

Detailed Broadcasting Programmes a Week in Advance

Wireless Weekly 3^d

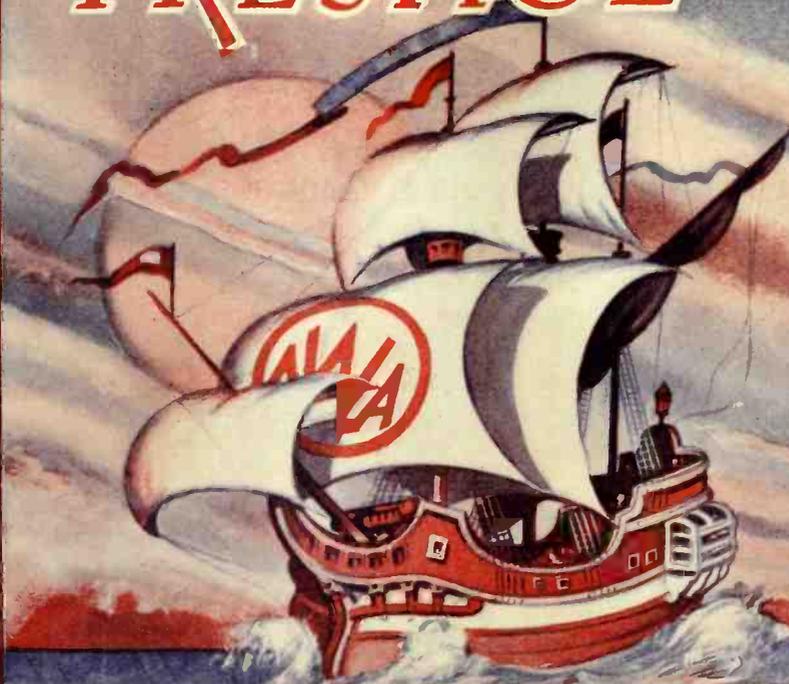
INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

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		Soldering Irons for Radio Work, ...	1/6 and 1/9

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PRICE'S RADIO SERVICE

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The PART RADIO Will Play in the ELECTIONS



MR. BRUCE



DR. PAGE



MR. SCULLIN.



MR. HUGHES.

Because of the short period before polling day party leaders will use the radio at every opportunity to get in touch with electors. The "B" stations particularly will be prominent in the campaign. The article below outlines the arrangements made at the time of going to press.

Scullin from Richmond, in Victoria; and Dr. Page from Grafton. Over four thousand miles of trunk lines were operated during these transmissions and relays.

As the campaign proceeds, the Federal Electoral Officer for New South Wales, Mr. Allars, will make frequent announcements from 2BL and 2FC regarding polling. Mr. Allars stated, after the last Federal elections, that he believed the final broadcast appeals to vote early had a very marked effect, as from a great number of divisions reports had reached him that early voters far outnumbered those at any previous elections.

Broadcasting reaches the peak of service, however, in making known the actual election result. A representative of the A.B.C.

will be established in the tally room at the Sydney G.P.O., with direct lines to both 2FC and 2BL, and a simultaneous service will be given through both stations on Saturday and Sunday nights, October 12 and 13. Arrangements have also been made to have a number of large sets installed in the tally room. These will be tuned in to the "A" class stations of each State, and, as the results come over from the other States, they will be tabulated and rebroadcast from Sydney stations.

In the tally room itself, broadcasting has made a marked difference. Before wireless came in, sitting members and candidates for elections used to crowd into the tally room to watch progress returns. Candidates no longer come there now, but listen in at home or in the party rooms to the comforting or otherwise news. The old system by which the party organisation had a line from the tally room to the party office has also been abolished; and party rooms are now equipped with radio sets and loud-speakers. Throughout the country, newspaper offices and local organisations have sets installed, and whereas, in the past, they had to wait sometimes several days before the mails arrived, country and city now hear the news at the same time, and get the results as fast as they are made known in the tally room.

While newspaper representatives have opportunities of writing out their matter and carefully comparing the results in consultation with other members of their staff, the broadcasting position is more difficult, as the audience is waiting to be spoken to immediately. Speed is the essence of the contract; and while a newspaper goes to press at a fixed time, the broadcasting stations go to press all the time. The listener at home hardly realises the amount of work carried out by the broadcasting staff in the tally room. Thousands of telegrams must be observed, figures pertaining to each candidate recorded, and subsequently analysed and compared with results at similar stages in the voting at previous elections.

A feature since the innovation of broadcast election results has been the wonderfully accurate analysis of the election which has been made late at night as the result of the rapid modern systems of collecting detail. In the last two State and the last two Federal elections a forecast has been issued by one of the officers of the broadcasting company (Mr. Williams) and the ultimate result, when all the figures have come to hand, proved these calculations to be correct almost without exception. Even during the recent Queensland election, the New South Wales forecasts proved better than those of the Queensland station; and many Queensland listeners tuned in New South Wales to get the latest results and forecasts for their own electorates.



Mr. H. P. WILLIAMS, who will handle the arrangements for broadcasting the results of the elections for the A.B.C.

ARUSH election, such as is now being fought, shows the outstanding value of broadcasting as a means of campaigning. In a country like Australia, where practically every electorate calls for a maximum number of meetings so that candidates may put the case to their electors, broadcasting, even through the "B" class stations, plays an important part.

2GB began by relaying Mr. Hughes' first speech, in conjunction with 2UE. Last Friday, 2GB relayed Mr. Bruce from Chatswood, and on Saturday relayed his Bondi speech afterwards broadcasting Mr. R. Windeyer, K.C. of the newly-formed People's Party from the studio. This week's programme includes two broadcasts for Mr. Marks, the Wentworth candidate, and during the last fortnight of the campaign a Nationalist will speak from 2GB every night.

2KY, of course, is the Labor Party station, and has arranged a programme for the endurance of the election. At 11.30 every morning there will be a special message for women electors. At 7.45 and at 8.45 every evening there will be addresses by prominent Labor members and speakers. On the night of the polling 2KY will remain on the air till counting ceases.

In all probability, Mr. Hughes' speeches will be broadcast regularly throughout the campaign from 2GB and 2UE.

But when the whole Commonwealth must be reached by party leaders in a little less than four weeks, it is then that broadcasting represents a mode of publicity which can be offered by no other medium. The National Broadcasting Service is called upon and is available only for the policy speeches, and the terms laid down by Cabinet for the use of "A" class stations are as follow:—

"Each of the leaders of the three parties, Nationalist Party, Country Party, and Labor Party, shall be granted two transmissions in each State. It is immaterial whether either or both speeches are delivered in the particular State so long as there are not more than two transmissions from the stations in any one State. Should the leaders so desire they may appoint a nominee to make one or both of the speeches for transmission in any particular State."

Arrangements were made, and Mr. Bruce has been broadcast from Dandenong, Mr.

BETWEEN YOU AND ME AND THE MICROPHONE

John Disgraces Us

As John was hardly in a condition to draw a legible heading, we have to resort to type.

IT was all our fault in the first place we should have known better. We know that. We should have known better. better because we should have known better. you see?.. It was all our fault in the first place, because we thought after all John couldn't be such a bad sort of fellow, so we decided to make it up—you know? (9 that quarrel we had last week about him, John I mean, getting his name in our page for doing those lousy drawings he does for us every week?—3; so we decided to make it up and asked John to come out with us to a party at the Ambassadors (to-night because we always you see of course we always What we mean to say is we generally go there when we that is when we want to throw a party to a nice friend we quarrelled with once" and we're always doing that we don't know why. John said all right he would come because he never turned down free eats, and then he wanted to know who we'd take with us. we said who in the hell do you

something and we had a little of the stuff in the bottle but John drank twice as much as we did and it really wasn't of much good for him as you will see as our story unfolds itself in our logic logical logical manner—. Just then that is at that moment which means XXs) so so to spes spw speak sso to sSo to speak just then a funny thing happened which was



funny think about it was they didn't look like them a bit so ! then we got up and went up to them and said because of course we always like to say how do you do to our best friends that is only the proper thing to do and we went and said to them how do you do Mr. Doyle and so on" but they did not take a scrap of notice so we said " it again then Sir Benjamin turned to us and said we are not the gentlemen you seem to think we are but god how we'd like to be!! which seemy

seel seemed a very funny thing to say but we were sure they were who they were and we said they were nothing but a lot of imposters if they said things like that so one of them called a waiter and this is the funniest thing— HE said they weren't at all who we thought they were. We called him a Liar because that was all he WAS a --- LIAR and he very kindly helped us back to our table ;; he was indeed a very nice man and we gave him a ten bob note although he was a liar because there are worse things than being a liar in this world, then we noticed a sudden change in john since we

had left him because he was singing a song; about a sailor or a drover or something at the top of his voice; and that / is very very high—we when he saw us he was charmed and a and called us all kinds of beautiful a na names and presented us with a with the vase of flowers in the centre of the table which was silly because we didn't want it at all but when john began to pull lift pull LIFT up the table cloth to see who was lying dead underneath we knew he was Blind!! Now if there is anything we ab abx absolutely detest it is is drunkenness and John was getting word worse and worse and crying his eyes out because he could not see anyone underneath that table cloth and then he began to yell out

about Boddy Body Snatchers and vicxsex vivixexiOn VivLse C T mfon or something so we HAD to do something or other because just then a waiter was



coming over and he looked pretty strong and suddenly we had; a BRAINwax Brainwave! WE said (John! John! You mustn't carry on like this: .% remember

you are a RADIO ANNOUNCER?! Good Lord! he said! So! I am! He straightened up in a ninstant, and brushed his long sandy hare hair back with his hand and turned round and made the most impressive address WE have EVER listebned to. This this here this is as near as we can remember what he said he said ladies and gentoo Ladies and ladies AND gentlemen!? he said. i am a radio announcer and a very dignified calling such as mine UNDOUBTEDLY is requires a very undoubtedly dignified man to listen to. Doubtless you may think you may think that I am now unf under the Influence of Liquor but I wish to



writer seems to be out of order to-night and it's very late and we're tired Anyhow that floored him!! but John is like that John is never sag saTif SATISFied about a about having a good time unless he is unless that is he is unless they are (he is you was they are your were not NO! He is neber satisfied unless he that is he is never st satisfied about having a good time unless HE IS our modesty that is our MODESTY makes us refrain from putting it in words but John is never staisfied about having a good time unless he is able to do some think like the above with a chance of we mean he likes nights like this

but of course no one nowadays thinks any the wo.se of him for that and he is really a very nice chap only I thought you might be interested to know. But anyhow of course our party was going to be a Bucks party and eventually John said all right but fancy won't it be an awful bore however.

Anyhow we got there to-night and sat down and ordered dinner or something or other, and the waiter brought a long a bottle or two we had ordered beforehand because John told us beforehand we could not get any after if we did not order it before but we did not want it ourself it was really; john who wanted it so we ordered it for his sake because we liked him very much at the time you see so there you are.—O so we had dinner or



it took three waiters to help us out and the last we saw of John was WAS somewhere or other but anyhow we're here now and the bally typewriter doesn't seem t) to be to be working too well someone seem se someone HAS smashed up all the keys or done something to it or we are going blind or tired or sleepy or something bl but anyhow john we will never forgive you for being cdrunk being drunk being d r u n k beinb gruulk.



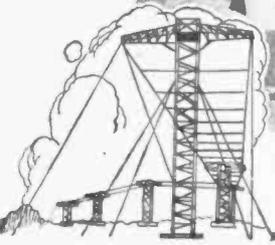
As James was not in a condition to sign his name at the conclusion of the above, we are running the old block.

COMMUNICATION

From an address.
"Bridging the
Gulfs of Distance"
Broadcast from
2FC on September
15.



The first official international telephone conversation from Australia. The American Consul talking to New York. In the presence of Sydney newspaper editors.



By

(Managing director of Amalgamated Wireless (A'sia), Ltd.)

If we listen to some people who talk freely about Australia, both here and abroad, we get the impression that this country suffers from almost every disability under the sun. Those who know Australia well and have faith in her great destiny are able to discount all such ideas and to show that both as a country and a nation she possesses instead almost every advantage that could be expected from a beneficent Providence. As this important truth becomes more effectively realised throughout the world the rate of Australia's progress will become increasingly rapid and the peoples of the earth will look upon this great continent as one of the nurseries for the future development of individual freedom and advanced civilisation.

In my opinion Australia has suffered from only one real disadvantage, which is isolation. Less than a century ago Australia was so isolated that travelling between here and Great Britain was a slow, hazardous and uncomfortable affair.

Within Memory

People who have known this country during the past 50 years have witnessed a remarkable development to the stage where we have a population equal to that of some important European nations, carrying on great primary and secondary industries, developing all branches of science and art and supporting every forward movement, while in Sydney we have to-day the greatest modern city on the Pacific Ocean, probably the ocean of the world's future.

These great developments are due to the initiative and intelligence of our people on the one hand and on the other hand to the gradual overcoming of our only disability, isolation.

With a fair wind and good weather, 60 years ago a fast sailing ship could bridge the distance between England and Australia in something under 90 days, but as wind and weather are not under human control the passage of a sailing ship across this great distance often occupied as long as five months. In those days and in the days be-

fore the advent of cable communication, Australia was extremely isolated from the rest of the world, news travelled slowly, with the result that the outside world knew little of Australia, and people in this country received only scanty and tardy information of important affairs in other countries.

In the year 1870 the first submarine cable was established between England and India, and in the following year the cable was extended to Port Darwin, in North-west Australia. This first telegraphic link with the old world travelled from Darwin through Singapore and Aden and eventually along the Mediterranean Sea to the coast of England. In comparison with telegraphic communication as we know it to-day that early system would be regarded as slow and very costly, but it was of course immensely faster and more certain than communication by means of sailing ships. The cost of sending a cable message to England in those days was in the neighborhood of 10/- per word, while the rate of transmission was such that messages often took a week to reach London.

Additional cables were laid as time went on, the cost of transmission was reduced and the speed was increased. More news could be sent to and received from the outside world and the transaction of important business was facilitated.

Draughts of Cables

Extension of the cable service, however, involved capital expenditure of several millions sterling and the great distances separating Australia and the important centres of the outside world involved the necessity of relaying messages at several intermediate points, with the result that the speed of communi-

cation was limited and the cost remained relatively high.

It is gratifying to know that all the pioneering work of world-wide cable communication was done by British people, and we in Australia can pay a hearty tribute to those far-seeing men of Great Britain who, through the medium of the British Australasian Telegraph Company, established the first cable service between Australia and the heart of the Empire.

This cable was subsequently transferred to another company, which has improved, extended, and continuously operated the service. That their enterprise has been richly rewarded during the past 50 years, for if we grudge the reward to our pioneers we incur the risk of undermining that valuable spirit of courageous initiative which has established the British Empire and developed our own Australia.

Why Not Across Pacific

A similar tribute of gratitude is also offered to another great pioneer of our communications, Mr. Sandford Fleming, who conceived and eventually brought to fruition the idea of an All-British cable service across the Pacific Ocean. Many years ago this gentleman completed the erection of a telegraph line across Canada along the route of the Canadian-Pacific railway. He started from the Atlantic Ocean and when he reached the Pacific he thought, "Why not continue this telegraph line to those remote British Dominions, Australia and New Zealand, by means of a cable under the Pacific Ocean?" He fought for this great idea through many years against the usual obstacles of indifference and direct opposition, but he succeeded eventually and the Pacific cable between Canada and Australia was opened for traffic in the year 1902. In recognition of this achievement Mr. Fleming was honored by the King and became Sir Sandford Fleming.

The opening of the Pacific Cable gave Australia an alternative route for communica-

tion with Great Britain and the only route which did not touch upon foreign territory. For this reason, and for the reason that the cable was owned by the Governments of Great Britain, Canada, Australia, and New Zealand, it has always been known as the All-Red Route. Upon its opening the cost of messages between Australia and the Old Country was reduced from 4/6 to 3/- per word, and a few years later saw the introduction of week-end telegrams at 9d per word. The Australian Government was the largest individual shareholder in the Pacific Cable.

"Wireless Telegraphy"

Thirty years ago the world was becoming more and more effectively linked by a network of submarine cables, and this was no doubt looked upon as the ultimate method of communication between countries separated by miles of ocean. In the year 1896, however, a young man arrived in England from Italy with a new invention which he called "wireless telegraphy." It was indeed the first practical system of telegraphic communication without connecting wires. Marconi was the son of an Italian father and an Irish mother, and as soon as he had brought his invention to the stage where he could telegraph across a distance of five miles he took it to England and established a British company. With the result that, under Marconi, the pioneering work in wireless communication was carried out with British capital and with the assistance of British engineers.

His first great step forward was the transmission of a message from England across the English Channel, and this was followed soon after by the transmission of a very faint signal across the Atlantic. It is interesting nowadays to recall the fact that, when Marconi announced his intention to transmit a wireless signal across the Atlantic, it was received with incredulity and even ridicule. Scientific men set out to explain why a wireless signal could never be transmitted across the Atlantic, but Marconi, having greater foresight and an unbounded faith in his inventions, went on with his supposedly impossible undertaking and succeeded at the first attempt; that was in the year 1901, the same year which witnessed the laying of the Pacific Cable between Australia and Canada.

Although Marconi's experimental signal had crossed the Atlantic this new art had not then arrived at the stage where it could attempt to compete with its predecessor, the cable, in carrying public messages from Great Britain to America. Marconi and his British Company, however, though losing money heavily, went on with this great work and actually established a public wireless telegraph service across the Atlantic in the year 1905, but the service in those early stages had many serious limitations, all of which, however, were gradually overcome. Even with this great success it was hardly contemplated that the day would ever arrive when it would be possible to transmit a wireless telegram direct from England to Australia.

Alice Springs or Alaska

The first great application of wireless communication was between the shore and ships at sea, thus destroying the isolation which had been the greatest handicap of the seafarer. We all know that to-day every passenger ship crossing the oceans is equipped with efficient wireless apparatus, but probably every-

one does not realise the important fact that a wireless station on board a ship, even on remotest part of the sea, is a definite unit of the world's telegraphic system. Through carefully planned international arrangements it is possible to hand in a telegram at any town or village which has a telegraph office, in any part of the world, and to have such telegrams despatched through the various landlines, cables, and wireless stations to a person on board a ship in any part of the world. In the same way, if you are, for instance, at sea on board a ship off the coast of South America, you can give the wireless operator a telegram addressed to a person in Alice Springs or Bourke, in an Italian village, in Alaska or elsewhere, and know that in a few hours that telegram will be delivered to your friend at his home. You will not have to concern yourself about the various routes, your message will follow or the charges of the various authorities who operate those routes. You will pay so many pence or shillings per word calculated by the operator in the ship and the rest will be taken care of for you by means of the world's international telegraphic network.

Years ago people who went away to sea were isolated and lost to the world as soon as their vessel passed out of sight of land, until it came within sight of a distant coast. Those on board were entirely shut off from the world and its happenings and those left behind had no means of knowing about the welfare of the travellers. This has all been changed by the great art of wireless communication, and wireless has also proven to be the greatest saver of human life at sea the world has ever known.

High Speed Telegraph

As a result of the pioneering efforts of a few who had faith in the further development of this great science, the day arrived in September, 1918, when a wireless telegraph message was transmitted direct from England to Australia, thus demonstrating the possibility of carrying intelligence across that great distance at the speed of light without a physical conductor, and without having to relay messages at intermediate points.

From that successful experiment there has been developed a regular high speed telegraph service, which now carries millions of words per annum direct between the two countries at a higher rate of transmission than any other long distance telegraph system in the world. In common with all such undertakings, its establishment was delayed by much opposition and some genuine doubt, but its wonderful success has justified all the effort applied toward its achievement. It has enabled the community to save large sums of money annually by reducing the cost of overseas communication.

Australia Leads Way

The British Empire to-day with its beam wireless service possesses the most efficient long distance communication system in the world. Its success was a source of astonishment to technical and other authorities in every country. Its technical conception and development are due to Senatore Marconi and his assistants of the British Company, which supplied the enormous sums of money necessary for its invention and perfection. It is very gratifying to know that it is recognised throughout the British Empire that the eventual establishment of this great service is due to the efforts of Australia. Upon the opening

of the service a late Postmaster-General of Great Britain stated:—

"Ever since the scheme of an Imperial wireless chain was first discussed Australia has led the way." Thus, Great Britain pioneered the Eastern Cable system, Canada pioneered the Pacific Cable system, and Australia pioneered the Beam Wireless system.

We are now entering the next stage of development, in which the wireless telegraph will be supplemented by the wireless telephone. During the past two years we have had most successful experiments in carrying on wireless telephone conversations from here with people in distant countries. A fortnight ago the Australian Prime Minister carried on an easy and lengthy conversation from Sydney with Lord Passfield, Secretary of State for the Dominions, at his home in England (Lord Passfield is perhaps better known to the world as Mr. Sidney Webb.)

Lord Passfield and Mr. Bruce

For nearly half an hour Lord Passfield and Mr. Bruce conversed with ease about important and interesting subjects. That conversation was quite as good as a conversation over the trunk line between Sydney and Melbourne. It was historical through being the first occasion upon which a Minister of the Imperial Government had conversed directly with a Minister in one of the British Dominions. Here again it is pleasing to note that Australia led the way.

Any day in the week now we can converse easily with people in Fiji, Java, U.S.A., Holland, Germany, and Great Britain. Everything is being done to hasten the time when these facilities will be made available to the general public.

The transmission of pictures by wireless is an accomplished fact, and I hope we shall shortly succeed in transmitting a picture across the great distance between Australia and Great Britain. Of course I speak of still pictures. The transmission of moving pictures, commonly spoken of to-day as Television, is a different matter. A great amount of work is being done and much money is being spent in research. There is no doubt that practical Television across great distances will ultimately be achieved, but not just yet.

Wireless waves to-day, travelling at eleven million miles a minute, can carry enormous volumes of commercial, news, and social telegrams. The same wireless waves in the near future will enable our business men to discuss important problems with business men in other countries, our editors will be able to ring up their correspondents abroad and get latest details of important happenings. Our Prime Ministers will be able to speak direct with the Prime Ministers of Great Britain and the other Dominions. Photographs and other illustrations of important events will be flashed across the world in the course of a few minutes. All this can be done by using the common highway of the ether, which has been provided for us by Nature.

Isolation Destroyed

If we develop wireless possibilities to their fullest extent Australia's isolation will be destroyed. We can have direct wireless telegraph, wireless telephone, and wireless picture services with every important centre of the outside world, and at the same time we can make Australia the Wireless Centre of the Southern Pacific.

To achieve this we must necessarily cooperate with people in other countries and with people of other nations, but we should always be sure that we remain masters in our own household and that the development of these important services will remain under Australian control.

No other country has so much to gain from the full development of wireless communication, and I consider that wireless is the greatest gift of science to Australia.

Do not omit to order your copy of WIRELESS WEEKLY for October 11 now. A special sixteen-page supplement will be given free with each number.

This Week's Programme Personality**C. N. BAEYERTZ***Wings of Exactitude
Hooves of Correction*

SOME names seem to carry with them the trumpet of prophecy. Baeyertz, pronounced quickly and sharply, with a grating of the last syllable, brings swift visions of Continental horror, desolation, and slaughter; it is a dread name, as Napoleon's used to be when nursemaids spoke it to frighten naughty children. We had often heard the name Baeyertz spoken by broadcasting artists, in the waiting-rooms outside the studios in tones which mingled sorrow, anger, humiliation, and awe. The talk might be of some great artist who had visited Australia, or of some great Australian artist; and someone would say, "Did you ever hear what Baeyertz said about him?" What Baeyertz said about him would follow; then there would be low laughter, paralleling the croaking chuckles of the damned.

So when we noticed in the programmes, six months or so ago, that Mr. C. N. Baeyertz would be speaking from 2BL, we went up to see what this Baeyertz bloke looked like. Through the control-room windows we saw him crouched over the announcer's desk, reading from manuscript his experiences at the American Lamb's Club. We watched him making for the door, when he had finished his story; and we gave him ample time to get down the corridor and step into the waiting-room, because we did not wish to meet the dread Mr. Baeyertz in the slightest. But when we emerged from the control-room, there was Mr. C. N. Baeyertz, talking to Mr. Basil Kirke, who all that evening had been announcing in his very best manner, so that Mr. Baeyertz might know how exactly a 2BL announcer could announce when the occasion warranted the innovation.

Mr. Bocargle--Mr. Baeyertz

We tried to pass the two gentlemen in the manner of One Who Was Beneath Their Notice; but it wouldn't work. Mr. Kirke buttonholed us, and said, "This is Mr. Bocargle, Mr. Baeyertz; he tries to wield the same weapon of satire as you do, but I am afraid he works with watered ink." (Our dear old Uncle Bas always preferred the metaphoric phantasy.) Mr. Baeyertz looked at us with two exceptionally piercing eyes from behind his spectacles, and held out his hand. "I am afraid that is all very much exaggerated," he said, referring to his literary past. "I am not really like that. Not now. It is so

easy to destroy—so difficult to create." Uncle Bas made several approving little noises, and disappeared into the studio, leaving us alone (and unprotected) with Mr. Baeyertz, who proceeded to talk in his most charming manner, with a slight drawl, on all kinds of subjects.

Since then we have met Mr. Baeyertz several times—chiefly at Mockbell's, during the lunch hour, where he sometimes goes to play chess. He will pause as he passes our table, and sometimes will sit down and talk with us for a while, in a manner which is to us a striking compliment. We look furtively round the benches at the coffee-house, and wonder if people will notice us talking to Mr. C. N. Baeyertz. We hope so.

"I'll Write It Myself"

And so, a few days ago, it occurred to us that Mr. Baeyertz, whose talks are now decorating some of the 2FC night sessions, should most certainly appear in the personalities page of WIRELESS WEEKLY. We told Mr. Baeyertz as much. "How do you generally write that page?" asked Mr. Baeyertz. "Why," we replied, taking special care to pronounce the "wh" in "why," "we write up the life story of our subject, and end up with some of his opinions on life or death or broadcasting, or his life's work, or something like that." "Good," said Mr. Baeyertz, "I'll write it myself. How many pages can I have?" "Will one be enough?" "But that will be room for only the barest facts." "Well—we've got to cram a few technical articles in, you see, Mr. Baeyertz; and so . . ." "I quite understand. I'll condense it."

And this is the story Mr. Baeyertz very kindly wrote for us that night:—

"I am credibly informed, by those who should know, that I was born at the National Bank, Bridge Road, Richmond, near Melbourne. When I left Melbourne, over thirty years ago, their trams had become rather a jest and a byword. They had given up stopping at every street crossing, and had acquired the habit of stopping whenever the cable broke—which was oftener, and perhaps more convenient.

"But the Melbourne of to-day is not the Melbourne of my forlorn and fevered past. Melbourne has become determinedly metropolitan—at least, in its intentions. Melbourne no longer borrow a newspaper surreptitiously from the milkman. I am as-

sured that there is now a newspaper in every home, every day (except Sundays)—even in the happy ones.

"There was a time when, in civic dignity and the beauty of their buildings, they put us to shame in Sydney. When, if we wanted to buy a stamp, we were crowded into a small corner of the room, where the fatigued persons put there to sell us stamps drove us to a gibbering state of exasperation. What a difference was there in Melbourne. I have been told that a man collapsed and died on the floor of the main building of the G.P.O. down there, and the sorrowing relatives sought him in vain for three days, until at length the body was tracked by a bloodhound.

"When we had all lost much moneys after the collapse of the land-boom and the bank failures, I went to Dunedin, where I lectured on modern languages, taught English, French, German, Greek, Latin, elocution, music, singing, and other vicious habits. I also wrote music and dramatic criticisms and literary articles for the 'Otago Daily Times' and 'The Witness,' controlled in those days by George (now Sir George) and William Fenwick—two of the most splendid fellows that ever adorned the world of journalism.

"After a year in Dunedin I started the 'Triad,' which I edited for thirty years with (during the last sixteen years) the brilliant collaboration of Frank Morton as associate editor. I hope I may have a chance some day to talk over the air of this amazing fellow—litterateur, poet, essayist, iconoclast, and finished craftsman.

Circulation Fit But Few

"The 'Triad' was esteemed highly in England, in America, and in New Zealand, but its circulation in Australia was never indelicately numerous. Morton once said to me: 'Never mind, Baeyertz; when we die and go to Sheol, as in process of time we assuredly shall, we shall run a paper entirely to please ourselves. It shall have a circulation fit but few. I shall give you a copy, and you shall give me one.'

"I believe that the 'Triad' did something in the direction of improving the literary, musical, and artistic taste in New Zealand, but in Australia it was a voice crying in the wilderness.

"Tell you some amusing episode in connection with the 'Triad'? Certainly. About

twenty years ago the amateurs produced 'The Gelsha' in Dunedin, and Mr. Hoff, who played the part of Wun Hi quite admirably, asked me to write a topical verse for him. I wrote one AGAINST myself. Here it is:—

*Chinaman he study English allee lifee long,
"Triad" Kikie, loo splenetic, say me talkee wrong.*

Once me thinkce, gettee plitty diphecthon gal U.

Allee sancee, Baeyertz blamee, whatce me to do?

*Chin, chin, Chinaman, muchee, muchee sad,
Boss plannuwer he announcer "Diction sovelly bad":*

Chorus, orchestra, better shuttee shop.

Chin, chin, Chinaman, chop, chop, chop.

"Next month, in the 'Triad,' whilst praising Hoff for the good work he did, I tore the verses to shreds, deploring the fact that he should condescend to sing such drivelling foggerel. Just what I expected came to pass. The 'Triad' was inundated with letters black-guarding me for my biased criticism. The music and dramatic critic of a New Zealand daily wrote:—

The Critic Criticised

"Heretofore Mr. Baeyertz' friends have always maintained that at least he is impartial; they can say so no longer. No one with the smallest claim to disinterestedness could possibly have criticised adversely a lyric so clever merely because it satirised his own carping methods of criticism.' This was priceless. In the next issue I printed the letters and criticisms, and added: 'To all of which I reply:

1. There is no disputing about taste.
2. The verse is very faulty.
3. I wrote it myself!

"I started the 'Triad' chiefly because I felt that the people were entitled to be told the truth about any entertainment for which they paid, and because I felt also that anything approaching a prevalence of bad English was dangerously bad, and must in the end be morally bad, for an English community. During all the years when the 'Triad' was my sole concern and occupation, and when I was, in fact, the 'Triad,' I tried earnestly to write no word I did not heartily believe, while sedulously guarding myself against any word that might in effect amount to an injustice. I found that I offended many people, but that whenever I met them and discussed the matter of their grievances, harmony was speedily restored. There were always, of course, a few irreconcilables, a few people whose exasperated vanity could by no means be appeased. The 'Triad' had been my vocation, my enthusiasm, since I was a cub, and, though no one has written more fearless criticism, I never lost a libel action.

Better Spoken English

"I have heard the world's greatest music in America and in Europe—ancient and modern—and I have judged the elocution and vocal sections at fifty-four Eisteddfods in New Zealand, Ballarat, and Queensland, and have always met the competitors and have gone through their work with them.

"I have given the greater part of my life to an insistent fight for better spoken Eng-

lish, believing that a man who speaks bad English thinks in bad English; and, when he turns to literature, he reads his own bad English into the author's prose or poetry. I find that the people who speak the worst English have the dullest minds. They think in a tormented or emasculated language that has never lived as a real force among real men.

Beauty of Language

"I dream of a day when public opinion in this country will definitely set in a strong tide against bad English, when even the newspapers ("and your paper's as bad," said Mr. Baeyertz as he read this over to us) will write and permit a sort of English tolerable among reasonably cultivated men and women. If not in my time, still some time—some time, surely, we shall begin to speak and write our superb language with some appreciation of its incomparable beauty."

We shall have to cut the manuscript short here, as space is scarce. However, there you will see as much of Mr. Baeyertz as we believe he will ever let anyone see—you will see the Style.

The man who sets himself a standard of criticism which denies loveliness to everything but perfection will never be very much the adored either of his public or his artists. His standards, borne not so much by average accomplishments as by ultimate possibilities, at once lead him away from the common mass of humanity into the heavens of ideal perfections. There remains on earth only the memory of a style, and the receding echo of a name.

WRESTLING FOR AMATEURS

By FRED JOHNS

WHILE broadcasting a description of the wrestling match between John Pesek and Jim Browning, both of America,

I explained between rounds to the various listeners-in the manner in which Browning was using his coconut crushing leg scissors around Pesek's body. I also briefly explained the referee hold, figure four scissors, and also John Pesek's terrific back slam that temporarily incapacitated "Rocky" Marshall. "Joe" Sigmund, and "Count" Zarynoff

All being well, and if time affords, I intend to explain on each Monday night that I am broadcasting the wrestling matches, the various speciality holds as used by the wrestlers in the ring; but I must give a word of warning here, that the various listeners-in when trying out these holds as I explain them must use extreme care at all times, until they master the knack of each move. They must be slow, patient, and gentle. I must strongly impress this upon every one because beginners usually scratch, bruise, and strain each other terribly

Wrestling With Zibisco

I'll tell you of an experience of mine. When Stanislaus Zibisco, world's heavyweight wrestling champion, was here in Sydney last year and wrestled Sam Clapham (later world's light-heavyweight champion) he weighed 17 stone, was as strong as a bullock, and to all appearances looked like a huge gorilla. I and many of the amateurs used to wrestle at Wally Withrow's gymnasium where Zibisco trained. We were all invited to have a pull with Zibisco, but he looked so formidable that many of us would

have liked to vanish into thin air. However, we were not altogether yellow, and with reluctance had a go. Zibisco's arms were as strong as steel, and although he was a world's champion he did not so much as scratch or strain any one of us. To our surprise, he was as gentle as a baby, and a man whom we were pleased to come to grips with.

On the other hand, here is another instance: Wally Withrow once asked me to give a raw beginner a pull round on the mat just as a way of freeing up his muscles. Suffice to say in less than three minutes I received a kick in the wind, a badly twisted finger, and a scratch with finger nail down the side of my face. That is the usual result of the effort of the average beginner.

Wrestling v. Boxing

I have received a number of enquiries for information on wrestling holds through the mail and will do my best to advise listeners through the medium of this journal. Many have suggested that they would like to take up wrestling, but have asked whether boxing

is not preferable. It must be borne in mind that I am a wrestler myself and am probably prejudiced in favor of that pastime, but the general opinion of the people that count is that wrestling is the superior sport and that should a wrestler and boxer meet in conflict the wrestler would be the conqueror. Therefore I advise those that feel interested enough to take up wrestling, but only as a hobby, unless individual tuition and proper training quarters are available.

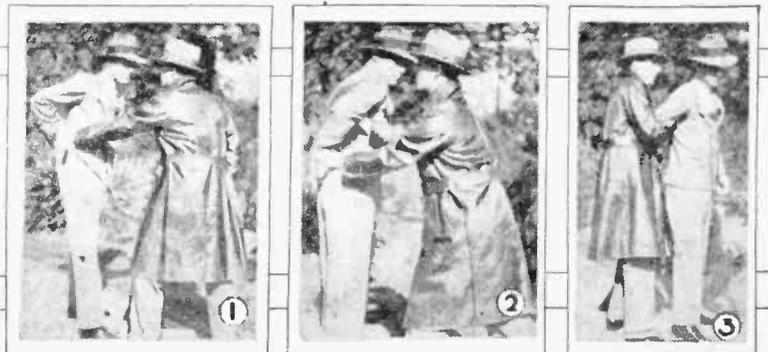
It is said that every man worth while possesses some hobby. Personally I have two—wrestling and wireless. I use wrestling as a means of keeping fit, and being fit keeps one healthy. A healthy, athletic body means a healthy, active mind, which is required for the keen business of to-day. So if the various listeners-in are anxious to take up wrestling as a hobby I am of the opinion that they are taking a good step and one that will stand them in good stead throughout life.

There was a time when many people disapproved of both boxing and wrestling, but it is encouraging to realise that such people are now in the minority. A glance among the personalities at the Stadium on a wrestling night proves that the men who count are enthusiasts, and that means well for the sport.

Gunmen being well in the public eye lately, I submit herewith a series of photographs illustrating a hold you may use with success should such an occasion arise. The one thing to make sure of is that the gunman is within reach.

First position: Should a person reach towards his hip pocket for a gun or weapon, for instance when his

(Continued on Page 30.



The succeeding positions of the move to resist a gunman, described by Mr. Johns.

INDIVIDUALITY IN PRESENTATION

In this article our contributor concludes the series, constructively criticising the programmes by giving a typical instance of poor presentation and suggesting how items could be more interesting "put over." Individuality in the programme arrangements of each station is essential, he claims.

(By JOHN BENSON)

THIS is my fourth and last article on broadcast presentations.

To recapitulate the main facts of previous articles: New South Wales programmes, as they are now presented, sound insipid. This is because the programmes of both 2FC and 2BL are arranged by a central programme committee, which denies each station's programmes the individuality they might possess; also because stereotyped and unvariable announcements have destroyed the personalities of announcers. The remedies suggested are: A separate programme director for each station, and the dropping of stereotyped announcements. It has been shown that American methods of presentation are based on two principles, one of continuity, the other of individual announcing. English methods of presentation, which are now being introduced into Australia, are remarkable only for the stereotyped announcing of excellent and well-arranged programmes. The American tends to rely on his individuality for the success of his programmes; the Englishman relies purely on the programmes themselves, suppressing all his individuality in the belief that the programme may stand out in greater relief against a colorless background.

English Methods---No.

Since Australia has attempted to follow in the footsteps of England, the first question is: Will the English presentation method suit Australia? I say it won't. To begin with, England is not Australia, and the methods which suit Englishmen will not always suit Australians. Where the Englishman is aloof, the Australian is casual; where the Englishman is conventional, the Australian moulds his manners to suit the occasion. Then, Australia has not the wonderful programme material which is available to English programme directors, nor the money to spend on programmes, nor, to be quite candid, can Australia hope for many years to put on a programme equal to what the B.B.C. does every day of the week; therefore, some difference of presentation is necessary to make up in agogie, or interest-sustaining, effect what is not procurable in absolute quality. Finally, the English idea, that the suppression of all individuality in programme presentation makes the programmes stand out more effectively, is not correct. It is one thing to gild the lily; it is another thing to present lilies in their proper environments; and I think that, if English presentations fall short in any way of perfection, it is because they lack suitable backgrounds. In many cases, and unifying individuality in many more.

American Methods---No

"And, therefore," you may say, "the only thing left is the American style of programme. Thank you very much, Mr. Benson—we have enjoyed your articles immensely; but we have read enough. No American methods for Australia, dear sir!"

Hold on a minute. I have shown you the American method of presenting a programme, and I have shown you the English no-method. But I have not yet said that Australia should follow America rather than England. I quite agree that American advertising programmes are not as satisfactory as programmes subsidised by licence fees;

I quite agree that some American presentations would insult the intelligence of a ten-year-old; and know that some of the more popular American announcers would provoke Australian audiences to thoughts of murder; yet my reason for detailing the methods of English and American broadcasters was not that we might know whom to follow, but that, having found the secrets of their success, and having reduced their methods to simple terms, we might envisage an Australian broadcasting system which would satisfy both the emotional capacities of Australians and the technical necessities of broadcast presentations. Because no one ever did anything worth-while just by following someone else. The acid test of a true producer or presenter of programmes is not of his ability to follow, but of his ability to create, because originality is the only thing that ever did matter a twopenny damn in any kind of artistic production whatever.

