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SUPPLYING A NEED.

"WIRELESS WEEKLY" MAKES IT'S BOW.

In stepping into the limelight of public opinion, the "Wireless Weekly" is full of confidence.

It is not every publication that can start its strenuous life in this frame of mind, but this journal is undoubtedly justified in so doing.

In the first place, it is the first publication wholly devoted to wireless to be produced in Australasia.

The value of wireless communication is being realised more and more every day, and the uses to which it may be put in everyday life are gradually being impressed upon that section of the general public who, up to the present, have looked upon the science as something fearful and wonderful. Many of those who have troubled to look into it have become enthusiastic amateur experimenters. So expert have some become that every night they are "listening in" to European and American stations, their apparatus in many instances being home-made.

It is with the object of serving these experimenters and their professional brothers, and interesting the entirely uninitiated, that the "Wireless Weekly" is published.

It will be the wholehearted endeavour of this journal to give its readers reliable news of the latest developments in the science from all parts of the world; keep the experimenter informed on all matters concerning his hobby, and help him to put his case for the relaxation of restrictions under proper control; and generally deal with the science in an understandable way, from the elementary stages to the super-technical.

The policy is an ambitious one, but the "Wireless Weekly" is confident of being able to carry it through successfully.

The rest lies with the general public.

A PROMISE.

Mr. Hughes to Amateurs.

A statement of the utmost importance to experimenters was made by Mr Hughes in the House of Representatives on July 28, according to the Melbourne Correspondent of the "Evening News."

The Prime Minister stated that facilities granted in other parts of the world would be given to amateurs here under proper control.

No restrictions, other than those to prevent interference, would be imposed.

He would see that the wireless company did not interfere in the enforcing of the laws, but that control was by disinterested Government officials.

This must be considered one of the best bits of news concerning their hobby that experimenters have ever heard; and coming, as it does, on top of the intimation that licence fees may be reduced, makes their outlook very much brighter.

The amateur will look to Mr Hughes to keep his promise to the letter.

WHAT RADIO SPRANG FROM.

The first recorded experiments of electric signalling by conduction methods without wires were those of Morse, who signalled across a canal 80 feet wide in 1846, and later established communication across the Susquehanna River, over a distance of nearly a mile. The transmitting apparatus consisted of a key and battery connected by two long cables to two copper plates immersed in the water on one side of the river, and the receiver on the other side was simply a galvanometer similarly connected to two immersed copper plates. When the key at the transmitter side was pressed, a deflection was shown by the galvanometer.

A well-known Adelaide jeweller, who is interested in wireless, puts his hobby to an interesting use. At noon each day he checks his chronometers by radio time signals received on a set at his shop, and finds this method more reliable than the telephone system.

THE BEGINNER.

What is the Wireless saying?
I'm bothered if I can tell.
Jumbles of dots and dashes,
Arcs and sparks and splashes,
And Pennant Hills going pellmell.

I must practise more with my buzzer,
And get up some speed, I guess.
It will take me a year
To get anywhere near
The man at old V.I.S.

But here comes Jimmy McMahon,
So I clasp the 'phones on my head
While he sits at my feet
And swears not to repeat
What I copy from P.O.Z.

BEGINNER.

AMATUERS NOT CURIOUS.

The Eavesdropping Bogey.

Much has been heard lately of the necessity for ensuring the privacy of radio communications by the prevention of eavesdropping by the amateur, and this argument has been used against the proposed easing of restrictions governing the granting of receiving licenses.

To the general public, and, perhaps, at first glance, to the commercial radio man, this question seems of great importance, but when one obtains a more intimate knowledge of the psychology of the amateur it dwindles to comparative insignificance.

LONG WAVE PRESS.

It needs a large amount of time and patience to master the continental code sufficiently well to be able to copy ordinary commercial traffic, and when an amateur has given sufficient time to his hobby to do this, he is more concerned with testing new circuits and arrangements of apparatus than in reading messages which have no personal interest for him. In fact after having learned to read code at the speed of 12 words per minute necessary to qualify for a valve licence, he gives very little attention to reading, being satisfied merely to identify the station working and then to go on experimenting with his apparatus. This is borne out by the fact that many of our well-known experimenters are unable to receive at greater than the qualifying speed. Even expert amateurs usually copy only long-wave press and other C.Q. work, which is, of course, sent out for all who wish to listen.

MORE BROADCASTING.

