

# Construction Continued

is the same as the two in the A.C. input, and can be made on a chip of ebonite 1½ by ½ in., and placed next to the negative terminal behind the panel, the leads to transformer and condensers being connected to the inner end.

In order to be able to place a loose piece of tin as a screen between the transformer and valve, etc., it is a good plan to run all the leads running in a right-hand direction down under the board and up again at their respective connections. A sheet of tin is then cut to fit between the R.F. choke and condensers, running up to the front panel and as high as the cover will allow. This should then be covered with paper on each side and dropped into place. Its object is to isolate any hum that might emanate from the transformer. In use it may be found an improvement to connect the tin cover to earth, and for this purpose a terminal may be attached to the cover.

The following are approximate prices of parts required:—

Rectifying valve	£ s. d.
1lb. 32's s.w.g. enamelled wire	0 15 0
1lb. 36's s.w.g. enamelled wire	0 6 0
Iron	0 8 0
	0 2 6

4 condensers, 2 mfd. each	1 16 0
Royalty or Kimmco variable resistance, 1500 to 100,000 ohms	0 10 0
Valve holder	0 10 0
Rheostat, 30 ohms	0 3 0
3 terminals	0 1 0
Flex, adapter	0 2 0
Connecting wire, 4 brass bolts, screws, ebonite, etc.	0 5 0
	£4 10 6

The small ebonite panel to which the lighting flex is attached is 1½ inch square. On this are secured under washers by ½ in. brass bolts, two fine strips of tinfoil to act as fuses. The inner end of each of these connects direct to a respective end of the primary winding.

On the plan diagram is shown the way to wire in a lighting socket with the adapter plug so that the eliminator may be plugged into any light socket and still allow the lamp to be used. Do not have the flex too short, as a few feet extra will do no harm and may save a lot of inconvenience.

Next week will be described a different circuit for a similar eliminator.

# Views in Our Mail Bag

## ANSWERS TO CORRESPONDENTS.

C.G., Wanganui: No country anywhere to our knowledge finds it possible to differentiate in license fee between crystal and valve owners. Valve owners contend that if it were not for crystal owners their fees would be smaller as one station would serve the Dominion. It is to carry the music to the crystal owners and give them the same local service as valve owners get that local stations are needed. The fee is fixed by the Postal authorities and not by the company.

## A Listener's Comment.

"There are two kinds of radio correspondents," writes "Ferro" (Lyall Bay). "One writes to the papers with constructive criticism and the other is a mere empty-headed agitator, who for business purposes writes to the Press with the sole object of getting publicity. Why don't the editors sort out the wasters from the genuine fans and refuse space to these self-advertisers? Radio is going to get a smack-up if these notoriety-seekers are permitted to voice their stupid and unwarranted criticism. Some of us know these goats by their 'ba-as,' but what about those who are new at the game? I suggest administering the waste-paper basket act to these bleaters."

## The Norwegian Whalers.

S.J.R. (Brooklyn): In your issue dated March 9, a correspondent, "W.J.P.," wrote under the heading "The C. A. Larsen on the air," describing a concert somewhat imperfectly received. This concert, however, originated from the ship station AQB, which is the Sir James Clark Ross, now homeward-bound to Norway. The wavelength was in the vicinity of 430 metres (between 2YA and 2IC). I first picked up this station on Thursday, March 1, at about 10.30 p.m. Volume was good, but the speech was unintelligible—possibly in Norwegian. No call sign was heard. On Friday, March 2, this station was tuned in about 10.10 p.m., just in time to hear the operator say "C. A. Larsen." I will call you up again in a few minutes," after which he shut down. At 10.20 p.m. (fall times were then, of course, "Side time"), he started up again with "Allo, allo, allo, C. A. Larsen, C. A. Larsen, C. A. Larsen," followed by a few personal messages. A musical programme was then broadcast, the items being as follows:—Orchestral selection, the orchestra apparently consisting mainly of guitars and flutes; accordion solo, by "Bell"; orchestral item, "If You Knew Susie." At this stage (10.45 p.m.) the operator requested that reports on reception be sent to the C. A. Larsen, at Stewart Island, or to the radio station, Avarua, who would communicate with AQB on short

wave. Ships were asked to report direct to AQB. The programme concluded with the orchestral item, "Show me the way to go home," followed by a further request for reports and a resume of the following (Saturday) night's programme, which was to commence after 2YA closed down. Items to be included were songs by the choir and solos on a hand saw (some of these being heard on Saturday night). The station closed down at 10.55 p.m. Volume throughout was good, with no fading, loudspeaker strength being slightly better than that of the chief Australian stations.

