series with the other tubes, or to a transformer set by placing the 6BE6 heater in parallel.

Although the illustrations shows a completely shielded unit suitable for use in a car, it is better to make it in breadboard style at first on any surplus metal chassis since it will be necessary to adjust the coils before final assembly. The circuit is quite straightforward and parts placement is not too critical. The only difficulty will be in winding the coils just right,

(Continued on Page 37)

the gamma match

By Russ Burmeister, VE3DYB

The principle of the gamma system for matching coaxial transmission lines to beam antennas is well known and widely used. However, there are some troubles usually found when a person builds one for himself. Not the least of these concerns the variable condenser in series with the gamma rod. Shielding, mounting, and moisture-proofing to prevent the arcing over of this part can be a headache. One solution to the problem is to make the series condenser part of the gamma rod. No originality is claimed for this idea but possibly the approach used will suggest ways and means to solve your own problem.

The construction is shown in Section A-A .The smaller part of the gamma rod is a section of 0.5" O.D. tubing while the larger part is 0.875" O.D. and 0.777" I.D. diameter tubing. To make a practical condenser with these 2 sections of tubing acting as "plates," you must separate them with a dielectric. The choice of diaelectric depends largely on what is available. Fortunately, polystyrene tubing in 12" lengths and various diameters is obtainable quite cheaply from the larger radio supply stores. Typical sizes are shown in Table 1. Reference to this table shows that 5/8" O.D. and 3/4" O.D. tubing will telescope and in turn will telescope with the two sections of aluminum tubing. Some work with abrasive paper may be necessary for a sliding fit since the polystyrene tube is not made to close tolerance.

Our condenser-gamma rod is now assembled but it would be interesting to know just what capacity we have. The capacity can be calculated by formula. Now don't all run for the exit since in this formula. as with any, it is simply a matter of plugging suitable known numbers into the right slots and cranking out the answer. The formula is as follows:

$$C = \frac{D \times L}{2 \times \log \frac{b}{a}}$$

Where C = capacity in micromicrofarads (mmfd).
Where D = dielectric constant for the material used. (See "The Radio Amateur's Handbook").
Where L = length of condenser.
Where b = inside radius of the outside tube.
Where a = outside radius of inside tube.

These dimensions will be clear from the sketch. To illustrate how the formula can be used, consider the combined condenser - gamma rod shown. Since polystyrene tubing was used, D = 2.65. If the aluminum tubes are lapped as drawn, L will equal 6". Furthermore,

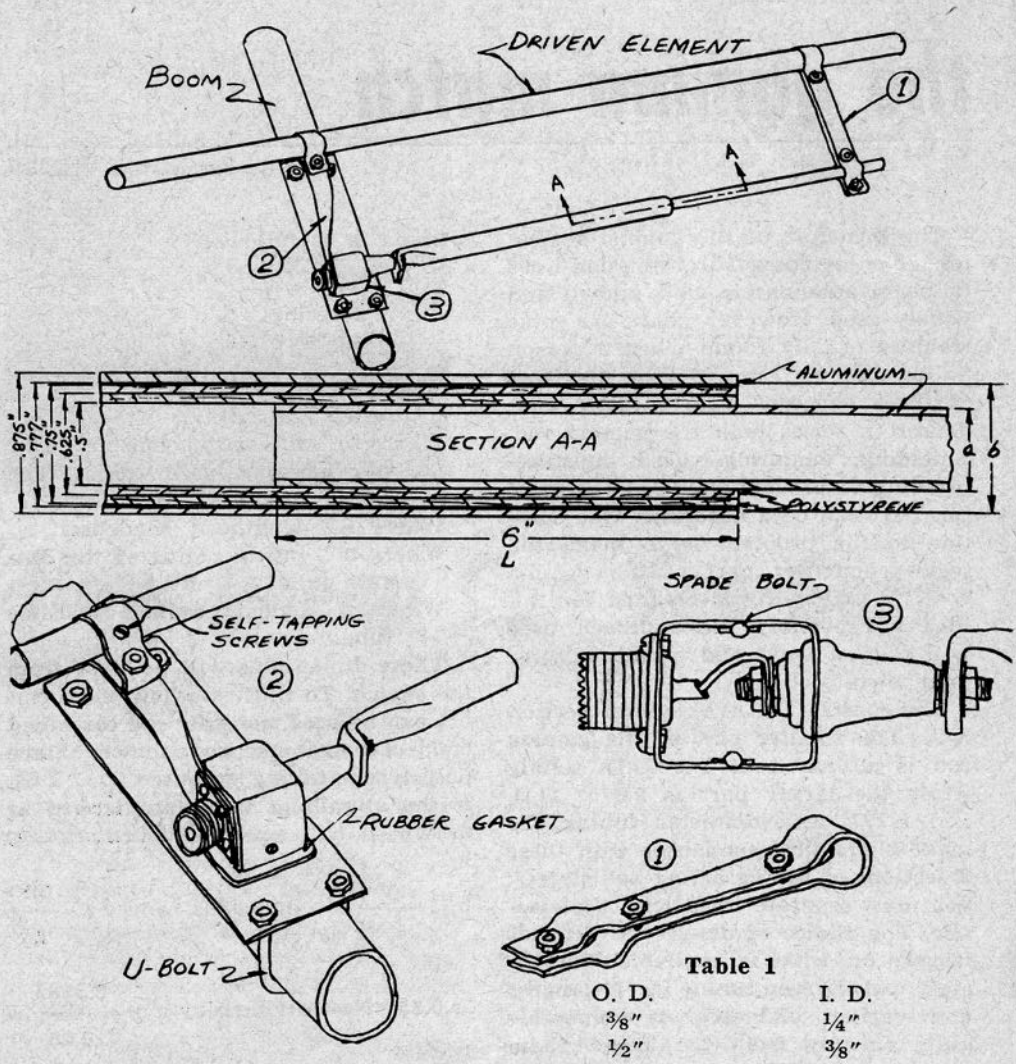
$$b = \frac{0.777}{2} \text{ or } 0.3885" \text{ and } a = \frac{0.5}{2}$$

or 0.25". Now divide b by a or $\frac{0.3885}{0.25} =$ 1.554.

The common logarithm of this number must be found. Such logarithms are tabulated in suitable tables. Should you be interested enough to try the formula, you will easily find the correct number. In any case, the logarithm of 1.554 or log 1.554 as it is usually written, is 0.1914. Plug all the known numbers into the formula and calculate the capacity.

$$C = \frac{2.65 \times 6}{2 \times 0.1914} = 41.5 \text{ or } 42 \text{ mmfd. roughly.}$$

For a practical gamma match, the problem will be usually one to determine L since the desired C will be



known. Thus the formula can be arranged to give:

$$L = \frac{2 \times C \times \log \frac{b}{a}}{D}$$

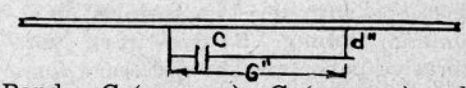
where the symbols mean the same as before. Note that in evaluating any such formula a common measure must be used i.e, if you decide to use inches for lengths, use inches throughout and do not bring in feet, centimeters or equally different quantity.

As noted in Table 2, the capacity calculated above would probably be suitable for a 10 meter beam. Should the length L calculated to give a capacity suitable for a lower frequency gamma prove to be greater than 12" dielectric tubing length suggested, lapping the telescoped sections of polystyrene tubing will give any length

Table 1

O. D.	I. D.
3/8"	1/4"
1/2"	3/8"
5/8"	1/2"
3/4"	5/8"
1"	7/8"

Table 2



Band	C (approx.)	G (approx.)	d
10	50	20-28	4
15	75	28-38	5
20	135	38-48	6

C in mfd. Lengths in inches.

desired. The sources for aluminum tubing will be left to your ingenuity but it is available at Alloy Metal Sales Ltd., 181 Fleet St., Toronto, Ont., or 20 Montcalm St., Winnipeg, Man. In a multitude of sizes, wall thicknesses, and alloy types at reasonable prices if you realize that you get a good deal for your money when buying aluminum because of its light weight. The alloy 65ST is preferred to 24ST not only because it is less brittle but is also cheaper.

The remaining parts of the match are shown in the sketches. The end of the larger tube of the condenser-gamma rod is flattened, bent and bolted to the E.F. Johnson No. 40 steatite thru-panel insulator. This insulator and the Amphenol 83-1R chassis receptacle are mounted on opposite sides of a square, cut-down, shield can. The insulator bolt from the condenser-gamma rod is joined with a short length of wire to the centre terminal of the coax receptacle. Spade bolts hold the assembly to the aluminum plate which is in turn attached to the boom with galvanized U-bolts. Note the rubber gasket under the can. To ensure that the coax shield is grounded to the centre of the driven element, attach a strap as shown and fasten to the element with two plated self-tapping sheet metal screws. The brackets for the gamma rod, as well as other strapping material or sheet needed can be cut from an aluminum cookie sheet stolen from the XYL's kitchen. Aluminum fasteners are available from the mentioned suppliers as well as the larger hardware stores. Adjustment of the gamma match is your problem but if you've gone this far, you've probably got that aspect cased. If not, try W6SAI's Beam Antenna Handbook. When the checkout is complete, seal the open end of the condenser with polystyrene or liquid rubber cement to close joint to moisture.

GOOD LUCK! ●

Editor's Note: We think that Russ has handled the job superbly, don't you? It looks like the answer using the gamma for a Quad antenna. We will give it a try, if we ever catch up with the mail!

What Would You Like In SSB Articles?

I met Tommy Holtby a few days ago and naturally we started discussing his SSB column. Tom has a wealth of material on almost every phase of amateur radio, bu this long suit is SSB. He was working with it way back when most of us thought SSB stood for Super Sharp Blades!

Tom asked, "What do you readers want from me about SSB?" . . . What a twist, he is asking ME! So, I proceeded to tell him, "Well, it is quite evident what they want, and I am rather surprised you can't see it! They want . . . . ah . . . er . . . um . . . well, look, let's ask them, then you won't have to take my word for it!" Having explained to Tom what was wanted, he agreed it might be a good idea to let you folks decide He has an article ready, bit of a technical affair, I think, which he will use if the mail indicates that will be appropriate. So there is your opportunity—what is your pleasure? —The editor.

The Mysterious 1934 VE9CY Turns Out To Be 2 Watter

A most interesting note from Dr. Hocking, VE7FG, explains the VE9CY entry in the University of B.C. Amateur log, the story of which was run in our first issue. Jack writes, "I was the voice behind the single button mike that signed that call, way back in 1934. I was doing some experimental work on supressor grid modulation, and the B.C. Forestry was interested in seeing if it could be used for short haul at Prince George. They were issued the Call VE9CY, and I used it to test the little 1½ to 2 watter (output), on 80 meters. Regular contacts with the 5:00 o'clock net were made all over B.C. and Alaska!"

That, is amateur radio!—Ed.

University Ham Radio

University of Alberta — VE6RR

The benefits of cross-country communication via amateur radio are enjoyed to the full by a group of live-wires who operate VE6RR. Active in a network of four Canadian Universities in different provinces, they are able to keep abreast with the latest developments in those areas, while keeping the boys posted on what is taking place in Alberta. Welcome aboard fellows, and our heartiest congratulations to you for the contribution you have, and are making to amateur radio through station VE6RR. — Ed.