Those amateurs—not interested in experimental wireless—and they are very few—quickly tire of listening to an endless buzzing, and usually work only when a concert is being broadcast. With the advent of more 'phone broadcasting stations and of amateur transmission, the listening in on commercial messages would be negligible.

Then, again, as in ordinary line telegraphy, messages of commercial importance are invariably coded, while, in the case of high-powered long-distance work, the use of automatic transmission at a speed of several hundred words per minute is a particularly efficient safeguard against indiscriminate listening as well as a great economy of time and power to the station transmitting.

As examples of what little importance is attached to this matter elsewhere, in U.S.A. no licence is necessary for installing a receiving set.

OUT BACK.

As It Should Be.

Dad Wayback entered the living-room of the little homestead and blew out the hurricane lantern.

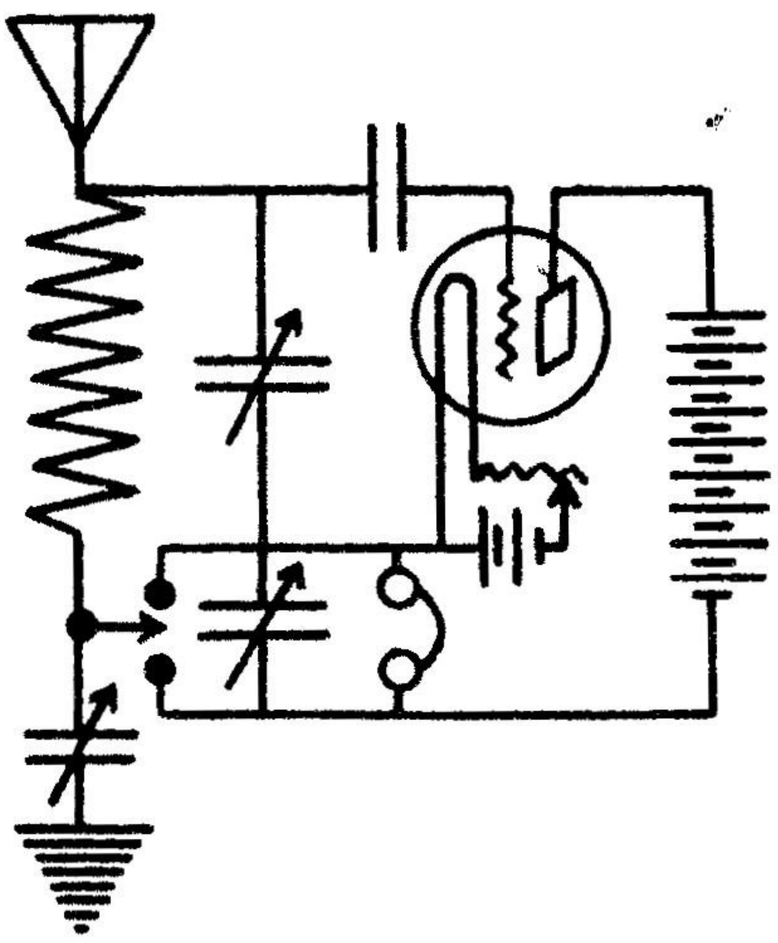
"Well," he said, "I've just had a look round, and everything seems O.K. It's about time to listen to see what weather I'm to expect for getting in that wheat tomorrow."

Hanging up his hat, he went to where a neat three-valve receiver stood on a table in the corner, sat down, adjusted the 'phone and switched on. He had not long to wait ere the tuning V's began to come in. Then, loud and clear in the telephone the voice could be heard: "Hello, Hello. Sydney radio speaking. The forecast for the next 24 hours is —"

And so it went on. Dad made a few notes on the weather and listened to the reports of the day's produce sales in the city. As some of his produce was sold that day, the latter item interested him immensely, as it did many farmers scattered about the country districts.

The reports finished and Dad switched off, and looked at the clock. "In a quarter of an hour," he commented, "the Amalgamated Wireless will be sending out their concert." Mother, Sarah, Jane and Billy, who were killing time as best they could, smiled. They knew these wonder concerts, and thoroughly enjoyed them. At the appointed time Dad switched on again, tuned into the concert wave length, picked up the music, and connected the loud speaker.

With the end of the program those lonely settlers were comforted in the knowledge that after all they were not altogether out of touch with the world despite the fact that the nearest township was three miles away.



(This Circuit is particularly adaptable to C.W. Work)

THINGS YOU SHOULD KNOW.

According to the report of a representative of the British Post Office, there are 750,000 receiving stations open in the United States.