Sectionalisation Necessary

The first necessity for a day's programme is that it should be sectionalised—that is, that special periods should be allotted to different kinds of presentation throughout the day. In America this is done by means of advertising "hours"; in England it is done by means of "concerts," "plays," "recitals," and so on; and in New South Wales it is done. The fact that it had been done in New South Wales was noticed several times with cheers in "Wireless Weekly," and I am sure that this sectionalised programme scheme will be the basis of all improvement in New South Wales programmes. But only the basis.

Because, while the American programme is sectionalised individually, and while the English programme is sectionalised quality, the Australian programme is sectionalised only in name—its sections have as yet neither individuality of presentation, continuity of arrangement, nor absolute quality to hold them together as units of entertainment.

Unified Arrangement

Which brings us to the second necessity for a day's programme—the progress, continuity, or unified arrangement of its sections. Such presentations as talks, plays, and sketches belong to a separate department, since they are inconceivable without continuity. The most difficult kind of presentation to handle is undoubtedly the musical, and it is chiefly in the arrangement of musical sections that the New South Wales stations fail. The night presentation from 2BL on Friday, September 13, for instance, was particularly unlucky. According to the programme, "2BL offers songs, grave and gay, and light orchestral numbers to-night." And the songs, grave and gay, including the light orchestral numbers, also some mono-

logues, and a pianoforte solo by Mr. Barnett, were as follows:—

- 8 p.m.: G.P.O. chimes. The National Broadcasting Orchestra—
- (a) "Windows in Spain" (Kennett).
 - (b) Trumpet solo, with orchestra, "Ben Bolt" (arr. Lousrendau).
 - 8.15: Lance Jeffree, tenor—
 - (a) "Lensk's Aria" (Tschakowsky).
 - (b) "On Wings of Song" (Mendelssohn).
 - 8.22: Clifford Lathlean, basso—
 - (a) "Fair House of Joy" (Quilter).
 - (b) "Silver" (Armstrong Gibbs).
 - (c) "Rolling Down to Rio" (German).
 - 8.29: G. Vern Barnett, pianoforte solos
 - 8.39: The Songsters, vocal duets—
 - (a) "Nocturne" (Denza).
 - (b) Solo, "Swingin' Vine" (Grosvenor). Miss Dulcie Starkey.
 - (c) "When Song Is Sweet" (Sans Souci).
 - 8.45: The National Broadcasting Orchestra—
 - "Hiawatha Ballet Suite" (Coleridge-Taylor).
 - 9.0: Margaret Kerr, in a musical monologue.
 - 9.7: Muriel Lang, cellist.
 - 9.14: Lance Jeffree, tenor—four Old English melodies, arranged by Lane Wilson—
 - "The Slighted Swain."
 - "My Lovely Celia."
 - "The Forsaken Maid."
 - "Phyllis Has Such Charming Graces."
 - 9.1: Margaret Kerr, in a musical monologue.
 - 9.28: Clifford Lathlean, basso—
 - (a) "Swing Low, Sweet Chariot" (arr. Brown).
 - (b) "Billy Boy," Sea Chanty (Terry).
 - (c) "The Derby Ram" (Hurleston).
 - 9.35: The National Broadcasting Orchestra—
 - "No, No, Nanette" (Youmans).
 - 9.45: V. C. Bell will give a short address.
 - 10.0: The Songsters, vocal duets—
 - (a) "In the Garden of My Heart" (Ball).
 - (b) Solo, "A Little Coon's Prayer" (Hope), Miss Ivy Dunstane (contralto).
 - (c) "Absent" (Metcalfe).
 - 10.10: The National Broadcasting Orchestra—
 - (a) "The Five O'Clock Girl" (Ruby).
 - (b) Ballet music, "Rienzi" (Wagner).
 - 10.25: Official weather forecast, metropolitan and country; late news from the "Evening News and The Sun."
 - 10.30: Close. National Anthem.

The Above Dissected

There were a few slight differences between the programme as it appeared in WIRELESS WEEKLY, and the programme as it went over the air. Mr. Jeffree's "Four Old English Melodies," for instance, were sung at 8.15 p.m., instead of 9.14 p.m. The same artist's "Lensk's Aria" and "On Wings of Song" were sung at 9.14 p.m., or somewhere near that time, instead of 8.15 p.m. Mr. G. Vern Barnett had to play the organ for 2FC, so Miss Kathleen Roe took his place at the piano, playing something from the Moonlight Sonata. However, there was no harm done to the programme, because it was not a presentation—it was only a string of items, which began at 8 p.m., and ended at 10.25 p.m. The orchestra played four times. Each artist appeared twice. A talker talked once. In all, there were between thirty and forty separate items—I was almost going to say between thirty and forty items performed, but there never yet was a performance without an atmosphere. The main faults of the above programme are:—

1. It is too long.
2. It lacks unity.
3. The "atmospheres" of consecutive numbers are in conflict.
4. It has neither charm, originality, nor individuality to sustain interest.

I shall just indicate a few of the might-have-beens. You will notice that Jeffree sang a bracket of two songs, "Lensk's Aria," from an opera by Tschakowsky, and "On Wings of Song," by Mendelssohn. The first is a dramatic song; the second is purely lyrical. I think that the situations of dramatic songs should always be explained beforehand, and it would be a good idea to have a Dramatic Song recital one hour every week, with someone who knows to explain the situation. The songs could be specially chosen; then the singers. Also, there

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page supplement will be given free
with each number.

could be a Lyric Song hour once a week. Then, the National Broadcasting Orchestra might be allowed less time on the air, and more time for rehearsal, so that, when it plays over the air, the effect will not be so much of a musical tap turned on as of a good performance of a work which has cost a composer hours, days, and months of thought and labor and mind-racking. I don't blame the orchestra. No orchestra could give fine performances of so many different works so frequently as the National Broadcasting Orchestra is called upon to do.

Character Hours

To end the post-mortem, if the programme time from 8 p.m. till 10.25 p.m. had been cut in half, with the grave, or more classical, compositions carefully arranged for the first half, followed by Mr. Bell's talk, and then by the gay, or more frivolous, compositions, the appeal would have been greater. These divisions are not arbitrary. For instance, the first hour might have been the Dramatic Song hour I spoke about, and the second hour could just as well have been either a Lyric Song hour or an hour of carefully-selected orchestral performances, interspersed with songs of the same atmospheric requirements. The main thing is, that the hour, half-hour, or presentation should be marked with some kind of character, and that this character should give it unity, and hold attention to it. For instance, once more, an orchestra could give an hour of Oriental music, or an hour of Spanish music, or an hour of Egyptian music, or an hour of Russian music. It could devote an hour to the works of one composer, for full orchestra, quartets, trios, piano, piano and violin; and it could even muster the initiative to get a singer or so to sing the composer's songs to an instrumental accompaniment. Good heavens, there are enough ideas here for a weekly series of presentations to go on for years!

Allied to the method of continuous arrangement is the effect of continuity given by atmospheric backgrounds, which, although their chief exponents are the Americans, should not be utterly condemned. Now summer is coming in, a weekly boating party, the "Summertime Picnickers," might be tuned in for an hour during the evening session. They would be going up the Hawkesbury River, for instance, and they would have mandolins, banjos, guitars, and saxophones, and they would sing all the very latest jazz stuff, and play all the latest novelties. They would speak, not in the funereal manner of the announcer, but just as though they were really at a picnic or in a boat or something; and, if someone could be engaged who had a knowledge of the Hawkesbury River scenery, an interesting travelogue might be incorporated in the action.

Setting Old Time Nights

I suspect that such a combination would be remarkably popular in direct proportion to the number of times it would perform and, as the public would come to know the characters and eccentricities of each member of the "act," so would it begin to look forward to next week's appearance.

Then, these "Old Time" nights, which everyone seems to be so anxious about, could be set in old-time atmospheres. A carefully-arranged hour, including old-time stories, old-time jokes, old-time waltzes and dances, could be set in an old-time house, and the artists could act as old-time people. For a novelty, I have thought of a "Musical Form" hour, in which different musical forms could be played in their appropriate settings. For instance, a "Serenade Hour" set outside somebody's window, could embrace all the Serenades, from Schubert to the latest written. Think of what could be done with an "Ave Maria" hour or a "Nocturne Hour," or even with an hour in which a story was

A.B.C. Staff Changes



Harry Graham,
6WF announcer.



Dorothy Manning,
also for Perth.



Ewart Chapple,
announcing.



Conrad Charlton,
night announcer.

Mr. Harry Graham, who took Mr. Basil Kirke's place as night announcer for 2BL, has followed Mr. Kirke to Perth, to take up a position as announcer at 6WF. With Mr. Graham goes his wife, well known as Miss Dorothy Manning and Mrs. Cranfield, under which names she was most successful recently as a talker on women's subjects, and in radio revues and sketches. Such a talented couple are bound to find plenty of scope for their various abilities in West Australia, where, we understand, Mrs. Graham will reintroduce her women's sessions, and where Mr. Graham will add the duties of producer to his work of announcing. Perth should be as pleased to receive them as all who have known them in New South Wales will regret their departure.

Mr. Charlton, who has announced from 2FC during the day sessions for some time, has taken Mr. Graham's place as night announcer from 2BL. Mr. Stevens retains his position as studio supervisor for 2BL.

At 2FC Mr. Cochrane has returned to the day sessions which he knows so thoroughly; and Mr. Ewart Chapple, well known as studio accompanist, has been transferred to the position of afternoon and night announcer, which explains the bright young voice you have heard recently during the night sessions. Mr. Chapple will also co-operate with Mr. Halbert in the presentation of the evening programmes.

Mr. Horace Keats will take a share of the accompanying, using a string trio. He will also conduct the orchestra on Monday and Friday nights.

written as a background to lyric songs by different composers! When I think of all the hours which might be thought of, I—begin to lose the thread of the argument.

Anyhow, I think I have said enough to show how important a sectioned programme is, and how important it is that each section should be self-contained, and made up of items which follow one another in progressive order. And I think I have also made it quite obvious that the organising and arranging of such programmes is a job for highly-specialised persons, and a job which requires great individuality, both in arrangers, the programme directors, and presenters, the announcers. It is not a job which can be performed by a central committee for two distinct broadcasting stations, that is certain.

Individuality Lacking

And that is why the programmes of 2FC and 2BL sound insipid—because a central committee has not the individuality to arrange programmes which will sound original or individual, or create any of the effects of these qualities from both stations. The obvious thing to do is to put the 2BL programme arrangement into the hands of one programme director, and the 2FC programme arrangements into the hands of another programme director. The central committee could function to prevent overlapping and to guide general policy, but otherwise each station would have its own individual programmes properly arranged.

The next obvious thing to do is to cut out the "Ladies and Gentlemen" stuff, and to let the announcers talk like human beings. It might be worth while sometimes to engage special announcers for special presentations. Until something like this is done there seems little chance of getting creative original, or progressive programmes in Australia.

Finally, I don't know whether anyone is going to take any notice of this series of

articles, although I think the main tendencies of my arguments are in the right direction, and although I believe I am speaking the conscious or sub-conscious feeling of thousands of listeners. The main idea, by the way, is not mine—it is Mr. Stuart Doyle's. I met Mr. Doyle on the day after his company got the broadcasting contract, when the show business was alive with whispers of broadcasting and the State Theatre opening. Mr. Doyle said then: "We shall bring one new thing, above all others, into broadcasting, and that is the technique of presentation." This series of articles has been simply a working out of the theme then announced by Mr. Doyle.

Technical Correction

READERS building the Screen Grid Booster Unit for small sets, published last week, should note that the resistor R1 was shown connected between A negative and rotor plates of condenser. This places a positive instead of a negative bias on the valve, and the resistor should therefore be shown between the filament terminal of the valve socket and the rotor plates. A negative can then be earthed to the shield.

Warning!

A WARNING is necessary for inexperienced constructors of the cheap "B" Eliminator described, September 13, 1929, owing to the fact that the full line voltage of the mains will be placed across the body on making contact with the plate terminal of the rectifier valve. The finished eliminator should be suitably housed in an aluminium cabinet which is earthed, and it would be advisable to place an ordinary torch globe in series with the B negative side of the eliminator, then in the case of an accidental short, the metal cabinet will not be "alive," and the fuse will blow without damaging house wiring, etc.



MR. ALBERT CAZABON, who conducts the Prince Edward Theatre Orchestra, will present 2FC's Sunday concert between 8 and 10 p.m.

2FC Educational Series

A SERIES of lectures by officers of the Education Department began on September 16, and will continue each Monday until December 2, with the exception of the week beginning October 7, when the lectures will be held on Tuesday instead of Monday because of the Eight-hour holiday. It is hoped that this series will be so successful that the department will see fit to continue this work after the Christmas vacation.

The roster arranged for the first series is as follows:—

SEPTEMBER 30: 3 to 3.15, Mr. R. G. Henderson (English), "How to Tell a Story" (Kipling's, "A Matter of Fact"); 3.15 to 3.30, Mr. Treharne (Music), "Handel."

OCTOBER 8: 3 to 3.15, Mr. Breakwell, "Developments in Agricultural Science during the Past 20 Years;" 3.15 to 3.30, Mr. Treharne, "Bach."

OCTOBER 14: 3 to 3.15, Mr. R. G. Henderson, "The Best Stories Ever Written;" 3.15 to 3.30, "Beethoven."

OCTOBER 21: 3 to 3.10, Mr. A. G. Hamilton (Nature Study), "Our Birds;" 3.10 to 3.20, Mr. R. G. Henderson (English), "Birds and Poetry;" 3.20 to 3.30, Mr. Treharne (Music), "Birds and Music."

OCTOBER 28: 3 to 3.15, Mr. R. G. Henderson, "Imitative Rhythms in Poetry;" 3.15 to 3.30, Mr. Treharne "Imitative Rhythms in Music."

NOVEMBER 4: 3 to 3.15, Mr. Breakwell, "The Wonders of Plant Growth;" 3.15 to 3.30, Mr. Treharne, "Mozart."

NOVEMBER 11: 3 to 3.15, Mr. R. G. Henderson, "Some Comic Characters;" 3.15 to 3.30, Mr. Treharne, "Sad and Gay Music."

NOVEMBER 18: 3 to 3.15, Mr. Breakwell, "Some Curious Insects;" 3.15 to 3.30, Mr. Treharne, "Brahms."

NOVEMBER 25: 3 to 3.15, Mr. R. G. Henderson, "Music and History;" 3.15 to 3.30, Mr. Treharne, "Music and History."

DECEMBER 2: 3 to 3.15, Mr. Breakwell, "Desirable Features in Flower Gardening;" 3.15 to 3.30, Mr. Treharne, "British Musicians."

Don Ross, Novelty Instrumentalist

MANY queer-looking instruments are among those that Don Ross will play on September 27 when he broadcasts from 2FC. Included will be the bagpipes, saxophone, ocarina, cow bells, xylophone, and a curious arrangement which he calls a "hooternanny." His special pride is a patent carillon of an octave and a half, of little silver bells. It is worked by electricity, and the inventor tells us that the results of the broadcasting tests were most satisfactory. Mr. Ross's section of the programme is certain to furnish listeners with novel entertainment.

Watch for These NEW FEATURES

Dan Thomas and Mae Crean

DAN THOMAS is a veteran of the stage.

He began his stage career in London over 30 years ago, and has travelled round the world and into many curious places. During the war he was vice-president of the Anzac Comforts Fund in South Africa, and raised £3000 in Australia for its benefit. He has played in the harem of a deposed sultan in India, and on the border of Victoria Nyanza.

Miss Mae Crean, who will be the other actor in the duologues to be broadcast from 2FC on October 3, has long been a favorite with the public as leading lady in musical comedy. She played many leading parts, both in South Africa and Australia, and has broadcast successfully from the A class Australian stations.

A Night of Contrasts

THE night of contrasts broadcast every Thursday from 2FC is a form of entertainment which has proved very popular. The different items of the programme have been chosen with an eye for effect. Stirring chantages, including "Glorious Devon" and "Rolling Down to Rio," will be sung by Clifford Lathlean. Next, a little description of some phase of the life of Sydney streets will be given in a cameo of our city. Joan

Try, a classical pianist, will render selections from the works of great composers, and in complete contrast to these the next items will be humorous dialogue and songs by Mae Crean and Dan Thomas. Vocal and xylophone numbers by the Janetski Trio will provide another change. The crown of the evening will be a very novel act by Goodie Reeve and Jack Lumsdaine. It has been specially written for the occasion. Cec. Morrison's Dance Band will close the programme, broadcasting from the Hotel Australia. A varied and colorful feature, the night of contrasts on Thursday, October 3, is well up to the standard of past Thursdays.

Give and Take, Comedy of Hebrew Life

THE humorous and shrewdly-drawn character studies in "Give and Take," a popular Hebrew comedy, to be broadcast from the Little Theatre from 2FC on September 28, make it easily equal, if not superior, to "Potash and Perlmutter." For the main comedy part Mr. Lew James has been engaged. A Hebrew comedian of insight and remarkable ability, as a delineator of such characters as the one he plays here, he should find scope for his richest vein of humor. Mr. Lynwood Roberts will undertake the part of Bullhead Bower, and the supporting company is exceptionally strong.

Linda Hartage
Contraalto
2FC
Sunday
Sept 29



Helena Stewart
2FC Monday
September 30



John Benjamin
Baritone
2 3L
Wednesday Oct 2



DON ROSS
Novelty
Instrumentalist
2FC
Sept 27

Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, SEPTEMBER 27, 1929.

SUPER-HETERODYNES

SCPTICISM may be a valuable habit of mind in a fast-moving world. It often acts as a corrective. But it must be informed if it is to have any use. Mere intellectual baulking or questioning, unless it is backed by knowledge, is apt to be arid and of little final worth.

Thus, when we entered into a discussion on the merit of super-heterodynes recently with a radio engineer who had not seen or heard Mr. Hull's receiver, and who immediately advanced six reasons against its success, we doubted if it was true scepticism which actuated him. His points were—

1. Super-heterodynes are hard to build.
2. They are unreliable and difficult to operate.
3. Reproduction is poor.
4. Few people are prepared to spend £30 or £40 on a home-built or custom-built receiver.
5. You have to promise them a new D.X. station before they are interested.
6. And in any case a man in search of a good super-heterodyne would go to the American and English periodicals for information of the latest developments.

The points are particularly prejudicial, because they contain common beliefs which are likely to influence some people. We answer them at once, and emphatically, so that the distortion may become evident.

1. Super-heterodynes are not hard to build or to get operating for a radio fan who knows his business. A radio fan who does not know his business is not asked, or is not likely, to build one.

2. The 1930 Super is thoroughly reliable, and extreme ease of operation is one of its main features. There are only two tuning dials and one volume control.

3. Good reproduction has not been a marked feature of previous supers, but with the one described in this issue it is as near perfect as can be heard on any set. There is so much gain to spare that distortionless detection and a single audio amplifier allow complete musical satisfaction over the whole range of frequencies.

4. A man prepared to spend £30 or £40 on a set naturally desires the best value for his money. There is no question that the 1930 Super is the highest grade receiver yet produced. The

man who is a radio fan can build it himself quite cheaply, or, if he has not the skill, then it can be built for him.

5. The idea that reception of distant previously unheard foreign stations is a standard of reception has long been proved illogical. No matter what set is used, if the natural noise level is above the signal strength of the station, it cannot be heard satisfactorily. No DX claims are, therefore, made for the 1930 Super. Reception of 2YA, 6WF, and 7ZL can be comfortably and enjoyably heard, and the receiver will tune in any long distance signals which can possibly be heard here.

6. The last point, that the radio enthusiast looking for an advanced set will go to American periodicals, shows smallmindedness in its true light.

In this connection it is enough to say that in no other publication in any language will such a super-heterodyne as is described by Mr. Hull in this issue be found. To our knowledge, this is the first time anywhere in the world that the details of a screen-grid a.c. super-heterodyne have been made public—a circumstance made possible by the unique position of Australia as a market for the most recent valve developments of the competing manufacturers of Europe and America, and the capability and skill of its designer.

The A.B.C. Troubadours

A BRIGHT and versatile band of instrumentalists are the A.B.C. Troubadours, who will attend to the lighter side of the orchestral programme at 3LO and 3AR, and provide some very excellent music for the dance nights. Each individual member is master of at least three instruments, and with solos and ensemble numbers, the "Troubadours" have arranged some very fine programmes. Jack Hocking, the "sighing serenade," has joined forces with the "Troubadours," and will endeavor to keep listeners in touch with all that is popular in the way of latest vocal tox-trots.

Show Week Broadcasting

STATION 3AR will be very much on the air with descriptions of activities and results of the Royal Show. Every afternoon descriptions of exhibits and ring events, together with results of all the competitive sections, will be broadcast, and listeners will be kept in touch with the whole of the activities of this big annual event.

Show Week Community Singing

COMMUNITY singing for Royal Show visitors will be featured by 3LO at the Town Hall, Melbourne, on Thursday, September 26, at mid-day, when special request old-time songs will be sung, and many new attractions will be presented.

The Elections

IN addition to broadcasting the policy speeches of the leaders of the various parties 3LO will be on the air as usual at Federal elections until the completion of the count on the night of polling day.



The nervous lady finds a new use for the old loud-speaker.

Church Services and Presentation

Presentation Criticism

Dear Sir,—Why is this new company only giving a church service from 2FC in the morning? Yet they are giving morning devotion from 2FC studio each morning at 11.15 a.m. by the Rev. — first ringing the bell, then a hymn, then prayer, and a reading from the Bible, and a hymn. Is this the first step to take away our church service and have it from the studio instead? That has been tried and failed. What about those with crystal sets who pay the same licence as those with valve sets, and cannot get 2BL. Well, they have to listen to organ, etc., instead, which we get too much of already—morning, noon, and night. One night, one hour, that is over the odds. What about the sick in the hospitals who find great comfort, and the aged who are unable to go to church, and those miles away from any church, way back in the country where they have spent money in getting valve sets to hear the church services, and also the markets reports.

Even that has been taken off in the morning and records instead for three-quarters of an hour, some of them ought to be sent to the scrap. They are gradually giving us more records between the items. Why are there so many silent sets? Do you wonder when we have to listen to Miss — will now sing; her first number is —; her second —; her concluding number —. Some of them we are only too glad to switch off to another station who do not give us second and third numbers straight off. We all expected more talent from this new company, but if there is more of a variety it would be better.

The reviews are good and relays. We want more comedians, entertainers, and one-act plays from the studio, like we had from the Varley Company. We all enjoyed them and sketches. Another bad habit is to stop the orchestra in the middle of a piece to give a race result. You cannot please everybody, but if things keep on as they are I think Sydney will top the list in less licences. So many are ticked off it already, and don't intend to renew their licences.—Yours, etc.,

Annandale. CONSTANT READER.

Performance

Dear Sir,—I wish to congratulate all those super-one valvers (W.W., 30/8/29), including "One Lunger," "Radio Deuce," "DX Fan," and V. C. Webb, especially "DX Fan" with his wonderful log of 70 stations, including 16 from U.S.A., which should be almost too much to expect from any super-heterodyne.

I think "DX Fan" must have very sensitive ears, probably worth several stages of radio frequency amplification. If this is not so I would like him to send the circuit to WIRELESS WEEKLY for publication, as I am sure a great number of readers will build it and scrap their super-heterodynes.

I considered my one-valver was giving good performance by bringing in Japan and India, but a long way behind "DX Fan" and others; I think his log will stand for a long time, even against the largest sets, and if not let us hear about it. Anyway, "DX Fan" holds the record for the present.—Yours, etc Parkes.

"RADIO ACE."

(L.L. of Watson's Bay, was inquiring for "Radio Ace's" address. This has been published in the query columns as promised.—Ed.)

The Safety Valve

Readers are urged to express their opinions on matters pertaining to broadcasting. If you have some constructive criticism to offer, here is your chance of expression—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page. Anonymous letters are not considered.

Crystal Fans

Dear Sir,—After reading "Hertzite's" letter (W.W., 20/9/29), stating that it would be fair to have some space of your paper devoted absolutely to crystal receivers, I must agree and congratulate him on opening the subject. This letter is one of many that you will receive. I close my letter hoping we will have one or two pages each week, at least, to interest us crystal users.—Yours, etc.,

Sydney.

CRYSTAL USER

KHK, Los Angeles

Dear Sir,—On 28/8/29 I received a station of about 330 metres, just below 1YA, New Zealand, and distinguished its call sign as KHK, Los Angeles. I have had it several times, but, on this occasion, I got the call as KHK, Los Angeles, California. I would like very much to know if anyone else has had this station—he closed down about 7 p.m., although I think he usually closes down at 6 p.m., our time. The announcer gives the programme for the next day before he closes, and says: "KHK, Los Angeles, California, so we bid you good-night," and is about R2. I also get KNX, Hollywood, Cal., very well, and an American station just above 2GB, about 319 metres. I heard the announcer say: "Hollywood, California," and would like to know the call sign of this station. Wishing WIRELESS WEEKLY every success.—Yours etc.,

LOGGED ANOTHER ONE.

Wollongong.

News and Wrestling

Dear Sir,—"Wayback" (W.W., 6-9-29) is right on the spot regarding news. All we get now is a summary, as it seems the announcer has to keep to a timetable. This is reasonable in regard to music, but news should not be curtailed to make way for music. As stated by "Wayback," old 2BL's service at 8.15 a.m. was a credit to them, and until this is reinstated country listeners should not let the subject rest.

The musical programme after 8 p.m. is sufficient with the 45 minutes by 2FC from 6.45 to 7.30 p.m., and part of this time could be well added to the present ten minutes now allowed for news.

Wrestling on Monday nights is a welcome innovation, and why not the boxing on Saturday nights? I've had friends on their toes with the wrestling (2BL and 3LO) and boxing (2KY). So there IS radio service appreciated.

Business efficiency talks at 2.30 p.m. is another subject out of joint in programmes of 2BL. No person actively engaged in business can avail himself of this education (unless wireless dealers). If this were put on from 6.45 p.m., the lecturer may have an audience, but at the present hour listeners are few—If any.—Yours, etc.,

West Wyalong.

OUTBACK.

J.O.A.CK

Dear Sir,—Regarding that Japanese station, Sunday night last, 8th inst.. I tuned into this station, which was very clear and distinct. The announcement which I heard was as follows:—J.O.A.CK, please note punctuations. Mr. Gill, of Jones Island, and Mr. Lukins, Taree, have my support regarding this particular station.—Yours, etc.,

Wollongbar.

J. W. W. HARDER.

Fat Stock Sales

Dear Sir,—I wish to support the remarks made by J. Maloney regarding fat stock sales (W.W. 30/8/29). Why not give the sheep man as good a report of the market as the fruit and vegetable man, Stock Exchange man? The sheep man can hear these markets well detailed twice a day at some considerable length, but when Homebush market comes on he has to be content with "sheep were up a bob a head," or down, as the case may be, and the report is over in less than one minute. Give us back the report the old broadcasting company used to give.—Yours, etc.

Nyngan.

E. HERBERT.

Australian Songsters Wanted

Dear Sir,—Having waited patiently for the promised "new era" in broadcasting, I am at present a sorely disappointed listener. If there has been any improvement, I have not noticed it; but I have noticed that both "A" class stations have been using the same artists on the same evening, which is something the old company never did. Having robbed N.S.W. listeners of one of their favorite announcers in Mr. Basil Kirke, and putting on a so-called dance band that makes the air hideous with its discord, I am wondering what will be the new company's next effort towards goading listeners to kick their sets out into the yard. I am not a classical fanatic, but I do like melody; and, if jazz music cannot be played on instruments other than those used in jazz bands, I would suggest that those bands, and the people who like them, should leave at once for the Southern States of America, where they will be at home. The directors of the new company stated that their aim was to educate the public taste for good music. To-night, we were given an hour of nigger minstrels from 2FC. How long have we been obliged to listen to the harsh, nasal voices of alleged baritones that speak their songs because they cannot sing them; and to organ solos played by imported Americans where once we listened to an Australian in Mr. Nicolas Robins? How long have we to wait for an Australian to arise who will write bright songs and music of his country that will be sung and played and put on the air by Australians, and take the place in our musical life now held by the American negro.—Yours etc.,

KING BILLY.

Waverley.

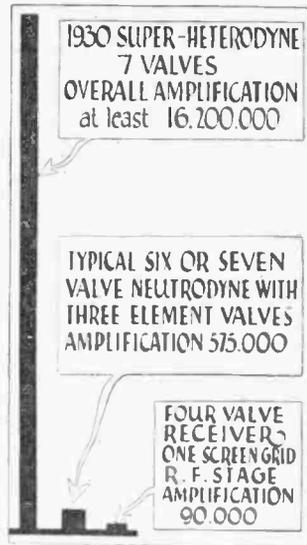
UNPARALLELED AMPLIFICATION

JUST what do we mean when we talk of amplification in radio sets?

If the amount of energy picked up from, say, 2YA was stored up continuously for 35 years, it would only then amount to the equivalent energy expended by a house fly in walking one inch up a window-pane.

Does this give you an idea of the almost inconceivable sensitivity of the radio receiver? Does it also give you an idea of its extraordinary ability to amplify, without distortion, that tiny amount of energy until it becomes the powerful dissipation of sound you hear—a whole household of energy.

But although this will give you an idea of the amplification factor of the ordinary set, it inadequately describes the possibility of amplification with the new screen-grid valves. The listener who has operated only the ordinary five, six, or seven valve receiver can have little conception of the terrific amplification made possible by the screen-grid valves in Mr. Hull's new super-heterodyne.



The usual receiver, with three radio frequency valves of the three element type, and with two audio frequency stages, has an overall amplification of the order of 600,000.

This is allowing for an amplification of 10 in the radio frequency valves and 20 in the first audio. In the super-heterodyne a conservative estimate of the amplification is 40 in the first radio frequency amplifier and 75 in the intermediate amplifiers. This means that the overall amplification is of the order of 16,000,000! Almost all of this amplification is at radio frequency (the audio amplifier only contributing a gain of about three), and it is for this reason that the musical reproduction is so near to being perfect.

The computed amplification of the receiver is substantiated in practice by the fact that with an eight foot aerial on the floor it is readily possible to overload the audio valve on signals from the New Zealand station 2YA. Since a signal of at least 25 volts is necessary to overload the output valve, this would indicate an amplification nearer to 50,000,000 than to 16,000,000.

Easy handling by the arrangement of the two tuning dials and the single volume control also adds to the listener's convenience.

SOME OPINIONS ABOUT THE 1930 SUPER

"The Ultimate Receiver"

ONE night last week I had the pleasure of viewing and listening to Mr. Hull's latest receiver, an a.c. Screen-Grid Super-heterodyne. For years I have made up this type of receiver, ever striving to achieve the object of having enough radio gain up my sleeve to bring in interstate stations as good as one generally receives a local.

Mr. Hull's receiver realises this and more. The modulation is perfect, and none of those disagreeable background noises one always associates more or less with this type of receiver. Selectivity excellent, and gain—well! Let me tell you. At my suggestion the existing aerial (six feet of cord) and first R.F. tuning coil were disconnected, and a 3in. diameter solenoid coil substituted and condenser reset. Then, using nothing else as an energy collector, and no possible coupling, we heard every station in Australia, 2YA New Zealand (who was just signing off) with quite comfortable room strength, and then the volume control nowhere near maximum.

Please allow me to congratulate Mr. Hull on his fine achievement in designing what is, in my opinion, the ultimate broadcast receiver.

—E. J. WILLIAMS.

Double Bay.

Mr. Williams (UK2JW) is one of our earliest and most enthusiastic amateur experimenters, and for many years has been seriously interested in the experimental development of the super-heterodyne.

Four Points

Just four points to remember about Ross Hull's 1930 Super.

1. The set has greater amplification than any other set available—to our knowledge it has never been equalled.
2. Although we don't promise that any new stations can be received the enormous sensitivity permits it to tune in any signal that any other receiver will tune in, and make better music out of it with less effort. In a desirable location it is not unreasonable to believe that stations not hitherto heard here could be received.
3. Because of its special construction musical reproduction is nearly perfect, and as distortionless as it can be on any set.
4. Modern design enables easy tuning—the set is easy to control.

Having the ultimate quality in sensitivity, selectivity, reproduction, and control, what more could be said, and what more could be wished of any receiver?

"A Triumph"

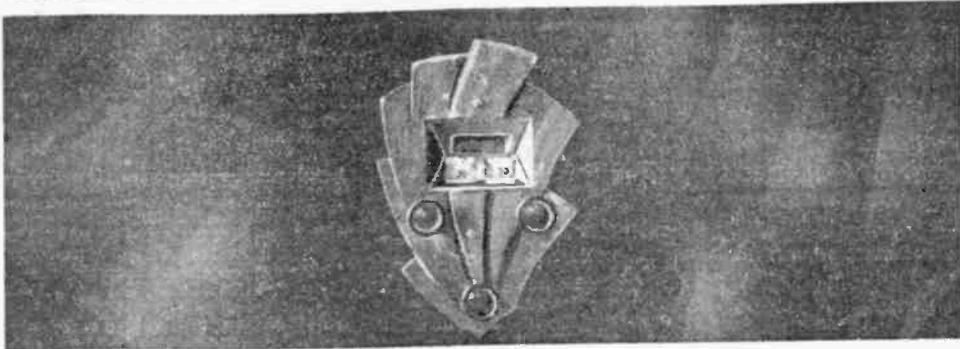
ON my way down from the W.I.A. Federal Convention I dropped in at Ross Hull's shack and heard the 1930 Super in its trial tests. For many years I have heard of SUPER-heterodynes, and heard many more, and have always thought the superlatives used to describe them a little overshoot. But Ross Hull has certainly made the super-het. a job which lives up to anything which has been said about it. The gain in his 1930 Super. is extraordinary. I have never heard anything to match it, and believe it to be the final production of radio engineering as we know it now.

The new screen-grid valve has surely turned the wireless business up-side-down. We are lucky to have been ahead of the States in having it, but not until now have I seen it used to its fullest advantage.

So far as I know, the receiver is in step with, if not in advance of, design in any country, and for this reason many fans may be a little chary about tacking it. But let me assure them that they have nothing to worry about—the set is a triumph, and, don't forget it, the work of a "ham."

—BRUCE HARDIE, Melbourne.

Mr. Hardie is Federal secretary to the Wireless Institute of Australia, and one of the best-known experimenters in the Commonwealth.



THE FRONT PANEL OF THE RECEIVER

Ross Hull's 1930 SUPERHETERODYNE

HERE DESCRIBED
BY THE DESIGNER

FOR many years the super-heterodyne has been considered the freak of the family of radio receivers. Almost any radio enthusiast will be able to tell you that the super-heterodyne is difficult to construct and very tricky to adjust; that, though it is highly sensitive and selective, its musical reproduction is poor; and that, altogether, it is capable of making more hideous noises at greater expense than any other type of set. Of course, not many radio enthusiasts have ever built or operated a super-heterodyne, but, nevertheless, they almost invariably have some such fixed ideas on the subject.

Quite possibly there is excellent justification for the super-het being somewhat in disrepute, but we have for long thought it a great pity. To us the super-heterodyne principle has always appeared the logical method of attaining the finest possible performance in a home-built receiver. The old battery types of super-heterodyne may have been somewhat difficult to adjust and unreliable in operation, but that was not because of any weakness in the principle on which the receivers operated. The difficulties resulted, we believe, from fundamental weaknesses in the design of the sets, which recent valve developments have made it possible to overcome. The first detectors, for instance, were invariably excited directly from the aerial system, making possible a decided increase in the strength of "background" noises with respect to the signal, and introducing quite serious interference from harmonics and signals, the frequency of which happened to differ from that of the oscillator by the period of the intermediate frequency amplifier. Then, it was necessary in the old super-heterodynes to use a very low intermediate frequency in order to obtain any worthwhile gain from the three element valves. This invariably resulted in a noisy amplifier, and one which accentuated the failings of the

broadly-tuned input circuit. In addition to these troubles, the intermediate amplifier rarely provided with any neutralising system was extremely prone to oscillate under the slightest provocation—causing shrieks and wails unequalled in receivers of any other type.

FREEDOM FROM OSCILLATION

As we outlined in our discussion of last week, the modern a.c. screen-grid valve has made possible the design of a super-heterodyne in which most of these failings are at once overcome. The use of a tuned screen-grid radio frequency amplifier ahead of the first detector results in an almost entire elimination of interference from harmonics and unwanted stations. Then, the adoption of a screen-grid valve in the intermediate frequency amplifier enables its operation on a relatively high frequency, to the tune of infinitely greater amplification than was ever obtained before, far quieter operation, and complete freedom from all possibility of oscillation. Then, the screen-grid valve, in the role of detector, permits greater selectivity, higher sensitivity, and less distortion than was ever possible in the old type of set.

A modern super-heterodyne is still quite expensive, complicated, and somewhat difficult to construct. For the enthusiast whose ambition is to own a receiver with the finest possible performance, however, it is, in our opinion, right out on its own. After all, in aiming at the ultimate performance, there are only about four things to look for. They can be summed up as musical reproduction, selectivity, sensitivity, and ease of operation. In the particular receiver to be described the musical reproduction is just about as good as modern technique permits. The use of a "plate" detector, choke, coupled to a single high-powered amplifier, leaves as

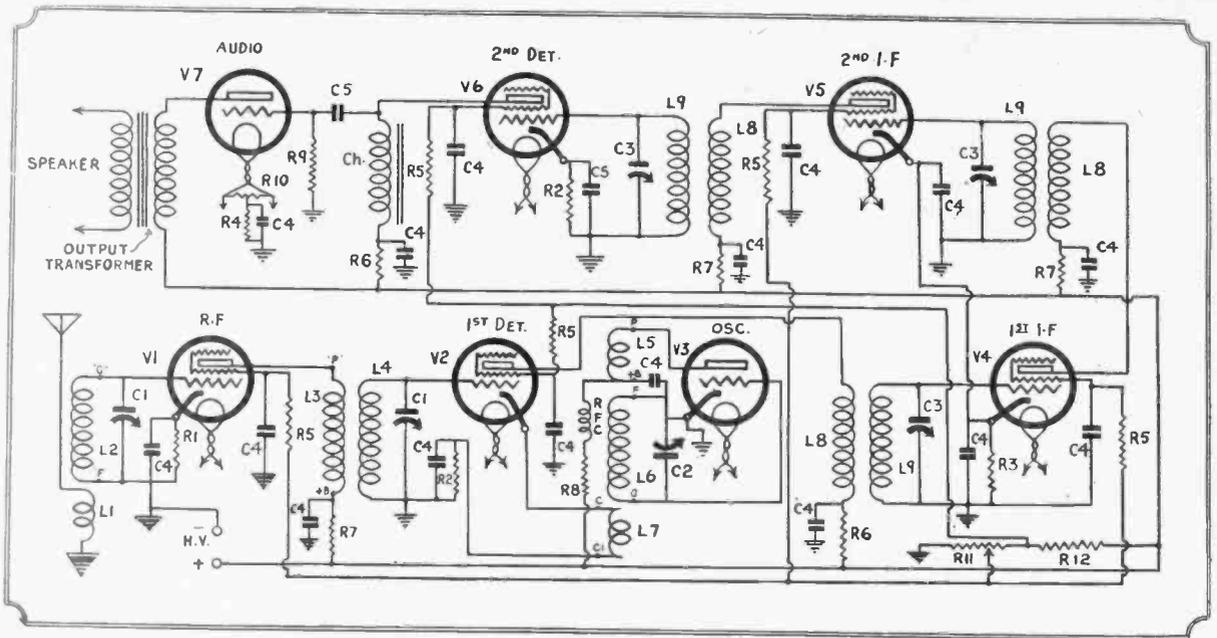
little room for distortion as it is at present possible to conceive. Then, it can be said truthfully that the receiver has the ultimate selectivity. The fixed intermediate amplifier, with individually-tuned circuits, makes possible a flat-topped frequency response characteristic which goes the limit in avoiding interference without the possibility of reducing seriously the higher musical frequencies contained in the side-bands. As far as sensitivity is concerned, we need say little more than that the over-all gain is at least thirty times that obtained in the average neutrodyne type of receiver employing the same number of valves. And, with it all, ease of operation is not sacrificed. Admittedly, the single-control super-heterodyne is an impractical proposition for the average home set-builder, but the two controls, together with the complete elimination of batteries, makes for something closely approaching the ultimate in simplicity of operation.