The history of the Amateur Radio Club of the University of Alberta started when the present premises were vacated by CKUA, providing a station for the club. We thus received a radio shack and two 100 foot towers. The call letters at that time before the war were VE4AJS. The equipment consisted of a Sky Challanger receiver and a 100 watt transmitter, composed of a pair of T—20's driven by an 807. Unfortunately the club which was very active was closed down by world war two.

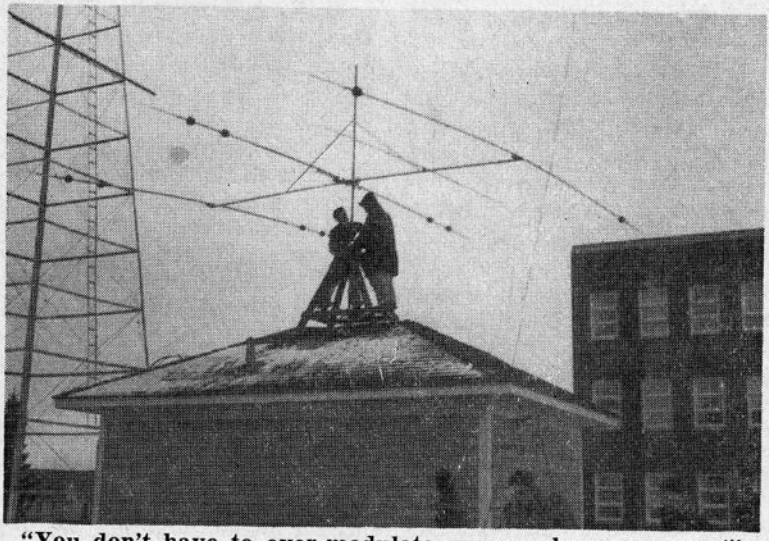
After the war operations were resumed with the call letters of VE6LO. History is a little spotty here. However a home brew all band rig was built up which is still in use. It is a fone/cw rig consisting of an 807 driving a pair of 814's at an easy 100 watts. The Lazy H stretched between the two towers proved to be quite effective. The operators of the station were very active in the high spot in "48".

The activity declined and the station went back into moth balls until Dennis Hollingshead and some others reopened VE6RR in 1953. An A.T.3 500 watt transmitter and a Super Pro., B.C. 779 receiver were obtained from the R.C.A.F. on loan. A home built beam was made which worked well but it was demolished in a wind storm.

At present the receiver is an HQ 129X ,the 100 watt 814 rig feeds a 3 element tri-band beam. Other equipment is a Heathkit v.f.o., tape recorder, scope and a 2 meter rig.

Last year the Students Union gave

(Continued on Page 32)



"You don't have to over-modulate, we can hear you now!"

The Mt. Fairweather Story PART 2

By George Kitson, VE7ALE

Having in a moment of weakness, agreed to accompany a group of alpinists in their attempt to conquer B.C.'s highest peak in our Centennial year, George, VE7ALE, and his right-hand man, Ken, VE7AEW, found themselves confronted with the stupendous task of preparing, among other things, a complete amateur station. One that could be flown 1,000 miles ,set it up in zero weather, and then take care of all the expedition's communications! The first part of the Fairweather Story, told of this preparation. We now join George and Ken for their further adventures.

First Port of call, local D.O.T. where I outlined the situation to J. E. Kitchin VE7KN, Regional Supervisory Inspector. I explained the nature of the station. That it was a Centennial project, the type of traffic it was proposed to handle, which of necessity, would ultimately reach the Press. Jim was very understanding and interested, in fact he came close to being enthusiastic, if a Govt. official is allowed to become enthusiastic in his official capacity. A great number of us are inclined to view the Dept. as a cold machine. But let me state here and now, that all the assistance and courtesy possible was extended to me by Jim. He asked, among a great number of other questions, what call did we propose to use? I told him I had thought a great deal about that, and as a start I put forward a suggestion that had been made to me over the Net by Norm VE7ALY of Turn Harbour, B. C. That VE7BCC — Victor Easy 7 British Columbia Centennial would be a good call. Jim felt that fitted the picture perfectly. Could I get that call? Why not? When could I apply for the license? Right now. Brother when that man moves, he sure moves fast. He called his Secretary in, gave her the data, and in nothing flat she came back with the papers. I dug down and produced the necessary cash and that was it. Nelson Smith VE7DF Chief Radio Inspector was passing the office door, he stuck his head in and said Howdy. Jim filled him in on the reason for my visit. He congratulated me and wished us all the success in the world. With people like these looking after the interests of Amateurs, I feel confident that nothing will go wrong. Providing we do our share. I left the office in a rosy glow and a feeling of a big job accomplished. Two days later, I received from D.O.T. letter confirming that the Department had no objection to the establishment and operation of Amateur station licensed by me on behalf of The Mt. Fairweather Centennial Amateur Radio Club. And full authority to transmit to other Amateur stations the class of traffic we had proposed.

Next, came a letter to be sent to F.C.C. Washington with their Form 410-1 requesting granting of Form 410-2 Certificate of Registration and Permit for Operation as the station would be located in Alaska. A letter was sent to the Radio Engineer in charge at Juneau, Alaska, filing notice of location and duration of operation. We received a very nice and explanatory letter from Mr. H. S. Weidner, Engineer in charge at Juneau. Oops, we goofed! We should have sent the letter to Anchorage, not Juneau. So away went another letter. The necessary papers arrived from Washington, also a covering letter from Mary Jane Morris, secretary of the F.F.C. explaining that the Commission's Amateur Radio Service Rules do not preclude the transmission via amateur stations of the type of messages I had described. She directed my attention to Section 12.103 of the Rules which provides:— "An amateur station shall not be used to engage in any form of broadcasting," which of course, is similar to our own

regulations. So as far as officialdom was concerned, we were all set. From then on it was a steady round. A million and one things to think of. Antennas, transmission lines, portable gear for the mountain, power plant, food, etc., etc. and lurking in the background was the ever present admonition "Keep the weight down!" issued by Ian Kay, chairman of the Technical Planning Committee. This edict was a headache not only to us, but to Ian as well. Ken and I went into a huddle on the antenna situation. We exhausted every possible thought on the matter, then we rang in John, 7JB. We decided to use Dipoles for 10, 15, 40 and 75. John told us we could use a G4ZU Beam that he had lying around doing nothing. Plutocrat! For the other antennas, I would take down my own existing sky lines. Two of them were fed with RG59 which is comparitively light and would conform with the weight Boogy. John soon dampened that with the very wise observation, that as we did not know what the tree placement situation would be like at Lituya Bay, it may very well be that we would have to use long lines. And to cut down losses, we should go to RG11U even though it would be heavier. Our figuring brought us to the fact that we would need 300' to 500',—Minimum would be 300'. Lord! At 25 cents per ft., that was going to be expensive. So off I went. I made an appointment with Mr. Johnson, local Manager, Canada Wire and Cable Co. I told him of the expedition and our requirements. What could he do for us? He proved to be a perfect gentleman. His company donated 300' RG11U as their part in this Centennial project. Did you ever have fifty million things on your mind. Try to separate each and every detail out and act on it and at the same time, appear reasonably sane and normal around the Boss and job? That is what Ken and I had to do during those hectic weeks. Things started to fall into shape. Ken went in to see our mutual and very helpful friend Bob Clarke of Western Agencies, and outlined our need for a spare compliment of tubes for the two transmitters and two receivers. What could be worked out? "Simple!" said Bob. We will let you have what you need on consignment, and will bill you for what you use. Simple, Eh? Yes—if you have grand people like these behind you. A power plant was next on the agenda. This was a toughy. You don't find dependable ones lying around on street corners, or the other kind either. Dunc Cameron, VE7ARW came up with the answer to this one. He took me down and introduced me to John Brynelsen, Sales Mgr. of Simson-Maxwell Ltd. on Georgia St, Purveyers of all kinds of Stationery, Marine, Gasoline and Deisel engines, Lighting and Power plants of all types, shapes and sizes. I strolled around among these lovely pieces of machinery, stroking their sleek sides and admiring the workmanship. I remember standing in front of one of them and musing to myself, now with that piece of gear at Lituya Bay, what we couldn't run—Radio gear, Lights, T.V., Electric range, even an Electric blanket. (Hi Lois) I must have been muttering to myself aloud, because Dunc gave me a shove and said, "come on fathead, that darn thing is big enough to light up a small town." Oh well a guy can dream, can't he? We found John in his office and after introductions, I told him about the expedition (by this time I was getting real good) being careful to explain the weight problem, and the amount of gear we expected to run. Was it possible to rent a lighting plant that would take care of our needs for a month? "Yes," said John. They rented plants out, but didn't I say it was a Centennial project? "That's right," I said. Then came the answer. Our company feels it would like to have a small part in this event, and that part would be to donate, rent free for one month one of our portable plants. What can you say to people like that? I felt that anything I said would be totally inadequate. We went down to the showroom floor and John showed me the plant he proposed to let us have. It was an Onan 1500 Watt job, Mod. 105 AJ1P. Weight, 125 lbs. Gas consumption, one-

half gal. per hour. It was a little beauty (somewhat smaller than the one I had looked at, I assure you). More about this little giant later. Ken then went into his housewife act. He went shopping for the grub we would need. You should have seen him pouring over his menus. So many calories in this, so many proteins in that. Dehydrated, Concentrated, etc., etc., for lightness, Nourishing, and easy packing. He wound up in one of the larger dept. store Groceterias and bought sustenance for a month. When he got this stuff into the shack, the place looked like a cross between a Junk shop, ships chandlery and general store combined. After many, many late nights, we finally got everything packed. Well, nearly everything. But that's another part of the story.

Saturday June 14th. Roy phoned to tell me that we should be at R.C.A.F. Air base, Sea Island, 6.30 A.M. Monday, June 16th. Ken borrowed a Station wagon and we packed our mountain of gear out to the Base. I really had the feeling that they would take one look at our stuff and start screaming. However, nothing like that happened. The Airforce personnel started to unload our stuff, putting everything onto the scales and weighing it to the last ounce. Then at the crack of dawn on Monday morning, my alarm clock shrilled out. I was on my feet in nothing flat. The real excitement had then started. I dressed hurriedly, downed my breakfast, took one last look in the shack to see if anything had been left and then off I went to the airport. ●

(Continued Next Month)

Several different amateurs, in several lands, have made uncouth remarks about your editor's profile, and it would be a safe wager that he would never permit a reasonable likeness of himself to be shown in the Canadian Amateur magazine, at least not until the journal had become firmly established!

At the 1956 Amateur Show at the Pacific National Exhibition, your editor agreed, after much persuasion, to pose with his station for the above picture. The fact that Joan Greenwood, Miss P.N.E. of 1956, happened to drop in at the moment, was purely coincidental!