Trusting that this report may be of interest.

C. Nicholson (Bluff): I notice a correspondent in this week's "Record" heard a voice speaking in a foreign language on nearly 2YA wave-length. Will you inform him per medium of your paper, that the voice was the Norwegian whaler "Sir James Clark Ross" speaking to the "C. A. Larsen," her sister ship, now wrecked. The voice was speaking in Norwegian. The ship was at its base in Paterson Inlet, Stewart Island, 21 miles by water from here. On the night that the whaler "C. A. Larsen" was wrecked the operator was speaking very rapidly in Norwegian and occasionally in Morse. His wave-length is approximately 426 metres.

## Various Stations.

S. R. Ellis (Taranaki): In connection with Dr. Zieles' article in "Our Mail Bag" columns on the different stations he picks up on his set, the station he heard on 2YA wave-length was the C. A. Larsen, now stranded on Stewart Island. I picked him up the same night after 2YA had closed down, and they were broadcasting gramophone items. It came through very well, too, about as loud as 4YA comes through here, which is a very fair station just now. Re 2UW, it is a Sydney station. I picked it up at 9 o'clock Friday night, 8th inst, and they were on gramophone items, and it came through as loud as 2YA. I would also like to know about this Yankee station. What wave-length is he on, KRON. (242 metres—E.D.). All Aussie stations come through at present very loud and clear, hardly any static of any sort; quite nice to listen to. I would like to know how many valves Dr. Zieles is working on. Later: I was working well down on the dials Sunday night at 8.30, and picked up a station on 230 metres. Could not get the call; static was too bad. They were broadcasting band music, and it faded badly at times. Could anyone tell me who this station is. I also went up a bit higher on 280 metres and picked up a station, call 2ZL, also. What station is this? Static was very bad at the time. They were on gramophone music, and came

through clearly only for static bursting in at times. Could it be Palmerston North? 2UW, Sydney, was coming through well at 9 p.m. on 260 metres.

## "Carry On."

Disgusted (Patea): I have just read in the daily Press the report of the meeting of the Taranaki society on broadcasting, and am reminded of a poem I once read, and cut out. The first two verses run:—

My Dad and I long years ago were walking down the street  
When suddenly a little dog came yelping round our feet,  
He snapped and snarled so viciously—that angry little pup  
Appeared to me, as though he thought that he could eat us up;  
I turned and threw some stones at him which always missed the mark,  
And when I tried to drive him off, the louder he would bark.

Now, son, my father said to me, just plod along your way  
Don't turn your head for yelping dogs, Remember what I say.  
You'll notice if you pay no heed to him and hold your peace,  
That little dog will soon grow tired and all his noise will cease;  
But everytime you stamp your foot and shout to him Begone  
You show that he's annoying you and keep him following on.

There are two more verses, but as I know your space is valuable, I won't trouble writing them out, more especially as they may be a bit too pointed. But what I want to say is this: I, for one, appreciate that the company is doing its very best and is turning on good programmes. I don't agree with the Taranaki society one bit and a few more here think they're not playing the game. So I'd like to tell the company not to worry, but to carry on the good work and keep improving things. Most listeners are out to help and not smash things up. But there are some who want the limelight, and it's surprising how the papers swallow any criticism. It would almost appear they don't like broadcasting. I've heard it said that the newspapers were behind getting the clubs to demand a fee for relaying the races, but I am glad to see the company has managed to get that fixed.

## Racing Broadcasts.

Sport (Wellington): May I say, on behalf of a number of my friends how pleased we are that the broadcasting of races has been resumed. We would like to thank the Wellington and Christchurch Clubs for extending permission, and I, for one, hope that there will be no more efforts to hold back broadcasting. As a listener I think the company was perfectly right in taking the stand it did. I take two papers a week and they get their racing news free. I pay the same money—nine pence a week for my broadcasting, and I don't see that the broadcasting should be paid for. I am certain that the racing clubs will benefit by the races being broadcast. I know for a fact that two people (listeners) who never went to races before have begun going since they had wireless on. Why? Simply because they heard the descriptions and got excited and wanted to be there. However, as one who can't always get to the races, I thought I'd like to thank the clubs for fixing things up.