In short, if there is any receiver with better musical reproduction, more desirable selectivity, and greater sensitivity than any truly modern super-heterodyne, we would like to know what sort of an outfit it is. Of course, performance in any receiver costs money, and we are quite well aware of the fact that this super-heterodyne cannot be built cheaply. For enthusiasts who can afford to reach out after the ultimate performance, however, it represents, we believe, excellent value.

And so, after blowing so hard about modern super-heterodynes in general, we will proceed to a description of this particular one.

DETAILING THE RECEIVER

Essentially, the receiver consists of seven valves, arranged in appropriate circuits. The first valve, to be seen at the left side of the base, is a screen-grid radio frequency ampli-



fer. operating at the frequency of the incoming signal. The valve alongside it is the first detector, in which the output of the oscillator is heterodyned with the incoming signal in order to produce the new intermediate frequency. This first detector is also a screen-grid valve, provided with a heavy negative grid bias, and so operating as a "plate" or "anode bend" detector. The third valve in the row is the oscillator just mentioned, the frequency of which is varied by the tuning condenser immediately in front of it.

From the first detector the signal energy passes through the first intermediate frequency transformer (in the right front shield) to the first screen-grid intermediate frequency amplifier. This valve, together with the second intermediate amplifier, can be seen at the right edge of the base. The complete intermediate amplifier unit includes the two valves and the three shielded transformers running from front to back on the right side of the base. The second valve in the back row of valves is the second detector. It, like the first detector, is operated with a high negative grid bias and a plate voltage of the order of 180. It is thus a "power" screen-grid plate detector, the chief characteristics of which are high, undistorted output power, high sensitivity, and a splendid audio frequency characteristic.

The plate impedance of this valve is, of course, of a very high order, and, as a result, the ordinary inter-valve transformer would be next to useless as a coupling device to the audio valve. Instead of the transformer, a high inductance choke is used in order that high efficiency and a good low frequency response may be retained. A choke almost ideal for the purpose is the secondary of a good audio frequency transformer

PARTS USED

(See Figure 1 Above)

V1, V2, V4, V5, V6—Five Philips E442 valves.
 V3—One Philips E415 valve.
 V7—One Osram P025A valve.
 Pilot—Double drum dial.
 C1, C2—Three Pilot .0005 variable condensers.
 L1 to L7—Radiokes Coil Kit (special)—including one standard "Neurodyne" aerial coupler, Neurodyne inter-valve coupler with new 40-turn primary and oscillator coil wound on "Neurodyne" former—Grid winding 55 turns, plate winding 30 turns, cathode winding 30 turns.
 L8, L9—Also including 3 intermediate transformers, which can be made up from 300 turn honeycomb coils, fitted with 280-turn primaries, hand wound.
 R.F.C.—One Radiokes radio frequency choke.
 R5—Five Pilot small 10,000ohm fixed resistors (No. 953).
 R1, R3—Three Pilot centre tapped fixed resistors, 900ohms. (No. 959).
 R6—Two Ferranti 25,000ohm fixed resistors.
 R2—Two Ferranti 15,000ohm fixed resistors.
 R7—Three Ferranti 10,000ohm fixed resistors.
 R8—One Ferranti 40,000ohm fixed resistor.
 R11, R12—Two 50,000ohm Pilot Volumgrads.
 C4—Sixteen Hydra .5mfd. fixed condensers (500 volt d.c.).
 C5—Two Hydra 2mfd. fixed condensers (500 volt d.c.).
 One metal base (Prima Donna Cabinet Co.), 24in. x 14in.
 Six metal shields from same people, 3 1/2in. dia., 5 1/2in. high, Three ply panel, 5-16in. thick, 24in. x 8in.
 Any 200-230 volt "B" Eliminator, or just Pilot transformer, choke unit and condenser block. Voltage divider unnecessary.

first detector. Its secondary is tuned by the condenser in front of it, which is, as can be seen, ganged to the aerial coupling coil condenser. This ganging is made possible without a trimmer condenser by the fact that a very small aerial is used. With the usual large aerial any such ganging would not be completely effective without a trimmer condenser on account of the detuning effect of the aerial. The two condensers could be made to "track" for a few degrees of the dial, but not all the way across the broadcast band.

The third shield contains the oscillator coil unit, which includes three windings. There are the plate and grid coils, as usual, and, in addition, a coupling coil, which is included in the cathode return lead of the detector valve. The tuning condenser for this oscillator constitutes the second control.

In the three shields at the right of the receiver are the intermediate transformers. The three of them are identical. Unfortunately, it was impossible to use for these transformers any of the units which we have so far discovered on this market. In order to obtain high gain from the screen-grid amplifiers, and to permit the accurate tuning of each stage, it was necessary to use a transformer of almost one to one turn ratio with the secondary tuned by a variable condenser.

We were able to build up a highly satisfactory unit with a 300-turn honeycomb coil as the secondary, and a 280-turn "hank" wound coil for the primary. The honeycomb coil was then fitted with a .0003 mfd. "Formodenser," which provided a means of tuning the secondary without the necessity of taking up any more room than necessary. With a hole drilled in the side of the shield, in the vicinity of the adjusting knob on these condensers, it was then practical to tune each

The inductance of the AF.5 transformer used is at least several hundred henries, with the extremely low detector plate current passing through it, and, consequently, the low frequencies are not attenuated to any appreciable degree.

The output valve is that located at the rear centre. It is not provided with an output transformer on the receiver itself, since this transformer is usually included in the moving-coil speaker, and can readily be fitted either on the set or externally, should this not be so.

THE LOCATION OF PARTS

From the lay-out diagram some idea of the distribution of the apparatus can be obtained. The first "can" shield at the left contains the aerial coupling coil, the secondary of which is tuned by the variable condenser immediately in front of it. The next contains the coupling frequency valve and the

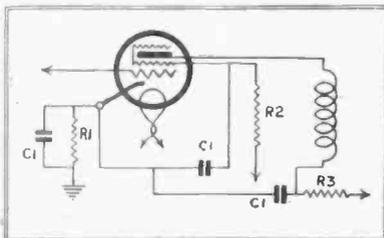


Fig. 2.

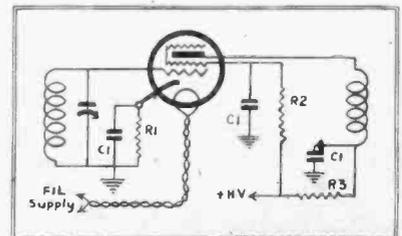


Fig. 3.

IS CONSISTENT RELIABLE INTERSTATE RECEPTION POSSIBLE WITH THREE VALVES?

Here is Proof Positive That It Is!

Elliott Street,
HOMEBUSH.

I am so delighted with the success of the RENOWN three that I must tell you what I have achieved with it. All the following stations have been received with wonderful volume and clarity: 2AD, 2KY, 2UE, 2GB, 2BL, 2FC, 3UZ, 3LO, 3AR, 4QG, 5CL, 5DN, 7ZL, 2YA, and 3YA. My radio friends admit it is the best receiver they have heard, and three of them who possess five valve sets have built it with great success.

—W.T.F.



These and many more letters from RENOWN builders are on file for inspection.



Clarence Town,
Williams River,
N.S.W.

Please allow me to express my pleasure and satisfaction with the RENOWN receiver. Its volume and tone surprised me. I have had good results from the following stations:— 3LO, 3AR, 2FC, 2BL, 4QG, 2UE, 2GB, 5CL. It is a great country set, and does all and more than you claim for it.

—R.H.

You or anyone can build the RENOWN. Instruction book supplied with every kit.

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PARRAMATTA.
PHONE, UW9601.

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(near Palace Theatre)
PHONE, M6138.

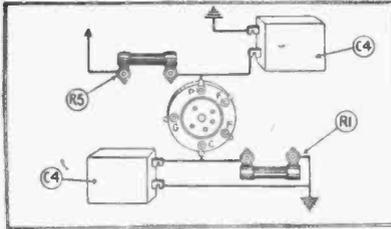


Fig. 4: Showing the fundamental wiring arrangement.

transformer with the set running. Knowing that honeycomb coils are not generally available, we are detailing an alternative form of secondary which has been found equally effective, though, possibly, a little less pleasing in appearance.

FOR VOLUME CONTROL

Several different volume-control systems have been tried on the receiver, and the one found most satisfactory is that shown in the diagram. It consists of a voltage divider for the screen-grids of the tubes, one side of which is set to give the normal screen-grid voltage on the detectors, and the other side of which, controlled from the panel, varies the screen-grid voltage on the three radio frequency amplifiers. With this scheme the sensitivity of the whole set is reduced at the same time, and overloading is avoided when local stations are tuned in. Another simpler scheme, which probably would serve well in locations not near any broadcasting station, is simply a 10,000 ohm variable resistor in the cathode leads of the two intermediate amplifiers. This serves to place a very high negative bias on the intermediate valves, and so reduce their sensitivity. The disadvantage of the scheme is that the first radio frequency amplifier is left running at full sensitivity and on local signals the first detector may be overloaded.

CONSTRUCTIONAL METHODS

The complete receiver is assembled on an aluminum chassis made by the Prima Donna Cabinet Co. Almost everything is attached directly to this metal base, which is so recessed that all the by-pass condensers, small resistors, and wiring can be contained beneath it. All of the apparatus is attached to the base with 1-8in. round head brass machine screws and nuts, and, since a great many of them are necessary, it will be well to purchase a gross at the start. 5-8in. is the length of the screws used.

All coils are contained in aluminium shields produced by the makers of the base. These shields are spun with a flange on the bottom, through which the holding-down screws pass. Holes are drilled in the top edge of the shields for the plate leads where necessary, and, since heavy rubber cover wire is used for these leads, a special insulating bushing is not necessary.

The panel of this particular receiver is of 5-16in. thick three-ply, but there is, of course, no reason why any other panel material should not be used. The crazy escutcheon to be seen in the illustrations is cut out of a piece of cigar-box wood and mounted over the centre portion of the Pilot escutcheon, which is retained. The idea was just to give the receiver a smack of futurism. We do not suppose for one moment that anyone will be interested in imitating our efforts!

SIMPLIFIED ASSEMBLY

The first work in building the set will be to decide upon the lay-out of the parts on the base. It is not essential to follow the lay-out given, though this particular one has been found in practice to permit simple wiring and an absence of interaction troubles. With the positions for the shields scratched on the frosted finish of the base, it is then necessary to scrape off the frosting at each place where a shield is to be located. This can be done rapidly with a sharp screw-

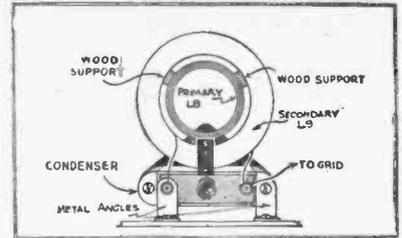
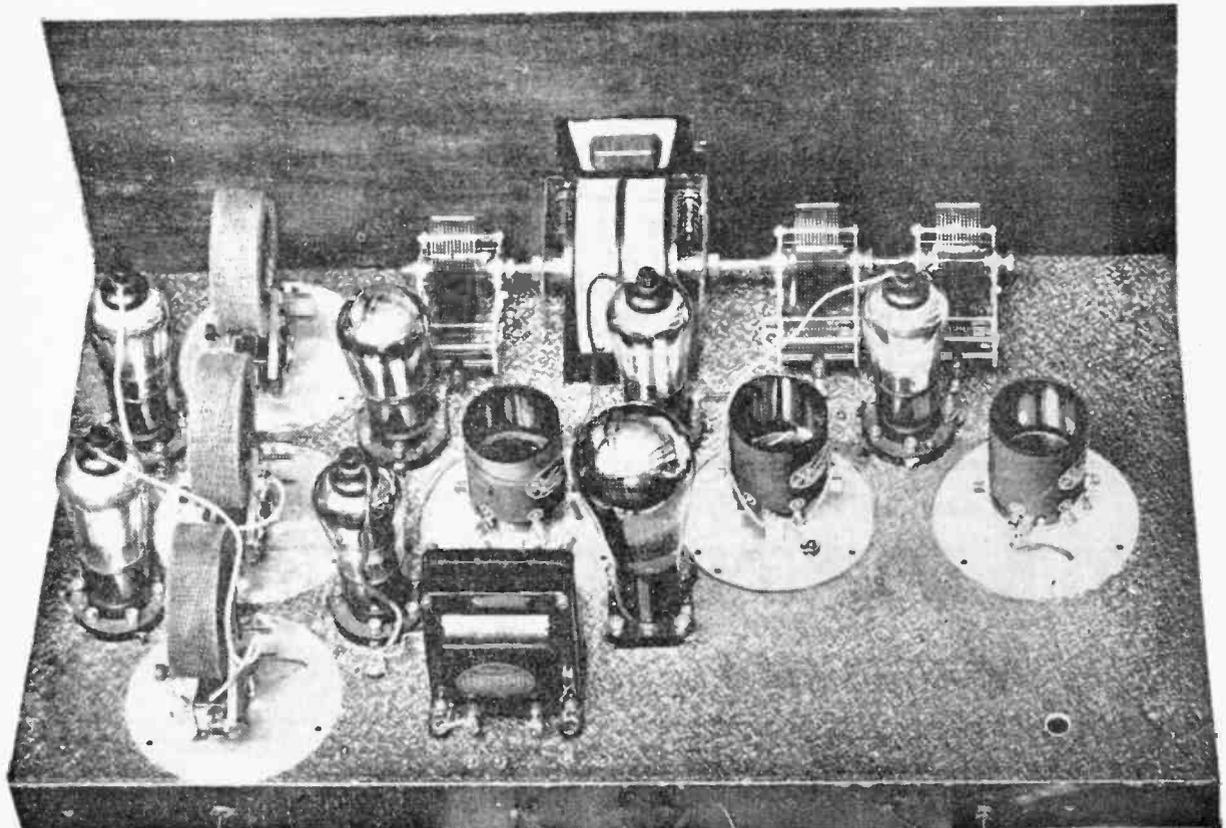


Fig. 5: Constructional detail of the intermediate frequency transformers.

driver or a knife. At this time the holes for the holding-down screws may be drilled in the shields and the base. The mounting of the three variable tuning condensers will be simplified if they are made to rest directly on the base. In order to do this, a rectangular hole must be cut in the front centre of the base so that the drum dials will not come into contact with it. If this opening is carried down, the front edge of the base it will permit the accommodation of the volume control resistor immediately under the centre of the drum dials.

At this stage comes the mounting of the valve sockets. The only precaution here is to see that the grid terminals are facing in the direction shown in the lay-out plan. The sockets are held to the base with the same sort of machine screws and nuts, but care must be taken to see that the heads of the terminal screws do not touch the frosting of the base. In this particular receiver it was necessary to place a disc of this cardboard under each valve base to avoid the possibility of shorting.

With the three tuning condensers held into place with machine screws, and the AF.5 similarly attached, attention may be given to the coils. The first coil, marked L1, L2 in the wiring diagram, is the standard type of "Radiokes" neutrodyne aerial coupler. It



Rear view of the receiver with shielding cans removed to show coil detail.

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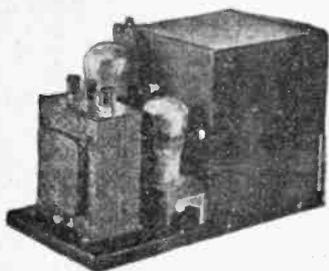
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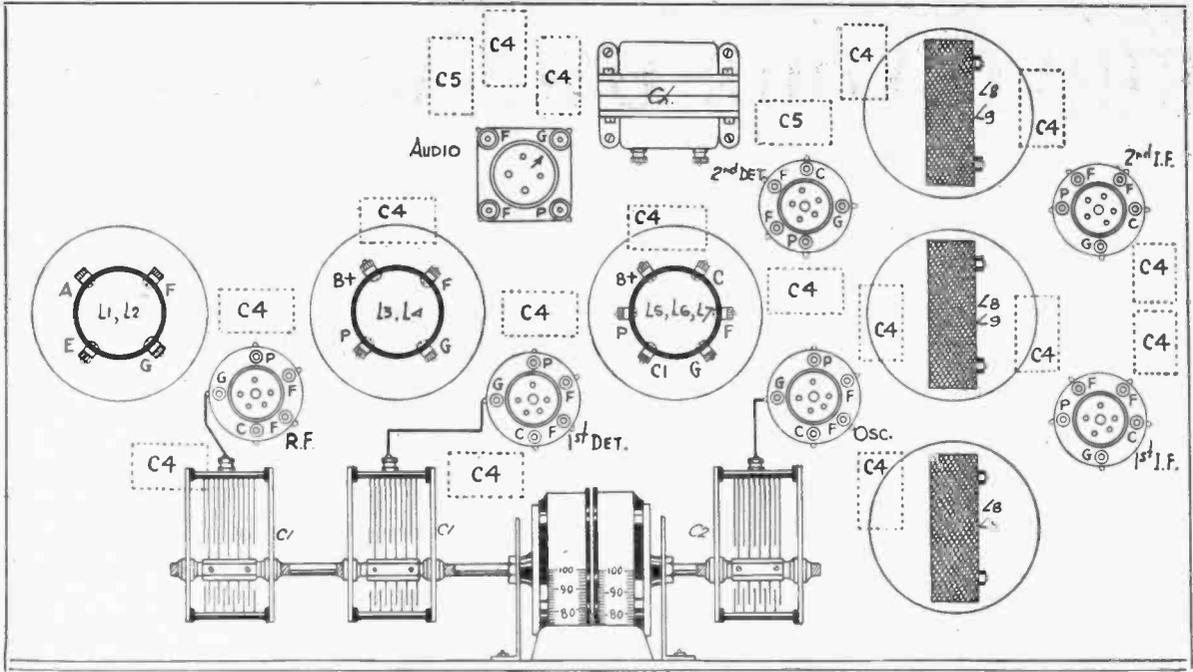


Fig. 6: Showing the approximate placing of the apparatus on the base.

comes fitted with three metal legs, and can be supported directly from the metal base with these. The "F" end of the secondary may be connected to one of these legs, since it is, as shown in the diagram, connected to the shielding. The second coil unit, L3, L4, is similar to the Standard Radiokes Neutrodyne coupling coil, but it has a 40-turn primary. This large primary is made desirable by the high plate impedance of the screen-grid valve from which it is fed. The secondary is similar in every respect to L2, and the "F" end is again connected to the shielding. The coils marked L5, L6, and L7 comprise the windings of the oscillator unit. The plate winding is of 30 turns, and the grid winding of 55 turns on the same-sized former as L2 and L4. L7, the coupling coil, is a bunch wound coil of 30 turns mounted at the bottom end of the former. It may be fixed in position, though in our receiver it was left free for experimental work. The coupling between this coil and L5 will not be found critical. Insufficient coupling results in generally weak signals, while excessive coupling will give rise to distortion, and possibly squealing. It would seem that 30 turns mounted at the bottom of the former will give satisfactory coupling, providing the circuit constants are reasonably in accordance with those described.

INTERMEDIATE TRANSFORMER CONSTRUCTION.

The arrangement of the intermediate transformers could well come next. In our own receiver the three Formodensers were first supported from the metal base by small metal angles.

One of these was bolted to the insulated end piece of the condenser, and the other was attached to one of the terminals of the condenser. This terminal was then automatically connected to the shield through the metal angle piece. A triangular piece of bakelite was then cut and mounted to each condenser by machine screws running through the insulated ends. The honeycomb coils were then secured to this piece of bakelite by two long machine screws and a small rectangular piece of bakelite. An idea of this rough but effective mounting can be gained from the detail drawing. One end of each of the 300-turn honeycomb coils was then connected to the grounded angle piece (and incidentally, one terminal of the tuning condenser), and the other end was connected to the free terminal of the tuning condenser, and thence to the grid of the succeeding valve.

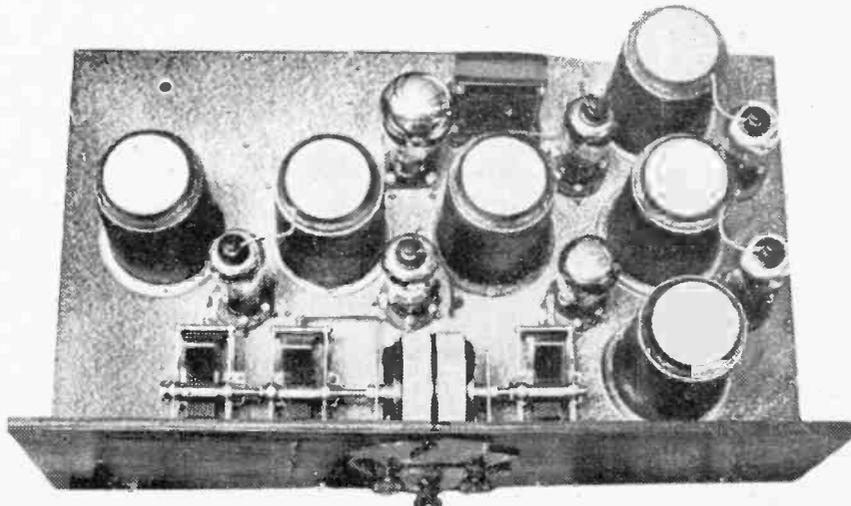
The primaries for these transformers were wound of 280 turns of 30-gauge double silk covered wire. They were wound as roughly

as possible on an old UX-199 valve. The idea is to obtain a 280-turn coil with an inside diameter of about one inch and an outside diameter low enough to permit it to be inserted within the centre of the honeycomb coil. The more roughly the turns are wound the more suitable will the coil be. When the coil is wound it can be slipped off the former, bound up with thread, and made solid with a spot or two of some quick-drying glue, such as "Durofix." The coils can then be fixed into place inside the honeycomb coil with two or three small wooden wedges and a few spots of the same glue. If honeycomb coils are not obtainable, hand-wound coils could be used in their place. The best plan is to get a 2in. diameter wooden rod and slip over it two cardboard rings, which would serve as temporary walls for the coil. The 300 turns of 30-gauge double silk-covered wire can then be wound in the slot between the two cardboard discs in the roughest sort of a scramble possible. The winding may then be slipped off the wooden rod, bound up with thread, and mounted just as if it were a honeycomb coil. It should be pointed out that the exact dimensions of the coil are not of any great importance, just providing they are of 300 turns, with an inside diameter of about 2in. Neater coils could be wound in a slot turned in a wooden former, but they would not necessarily be any more effective.

With everything mounted on the top of the base, attention may now be directed to its

MOUNTING CONDENSERS AND RESISTORS.

With everything mounted on the top of the base, attention may now be directed to its



Plan view of the complete receiver.

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Come and see us! Without obligation we will be delighted to show you how simply and how cheaply you can build a most efficient Radio Receiver for yourself. You require no great knowledge. We gladly offer you every assistance. With our extensive experience in Wireless matters behind you, success is assured, without the slightest risk of failure. Absolute satisfaction guaranteed.

1930 Super Heterodyne A.C.

Below is a list of parts for building the 1930 Super Heterodyne A.C. Receiver as described in this issue.

	£	s	d		£	s	d
Five Philips E442 Valves	10	0	0	One Aluminium 22 x 11 Base, 16 gauge		7	0
One Philips E415 Valve	1	7	6	Five Pilot Fixed Resistors (No. 953)	1	2	6
One Ooram P625A Valve	1	0	0	Two Pilot centretapped Fixed Resistors, 900 ohms (No. 959)		7	0
Pilot Double Drum Dial	1	17	6	Two Ferranti 25,000ohm Fixed Resistors	15	0	
Three Pilot .0005 Variable Condensers	2	0	6	Three Ferranti 10,000ohm Fixed Resistors ..	1	2	6
Radiokes Coil Kit (Special)	7	10	0	Two Ferranti 15,000ohm Fixed Resistors	15	0	
One Ferranti AF5 Audio Transformer	2	17	0	One Ferranti 40,000ohm Fixed Resistor		7	6
Fifteen Hydra 5mfd. Fixed Condensers (500-volt) DC	2	12	6	Two 50,000ohm Pilot Volumgrads	1	1	0
Two Hydra 2mfd. Fixed Condensers	10	0		Six Metal Shields	1	1	0
One Hydra 1mfd. Fixed Condenser (500-volt) DC	3	9					

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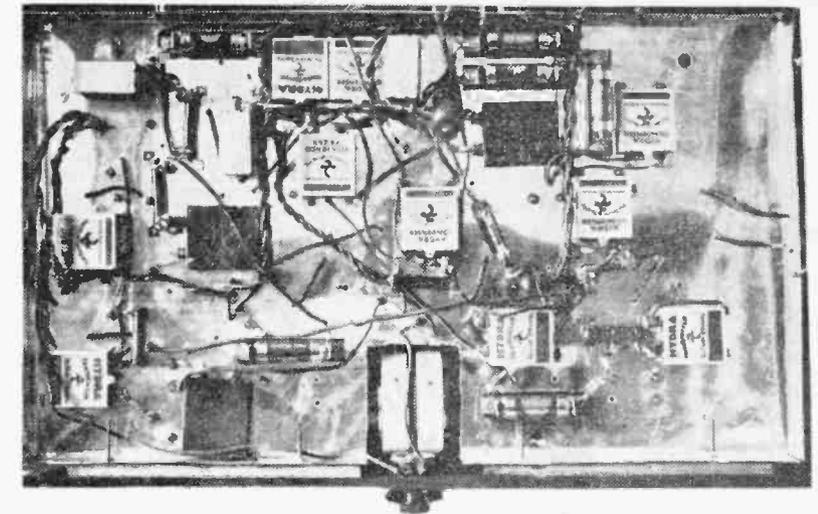
underside. In the illustration it will be seen that the bottom of the base is an awful mess. We are rather glad that it looks like this, since we want to point out the advantages to be gained by adopting the "scramble" method of wiring a set, which is now almost universally used in the commercially-built receivers. Of course, though the wiring looks like a scramble, there are certain very important considerations which have been watched all the way through.

It will be noticed in the diagram that there are a great many by-pass condensers and a great many resistors. Undoubtedly we will be criticised for going in for such elaboration. These condensers and resistors, however, constitute one of the chief factors which have taken the squeals and yells out of the super-heterodyne, and replaced them by quiet and consistent operation. The indirectly-heated a.c. type valve, for the first time gives us the chance to isolate all the circuits which should be isolated to give the maximum performance. It has been known for a long time that complete isolation of filament, plate and grid circuits would mean greatly improved operation. But with the d.c. type valve this would only have been possible by using a separate filament battery for each valve. The indirectly-heated valve, with its insulated cathode, has given us just the chance we have been looking for, and it is this fact that has so helped along the development of the super-heterodyne. In the circuit of this receiver it will be seen that every cathode, every screen-grid, and every plate circuit has its own by-pass condenser and its own filter resistor. Though a somewhat expensive elaboration, this means that back-coupling is almost impossible, and that self-oscillation and generally crazy operation will be almost entirely prevented. It must be pointed out, by the way, that, with the exception of the screen-grid resistors R5, all the other resistors are serving a double purpose. Not only are they functioning as radio frequency filters, but they are also doing work in providing the necessary grid bias and in dropping down the plate voltage for each valve. This means that the use of any voltage-divider in the "B" eliminator is avoided all that is necessary being an input voltage of about 220.

But to return to the mounting of apparatus under the base. The first work is to mount all the by-pass and other condensers as near as possible to the apparatus with which it is to connect. In the first place, there should be a condenser adjoining each cathode terminal on the valve sockets so that the cathode lead may drop down through the base and on to it directly. Then, a condenser should be mounted directly underneath all of the screen-grid terminals—the "P" terminals on the UY sockets. Yet another batch of condensers should be mounted where the leads come out from the windings, L3, L5, and the three winding, L8. Another condenser is required where the "bias" end of the AP.5 secondary is located. Possible approximate positions for these condensers are shown dotted in the lay-out diagram, but it is a better plan to decide upon their positions after the apparatus has been mounted above the base, so that one terminal of the condensers will be convenient to the terminal up above the base to which it is to connect.

MANY RESISTORS JUSTIFIED

The next work is to mount all the resistors as near as possible to the by-pass condensers with which they are to be associated. These resistors fall into three groups. First, there are the bias resistors. These are R1, R2, R3, and R4. They are only required to carry the plate current of their particular valve, and are, therefore, lightly loaded except in the case of R4, which carries the 30 m.a. or so of the power valve. The second group of resistors include those marked R5. These serve as radio frequency filters in the screen-grid leads, and are obliged to carry only a minute current. Their value is not all that critical, and they might well be "grid-leak" type resis-



The underside of the base, showing just how "hay-wire" the wiring may be.

tors of 10 or 20 thousand ohms. Unnecessarily heavy and expensive resistors were used in our receiver for the very simple reason that the cheap grid-leak type resistors could not be obtained.

The third group of resistors include R6, R7, R8. They serve the dual role of radio frequency filters and plate voltage drop resistors. These units should preferably be wire wound, those of Pilot or Ferranti make being particularly suited. Ten thousand ohm resistors are used in series with the radio frequency amplifiers; 25,000 ohms in series with the two detectors; and one of 40,000 ohms in series with the oscillator. The actual voltage on the plates of the detectors, as well as the radio frequency amplifiers, is of the order of 180 volts. The high negative bias necessary to make the detectors operate as "anode bend" detectors is obtained from the 15,000 ohms resistors in series with their cathodes. Other resistors in the set are R9, which provides a grid return for the audio valve, and R10, which is a centre-tapped resistor of 20 to 50 ohms. Still others are R11 and R12—two Pilot Volumgrads which serve as a voltage divider to provide variable screen-grid voltage. From the connections of these resistors it can be seen that the screen-grid voltage on the detectors is adjusted, and then permanently fixed by the value of R12. Variation of the moving contact of R11 then changes the screen-grid voltage on all the radio frequency amplifiers, and thus varies their sensitivity. It is, of course, the volume control. R12 may be mounted almost anywhere on the base, while R11 is fitted on the panel.

WIRING THE SET.

With all resistors mounted near their own by-pass condensers wiring may be started. In the illustration of the under-side of the base it will be seen just how rough the wiring may be. It is as well to place all grid leads in position right at the start, using for the purpose some colored wire, which will simplify the work of keeping all other wires away from them. These wires, as can be seen from the lay-out plan, are all quite short. At this time the by-pass condensers may be connected. With the exception of the condenser in the grid lead to the audio valve, all of them have one terminal connected to the metal base. In most cases these shield connections are made to a soldering lug, held to the base with a machine screw and nut. One side of all the bias resistors also goes to the shielding.

Though the wiring diagram looks very complex it is in reality much simpler than any battery operated super-heterodyne. The whole receiver is really a duplication of the

fundamental wiring arrangement shown in figure 3. In each case there is a grid bias resistor by-passed, a screen-grid filter resistor by-passed, and a plate resistor by-passed. In theory a more desirable arrangement would be that shown in Figure 2. In this case all the by-pass condensers are returned to the cathode directly, and not to the shield. This connection could be used in the receiver to some possible advantage, but the simplicity and apparently complete effectiveness of the arrangement shown in Figure 3 have led us to specify it.

POWER SUPPLY LEADS

With the by-pass condensers and the resistors all wired we have obtained isolation of all the important circuits, and it is, therefore, unnecessary to take any particular care over the locations of any other sub-base wires. All the plate resistors are merely connected together, and led out to a high voltage feeder, all the screen-grid resistors are tied in as shown to R11 and R12, and six of the filaments are connected in parallel. In our receiver the output valve is an Osram P.625-A, which requires a filament voltage of six. This meant that a special filament supply had to be provided for it. In order to utilise just the one four-volt filament transformer supplying all other valves, a four-volt power valve would be desirable. Unfortunately, it would not appear that a four-volt, three-element power valve is at present available with which an undistorted output of, at least, one watt can be obtained. Such a valve is to be marketed in the immediate future, but until then we can only suggest the use of the six-volt type or of the 2.5 volt UX-245, which could be fed from the four-volt transformer through a drop resistor. In any case, the output valve simply must have an undistorted output rating of, at least, one watt, and preferably more.

In the wiring of the filaments ordinary five ampere twisted flex should be used. Since the filament current is about .9 amperes for each of the first six valves it is as well to feed not more than three of them from each pair of flexibles, which run from the filament terminals on the set.

Since all voltage drop and bias resistors are inside the set the external wiring is simplified greatly. There are just the filament leads, the output leads, and the one high-voltage lead.

Completion of the wiring above the base only means the attachment of the plate leads to the screen-grid valves. These are of ordinary rubber flexible running through holes drilled in the tops of the shields. Speaking of plate leads reminds us of the

(Continued on page 30.)

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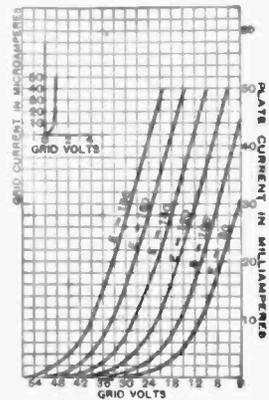
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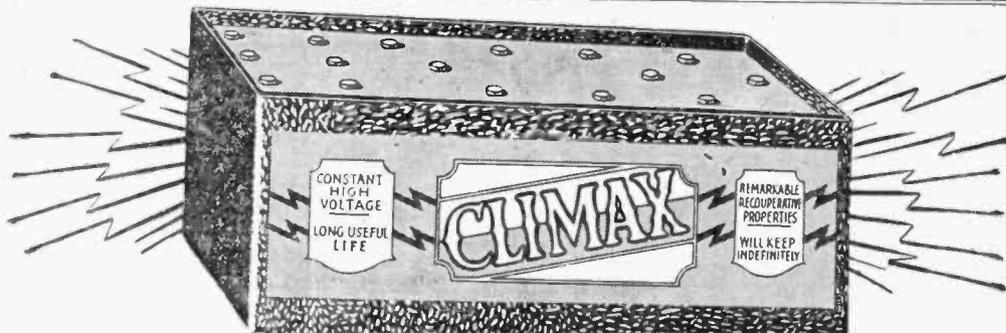


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I think this is sufficient to show that your Batteries are all you claim them to be.—Yours in good faith, G. NIELSEN.

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Capacity and Condensers

CONCLUDING our notes on inductance, before going on to discuss condensers and capacity, we find that in diagrammatic circuits the coil through which the current is flowing is known as the primary and is denoted by the symbol L1. The coil in which the e.m.f. is induced is symbolised by L2. Where other coils are affected these are also numbered. The coil in which the e.m.f. is induced is termed the "secondary."

Circuits are said to be coupled together loosely or tightly by reason of their mutual induction. If one coil is placed so that the flux from it will not be induced into a secondary, there will be no mutual induction and consequently no induced e.m.f. The closer the coils are placed the greater will be the value of M. If one coil is wound over the other M will have a high value and this can be increased further by using an iron core. This latter arrangement is used as an audio transformer. Without a core it is known as a radio-frequency transformer (though it is not necessarily used for this purpose).

Direct coupling is the term applied when one coil acts simultaneously as a primary and secondary. It is known as an auto-transformer.

What is a Condenser?

If two plates of some conducting material such as copper are connected to a battery, and the two plates are separated from each other by an insulator, we have what is known as a condenser. A condenser may consist of two or more plates separated by a dielectric, which latter may be air or some other insulating substance.

A condenser is able to store up electricity. Its capacity for so doing depends on several factors, chief among them being the peculiarities of the dielectric, the closeness of the conductive plates, and the area of the plates.

The symbol for capacity is C. (Note: Always use the symbol I for current in order to avoid confusion.) The unit of capacity is the farad. A condenser is said to have a capacity of one farad when a charge of one ampere flowing for one second charges it one volt. One farad is equal to a thousand millifarads, a million microfarads, a million-million micromicrofarads, nine hundred million jars, of 900,000,000,000 cms. The jar is the service unit and is very useful when dealing with very small capacities. In radio the microfarad is generally made use of.

The following relationship is very important, and is derived from the above definitions: Q equals CV, where Q equals coulombs, C equals farads, and V equals volts, or $V = \frac{Q}{C}$.

Just as when a magnetic field is stored round an inductance a certain amount of energy is stored in the magnetic field in the form of electro-magnetic lines of strain, so when a condenser is charged up to a certain maximum voltage, energy is stored in the creation of the electric field between the plates. When the condenser discharges, this energy is restored to the circuit. Thus, in the charge and discharge of a condenser, there is no expenditure of energy if the condenser is perfectly efficient, i.e., if all the charge put into the condenser is returned by it.

Effect of Dielectrics

Different dielectrics act differently as regards the inductive action between the plates of a condenser: For instance, mica will suffer a greater strain than air; in other words, a more powerful inductive action takes place across it. If mica be substituted for air in a condenser, a greater charge can be given before the P.D. is raised to that of

Radio Proficiency

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the supply terminals. The mica condenser is thus said to have a greater capacity. This property of the dielectric is termed its "specific inductive capacity" (S.I.C.) or dielectric constant, and is denoted in formulae by the symbol K.

The S.I.C. of the dielectric path in a condenser has much the same effect as the permeability of the magnetic path has in an inductance. The S.I.C. of air is taken as unity, just as the permeability of air is taken as unity. The approximate S.I.C. values of some dielectrics are:—Air, 1. (Greater when moisture is present, but otherwise fairly constant). Ebonite, 2—3.2. (Fairly constant). Vulcanite fibre, 2.5. Glass, 4—10. (Very variable.) Pebble glass, about 5. Plate glass, 7—8. Shellac, 2.75—3.73. Dry paper, 1.5. Mica, 5. Ice, 94. Indiarubber, 2.12—2.34. Porcelain, 4.4—6.8.