TERRIFIC VALUE INSIDE

By JACK SIBSON, VE7BQ

Hello Gang:

Here we are again to continue our little story about the R.F. Voice. As you may remember we found out that the amateur didn't need an R.F. deck to transmit. We took the Speech Amp. and Modulator which was on the same chassis over on the bench. It was a 2 stage Amp. with a 6V6 driving a pair of 807's. The B voltage was left on all the time except to the plates of the 807's. With the signal generator tuned to any place in the FM or TV Band, we could hear our voices real good with a piece of wire attached to the Modulation Trans. for an aerial. We then took the screen voltage off of the 807's but it was still there even when the 807's were taken out of their sockets. Thus putting an end to all the bad stories we have often heard about those 807's. The wiring of the unit was fair but he didn't follow any set diagram. He had followed parts of a Hi Fi Amp. with negative feed back and somehow had gone more negative than what he should have. Maybe it went positive. I do not know, but it was enough to start the whole thing oscillating. When he changed over to a good circuit we had no more reports about him.

I met him the other day and asked about the people next door. He tells me they had moved away shortly after he had cleared up the trouble.

Maybe we should thank our Lucky Stars that he was there in the first place because without him complaining the amateur could still be using two transmitters on one band!

EX- SOLDIER FINDS AT LAST GIFT SENDER OF 40 YEARS AGO

Lloydminster — The long arm of co-incidence brought a "thank-you gift to a man who as a boy knitted a scarf which was received by a Canadian soldier stationed at Ypres, France, during the First Great War, 40 years ago.

The recipient, J. G. McClew, now a resident of New Westminster, B.C., knew the sender only by the initialed name, J. H. Browne of Lloydminster. The card stated, "Dear Soldier: I am only eight years old and I knitted this scarf all by myself."

This year Mr. McClew was visiting a friend of his, who operates a shortwave sending station. During his stay the "ham" made contact with another shortwave station in Lloydminster, operated by J. H. Brown. Showing keen interest in the air conversation, Mr. McClew asked J. H. Brown at Lloydminster if he was the same person who had knitted a scarf for a soldier during the First Great War. Mr. Brown said it was not he, but that he knew a J. H. Brown, who was a past president of the Lloydminster branch of the Canadian Legion who might be the man he wanted.

Mr. Brown revealed he well remembered knitting the scarf in question, and the information was forwarded to Mr. McClew at New Westminster by shortwave. The result was a letter of gratitude and a beautifully hand-carved wallet forwarded to J. H. Browne, as a memento of his gift to a soldier 40 years before.

The YL Page

By Lois Gillespie, VE7AUF

Alberta hams are much in the news just now, ham-wise, because of their success in obtaining the much-coveted license plates with radio amateur calls. Our warmest congratulations go to our lucky, or perhaps we should say deserving neighbours and particularly to those whose enterprise and persistance were responsible for this achievement.

We do not know how many Alberta YLs operate mobile, but since the license is not restricted to cars with mobile installations (so far as we know), an intriguing problem presents itself.

Any YL will experience a thrill of pride at seeing "VE6" on the car license—but whose letters will follow? In the case of the two-car family, the matter should not be quite so difficult. There remains, of course, the minor problem of deciding whose call letter will go on the big car! Shall the YL deferentially step aside and let the OM, as senior operator and head of the house have the honour? Or will the OM nobly and gallantly insist on his XYL's call receiving predominance?

But, with two operators in the family and only one car, we foresee trouble —especially if the main operator is the XYL! In that case, would it not be her right to have her call on the car? And yet, who can blame the OM for strenuously objecting to this, on the grounds that he might thereby lose his own identity, and become known as Mr. VE6XYL, or VE6XYL's OM?

As a matter of fact, we can see only two solutions to this problem. Either the YL will have to get her own car, or she will have to persuade the Department of Highways, Motor Vehicle Branch, to permit BOTH calls to go on the car, one on the front and one on the back!

And then, WHOSE call will go on the front?

HOW MANY ALBERTA YLs?

It seems there are not too many active YLs in Alberta, but we hope that we will be delightfully surprised by the number who write us in the near future! Apparently, quite a few have had licenses but have let them lapse. It seems too bad, after going to all the trouble of learning the code and theory, but we understand some did it just to "show their OMs!" How about renewing those licenses, gals, and letting us hear from you?

BUT WE ALL KNOW MAUDE—

We have no hesitation in saying that

"Florence Nightingale of the Airwaves"

This picture of Maude, VE6MP, appeared in the Calgary "Albertan," along with an article about her ham activities. Maude, they said, "is the Florence Nightingale of the airwaves. She has aided in more emergencies, with the use of her ham set than the average person would think possible."

the best-known Alberta YL is Maude, VE6MP of Calgary.

Maude, whose picture appears on the previous page, has been hamming for about twenty years. She is very active on ten and fifteen meters, and gets on twenty meters occasionally to contact her old friends in VE5 and VE7 land. She has been appointed DC for the VE's of the YLRL magazine for the coming year, and we know she will do a wonderful job in that capacity.

Ham radio has been a great source of enjoyment for Maude (she writes, "It is a bad habit, but it is a lovely bad habit, to me and I love it!"), but Maude has used her hobby also to bring comfort and pleasure to countless others throughout the world. We have persuaded her to write to us about some of her experiences in ham radio, and here, in part, is what she has written:

"Around December I usually start working the boys up north, and put them through on the phone to their folks here in Calgary. It is surprising how many have boys up north! Every once in a while I get in the local paper, and, consequently, I get so many requests from folks wanting to contact relatives in all parts of the world. Just recently an XYL called, wanting me to try and get her OM in Egypt, who is in the Forces. I'm afraid that will stump me, but you never know! Both papers called up recently, due to the fact that I had just got an XYL talking to her hubby on the DEW Line, and she was so excited she called up the paper and told them to call me and find out how it was done! As you know, we Albertans are not allowed to phone patch, and I explained how I held the receiver up to the rig.

As soon as the papers came out, I started to have phone calls galore, and you would really have gotten a bang out of some of them! I have been doing it now for a few for over a year, and they know the ropes, but those who didn't, thought all they had to do was give me Bill's or John's name, and that was all that was necessary. Just call for Bill or John, and say his wife or sister or mother would like to hear his voice! I even had one fellow call, who was leaving on the plane for Toronto in a couple of hours, and he asked me to get his brother, Jim for him before he left. I asked if Jim was somewhere in the north where there was a Ham Station, and what the call was. "Oh!" He exclaimed. "Do you have to have some kind of sign?" But I did have one very nice call. It was from a fellow in the RCAF, who had been stationed up north at one time, and he complimented me on the good work I was doing, and told me that I had no idea what such contacts meant to the boys up trere. He hadn't had the privilege of a patch himself."

"Yesterday, my arm was almost stiff, holding my telephone receiver up to the radio making "phone patches." Every last contact I made, by a peculiar coincidence, wanted to talk to someone here—VE8's, Texas, Ontario, Califoria, Arizona—so Glen, my inventive hubby, is busy making me a bracket to put up to the speaker to hold said receiver. Glen seldom gets on the air, but the other day I got a bunch of DX QSLs from the bureau, and among them was a CR7IT to VE6HZ! (Glen's call). The first Mozambique, and he doesn't even remember working him! Imagine a fellow working a good DX and not knowing it! And it won't count for my DXCC!"

"We had a most interesting visitor in November—a missionary from Ecuador, Paul, who came up here for some instructions from my OM, Glen, regarding locating gold in the Andes. They wanted Glen to go down there. Climbing around those mountains, altitude, 11,000 feet! And for a while I thought there would be no holding him! You perhaps remember hearing about the five missionaries who were slain by the Auca tribe, about two or three years ago. This Paul was associated with them, and he just sent me a most inspiring book written by the wife of one of them—Elizabeth (Betty) Elliott. She has since gone into the jungle to live among the men who killed her husband. What courage! The

Just an XYL

by Irene Abrahamson, VE7NW

As a comparatively new Amateur, I do not feel too competent to write on Amateur Radio, but I would like to pass along a few impressions made on me as an XYL, and now as a licensed amateur.

My introduction to "Ham Radio" was when I met my OM, when Saskatchewan was the VE4 district and he was VE4CD. I admit I was not too impressed by the weird noises emanating from what he called the "Ham Shack". Later in 1936, we moved to British Columbia and the good old hungry thirties did not provide finances for ham radio, but as the love was still there, soon bits and pieces were accumulated and he was on the air again with his present call, VE7AAA.

Again noises filled my ears and I still was not too enthusiastic. One day he came home with a "Mike" in one hand and á parcel of "Goodies" in the other and soon the noises changed from woodpecker talk to voices. Lo and Behold, a language I could understand. After hearing my OM making friends both near and far, I soon realized how fascinating Amateur Radio could become and decided I would like to have a share in this hobby.

My enthusiasm was somewhat cooled when my OM informed me that there were rules to the game, and that I too, would have to learn that weird language which had meant nothing to me and I had disliked for years. I clearly saw that there was only one way so we dusted off the key and oscillator. It was a struggle, but eventually on July 30, 1957, I tripped out of the R.I.'s Office with a smile on my face and a ticket in my hand. At last I was a "Ham".

Since that time I have enjoyed Amateur Radio even more than I anticipated. I have had the pleasure of meeting people all over the world, young and old, in all walks of life, and many in isolated areas, who depend on Amateur Radio for contact with home and friends.

A number of my contacts have been with handicapped persons who enjoy the hobby of Amateur Radio. I am greatly impressed by the willingness with which fellow amateurs donate their time and equipment to help one less fortunate than themselves.

Of great importance today, in what better way can International goodwill be promoted than by a friendly ragchew with a fellow ham, be he in Nijninovgorod, Yokohama or Timbuctoo. In Amateur Radio there are no barriers. We are all one fraternity regardless of color, nationality or creed.

To you who are not yet enjoying the privilege of being a licensed amateur I say one thing, "I did it, so can you, and you'll never be sorry".

Congratulations and success to the new "Canadian Amateur".

Maude, VE6MP — cont'd.

book, "Through Gates of Spendour," is a masterpiece. I'm a very ardent reader. My friends wonder how I find time to read, but you know, the bands do go dead!"

"While Paul was here, I contacted a couple of stations in Ecuador, near his mission. They, of course, know him and told us what a fine work our friend was doing, etc. Needless to say, Paul was simply flabbergasted to hear this coming out of the air!"

Maude believes, too, in furthering the course of true love. At one time, she was working a ham at a weather station near Alaska. At that cold and dreary spot, time passes very slowly. With mail service almost non-existent, he was becoming very lonesome for his girl, far, far away in South Dakota. Although out of sight, he didn't intend to be out of mind also, so each night he dictated a letter over the air which Maude transcribed and mailed to the girl back home. She, in turn, sent her replies to Maude, who read them over the air to the distant ham. They were married a year later, and will be eternally grateful to Maude. ●

(More YL News on Page 35)

JUST LOO

that are bein

A COMMUNICATIONS RECEIVER! — Details Later.

A TRANSCEIVER Value — $700.00! —Brand New!

A detailed description of these prizes soon. — — — —

This magazine wants your thoughts on a very contentious quest

What is your opinion concerning the word "AMATEUR?"

DO YOU FEEL IT IS TIME WE GOT OUT OF A RUT?
DO YOU THINK IT IS A FITTING NAME FOR OUR HOBBY?

For the best letter, for or against a change,

We will award a Grand Prize!

All you have to do is write a short letter, 300 words or less, expr sing your viewpoint on the subject and mail to:

"THE CANADIAN AMATEUR"
10328 Trans-Canada Highway,
North Surrey, B.C., Canada.

We have received many interesting letters and we will publish t best of these in this and future issues.

K at the PRIZES

g offered in this Contest!