★ ★ ★

The British Postmaster-General intends that it shall be a simple matter to get a receiving permit in that country. All that will be necessary is for the applicant to go to any post office, pay 10/, and get it.

★ ★ ★

I have not yet heard Lyons on a crystal, but hope soon to hear the Aeolian Vocalions broadcasting.

★ ★ ★

In short wave telephones any change in filament current will change the transmitted wave length.

★ ★ ★

In using short wave telephones it is necessary to avoid any change in antennae constants, such as swinging of rat-tail. This is especially important owing to the inherent difficulty in receiving short waves CW on heterodyne receivers.

★ ★ ★

A new method of shielding telephone receivers is to make the box of steel instead of wood.

★ ★ ★

Any detuning of the secondary circuit by the operator's hands is especially troublesome, and this is overcome by the steel case.

★ ★ ★

A stopping condenser in series with the grid of an amplifier is not a very efficient method of amplification.

★ ★ ★

If a tube stops oscillating all the plate current is expended in heating the plate and this current should be shut down.

★ ★ ★

Tungsten filament tubes have a limited emission with a given filament current, while coated filament tubes have an emission several times greater for the same filament current.

★ ★ ★

With ample filament emission the output varies roughly with the plate voltage, while with insufficient emission it varies as the square root of the voltage.