The chief dielectrics are air, ebonite, glass, mica, and paper.

There are many other dielectrics, of course, such as sealing wax, dry wood, etc., but these are seldom used in radio work. Liquids—Distilled water, 83. (Efficiency very low.) Paraffin, 2—2.3. (Variable). Finest vaseline oil, 2. (Constant.) Service insulating oil, 2.217. Petroleum and turpentine, 2.2.

Previous Data

Those who are following these lessons should look back to "Proving Radio" series, parts 7, 20, 21, 22, 23, and 24, where much additional data will be found. In part 7 the formulae for finding resulting capacity of condensers in series and in parallel are given. In part 20 will be found some remarks on the various type condensers, i.e., fixed and variable condensers, and symbols are shown. Part 21 deals with ganged condensers and neutralising condensers. Part 22 shows photographs of fixed and variable condensers, and also deals with the necessary procedure for finding the capacity of a condenser. Part 23 treats the life of condensers with change of rated voltage. Part 24 gives a list of resultant capacities when general capacities in use are connected in series or in parallel, and also gives additional data on the calculation of a condenser's capacity.

It will be remembered that the latter formula is $AK(n-1)$ over $4d9pi$ (10 to the 5th power) where A equals area of one plate in sq. centimetres (one inch equals 2.54 centimetres), K equals the S.I.C. of the dielectric, n equals number of plates, d equals distance between plates in centimetres, pi equals 3.1416, and 10 to the 5th power equals 100,000. This formula should be memorised, as often the A.O.P.C. aspirant has to calculate the capacity of a condenser from details given.

The condensers used in radio fall under three headings:—

(a) Natural Capacity Circuits, in which the capacity exists between the wires of the circuit itself, or between the circuit and earth.

(b) Artificial Capacities, in which a built up condenser generally of the parallel plate type is employed.

(c) Combinations of (a) and (b).

Each of these will be treated in the order given above.

(a) Every ordinary electrical circuit possesses capacity. In an electrical cable, the conductor forms one plate of the condenser, the insulation is the dielectric, and the outer lead casing, or the earth, the other plate. In general, any two wires which are adjacent to each other have capacity to each other, the air between them forming the dielectric.

Thus there is always a certain amount of capacity between the turns of a coil of wire. The combined effect of all the small capacities between turns is spoken of as the "self-capacity" of the coil.

A suspended wire has a capacity to earth, the air being the dielectric. As an example, a radio aerial has a capacity to earth.

Artificial Capacities

(b) Artificial capacities are used very extensively in radio for transmitting, receiving, and wavemeter circuits, etc. These instruments will be dealt with in due course.

In every circuit containing an artificial condenser, there must also be a natural capacity to earth or between leads. This capacity is in parallel with the artificial capacity, and must therefore be added to it.

If the artificial condenser is large, the capacity of the leads may be neglected, whereas if the condenser is small, the latter may be a considerable factor. If an artificial condenser be inserted in an earthed wire having a natural capacity to earth, it is in series with that capacity and reduces the total capacity value. Those who studied "Proving Radio" will know that this is because the capacities are in series.

If the electric strain in a condenser rises beyond a certain point, the dielectric is punctured. In the case of liquid or gas dielectrics, they heal themselves, i.e., the liquid or gas will flow back, but in solids there is a break or hole which only offers the insulation of air instead of the insulation of the solid dielectric. See "Proving Radio" part 23.

When using condensers for high power work, it is usual to allow a factor of safety of at least twice the operating voltage.

Air condensers have the highest efficiency. Reckoning the efficiency of an air condenser as 100 per cent, other dielectrics have the following efficiency:—Ebonite, 70 per cent. (more efficient for thicker plates, and very much less if dielectric is thin); glass, 60 per cent. (best make of glass may be more); mica, very variable, best quality mica 90 per cent., ordinary mica, 40 per cent. Oil, nearly 100 per cent. if it contains no moisture.

Variable Capacity

A condenser of a certain number of plates, half of which are variable with relation to the others, has a variable capacity, and is termed a "variable condenser." The greater the overlap, the greater the capacity. As the S.I.C. of oil is greater than that of air, the capacity of a variable condenser which has air for a dielectric may be increased by placing it in oil. This method, though very old, is still used in some high-powered transmitting stations.

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Checking Phone Transmitter

EXPERIMENTERS engaged in radiotelephone transmission, and, for that matter, engineers responsible for broadcast station operation, always have had great difficulty in determining the percentage of modulation being obtained. With elaborate and expensive equipment such as the oscillograph, such measurement has been a simple matter, but this apparatus has been available in very few transmitting installations. In most cases the operators have relied on their ability to determine the percentage of modulation merely by listening to the carrier with and without modulation and the results, naturally, have been extremely approximate.

It is hardly necessary to mention the importance of the degree to which the carrier is modulated, but it may be recalled that a 10-watt carrier modulated 80 per cent. has the same effective range as one with a 40-watt carrier modulated 40 per cent. These figures are possibly ill chosen, since even the latter represents a figure rarely, if ever, attained in Australian broadcast stations. Nevertheless, they serve to illustrate the reduced carrier interference and improved performance that goes with a high modulation percentage.

The attainment of reasonably complete modulation is an involved problem of its own. The measurement of the modulation percentage, however, is a matter which has recently been greatly simplified and brought to the stage where it can be accomplished readily by any experimenter or broadcast station engineer.

The newly-developed measuring scheme is described in detail in the August issue of "QST." The apparatus used comprises a specially-arranged peak vacuum tube voltmeter, so fitted that it can measure the voltage drop across a resistor included in an oscillatory circuit coupled to the output of the transmitter being examined. The procedure adopted in getting at the modulation percentage is to measure the drop across the resistor with and without modulation in the transmitter. These figures then represent the relative values of output current with and without modulation, and from them the percentage may be computed readily.

The article describing this method presents what is undoubtedly a valuable contribution to the technique of practical radiotelephone transmission. It should be studied by every experimenter and engineer interested in the subject

"Faders" for Talkies

ONE of the most trying resistance applications is found in the "fader," a device which gradually reduces or increases the volume from a sound head or phonograph pick-up employed in talking picture installations. It is essential that the resistance steps be arranged for the gradual as well as the uniform increase or decrease of volume, in order that the human ear will not detect the successive steps.

The usual "fader" is arranged with successive resistance values in logarithmic progression. That is to say, the resistance values do not go up in arithmetical steps, such as 1, 2,

Curves Ahead

The
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3, and so on, but rather in geometrical steps, such as 1, 2, 4, 8, and so on. The resistance values must be quite accurate. With the geometrical progression, it is quite impossible for the human ear to detect the step-by-step increase or decrease of volume, while a uniform rate of increase or decrease is obtained as contrasted with uniform resistance steps, which would not provide a corresponding volume change.

Screen-grid Valve Ratings

WHEN the screen-grid valve was first introduced, great claims were made for its amplification possibilities. These claims have been, in large measure, borne out. Nevertheless, the application of the screen-grid valve in present-day radio sets has disclosed one disconcerting feature which has led at least one engineering firm to change the rating of the screen-grid valve. Briefly, while it is possible to obtain very high amplification with the screen-grid valve, the last stages of tuned radio-frequency amplification have a tendency to draw grid current, resulting in broad tuning and modulation of the carrier wave. That is to say, a strong station will modulate the carrier wave of a weaker station, resulting in serious interference.

Now the high amplification of the screen-grid valve is due to the reduction of the grid to plate capacity in the valve to a very small part of the value in the former three-element valves. This feature makes it possible and practical to design a valve which in itself has a high amplification factor.

One typical screen-grid valve as originally conceived has the following rating:—Filament 2.5 volts, control grid minus 1.5 volts, screen grid plus 75 volts, plate 180 volts.

When an investigation was undertaken just what changes should be made in the way of improved performance, states one American valve manufacturer, it was soon found that, when operating at the foregoing rating, the grid commenced to draw current anywhere between $\frac{1}{2}$ and 1 volt. The point at which this valve draws grid current is very similar to that at which a minus 27 or heater type a.c. valve starts to draw grid current. However, due to the much lower bias employed on the screen-grid valve, a much smaller voltage swing will start the grid current. For instance, a minus 27 type valve operating with 2.5 volts on the filament, minus 13.5 volts on the grid, and 180 volts on the plate, would not start to draw grid current until the grid voltage had changed from minus 13.5 to minus 1 volt. The screen-grid valve, on the other hand, could only go from minus 1.5 to minus 1 volts, when it

would start to draw grid current. It is due to this fact that, while great amplification is obtained, the last stages of radio-frequency amplification are likely to draw grid current and broaden the tuning.

With these points in mind, the engineering staff undertook to change the rating in a manner that would correct the existing drawbacks, and, at the same time, retain approximately the same characteristics. The new ratings for the valve are as follows:—Filament 2.5 volts, control grid minus 3 volts, screen grid plus 90 volts, plate 180 volts.

At the new voltages, the characteristics of the valve—the amplification constant, plate resistance, mutual conductance, plate current, and control grid current—are essentially the same as at the old rating. The raising of the screen-grid voltage compensates for the additional control grid voltage. The advantage of the change is in the fact that an additional 1.5 volt grid swing is obtained. With the new rating, the grid voltage can change from minus 3 to minus 1, instead of from minus 1.5 to minus 1 volts, before the valve draws grid current.

Harmonics

PRACTICALLY none of the sounds that we hear can be said to be pure. In the sense that they contain only one frequency. Several different persons could all sing the same note and yet the different voices would be easily distinguishable. A violin and a flute might play the same note, but they would sound entirely different.

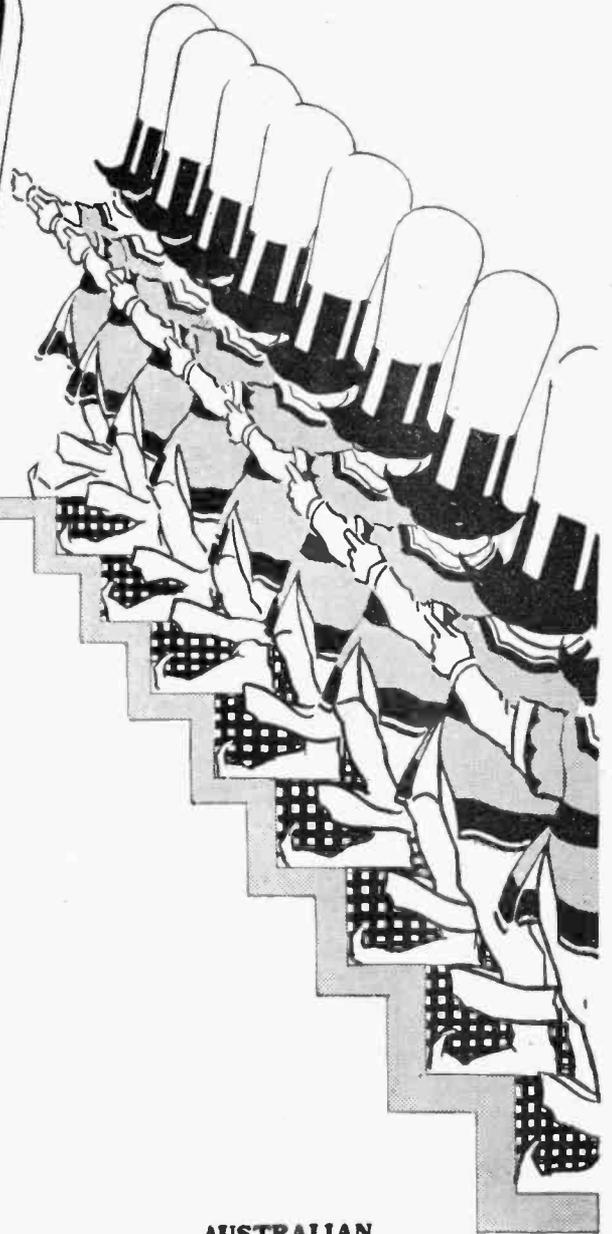
The factor which causes this difference is the existence in practically all sounds of various harmonics, or overtones.

Acoustically, the difference between a fundamental note and, say, its fifth harmonic is that the pitch of the harmonic is five times as high as the pitch of the fundamental. Electrically, the difference is that, for every time that the fundamental note goes through one cycle, the fifth harmonic goes through five cycles. This relation between a fundamental and any of its harmonics always is true, i.e., while the fundamental passes through one cycle, a harmonic passes through a number of cycles, depending upon what harmonic it is; the second harmonic passes through two cycles, the third harmonic passes through three, the fourth through four, and so on.

Many amplifying systems are not capable of amplifying the low notes, but, fortunately, a considerable decrease in amplitude in these low frequencies is hardly noticeable to the ear. It is also generally true that the harmonics of these low notes will have the same effect on the ear as the fundamental note. Consequently, if an organ sounded a chord which contained a 30-cycle note and only the second harmonic, 60 cycles, of this note was heard, it would give the same effect to the ear as the fundamental note of 30 cycles. This characteristic, combined with the fact that these low notes are very seldom used, makes it hardly worthwhile to go to any great expense to set up apparatus capable of giving exact amplification of these low frequencies.

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Converting Your OUTDOOR PUSHER Into a SEAPLANE

Some additions to the twin pusher that will give the model 'plane enthusiast more thrills than a Schneider Cup contest.

(By NORMAN LYONS.)

THE outdoor twin pusher, described last week, is capable of flying one mile in open country. Many enthusiasts are limited to short flights on land, yet have available large open spaces of water, so we are converting our twin pusher into a seaplane.

This model is larger than any indoor model and requires more material. It takes longer to make, too, but it's no more difficult than a carefully built indoor ship. Some of the materials are not easy to get in small quantities, and for that reason WIRELESS WEEKLY has arranged with the Boy Scouts' Association to supply the necessary materials for building this model. If you wish one of these kits or any particular material, you may obtain it by getting in touch with the association, 258 George Street, Sydney.

The R.O.W. twin pusher isn't as complicated as it looks. There is certainly a lot of detail in the diagrams, but this should make the construction ever so much easier. First of all, study the diagrams well, and get a mental picture of what the 'plane looks like. You will note that there are three floats, two in the front and one in the rear. The propellers are at the rear, swinging well clear of the water, so that when the front floats start to rise there will still be sufficient clearance to keep the props. out of water.

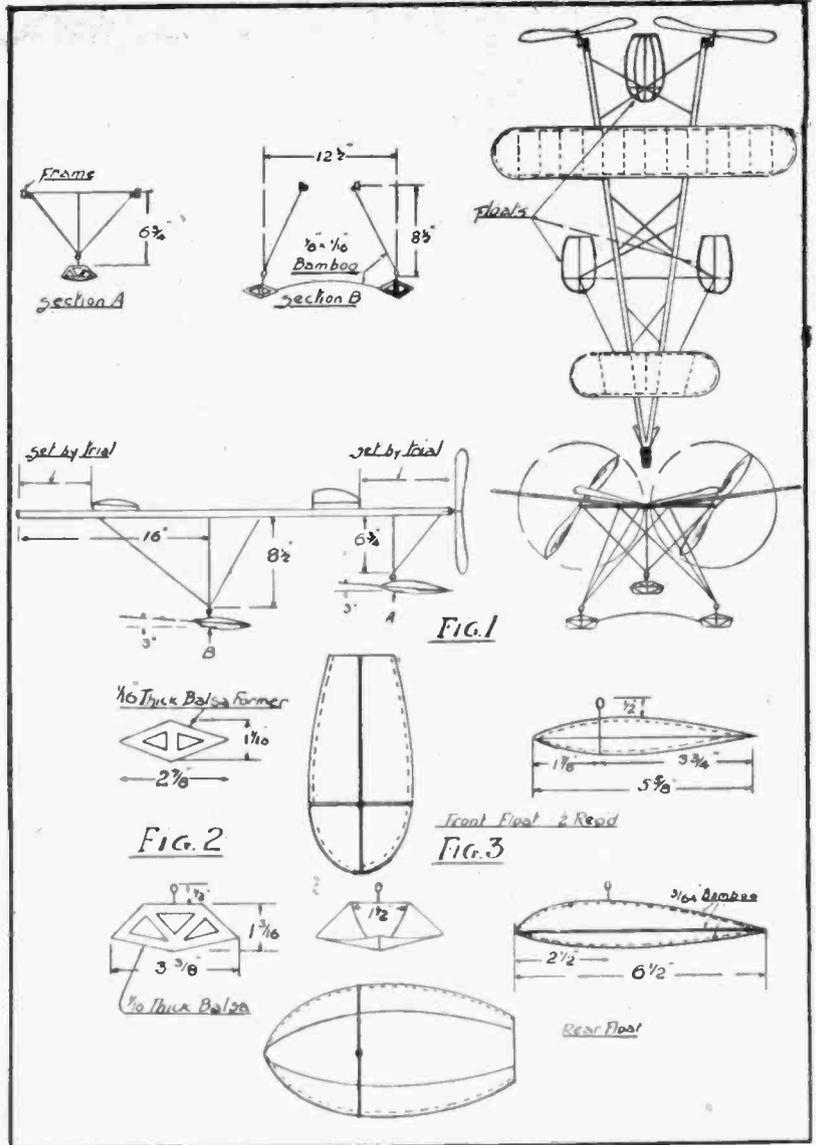
The construction of floats for Rise-off-Water models calls for knowledge and care, but is not necessarily difficult. Years ago, floats were made box-shaped with flat bottoms, but it was found that these were hard to take off with owing to the suction of the water for the flat surface. Also they had a high air resistance. This brings us to realise that an ideal float should have minimum water and air resistance.

In order to decrease the water pull on the under surface, some constructors may prefer to make a "step" in the float bottom.

After all that, it shows that the success of the entire 'plane as a hydro depends upon the floats. These must be properly constructed, and, moreover, must be properly assembled if the 'plane is to leave the water.

You will notice in Fig. 1 that the floats are set at an angle of 3 degrees. This may be varied one or two degrees either way without very much change in the efficiency of the floats. You will also notice that the bottoms of the floats are V-shaped, the reason being that V-bottomed floats are more efficient and hold the model on its course when taking off. This type also cuts down the suction on the bottom of the float, and prevents "drag."

The floats are formed of 3-64 inch bamboo bent around the balsa "former," shown in the diagram Fig. 2. These formers are cut to the shape shown from 1-16 inch flat balsa. The triangular pieces are cut out, according to the drawing, to lighten the whole. Give these formers a couple of coats of A.C. adhesive to strengthen and prevent them from chipping. Build the two front floats first as shown in Fig. 3. It is advisable to make a full size drawing of the top view so that you can check the shape, as you bend the bamboo.



You will require a piece of bamboo 3-64 x 1-8 x 15 inches. This is bent in one piece to the exact size of your drawing, and then split apart. Complete these side strips first, and cement them to the balsa former. Now bend the top and bottom pieces, as shown in the side view, and cement them in place. This completes the frame of your floats. See that the front of each float is rounded—or blunt—so that it will not dive under in rough water.

The bamboo strut must be cemented in place on the balsa former before you cover the float. These struts are made of 1-16 inch square bamboo, about 1/4-inch long, and they support the socket. This socket is made by folding tissue around a 1-16 inch nail, and covering the whole with several coats of A.C. adhesive. You wind the tube thus formed with silk thread to increase its strength. When dry, these sockets can be slipped off the nail and cemented to the short strut on the pontoon, as shown in the drawing. They'll be quite strong and serviceable.

The object of the socket is to allow you to take apart your model when you wish to carry it from place to place. Similar sockets are cemented to the beams and to the cross bracing, when the long float struts

are fastened to the frame. Cover your floats with tissue and give them four or five coats of Double A Dope to waterproof them.

Now study the assembly drawing of the 'plane, Fig. 1, to fix the shape of the long struts firmly in your mind. These struts are constructed of 1-16 x 1-8 bamboo, and are rounded at both ends to fit into the sockets.

You will notice that each front float has a strut running to the frame, long enough to hold the front of the 'plane about 9 inches above the water. The two front floats are held apart by a curved brace of bamboo, which is cemented to each float at the "former." Additional bracing is given the front floats and undercarriage by two threads running from the sockets to the second cross-brace on the frame, 6 inches from the nose of the 'plane. Two other threads cross each other rear-ward to opposite sides of the frame. This is shown in the assembly drawing, Fig. 1.

The rear float is supported by three struts. The centre one fits into the socket at the intersection of the last cross bracing of the frame of the 'plane, and extends down to the socket on the float. It should be long enough to hold the rear of the 'plane seven inches above the water. The other two struts ex-

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tend from this central strut at a point just above the float socket to a point just one inch from the end of the two beams. They are cemented to the centre strut, but at the beams they fit into the sockets, so that they may be removed at will. It may seem that quite a lot of work is necessary in making these struts, but it's not at all difficult, if you study the drawings.

The 'plane must receive, at least, a couple of coats of dope to thoroughly waterproof the wings and spars, as most R.O.W.'s get thoroughly wet in their flying career.

When your 'plane is complete, glide it a few times before attempting to fly it. Since the floats are of doped tissue they are easily punctured, so it is necessary that your gliding trials take place where there is soft grass. If the model attempts to climb, set the wings back, if it dives set the wings forward.

For your first launching wind the motors with a double winder, giving each motor about 600 turns. You will transfer the motor from the winder to front hook by means of the S-hook. When the motor is wound, set the 'plane on the water, and hold it by the propellers, release both propellers at the same instant. If the 'plane is properly constructed and adjusted it will skim lightly over the water for a short distance. As it gathers speed, it will slowly rise from the surface, sail through the air and descend to a beautiful landing. Like all other outdoor 'planes, you must launch the hydro against the wind, if you would avoid a crash.

If you have difficulty in getting it to rise, there's just one thing to do, take your model back to the workshop, and check up the construction. If you've built it according to instructions, it will certainly give you a soul-satisfying flight.

WRESTLING FOR AMATEURS

(Continued from page 8.)

right hand, seize his right wrist smartly with your left hand, the idea being to prevent his hand being raised towards you.

Second position: Next quickly bring your right hand forward under your opponent's right arm, seizing the upper part of the arm, holding firmly with both hands.

Third position: While still retaining hold above the elbow you can now punish him as shown. Slide your left hand upwards along the back under his fore-arm. His wrist will then lie in the hollow of your arm. Keep your body close to him, and if he strains or tries to get away force upwards and outwards with the arm that is up his back. This will cause him severe pain and make him helpless. In this position he is at your mercy.

THE 1930 SUPER-HETERODYNE

(Continued from Page 22.)

fact that no radio frequency chokes or bypass condensers are shown in the output leads from the two detectors. One would expect these units to be essential, but careful experiment has shown that this is not so.

The power supply for the receiver, which will be discussed next week, may be quite simple. The arrangement used during the experimental work consisted of a Pilot power transformer and choke unit, together with three 4 mfd. filter condensers. The two output leads from this unit supplied approximately 220 volts, and, though the filtering was quite crude, no hum was detectable at distances of more than a few feet from the speaker.

In addition to treating the power supply, next week we plan to outline fully the procedure for tuning and operating the set. And in that connection we might mention that we have had less trouble with the adjustment and tuning of this set than with any other super-heterodyne we have ever built.



The photograph is of Centennial Park's Paper Bark Trees, botanically known as "Melaleuca Leucadendron," among the best of our native evergreens, according to Mr. Cooper. They flourish only in a suitable situation where there is a moist subsoil, sandy and peaty, such as Centennial Park. A dry subsoil is fatal to them.

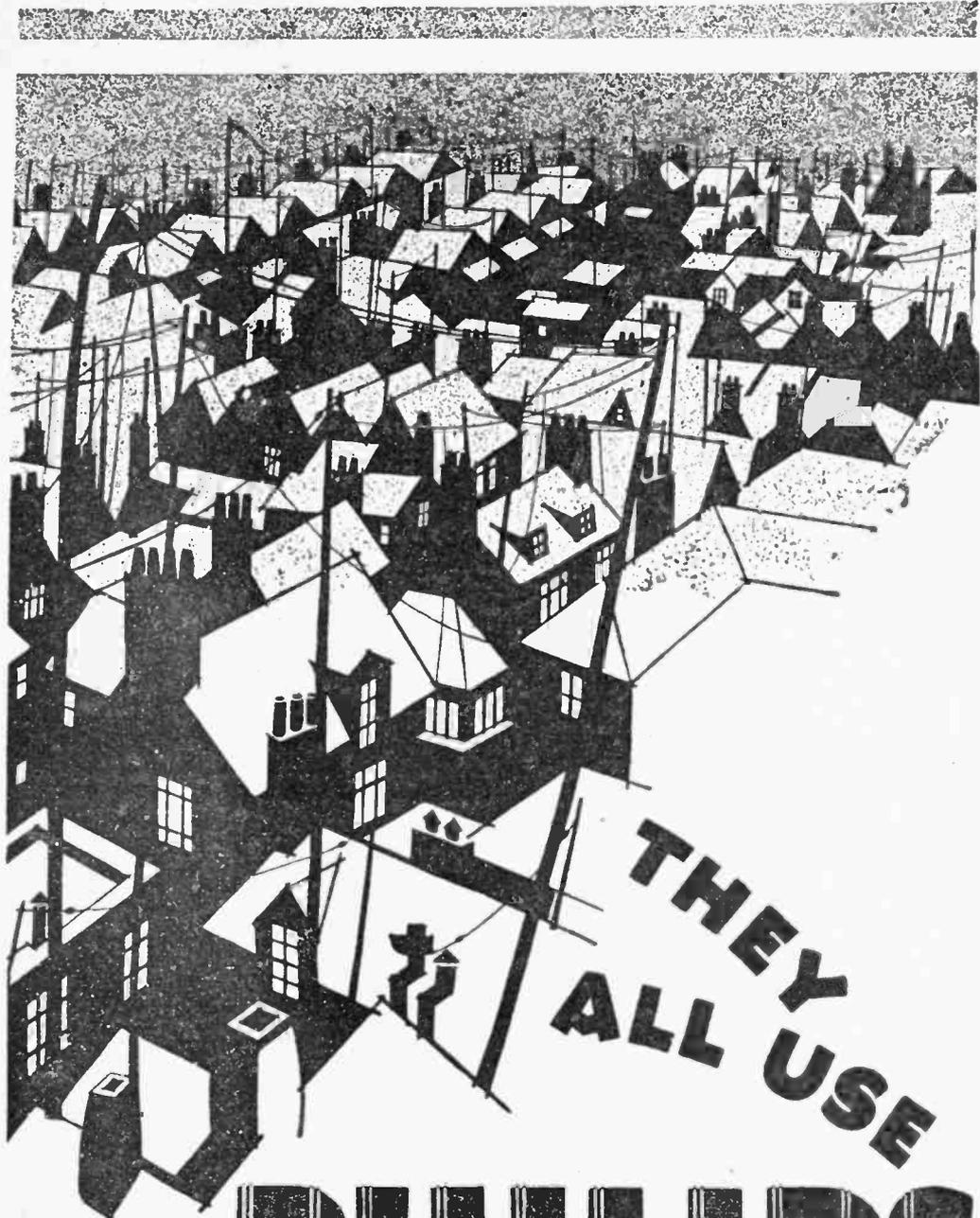
CENTENNIAL PARK FLOWER BEDS

(By G. W. COOPER, who talks on Gardening from 2BL at 10.10 every Saturday morning.)

LAST Saturday morning, September 21, I spoke of the wonderful show of flowers at Centennial Park, adjacent to the Rosary, and commended the Park Superintendent, Mr. Nicholls, and his assistants, upon their efforts to make this natural beauty spot even more beautiful. The great advantage this park has over the Botanic Gardens and Taronga Park, is that the flower show can be seen from motor-cars, which take you to the very spot where they are grown; which is a great benefit for elderly or disabled people. To give some idea of the great display of Iceland poppies, there are two oval-shaped beds in the centre of a well-kept lawn, and each bed is ninety feet long by sixteen feet wide. And what poppies they are—long stems and brilliant colors of many shades, set in bright sunlight. It is a scene worth going miles to see. It is difficult to estimate the number of blooms out at one time; but I estimate there are over 100,000 Iceland poppy blooms in those six beds at Centennial Park. I advise everyone who loves flowers to go and see them.

Pansies, beloved by all, are in their prime. Here are the dimensions of two beds of pansies in full bloom. Each bed is 150 feet long and twelve feet wide. The markings of many of the flowers are unique. Some have ground colors of blue, with bright borderings to each petal; some have white markings with a ground color of brown and purplish hue; some are mottled in a variety of ways. Both these pansy beds are surrounded by lawn, and you are able to see every pansy in the twelve-foot-wide beds. There are 5000 pansy blooms in this wonderful display.

Ranunculi are also well represented in massed displays, alongside the poppies and pansies, which are backed up by specimen double-flowering peaches. Those who love blue flowers in a garden will be catered for later on, as there are some massed displays of delphiniums, commonly known as the perennial larkspur. These will be in bloom in a few weeks' time, and I am of the opinion that they will be the finest show in Sydney. From the middle of October onwards, the rosebeds, pergolas, etc., promise to give a very fine showing; and from November onwards the Japanese Iris beds will make a gorgeous show, with their three, six, and occasionally nine petalled blooms of all shades of blue, pure white, purple, and pink. Some are mottled, others are self colors; all have a yellow marking at the base of each petal. From December onwards the water lilies are world-famous. Many beautiful displays are to be seen in Melbourne and Adelaide; but Centennial Park's water lilies are out on their own.



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Local Programmes, Friday, September 27

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
 7.3: This morning's news from the "Daily Telegraph Pictorial."
 7.8: Austradio musical reproduction.
 7.45: Mails and shipping.
 7.48: What's on to-day?
 7.50: Children's birthday calls.
 8.0: Music from the Studio.
 8.15: Close.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
 10.32: To-morrow's sporting events, by Oscar Lind.
 10.45: Horace Weber at the Grand Organ.
 11.0: Household Helps: Cooking, by Miss Ruth Furst.
 11.10: Cables (copyright). "Sun"—"Herald" and A.P.A. News Service.
 11.15: Morning Devotion.
 11.30: Austradio Musical Reproduction.
 11.53: British Official Wireless Press.
 12.0: "Big Ben." Stock Exchange and metal quotations.
 12.5: "What to Read," by Francis Jackson.
 12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land, supplied by the State Marketing Board.
 12.30: Close.

THE LUNCH HOUR—1 p.m. to 2.30 p.m.

- 1.0: Lunch to music with the National Broadcasting Orchestra.
 2.0: Stock Exchange, second call.
 2.2: A glance at the afternoon "Sun."
 2.7: Popular Education: W. S. Reay.
 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- 2.30: The 2FC Instrumental Trio.
 2.40: Gertrude Gray, soprano—
 Negro Spirituals—
 (a) "Swing Low, Sweet Chariot" (Burlleigh).
 (b) "I Got a Robe" (Burlleigh).
 2.47: Ewart Chapple, pianist—
 (a) "Nocturne" (Chopin).
 (b) "Preludes" (Chopin).
 2.54: The Instrumental Trio.
 3.4: Madame Dobrinski, monologues—
 (a) "A Handy Little Thing" (Montague).
 (b) "Three Little Chestnuts" (Page).
 (c) "Mother's Maxims" (Pelissier).
 3.11: William Bowyer, basso—
 (a) "The Lute Player" (Allitsen).
 (b) "The Red Star of the Romany" (Sanderson).
 (c) "Till I Wake" (Flinden).
 3.18: From the Sydney Town Hall: A Conference of the Educational Authorities to consider the teaching of International Statistics with special reference to the Work and Aims of the League of Nations. Chairman, The Minister for Education Mr. Drummond.
 3.50: From the Studio: The 2FC Instrumental Trio.
 4.0: "Redgum" will give a talk on "Gardening."
 4.15: Gertrude Gray, soprano—
 Negro Spirituals:
 (a) "Steal Away" (Burlleigh).
 (b) "De Gospel Train" (Burlleigh).
 4.21: Ewart Chapple, pianist—
 (a) "Polonaise" (Chopin).
 (b) "Etude" (Chopin).
 4.28: Stock Exchange, third call.
 4.30: Close.

EARLY EVENING SESSION—5.45 to 7.55

- 5.45: Kiddies' "Good-night" Stories, told by the "Hello Man," assisted by the Farmyard Five.
 6.45: The National Broadcasting Orchestra
 7.30: A.B.C. Sporting Service.
 7.37: Special Country Session. Stock Exchange resume, markets, weather forecast, late news service from the "Sun." Truck bookings.
 7.58: To-night's Programme.

THE EVENING PRESENTATION—8.0 to 11.30

To-night we have Organ music to offer

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our listeners; vocal quartettes; an entertaining novelty instrumental number; and a talkie short. At 9.15 our relay from 3LO commences featuring a programme of band music. 2BL listeners will enjoy a night of ballads, and a unique pianoforte group by Lily Price, with foreword by C. N. Baeyertz.

- 8.0: The Harmony Four—
 (a) "Hall, Smiling Morn" (Spoforth).
 (b) "Eldorado" (Pinsuti).
 (c) "The Parting Kiss" (Pinsuti).
 8.10: From Christ Church St. Laurence: Organ Recital arranged by Christian Hellemann—

- (a) "Grand Choeur" (Hollins).
 (b) "Serenade" (Schubert).
 (c) "Entr-acte" (Schubert).
 (d) "Abenlled" (Schumann).
 (e) "Intermezzo" (Hellemann).
 (f) March from "Athalia" (Mendelssohn).
 8.40: From the Studio—Don Ross, novelty instrumentalist—

- Bagpipes—
 "Hielan Laddie," "Cock of the North,"
 "Mademoiselle from Armentieres,"
 "Ain't Gonna Rain No Mo',"
 Carillon—(piano accompaniment):
 "Beautiful" (Prel).
 "Fireside Nights" (Prel).
 Ocarina—
 "Happy Dixie."

- 8.47: A Talkie Short.
 8.57: The Country Man's Weather Session—
 (a) New South Wales Forecasts.
 (b) Inter-State Weather Synopsis.

- 8.59: The Harmony Four—
 (a) "The Sea Hath its Pearls" (Pinsuti).
 (b) "Softly Falls the Shades of Evening" (Hatton).
 (c) "Sleep, Gentle Lady" (Bishop).

- 9.9: Don Ross, novelty instrumentalist—
 Saxophone—"Invercargill" (Lithgow) (piano accompaniment).
 Accordion—"March Medley" (Rowan).
 Tin Whistle—Solo, "Hurry On" (Gooch) Duet, "Frisco" (Ross).
 Bassooner—"Ship Ahoy" (Sadler).
 9.15: Relay from 3LO Melbourne—Featuring a programme of Band Music.
 10.15: From the Studio: Announcements.
 Late Official Weather Forecast.
 10.20: From the Oriental Ballroom: Sydney Simpson's Syncopaters.
 11.30: Close. National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes; music for every mood.
 8.45: Meteorological data for the country.
 8.50: Austradio musical reproduction.
 9.30: British official wireless news.
 9.35: New music.
 10.5: News from the "Daily Telegraph Pictorial."
 10.10: The Australian Broadcasting Company's Women's Association, conducted by Miss Gwen Varley.
 10.30: Austradio musical reproduction.
 10.40: A Morning Story.
 11.0: G.P.O. chimes; close.
MIDDAY SESSION—12 noon to 2.30 p.m.
 12.0: G.P.O. chimes; announcements.
 12.2: The National Broadcasting Orchestra.
 1.0: Afternoon news from the "Sun."
 1.5: Studio music.
 1.15: Women's Interest Talk—Mrs. Meredith-Atkinson will speak on "Professor C. J. Brennan: His Poetry."
 1.30: Austradio musical reproduction.
 2.0: J. Knight Barnett at the Wurlitzer.
 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business Efficiency Talk—C. R. Hall. "Know Australia First."
 2.45: The "Magic Carpet Series," Major H. Sandford-Morgan—
 "Jerusalem, the Holy City."
 3.0: From the ballroom of the Oriental—
 Dance music by Sydney Simpson's Syncopaters.
 3.12: William Everard, tenor—
 (a) "The Scent Still Clings to the Roses" (Forster).
 (b) "Mary of Argle" (Nelson).
 3.19: Popular numbers.
 3.22: From the ballroom of the Oriental—
 Dance music by Sydney Simpson's Syncopaters.
 3.32: From the Studio—
 Dismal Desmond, entertainer.
 "The Miner's Story" (Grey and Lee).
 3.39: Melody numbers.
 3.42: From the ballroom of the Oriental—
 Dance music by Sydney Simpson's Syncopaters.
 3.52: From the Studio—
 Heather Jones, popular vocalist.
 3.59: Studio music.
 4.2: From the ballroom of the Oriental—
 Dance music by Sydney Simpson's Syncopaters.
 4.12: From the Studio, William Everard, tenor—
 (a) "Mary" (Richardson).
 (b) "To You" (Speaks).
 (c) "Jeunesse" (Barry).
 4.19: Popular numbers.
 4.22: From the ballroom of the Oriental—
 Dance music by Sydney Simpson's Syncopaters.
 4.32: From the Studio—
 Heather Jones, popular vocalist.
 4.39: Radio rhythm.
 4.45: The Trade Hour, demonstration music.
 5.45: Weather information; close.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: The National Broadcasting Orchestra.
 6.45: The A.B.C. Younger Set Session—The A.B.C. Boy Scouts' Club, conducted by Mr. Norman Lyons.
 7.5: Claude Corbett will talk on "Sport."
 7.15: The Country Man's Market Session—
 wool, wheat, stock, farm produce, fruit, vegetables, pig and poultry markets.
 7.30: The National Broadcasting Orchestra.
 7.45: Austradio musical reproduction.
 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- 2BL listeners will appreciate the song groups which our programme offers to-night, and an unusual pianoforte recital by Lily Price, with foreword by C. N. Baeyertz. Through 2FC, after organ music and concert vocal numbers, the band programme from 3LO will provide enjoyable entertainment.
 8.0: Lily Price in an unusual pianoforte recital, with foreword by C. N. Baeyertz.