A HI-GAIN —
3 ELEMENT
10 METER BEAM!

A Beautiful —
VOLT - OHM
METER!

— — — AND THERE ARE MORE PRIZES COMING!

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CONTEST RULES:

Entrants must be amateurs to win Grand Prize.

There will be other valuable prizes awarded to runners up.

A consolation prize will be awarded for the best letter to anyone not licensed but interested in ham radio.

All letters will be judged carefully by a panel of three prominent amateurs who's decision shall be final.

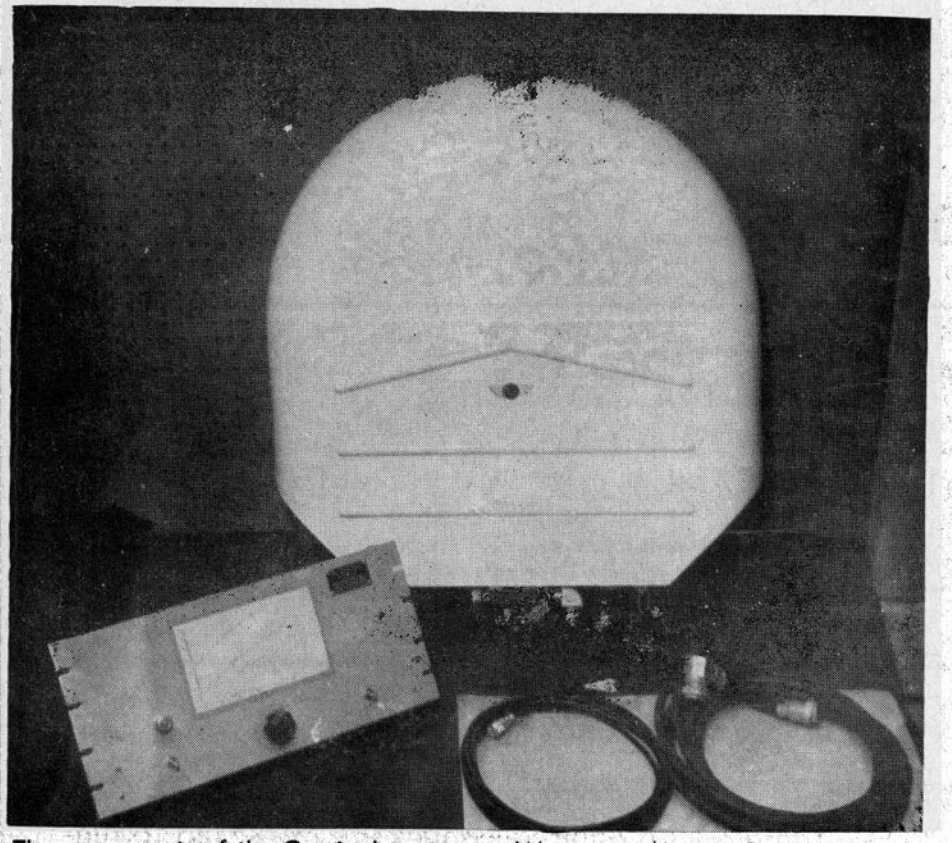
All letters must be legible and contain 300 words or less.

Contest closes June 22, 1959, and winners' names will appear in the July issue.

All letters to become property of "The Canadian Amateur" who shall retain the rights of publication.

The Omnipole Antenna

By Don Hings, VE7BH



The components of the Omnipole antenna—We are working on Don, VE7BH, to give us an article telling us what makes the Omnipole tick. Watch for it — an exclusive development by The Electronic Laboratories of Canada Ltd.

The Omnipole antenna design arose from work done in the low frequency field in 1950 when antennas were produced for Arctic Military use. This original work led to the design of a standard low frequency loop antenna that has been in use throughout the Canadian North for 7 years. Since this loop antenna was extremely compact and performed as well as, or better than the cumbersome arrays then in use, it was decided that research should be started along similar lines on higher communications frequencies between 3 and 18 megacycles. This article will attempt to describe the results of several years of experimentation, the outcome of which was the Omnipole antenna (so called because of its omnidirectional characteristics).

It was felt that to be successful the omnipole should have the following characteristics:

1. It should be compact enough to be used indoors, if necessary.
2. It should have high gain, of the order of 10 to 15 db. over a standard half wave dipole.
3. The bandwidth should be restricted to a single channel. This meant that the antenna would have to be tuneable over at least a 2 to1 frequency range. It was felt that an ideal receiving antenna should be tuned anyway, since then only the desired portion of the radio

spectrum would appear at the receiver. Also this would effectively increase the selectivity of the overall receiving system, allowing a less elaborate communications receiver to be used.

4. The receiving pattern should have no deep nulls of the type obtained with the usual loop antenna.

These are rather strict requirements but certainly not beyond the realm of possibility. The final antenna consisted of tuned pick-up coils housed in a plastic dome only 30 inches wide and 8 inches thick. Since this was a high Q device, the requirements of 1, 2 and 3 could be met, as a high Q device is capable of high gain as well as narrow bandwidth. Requirement 4 was met by shaping and spacing the pick-up coils in such a fashion as to provide an omnidirectional receiving pattern. (A later development provided a means of changing the phase relationship between the pick-up coils, which supplied some rather unique directional characteristics when operation of this type was necessary).

Coupling a high Q antenna of this type to a receiver is another problem since a receiver is a relatively low impedance load and will serve to reduce the Q to a point where the antenna ceases to be efficient. For this reason a special coupling amplifier is housed in the plastic dome beside the pick-up coils. The amplifier includes a means of varying the selectivity of the system as well as an output matching circuit to allow coaxial connection to a receiver.

A finished production model is shown in the photograph. The chassis below the antenna is a rack-mounted regulated power supply that provides the necessary plate and filament voltages to the coupling amplifier. The power supply is usually mounted in a convenient place near the receiver while the antenna may be on the roof of a building or on a pole, since it is remotely tuned. Often the antenna can be used in the same room as the receiver and mounted on top of a rack or on the wall, with a slight sacrifice in gain.

Measurements on production models indicated that gains up to 15 db over a standard half-wave dipole could be obtained and the Omnipole has proven itself in various communications centers across Canada.

While this description is necessarily brief, the Omnipole antenna is in reality, a fairly complex device and requires laboratory facilities to manufacture. For this reason it may be beyond the range of experimenters for many amateur workshops. However, it was felt that most amateurs would be keenly interested in new antenna developments. As far as we know this is the first successful attempt to package and miniaturize an efficient short wave receiving antenna. •

PROTECT SPREADER ENDS

For those who demand the ultimate in Quad spreaders, Electronic Labs of Canada will mould a 5-inch, extremely low-loss insulator onto the element end of your bamboo poles, sealing and protecting the ends of your spreaders. The efficiency will remain the same, regardless of WX and age—and they will look like a million bucks, too.

FAIR WARNING

The newly formed Burnaby Amateur Radio Club does not intend to sit on its hands. Already a good portion of its field-day plans for 1959 are in order. Working with the Burnaby Parks Board, and the blessings of the Burnaby Municipality, ZL3FP, Earle Kyle, the club's rhombic expert said, "It will be a waste of time for any other field-day station to try and come near our score. What a location!" He said this after seeing the 900-acre parkland on top of Burnaby mountain in the middle of which is Burnaby's Centennial project—an utlra-modern dining room, ball-room (complete with stage), and observation roof garden.

DX

By Bill Wadsworth, VE7ZM

Now that the first blow has been struck and we finally have a magazine, may I take this opportunity to thank the editor for his remarks in the January issue, which I may say, were without foundation especially for all of you who know me for what I am.

Judging by my mail box, I would wonder who is the editor of the whole magazine, anyway. Fellows, your response has been amazing and let's hope our combined efforts will pay off.

For the benefit of our many DX friends I intend publishing periodically, the DXCC standing of VE's and this month you will find the first complete listing up to Dec. 31, 1958 inclusive.

Conditions have been mediocre, but still much good DX has been around for those who need it.

A brief list of ones to watch for herewith:

Reunion Island—Zone 39 - A3 - FR7ZC
14190 kcs — 0700-0800 G.M.T.

Monaco — Zone 14 - A3/SSB - 3A2AF
21220 kcs — 1500-1700 G.M.T.

Guadeloupe—Zone 8 - A3 - FG7XE
21200 to 21230 kcs — 2300 G.M.T. onwards.

Svalbard — Zone 40 - A3 - LA2JE/P
28400 kcs — 1500 G.M.T.

Dominica — Zone 8 - A3 - VP2DX
21240 kcs — 2300 G.M.T. onwards.

Comoro Is. — Zone 39 - A3 - FB8CD
14155 kcs — 1500-1830 G.M.T.

Siberia — Zone 18 - A3 - UA1CK/Ø
14170 kcs — 1530-1800 G.M.T.

Georgia — Zone 21 - A3 - UF6KAC
14160 kcs - 0600-0900 G.M.T.

So. Georgia — Zone 13 - A1 - VP8BK
14018 kcs — 2300 G.M.T. onward.

Madagascar — Zone 39 - A1 - FB8CK
14096 kcs — 2000 G.M.T.

Aden — Zone 21 - A3 - VS9AL
14140 kcs — 0400 G.M.T.

Tristan da Cunha — Zone 38 - A3
ZD9AH - ZD9SCA
21262 kcs — 0300-0500 G.M.T.

Sao Thome — Zone 36 - A1 - CR5AR
21035 kcs — 2000 G.M.T. onwards.

Port. Guinea — Zone 35 - A3 - CR5AC
14170 kcs — 0500 G.M.T.

Faroes Is. — Zone 40 - A1 - OY2Z
21071 kcs - 1700 G.M.T.

SSB— CEØZA—14307 kcs daily, 0300 G.M.T. . . cw, 14028 kcs, 0100 G.M.T.

CEØZC— 21 megs daily,CEØZB and 21200-21240 kcs — 0230 G.M.T.

Operators for QSL's, CEØZA is CE3AG —CEØZB is CE3HL and CEØZC is CE3QG. App. closing date, Feb. 8. (Bill is going to clobber me for overrunning the dead-line!—Ed.)

XW8AL daily, 14130 kcs a.m.—0600 G.M.T. onwards.

VP2SM daily, 21248 kcs — 0100 G.M.T.

ZS2MI daily, 14180 kcs — 1600 G.M.T.

VE3EGD/SU out there on the Gaza Strip threatens, "Ole JB had better get that Canadian Amateur here pronto, 'cause he isn't going to get any subscriptions from the lads out here until he does!"

Disaster! Bless us all—Danny's done it again. Another reef got in his way. How much bad luck can a guy have? Extent of damage not yet known, but will put him out of action for some time.

So much for the more rare dx which the writer personally QSOed in the past month. Please note:— Vladimir, UA1CK/Ø is at Norilsk in Zone 18 and has a very nice fone signal. He will return to Leningrad around February 15, 1959. If you want to QSO CR5AR, please remember he cannot copy c.w. over about 6 to 7 words per minute and you MUST call him very slow if you want him.

Our old friend Howard, sent me a copy of the DX Stamp Service offered by W2SAW. This looks like an excellent thing and is very reasonably pric-

ed, and much cheaper than I.R.C.'c. A note addressed to the writer will bring you full details.