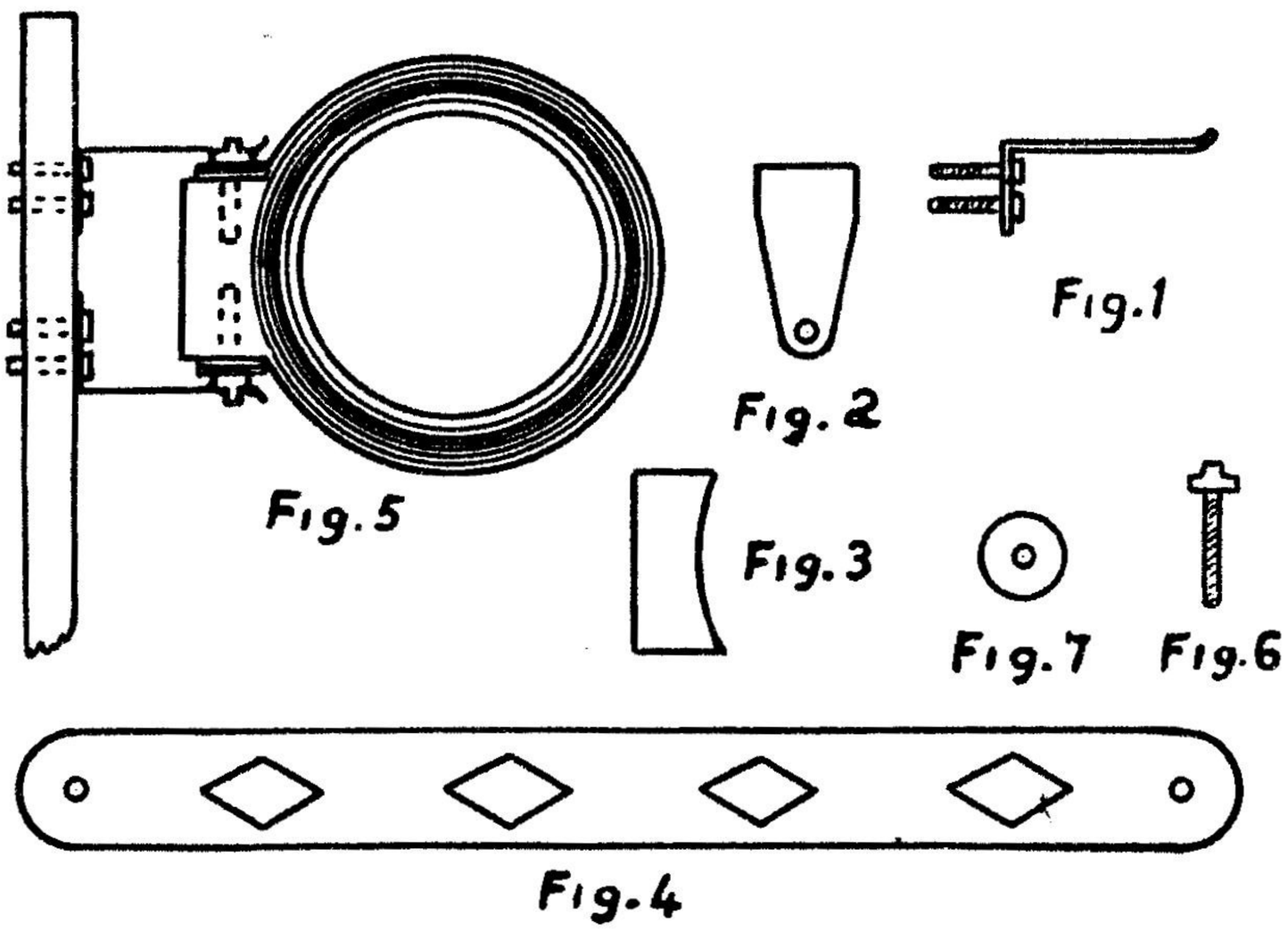
★ ★ ★

For best results it is necessary that the amplitude of the high frequency oscillations for moderate speech be double the amplitude for no speech.

MAKE YOUR OWN.

HONEYCOMBE COIL MOUNTING.

In these days when the Radio enthusiast wishes to construct as much of his apparatus as possible, there are times when he finds it difficult to make certain fittings. Now, one of these little problems has been a cheap and effective mounting for a honeycomb coil, one that is quick in action and simple in construction. In dealing with an article like this, the author appreciates the limited pocket of many enthusiasts.



The cost of the material runs into a few pence, and from practical experience this mounting gives excellent service. In making these fittings it will amply repay the experimenter to be as accurate in his work as possible. The material required is a few inches of ¼in round black ebonite rod (the quantity depends on the number of coils one wishes to make), a dozen 1/8in brass cheese headed screws and nuts, or else 5 B.A. ditto, a small piece of sheet phosphor bronze, or special spring brass, 24 gauge, no lighter. Next we require a strip of prespahn or fibre sheet 1/32in thick to make the band to go around the honeycomb coils, a few brass washers, several studs to the shape of Fig. 6. These are ordinary deep contact studs with part of the head turned away. To make up the fitting we cut off a piece of ¼in ebonite rod about 7/8in long, flatten one side of it with a file, then, with a half-round file, shape it as in Fig. 3, to allow it to fit up against the coil. In the ends of the ebonite, drill holes and lap it to take the stud, Fig. 6. Next cut out the band to go around the coil, Fig. 4. In mounting the coil you take the stud, put it through the washer, Fig. 7, then through the hole in the end of the fibre band, repeating this for each end.

Now screw the studs into the ends of the ebonite for a little way, then slip in the honeycomb coil, tucking the ends of the two wires, one under each washer, which will make contact with the studs. Tighten up studs, and you have the coil ready for mounting. The clips are self explanatory, but one has to take care that they are not too near or too far apart, also that the holes are directly opposite one another. From the screws holding the clips to the panel, as in Fig. 5, you connect same to the circuit.

Be careful in the selection of the right gauge and quality of the brass clips (24 guage phosphor bronze is the best); failing that, the best spring brass procurable. One should exercise care and see that the two contact studs do not meet in the ebonite, or if they do you will short circuit your coil. It is advisable that all the metal parts of this mounting should be nickel plated, as it undoubtedly improves the appearance, and gives a splendid contact between the studs and clips, as in Fig. 5.

It will be noticed, too, in Fig. 5 that the ends of the clip are bent up and down respectively. That is to enable you to clip in your coil without the use of both hands, as it acts as sliding guides to the holes in the clips.

MUSIC IN THE AIR.

Our leading experimenter (Mr Chas. Maclurcan) is back at his Strathfield home after a spell at Kosciusko, and once more there is music in the ether over the south-eastern portion of the continent.

On Sunday night he resumed his transmission testing, and there were numerous amateurs upon the 1,400-metre wave length to catch the music and speech. The telephony, as usual, was excellent, modulation good, and speech as clear as the tones of a bell. Experimenters spread over a very great area reported good reception.

Mr Maclurcan will be transmitting again on Sunday night.

INDEFINITE.

Amateurs all over New South Wales are sorry that Amalgamated Wireless Ltd., have ceased broadcasting their excellent concerts.

Some weeks ago it was stated that the company was moving the radiophone apparatus to a new aerial at the Knox Street premises, and the concerts, which had grown to be greatly appreciated, were discontinued on that account.

It is now said that the resumption of the entertainments is indefinite.

PLEASING RUMOUR.