- (a) "The Old Folks at Home," as it might have been written by Elgar, Mendelssohn, Beethoven, Grieg, and Brahms.
- (b) "Prelude in D Flat," "The Raindrops" (Chopin).
- 8.12: Marjory Allomes, contralto—
 - (a) "Che Faro" (Gluck).
 - (b) "Printemps qui Commence" (Saint-Saens).
- 8.19: The National Broadcasting Orchestra.
 - (a) "Offenbachiana" (Daebnitz).
 - (b) "Andantino" (Lemare).
- 8.34: William Dallison, tenor, with orchestral accompaniment—
 - (a) "Eleanore" (Taylor), orchestral accompaniment.
 - (b) "To a Miniature" (Brahe), accompaniment strings and piano.
- 8.41: Lily Price, pianoforte recital, with foreword by C. N. Baeyerz—
 - (a) "Sonata in C Minor," "The Pathetic" (Beethoven).
 - (b) "Golliwog's Cake Walk" (Debussy).
- 8.53: The Songsters, in duets—
 - (a) Duet, "The Garden of Your Heart" (Dorel).
 - (b) Soprano solo, "All the World's in Love" (Woodman).
 - (c) Duet, "Grey Days" (Johnson).
- 9.3: The National Broadcasting Orchestra.
 - (a) Clarinet solo, "Faciletta" (Brownell).
 - (b) "Rigoletto" (Verdi).
- 9.18: Marjory Allomes, contralto—
 - (a) "The Net Mender" (Clarke).
 - (b) "Adral by the Sea" (Lawrence).
 - (c) "When I Awake" (Wright).
- 9.25: V. C. Bell will speak from the Public Forum.
- 9.40: The National Broadcasting Orchestra.
 - (a) Overture, "Athalia" (Mendelssohn).
 - (b) "Ballade No. 1" (Brahms).
- 9.53: William Dallison, tenor, with orchestral accompaniment—
 - (a) "Thine my Thoughts Are" (Helmund).
 - (b) "The Pearl Lies in the Sea" (Cadman).
 - (c) "The Last Hour" (Kramer), with violin and piano accompaniment.
- 10.0: The National Broadcasting Orchestra. "Potted Overtures" (Engleman).
- 10.10: The Songsters—
 - (a) Duet, "Homing" (Del Riego).
 - (b) Contralto solo, "Happy Song" (Del Riego).

- (c) Duet, "The Sweetest Flower that Blows" (Hawley).
- 10.17: The National Broadcasting Orchestra. Selection of Wilfred Sanderson's songs.
- 10.25: Announcements.
- Late official weather forecast.
- 10.30: Close; "National Anthem."

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

10.0: Music. 10.10: Happiness Talk by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. 11.30: Music. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Music. 3.0: Movie Know All. 3.30: Close down. 5.15: Children's Session, by Uncle George. 6.50: Metro-Goldwyn-Mayer Radio Movie Club session. 7.0: Music. 7.45: Feature story. 8.0: Miss Molly Long, contralto. 8.7: Symphony Orchestra. 8.15: Madame Betts-Vincent in an illustrated talk on Music. 8.30: Mr. Norman Williams, baritone. 8.40: Mr. Jack Win and Mr. Heath Burdock, humor. 8.45: Instrumental Trio. 8.50: Miss Dorothy Toppin, soprano. 9.0: Weather report. 9.3: Address. 9.15: Symphony Orchestra. 9.25: Miss Molly Long, contralto. 9.35: Mr. Jack Win and Mr. Heath Burdock, humor. 9.40: Mr. Norman Williams, baritone. 9.50: Instrumental Trio. 9.55: Miss Dorothy Toppin, soprano. 10.5: Instrumental Music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Homecraft, by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 8.0: Music of the Moment Recital. 9.0: G.P.O. clock and chimes. Comments on Foreign Affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

MORNING SESSION

10.0: Tune in to the ticking of the clock. 10.3: Popular fox trots. 10.15: Hawaiian steel guitar selections. 10.30: Women's session. Home hints and information, conducted by Mrs. Gray. 11.0: A few laughs. 11.5: Piano-forte selections. 11.15: Calls and announcements. 11.20: Musical interlude. 11.30: Request numbers. 11.40: Music and vocal items. 11.55: Where to go to-night. 12.0 noon: Closing announcements.

CHILDREN'S SESSION

6.0: Birthday calls, request numbers, and kiddies' entertainment. Aunt Jemima and Uncle Bert.

EVENING SESSION

7.0: Musical interlude. 7.5: Birthday calls. 7.15: Sporting feature. Turf topic. Review of candidates and their prospects for tomorrow, Mr. Geo. A. Davis. 7.40: Request numbers. 8.0: Hawaiian steel guitar selections. 8.15: Women's information service, Mrs. Gray. 8.30: Music and vocal items from the studio. 9.10: Sporting feature. Presented by Tooth and Co., Ltd., Kent Brewery. From ringside of M'Hugh's Leichhardt Stadium. Full description of main 15-round event. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.—7.15 a.m.: Breakfast time hour orchestral music. 8.0: Clock and chimes. 8.1: Vocal and orchestral music. 8.10: Announcements. 8.30: Weather forecast. Close down.

MIDDAY SESSION.—11.30 a.m.: Orchestral and vocal old time selections. 12.30 p.m.: Announcements. Close down.

AFTERNOON SESSION.—1.0 p.m.: Orchestral and vocal music. 1.45: Organ recital. 2.0: Orchestral music. 2.30: Close down.

EVENING SESSION.—7.15 p.m.: Orchestral dinner music. 7.58: Programme announcements. 8.0: Clock and chimes. 8.1: Overture, "La Traviata" selections. 8.10: Vocal and instrumental items. 10.15: National Anthem.

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Interstate Programmes, Friday, September 27

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0: Melbourne Observatory time signal. 7.1: Shipping news. 7.3: Physical exercises set to music. 7.20: Reproduced music. 7.40: Mail notices. 7.42: What's on-to-day? 7.45: Market reports. 7.53: Weather forecasts. 7.55: News service. 8.0: Melbourne Observatory time signal. 8.1: Arrival times of express trains. 8.2: Musical interlude. 8.15: Close down.

MORNING SESSION.

10.30: Current happenings in sport, by Mel. Morris. 10.45: Melody broadcast. 12.0: Melbourne Observatory time signal. 12.1: Melody broadcast. 12.15: News service. British official wireless news. Corn Exchange, midday report. Newmarket stock sales. Associated Stock and Station Agents' official report. 12.30: Close down.

EDUCATIONAL SESSION.

2.0: Strange and Strange Countries—Mr. H. J. O. Eamonde. 2.15: Musical interlude. 2.20: Gems of English Literature—Shakespeare's "Hamlet." Prof. G. H. Cowling, M.A. 2.35: Musical interlude. 2.40: A Talk in German—Mr. G. E. Green, M.A., Dip.Ed. 2.55: Musical interlude. 3.0: Melbourne Observatory time signal.

THE RADIO MATINEE.

3.0: Studio Light Orchestra—Overture, "Light Cavalry" (Suppe), "Cannonetta" (Hammer). 3.10: Two Popular People—Alf. Lawrence and Nell Crane present comedy songs and duets, "Smile Awhile" (Allyn). "I Said 'O Are You'" (Lawrence). "Three Ages of Woman" (Lawrence). "Will You Get Somebody Else" (Donaldson). 3.30: Bertha Jorgensen, violin. "Minuet" (Paderewski). 3.35: Marion Daniels, mezzo-contralto. "A May Morning" (Denza). "Can't Remember" (Gostley). 3.42: Studio Light Orchestra. "Songs My Mother Taught Me" (Dvorak). "The Londonderry Air." "Caprice Debutante" (Rape). 3.50: Chas. O'Mara, entertainer. "The Maid of the Sweet Brown Knowe." Irish stories. 3.57: J. Barrie, flute. "Masurka" (Popp). 4.0: Marion Daniels, mezzo-contralto. "Little Brown Cottage" (Dixon). "My Laddie" (Thayer). 4.7: Tasma Tierman, cello. "Melodie" (Gluck). 4.12: Chas. O'Mara, entertainer. "Mountains of Mourne." Irish stories. 4.20: Studio Light Orchestra, selections from "Irene" (Tierney). 4.30: Close down.

THE CHILDREN'S CORNER.

5.45: "Rolling Rita" and "John, the Piper's Son, in some melodious meanderings (whatever does that last word mean?)" "Nosey Finds the Wonder City." 6.0: Birthday greetings by John, the Piper's Son." 6.20: Brave deeds by boys and girls, Lt.-Col. Pottinger.

EVENING SESSION.

6.35: Musical interlude. 6.40: What's Wrong With Your Radio? Mr. H. Kingsley Love. 6.55: Musical interlude. 7.0: Melbourne Observatory time signal. 7.1: Countryman's session—Stock Exchange information. Corn Exchange report. Associated Stock and Station Agents' official report. Wool Exchange report. Mines and metals. Pigs and rabbit prices. Farm and dairy produce report, supplied by the Inter-State Dairy Produce Committee. Wholesale fruit prices, supplied by the Wholesale Fruit Merchants' Association. Retail fruit prices, supplied by the Victorian Fruit-growers' Association. Citrus fruit prices, supplied by the Victorian Central Citrus Association. Weather synopsis. River reports. Rainfall data. 7.25: Gardening hints, under the auspices of the Royal Horticultural Society of Victoria. The propagation of dahlias. 7.40: Herald news service. 7.45: Ancient Civilisations—Dr. E. Sreetman, M.A., Litt.D. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

Half an Hour With the Masters. 8.0: National Broadcasting Orchestra—Overture, "Ruy Blas" (Mendelssohn). 8.5: Muriel Cheek, soprano—(a) "Rose Softly Blooming" (Spohr). (b) "Where the Bee Sucks" (Sullivan). 9.12: Zisserman, cellist—"Chant du Menestrel" (Giazounow). "Maid of Orleans" (Akinshin). 8.20: Bartlema Male Choir—(a) "The Shepherdess" (MacMurrough). (b) "Come Again, Sweet Love" (Dowland). (c) "Rolling Down to Rio" (Gormaa). Merriment and Melody. 9.30: John Stuart, comedian—a short comedy sketch, specially written for radio by John Stuart. "The Rebellion." Cast: The Wife, Edith Huxham; The Husband, John Stuart. Scene: At Home. A character song, "The Cautious Curate." 9.38: Brunswick City Band (Conductor, Hugh Niven)—Selection "Maid of Orleans" (Laurent). 8.45: Jack Houston, ventriloquist—"The Policeman." Chamber Music. 8.55: The Rossignol! String Quartette—"Interludium in Modo Bridge" (Giazounow), Scherzo from Quartette by Tschakowsky. 9.5: A. C. Bartlema, baritone—"In Summertime on Bredon" (Peel). "O Willow, Willow" (Traditional). "Blow, Blow, Thou Winter Wind" (Quilter). 9.12: Edouard Lambert, violin—"Andante from Concerto" (Mendelssohn), with orchestral accompaniment. 9.20: Muriel Cheek, soprano—(a) "My Mother Bids Me Bind My Hair" (Haydn). (b) "The Swing Song" (Lehmann). A Dramatic Interlude. 9.27: John Hopkins—"Quo Vadis?" In Lighter Vein. 9.37: Brunswick City Band—"A Song of Night" (Niven). "Gill Bridge" (Rume). 9.45: Jack Houston, ventriloquist—"Married Life." 9.54: "The Troubadours," in a symphonic arrangement of, "She's Funny That Way."

9.59: John Stuart, comedian—"If Life Were a Play." Popular Pieces. 10.4: The National Broadcasting Orchestra—"Two Hungarian Dances" (Brahms). 10.10: The Bartlema Male Choir—"Una Vergine" (from "La Forza del Destino," Verdi), "Bandits' Chorus" (from "Ernani," Verdi). 10.17: Ernswick City Band—"A Bohemian Suite" (Rame). News Service. 10.24: Meteorological information. British official wireless news. Items of interest. Dance Music. 10.32: "The Rex" Dance Band. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

8.15: Morning music. 8.45: Weather data. 9.0: G.P.O. chimes. 9.1: News service. 9.5: Reproduced music. 10.0: G.P.O. chimes. 10.1: Announcements. 10.30: Arnold Coleman at the Wurliizer. 10.50: A Message for the Day. 11.0: Close down.

MIDDAY SESSION

12.0: G.P.O. chimes. 12.0: Famous Women—Marie Bashkirtseff (Mrs. Jan Maxwell, M.A.). 12.15: Fifteen minutes' synopticon. 12.30: Luncheon music, supplied by the A.B.C. Troubadours. 2.0: G.P.O. chimes.

AFTERNOON SESSION

2.1: Cremona Trio—Trío, Opus 12, No. 1 Hummel; "Allegro Agitato"; "Andante"; "Finale." 2.18: Myrtle Walscott, contralto—"We Walked Under Woodland Trees"; "The Lullaby" (Schumann). 2.25: Cecil Parkes, violin—"Andante" (Mendelssohn); "Finale" (Mendelssohn). 2.38: Myrtle Walscott (contralto)—"The Linden Tree" (Schubert); "Weather" (Schubert). 2.45: Frank Johnston (cello)—"Hungarian Rhapsody" (Popper). 2.50: Cremona Trio—"Folk Song and Fiddle Dance" (Fletcher); "The Guitar Player" (Schytte). 3.0: Melody broadcast. 3.20: A chat by a prominent woman. 3.35: Musical interlude. 3.40: Home Management—A few methods of renovating the home. Miss Kathleen Benningfeldt. 3.55: Musical interlude. 4.0: What Science is Doing for Women—Dr. Loftus Hills, D.Sc. 4.15: Reproduced music. 5.0: G.P.O. chimes; reproduced music. 5.30: Weather data. 5.45: Close down.

EVENING SESSION

6.15: Dinner music, supplied by the A.B.C. Troubadours. 7.30: "What's on the Air To-night." 7.32: Sporting results. 7.35: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION

8.1: Australian Problems in Economics—Gold and Prices—Prof. D. B. Copland, M.A., D.Sc. 8.15: Community Singing—Transmission from Oolong—conductor, W. Sampson. 10.20: Weather information and "Herald" news. 10.30: God Save the King.

3DB

The "Herald" Broadcasting Station, Flinders Street, Melbourne (255 Metres).

MORNING SESSION

11.0: Lucerne Kursoral Orchestra—"Orpheus in the Underworld." 1.30: Theo. Chaltapin—"Blind Ploverman." 12.0: Ben Selvin and his orchestra—"Out of the Tempest." 12.30: Market reports—John M'Namara and Co. Pty., Ltd. 12.35: Noel Coward—"Dance, Little Lady." 1.0: Columbia Symphony Orchestra—"Bacchante" (Otenbach). 1.30: The Revelers—"Comin' Home." 1.45: Close down.

AFTERNOON SESSION

2.15: Plaza Theatre Orchestra—"The Busy Bee." 2.30: Paul Robeson—"I Want to Be Ready." 3.0: Atwater Kent Radio Hour—sponsored by A. O. Healing, Ltd. 4.0: Close down.

EARLY EVENING SESSION.

5.30: Sandler and his orchestra—"Love Everlasting." 6.0: John M'Cormack—"Silver Threads." 6.30: Musical Art Quartet—"Mighty Lak" a Rose. 7.0: Essie Ackland—"O Lovely Night." 7.15: Market reports—John M'Namara and Co Pty., Ltd. 7.20: Hurman's Concert Trio—"Dalviva" (Sandby). 7.30: Market reports—Gipspsland and Northern Co-operative Co., Ltd. 8.40: Fred Rich and his orchestra—"Wedding Bells." 1.45: Close down.

EVENING SESSION

8.0: Albert Coates and Symphony Orchestra—"Oberon" (Weber). 8.30: Billy Leonard and Company—"The Balcony Girl." 9.0: Barrington Hooper—"Songs of Arab" (Clay). 9.30: Oli Dech and his Synopators—"My Mammy." 10.0: Mario Chamie—"Soft Beams the Light" (Donizetti). 10.30: Royal Hawallan Glee Club—"Beautiful Woman" (Kahale). 10.40: News. 10.45: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

MORNING SESSION

11.0: Music. 11.5: Social news. 11.15: Lecturette: cookery talk by "The Etiquette Girl." 11.30: Music. 11.35: More social news. 11.45: Music. 12.0 (noon): Close down.

MIDDAY SESSION

1.0: Market reports; weather information. 1.20: Lunch Club concert. 1.58: Special time signals. 2.0: Close down.

AFTERNOON SESSION

3.0: Records. 3.30: Mail train running times.

3.31: More records. 4.15: This afternoon's news. 4.30: Close down.

EARLY EVENING SESSION

6.0: Mail train running times; mail information; shipping news. 6.5: Records. 6.25: Commercial announcements. 6.30: Best-time stories, conducted by the Sandman. 7.0: News in brief. 7.5: Stock Exchange news. 7.6: Metal quotations. 7.7: Market reports. 7.25: Fenwick's stock report. 7.30: Weather information. 7.40: Announcements. 7.43: Standard time signals. 7.45: To-morrow's sporting fixtures reviewed.

NIGHT SESSION

8.0: The Jumping Jacks—Foxtrots—"And Especially You" (Aksa), "Two Lips" (Davis). 8.10: Mrs. Phil Stewart (soprano)—"My Message" (D'Hardelot). 8.15: Humorous Radio Sketch—"The Woman Across the Road." "The Wife"..... Dulcie Scott The Husband..... H. Humphreys The Insurance Inspector, Charles Cowan 8.25: The Jumping Jacks—Duo features—"Wedding of the Painted Doll." "Happy Days and Lonely Nights." 8.45: The Jumping Jacks, with vocal trio—"Some Sweet Day." 8.50: Harry Borradaile, entertainer. 9.0: Metropolitan weather forecast. 9.1: West-end road information for motorists, officially supplied by the R.A.C.Q. 9.15: The Jumping Jacks—Violin specialty, "You were Meant for Me." 9.20: Mrs. Phil Stewart (soprano)—"God Gave You Back to Me." 9.25: The Jumping Jacks—Two trumpets and trombones, "Louise."

PIANO AND VOCAL RECITAL

A short vocal and pianoforte recital by Madame Polotynski and Stefan de Polotynski. Stefan de Polotynski (pianist)—The Baykal (Siberian Phantasy—Polotynski). Madame de Polotynski (soprano)—The White Acaela (Russian Olpsy Romance). "My Last Coin" (Olpsy folk song). Stefan de Polotynski (pianist)—"Liebesleid" (Kreiser). "Humoresque" (Dvorak). Madame de Polotynski (soprano)—"You are my Darling" (Olpsy folk song, in English). "The Dark Eyes" (Russian Olpsy song). 10.0: News supplied by courtesy of the metropolitan dailies; weather information; close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 400 Metres).

MORNING SESSION

11.15: Chimes. 11.18: Recordings. 11.45: Kitchen Craft and Menu Talk. 12.0: Chimes. 12.1: Recordings. 12.15: News service. 12.40: Recordings. 12.52: Railway and Stock Exchange. 1.0: Chimes. 1.1: Community singing, from the Adelaide Town Hall. 1.55: Meteorological information. 2.0: Close down.

AFTERNOON SESSION

3.0: Chimes. 3.4: Studio concert. 3.30: "Australia" will tell an original story, entitled, "My Copper Claim" (Part 1). 3.45: Studio concert. 4.10: An educational talk. 4.25: Stock Exchange. 4.30: Close down.

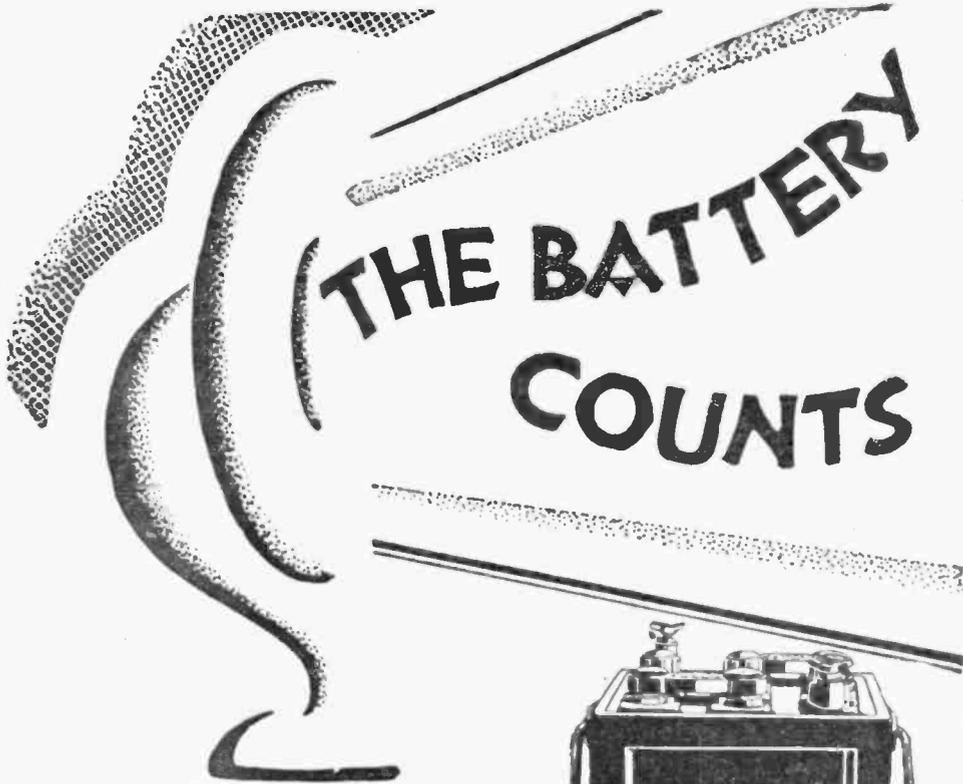
EVENING SESSION.

6.0: Chimes. 6.1: Birthday greetings. 6.30: Dinner session. 7.0: Chimes. 7.1: Senior Birthday League greetings; sporting services; general market reports. 7.20: "Mo" Manning on Football. 7.35: Sir David Gordon will give a talk "Of Interest to Everybody." 7.45: Dr. Jethro Brown will continue his series of talks, entitled "Strife in Industry—Why?"

NIGHT SESSION

8.0: Chimes. 8.1: Mr. D. Butterworth will speak on "The East-West Air Race." 8.10: From Malvern Methodist Church, concert arranged by Fred Pilgrim—Norman Chinner, organist—"Fugue in A Major" (Bach), "Noel" (Dubois). Gwen Collett, contralto—"Yonder" (Oliver), "A Widowed Bird" (Johnnie Liddle). Clifford Roennfeldt, cellist—"Second Movement of First Concerto" (Goldtermann). Phyllis Webb, soprano—"Music, When Soft Voices Die" (Besley), "O, Lovely Night" (Landon Ronald). Fred Pilgrim, organist—"The Question" (Wolstenholme), "The Answer." Lindsay Jessop, tenor—"Siegfried" (Massenet), with cello obbligato by Clifford Roennfeldt. 9.1: From 5CL Studio—meteorological information, including Semaphore tides. 9.2: Overseas grain report. 9.3: Continuation of concert from Malvern Methodist Church—Gwen Collett, contralto—"Abide with Me" (Liddle). Phyllis Webb and Lindsay Jessop, vocal duet—"Love Divine" (Stainer). Norman Chinner, organist—"Coronach" (Barratt), "Canto Amoroso" (Samarini), choral improvisation on "Nua Danket" (Karg Elert). Lindsay Jessop, soprano. Clifford Roennfeldt, cellist—"Cantilena" (Goldtermann), "Einfantanz" (Jenkinson). Phyllis Webb, soprano—"O That It Were So" (Frank Bridge), "Lullaby" (Cyril Scott). Fred Pilgrim, organist—"Faniare" (Lemmens). 10.15: From 5CL Studio—News Session—general news service. 10.30: Modern dance recordings. 11.0: Close down.

(Continued on Page 42.)



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Local Programmes, Saturday, September 28

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 351 Metres).

EARLY SESSION—7 to 8.15 a.m.

7.0: "Big Ben" and meteorological information for the man on the land.
7.3: This morning's news from the "Daily Telegraph Pictorial."
7.8: Austradio Musical Reproduction.
7.45: Mails and shipping.
7.48: What's On To-day?
7.50: Children's birthday calls.
8.0: Music from the Studio.
8.15: Close.

MORNING SESSION AND AFTERNOON SESSION.

10.30: Announcements.
10.32: A.B.C. Racing Observer.
10.45: Horace Weber at the Grand Organ.
11.0: Household Helps: Week-end suggestions, by Miss Ruth Furst.
11.10: Cables (copyright), "Sun"—"Herald" and A.P.A. News Service.
11.15: Austradio Musical Reproduction.
11.53: British Official Wireless Press.
12.0: "Big Ben." Stock Exchange and metal quotations.
12.5: Austradio Musical Reproduction.
12.20: Midday weather forecast and weather synopsis.
12.30: Studio music.
1.0: Lunch with the music with the National Broadcasting Orchestra.
2.0: Stock Exchange, second call.
2.2: A Glance at the afternoon "Sun."
2.7: Basil Rye, baritone.
2.15: From the Royal Motor Yacht Club: Description of the events on the Opening Day. During intervals the Band will play.
Note: Race results from Rosebery will be transmitted as received.
General Handicap for all boats, 7 miles per hour and over including outboards.
3.0: General Handicap for all outboards.
3.30: Speed Boat Race.

4.0: Exhibition race by Mr. R. Walder's "Century Tire" and Flight Commander Wackett's "Fire Bolt."
4.30: Class "C" Speed Boat Race.
4.35: From the Studio: Complete Sporting and Racing resume.
4.45: Close.

EARLY EVENING SESSION—5.45 to 7.55.

5.45: Kiddies' 'Good-night' Stories, told by the "Hello Man," assisted by Aunt Wila.
6.45: The National Broadcasting Orchestra.
7.25: A.B.C. Sporting Service.
7.37: Special Country Session. Stock Exchange Resume. Markets. Weather forecast. Late news service. Truck bookings.
7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30.

8.0: 2FC listeners have looked forward to to-night's unique Radio Production of "Give and Take." We believe this is the first time a whole evening programme has been devoted to the spoken word, and surely no better production could be chosen than this sparkling comedy, under the direction of Mr. Lew James.
10.15: Announcements. Late Official Weather Forecast.
10.20: From the ballroom of the Oriental: Sydney Simpson's Syncopaters in Dance Music.
11.30: Close. National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 a.m. to 11 a.m.

8.15: G.P.O. chimes.
Music for every mood.
8.45: Meteorological data for the country.
8.50: Austradio musical reproduction.
9.30: British official wireless news.
9.35: New music.
10.5: News from the "Daily Telegraph Pictorial."
10.10: Talk on "Gardening," by Mr. G. Cooper, Park Superintendent, City Council.
10.30: Austradio musical reproduction.
10.40: This morning's story.
11.0: G.P.O. chimes. Close.

MIDDAY SESSION—12 noon to 2.30 p.m.

12.0: G.P.O. chimes. Announcements.
12.2: The National Broadcasting Orchestra.
1.0: Afternoon news from the "Sun."
1.5: Austradio musical reproduction.
2.0: J. Knight Barnett at the "Wurlitzer."
2.12: Austradio musical reproduction.

AFTERNOON ENTERTAINMENT.

2.30: The 2BL Instrumental Trio.
2.42: Eva Newbury, contralto.
2.49: Rita Graham, violinist—
(a) "Londonderry Air" (Kreisler).
(b) "Gavotte" (Gossec).
2.58: The 2BL Instrumental Trio.
3.11: Norman Francis, tenor—

(a) "I Hear You Singing" (Coates).
(b) "Off in the Stilly Night" (Moore).
(c) "A Heap of Rose Leaves" (Willeby).
3.18: Frank Leonard, entertainer—
(a) "Guy" (Weston-Lee).
(b) Selected.
3.25: The 2BL Instrumental Trio.
3.37: Eva Newbury, contralto.
3.39: Rita Graham, violinist—
(a) "A Volga Boat Song" (Kreisler).
(b) "Seconde Romance" (Tours).
3.46: The 2BL Instrumental Trio.
4.0: Norman Francis, tenor—
(a) "A Song Remembered" (Coates).
(b) "Alisa Mine" (Newton).
4.7: Frank Leonard, entertainer—
(a) "So We Go On" ("The Seven Ages of Man") (Weston and Lee).
(b) Selected.
4.15: The 2BL Instrumental Trio.
4.30: Austradio musical reproduction.
5.0: Complete and sporting resume.
5.15: Close.

THE DINNER HOUR—6.15 to 7.55 p.m.

6.15: The National Broadcasting Orchestra.
6.45: The A.B.C. younger set session—the captain to his comrades.
7.5: The A.B.C. sporting service.
7.17: Studio music.
7.30: The National Broadcasting Orchestra.
7.45: Austradio musical reproduction.
7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 12 p.m.

2BL offers listeners to-night a programme on classic lines, featuring Edward Goll in association with the Melbourne University Symphony Orchestra, conducted by Professor Bernard Heinze, and the Melbourne Philharmonic Society. The radio play, "Give and Take," through 2FC, provides a pleasing contrast for those to whom classic music does not appeal.
8.0: From the Melbourne Town Hall, Edward Goll in association with the Melbourne University Symphony Orchestra, conducted by Professor Bernard Heinze, and the Melbourne Philharmonic Society.
10.25: Late weather report.
Late news from the "Sun."
10.30: The Australian Broadcasting Dance Orchestra.
11.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
12.0: Close. National Anthem.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).
3.0: Musical Session. 5.30: Children's Session, by Uncle George. 6.50: Metro-Goldwyn-Mayer Radio Movie Club session. 7.0: Request hour. 8.0: Dance programme. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Paling's Building, Ash St., Sydney (Wavelength, 261 Metres).
5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: Musical programme and request numbers. 10.30: Close down.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 286 Metres).
CHILDREN'S SESSION
6.0: Birthday calls, request numbers, and kiddies' entertainment, Aunt Jemima and Uncle Bert.
EVENING SESSION
7.0: Musical interlude. 7.5: Birthday calls. 7.15: Sporting feature. Turf topics. How they ran to-day. 7.50: Request numbers. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).
EARLY MORNING SESSION—7.15 a.m.: Breakfast time hour orchestral music. 8.0: Clock and chimes. 8.1: Vocal and orchestral music. 8.30: Weather Forecast. Close down.
EVENING SESSION—7.15 p.m.: Orchestral dinner music. 7.58: Programme announcements. 8.0: Clock and chimes. 8.1: Overture, selections from "Faust." 8.10: Orchestral and vocal music. 10.30: Close down.

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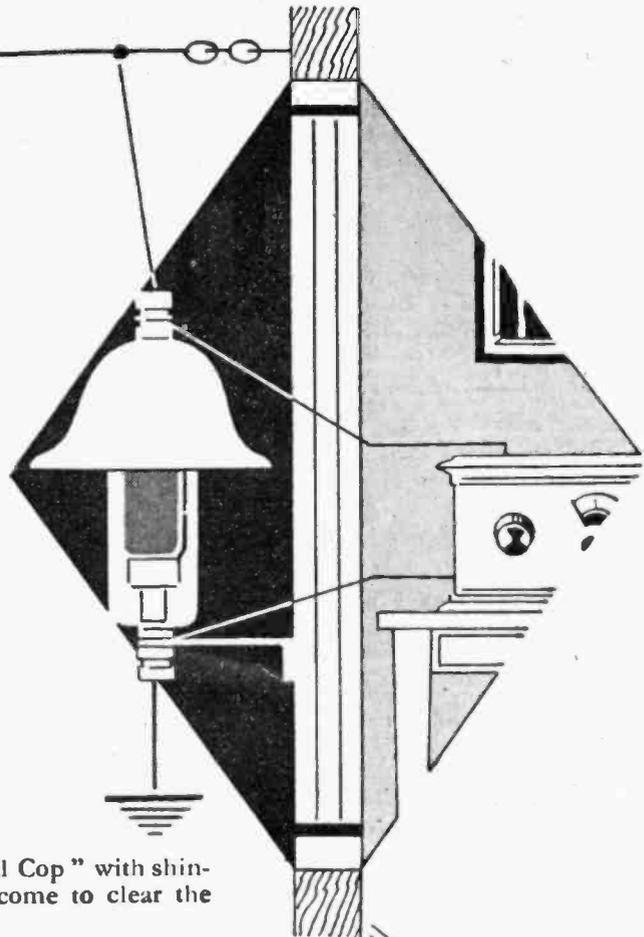
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THERE IS only one Valve that can replace a Philips—Another Philips

Interstate Programmes, Saturday, September 28

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: See Friday.

MORNING SESSION.

During the day progress reports of Warrnambool to Melbourne road race will be given by 3LO's special representative. 10.30: Current happenings in sport, by Eric Welch. 10.45: Melody broadcast. 12.0: Melbourne Observatory time signal. 12.1: Melody broadcast. 12.15: The Sun News-Pictorial news service. British official wireless news service. Corn Exchange midday report. Newmarket stock sales—Associated Stock and Station Agents' official report. 12.30: Close down.

MIDDAY SESSION.

1.0: Melbourne Observatory time signal. 1.1: Stock Exchange information. Meteorological data. Weather forecast for Victoria, New South Wales, South Australia, and Tasmania. Ocean forecasts. River reports. Rainfall. 1.15: Comments on the day's news. 1.30: Musical interlude.

AFTERNOON SESSION.

During the afternoon the finishes of the Colac to Melbourne and Warrnambool to Melbourne road races will be described. 2.0: Melbourne Observatory time signal. Description of Pascoe Hurdle Race, 2 miles, Moonee Valley races, by Eric Welch. 2.5: The A.B.C. Troubadours—"Happy Days and Lonely Nights" (Fisher). "If You Want the Rainbow" (Rose). 2.11: Russell Callow, tenor—three popular songs, "Weary River," "Coquette," "Louise." 2.21: The A.B.C. Troubadours—"Louisiana Bo Bo" (Nixon). "What D'Ya Say?" (Brown). 2.28: Description of Merrie Trial Handicap, one mile, Moonee Valley races, by Eric Welch. 2.35: The A.B.C. Troubadours—"The Things That Are Made for Love" (Tobias). "My Mother's Eyes" (Bayer). 2.40: Description of football match. 2.57: Description of Arundle Steeplechase, 2 miles 8 chains, Moonee Valley races, by Eric Welch. 3.5: Sporting results to hand. 3.7: Description of football match. 3.10: Quarter-time scores. 3.12: Description of football match. 3.27: Description of Tullamarine Handicap, 1 mile 3/4 furlongs, Moonee Valley races, by Eric Welch. 3.35: Half-time scores. 4.5: Musical interlude, from the studio. 4.0: Melbourne Observatory time signal. Sporting results to hand. 4.7: Description of Quality Handicap, seven furlongs, Moonee Valley races, by Eric Welch. 4.15: Description of football match. 4.25: Three-quarter time scores. 4.28: Description of football match. 4.47: Description of Alisa Handicap, six furlongs, Moonee Valley races, by Eric Welch. 4.55: Description of football match. 5.30: Final scores and resume of sporting results.

THE CHILDREN'S CORNER.

5.45: "Little Miss Kookaburra" has a tale for her little Kookaburrites about Bobo, the Kangaroo. 6.0: Musical interlude. 6.5: Birthday greetings by "Little Miss Kookaburra." 6.20: Carpentry, Mr. Alex. Smith.

EVENING SESSION.

6.40: Sporting results. 6.55: Musical interlude. 7.0: Melbourne Observatory time signal. 7.1: Countryman's session—Stock Exchange report. Associated Stock and Station Agents' official report. Wool Exchange report. Mines and metals. Fish and rabbit prices. Farm and dairy produce report, supplied by the Inter-State Dairy Produce Committee. Wholesale fruit prices, supplied by the Wholesale Fruit Merchants' Association. Retail fruit prices, supplied by the Wholesale Fruit-growers' Association. Citrus fruit prices, supplied by the Victorian Central Citrus Association. Weather synopsis. River reports. Rainfall data. 7.26: Stories of our mining fields—Mount Lyell, Dr. Loftus Hills, D.Sc. 7.40: The Herald news service. 7.45: Come With Us Round the World—(8) Episodes of Life in Borneo, Mr. E. J. G. Esmond.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—Overture, "William Tell" (Rossini). 8.10: Norman Bradshaw, tenor—"Spirito Gentil," from "La Favorita" (Donizetti). "Chanson de Florian" (Godard). A Violin Recital. 8.17: Pietro Sarcoli, violin—"Dream" (Vieuxtemps), "Waltz" (Brahms-Hochstein), "Indian Lament" (Kreier), "Liebesfreud" (Kreier). 8.32: Lilliane Gay, soprano—"The Bitterness of Love" (Dunn), "Elegie" (Masseuet). 8.40: National Broadcasting Orchestra—Oriental Fantasy, "In a Chinese Temple Garden" (Ketyby). 8.45: A special programme has been arranged. 9.30: National Broadcasting Orchestra—selection from "Ma Mlle Rotta" (Sascone). 9.40: Norman Bradshaw, tenor—"I Attempt From Love's Sickness to Fly" (Purcell), "Have You Seen But a White Lily Grow?" (Old English). 9.47: A.B.C. String Quartette—"Serenade" (Haydn-Pochno). 9.52: Lilliane Gay, soprano—"To the Forest" (Tschalkowsky). Selected. Modern Music. 10.0: The Hilo Duo—Hawaiian instrumentalists. 10.10: National Broadcasting Orchestra—Selection, "No, No, Nanette" (Youmans). News Session. 10.20: Meteorological information. British official wireless news. Items of interest. Dance Music. 10.30: "A.B.C. Troubadours." 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION

8.15: Morning music. 8.45: Weather data. 9.0: G.P.O. chimes. 9.1: Sun News-Pictorial news service. 9.5: Reproduced music. 10.0: G.P.O. chimes. 10.1: British official wireless news. 10.10: Announcements. 10.30: Arnold Coleman at the Wurlitzer. 10.50: A Message for the Day. 11.0: Close down.

MIDDAY SESSION

12.0: G.P.O. chimes. 12.1: Recital of syncopated music. 12.30: Luncheon music, supplied by the Studio Light Orchestra. 2.0: G.P.O. chimes. 2.1: The Story of Hiawatha—Rev. W. Bottomley. 2.15: Musical interlude. 2.20: Rubber and the Jungle—Mr. A. A. Downs. 2.35: Musical interlude. 2.40: Personal Adventures While Exploring—Lieut-Col Eiderd Pottinger, D.S.O., F.R.G.S. 2.55: Musical interlude. 3.0: G.P.O. chimes.

THE RADIO MATINEE

2.1: A.B.C. Troubadours—"Third Rail" (Vern de Mars); "My Inspiration Is You" (Nichols); "Two Weeks' Notice" (Seaman). 3.10: Claude Carter, monologues—"I Lift up My Finger, and I Say Tweet, Tweet"; "And Yet I Don't Know." 3.17: P. McGarthy, banjo—selections. 3.22: Elise Stewart and Victor Brooks, entertainers at the piano—"You Were Meant For Me"; "Roses of Yesterday"; "M Yes, M No." 3.30: A.B.C. Troubadours—"Paradise for You" (Packard); "Old Fashioned Hocking" (Marvin); "Rocky Road" (Gibbs). 3.40: The Singing Serenader—latest popular hits. 3.47: A. Urquhart, violin; E. Rochlin, flute; Bob Brookshaw, pianist—selected. 3.52: Claude Carter, monologues—"That's What Put the Sweet in Home, Sweet Home"; "The Sun Is My Window." 4.0: A.B.C. Troubadours—"I'm Bringing a Red, Red Rose" (Donaldson); "No Parking" (Rath); "By the Fireside" (Phillips). 4.10: Elise Stewart and Victor Brooks entertainers at the piano—"Until You Get Somebody Else"; request numbers. 4.18: E. Bennett and L.-J. Elie; marimba and guitar—selected. 4.21: Syd. Hollister will entertain. 4.35: A.B.C. Troubadours—"Sweethearts on Parade" (Lombardo); "Love Dreams" (Mendoza); "Susie's Sister" (Sarony). 4.45: Jack Hocking, the Singing Serenader—Latest Popular Songs. A.B.C. Troubadours—"Here Comes the Show Boat" (Rose); "Weary River" (Clarke); "It Wasn't Meant to Be" (Endor). 5.0: G.P.O. chimes. 5.1: Melody broadcast. 5.30: Weather data. 5.35: Melody broadcast. 5.45: Close down.