A letter in the mail today from Argentina reads as follows:

Dear OM Bill:—

Heard you last night in several QSO's (VP2DX; PJ3AD; CE7AQ, etc.) and I got very interested in the magazine you mentioned. Would you be so kind as to send me one issue?

Thanks ever so much,

Eli, LU9FAY.

From Pag, VE2ABE, comes word of an impending VE assault on FP8 this year, by VE2JC, VE2DN and VE2ABE. They will operate from St. Pierre and Miquelon Is. from July 1 to Aug. 31, 1959.

With this amount of activity they surely will clean up all the fellows who have missed before.

Pag would like anyone who worked 4U2AA at the United Nations to contact him.

That retired DXer (George) W8BKP tells me that beware everyone, he is going to turn his rhombics all on VP9 in the contest and if JB figures he is in for the trip he'd better start looking for another one as George says this beats a paper contest.

CANADIAN DXCC STANDINGS as to DEC. 31, 1958 (Inclus.)

263
VE7ZM
241
VE7GI
233
VE2WW
214
VE6NX
210
VE3QD
VE1EP
209
VE7HC
200
VE1PQ
VE3AAZ
VE3DIF
VE6VK
195
VE8AW
193
VE7YR *
191
VE3AIU
VO1DX
190
VO6EP
VE3JZ
187
VE7JB
183
VE2NV
180
VE4XO
VE7VC
VE7VO

173
VE3PK
172
VE3IJ
VE3ES
171
VE7SB
170
VE7MD
164
VE1HG
163
VE5RU
160
VE3IR
153
VE3ZW
VE6KX
152
VE3ADV
151
VE2BV
147
VE3HB
146
VE5JV
143
VE1NH
142
VE1EK
141
VE2WA
VE3DKY
140
VE1EX
VE2YA
VE5QZ
137
VE2YU
136
VE7AIH
131
VE1PA
VE5KG
130
VE3BHS
VE3SR
VE3TB
126
VE3EU
125
VE5GF
123
VE3KP
W1LRK/VO1
120
VE3AGC
119
VE7KC
117
VE7ZZ *
115
VE2CK
114
VE2BR
113
VE1DB
VE2BK
VE3ACS

112
VE3XY
111
VE2APH
VE3EHR
110
VE5TK
VE7EH
109
VE4DB
VE7AHG
108
VE6GD
107
VE1ZZ
106
VE3AHV
VO1B
106
VE3ANH
VE3IG
VE3KE
VE3YV
VE6AO
103
VE1BK
VE3BWY
VE3BZ
VO6U
102
VE1BV
VE3BUR
VE3QE
VE3RM
VE6FK
VE7OJ
VE8OW

101
VE1CU
VE1OK
VE1OM
VE2ATD
VE5DR
VE6JR
VE6MN
VE6MZ

100
VE1EA
VE1GJ
VE1NE
VE1YB
VE2AFC
VE2KZ
VE3ARS
VE3BMB
VE3OR
VE3QB
VE5VL
VE7AAD
VE7CN
VE7ZK

* The asterisk denotes one of us who has gone to the land of the perpetual DX.

Note: With reference to the DXCC c.w. listings it is noteworthy that two well-known DXers are missing, (VE4RO and VE3BRG). What's the matter fellows, are you afraid you'll spoil our friendship by heading the lists?

Robbie, VQ4ERR, of Nairobi tells me he will commence operation from Seychelles on Aug. 21, 1959, provided the boat doesn't sink from his overweight gear.

Who is interested in contributing to a fone Xpedition in mid-May to LORD HOW ISLAND? The VK station who can and will make this trip to this inaccessable country requires only the plane fare to get there—$150.00. No, I repeat, no contribution will be accepted for QSL's, as all stations contacted will be QSL'ed by your DX editor on receipt of log Xpedition. Please, your views by air-mail.

A certain W7 is contemplating a trip to Nepal, he tells me, in 1962. Let's urge him to make it 1960!

For those who want the Sultantate of Oman, Brian Smith, VS9AS is now active as VS9OM daily, 2000 G.M.T., 14047 kcs with a good signal running only EIGHT WATTS! This is remarkable!

Editor's Note: In answer to your question Bill, No—we can't see our way clear, at this time, to supply you with a truck to handle the mail you are receiving in connection with the Canadian Amateur magazine! We suggest you put sides on the wheel-barrow, and increase the number of trips necessary. From your description of what is taking place, we feel one truck would not be sufficient at any rate. To handle the situation properly, two trucks would be needed, one for the mail, the other for your head! Don't get any grandiose ideas, or it will be necessary for me to take over your section, and with Lois's help . . . Mmm, yes I must give the idea a little more thought.

And furthermore, if you get any foolish ideas that we (Lois and I) might not be able to handle your puny effort . . . read on! — XZ2SY was contacted 2way fone, report 58150-56050, Feb. 7, 8:22 a.m. P.S.T. with elements in Ranger practically cold! ! ! Frequency app. 14170 kcs.

—your possible future DX editor, 7JB

Contest Letter . . .

Dear Editor:—

According to my dictionary, "Amateur" can mean anything from one who cultivates a pursuit or science without monetary gain, to one who dabbles for amusement. I'm afraid that the majority of strangers to amateur radio tend to picture it in the latter shade of meaning.. But that is only because they have allowed themselves to be misguided by their own impressions and narrow-mindedness.

What is the more important to us—What it means to them or what it means to us?

The important thing to me is that I can pursue my hobby as strenuously as I wish to, without monetary gain, and I am still an amateur. My reward does not come from monetary gain, but from the contentment and self-satisfaction that I get from the practice of of a worth-while hobby.

True contentment comes when we human beings are working or producing, and the contentment is so much deeper when we don't have to worry about "making a living at it."

Yes, I would say that the word "amateur" is a very fitting name for our hobby. Let's continue to prove to our fellow creatures what a richly rewarding experience that an "amateur" status can be.

73,

Harold B. Gronsdahl, VE5IG,
Congress, Sask.

Note: This is a sample letter picked at at random from the many submitted for our contest.

Canadians Retain 11 Meter Band

Quite recently our southern cousins had the misfortune of losing some of their precious Amateur frequencies, namely the 11 meter band. The reason given by those in control being, "Lack of Use."

The ink announcing this small disaster had barely began to dry when a mournful voice was heard to declare on the ten meter Canadian fone band, "Well we have lost another chunk of frequencies, fellows, too bad, but I guess there is nothing that we can do about it."

NOTHING WE CAN DO ABOUT IT! Was that a Canadian talking? Or just some poor lost soul in Hell, whose Oscillator had drifted out of band used down there, (due to the heat!)

This type of reasoning has become altogether too prevalent among some of our Canadian Amateur brethern. We haven't lost any frequencies, and WE can do something about holding on to those which we still have, namely, the 11 meter band. And for those "We-can't-do-it" boys, we have the following wonderful medicine, guaranteed to kill or cure them.—Editor.

Stations across Canada are forming an 11 meter Trans-Canada network to handle traffic, help in emergencies, and general rag chewing. The network was formulated after U.S. stations lost right to use 11 meters last September. Canadian amateurs have been assured by the Department of Transport, via Alex Reid, Canadian general manager of ARRL, that "the band 26960-27230 kcs would continue to be authorized for Canadians in accordance with the Atlantic City table of frequencies . . . as here we do not recognize citizen radio." The U.S. band has been given over to citizen radio, and other services.

The 11 meter Trans-Canada network meets Sundays at 11 a.m. PST on 27100 kcs, or thereabouts, depending on QRM conditions at the time. During the first two weeks of January, the the following stations were on the frequency:

VE7VJ, VE7AQQ, VE7KD, VE7AQK, VE5RU, VE4EO, VE4OC, VE4IW and VE3BIF. VE4EO and VE3BIF have acted as net controllers, with one or the other of the VE7s also acting when skip conditions made this necessary.

All Canadian amateurs who can operate 11 meters are asked to join the net, which will be extended to operations on other days in addition to Sundays, in order that 11 meters will be amateur-occupied. U.S. amateurs lost the frequencies because not enough of them used the band. Let us not have that happen in Canada. Let us all get out and use the 27 mc band, even if commercial and diathermy operations create a certain amount of QRM. Amateurs in South Africa, Australia, Chile, Ecuador and a number of other countries can use the band. Let us all work to keep that set of frequencies, by using it. ●

James Montagnes, VE3BIF.

Two Meters Favored By Vancouver DX Club

Two meters is finding more favor among the Greater Vancouver boys. The Vancouver DX Club has had a very useful net working for some time, when there are no rare ones coming through to talk about. The XYL's use the net to pass recipes back and forth! In between the cakes and cookies you might hear 7VC, GI, ALR, MD, QL, HV, JV, ZK, VO, crying about the ones that got away.

Cyril, 7AS, informs me that a group consisting of himself and 7AP, AQW, BC, XW, YQ and ASR, met on Jan. 16 at 9:00 a.m. on 147.33 kcs. Other stations active with this group include—7MI, FB, VJ, VI, and soon to be heard, 7AKD and 7FC.

Quad Notes . . .

Many amateurs have asked, "How do you like your Quad as compared to your Yagi type beam?" And the answer is always, "Very much." And of course, the next question usually is, "Why?" This is what is termed a leading question, leading me into sticking my neck out about something of which I know very little!

But one can't possibly put up a 3-element wide-spaced plumbers delight, complete with gamma match and reactance tuner outer, sixty feet in the air, move over about 150 feet and hoist a bunch of bamboo, complete with stubs, 80 ft. in the air, without finding something out, besides the fact that one is 20 ft. higher than the other!

I can blame VE6AM for what I found out about Quads. Len asked me to send him some bamboo. I got enough for both of us, thinking at the time that it might be wise to have some laying around, because someone else might want some. But I began hearing so many whalloping signals from "Down Under" from stations using Quads, that I decided to investigate.

The actual building of a Quad type antenna is simplicity itself. One can be assembled in two hours easily, and I have hoisted one 80 feet up, placed it in position, tuned it, and taken it down again, many times alone. Something I have never done with any type of parasitic beam. I am referring to all 20 meter affairs.

In the actual testing of one type of antenna against another, results are practically meaningless unless provision is made to switch from one to the other instantaneously. The lad that says, "Hold on chum, I want to try another antenna, I'll call you when I get changed over," is only proving one thing—he has two or more antennas!

With both antennas tuned to load the same and a coax switch in the lines, it is possible to change so fast the operator at the other end might not notice the break in the carrier. I have had him say, "What are you doing out there? Your signal jumped three "S" units, or dropped three "S" units,"—whichever the case might be.

My experience has been the short and medium haul, not too much difference one way or the other. On long haul contacts the Quad definitely had the edge—anywhere from 1 to 3 "S" units. Reports from such reliable sources as G2PU, ZS6ANE, VK3AGG, and many others have convinced me that Bill Orr has the answer when he says, "The Yagi type of antenna has been developed to its ultimate—the quad, well it is, and has, a bit of unknown quantity about it yet." That's why it interests us curious experimenters!

If you are interested in how I put mine together, just give a hint and I will show it to you, complete with pictures, sizes and lengths. —VE7JB.

Roster Suggested For Canadian Clubs

Wonderful letters with wonderful ideas are pouring in, and one that demands special mention comes from G. Spooner, VE3DQL, of Timmins, Ont. He suggests that sometime in the near future, a roster of the Radio Clubs in Canada be published with their meeting nights, so that an amateur away from home could visit others if the opportunity presented itself. — A dandy idea.