Hospital (Wellington): I'd like to say how glad I am that the races were broadcast last week. It was real good to be able to hear all that was going on. I always go when I can but, being laid up, hearing about them was the next best thing.

## The Gentleman With a Hobby.

G. W. Brown (Auckland): To say that I was astonished on reading in this week's "Record" of the "hobby" adopted by a certain gentleman is to put it mildly. I have long been surprised and puzzled by the persistent undercurrent of antipathy displayed by some writers in the Auckland Press to broadcasting. That is now very largely explained. Experienced listeners, of course, who are in the game and have been in it for a number of years like myself, never have taken much notice of these Press writers—who mostly seem to suffer from bile, and who if they ever had to wield anything more useful than a pen, would certainly make a complete mess of it but the difficulty is that it creates a bad atmosphere and is calculated to prevent new listeners entering the fold and so adding to our strength and building up the service. I notice that while the papers are busy backbiting broadcasting at every opportunity, they are not averse to reaching out their hands for advertisements from dealers who want to sell sets to the public. If I were a dealer I would give up trying to sell radio sets through advertising in papers that won't give broadcasting fair treatment. I think if listeners could be given the opportunity of tarring and feathering the "gentleman with a hobby" he might see fit to find a less despicable pastime—for to me it is despicable and incredible that such sabotage should be deliberately perpetrated. For it is sabotage. I remember when broadcasting first started and the improvement on our programmes since then has been immense. Our Auckland programmes to-day so far as the talent employed is concerned, is top-top, and there is no room for complaint. We are getting the very best the city can give us, and unless some of these critics have better voices and want to try them on us, I don't know that we can expect any better than we are getting. Some time back you had an article sympathetic to strengthening listeners' leagues, etc. On reading that I thought I would take it up and join, but if Auckland is going to be merely the screen for a small clique of hobbyists desirous of destroying, then it is no good to the steady listener like myself. I am afraid that the old law that froth comes to the top still holds good, but thank goodness.

# On Short-wave

## TALKING TO THE ARCTIC

## LONDON HEARD WELL

Mr. F. W. Sellens writes:—

In reply to several inquiries as to the short-wave circuit I am using, it is the same as "Megohm" describes in the "Radio Record" of December 9, 1927, which is, I believe, the most popular of circuits for short-wave reception.

Since writing last, 2MN, England (Mr. Marcuse) has been heard. On Saturday afternoon, March 10, 2XAD was heard from 3 p.m. at fair speaker strength, the "Palmolive" people again being responsible for the greater part of the musical programme. They closed down at 3.35 p.m., New Zealand time. 3AL and 3AR, Canterbury amateurs, were testing on 'phone, and came through at good volume. RFM, on 70 metres, put on some very fine music later on in the evening.

3AL and 3AR were again heard on Sunday afternoon. KDKA, on a slightly lower wavelength than usual—about 25 metres. They were having a very happy time, barn dances, with I think, a concertina, supplying the music. Songs, including "Fire Fire!" and "Love's Old Sweet Song," with plenty of stamping and clapping after each item. At the conclusion a voice asked, "Well, everybody, how did you like it?" "All you folk listening-in, send in a card." "Hope you get as much fun out of it as we do." After giving the weather forecast, they called listeners in the Arctic Circle and "wondered how the Eskimos enjoyed the barn dances."

Messages were then read to "the Royal Canadian Mounted Police; members of the Government service, and other residents of the top of the world—the Arctic Circle." Also, on behalf of the Hudson Bay Company, the dates of the arrival of supply ships at various places were given; these dates were in June and July, so I suppose this is when the ice allows passage to the places mentioned.

2XAF also came in very well, the programme being relayed from Buffalo. Reception was spoilt by morse interference. They signed off at 12.13, Eastern standard time. Wavelength given as 31.4 metres.

2BO, Wellington, and 2AB, Wanganui, were also heard during the afternoon. 2NM (Marcuse) was heard till 8 p.m., but, as on previous occasions, he was spoilt by morse. He is working on 32.5 metres.

After 2YA closed down, 5LM, Adelaide, was picked up on 32.5 metres, this wavelength being announced. He called a number of amateurs who have been heard at different times on telephony.