EVENING SESSION

6.15: Dinner music, supplied by the Studio Light Orchestra. 7.30: "What's On the Air To-night?" 7.32: Sporting results. 7.40: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION

8.1: A special programme has been arranged. 10.20: Weather information and Herald news. 10.30: Rex Dance Band. 11.0: God Save the King.

3DB

The "Herald" Broadcasting Station, Flinders Street, Melbourne (255 Metres).

AFTERNOON SESSION

2.0: Band of H.M. Grenadier Guards—"Old Panama March." 2.30: Foster Richardson (bass)—"Shipmates of Mine." 3.0: Yvonne Gurr (violin)—"Madrigals" (Simonette). 3.30: Savoy Orpheans—"Lido Lady" (Rodgers). 3.0: Flotsam and Jetsam—"When I Grow Old" (Flotsam and Jetsam). 4.30: Band of H.M. Coldstream Guards—"Musical Switch" (Alford). 5.0: Norman Long (piano)—"1929 Overture." 5.30: Close down.

EARLY EVENING SESSION

6.0: Drury Lane Theatre Orchestra—"Show Boat." 6.30: Sporting results. 6.45: Nat Shilkret and his orchestra—"A Night of Memories." 7.0: Mme. Clara Serena (contralto)—"Ships That Pass." 7.30: Una Bourne (piano)—"Nocturne" (Bourne).

EVENING SESSION

8.0: Ben Selvin and his orchestra—"He, She, and Me." 8.30: Fanny Brice (comedienne)—"I'd Rather Be Blue." 9.0: J. H. Sharwood's Sponsored Session—Joe Watson and his band, transmitted from the Green Mill. 10.0: Dora Labette (soprano)—"Rose Softly Blooming" (Spock). 10.30: Jack Hylton and his band—"Melodious Memories" (Finch). 10.40: News. 10.45: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

EARLY MORNING SESSION

7.43 to 8.30: See Friday.

AFTERNOON SESSION

3.0: Records. 3.30: Mail train running times. 3.31: Records. 4.15: News. 4.30: Close down.

EARLY EVENING SESSION

6.16: Bi-weekly news service for distant listeners. 6.30: Bedtime stories, conducted by "Uncle Ben." 7.0: To-day's race results in detail. 7.30: General sporting notes. 7.30: Sailing notes by Mr. Fred Smith.

NIGHT SESSION

8.0: The Studio Orchestra—Selection—"Katinka" (Finck). 8.12: Monument and Harrow—Another Argument. 8.22: Dorothy Sanders—"Deep in My Heart" (Romberg). 8.27: The Studio Orchestra. Ten minutes' dance music. 8.37: Berlice Berg—Popular numbers.

8.45: Foster and Dawson, entertainers. 9.0: Metropolitan weather forecast. 9.1: The Studio Orchestra—Idyll, "A Path of Romance" (Frommel). 9.5: Dorothy Sanders (soprano)—"Yo Te Amore"—(meanly I Love You—Whiting). 10.10: Harry Humphreys, a game sketch—"Mrs. Odson has a friendly chat with her Neighbor, Mrs. Ackett." 9.30: The Studio Orchestra—Half an hour's dance music. SPEEDWAY.

During the evening the two semi-finals and the final of the main trophy motor cycle race will be described from the Davies Park Speedway. The actual times will depend upon the hours at which these events are staged. 10.0: News supplied by the "Sunday Mail" weather information: close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

AFTERNOON SESSION

During the afternoon progress descriptions of the East-West Air Race will be given. 12.0: Chimes. 12.1: Special late selections for Moonee Valley. 12.3: Probable starters and selections for races at Morphettville. 12.15: General news service. 12.45: Recordings. 1.15: Morphettville—riders and positions for Tally-ho Hurdle Race. 1.30: Morphettville—running description of Tally-ho Hurdle Race by Mr. Arnold Treloar. 1.55: Morphettville—riders and positions for Reynella Welter. 2.0: Resume of Moonee Valley Race results. 2.10: Morphettville—description of Reynella Welter. 2.35: Morphettville—riders and positions for Hunt Club Cup. 2.40: Moonee Valley race result. 2.50: Morphettville—description of Hunt Club Cup. 2.55: Description of football by "Mo" Manning. 3.0: Moonee Valley race result. 3.1: League football. 3.15: Morphettville—riders and positions for President's Handicap. 3.20: Football. 3.30: Morphettville—description of President's Handicap. 3.35: Football. 3.55: Morphettville—riders and positions for Crawford Bracelet by Mr. Arnold Treloar. 4.15: Football. 4.35: Morphettville—riders and positions for Kennels Handicap. 4.40: Football. 4.50: Morphettville—description of Kennels Handicap. 4.55: Football. 5.0: Moonee Valley race result. 5.1: Football. 5.5: Division of Kennels Handicap; resume of Moonee Valley race results; final football scores; result of East-West Air Race. 5.10: Close down.

EVENING SESSION

6.0: Chimes. 6.1: Resume of race results. 6.2: Children's Happy Moments. 6.30: Dinner session. 7.0: G.P.O. chimes. 7.1: Senior Birthday League greetings: Stock Exchange. 7.10: Rev. G. E. Hale, B.A., on "How Psychology Helps." 7.25: Mr. C. G. Ely, on "Items of Interest." 7.40: SGL sporting service, including Morphettville and Moonee Valley race results, country sporting, Soccer scores, hockey, cycling, lacrosse, and other sporting results; result of country football, carnival, result of East-West Air Race.

NIGHT SESSION

8.0: Chimes. 8.10: Salvation Army Band—Grand March, "Departed Heroes." 8.20: Gordon Hele, bass—"Captain Mac" (Sanderson). "A Banjo Song" (Homer). 8.27: Luigi Patrucco, harmonica—selected. 8.34: Phyllis Gibbs, mezzo-soprano—"La Serenata" (Braga), with violin obligato by Helene Fisher. "Fair as a Flower" (Herman Lohr). 8.41: Salvation Army Band—Grand selection, "My Fortress." 8.51: Helene Fisher, violinist—three pieces by Horace Perkins. 8.58: Gordon Hele, bass—"When the Sergeant-Major's on Parade" (Longstaff). 9.2: Salvation Army Band—march, "The Conqueror." 9.7: Phyllis Gibbs, mezzo-soprano—"Ave Maria" (Gounod-Bach), violin obligato by Helene Fisher. 9.13: Luigi Patrucco, harmonica—selected. 9.15: Salvation Army Band—selection, "West Indian Melodies." 9.25: Helene Fisher, violinist—"Cavatina" (Raff). 9.35: Gordon Hele, bass—"Youth" (Allitsen). 9.38: Salvation Army Band—quickstep, "Fire Away." 9.43: Luigi Patrucco, harmonica. 9.48: Phyllis Gibbs, mezzo-soprano—"I Love You Truly" (Carey Jacobs-Burd). 9.52: Salvation Army Band—selection "Eventide." 9.58: Helene Fisher, violinist—"Ballet Music" (Schubert-Kreisler). 10.5: Salvation Army Band—march, "Commonwealth." 10.15: SCL's Sporting Service, including Morphettville and Moonee Valley race results; country sporting; Soccer notes; hockey, cycling, lacrosse, and other sporting results; results of East-West Air Race. 10.29: Our Good-night Thought. 11.0: Chimes. Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION—7.30: Town Hall chimes; meteorological report; the day's maximum and minimum (reproduced). 7.55: Mails and shipping intelligence. 8.0: What's on to-day? 8.5: Early rising music (reproduced). 8.22: World-wide cables from A.P.A. 8.27: Features of to-day's programme. 8.30: Close down.

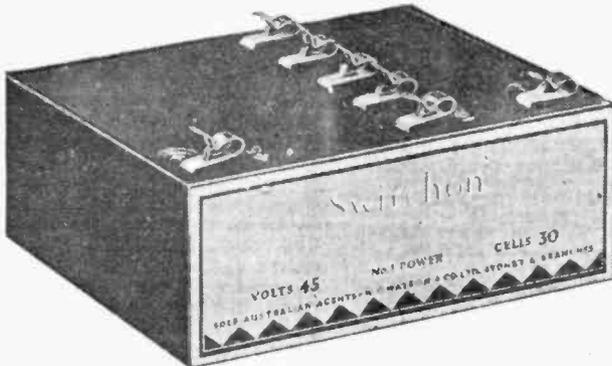
(Continued on Page 50.)

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Local Programmes, Sun., Sept. 29

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

THE CHURCH HOUR—10 a.m. to 12.30 p.m.

- 10.0: Announcements
10.5: Studio music
10.30: This morning's news from the "Sunday Sun," "Sunday Times," and "Truth"
10.35: British Official Wireless Press.
10.45: Musical items.
11.0: From the Newtown Methodist Mission: Morning Service, conducted by Rev. A. E. Walker—
Hymn 668 (Methodist Book).
Prayer.
Duet, Rev. A. E. Walker and Mrs. Mills Robson—
"I Love to Tell the Story" (Fischer).
Hymn 763.
Psalm 146.
Chorus—M.G. Comrades—"Praise Him with Melody" (Lowden).
Children's address.
Solo, Mrs. Mills Robson—
"Whatever Is Is Best" (Lohr).
Scripture—John 17.
Announcements and Offering.
Anthem, "Seek Ye the Lord" (Roberts).
Hymn 624.
Address, Rev. A. E. Walker—
Text, II. Kings, 5: 17.—"I Pray Thee be Given to Thy Servant. Two Mules' Load of Earth."
Hymn 479.
Benediction.
12.15: Music.
12.30: Close.

AFTERNOON CONCERT—3.0 to 4.30.

3.0: From the Manly Band Rotunda, Manly—The Manly Municipal Band, conducted by J. Pheloung.
4.30: Close.

EVENING PROGRAMME—6.0 to 10.30.

- 6.0: Maynard Wilkinson, Organ Solos—
(a) "Nocturne in E Flat" (Chopin).
(b) "Cloche du Sol" (Chauvet).
6.10: Linda Hartge, contralto.
6.17: Maynard Wilkinson, Organ Solos—
Selection of well-known melodies.
6.23: Linda Hartge, contralto.
6.30: Maynard Wilkinson, Organ Solos—
(a) Prelude, "Lohengrin" (Wagner).
(b) "Serenata" (Mosskowsk).
6.40: An Address by Admiral Evans.
7.0: Celebrity Recital of Grand Opera—"Carmen," arranged by Madame Evelyn Grieg.
8.0: Will Prior's Musical Ensemble, with Price Dunlavy at the Grand Organ.
10.0: Meditation music.
10.30: Close.
National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

MIDDAY SESSION—10.55 to 3 p.m.

- 10.55: Announcements.
11.0: From St. Mark's Church of England, Darling Point; morning service, conducted by Rev. Canon E. Howard Lea.
12.15: From the Studio—Musical items.
12.30: News from the "Sunday Sun," "Sunday Times," and "Truth."
12.38: A specially arranged programme of instrumental music.
2.15: "Cheer-Up" session, conducted by Uncle Frank.
2.30: Austradio musical reproduction.
3.0: Close.

LATE AFTERNOON—4.30 to 6 p.m.

- 4.30: From the Prince Edward Theatre—Eddie Horton at the Grand Organ.
4.50: From the Studio—
Gwladys Fimister, soprano:
(a) "Rose Softly Blooming" (Spohr).
(b) "O Fair and Sweet and Holy" (Rubinstein).
4.57: From the Prince Edward Theatre—Eddie Horton at the Grand Organ.
From the Studio.
5.17: Peter Sutherland, basso—
(a) "Hame" (Davies).
(b) "In Summer Time on Bredon" (Peel).

- 5.24: From the Prince Edward Theatre—Eddie Horton at the Grand Organ.
5.44: From the Studio—
Gwladys Fimister, soprano:
(a) "The Almond Tree" (Schumann).
(b) "Thou'rt Like a Lovely Flower" (Schumann).
5.51: Peter Sutherland, basso—
(a) "I Heard You Singing" (Coates).
(b) "Uncle Rome" (Homer).
(c) "The Cloths of Heaven" (Dunhill).

EVENING SESSION—6 p.m. to 10 p.m.

- 6.0: For children in hospital, conducted by Uncle Steve and Aunt Goodie.
6.40: A Celebrity organ recital.
7.0: From St. Stephen's Church, evening service conducted by Rev. Hugh Paton; organist, Mr. Harry Chandler, M.A.
Doxology.
Invocation.
Hymn 308.
Lesson, Psalm 51.
Prayer.
Hymn 168.
Lesson, Romans 7.
Anthem.
Prayer.
Hymn 170.
Sermon, "A Divided Personality."
Prayer.
Hymn 191.
Benediction.
8.30: From 3LO, Melbourne, relay.
Stan. Porter and his Orchestra.
Bob M'Questen's Band.
10.0: Close; "National Anthem."

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 9.0: Address by Miss Mary Rivett, "Concerning Ideals." 9.30: Address by Mr. Victor E. Cromer, "Prophecy and the Kingdom of God" 10.0: Music from Studio. 10.15: Organ music from St. Alban's Church, Regent Street, Sydney. 10.30: Morning service from St. Alban's Church. 12 noon: Music. 10.30: Close down. 3.0: Music. 5.15: Children's session, by Uncle George. 7.0: Lecture from St. Alban's Church. 7.35: Lecture from Adyar House. 8.15: Concert (Miss Ruth Pearce Jones, pianiste. 8.23: Miss Florence Gordon, contralto. 8.30: Mr. Cecil Chaseling, baritone. 8.37: Mr. Gregory Valentine, violinist. 8.45: Miss Elsie Peerless, soprano. 8.52: Miss Ruth Pearce Jones, pianiste 9.0: Weather report. 9.1: Miss Florence Gordon, contralto. 9.8: Mr. Gregory Valentine, violinist. 9.16: Mr. Cecil Chaseling, baritone. 9.23: Miss Elsie Peerless, soprano. 9.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

- 10.30 a.m.: Music and request numbers. 1 p.m.: Close down. 5.30 p.m.: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: Musical programme. 10.30: Close down.

2UE

Broadcasting Station 2UE, Everoff Street, Maroubra, Sydney (Wavelength, 293 Metres).

- MIDDAY SESSION—10 a.m.: Mass, from St. Michael's Church, Daceyville. 11.30: Orchestral and vocal items from Radio House. 12.30: Announcements. 1.0: Close down.

- EVENING SESSION—6 p.m.: Music. 6.6: Session arranged by Rev. Father T. Walsh, S.J. 6.30: Announcements. 6.31: Music. 6.35: "Question Box" Talks, by Dr. L. Rumble, M.S.C. 7.30: Announcements. 7.33: Evening Devotions, from St. Michael's Church, Daceyville. 8.15: Music. 8.20: Overture, "Il Trovatore" selections. 8.30: Orchestral and vocal concert. 10.15: National Anthem.



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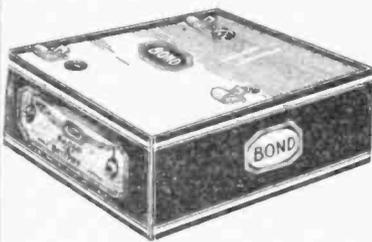
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Interstate Programmes, Sun., Sept. 29

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3LO
Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).
MORNING SESSION
10.0: Melbourne Observatory time signal. 10.1: A special programme of reproduced music. 10.40: British Official Wireless news; items of interest. 10.44: Express train information. 10.45: Bells of St. Paul's Cathedral. 11.0: Morning service from Rev. W. Collins Street, Melbourne (preacher, Rev. S. Borland, D.D.; subject, "The Scope of Love," I. John. 4, 7, and 8. 12.30: Close down.
AFTERNOON SESSION
3.0: Pleasant Sunday afternoon, from Wesley Church, Central Mission, Lonsdale Street, Melbourne (speaker, Hon. S. Mauger; subject, "Our Economic Morality").
THE CHILDREN'S CORNER
6.0: "Brother Bill's" talk this week is about "Cricket—in More Senses Than One." 6.15: Birthday greetings, by Billy Bunny. 6.30: "The Mouth Organ Man" will play some well-known hymns, and we will have a Sunday evening session of community singing for the children. 8.50: "Billy Bunny" will entertain.
EVENING SESSION
7.0: The Dorian Trio. "Minuetto in E Flat" (Mozart). "Andante" (Gluck). "Bourée" (Bach). 7.10: Joseph Foster, baritone. "On Wings of Song" (Mendelssohn). "Lullaby" (Brahms). 7.17: Victor Stephenson, piano, and Helen Hamerton, violin. "Sonata for Piano and Violin, G Major" (Mozart). 7.30: J. Howlett Ross will recite "Judas Iscariot," by Robert Buchanan. 7.45: Joseph Foster, baritone. "Afterday" (Cyril Scott). "The Devout Lover" (White), with violin obbligato by Helen Hamerton. 7.52: The Dorian Trio. "Spanish Dance" (Moszkowsky). "Bacchante" (Fesca). "Vivace" (Goddard).
NIGHT SESSION
SUNDAY NIGHT ENSEMBLE
Stan Porter and His Orchestra; Bob McQuesten and His Band; and company of vocal and instrumental artists.

3AR
Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 481 Metres).
MORNING SESSION
11.0: G.P.O. Chimes. 11.1: Divine service from the Welsh Church, Latrobe Street, Melbourne.
MIDDAY SESSION
12.30: A studio programme of specially selected reproduced music. 2.0: Frank Lanterman at the Wurlitzer. 3.0: Close down.
AFTERNOON SESSION
4.30: Quartette, B Flat Major, Op. 130 (Beethoven). Lener String Quartette. 4.50: "Ideale" (Tosti). Stracciali. 4.55: Piano recital. Backhaus. 5.15: The Week's Good Cause Conditions in the Northern Malles, hon. W. H. Edgar, M.L.C. 5.30: Unfinished Symphony (Schubert). Sir Henry Wood and the New Queen's Hall Orchestra. 5.54: "Serenade." "Evening Bells." Don Cossack Choir. 6.2: "The Thistle" (selection of Scottish melodies). Grenadier Guards Band. 8.10: "Song of John." "Hymn to the Sun." M. Murenko, soprano. 6.18: "Lovers' Lane Minuet." Plaza Theatre Orchestra. 6.30: A specially selected programme of request numbers. 6.45: What's on the Air To-night? 6.47: St. Paul's Cathedral Bells.
EVENING SESSION
7.0: Divine service from St. Paul's Cathedral—Sermon. Rev. T. M. Robinson, Chaplains, Trinity College. Anthem. "Let the Bright Seraphim."
NIGHT SESSION
8.30: "Rossignol" String Quartette—Quartette No. 4. "1st Movement." "Allegro" (Beethoven). 8.42: Rita Coonan, soprano—"Ave Maria" (Schubert). "Moonlight" (Schumann). 8.49: Ziserman, cello—(a) "Suite in D" (Cox de Herveyols). "Prelude." "Allegro." "Menuet." "Plainte." "La Neapolitaine." (b) "Elegie" (Popper). (c) "Menuet" (Debussy). 9.2: Colin Thomson, tenor—"Comfort Ye," "Every Valley" (from the "Messiah") (Handel). 9.9: The Melbourne Verse Speaking Choir, under the conductorship of E. O'Keefe—Ballad Poetry: I. Corinthians. 13: Psalm 23. Psalm 138. Psalm 24. 9.19: F. Stempinsky, violin—Second Movement (from the 2nd Concerto (Wienlawsky); Menuet in D (Mozart). 9.26: Rita Coonan, soprano—Old English (arranged by Wilson): "My Lovely Celia." "Oh, Willows." "A Pastoral." 9.33: The Melbourne Verse Speaking Choir—Old Ballads: "Lyke Wake Dirge." "Lord Randall." Modern arrangements of old ballad themes: "The Fairies" (Allingham). "The Raggle-taggle Gipsies." 9.43: Colin Thomson, tenor. "Onaway Awake, Beloved" (Coleridge Taylor). "Music When Soft Voices Die" (Bresley). 9.50: "Rossignol" String Quartette. "Andante" from Quartette No. 4 (Mendelssohn). "Valse" from the Novletten (Glazounov). 9.58: Weather Information. 10.0: God Save the King.

3DB
The "Herald" Broadcasting Station, Flinders Street, Melbourne (355 Metres).
AFTERNOON SESSION
3.0: Philadelphia Symphony Orchestra—"Khowantchina," Entr'acte, Act 4 (Moussorgsky). 3.30: Florence Austral—"The Night Is Calm" (Sullivan). 4.0:

Wilhelm Backhaus (piano)—"Military March" (Schubert). 4.30: Close down.
EVENING SESSION

6.30: Requests.
8.0: The Astor Radio Concert—Eddie Fitch and the Wurlitzer, transmitted from the Regent Theatre 10.0: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

MORNING SESSION

11.0: The complete service will be relayed from St. Andrew's Presbyterian Church, Brisbane. 12.15 (approx.): Close down.

AFTERNOON SESSION

3.0: A special choral service will be relayed from the Wesley Methodist Church, Kangaroo Point. From the Wesley Church—cantata, "The Centurion's Servant" (E. R. B. Jordan); soloists, Messrs. F. G. Stahmer and J. Hobbs; Mrs. Morris Crane (violinist); selected: chorus, "Hear My Prayer," soloist Mrs. Rankin; vocal duet, Miss Hilda Hobbs and Mr. Bryth Evans; selected: Chorus, by the Children's Choir. Miss Jean Rigby (contralto). "It Is His Will" (Liddle); Mr. J. F. Wallis, L.A.B. (organist); selected: choruses, unfiled choir, "Go Down, Moses" (arr. E. R. B. Jordan), "Gloria" (Mozart); conductors, E. C. Montgomery and E. R. B. Jordan; organist, J. Wallis. L.A.B. 4.30: Close down.

EARLY EVENING SESSION

6.0: Greeting to little listeners.

NIGHT SESSION

7.0: The complete evening service will be relayed from the City Baptist Church. This sermon will be preached by the Rev. J. E. Newnham, of Melbourne, who will be a visitor to the Baptist General Assembly. At the conclusion of the church service the concert by the Brisbane Municipal Concert Band will be relayed from Wickham Park. 9.30: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 435 Metres)

MORNING SESSION. 10.40: Sporting resume. 10.50: Sunday news service. 11.0: Church service, St. George's Cathedral. 12.30: Reproduced music. 1.0: Close down.

AFTERNOON SESSION.—3.0: Reproduced music. 4.0: Magic Carpet Series—Dr. Basil Kirke. 4.15: Reproduced music. 5.0: Close down.

EVENING SESSION.—6.30: Children's session. 7.10: Temperance talk to Younger Set, by Mr. Dent. 7.25: Orchestral music (reproduced). 7.30: Church service, St. Andrew's Church. 8.45: Musicale arranged by Bert Howell, broadcast from the Ambassadors Theatre. 10.30: Close.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elphinstone Street, Hobart (Wavelength, 516 Metres).

10.45 a.m.: Bells from Trinity Church, Hobart. 11.0: Morning service. 12.15: St. John's Cathedral, Hobart. 12.15: Close down. 3.30: A concert, arranged by the Pleasant Sunday Afternoon Association. 4.30: Close down. 6.15: Children's chorus singing, conductor, Trevor M. Morris. 6.45: Bertha Southey Brammall will read a poem to the war folk: "Today or To-morrow." 7.0: Evening service, from Chalmers Presbyterian Church. 8.25: From the studio: A programme of sacred and classical music, arranged by James Counsel. 9.45: News session. 9.50: Close down.

6WF

(Continued from Page 34.)

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 435 Metres)

Friday, September 27

MIDDAY SESSION.—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: Midday news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Town Hall chimes. 1.1: Luncheon music by the National Broadcasting Orchestra. 2.0: Close down.

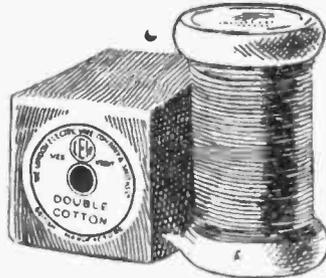
THE RADIO MATINEE.—3.0: Town Hall chimes. 3.1: Reproduced music. 3.45: Talk of Interest to Women. "Country Women's Organisation." 4.0: Town Hall chimes. 4.1: Reproduced music. 4.15: The story of the day. 4.30: Reproduced music. 4.55: Features of this evening's presentation. 5.0: Close down.

EARLY EVENING SESSION.—5.45: Children's "Good-night" Stories by Uncle Bas and Aunt Maxine. 6.15: A.B.C. Younger Set session—"Things Strange But True." 6.30: Dinner music by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: "Sun"-Herald" worldwide cables. 7.35: Special A.B.C. market reports. 7.42: Review of to-morrow's sporting fixtures. 7.57: Features of this evening's presentation.

EVENING SESSION.—8.0: Overture. 8.5: Waikiki Duo. 8.12: A.B.C. Racing Observations. 8.27: Waikiki Duo. 8.34: Garden Hints, by James Conarty. 8.54: Waikiki Duo. 9.1: Weather report. 9.2: Popular music. 9.15: Ringside description of boxing contest, broadcast from Perth Stadium, by Basil Kirke. 10.0: Temple Court Dance Band, conducted by Merv. Lyons. 11.0: Close down. "God Save the King."

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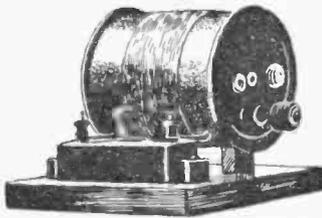
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Local Programmes, Monday, September 30

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: Close.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
- 10.32: A.B.C. Racing Observer.
- 10.45: Horace Weber at the Grand Organ.
- 11.0: Household Helps—Cooking by Miss Ruth Furst.
- 11.10: Cables (copyright), A.P.A. and "Sun-Herald" news service.
- 11.15: Morning devotion.
- 11.30: Austradio musical reproduction.
- 11.53: British official wireless news.
- 12.0: "Big Ben;" Stock Exchange, and metal quotations.
- 12.5: V. C. Bell will speak from "The Public Forum."
- 12.20: Midday weather forecast and weather synopsis.
- 12.30: Close.

THE LUNCH HOUR—1 p.m. to 2.30 p.m.

- 1.0: Lunch to music with the National Broadcasting Orchestra.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: Popular Education—W. S. Bray will speak on "Literary Personalities."
- 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- 2.30: The 2FC Instrumental Trio.
- 2.40: Stanley Clarkson, basso—
 - (a) "Hear Me, Ye Winds and Waves" (Handel).
 - (b) "The Monkey's Carol" (Stanford)
- 2.47: Rhys Kemmis, violinist—
 - (a) "Minuet" (Harrhy).
 - (b) "From the Canebrake" (Gardiner).
- 2.54: The 2FC Instrumental Trio.
- 3.0: Educational session under the auspices of the New South Wales Department of Public Instruction—
 - Mr. R. G. Henderson, Examiner in English, will speak on "How to Tell a Story," embodying Kipling's "A Matter of Fact."
 - 3.15: Mr. F. Trehearne, Superintendent of Music, will speak on "Handel."
 - 3.30: The 2FC Instrumental Trio.

Geelong Community Singing

THE Community Singers of Geelong will be giving one of their excellent programmes on September 27, which will be transmitted through 3AR. The community vocalists of Geelong are most enthusiastic, and claim not only to have paved the way for this most popular form of entertainment, but in a great many instances to lead the way where novelty numbers and "catch" songs are concerned. Special artists have been engaged. W. Sampson, the popular Geelong musician, will conduct, and listeners may anticipate a most entertaining and musical time.

- 3.45: Stanley Clarkson, basso—
 - (a) "Blow, Blow, thou Winter Wind" (Sarfient).
 - (b) "The Pipes of Pan" (Elgar).
- 3.52: Rhys Kemmis, violinist—
 - (a) "Guitare" (Lalo).
 - (b) "Poem" (Fibich).
- 4.0: An Afternoon Story.
- 4.15: The 2FC Instrumental Trio.
- 4.28: Stock Exchange, third call.
- 4.30: Close.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Kiddies' "Goodnight" Stories, told by the "Hello Man," assisted by Aunt Elly.
- 6.45: The National Broadcasting Orchestra
- 7.30: A.B.C. Sporting Service.
- 7.37: Special Country Session; Stock Exchange resume; markets; weather forecast; late news service from the "Sun" and "News."
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- Our classical programme to-night features Alexander Sverjensky, playing with the Orchestra Mendelssohn's "Capriccio Brillante." Listeners who would prefer entertainment on different lines will turn to 2BL for the description of the wrestling contest at the Stadium.
- 8.0: The National Broadcasting Orchestra.
 - 8.7: From the Sydney Town Hall, on the occasion of the 52nd annual gathering of the Royal Shipwreck Relief and Humane Society of New South Wales—
 - Glee, "I Was Tossed by the Winds" (Dr. Joseph Parry).
 - The Welsh Choral Society.
 - Song, "Nightingale in June" (Sanderson).
 - Helena Stewart.
 - 8.22: From the Studio—
 - Alexander Sverjensky with the Orchestra, playing "Capriccio Brillante" (Mendelssohn).
 - 8.37: Peggy Dunbar, contralto.
 - 8.44: The National Broadcasting Orchestra
 - 8.52: From the Sydney Town Hall, on the occasion of the 52nd annual gathering of the Royal Shipwreck Relief and Humane Society of New South Wales—
 - Selection, "Works of Liszt" (arr. Rimmer).
 - N.S.W. Fire Brigade Band.
 - 9.2: From the Studio, the Country Man's weather session—
 - (a) "New South Wales Forecasts."
 - (b) "Inter-State Weather Synopsis."
 - 9.4: Alexander Sverjensky, pianist—
 - (a) "Pastorale" (Scarletti).
 - (b) "Why" (Schumann).
 - (c) "Soaring" (Schumann).
 - 9.15: From the Sydney Town Hall—
 - Chorus, "Advance, Australia Fair" (Amicus).
 - The Welsh Choral Society.
 - 9.22: From the Studio—
 - The National Broadcasting Orchestra.
 - 9.47: Peggy Dunbar, contralto.
 - 10.0: C. N. Baeyertz will speak on "Kenneth Graham, Secretary of the Bank of England."
 - 10.15: Announcements; late official weather forecast.
 - 10.20: From the ballroom of the Oriental—
 - Sydney Simpson's Syncopaters in dance music.
 - 11.30: Close. "National Anthem."

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. Chimes; music for every mood.
- 8.45: Meteorological data for the country.
- 8.50: Austradio musical reproduction.
- 9.30: British official wireless news.
- 9.35: New music.
- 10.5: News from the "Sydney Morning Herald."
- 10.10: The Australian Broadcasting Company's Women's Association, conducted by Miss Gwen Varley.
- 10.30: Austradio musical reproduction
- 10.40: A Morning Story.
- 11.0: G.P.O. chimes; close.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes; announcements.
- 12.2: The National Broadcasting Orchestra
- 1.0: Afternoon news from "Sun" and "News."
- 1.5: Studio music.
- 1.15: Women's Interest Talk—Dr. Sandford-Morgan will speak on "Hygiene of the Home, Part 2."
- 1.30: Austradio musical reproduction.
- 2.0: J. Knight Barnett at the Wurlitzer.
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business Efficiency Talk, as part of the Romance of the Wool Industry. Sir William Vicars, Woolen Manufacturers.
- 2.45: The "Magic Carpet" series, C. Price Conigrave, "Dampier on the North-west Coast."
- 3.0: From the ballroom of the Oriental—
 - Sydney Simpson's Syncopaters in dance music.
- 3.12: From the Studio—
 - Margaret Grimshaw, popular vocalist—
 - (a) "Love Lit Hollow."
 - (b) "There Are Eyes."
 - (c) "Louise."
- 3.19: Studio music.
- 3.22: From the ballroom of the Oriental—
 - Sydney Simpson's Syncopaters in dance music.
- 3.32: From the Studio—
 - Kathleen Roe, pianist—
 - (a) Two Preludes by Corelli.
 - (b) "Rhapsodie" (Drahms).
- 3.39: Melody Memories.
- 3.42: From the ballroom of the Oriental—
 - Sydney Simpson's Syncopaters in dance music.
- 3.53: From the Studio—
 - Bob Graham and his Spanish guitar—
 - (a) "You Belong to Me" (Brown).
 - (b) "Girl of my Dreams" (Surry Clapp).
- 4.0: From the ballroom of the Oriental—
 - Sydney Simpson's Syncopaters in dance music.
- 4.12: From the Studio—
 - Kathleen Roe, pianist, "Barcarolle."
- 4.19: Margaret Grimshaw, popular vocalist—
 - (a) "Love Sings a Song in my Heart."
 - (b) "Think of Me, Thinking of You."
- 4.26: Bob Graham and his Spanish guitar—
 - (a) "Easy Going" (De Rose).
 - (b) "Happy Days" (Fisher).
 - (c) "The Song I Love" (Conrad).
- 4.33: From the Oriental ballroom—
 - Sydney Simpson's Syncopaters in dance music.
- 4.45: The Trade Hour, demonstration music
- 5.45: Weather information; close.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: The National Broadcasting Orchestra
- 6.45: The A.B.C. Younger Set—Boys' Aero Club, conducted by Norman Lyons.
- 7.5: Studio music.
- The Country Man's Market Session—
 - Wool, wheat, stock, farm produce, fruit, vegetables, pig and poultry markets.
- 7.30: From the Sydney Town Hall—On the occasion of the 52nd annual meeting of the Royal Shipwreck Relief and Humane Society of New South Wales.
 - De Groen's Vice-Regal Concert Band.
 - Musical Director, Mr. James A. Arcus.
 - From the Studio.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- Sport lovers always eagerly await 2BL's Monday night programme, when the description of the wrestling contests from the Stadium prove a big attraction. 2FC caters for radio in another direction, and their programme to-night is on classical lines—Alexander Sverjensky in the Mendelssohn Concerto with the Orchestra, and Peggy Dunbar, contralto.
- 8.0: Len Maurice, popular vocalist—
 - (a) "It Takes a Good Woman" (Ager).
 - (b) "Hungry Women" (Ager).
 - (c) "Rainbow Man" (Hanly).
 - 8.7: Bert, Gilbert in the first of his famous Hopcroft series.

8.22: Percival Spouse, champion mouth organ player of Australia—
 (a) "Medley of Hornpipes."
 (b) "Two Eyes of Grey" (M'Geogh).
 8.30: From the Studio—
 Description of the wrestling contest.
 10.0: From the Studio—
 Len. Maurice, popular vocalist—
 (a) "Russian Moon" (Gusman).
 (b) "Little Pal" (Hanley).
 (c) "The Sun is at my Window" (Meyer).
 10.7: Percival Spouse, champion mouth organ player of Australia—
 (a) "Medley of Old Time Waltzes."
 (b) "Silver Threads among the Gold."
 10.14: From the Hotel Australia—
 Cec. Morrison's Dance Band.
 10.25: Late weather report.
 Late news from the "Sun."
 10.30: Close; "National Anthem.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

10.0: Music. 10.10: Happiness Talk by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. House-keeping Hints and Shopping Guide. Address by Miss Mary Rivett. Old Age: The Seed Time of Life. 11.45: Close down.
 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Movie Know All. 3.0: Music. 3.30: Close down. 5.15: Children's Session, by Uncle George. 7.0: Music. 7.45: Feature Story. 8.0: Miss Elsie Condon, contralto. 8.7: Symphony Orchestra. 8.15: Mr. Tom Harrison, baritone. 8.22: Instrumental trio. 8.30: Mr. Jack Win and Mr. Heath Burdock, humor. 8.35: Miss Iverna Kyle, soprano. 8.45: Address. 9.0: Weather report. 9.1: Symphony Orchestra. 9.10: Miss Elsie Condon, contralto. 9.20: Violin solos. 9.30: Mr. Jack Win and Mr. Heath Burdock, humor. 9.35: Mr. Tom Harrison, baritone. 9.45: Symphony Orchestra. 9.50: Miss Iverna Kyle, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 287 Metres).

MIDDAY SESSION.

12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Home-craft, by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 7.45: Wireless Talk, by Mr. E. Homfray. 8.0: Organ recital. 9.0: G.P.O. clock and chimes. Comments on Foreign Affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

MORNING SESSION

10.0: Tune in to the ticking of the clock. 10.3: Popular fox trots. 10.15: Hawaiian steel guitar selections. 10.30: Women's session, Home hints and information, conducted by Mrs. Gray. 11.0: A few laughs. 11.5: Pianoforte selections. 11.15: Calls and announcements. 11.20: Musical interlude. 11.30: Request numbers. 11.40: Where to go to-night. 12.0 noon: Closing announcements.

CHILDREN'S SESSION

6.0: Birthday calls, request numbers, and kiddies' entertainment. Aunt Jemima and Uncle Bert.

EVENING SESSION

7.0: Musical interlude. 7.15: Dance music. 7.45: Militant Women's Group. 8.0: Overture. 8.8: Tenor solos, Mr. A. Hillman. 8.15: Dance music. 8.30: Request numbers. 8.45: Soprano solos, Miss Wright. 9.0: Novelty interlude. 9.10: Selection of latest Parlophone, Columbia, Regal, Brunswick, and Golden Tongue Records. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 233 Metres)

EARLY MORNING SESSION.—

7.15 a.m.: Breakfast time hour orchestral music. 8.30: Weather report. Close down.

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Interstate Programmes, Monday, September 30

3LO

Australian Broadcasting Co., 129A Russell St., Melbourne (Wavelength, 371 Metres)

EARLY MORNING SESSION

7.0 to 8.15: See Friday.
MORNING SESSION
10.30: Current Happenings in Sport, by Mel. Morris. 10.45: Melody broadcast. 12.0: Melbourne Observatory time signal. 12.1: Melody broadcast. 12.15: News service. British Official Wireless news: Corn Exchange midday report; Newmarket stock sales. Associated Stock and Station Agents' official report. 12.30: Close down.

MIDDAY SESSION

1.0: Melbourne Observatory time signal; Stock Exchange information; meteorological data; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecast; river reports and rainfall. 1.30: Transmission from Constitutional Club luncheon. 2.0: Boys and Girls of Other Days, by Miss D. Babington. 2.15: Musical Interlude. 2.20: Science in Everyday Life, by Dr. Loftus Hills, D.Sc. 2.35: Musical Interlude. 2.40: Our Australian Writers: (1) Henry Kendall Richardson, by Mr. Percival Serle. 2.55: Musical Interlude.