Send your Club name, meeting night, secretary's phone number, if possible. The sooner you get the info in the sooner some poor straggler will drop in and say hello. Thanks VE3DQL for your consideration and support.

VE6IZ always Q5 at VE7JB's

Just got a print of the station here and am enclosing same as requested along with a few notes about VE6IZ.

I was born in Saskatchewan but after four years with the RCNVR during the war, decided to call Alberta my home. I actually had planned on B.C., however, after getting to Alberta, never could scrape up enough finances to go any further west. I also discovered to my amazement that the last of the covered wagons had left just the year before. As it was a long hike and no other source of free transportation was available, I swallowed my pride and settled here.

I first got bit by the radio bug back in the days of the coil and cat's whisker. However, pure ignorance prevented me from becoming a ham as I felt ham radio was only for the specialized radio man, etc., and a layman just didn't stand a chance. Anyhow, after discovering late in 1949 that even I could enjoy this wonderful hobby, I immediately proceeded to work on my ticket. In December, 1949, I was granted this precious privilege and found myself pounding cw on 75 with push-pull 45's in the final and an S38 receiver. What glorious days! Remember shinnying up the poplar trees stringing out my doublet and felt like I had just discovered radio and wanted to make sure the world knew about it. In 1951, I graduated to a NC240D and an 813. That was a real promotion. Incidently, the first ticket here was just a provisional (no exam taken) and finally when I did go up for the exam, found myself lacking in knowledge on modulators—and so my first disappointment. My ticket was cancelled 'til such time as I could prove myself worthy of the cause. Disappointed I was, but not discouraged. I proceeded to brush up on modulators and when opportunity presented itself again, I took the exam with flying colors. I still insist the only reason the DOT took me off the air was because they liked my cw so much, they just wanted to hear it again.

Anyhow, a year later I got my Class

(Continued on Page 32)

Jinglebells

By JIM HEPBURN
VE7KX

AMATEUR RADIOTELETYPE

To receive an F.S.K. radioteletype signal the receiver's beat frequency oscillator is turned on, same as for C.W., and the receiver tuning adjusted to produce two audio tones from the RTTY signal representing the "space" and "mark" signals being transmitted alternately from the sending station. This has converted the F.S.K. signal to A.F.S.K. and in order to be compatible with audio frequencies adopted for amateur A.F.S.K. signals, the receiver should be adjusted to give an audio signal of 2975 cycles for the "space" frequency and 2125 cycles for the "mark" frequency.

This two-toned audio signal must now be converted into D.C. pulses to operate the selector magnet in the teletype printer and this is accomplished by the "convertor" unit shown on the accompanying diagram. In this converter the two audio signals are separated by tuned filters and rectified so that the 2975 cycle signal applies a negative voltage and the 2125 cycle audio a positive voltage to the grid of a D.C. amplifier stage V2 which in turn drives the keyer stage V3. The input transformer T1 is a midget 500 ohm line to voice coil transformer, this can be eliminated if it is desired to run the convertor directly from the receiver speaker voice coil circuit but as it will be necessary to patch in test equipment, audio oscillators and band pass filters etc., it is desirable to keep all station audio lines at 500 ohms impedance.

The transformers T2 and T3 are made up from high "Q" 88 milli-henry toroids. These toroids are known locally as "load pot toroids" and are employed in vast quantities for telephone cable loading or "pupin coils." They are also available on the surplus market as the C-114 line loading coil having been used for army (U.S.) field telephone lines. These latter are encased in a small cast metal case and need to be depotted for this application. These coils have two windings which are connected in series to give the 88 MH inductance. On each toroid a small link winding of six or four turns is added of small hook-up wire and these links are connected in series across the secondary winding of the input transformer T1. Link coupling is used in preference to capacity coupling to avoid stray capacities and possible resonances which might affect the tuning of these extremely high "Q" toroids. If these toroids are not available small audio chokes of fractional henry inductance or the 500 ohm winding of midget line to voice coil transformers substituted. However, these are very low "Q" inductances and it will be necessary to use several tuned stages in cascade with probably additional amplification to achieve the selectivity of this simple toroid circuit.

The rectifier stage V1 consists of a 12AU7 with the grid and plate of each section connected together to form diodes. A double diode such as the 6AL5 could also be used but the 12AU7 was chosen to keep tube types to a minimum. The D.C. amplifier stage V2 is one section of a 12AU7 and it's plate supply is stabilized by an 8MFD 150V condenser and two small neon bulbs in series. Condenser coupling is employed between the amplifier and keyer stages, this .5MFD condenser should be of good quality and low leakage. The 6V6GT keyer stage V3 has it's screen voltage regulated at 60 volts by the 47K screen resistor and another small neon bulb. The printer selector magnet is connected in series with the keyer tube plate and this coil is shunt-

ed with a 10K one watt resistor to absorb transient surges created in the printer magnet coil. The keyer tube is normally conducting and the current through the printer magnet coil is adjusted to required value, usually 30MA by the adjustable 10K 10 watt resistor. Should the printer be one that requires a 60MA coil current it will be necessary to add a second keyer tube in parallel and adjust resistance values and power supply requirements accordingly. The cathode of the keyer tube is connected through the teletype machine keyboard contacts to ground. These contacts are normally closed and remain so during reception. The keyer tube is conducting during no-signal and space signal conditions, the positive mark pulse from the filter-rectifier stage is inverted by the D.C. amplifier and applied as a negative pulse to the grid of the keyer tube, cutting off the keyer tube and releasing the printer selector magnet.

Operation of the keyboard opens the cathode of the keyer tube thus operating the printer for "local copy" from the keyboard. The 60 volts regulated screen voltage appears across the keyboard contacts during this operation and a lead is brought out from the keyer tube cathode so that this keyed voltage can be used to control an RTTY radio transmitter. The receiver must be shut off or disconnected from the convertor during transmission so that key clicks and noise will not feed through the convertor and cause garbling.

In this circuit the printer magnet coil is connected in plate circuit of the keyer tube and is subjected to full power supply voltage to ground. Should there be any doubt as to the insulation of the magnet windings the magnet coil can be connected between the cathode and the keyboard contacts. However, this causes degenerative feed-back into the grid of the keyer tube and pulse-shape distortion. If this circuit connection is used the spare section of V2 should be connected as a clamper diode between grid and ground of the keyer tube.

The only critical adjustment required to get this convertor in operation is the tuning of the toroid filters. This requires a calibrated audio signal generator and either an oscilloscope or a V.T. voltmeter. Feeding the audio signal into the convertor input and reading the D.C. voltage generated at the grid of V2 different values of condensers are connected across the tuned circuit until the frequency-voltage curve resembles that shown in Fig. 2. The ideal condition is when the positive and negative curves are the same height and cover equal areas and then random noise signals are balanced out and do not effect the keying. It may be necessary to adjust the number of link turns and/or add shunt resistors to the tuned circuits to achieve a perfect balance. This detail is only required for weak signal work, on strong signals a five to one unbalance will still print perfect copy. An oscilloscope makes an ideal indicator for tuning RTTY signals, connect the horizontal input to the "space" or bottom plate of V1 and the vertical input of the scope to the other plate of V1. A properly tuned space signal will show as a clean horizontal line and a mark signal as a clean vertical line and a properly transmitted and tuned RTTY signal as a perfect right angled cross. Any distortion, improper shift or tuning can be read off the scope pattern.

Power supply requirements for this convertor are 50 MA at 200 volts. Filtering and regulation are not critical but this power supply should not be used for any other equipment as the sharp massive pulses of the keyer output will effect any other gear drastically.

Very accurate audio frequencies can be obtained from a BC-221 frequency meter by beating it's low frequency band against a 125KCS oscillator. On this band the BC-221 has a band spread of forty dial divisions per thousand cycles. These dial divisions can be read to a tenth of a division, thus any audio frequency can be set up to any accuracy within three cycles.

Note: Schematics referred to in this article will appear in next write-up.

University Ham Radio—Continued

He must have the YL helping him;

Chess, via Amateur Radio.

VE6RR a grant to help set up the University net. We owe thanks to the Provost of the University who brought about the moving of one of the towers rather than the removal of it.

The "ham shack" here is a shack between two towers conveniently located immediately south of the YL's residence.

There are now 20 members in our club, 5 of whom are VE6KB, VE6OP, VE6OS, VE6PX and VE6VL. 4 other members have their certificates and operate exclusively at VE6RR. Code classes are being given to those who are working toward their certificate. Chess games between the three Western Universities have proven to be quite popular.

Plans are presently being made to mount the beam (now on the shack) above the surrounding buildings. Mickey, VE6PX, is the chief operator on the University net from this station. A fine new math and physics building is going up here and we are nursing the hope of moving VE6RR into it.

Mr. Bob Beck expressed our feelings regarding the net very well. This university net will take some work now, but it will be well worth our efforts.

We would like to thank VE7JB for giving us this chance to put this article in "The Canadian Amateur." ●

VE6IZ — Continued

A and since then have spent 9 glorious years of ham radio.

I presently use PP813's mostly 20 and 10 fone. Occasionally on 75 cw until a doublet goes up to handle the big rig, which has been doubtful to date due to fringe area TV. Also last Xmas I got a Viking Adventurer from my XYL and find it actually does get out of the back yard using a guy wire off the TV tower.

Receiver here is a NC240D with a Millen R9'er, a panadapter, 3 element beam on 10 and 3 element beam on 20.

To date, 90 countries have been worked with about 80 confirmed. Awards are WAS, WAC, WBE, WASM, OHA, (a New Brunswick card will give me WAVE), RCC, CP30 and a member of ARRL, ISWL, RSGB, and loveliest of all, the Canadian Amateur. Am married, have a 4½ year old daughter and work for the Civil Service in the Post Office.

HAVE RIG, WILL TALK!

73,

Steve Severn, VE6IZ.

Totem Club of Vancouver Sponsors Rare DX Station in New Hebrides

At the last meeting of the British Columbia Amateur Radio Association, an organization composed of delegates from the various clubs in British Columbia, a delegate from the Totem Club of Vancouver, Ted Goode, VE7ND, explained how his club, working with the American Radio Relay League, had sponsored a rare, off the beaten path DX station for the purpose of having the station receive QST. It is hoped that other clubs will follow this very thoughtful, and friendly gesture.

The following interesting letter from YJ1DL is the result of the Totem Club's sponsorship:

Radio Station Espiritu Santo
New Hebrides
December 29th 1958.

Secretary,
Totem Amateur Radio Club
Vancouver, B. C.

Dear Oms:—

I am advised by the ARRL that I have been elected by them as the recipient of a membership/subscription for the year 1959, this being subsequent to your kind offer of same to a foreign amateur.

May I take this opportunity to thank you for this bequest, I am exceedingly grateful to both the ARRL and yourselves. As you may be aware, these remote spots are not very easy places to remit precious dollars to USA or Canada for subs to QST etc, we have many currency difficulties.

For instance my salary is initially computed for accounting purposes in sterling, thence converted via New Hebrides Francs into Australian pounds, hence I am able to use Australian pounds, N. H. francs or even Metropolitan francs. There are no such luxuries as cash orders, money orders or any other easy ways of transferring money.