2NM was again heard on Monday morning from 6 a.m. at weak speaker strength till 7.30 a.m., when he was weak. Morse interference spoilt reception.

2LO was not as good as usual, fading being bad. Band music was heard on about 36 metres, the call was not heard, but think it was AFK, Germany.

During the evening RFM, on 70 metres, was the best I have heard it on the wave-length. Some very good musical items were enjoyed.

On Tuesday morning music and talk was heard on about 53 metres. Between each musical item a few words were spoken—probably the call, but could not get it. 5SW was tuned in at 6.30 a.m., but howling valves spoilt reception. The usual talks and musical items were given. During the evening RFM was heard, also several Australian broadcast stations on harmonics, which were stronger than usual.

hobby horse I for one will know how to treat his effusions with contempt. I appreciate the work the company is doing under great difficulties, and I firmly believe so do the great body of listeners. One always hears more of the "discontents" than the "contents," and it is a great pity that the Press should be so one-sided.

Listening to 5SW talking to 2XAD on Wednesday morning, the Englishman stated that "We have two aerials and two receiving sets for you." Also: "We have gained a lot of information with these Tuesday and Friday tests." They were, during this period, testing out if static heard by the one station was heard by the other, apparently it was not, as, when 5SW said: "Did you get that?" or the same question from 2XAD, the reply was usually no! Static was absent while listening from here, but could hear very faintly that which 5SW was getting when he said "Did you get that?"

PCJJ came in at weak speaker strength, steady and clear, closing down just before 6.30 a.m.

Big Ben at 6.30 a.m. came the loudest yet. King gave a lecture on spring flowers grown in the Scilly Islands. About 75 per cent. of his talk was intelligible at least 10ft. from the speaker. Piano duets and another lecture followed.

On Wednesday evening static was too bad for short-wave listening and howlers too bad for broadcast listening, so it was an off night.

Thursday morning AFK was heard on about 52.5 metres. After musical items "Achtung, Achtung," followed a number of V's and AFK in Morse. This station has been heard on several wave-lengths, probably testing to find which is the best.

During the evening 2AW, Wellington, was testing on about 85 metres, and RFM on 70 metres.

PCJJ was better again on Friday morning as regards volume. For a short time modulation went off, but improved again. They signed off at 6.34 a.m. till Saturday (early Sunday here).

At 5.10 a.m. our old friend "Allo, Allo, Au Japanese" was heard talking all the time with plenty of "allo, allo" at intervals. His full call sounds like "Allo, Allo, Au Japanese, Meauson, Minneon." Reception was good.

AFK was heard on about 52.5 metres, music and talk with the call in Morse. At 6.30 5SW, after Big Ben, had a lady giving a lecture, with the usual piano duets following.

Early Saturday morning 2XAD and 5SW were testing.

At 6.30, 5SW, as usual, commenced their evening session with Big Ben, followed by a talk by Mr. —, music critic. He went on to talk about his correspondents. Music and another lecture followed.

AFK was working on about 52.5 metres, but was weak. A station was heard on about 32.5 metres, announcing that it was "— testing." Volume fluctuated very much from good 'phone to inaudible.

# WORLD'S GREAT STATIONS

## MOST POWERFUL IN U.S.A.

The three mightiest broadcasts in the world are located in the United States. WEAU at Bellemore, N.Y., KDKA at Pittsburgh and WGY at Schenectady, N.Y., each have a capacity of 50,000 watts and lead the field.

The most powerful stations outside the United States are at Moscow, Russia, and at Motala, Sweden, each operating on 40,000 watts.

A survey made by the electrical equipment division of the United States Department of Commerce shows that 665 of the 1116 stations throughout the world are located in the United States. Europe has 198, North America, outside the United States, 128; South America, 52; Asia, 18; Oceania, 23; and Africa, 9.

## Daventry's Giant.

Daventry, England, has a 36,000 watt station and a station of power ranking above 40,000 watts is reported to be under consideration in the Netherlands.

The biggest station in Canada is one of 1500 watts at Calgary. In Argentina, among the powerful stations are two of 5000 watts at Buenos Aires.

In foreign countries governments own and operate 77 stations; associations and institutions, 87; commercial and industrial establishments, 69; broadcasting companies, 127; and private citizens, 33.



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