THE RADIO MATINEE

3.0: The A.B.C. Troubadours, "Third Rail" (Vern de Mars), latest hit. 3.5: Ciella Genoni M'Neill, soprano. "Chinese Flower" (Bowers), "Flight" (Molly Carey). 3.12: M. McCarthy and Harry Bennett play a guitar duet. 3.16: Bob Bursal, baritone. "An Interlude" (Eusthopho Martin). "Mate o' Mine" (El-Hott). 3.23: The A.B.C. Troubadours, modern melodies. 3.30: Elise Stewart and Victor Brooks, entertainers. "That's What I Call Sweet Music" (Wendling). "She Wants Persuading" (Weston and Lee). "Please Let Me Dream in Your Dreams" (Sharman). "Down Where the Binkled Babies Grow" (Long). 3.42: The A.B.C. Troubadours, "To-day's a Sunny Day for Me" (Hackford), latest popular hit. 3.50: Ciella Genoni M'Neill, soprano. "Annie Laurie" (by request), selected. 3.57: The A.B.C. Troubadours, new numbers. 4.5: Bob Bursal, baritone. "The Crescent Moon" (Sanderson). "Smilin' Thro'" (Penn). 4.12: A. Urquhart, violin, selected. 4.20: The A.B.C. Troubadours, latest dance music. 4.30: Acceptances and barrier positions for the Findon Harriers Hunt Club races. 4.35: Close down.

THE CHILDREN'S CORNER

4.45: "Bilby Bunny" will tell the tiny ones a story about a pixie; if you don't believe in pixies, listen-in to-night, and then you will. 6.0: "Bilby Bunny" wishes many little folks many happy returns. 6.20: "Nick and Nack" will provide a varied musical treat, including an exhibition of their famous one-string violin, and then "Nick" will tell the children "How to Make a One-string Fiddle Out of a Cigar-box." Have your pencil and paper ready, children.

EVENING SESSION

6.55: Illustration of the children's musical examinations, conducted by Lindsay Biggins. 7.0: Melbourne Observatory time signal. 7.1: Countryman's session. 7.25: Recent Discoveries and Inventions, Mr. R. R. Wilmore. 7.40: News service. 7.45: The World's Kaleidoscope, by Prof. K. H. Bailey, M.A., B.C.L. 8.0: Melbourne Observatory time signal.

NIGHT SESSION

8.0: Sixty minute of meritment. One hour of hilarity and harmony, which we will call "An Afternoon Outing." Introducing National Broadcasting Orchestra. Rita Flendling. "A.B.C. Troubadours" and a Boy Scouts' brass band. Choral music transmission from the Athenaeum Hall.
8.9: The Royal Victorian Liedertafel, conductor, J. Sutton. "Crow" Unaccompanied part-songs, (a) "Every Rustling Tree" (b) "If Thou Art Sleeping, Ma-chen" Plumpton part-songs. "At Abendmah in Rhineland" (Abt.). "The Blue Danube Waltzes," arranged for male voices (Eissner), by request, unaccompanied part-songs, (a) "Spin, Spin" (b) "When Evening's Twilight" (Hutton) operatic chorus. "The Bandits' Chorus," from "Ernani" (Verdi).
9.30: Twenty minutes in Chinatown, which includes "The Chinese Patrol," "Little Sin Sen," "Muechee Goodee Chinaman," "The Chinese Market Stall," "The Chinese Sing Song."
9.50: Willy Wilding, comedian, ten minutes of song and story.
10.0: Mr. and Mrs. Graham Burton, baritone and soprano, duets, "Homing" (Del Riego). "A Night in Venice" (Luccombi).
10.7: Betty Bay, cellist, "Mother Machree."
10.10: Comedy sketch, "A Honey-moon on the Ocean."
10.20: News session.
10.30: The Rex Dance Band.
11.30: God Save the King

3AR

Australian Broadcasting Co., 129A Russell St., Melbourne (Wavelength, 481 Metres)

MORNING SESSION

8.15 to 11.0: See Friday.
MIDDAY SESSION
12.0: Chimes. 12.1: Food and Cookery—Inexpensive and quickly made puddings, Miss Kathleen Benningfield. 12.15: Fifteen minutes' synopsis of Luncheon music supplied by the Studio Light Orchestra. 2.0: Chimes.

AFTERNOON SESSION

2.1: A.B.C. Troubadours—"Deep Night" (Henderson). "Stay at Home Girl" (O'Hagan). "I'm Thirsty for Kisses and Hungry for Love." 2.10: Paul Whitman and his Rhythm Boys. 2.18: Piano recital by

Victor Lane and Adam Carroll. 2.30: "A.B.C. Troubadours"—"Wob-a-ly Walk" (Green). "On the Crest of a Wave" (Henderson). "Pickin' Cotton" (Henderson). 2.40: Baritone solo, Lea Maurice. 2.48: Violin solo, Yelby D'Arany. 2.56: Contralto solo, Sophie Braslam. 3.5: Request numbers.

WOMEN

3.20: Your clothes, Miss Ruth Bunting. 3.35: Musical Interlude. 3.40: Your garden—Wildflowers for the garden. 3.55: Musical Interlude. 4.0: Travelling abroad—Through Feminine Eyes, Mrs. Maurice Posner.

TRADERS' DEMONSTRATION SESSION

4.15: Reproduced music. 5.0: G.P.O. chimes. 5.30: Weather data. 5.45: Close down.

EVENING SESSION

6.15: Dinner music supplied by the Studio Light Orchestra. 7.30: What's on the Air To-night? 7.32: Sporting results—Acceptances and barrier positions for Findon Harriers' Hunt Club races on Wednesday, October 2. 7.35: Latest musical releases. 8.0: O.P.O. chimes.

NIGHT SESSION

8.1: Melbourne Male Quartette—"Larboard Watch" (Williams). "Nancy Lee" (Adams).
8.7: Merlena Liewels, harpist—"Simple Aveu" (Thome). "Menuet in C" (Beethoven).
8.14: Tom Semple, tenor—"Come into the Garden, Maud" (Rolfé). "Drink to Me Only with Thine Eyes" (Quilter).
8.21: National Broadcasting Orchestra—Selection from Carmen" (Bizet).
8.29: Robert Gillard, bass—"Tommy Lad" (Margerson). "Requiem" (Homer).
8.34: Merlena Liewels, harpist—"By the Waters of Minnetonka" (Schubert).
8.43: Melbourne Male Quartette—"The Dusky Stevedore" (Johnson). "Here Comes the Show Boat" (Pinkard).
8.21: National Broadcasting Orchestra—Waltz. The Beautiful Blue Danube" (Strauss).
8.55: Recent books of note—Mr. A. A. Phillips.

FUN AND RHYTHM

9.10: J and G—"The Confidential Two: Piano novelty, "The Song I Love."
9.17: P. McCarthy, guitar, H. Bennett, marba, and Bob Brookshaw, violin. "The Song I Love."
9.20: Collin Binks, humorous recitation—"Dave's Courting," from "On Our Selection."
9.27: "A.B.C. Troubadours"—Latest popular hits.
9.33: J and G—"The Confidential Two: Popular numbers."
9.40: Marion Lightfoot, English Concertina.
9.45: Jean Hambleton, contralto—"A Roundel of Rest" (Ovrl Scott). "Morning Hymn" (Henschel).
9.52: Collin Binks—"Ghosts of Gallipoli" (Horatio Bottomley).
10.10: Marion Lightfoot, English Concertina—"Le Soir" (Gounod).
10.5: Jean Hambleton, contralto—"Turn Ye to Me" from "Songs of the North."
10.12: Weather information and "Herald" news.
10.20: Norit String Quartette.
10.30: God Save the King

3DB

The "Herald" Broadcasting Station, Flinders Street, Melbourne (253 Metres).

MORNING SESSION

11.0: Paul Whitman and his Orchestra, "Suite of Serenade" 11.30: Songs. "The Song I Love."
12.0: Dussallini Giannini. "Just Awearin' for You."
12.30: Terence Casey (organ), "Keys of Heaven."
1.0: Derek Oldham, "I Know of Two Bright Eyes."
1.30: Robert Watson and Ella Gardner, "Alton Water" 1.45: Close down.

AFTERNOON SESSION

2.15: H.M. Grenadier Guards Band, "Merrie Eng-land" (Oerman). 2.30: Hulda Lusauksa (soprano), "Ma Curly Headed Baby." 3.0: Atwater Kent Radio Hour—Sponsored by A. C. Healing, Ltd., and E. T. Muir. 4.0: Close down.

EARLY EVENING SESSION

5.30: Jean Leusen and his Orchestra, "Cantone Vecuvians." 6.0: A special session of Children's Requests. 6.30: Hubert Eisdell, "Columbine's Garden." 7.0: Orchestra of Opera Comique, Paris, "Sylvia Ballet Music" 7.15: Market reports—John M. Namara and Co. Pty., Ltd. 7.30: Kenneth Ellis, "Young Tom" Devon." 7.30: Market reports—Gippsland and Northern Co-operative Co., Ltd.

EVENING SESSION

8.0: The Aeolian Company's sponsored programme. 8.30: J. F. Mitchell's sponsored programme. 9.0: The "Herald" Hour. 10.0: Neil Allen (organ). "At Sundown." 10.30: Regina Whitehead (bass), "Song of the Bow." 10.40: News. 10.45: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

For day sessions, see Friday.

NIGHT SESSION

8.0: The Studio Orchestra—Prelude, Chorus, and Cavatina—"The Cure" (Mercadante).
8.9: J. P. Cornwell (bass)—"Sergeant of the Line" (Squire).
8.13: Douglas Drouyn and his Trio—featuring the electric waltz harp.
8.18: Claude Walker—ten minutes with Henty Lawson.
8.28: W. H. Davis (cornetist)—"L'Adieu" (Schubert).
8.2: Mrs. Robt. Bell (soprano)—"No, No, No" (Mottel).
8.36: Hilda Roberts (harpist)—"Ballade" (Haseimansi). "Mazurka" (Schuecker).

8.46: Winifred Haslam (contralto)—"My Fleur-de-lis."
8.50: Douglas Drouyn and His Trio—more melody.
9.0: Metropolitan weather forecast.
9.1: Comedy sketch—"Buying a House" (by Neville Raymond, Cast: The Lady, Dulcie Dunlop; The Agent, Neville Raymond).
9.15: Foster and Dawson, entertainers.
9.25: J. P. Cornwell (bass)—"The Tideless Sea" (Bowen).
9.30: The Studio Orchestra—selection, "Miss Hook of Holland."
9.40: Winifred Haslam (contralto)—"By and Bye, Sweetheart."
9.45: Mrs. P. North (pianiste)—"Minuet" (Pain-tinger).
9.50: The Studio Orchestra—dance music.
10.0: News supplied by courtesy of the metropoli-tan dailies: weather information; close down.

6WF

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 455 Metres).

EARLY MORNING SESSION—7.30: Town Hall chimes; meteorological report; the day's music. 7.35: Early rising music (reproduced). 7.55: Mails and shipping intelligence. 8.0: What's on to-day? 8.5: Early rising music (reproduced). 8.22: World-wide cables ("Sun" "Herald" and A.P.A. service). 8.27: Features of to-day's programme. 8.30: Close down.

MORNING SESSION—TRADERS' DEMONSTRATION—10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Women's interest talk. 10.30: Organ recital from the Ambassadors—Jack Laing at the console of the Wurliizer organ. 11.0: Close down.

MIDDAY SESSION—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: Special midday news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Town Hall chimes. 1.1: Luncheon music by the National Broadcasting Orchestra. 2.30: Close down.

THE RADIO MATINEE—3.30: Town Hall chimes. 3.31: Reproduced music. 3.45: Talk of interest to women "The National Council of Women." 4.0: Town Hall chimes. 4.1: Concert broadcast from Musgroves' Studio. 4.55: Features of to-night's presentation. 5.0: Close down.

EARLY EVENING SESSION—5.45: Children's "Goodnight" stories, by Uncle Bas and Auntie Maxine. 6.15: A.B.C. Younger Set session. Y.A.L. Night. 6.30: Dinner music, by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: A.B.C. news service. 7.35: Market reports. 7.40: Stock Exchange. 7.42: Travelogue. 7.57: Features of to-night's presentation.

EVENING SESSION—A.B.C. Revue Company. 10.0: Temple Court Dance Band, conducted by Merv. Lyons. 11.0: Close down. "God Save the King."

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Record recital. 11.34: Midlands weather forecast. 11.35: Record recital. 11.55: Tasmanian Stations 9 a.m. weather report. 12.0: Chimes. 12.1: Shipping information; mail notices; housewives' guide. 12.8: Record recital. 12.30: News service. Announcements. 12.40: Record recital. 1.5: British official wireless news. Railway auction sales. 1.10: Record recital. 1.30: Close down. 3.0: Chimes. 3.1: Record recital. 3.4: Weather information. 3.5: Record recital and player selections. 4.15: "Aunt Edna" will speak of "Fashions for Children." 4.30: Close down. 6.15: Children's hour, with "Uncle David." 7.10: Recorded music. 7.30: News session. 7.40: Under the auspices of the Tasmanian University. Mrs. N. P. Booth will speak on "Safeguarding the Purity of our Food Supply." 7.50: Geo. Collis will speak on "Physical Culture." 8.0: Chimes. 8.1: Record recital. 8.15: A concert programme, arranged by Madame Helen George. 9.30: News session. 9.45: Record recital. 10.0: Chimes. 10.1: Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516 Metres).

Friday, September 27

(Continued from Page 34)

11.30 a.m.: Record recital. 11.34: Midlands weather forecast. 11.55: Tasmanian Stations 9 a.m. weather report. 12.1: Shipping information; mail notices; housewives' guide. 12.8: Record recital. 12.30: News service; announcements. 1.5: British Official Wireless news; railway auction sales. 1.30: Close down. 3.0: Chimes the hour. 3.1: Record recital. 3.4: Weather information. 4.15: Readings. 4.30: Close down. 6.15: Children's Hour with "Uncle David" and "The Storey Lady." 7.10: Recorded music. 7.15: News Session. 7.20: Sid Jones on "Football." 7.30: A studio concert, by 7ZL artists (interspersed with gramophone records). 7.37: Ethel Breton, mezzo soprano. "The Slave Song." "My Treasure." 7.48: Record recital. 8.0: Will Thompson, baritone. "The Bandolero." "The Sailor's Grave." 8.7: Record recital. 8.17: Ethel Breton, mezzo soprano. "Daisy Bell." "Here I Am." 8.27: Record recital. 8.37: Will Thompson, baritone. "Plymouth Hoe." "Drake Goes West." 8.45: J. M. Counsel. "The History and Development of Music." 8.45: News session. 10.0: Chimes. 10.1: Close down.

SENSATIONAL REDUCTIONS!

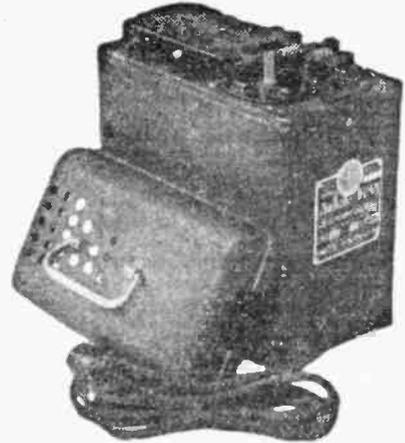


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Local Programmes, Tuesday, October 1

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: Close.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
- 10.52: A.B.C. Racing Observer.
- 10.45: Horace Weber at the Grand Organ.
- 11.0: Household Helps—Hints to Housewives by Miss Ruth Furst.
- 11.10: Cables (copyright). A.P.A. and "Sun-Herald" news service.
- 11.15: Morning devotion.
- 11.30: Austradio musical reproduction.
- 11.53: British official wireless press.
- 12.0: "Big Ben," Stock Exchange and vital quotations.
- 12.5: Illustrated musical lecture.
- 12.20: Midday weather forecast and weather forecasts, special produce market session for the man on the land supplied by the State Marketing Board.
- 12.30: Close.

THE LUNCH HOUR—1 p.m. to 2.30 p.m.

- 1.0: Lunch to music with the National Broadcasting Orchestra.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: Miss Mary Sides, B.A. will speak on George Elliot.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- 2.30: The 2FC Instrumental Trio.
- 2.40: Josephine Lee, soprano—
 - (a) "The Wood Pigeon" (Lehmann).
 - (b) "Drift Down, Drift Down" (Ronald).
- 2.47: Ewart Chapple, pianist—
 - (a) "Sing a Song of Sixpence" (Liveny).
 - (b) "Waltz" (Stojowski).
- 2.54: The 2FC Instrumental Trio.
- 2.59: Cedric Howard Ashton, cellist—
 - (a) "Largo" (Chopin).
 - (b) "Gavotte" (Popper).
- 3.16: Josephine Lee, soprano—
 - (a) "A Japanese Love Song" (Brahe).
 - (b) "The Owl" (Lehmann).
- 3.23: The 2FC Instrumental Trio.
- 3.35: Ewart Chapple, pianist—
 - (a) "A la bien ainee" (Schutt).
- 3.42: Cedric Howard Ashton, cellist—
 - (a) "Priere" (Squire).
 - (b) "Bourree" (Handel).
- 3.50: The 2FC Instrumental Trio.
- 4.0: Louise Homfrey—
 - "The Experience of an Australian Broadcasting Artist in London."

- 4.15: The 2FC Instrumental Trio.
- 4.28: Stock Exchange, third call.
- 4.30: Close.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Kiddies' "Goodnight" Stories, told by Aunt Willa, assisted by Cousin Gwen.
- 6.45: The National Broadcasting Orchestra.
- 7.30: A.B.C. Sporting Service.
- 7.37: Special Country Session; Stock Exchange resume; markets; weather forecast; late news service from the "Sun" and "News;" truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- Our State-wide Radio Dance Night, with popular numbers by Charles Lawrence, R. A. Bartleman, Rene Rich to break the dance groups. To those to whom dancing does not appeal, 2BL's programme offers a big attraction—a concert arranged by the Goulburn Choral Society.
- 8.0: The Australian Broadcasting Dance Orchestra.
- 8.12: Charles Lawrence, entertainer—
 - (a) "Reginald, the Cheese" (Clarke).
 - (b) "The Lodger's Song of Home" (Brierley).
- 8.19: The Australian Broadcasting Dance Orchestra.
- 8.31: R. A. Bartleman, baritone.
- 8.38: The Australian Broadcasting Dance Orchestra.
- 8.50: Rene Rich, violinist.
- 8.57: The Country Man's weather session—
 - (a) "New South Wales Forecasts."
 - (b) "Inter-State Weather Synopsis."
- 8.59: The Australian Broadcasting Dance Orchestra.
- 9.11: Charles Lawrence, entertainer—
 - (a) "Public Conversations."
 - (b) "The Ballad Singer."
- 9.18: The Australian Broadcasting Dance Orchestra.
- 9.30: Rene Rich, violinist.
- 9.37: The Australian Broadcasting Dance Orchestra.
- 9.59: R. A. Bartleman, baritone.
- 10.6: The Australian Broadcasting Dance Orchestra.
- 10.15: Announcements; late official weather forecast.
- 10.20: The Australian Broadcasting Dance Orchestra.
- 11.30: Close. National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes.
- Music for every mood.
- 8.45: Meteorological data for the country.
- 8.50: Austradio musical reproduction.
- 9.30: British official wireless news.
- 9.35: New music.
- 10.2: News from the "Labor Daily."
- 10.5: News from the "Sydney Morning Herald."
- 10.10: The Australian Broadcasting Company's Women's Association, conducted by Miss Gwen Varley.
- 10.30: Austradio musical reproduction.
- 10.40: A morning story.
- 11.0: G.P.O. chimes. Close.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes. Announcements.
- 12.2: The National Broadcasting Orchestra.
- 1.0: Afternoon news from the "Sun" and "News."
- 1.5: Studio music.
- 1.15: Women's interest talk—Sister Parry, "Home Nursing Hints."
- 1.30: Austradio musical reproduction.
- 1.55: J. Knight Barnett at the Wurlitzer.
- 2.5: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business efficiency talk—Fred, Arlington-Burke, "Nature's Peculiar Laws of Compensation."
- 2.45: The "Magic Carpet Series"—Tom

- Gurr, "With the Pilgrims to Mecca—Part 1."
- 3.0: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

- From the Studio:
 - 3.12: Edythe Cowley, entertainer—"The Boarding-house Keeper."
 - 3.19: A popular number.
 - 3.22: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- From the Studio:
 - 3.32: Len Nugent, tenor.
 - 3.39: Melody memories.
 - 3.42: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
 - 3.52: From the studio: Dorothy Benbow, contralto—
 - (a) "In a Monastery Garden" (Ketelby).
 - (b) "A Soft Day" (Stanford).
 - (c) "Rest Thee, Sad Heart" (Del Riego).
 - 3.59: A dance number.
 - 4.2: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
 - 4.12: From the studio: Len Nugent, tenor.
 - 4.19: Edythe Cowley, entertainer—"Hanging a Picture."
 - 4.26: Dorothy Benbow, contralto—
 - (a) "Dearest, I Love the Morning" (Wood).
 - (b) "Hushing Song" (Bath).
 - 4.33: Radio rhythm.
 - 4.45: The trade hour—demonstration music.
 - 4.45: Weather information. Close.
- THE DINNER HOUR—6.15 to 7.55 p.m.**
- 6.15: The National Broadcasting Orchestra.
- 6.45: The A.B.C. Younger Set session—Girl Guides, conducted by Miss Gwen Varley.
- 7.5: Studio music.
- The Country man's market session—wool, wheat, stock, farm produce, fruit, vegetables, pig and poultry markets.
- 7.30: The National Broadcasting Orchestra.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- Tuesday night is always devoted to classic music, through 2BL service, and the programme arranged by the Goulburn Choral Society for this evening will be enjoyed by the listeners to whom that type of entertainment is pleasing. For those who prefer popular items we remind them that Tuesday night is 2FC's dance night, and in between the dance groups Charles Lawrence, R. A. Bartleman, and Rene Rich are contributing entertaining groups.
- 8.0: From the Broadway Theatre, Goulburn: Concert arranged by the Goulburn Choral Society—
 - Overture, "The Merry Wives of Windsor" (Nicola)—the Orchestra.
 - Choir, "Softly Fall the Shades of Evening."
 - Violin solo, "Legende" (Wieniawski)—Edith Lambert.
 - Choir, "Courage" (Schubert).
 - "The Wayside Inn" (Schubert).
 - Raymund Beatty, solo—
 - Recit. and aria, "Il Lacerato Spirito," from "Simon Boccanegra" (Verdi).
 - Air, "More Sweet is That Name," from "Semele" (Handel).
 - Choir—"Faust" selection.
 - 9.20: From the studio, the country man's weather session—
 - (a) New South Wales forecasts.
 - (b) Inter-State weather synopsis.
 - 9.25: From the Broadway Theatre, Goulburn—
 - Orchestra, "In a Persian Garden" (Ketelby).
 - Choir, "Dawn of Day," "The Old Folks" (Violin solos, Edith Lambert)—
 - (a) "Spanish Serenade" (Burlleigh).
 - (b) "Chanson Indoue" (Rimsky-Korsakoff).
 - (c) "Serenade Espagno" (Chaminade).
 - Choir—"London Town."
 - "Old Mother Hubbard."
 - Solos, Raymund Beatty—
 - (a) "Sombre Woods" (Lully).
 - (b) "In the Silver Moonbeams" (Scott).
 - Choir—"Bold Turpin."
 - 10.15: From the studio—George Black, "In My Anecdoteage."
 - 10.25: Late weather report.
 - Late news from the "Sun."
 - 10.30: Close. National Anthem.

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2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

10.0: Music. 10.10: Happiness Talk by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. 11.30: Music. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Miss Dorothy Jordan. 2.50: Movie Know All. 3.0: Music. 3.30: Close down. 5.15: Children's Session, by Uncle George. 7.0: Music. 7.30: Service Talks by Sutton's Radio Doctor. 8.0: Miss Florence Day, contralto. 8.7: Instrumental Trio. 8.15: Mr. John Muirhead, tenor. 8.22: Symphony Orchestra. 8.30: Mr. Jack Win and Mr. Heath Burdock, humor. 8.35: The Two Melodious Maids. 8.45: Violin solos. 8.50: Miss Florence Day, contralto. 9.0: Weather report. 9.3: Address. 9.15: Symphony Orchestra. 9.25: Mr. John Muirhead, tenor. 9.35: Mr. Jack Win and Mr. Heath Burdock, humor. 9.40: Instrumental Trio. 9.50: The Two Melodious Maids. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION.

12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Home-craft, by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 8.0: Gilbert and Sullivan recital. 9.0: G.P.O. clock and chimes. Comments on Foreign Affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

MORNING SESSION

10.0: Tune in to the ticking of the clock. 10.3: Popular fox trots. 10.15: News items. 10.30: Women's session, Home hints and information, conducted by Mrs. Gray. 11.0: A few laughs. 11.5: Pianoforte selections. 11.15: Calls and announcements. 11.20: Musical numbers. 11.30: Request numbers. 11.40: Music and vocal items. 11.55: Where to go to-night. 12.0 noon: Closing announcements.

CHILDREN'S SESSION

6.0: Birthday calls, request numbers and kiddies' entertainment, Aunt Jemima and Uncle Bert.

EVENING SESSION

7.0: Musical Interlude. 7.15: Sporting feature. Turf topics. How they should run to-morrow. Mr. Geo. A. Davis. 7.45: Request numbers. 8.0: Orchestral selections. 8.10: Women's information service, Mrs. Gray. 8.25: Baritone solos, Mr. Higgins. 8.33: Pianoforte solos, Mr. Hancock. 8.40: Music and request numbers from the studio. Sporting feature. Presented by Tooth and Co., Ltd., Kent Brewery. From the ringside of M'Hugh's Leichhardt Stadium. Results of early events and full description of main 15-round event. 9.40: Dance music from the studio. 10.0: Closing announcements.

2UE

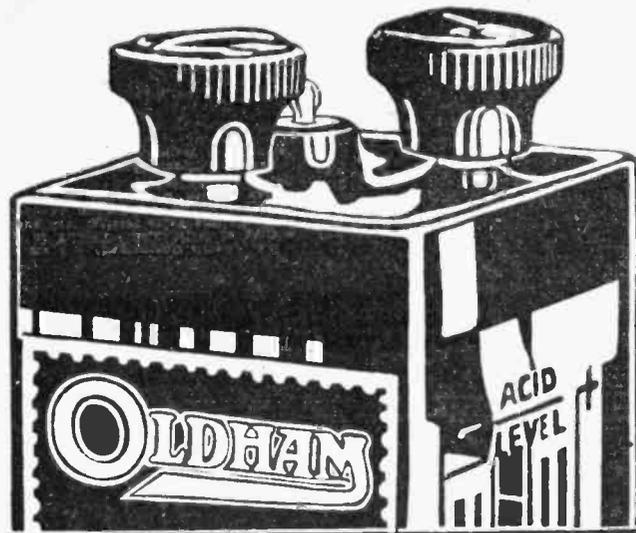
Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.—7.15 a.m.: Breakfast time hour orchestral music. 8.0: Clock and chimes. 8.30: Weather forecast. Close down.

MIDDAY SESSION.—11.30 a.m.: Orchestral music. 12.30: Close down.

AFTERNOON SESSION.—1 p.m.: Musical selections. 1.45: Organ solos. 2.0: Music. 2.30: Close down.

EVENING SESSION.—7.15 p.m.: Orchestral dinner music. 7.58: Programme announcement. 8.0: Clock and chimes. 8.1: Overture, "Orpheus in Hades." 8.10: Orchestral and vocal music. 10.15: Close down.



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Interstate Programmes, Tuesday, October 1

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION

7.0 to 8.15: See Friday

MORNING SESSION

10.30: Current happenings in Sport, by Eric Welch. 10.45: Melody broadcast. 12.0: Melbourne Observatory time signal. 12.1: Melody broadcast. 12.15: News service; British Official Wireless news; Corn Exchange midday report; Newmarket stock sales—Associated Stock and Station Agents' official report.

MIDDAY SESSION

1.0: Melbourne Observatory time signal. 1.1: Stock Exchange information; meteorological data; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecast; river reports; rainfall; comments on the day's news. 1.30: Melody broadcast. 1.57: Description of Bulla Trial Burdle Race, Woodend races, by Eric Welch.

EDUCATIONAL SESSION

2.5: Stories from the Opera, with musical illustrations, by Miss E. Babington. 2.27: Description of Maiden Plate, five furlongs, Woodend races, by Eric Welch. 2.35: Musical interlude. 2.40: A talk in French, by Moina Th. Rouel, B.A. 2.55: Musical interlude.

THE RADIO MATINEE

3.0: Melbourne Observatory time signal. 3.0: The Studio Light Orchestra. "Caprice Nola" (Arnott), "O Sole Mio" (Capus). 3.7: Description of Campaspe Handicap, five furlongs, Woodend races, by Eric Welch. 3.9: Tom Masters, tenor, "Night of Stars and Splendour" (Thompson), "Nightfall at Sea" (Phillips). 3.22: Guildford Bishop, violin. 3.27: Millicent Osmond, soprano, "Now Sleeps the Crimson Petal" (Quilter), "Spring" (Heinschel). 3.44: Studio Light Orchestra, "Maria Rita" (Capus). 3.47: Description of Hill Handicap, one mile, Woodend races, by Eric Welch. 3.59: Mstian Anderson, entertainer at the piano, a few moments at the piano with the old masters. 4.0: Millicent Osmond, soprano, "Barbara Allen" (Old English), "Comin' Thro' the Rye" (Old Scotch). 4.7: Austin Anderson, entertainer at the piano, "At the Wedding" (L.7). Description of Novice Handicap, five furlongs, Woodend races, by Eric Welch. 4.25: Jas. Fraser, baritone, and Tom Masters, tenor, duet, "The Path of the Faithful" (Alexander), "The Garden of Your Heart" (Dore). 4.32: Studio Light Orchestra, "Dream Melody" (Herbert). 4.35: James Fraser, baritone, "The Road to Mandalay" (Speaks), "In an Old Garden" (Temple). 4.42: Studio Light Orchestra, valse, "Estudiantina." 4.47: Description of Glenora Highweight Handicap, six furlongs, Woodend races, by Eric Welch. Close down.

THE CHILDREN'S CORNER

5.45: "Bobbie Bluegum" has a brain-wave, and his two little chums, Ector and Orace, help to work it out. 6.0: "Clever Clarice" chimes in with some up-to-date songs. 6.10: "Bobbie Bluegum" wishes his lucky little chums many happy returns. 6.35: For the older boys and girls, Boy Scout Doings, by F. Sanders.

EVENING SESSION

6.45: Careers for Our Boys and Girls; vocational guidance in Victoria—a forecast, by Mr. J. M' Rae, M.A. 7.0: Melbourne Observatory time signal. 7.1: Countryman's session. 7.25: For the man on the land, Lessons from the Royal Show, by Mr. R. Crowe. 7.40: The "Herald" news service. 7.46: The University Extension series, "The Distance of the Stars," by Prof. E. Hartung, D.Sc. 8.0: Melbourne Observatory time signal.

NIGHT SESSION

8.0: Malvern Tramways Band (conductor, T. Campbell), march, "The Challenge" (Calvert). 8.5: Biddy English, soprano, "The Star" (Rogers), "Summer in the Country" (Lohr).

A SHORT CELLO RECITAL

8.12: Louis Hattenbach, "Cantilena" (Goltermann), "Oraide Song" (Hattenbach), "Gavotte" (Jensen), "Rhapsodie" (Popper).

8.25: The Original We Four Male Quartette, "A Little Love, a Little Kiss" (Slesius), "The Girl from the County Clare" (Old Irish).

8.32: Malvern Tramways Band—Overture, "Tandereid" (Rimmer).

MELBOURNE BY NIGHT

8.40: Cecil H. Williams, "Every Man Has His Day." A POT-FOURTEEN LIGHT MUSIC, BEAUTIFUL SONGS, AND A RECITAL.

8.50: Biddy English, soprano, "Vale" (Kennedy Russell), "When the Dream is There" (D'Harlelot). 8.57: Malvern Tramways Band, "Marche Militaire" (Schubert), "Un Feu d'Amour" (Elsner).

9.9: Frederick Whitlow, character actor and entertainer, humorous monologue "The Old Veteran," humorous war sketch "Jim."

9.16: "The Original We Four" Male Quartette, "Somewhere a Voice is Calling" (Tate), "My Dear" (Sanders).

9.23: Ted Nelson, song at piano. 9.35: Malvern Tramways Band, waltz brilliant, "Fascination" (Rimmer).

9.42: Frederick Whitlow, character actor and entertainer, musical monologue "An Old Bachelor" (by request), humorous monologue "A Day's Life."

9.50: "The Original We Four" Male Quartette, "Farewell" (German folk song), "Whist! the Boyce Man" (Braham).

TURN DOWN YOUR LIGHTS FOR A MYSTERY STORY

9.57: J. Howlett Ross, "The Going of the White Swan." 10.12: Malvern Tramways Band, march, "Ravenswood" (Rimmer), request number. 10.20: News session; British Official wireless news;

meteorological information; items of interest. 10.30: Dance music by the Rex Dance Band. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

EARLY MORNING SESSION

12.0: Chimes. 12.1: Beautifying the Home—Color in relation to arrangement, Miss Lucy Aron. 12.15: Fifteen minutes' syncope. 12.30: Luncheon music supplied by the A.B.C. Troubadours. 2.0: G.P.O. Chimes.

AFTERNOON SESSION

2.1: Overture—Cleveland Symphony Orchestra. 2.8: Operatic, Sigrid Onegin. 2.16: Violin solo, Michael Piastri. 2.24: Part songs—The Fireside Male Quartette. 2.32: Piano recital—Frank Black. 2.40: Entertainers—The Cook Sisters. 2.48: Band music—Walter Rogers' Band. 2.56: Duet—Billy Jones and Ernest Hare. 3.5: Request numbers. 3.20: The Baby—Prevention of diphtheria, Sister Anne Purcell. 3.35: Musical interlude. 3.40: Vestal Crafts at Home—Flore Hata, Miss Henrietta Walker. 3.55: Musical interlude. 4.9: The latest fashions, Madame La Mode. 4.15: Reproduced music. 5.0: G.P.O. Chimes. 5.30: Weather data. 5.45: Close down.

EVENING SESSION

6.15: Dinner music supplied by the "A.B.C. Troubadours." 7.30: What's on the Air To-night? 7.32: Sporting results. 7.35: Latest musical releases. 8.0: G.P.O. Chimes.

NIGHT SESSION

8.1: "A.B.C. Troubadours"—"I'm Crazy Over You" (Sherman), "In a Little Town Called Home Sweet Home" (Donaldson), "Third Rail" (Yern de Maro).

8.8: Claude Carter, entertainer—popular numbers. 8.11: "A.B.C. Troubadours"—"I Faw Down and Go Boom" (Brockman), "My Inspiration is You" (Nicholls), "Two Weeks' Notice" (Seeman).

8.20: Ivy Davis, soprano, "Dearest." 8.23: "A.B.C. Troubadours"—"Carolina Moon" (Burke), "Sleep Baby Sleep" (Schuster), "Old Fashioned Locket" (Marvin).

8.31: "The Radio Tramps"—In Song, Jest, and Story. 8.39: "A.B.C. Troubadours"—"Sweethearts on Parade" (Lombardo), "A Precious Little Thing Called Love" (Davis), "Rocky Road" (Gibbs).

8.46: Jack Kennedy, the whispering baritone—Selected. 8.49: "A.B.C. Troubadours"—"Flower of Love" (Mendoza), "I Love to Hear You Singing" (Wood), "By the Fireside" (Phillips).

8.57: Ivy Davis, soprano—"You're So Easy to Remember." 9.0: "A.B.C. Troubadours"—"Nothing to do but Think of You" (Bernard), "I Can't Do Without You" (Berlin), "Susie's Sister" (Sarony).

9.8: Claude Carter will entertain. 9.11: "A.B.C. Troubadours"—"Reaching for Someone" (Donaldson), "Glad Rag Doll," "It Wasn't Meant to Be" (Rondy).

9.19: "The Radio Tramps"—In Song, Jest, and Story. 9.26: "A.B.C. Troubadours"—"Joe College" (Lombardo), "All by Yourself in the Moonlight" (Wallis), "What Do We Care for Sissie?" (Gibbs).

9.34: Ivy Davis, soprano—"Can You Forget?" 9.37: "A.B.C. Troubadours"—"Buck Town Blues" (Sentor), "Honey" (Simons), "Campus Rush" (Asherman).

9.45: Claude Carter will entertain. 9.48: "A.B.C. Troubadours"—"Mississippi Moon" (Terese), "Wedding of the Painted Doll" (Brown), Request number.

9.56: Jack Kennedy, the whispering baritone—Selected. 10.0: Weather information and "Herald" news. 10.10: "A.B.C. Troubadours"—"That's Living" (Ryan), "When Summer is Done" (Wilhite), "Praying for Rain" (Bickersley). To-day's a Sunny Day for Me" (Hackforth), request numbers.

10.30: God Save the King.

3DB

The "Herald" Broadcasting Station, Flinders Street, Melbourne (385 Metres).

MORNING SESSION

11.0: Thelma Ready and her Band, transmitted from The Auditorium (5.0). The Herald Community Singing Session, transmitted from the Auditorium. Conductor, Mr. G. J. Mackay; accompanist, Reg Brown. 1.45: Close down.

AFTERNOON SESSION

2.15: Frank Westfield Orchestra, "Temple Bells." 2.30: Henry Burr (tenor), "Love Dreams." 3.0: Atwater Kent Radio Hour—Sponsored by A. G. Healing, Ltd., and E. T. Murr. 4.0: Close down.

EARLY EVENING SESSION

5.30: Paraphone Military Band, "Steadfast and True." 6.0: Special session of Children's Requests. 6.30: Berlin State Opera Orchestra, "Beautiful Galathea." 7.0: Florence Austral, "The Night is Calm." 7.15: Market reports—John M'Namara and Co. Pty. Ltd. 7.20: Gippsland and Northern Co-operative Co., Ltd.—Market reports.

EVENING SESSION

7.30: City Motor Supply Sponsored Hour. 8.30: Phoenix Biscuit Company's Sponsored Hour. 9.30: Billy Whitlock (xylophone), "Soulbound Parade." 10.0: Alfred O'Shea (tenor), "Dress of Lorraine." 10.30: Arthur Meale, "Pilgrims' Song of Hope." 10.40: News. 10.45: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

For day sessions, see Friday.

NIGHT SESSION

8.0: To-night's programme will consist of a full concert provided by the Brisbane Federal Band. 10.0: News supplied by the metropolitan dailies; Queensland news for distant listeners; weather information; close down.

6WF

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION—7.30: Town Hall chimes. 7.31: Meteorological. 7.32: The day's maximum. 7.35: Early rising music (reproduced). 7.55: Mails and shipping intelligence. 8.0: What's on to-day? 8.5: Market reports. 8.10: Early rising music (reproduced). 8.22: World-wide cables ("Sun", "Herald" and A.P.A. Service). 8.27: Features of to-day's programme.