The foregoing will give a little indication of how very complex our New Hebridean affairs are. We are like a little world all on our own, the French people here are under the control of the French, they have a special number for their vehicles, and they even have their own gendarmes if they transgress. A french ham is normally issued with a YJ1 prefix, but invariably they make up a call of their own, with the profix FU8. This of course is illegal, however there is no penalty for this.

For a British or Australian person, we have a different series of numbering for our car, we have our own police, our own set of laws, and as hams we accept and use the correct YJ1 prefix as allotted by the Postmaster. Generally speaking we are more law-abiding in most ways than the French.

One ham uses 500 watts MCW on 7 mcs. There are quite a few of us who are legitimate YJ1 hams as follows:

YJ1BF Ray Jenkins from W6 land, inactive at present date, (at Santo); YJ1BF Pere Soucy from Massachusetts, active 7mc fone, (Walla Isle); YJ1OM John McCutcheon from ZL land, active 80, 40, 20, 15 meters. (Aore Isle); YJ1AA Frank Palmer from VK3, inactive. Large family troubles; YJILC, Louis Chaumont, French, active 7 and 14 mc fone and cw, uses call FU8AE; YJ1DL, myself, Australian, active 14 mcs. cw, usually 0500 to 1100 GMT odd times. Others are FU8AA active 7mcs fone; FU8AC, 7 and 14 fone and FU8AD the same.

This island of Espiritu Santo is not large, perhaps 500 sq. miles at most. 90 per cent dense jungle almost unexpored, inhabited by approximately 4,000 natives very primitive indeed. Our French and Australian population is only 140 including children. We have no organized water supply, no proper sewerage, no streetlighting, no power or lighting apart from our own engines. We have no English schools, no

English churches, no English hospital.

We have lots of flies, lots of mosquitos, lots of sickness—mostly malaria and dysentery.

Most of the year we have no water. We have earthquakes regularly. We have no taxes.

My work is being the chief of the communications here, meaning I have a small radio station with myself, a Frenchman, and a native boy as staff.

I have a wife and a son aged almost two. Before coming to the New Hebrides in 1955, we were on Christmas Island. I was ZC3AB there having charge of the radio outfit, the cinemas, and the automatic telephones, etc.

Also have been VK4DL and VK2DE since 1946.

My rig is a LM7 as vfo driving a 5763-6146-813 to 200 watts input to a long wire antenna 65 ft. long, 20 ft. high, between two cocoanut trees. It gets out very well. Receiver is a rehashed BC348n now with about 12 tubes, if I recollect rightly. Also am working over a National RAS5 receiver so can use 21 or 28 mcs.

Have no provision for fone these days.

I do hope that we can arrange some skeds with your club. I have had a bad reputation as a qsl'er, however, the story is that I have been trying for two years now to get cards printed (we have no printers here) and now I am almost about to get some from France. I have deliberately restricted my qso's because of this, as I feel very guilty over being a couple hundred qsl's behind.

I recollect that in 1956 my xyl and I visited VE7 enroute to Alaska, where we had been promised all sorts of things, but that is another story. We did get a mention back in 1955 in CQ magazine, about August I think. Your city of Vancouver is a most remarkably clean and attractive layout. I would say superior to any place I have seen in perhaps 30 countries.

Had a wonderful pen-pal/ham back there one time, VE5KG, very fb fellow. Just now you will be enjoying snow, ice, etc., clear skies and TV . . . We are not enjoying heat, humidity, insects, etc. Airconditioning does not exist—Not when cost of electricty averages two shillings per KWH.

Well brother and sister hams ,I hope you have gained some idea of this section of YJ land (Vila, the capital island is 160 miles south) and the way we live, if anybody wants to come out and do some dxing why they are sure welcome to stay right here any time. My xyl is a nr+1 cook.

Although Christmas has gone and the New Year almost here, I will take this occasion to wish every one of you a very fine New Year, and I am at your service if you want YJ1 for your record.

Suggest skeds vicinity 0630 G.M.T. onwards, low end 14 cw.

73 and thanks again to the Totem Club, from

David Laing, YJ1DL.

Bouquet Department

Our sincere thanks to Cyril Boudreau, VE1RJ, for the very nice plug in one of his local newspapers. Cyril is with the Halifax Herald Limited. A right handy man to have around. Congratulations, Cyril.

VE6YE, George, by his consistant checking into the British Columbia Amateur Radio Emergency Corps net, created almost alone, a badly needed B.C. into Alberta out-let. Without you George, it would be a one-way traffic tie-up!

A grand letter has just come to hand from my friend Otto, VE6OH, who writes in part, "I suppose the most difficult thing will be survival," . . . That Otto is life, and whether you are referring to the little book, of just you and I, that is life, and you will admit Sir, life is wonderful. Have you any doubts about this great nation's survival? It is made up of people who don't give up too easily. Otto, the Canadian Amateur will be with us, long after you and I are forgotten. Thanks for a most interesting letter. —Editor.

BE MY VALENTINE!

He wooed her long, and ardently pled;
Many gifts at her feet he spread;
But she turned on the rig as she shook her head,
And searched for DX as she firmly said,

"I like you, darling—I think you're grand;
It gives me thrills when you hold my hand!
I hate to refuse your plaintive demand—
But my heart belongs on the amateur band!"

"A marriage certificate is very fine,
But certificates many are already mine;
There they hang on the wall, in varying design,
With a YLCC soon to add to the line!"

"April ninth might be fine for sealing our fate,
But the DX contest also falls on that date.
If conditions were good, I'd be sure to be late,
And the honeymoon, too, would just have to wait!"

"The language of love is sweet to my ear,
But ham parlance sounds even sweeter, I fear—
QRX—isn't that a rare DX I hear?
QRT—your QRM might interfere."

He went away sadly—but not just to mope:
He bought a transmitter, receiver and 'scope;
And he studied the code with a heart full of hope;
And with the R. I. was soon able to cope.

Back to her he went, with a kilowatt station,
And promises of a tri-quad installation.
"All this will be yours, if you give confirmation
That I'll be your partner at our new location."

Then she married him gladly—but blindly, 'tis true,
Never imagining what would ensue:
For by then the ham bug had bitten him, too,
And he spent all HIS time at the kilowatt new;
While she waited, disconsolate, 'till he was through!
As harmonics increased, her contacts became few,
For, with cooking and cleaning, the precious hours flew—
And if she went hamming, she'd burn up the stew—
Or forget she had shopping or ironing to do—
And, as a consequence, trouble would brew—
'Till her dreams of DX all faded from view—
And at last from the YL ranks she withdrew.

The moral of this sad tale is quite plain:
To be a YL you should single remain.
But, if you will marry, make sure that your swain
Prefers housework to hamming—and KEEP A TIGHT REIN!

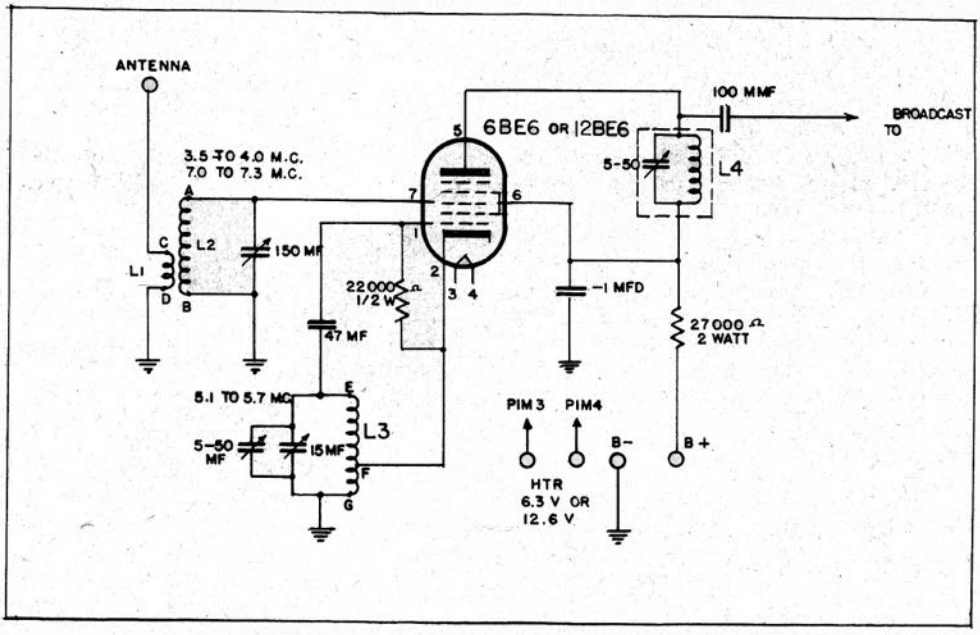
COLLEGE QUEEN TERRY HANSEN, W7VWU, in her royal robes as Queen of Eastern Washington College of Education at Cheney, Wash.

ALL THIS . . . AND A YL, TOO!

Terry (Helen) Hansen, W7VWU, was recently crowned home-coming queen of Eastern Washington College of Education, and a glance at her picture will tell you why!

Terry is 19, and a daughter of Rosella (W7ULK) and Roy (W7WVA) Hansen of Cheney, Wash. To complete the picture, Terry's brother, Peter, is also a ham. His call is W7VWZ, and he is a medical student.

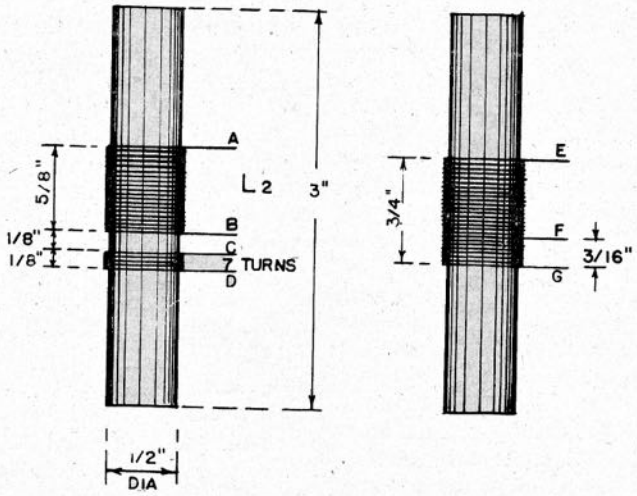
Terry is a junior education major and is too busy to spend much time on the air at present, but we hope to hear more of her later. However, her parents may be heard on 20 meters with their KWS-1, working DX, and holding skeds for lonesome wives with their husbands in the Antarctic. We will tell you more of Rosella's interesting activities in a later issue.



but I have found that the slug-tuned inductances so beloved by some constructors are not readily available.