A persistent rumour is now circulating among amateurs that a couple of commercial concerns are seeking permission to broadcast music and speech from Sydney.

Nothing definite on this subject can be obtained, but it certainly appears that there is "something in it." Of course, with amateur radio making the strides it is, the logical conclusion is plenty of broadcasting.

Let us hope that rumour is not a lying jade on this occasion.

WHILE YOU LUNCH.

Another from the States

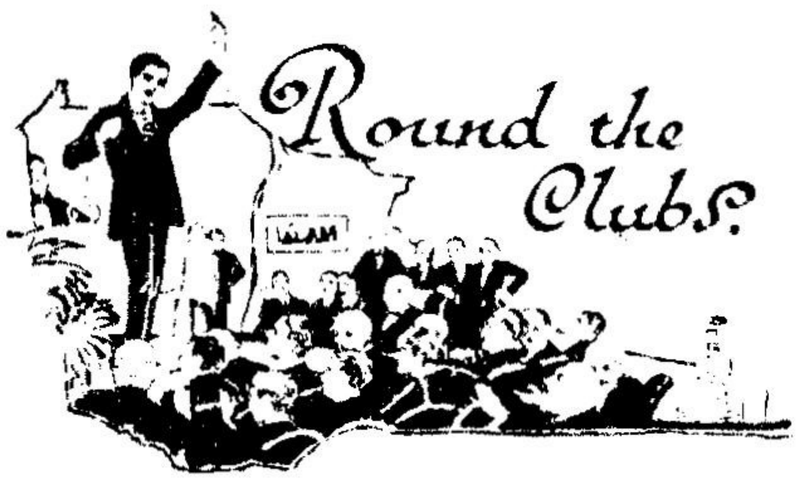
Just imagine going into a George Street restaurant and listening to a radio concert while you lunch!

Yet this is the latest American use for the science. An up-to-date caterer in a large city has installed a powerful set, and with the aid of a loud speaker, he is able to give the music to his patrons. He took careful note, and found that his business increased by over 20 per cent after the apparatus was put to work. The reward of being progressive!

Henry: "Bill planned to tap the Council's high voltage mains to send a message to Perth."

James: 'Was his plan carried out?"

Henry: "No, but Bill was!"



THE WIRELESS INSTITUTE.

The last meeting of the Wireless Institute of Australasia, New South Wales Branch, was held at the Club-rooms, Daley Street, Sydney, on Tuesday, when Mr Wallace Best lectured on electrical and mechanical energy. This lecture was one of a series of elementary talks for the benefit of new members and those not too far advanced.

The next General Meeting will be held on August 8, which will be visitors' night. The star item of the evening will be a special lecture.

The Institute has an interesting syllabus ahead, including a number of valuable lectures and demonstrations by those in the front rank of the science.

Particulars as to membership may be obtained from Mr Phil Renshaw, Hon. Secretary, Box 3120, G.P.O., Sydney.

WAVERLEY CLUB.

The Waverley Amateur Wireless Club is a go-ahead body which has of late been going into the subject of transmission. Some time ago the Club was granted a licence for sending out on 200 metres, and for several evenings they broadcasted C.W. and telephony, which was received well in the vicinity.

At a recent meeting of members, it was announced by the Secretary that the Club had been allotted a 1,000-metres wave length for broadcasting telephony. The necessary apparatus to use the wave length is being obtained from England.

IN OTHER STATES.

QUEENSLAND.

Mr Colville, former Secretary and founder of the Queensland Wireless Institute (later incorporated with the Queensland Division of the Wireless Institute of Australasia), is at present on a visit to Sydney. The President of the branch in the Northern State is Mr W. Finney, and the Secretary, Mr P. A. Wilson. The branch has a transmitting and receiving set, of which it makes full use. It might be mentioned that they started with a small spark set in 1919, and have progressed into C.W. work, having an arc converter, rated at 1 K.W., and a 2 to 5 Watt Valve Radiophone, with a range of 80 miles.

The Queensland amateurs have done some good receiving work — Melbourne's and Mr Maclurcan's concerts having been picked up on single valve sets.

WEST AUSTRALIA.

Though little has been heard of the West Australian amateur, he is very much alive, and by all accounts doing as good work as his brothers in other States. There are five transmitting licences in this State up to the present, including one at the University. Experimenters are reputed to be the best behaved of any in the Commonwealth, and unlicensed receiving sets are very few. This is because the local Radio Inspector is very active, and is noted for the speed with which he brings culprits to book.