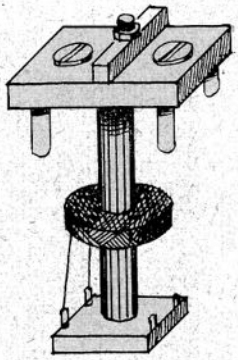
WINDING THE COILS

Coils L1, L2, and L3 are close wound on ½" diameter polystyrene rod with No. 30 enamelled wire. The connections to the coils at A, B, C, etc., are made by tapping dressmakers pins into the polystyrene rod lightly until they are just fixed; then by applying pressure at the top and a hot soldering iron near the bottom, they will melt their way about half way into the coil form and be cast into position. The heads can then be clipped off leaving ⅛" project-

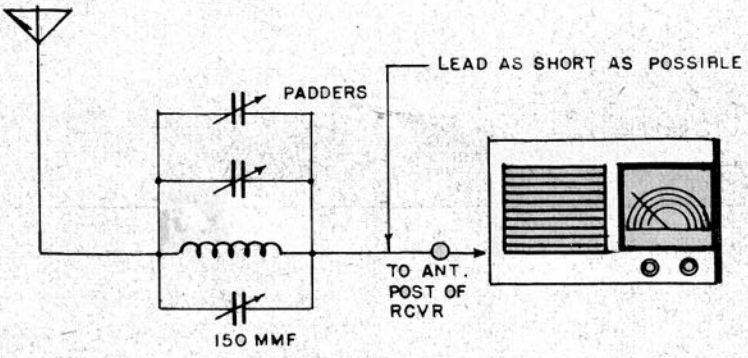


ing as a convenient tie point for the winding.

Output coil L4 is shielded and is made from a surplus 456 kc. IF transformer by removing turns from one coil until it tunes to 1600 kc. Be sure and get a large I.F. transformer with the two mica padders in the top as they are easy to modify. Disconnect the I.F. coils from the padder condensers, clip off the leads and start unwinding one of the coils. To increase the frequency from 456 kc to 1600 kc will mean that about ¾ of the wire will have to be removed. The coil will then be near 1300 kc.



I.F. COIL MODIFIED



SERIES CONNECTION IN ANTENNA LEAD OF RCVR

At this point, connect both padder condensers at minimum capacity across the small I.F. coil and add the 150 mmfd. variable condenser across the lot. By placing this in series with the antenna post of the receiver and tuning around the dial you will find a pronounced dip in signal strength. If you can't find this quiet spot, check every 5 kc on the receiver and twiddle the 150 mmfd. variable. It has to be there somewhere! If the receiver has a loop antenna or vari-loopstick, this procedure will not be too effective as the loop is picking up most of the signal and the null point will be imperceptible. In this unfortunate circumstance, you will have to either replace the loop with a shielded R.F. coil or find a suitable receiver. Keep taking off turns and checking the null point until it is at 1450 kc, the removal of the large 150 mmfd. condenser should move it up to 1500 kc. Further adjustments should be made with only the padders in the circuit.. Don't go hog-wild at this stage—relatively few turns removal will affect the frequency rapidly, but if you do remove too much, tighten up the padders—this should bring the null point back down to the 1600 kc mark.

(Continued next month—Theory, alignment and connections to Scotchman's Special).

Footnotes:

1. To receive the 31 meter band the input circuit L2 is tuned to give 1600 kc difference with the 2nd harmonics of the oscillator.
2. A slug tuned vari-loopstick can be substituted for the I.F. transformer, but a shield can with about ½" clearance all round the coil should be used.

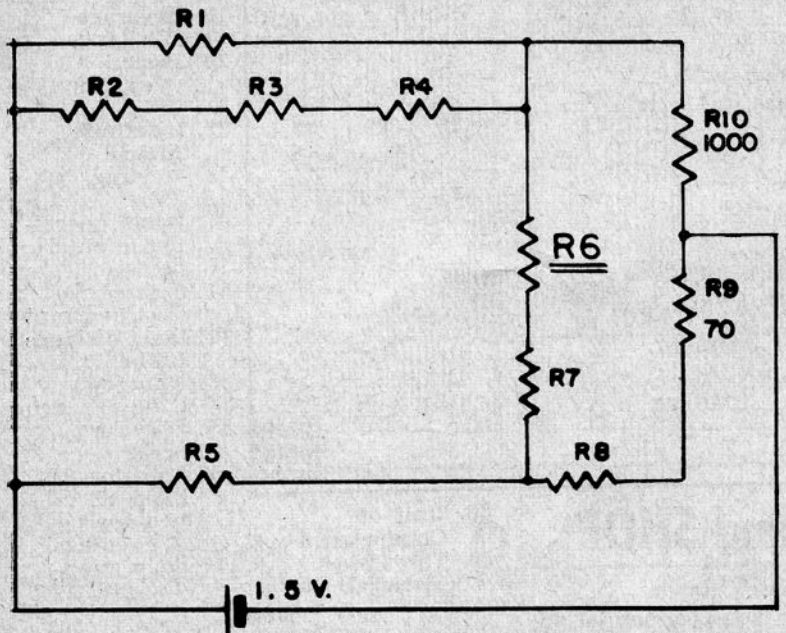
(See Parts List on Page 39)

BRAIN TEASERS . . .

By Ing McCallum, VE3DWN

The Canadian Amateur magazine has had many wonderful breaks although it has barely started, but having "Ing" McCallum, VE3DWN, of Glencoe, Ontario, accept the Techical Editorship, was a most fortunate step ahead for the journal. "Ing" promises to have a few facts about himself and station that will come next issue. Meanwhile, here's a little teaser, one of "Ing's" specialties, just to get things rolling. "Ing" says, "It will probably, at first glance, seem either a pushover or an impossibility. Actually, it's a very good example of how NOT to draw a schematic!"

PROBLEM: HOW MUCH POWER IS DISSIPATED IN RESISTOR R6?



R1	20 K
R2	18 K
R3	1.5 K
R4	500 Ω
R5	1000 Ω
R6	350 Ω
R7	650 Ω
R8	30 Ω
R9	70 Ω
R 10	1000 Ω

(SEE "ING'S" CROSSWORD ON NEXT PAGE)

The Scotchman's Special—

PARTS LIST

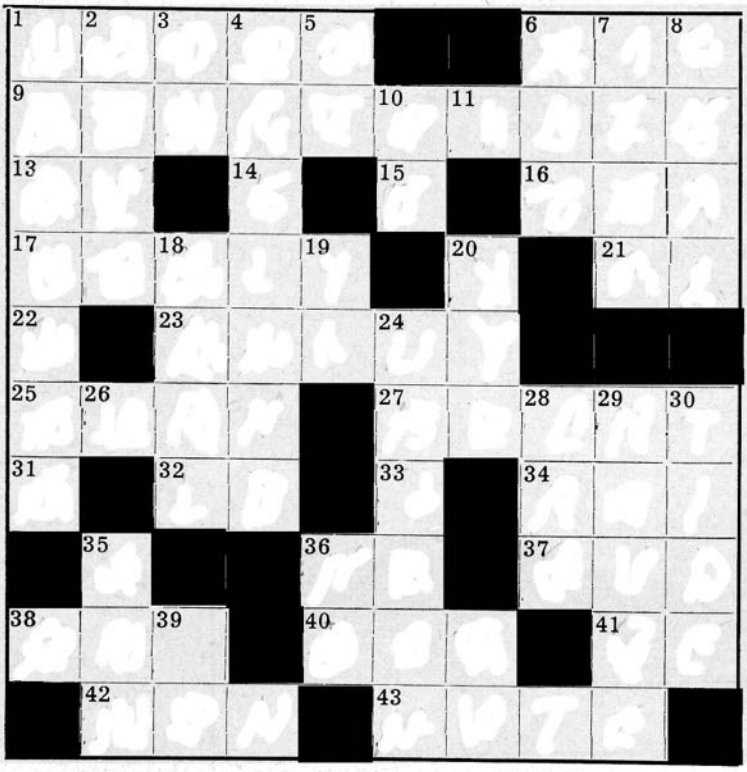
1 6BE6 or 12BE6 (depending on supply—if in doubt — wait 'till next issue).
1 7 prong shielded socket.
1 tube shield to suit.
1 150 mmfd. variable condenser.
1 15 mmfd. variable condenser.
1 5-50 mmfd. padder condenser.
1 47 mmfd. ceramic condenser.
1 .1 mfd. 600 volt condenser.
1 100 mmfd. ceramic condenser.
1 22,000 ohm ½ watt resistor.
1 27,000 ohm 2 watt resistor.
1 large 456 kc. I.F. transformer.
6 inches of ½" dia. polystyrene rod.
some No. 30 enamelled magnet wire
some hook up wire.
1 surplus chassis blank, preferably aluminum.

TVI Addition . . .

This should have been in "Terrific Value Inside," Jack Sibson's corner.

Although Jack has some very interesting stories to tell about TVI and sometimes it is fun to wait for the answers he has to those case histories, he has decided to give all in each issue. In other words, a complete story with answers. He believes it may help some unfortunate amateur clean up his trouble faster.

Ham Crossword Definitions — (By Prof. C. Q. North)



Across

1. General term for wireless communication
6. Xmttr.
9. We do it on cw mostly
13. From
14. Shortest Morse character
15. Dah-dah-dah
16. Beverage
17. IT1-Land
20. Period (Msg. Tfc.)
21. OM
22. Indefinite Article
23. Meeting
25. Twist
27. When operating, u shud be ----------
31. Symbol for elect. current
32. Long distance (abbr.)
33. You (cw)
34. King (French
35. Oboe or ocean
36. Abb. for ZL Land
37. Good (cw)
41 Good evening
42. Monday (abb.)
43. A cw tone
38. Unit of Conductance
40. They issue ur ticket

Down

1. Ur antenna does this (u hope)
2. Aid
3. Decibel
4. EI-Land
5. Austrian Pre.
6. Rodent
7. Phonetic "I"
8. Equipment
10. Prefix of our newest Prov.
11. Pronoun
18. Ham organization
19. Feminine Ham
20. YF
24. Quebec town (O.K., it's a tuff one, sue me!)
28. Unit of energy
29. A cosmetic (Helps YL's to become XYL's)
30. Marine phenomenon
35. Unit of Impedance
36. Nothing doing
39. ARRL station appointment

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For Sale—British (Commander) RCVR 11 Tube, double conversion, in perfect condition. Very reasonable for cash. Contact VE7VC.

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Perfect companion to the 4350A is the RME 4302 Speaker, styled and finished to complement it. Housed in sturdy steel case with cast aluminum front panel. Operates with any receiver having 4 ohm output terminals. 24.50 Amateur Net.

RME 4301 SIDEBAND SELECTOR

The RME 4301 Sideband Selector provides easy selection of either sideband on suppressed carrier transmission and the excellent passband characteristics make it ideal for reception of AM phone and CW. It adds as much as 15 db of sensitivity to the receiver. An excellent companion to the RME Receivers 4350A, 4350, 4300 (it plugs in directly), it can be connected to *any* receiver using a 455KC IF.

Complete with built-in power supply, the 4301 has an extremely stable BFO, balanced detector circuit and accurate phase shift network. Adder and subtractor circuits for single sideband selection of either upper or lower sideband separately, double sideband exalted reception or normal receiver operation. Panel mounted rotary switch provides instantaneous switching between upper and lower sideband with 40 db attenuation of unwanted sideband. **$105.00 Amateur Net.**

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RME DB23 substantially improves the performance of any receiver! Provides minimum gain of 20 db throughout all ham bands from 3.5 to 30 mc with substantial image rejection, better than 7.5 db signal-to-noise improvement over that of receiver alone. Employs three 6J6 twin triodes as neutralized push-pull stages in a unique combination of selective and wide-band RF amplifiers. Permits optimum use of mechanical, crystal or audio filters. Input circuits match any standard antenna. **$69.50 Amateur Net.**

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