VICTORIA.

There seems to be more interest being taken in the science in Victoria at the present time. The Victorian branch of the W.I.A. is a live body, and can now boast of nearly 100 financial members. This branch also has a transmitting license. The amateur in this State is being well served with concerts. Amalgamated Wireless Ltd. broadcast weekly from their Canterbury station, and occasionally old V.I.M. (Melbourne Radio) gives an entertainment. Several prominent Melbourne experimenters are in conference with the Director of Radio Telegraphy, and representatives of Amalgamated Wireless Ltd., concerning the reduction of the license fee, and other matters affecting amateurs. Through their efforts it is probable that the license fee will be reduced to £1.

SOUTH AUSTRALIA.

The experimenters in South Australia are not so numerous as in the Eastern States, but they are a keen lot. Some splendid reception has been carried out by individual amateurs—European and American stations being read with ease. Telephony from Melbourne is also picked up. The university has a transmitting license, and they have been experimenting with transmitting valves, including a 5-watt Japanese tube.

STATION CALLS.

Following are the principal Radio Stations in Australasia and the vicinity, together with their call letters. The times in parenthesis are the hours of working. Where no times are given, the stations work continuously:—

AUSTRALIA.

ADELAIDE, VIA; BRISBANE, VIB; BROOME, VIO; COOKTOWN (6 a.m. to 8 p.m.), VIC; DARWIN, VID; ESPERANCE (6 a.m. to 8 p.m.), VIE; FLINDER'S ISLAND (9 a.m. to noon, 2 p.m. to 6 p.m.; closed on Sundays and holidays; to report once on Sundays and holidays) VIL; GERALDTON (6 a.m. to 8 p.m.), VIN; HOBART (6 a.m. to 8 p.m.), VIH; KING ISLAND (9 a.m. to noon, 2 p.m. to 6 p.m.; closed on Sundays and holidays; to report once on Sundays and holidays), VZE; MELBOURNE, VIM; PERTH, VIP; ROCKHAMPTON (6 a.m. to 8 p.m.), VIR; SYDNEY, VIS; TOWNSVILLE, VIT; THURSDAY ISLAND, VII; WYNDHAM (9 a.m. to 6 p.m., Monday to Saturday; closed on Sunday), VIW.

WESTERN PACIFIC ISLANDS.

EITAPE (6 a.m. to 7 a.m.), VSX; KIETA (9 a.m. to 10 a.m.), VIU; MANUS (1 p.m. to 2 p.m.), VZO; MOROBE (5 p.m. to 8 p.m.), VZK; MADANG (6 a.m. to 7 a.m., 9 a.m. to 10 a.m., 1 p.m. to 11 p.m.), VIV; KAEWIENG (6 a.m. to 6 p.m.), VZR; NAURU, VKT; MORESBY (7 a.m. to 7 p.m., Monday to Saturday; to report on Sunday), VIG; RABAUL, VJZ; SAMARAI (9 a.m. to noon, 2 p.m. to 6 p.m.; closed on Sundays and holidays; to report on Sundays and holidays), VIJ; WOODLARK ISLAND (temporarily closed), VIF.

Nauru Radio looks out for ships on 600 metres wave-length, especially from:—

10.30 to 11.0 a.m., 2.45 to 3.15 p.m., 4.0 to 4.30 p.m.

NEW ZEALAND.

AUCKLAND, VLD; AWANUI (8 a.m. to 1 a.m.), VLA; AWARUA (6.30 p.m. to midnight), VLB; CHATHAM ISLANDS (4 p.m. to midnight), VLC; WELLINGTON, VLW.

Awanui Radio works with Apia Radio on 2,000 Metres between 10-10.45 a.m., 1.15 p.m. to 2 p.m., 6.15 p.m. to 7.45 p.m. (winter months 5.30 p.m. to 7 p.m.), and 10.15 p.m. to 10.45 p.m. New Zealand Time. The finishing time depends upon the volume of traffic to be handled.:

COOK ISLAND.

RAROTONGA (6 p.m. to 2 a.m.), VMR.

SAMOA.

APIA, VMG.

FIJI.

SUVA (Monday to Friday, 9 a.m. to 1 p.m., 2 p.m. to 3 p.m., 7 p.m. to midnight; Saturday, 9 a.m. to 1 p.m., 7 p.m. to midnight, Sundays and holidays, 8 a.m. to 8.30 a.m., 7 p.m. to midnight), VPD.

All watches kept on local Mean Time.