MORNING SESSION—TRADERS' DEMONSTRATION—10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Women's interest talk. 10.30: Organ recital from the Ambassadors—Jack Laing at the console of the Wurlitzer organ. 11.0: Close down.

MIDDAY SESSION—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: Special midday A.B.C. news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Town Hall chimes. 1.1: Luncheon music, by the National Broadcasting Orchestra. 2.30: Close down.

THE RADIO MATINEE—3.30: Town Hall chimes. 3.31: Reproduced music. 3.45: Talk of interest to women: "The West Australian Housewives' Association" (Mrs. Bell), "Rousing Problems and High Rents" (Mrs. Bell). 4.0: Town Hall chimes. 4.1: Reproduced music. 4.15: The Story of the Day. 4.18: Ambassadors' Orchestra, conducted by Bert Howell. 4.55: Features of this evening's presentation. 5.0: Close down.

EARLY EVENING SESSION—5.45: Children's "Goodnight" stories by Uncle Bas and Aunty Maxine. 6.15: A.B.C. Youngster Set Session—"The Question Box." 6.30: Dinner music, by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: A.B.C. News service. 7.35: Market reports. 7.42: Talk by Dr. Batty. 7.57: Features of to-night's presentation.

EVENING SESSION—Centenary band concert. Centenary musical festival. 11.0: Close down. "God Save the King."

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516

11.30 a.m.: Recital. 11.34: Midlands weather forecast. 11.45: Recital. 11.55: Tasmanian Stations, 9 a.m. weather report. 12.0: Chimes 12.1: Shipping information; mail notices; housewives' guide. 12.8: Recital. 12.30: News service. 12.40: Recital. 12.5: British official wireless news; Railway auction sales. 1.10: Recital. 1.30: Close down. 3.0: Chimes. 3.1: Recital. 3.4: Weather information. 3.5: Recital. 3.45: Miss Joyce Walker will speak on "Homecraft." 4.0: Recital. 4.15: An education talk on "Fruit (Citrus)—Oranges, World Production and their Uses." 4.30: Close down. 6.15: Children's hour with "Uncle David" and "The Story Lady." 7.10: Recorded music. 7.30: News service. 7.40: Richard Olds will speak on "Skins and Furs." 7.50: W. E. Fuller will speak on "Literary Lapses and Library Lists." 8.0: Chimes. 8.1: Record recital. 8.15: A programme of dance music by the Discus Dance Ensemble. 8.27: Harry Robinson, baritone—"Sweet Sue, Just You." 8.30: Dance numbers. 8.42: Sydney Coltham—"It is only a tiny dream." 8.48: Dance numbers. 8.57: The Syncope Four—"Did you mean it?" 9.0: Dance numbers. 9.12: Gordon Ryce, baritone—"Wherever you are" (Dowling). 9.15: Dance numbers. 9.27: Charles Hill—"Let a smile be your umbrella." 9.30: Dance numbers. 9.40: Chimes. 9.52: Slumber music. 10.0: Chimes 10.1: Close down.

6WF

(Continued from page 38.)

MORNING SESSION—TRADERS' DEMONSTRATION: 10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Features of to-day's racing, sporting, and athletic fixtures. 10.30: Studio music. 11.0: Close down.

MIDDAY SESSION—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: Special midday news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Luncheon music by the National Broadcasting Orchestra. 2.0: Close down.

THE RADIO MATINEE—During the afternoon results and sporting information will be broadcast immediately received. 3.0: Town Hall chimes. 3.1: Reproduced music. 3.45: Sporting results and progress information. 4.0: Town Hall chimes. 4.1: Reproduced music. 4.55: Features to to-night's presentation. 5.0: Close down.

EARLY MORNING SESSION—5.45: Children's "Good-night" stories by Uncle Bas and Aunty Maxine. 6.15: Dinner music by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: "Sun", "Herald" world-wide cables. 7.35: A.B.C. market reports. 7.40: Complete resume of to-day's racing, with results of all athletic fixtures. 7.48: The A.B.C. Sporting Observer's impression of to-day's game. 7.57: What's on the air to-night?

EVENING SESSION—SPECIAL DANCE NIGHT: 8.0: Harmony Girls. 8.15: Interlude. 8.21: Harmony Girls. 9.0: Weather report. 9.1: Harmony Girls. 9.15: Interlude. 9.20: Harmony Girls. 9.35: Interlude. 9.40: Harmony Girls. 10.0: Temple Court Dance Band, conducted by Merr. Lyons. 11.0: Close down.

6WF

(Continued from page 38.)

MORNING SESSION—TRADERS' DEMONSTRATION: 10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Features of to-day's racing, sporting, and athletic fixtures. 10.30: Studio music. 11.0: Close down.

MIDDAY SESSION—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: Special midday news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Luncheon music by the National Broadcasting Orchestra. 2.0: Close down.

THE RADIO MATINEE—During the afternoon results and sporting information will be broadcast immediately received. 3.0: Town Hall chimes. 3.1: Reproduced music. 3.45: Sporting results and progress information. 4.0: Town Hall chimes. 4.1: Reproduced music. 4.55: Features to to-night's presentation. 5.0: Close down.

EARLY MORNING SESSION—5.45: Children's "Good-night" stories by Uncle Bas and Aunty Maxine. 6.15: Dinner music by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: "Sun", "Herald" world-wide cables. 7.35: A.B.C. market reports. 7.40: Complete resume of to-day's racing, with results of all athletic fixtures. 7.48: The A.B.C. Sporting Observer's impression of to-day's game. 7.57: What's on the air to-night?

EVENING SESSION—SPECIAL DANCE NIGHT: 8.0: Harmony Girls. 8.15: Interlude. 8.21: Harmony Girls. 9.0: Weather report. 9.1: Harmony Girls. 9.15: Interlude. 9.20: Harmony Girls. 9.35: Interlude. 9.40: Harmony Girls. 10.0: Temple Court Dance Band, conducted by Merr. Lyons. 11.0: Close down.

6WF

(Continued from page 38.)

MORNING SESSION—TRADERS' DEMONSTRATION: 10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Features of to-day's racing, sporting, and athletic fixtures. 10.30: Studio music. 11.0: Close down.

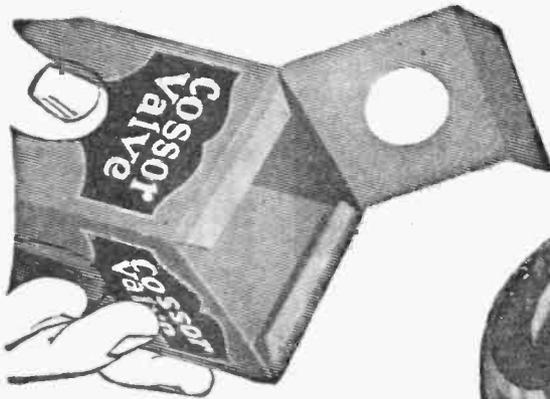
MIDDAY SESSION—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: Special midday news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Luncheon music by the National Broadcasting Orchestra. 2.0: Close down.

THE RADIO MATINEE—During the afternoon results and sporting information will be broadcast immediately received. 3.0: Town Hall chimes. 3.1: Reproduced music. 3.45: Sporting results and progress information. 4.0: Town Hall chimes. 4.1: Reproduced music. 4.55: Features to to-night's presentation. 5.0: Close down.

EARLY MORNING SESSION—5.45: Children's "Good-night" stories by Uncle Bas and Aunty Maxine. 6.15: Dinner music by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: "Sun", "Herald" world-wide cables. 7.35: A.B.C. market reports. 7.40: Complete resume of to-day's racing, with results of all athletic fixtures. 7.48: The A.B.C. Sporting Observer's impression of to-day's game. 7.57: What's on the air to-night?

EVENING SESSION—SPECIAL DANCE NIGHT: 8.0: Harmony Girls. 8.15: Interlude. 8.21: Harmony Girls. 9.0: Weather report. 9.1: Harmony Girls. 9.15: Interlude. 9.20: Harmony Girls. 9.35: Interlude. 9.40: Harmony Girls. 10.0: Temple Court Dance Band, conducted by Merr. Lyons. 11.0: Close down.

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Local Programmes, Wednesday, October 2

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 A.M.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: Close.

MORNING SESSION—10.30 A.M. TO 12.30 P.M.

- 10.30: Announcements.
- 10.32: General sporting, by Oscar Lind.
- 10.45: Horace Weber, at the grand organ.
- 11.0: Household Helps—Cooking, by Miss Ruth Furst.
- 11.10: Cables (copyright)—A.P.A. and "Sun"—"Herald" news service.
- 11.15: Morning devotion.
- 11.30: Austradio musical reproduction.
- 11.53: British official wireless press.
- 12.0: "Big Ben"; Stock Exchange, and metal quotations.
- 12.5: An address by General Antill.
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: Close.

THE LUNCH HOUR—1 P.M. TO 2.30 P.M.

- 1.0: Lunch to music with the National Broadcasting Orchestra.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: Studio music.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 TO 4.45 P.M.

- 2.30: Kathleen Horne, soprano—
 - (a) "June and You" (Law).
 - (b) "Lambie Love" (Vanderpool).
- 2.37: Eileen Brady, piano novelties—
 - (a) "La Caprice de Nannette" (Taylor).
 - (b) "Demande et Reponse" (Taylor).
- 2.44: Melody Memories.
- 2.54: Theresa Carmo, songs with ukulele—
 - (a) "Juanita" (Norton).
 - (b) "Long, Long Ago."
 - (c) "Lesson With a Fan."
 - (d) "Cause I'm In Love."
- 3.0: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 3.12: From the Studio: Kathleen Horne, soprano—
 - (a) "Golden Dancing Days" (Clarke).
 - (b) "It's Home to Me" (Loekhart).
- 3.19: Popular numbers.
- 3.22: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 3.32: From the Studio: Eileen Brady, in novelty piano numbers—
 - (a) "Fashionette" (Glogan and King).
 - (b) "Hot Ivories" (Sinatra).
 - (c) "The Wedding of the Painted Doll" (Brown).
- 3.39: Melody Memories.
- 3.42: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 3.52: From the Studio: Theresa Carmo, songs with ukulele—
 - (a) "Chloe" (Moret).
 - (b) "Forgotten You."
 - (c) "I Love You Truly" (Jacobs-Bond).
- 4.0: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 4.12: From the Studio—Popular music.
- 4.22: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 4.28: From the Studio—Stock Exchange, third call.
- 4.30: Radio Rhythm.
- 4.45: Close.

EARLY EVENING SESSION—5.45 TO 7.55 P.M.

- 5.45: Kiddies' "Goodnight" stories, told by Uncle Ted and "Sandy."
- 6.45: The National Broadcasting Orchestra.
- 7.30: A.B.C. Sporting Service.
- 7.37: Special country session; Stock Exchange resume; markets; weather forecast;

late news from the "Sun" and "News"; truck bookings.

7.58: To-night's programme. THE EVENING PRESENTATION—8 TO 11.30 P.M.



MR. LAWRENCE HALBERT, New South Wales producer for the A.B.C. who has organized the A.B.C. Players, and who will supervise the production of "The Jazz Spider."

2FC listeners are eagerly awaiting the play we are featuring to-night, which, in the capable hands of the A.B.C. Players, will indeed prove an attraction. For those who do not enjoy this type of entertainment, 2BL offers an excellent programme of band music, song groups, and violin solos.

- 8.0: An hour from the State Theatre.
- 9.0: From the Studio: The A.B.C. Players in their intriguing serial, "The Jazz Spider," and a short radio play.
- 9.40: Carl Budden Morris, pianoforte recital—

- (a) "Gavotte de Gluck" (Brahms).
- (b) "Valse" (Carreno).
- (c) "Gopak" (Moussorgsky).
- (d) "Rigoletto" (Verdi-Liszt).
- 10.5: The Two Fosters, vocal and instrumental—
 - "Mighty Lak' a Rose" (Stanton).
 - Violin solo, Maggie Foster.
 - "Honey" (Simmons).
- 10.15: Announcements; late official weather forecast.
- 10.20: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 11.30: Close.
- National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes; music for every mood
- 8.45: Meteorological data for the country.
- 8.50: Austradio musical reproduction.
- 9.30: British official wireless news.
- 9.35: New music.
- 10.5: News from the "Sydney Morning Herald."
- 10.10: The Australian Broadcasting Company's Women's Association, conducted by Miss Gwen Varley.
- 10.30: Austradio musical reproduction.
- 10.40: A Morning Story.
- 11.0: G.P.O. chimes; close down.
- MIDDAY SESSION—12 noon to 2.30 p.m.
- 12.0: G.P.O. chimes; announcements.
- 12.2: The National Broadcasting Orchestra.
- 1.0: Afternoon news from the "Sun" and "News."
- 1.5: Studio music.
- 1.15: Women's Interest Talk—Goodie Reeve will speak on "Aids to Personality."
- 1.30: Austradio musical reproduction.
- 1.55: J. Knight Barnett at the Wurlitzer.
- 2.5: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business Efficiency Talk—"Outstanding Personalities in Australian History: John MacArthur."
- 2.45: Magic Carpet series, "The Storyteller."

- 3.0: The 2BL Instrumental Trio.
- 3.12: John Benjamin, tenor.
- 3.19: Florence Luber, pianist—
 - (a) "Homeward" (Grieg).
 - (b) "An Old Love Story" (MacDowell).
 - (c) "Scene de Ballet" (Taylor).
 - (d) "Valse Mignon" (Schutt).
 - (e) "Polish Dance, B Flat Minor" (Scharweka).
- 3.26: The 2BL Instrumental Trio.
- 3.38: Ethel Holden, violinist—
 - (a) "Romance" (Tours).
 - (b) "Gavotte" (Bohm).
- 3.45: John Benjamin, tenor.
- 3.52: The 2BL Instrumental Trio.
- 4.7: Florence Luber, pianist—
 - (a) "Pierette" (Chaminade).
 - (b) "Valse Impromptu" (Grieg).
 - (c) "Matthew Shulbrede" (Parry).
 - (d) "Scherzo," followed by "Little Bird Tunes" (Grieg).
 - (e) "No. 1 Petite Suite de Concert" (Taylor).
- 4.14: Ethel Holden, violinist—
 - (a) "Chosen Tune" (Howells).
 - (b) "Liebeslied" (Kreisler).
- 4.21: The 2BL Instrumental Trio.
- 4.30: Austradio musical reproduction.
- 4.45: The Trade Hour, demonstration music.
- 5.45: Weather information; close.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: The National Broadcasting Orchestra.
- 6.45: The A.B.C. Younger Set—Boys' Radio Club, conducted by Mr. Norman Lyons.
- 7.5: A talk on "Bridge" by Graham Kent.
- 7.15: The Country Man's Market session—Wool, wheat, stock, farm produce, fruit, vegetables, pig and poultry markets.
- 7.30: The National Broadcasting Orchestra.
- 7.45: Studio music.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- A programme of band music through 2BL on Wednesday night is always an enjoyable feature. Against this we have through 2FC the A.B.C. Players in the first instalment of their intriguing serial, "The Jazz Spider," followed by a short radio play.
- 8.0: The New South Wales Tramway Band.
 - (a) March, "Punchinella" (Rimmer).
 - (b) Waltz, "Syringa" (Taylor).
 - 8.15: Wilfrid Thomas, basso—
 - (a) "Long Ago when I was Free" (arr. Korbay).
 - (b) "List to Me, Rosebud."
 - 8.22: Dagmar Thomson, violinist—
 - (a) "Romance from Concerto" (Weiniawski).
 - (b) "La Capricieuse" (Elgar)
 - 8.29: The New South Wales Tramway Band.
 - (a) Fox trot, "Broadway Melody" (Freed).
 - (b) Fantasia, "Gems of Irish Melodies" (Hume).
 - 8.44: The Wireless Singers—
 - (a) "An Idyll" (Orchard).
 - (b) "The Lass with a Delicate Air" (Branscombe).
 - (c) "Last Rose of Summer" (Vincent).
 - 8.54: Nora Hill, soprano—
 - (a) "Sweet Spirit, Hear my Prayer," from "Lurline" (Wallace).
 - (b) "Carmana" (Wilson).
 - 9.1: The New South Wales Tramway Band.
 - (a) Selection, "All the Girls" (Williams).
 - (b) "The North Star" (Rimmer).
 - 9.15: Dagmar Thomson, violinist—
 - (a) "Andaluzza" (Granados).
 - (b) "Minuet" (Mozart).
 - 9.21: Wilfrid Thomas, basso—
 - "The Hanging of Danny Deever" (Dammersch).
 - 9.28: The Country Man's Weather Session—
 - (a) "New South Wales Forecasts."
 - (b) "Inter-State Weather Synopsis."
 - 9.30: The New South Wales Tramway Band.
 - (a) Overture, "A Souvenir of the Opera" (Rimmer).
 - (b) Cornet solo, "The Rosary" (Nevin).
 - 9.45: Nora Hill, soprano—
 - (a) "Oh, Bay of Dublin" (Dufferin).
 - (b) "Love's Young Dream" (Moore).
 - 9.52: The Wireless Singers—
 - (a) "I Kiss your Hand, Madame" (Erwin).
 - (b) "Truly I Do" (Williams).
 - (c) "I Must Be Dreaming" (Flaperty and Sherman).

10.0: Norman Francis and Harry Croot, vocal duet—
 "Watchman, What of the Night?" (Sar-
 geant).
 Eva Newbury and Agnes MacDiarmid—
 "Passing By" (Purcell).
 10.12: The New South Wales Tramway Band
 (a) Trombone solo, "Ora pro Nobis"
 (Piccolomini).
 (b) 'Selected.
 10.25: Late weather report.
 Late news from the "Sun" and "News."
 10.30: Close; "National Anthem."

2GB

Theosophical Broadcasting Station, 29 Bligh St.,
 Sydney (Wavelength, 316 Metres).
 10.0: Music. 10.10: Happiness Talk by A.
 E. Bennett. 10.20: Music. 10.30: Women's
 Session, by Miss Helen J. Beegling. 11.30:
 Music. 11.45: Close down. 2.0: Music. 2.5:
 Women's Radio Service, by Miss Dorothy
 Jordan. 2.50: Movie Know All. 3.0: Music.
 3.30: Close down. 5.15: Children's Session,
 by Uncle George. 7.0: Music. 7.45: Feature
 Story. 8.0: Miss Rosamond Gibbes, con-
 tralto. 8.7: Instrumental Quartette. 8.15:
 Mr Norman Williams, baritone. 8.22: Sym-
 phony Orchestra. 8.30: Mr Jack Win and
 Mr. Heath Burdock, humor. 8.35: Miss
 Gladys Verona, soprano. 8.45: Cello solos.
 8.50: Miss Rosamond Gibbes, contralto. 9.0:
 Weather report. 9.1: Address. 9.15: Instru-
 mental Quartette. 9.25: Mr Norman Wil-
 liams, baritone. 9.35: Mr Jack Win and Mr.
 Heath Burdock, humor. 9.40: Symphony Or-
 chestra. 9.50: Miss Gladys Verona, soprano.
 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Pulling's Building, Ash St.,
 Sydney (Wavelength, 365 Metres).
MIDDAY SESSION.
 12.30: Request numbers. 1.0: G.P.O. clock
 and chimes; music. 1.15: Talk on Home-
 craft, by Pandora. 1.40: Music and request
 numbers. 2.30: Close down. 4.30: Musical
 programme.
EVENING SESSION.
 5.30: Children's Hour, conducted by Uncle
 Jack. 6.30: Close down. 7.0: G.P.O. clock
 and chimes; request numbers. 8.0: Piano
 concerto. 9.0: G.P.O. clock and chimes.
 Comments on Foreign Affairs, by Mr. J. M.
 Prentice. 9.10: Music and request numbers.
 10.30: Close down.

2KY

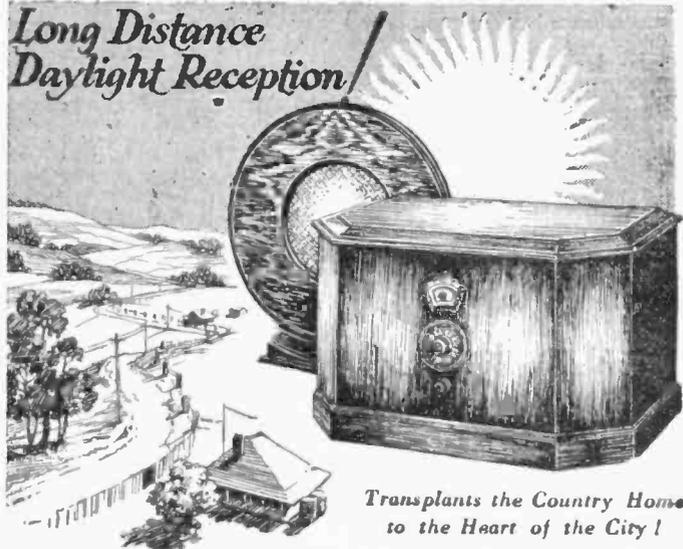
Trades and Labor Council, Goulburn St., Sydney
 (Wavelength, 280 Metres).
MORNING SESSION
 10.0: Tune in to the ticking of the clock.
 10.3: Popular fox trots. 10.15: Hawaiian steel
 guitar selections. 10.30: Women's session,
 Home hints and information, conducted by
 Mrs. Gray. 11.0: A few laughs. 11.5 Piano-
 forte selections. 11.15: Calls and announce-
 ments. 11.20: Musical interlude. 11.30: Re-
 quest numbers. 11.40: Music and vocal items.
 11.55: Where to go to-night. 12.0 noon:
 Closing announcements.
CHILDREN'S SESSION
 6.0: Birthday calls, request numbers and
 kiddies' entertainment, Aunt Jemima and
 Uncle Bert.
EVENING SESSION
 7.0: Musical interlude. 7.15: Sporting fea-
 ture. Complete review of to-day's racing.
 Mr. Geo. A. Davis. 7.40: Health feature.
 Northey Du Maurier. 8.0: Hawai-
 ian steel guitar selections. 8.15:
 Al Rosenberg, novelty pianist. 8.30: Banjo
 solos, Master Harry Weir. 8.36: Al Rosen-
 berg, at the piano. 9.10: Sporting feature.
 Presented by Tooth and Co. Ltd., Kent
 Brewery, From Sydney Stadium: Full de-
 scription of main 15-round event. 9.50: Music.
 from the studio. 10.0: Closing announce-
 ments.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra,
 Sydney (Wavelength, 293 Metres).
EARLY MORNING SESSION.—7.15 a.m.:
 Orchestral and vocal items. 8.0: Clock and
 chimes. 8.30: Weather forecast. Close
 down.
EVENING SESSION.—7.15 p.m.: Orches-
 tral dinner music. 7.58: Programme an-
 nouncements. 8.0: Clock and chimes. 8.1:
 Overture, "Light Cavalry." 8.11: Orchestral
 and vocal concert. 10.15: Close down.

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HEADQUARTERS—720 T HAYMARKET, SYDNEY.

Interstate Programmes, Wednesday, October 2

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 311 Metres)

EARLY MORNING SESSION

7.0 to 8.15: See Friday.
MORNING SESSION
 10.30: Current Happenings in Sport, by Met. Morris. 10.45: Melody broadcast. 12.0: Melbourne Observatory time signal. 12.1: Melody broadcast.

NEWS SESSION

12.45: News service; British Official Wireless news; Corn Exchange midday report; Newmarket stock sales; Associated Stock and Station Agents' official report. 12.30: Close down.

MIDDAY SESSION

1.0: Melbourne Observatory time signal; Stock Exchange information; meteorological data; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecast; river reports; rainfall; comments on the day's news. 1.30: Transmission from Rotary Club luncheon.

EDUCATIONAL SESSION

2.0: Reading aloud, by Miss Alice Smith. 2.13: Description of Craigieburn Hurdle Race, two miles, Findon Harriers' Hunt races, at Sandown Park. 2.20: Rainbows in the Bush, by Mr. Chas. Daley. 2.35: Musical interlude. 2.43: Description of Beveridge Handicap, six furlongs, at Findon Harriers' Hunt Club races, at Sandown Park. 2.50: How Our Races are Made, by Hon. J. H. Keating, LL.B.

THE RADIO MATINEE

3.5: The A.B.C. Troubadours, "Flower of Love" (Mendoza), selected. 3.9: Jessie Smith, contralto. 3.13: Description of Janefeldt Maiden Hunters' Steeplechase, two miles, Findon Harriers' Hunt Club races, at Sandown Park, by Eric Welch. 3.20: R. McCarthy, banjo, modern melody. 3.23: "The Singing Serenader," a new hit and an old favorite. 3.30: One-act play, "Are You a Redhead?" produced by Dulcie Hall. Clara, "Dulcie Hall; Stella, Leonie Levy; Terry, Claude Carter. The two chorus girls—Stella considerably older than Clara—live in a flat in New York. It is a comfortably-furnished apartment, with a profusion of beautiful flowers. When the play begins, Clara is asleep on a big couch in front of the fire. It is about four in the afternoon. The door bell is ringing. 3.43: Description of Findon Hunt Club races, Findon Hunt Cup, 2½ miles, at Sandown Park, by Eric Welch. 3.50: A.B.C. Troubadours, "I Love to Hear You Singing" (Wood), requested number. 3.56: Hugh Huxham, tenor, "Monterey," a Spanish song, with guitar accompaniment. 4.0: Harry Bennett, xylophone gymnastics. 4.4: Jessie Smith, contralto. 4.8: Bert Ray, comedian, "Smile a While." 4.13: Description of Van Yean Handicap, mile and a quarter, Findon Hunt Club races, at Sandown Park, by Eric Welch. 4.20: A specialty trio, piano, trumpet, and cymbals. 4.24: "The Singing Serenader," selected. 4.30: Bert Ray, comedian, "Have You Heard This?" 4.34: A.B.C. Troubadours, latest dance music. 4.43: Description of Doreen's Steeplechaser's Flat Race, ½ mile, Findon Hunt Club races, at Sandown Park, by Eric Welch. 4.50: Close down.

THE CHILDREN'S HOUR

5.45: "Little Miss Kookaburra" knows a dear little story for her Tink Kookaburrettes, about "Bobby and Mr. and Mrs. Robin Redbreast." 6.0: Birthday greetings by "Little Miss Kookaburra." 6.15: Musical interlude.

EVENING SESSION

6.20: French, by Madame Soward. 6.35: Musical interlude. 6.40: How to Attain and Retain Good Health—X-Rays and What They Tell About the Teeth, by Mr. Cecil D. Hearman, LL.D.S., B.D.Sc. 6.55: Musical interlude. 7.0: Melbourne Observatory time signal. 7.1: Countryman's session. 7.20: Technical talks for mechanics—Mild Steel, by Prof. J. Nell Greenwood, D.Sc. 7.40: News service. 7.45: The Things We Drink—Temperance Drinks, by Dr. Loftus Hills, D.Sc.

NIGHT SESSION

8.0: One hour of music by the masters, arranged by Professor Bernard Heinich.
 9.0: Grooming the Iron Horse. A description from the North Melbourne Locomotive Depot, outlining the intricate processes involved in preparing the steed for the road.
 9.25: A.B.C. Troubadours, melody numbers.
 9.31: The Radio Trumpets, song, jest, and story.
 9.38: A specialty trio, violin, flute, and piano.
 9.42: Jack Houston, ventriloquist, "Jenny" in the police court.
 9.48: A.B.C. Troubadours, latest hits.
 9.54: Nell Crane, in a merry mood.
 10.10: The A.B.C. Troubadours, song and syncopation.
 10.16: Jack Houston, ventriloquist, "Jenny" has a few words.
 10.32: Meteorological information; British Official Wireless news; items of interest.
 10.30: The Rex Dance Band.
 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

8.15 to 11.0: See Friday.

MIDDAY SESSION

12.0: G.P.O. Chimes. 12.1: Food and Cookery—Some Delicacies, Miss Kathleen Benningfield. 12.15: Organ recital from the Melbourne Town Hall, Dr. W. G. Price. 12.45: Luncheon music, supplied by the Studio Light Orchestra. 2.0: G.P.O. Chimes.

AFTERNOON SESSION

2.0: Band—The Coldstream Guards. 2.8: Comedian

—Johnny Marvin. 2.16: Violin solo—Fritz Kreisler. 2.24: Baritone solo—Peter Dawson. 2.32: Piano recital—Three light classical numbers, played by R. Friml, F. Black and D. Sayino. 2.40: Orchestra—Selection from "Whoopie." 2.48: Comedy—The Black Jacks. 2.56: Band—The Coldstream Guards. 3.3: Request numbers. 3.50: The Pre-School Child—Does it matter if your little child is jealous?—Miss M. Lush. 3.55: Musical interlude. 3.40: Choosing pictures wisely, Miss Stephanie Taylor. 3.55: Musical interlude. 4.0: Home Life in Other Countries: Holland—Miss D. Babington. 4.15: Reproduced music. 5.0: G.P.O. chimes; reproduced music. 5.30: Weather data. 5.00: Close down.

EVENING SESSION

9.15: Dinner music supplied by the Studio Light Orchestra. 9.30: What on the Air? To-night? 7.32: Sporting results. Findon Harriers' Club race results. 7.35: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION

8.0: Coburg City Band (conductor, T. Davison)—Waltz, "Ricordan Zee." 8.6: "The Radio Trumpets," in song, jest, and story. 8.14: Thomas George, bass—"Vulcan's Song" (Gounod), "When I Was a Bachelor" (Gregory). 8.21: Coburg City Band—Cornet solo, "Ida and Dot" (Lozey). 8.27: Frederick Whitlow, character actor and entertainer—Dramatic monologue, "A Fallen Star." "El Yer Like." 8.34: Coburg City Band—Fantasia, "Souvenir de Russe" (Rimmer). 8.40: "Why Do We Behave as Human Beings? Learning by Experience," Professor J. A. Gunn, M.A., B.Sc., Ph.D. 8.55: Mabel Nelson, piano—"Rhapsody in B Minor" (Brahms). 9.0: Violet Sempie, contralto—Two old English songs, "More Love or More Disdain." "Ah, How Pleasant 'Tis to Love" (Puccini). 9.7: Coburg City Band—March, "The Mad Major" (Alford); fantasia, "Silver Dale" (Allen). 9.15: Thomas George, bass—"The Two Grenadiers" (Schumann), "The Knight's Song" (Shaw). 9.22: Alfred Acland, violin. 9.30: Coburg City Band—Selection, "Gems of Victorian Melody" (Round). 9.40: Violet Sempie, contralto—"When Thy Blue Eyes" (Lassen), "To the Forest" (Tschakowsky). 9.47: Drama, "Things That Don't Matter" (produced by Frank Pearson, Character, a Policeman, The Man, Harry Rosmore; The Woman, Vety Landau; Billy, Frank Pearson. Scene: A shelter shed on a river bankment. Time: The present). 9.57: National Broadcasting Orchestra—Oriental Fantasy, "In a Persian Market" (Kotelby). 10.3: Weather information and "Herald" news. 10.13: Frederick Whitlow, character actor and entertainer—French monologue, "Jean." Humorous monologue—"Oh, Memory" (by special request). 10.20: National Broadcasting Orchestra—Selection from "Cavalleria Rusticana" (Mascagni). 10.30: God Save the King.

3DB

The "Herald" Broadcasting Station, Flinders Street, Melbourne (255 Metres).

MORNING SESSION

11.0: London Pavilion Orchestra, selection, "This Year of Grace." 11.30: La Vogue, "The World's Fashions and Fables." 11.35: Sir Harry Lauder, "The Pirate." 12.0: Sergee Rachmaninoff (piano), "Prelude in C Sharp Minor." 12.30: Market reports—John M'Namara and Co. Pty., Ltd. 12.32: Edith Lorran, Orchestra, "The Mad Major." 1.0: Gladys Moncrieff, "Some Day." 1.15: Pioneer Station Sponsored Session. 1.45: Close down.

AFTERNOON SESSION

2.15: Royal Opera Orchestra, "Sleeping Beauty." 2.30: Mrs. Dorothy Silk, "Homocrafts." 2.45: Henry Geehl and Wm. Lovelock, "Valse des Fleurs." 3.0: Atwater Kent Radio Hour—Sponsored by A. G. Healing, Ltd., and E. T. Muir. 4.0: Close down.

EARLY EVENING SESSION

4.45: Choral Evensongs transmitted from St. Paul's Cathedral. 5.30: Eileen Zimbalist (violin), "Valse Bluette." 6.0: A special selection of Children's Requests. 6.30: Joseph Hualo (tenor), "Let us Forget." 7.0: Boyd Sinter (clarinet), "Bad Habits." 7.15: Market reports—John M'Namara and Co. Pty., Ltd. 7.20: Robert Watson (baritone), "The Standard on the Brees." 7.30: Market reports—Clipsland and Northern Co-operative. 7.40: New Queen's Hall Orchestra, "William Tell Overture."

EVENING SESSION

8.0: Jack Hylton and his Orchestra, "The Selfish Giant." 8.30: Amelita Galli Curci, "La Paloma." 9.0: Sybil Sanderson Fagan Ensemble, "Nightingale Song." 9.30: Raymond Newell, "Two Old Tramps." 10.0: Mark Hambourg (piano), "Waltz in A Flat." 10.35: Eileen Roberts (harpsichord), "Spring Song" (Meldelssohn), "Ave Maria" (Schubert). 8.45: Mrs. Phil Stewart (soprano)—"Still is the Night" (Bohm).

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

For day sessions, see Friday.

NIGHT SESSION

7.45: A talk arranged by the Queensland Agricultural High School and College. 8.0: The Studio-Dance Orchestra—dance numbers. 8.10: Monument and Harrow—Another Argument. 8.25: The Studio Dance Orchestra—dance music. 8.35: Eileen Roberts (harpsichord)—"Spring Song" (Meldelssohn), "Ave Maria" (Schubert). 8.45: Mrs. Phil Stewart (soprano)—"Still is the Night" (Bohm).

8.50: The Studio Dance Orchestra—dance music. 9.0: Metropolitan weather forecast; movement of highness and lowness. 9.2: Foster and Dawson, entertainers. 9.15: The Studio Dance Orchestra—dance music. 9.25: Mrs. Phil Stewart (soprano)—"An Emblem." 9.30: Vida Chown, banjo-mandolin solos—"Whistling Rufus" (Mills), Lancashire Clogs—"Grimshaw," "Bonnie Scotland" (Kennedy), "I Lift Up My Finger and Say Sweet Tweet" (Sarony). 9.40: The Studio Dance Orchestra—dance music. 9.50: Kenyon, entertainer. 10.0: News supplied by courtesy of the metropolitan dailies; weather information. 10.15: The Studio Dance Orchestra—dance music. 10.30: Mrs. Robert Bell (soprano)—"Estrellita" (Ponce). 10.40: The Studio Dance Orchestra—dance music. 11.0: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION.—7.30: Town Hall chimes, meteorological report. The day's maxim. 7.35: Early rising music (reproduced). 7.55: Mails and shipping intelligence. 8.0: What's on to-day? 8.5: Market reports. 8.10: Early rising music (reproduced). 8.22: World-wide cables ("Sun," "Herald" and A.P.A. service). 8.27: Features of to-day's programme. 8.30: Close down.

MORNING SESSION—TRADERS' DEMONSTRATION.—10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Women's interest talk. 10.30: Organ recital from the Ambassadors—Jack Laing at the console of the Wurliitzer organ. 11.0: Close down.

MIDDAY SESSION.—12.30: Town Hall chimes. 12.31: Reproduced music. 12.45: A.B.C. midday news service. 12.50: Items of interest. 1.1: Weather report. 1.0: Town Hall chimes. 1.1: Luncheon music, by the National Broadcasting Orchestra. 2.0: Close down.

THE RADIO MATINEE.—3.30: Town Hall chimes. 3.35: The National Council of Women. 4.0: Town Hall chimes. 4.1: Reproduced music. 4.15: The story of the day. 4.30: Reproduced music. 4.55: What's on the air this evening? 5.0: Close down. CHILDREN'S EVENING SESSION.—5.45: Children's "Goodnight" stories, by Uncle Sam and Auntie Maxine. 6.15: A.B.C. Younger Set session—"Girl's Night." 6.30: Dinner music by the National Broadcasting Orchestra. 7.30: Weather report. 7.31: A.B.C. news service. 7.35: Market reports. 7.40: Sporting talk. 7.57: Features of to-night's presentation.

EVENING SESSION—Ambassadors' Uddt Orchestra Entertainment, under the direction of Bert Howell. 8.8: Les Waldron at the console of the Grand Organ. 9.8: Stage presentation, broadcast from the Ambassadors' Theatre. 11.0: Close down. "God Save the King."

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Selections. 11.34: Midlands weather forecast. 11.35: Selections. 11.55: Tasmanian Stations' 9 a.m. weather report. 12.0: G.P.C. clock chimes the hour. 12.1: Shipping information; mail notices; housewives' guide. 12.8: Selections. 12.30: News service; announcements. 12.40: Selections. 1.5: British official wireless news; railway auction sales. 1.10: Selections. 1.30: Transmission from the Imperial Hotel, Collins Street, Hobart, speeches at the Rotary Club luncheon. 2.0: Close down. 3.0: G.P.O. clock chimes the hour. 3.1: Selections. 3.4: Weather information. 3.5: Selections. 4.15: Read-down from the "Illustrated Tasmanian Mail." 4.30: Close down. 6.15: Children's Hour, with Bertha Southey Brammall. 7.10: Recorded music. 7.30: News session. 7.40: Miss M. D. Wilson, instructress of dressmaking, will speak on "Spring Fashions." 7.50: Belle St. Lawrence will continue her travel talks. 8.0: G.P.O. chimes. 8.1: Selections. 3.15: A Columbia recital, including latest releases, specially arranged by Findlay's Music Warehouse. 9.30: News session. 9.45: Record recital (continued). 10.0: G.P.O. clock chimes the hour. 10.1: Close down.

(Continued from page 7.)

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516 Metres).

Saturday, September 28

11.30: Selections. 11.34: Midlands weather forecast. 11.35: Selections. 11.55: Tasmania Stations' 9 a.m. weather report. 12.0: Chimes. 12.1: Shipping information; mail notices; Housewives' Guide. 12.8: Selections. 12.30: News service; announcements. 12.40: Record recital. 1.5: British Official Wireless news; railway auction sales. 1.10: Selections. 1.30: Close down. 2.45: Transmission from the North Hobart Oval—League Football, described by Sid Jones. 4.50: All sporting results to hand. 5.0: Close down. 6.10: All sporting results to hand. 6.30: Children's Hour with "Uncle David." 7.10: Recorded music. 7.30: News session. 7.40: Roy Johnson will speak on "Manual Training." 7.50: J. M. Counsel will speak on "European Affairs." 8.0: G.P.O. clock chimes the hour. 8.1: Record recital. 8.15: Transmission from the Theatre Royal, Hobart—Commonwealth Boxing and Wrestling Championships, described by Geo. Collis. 10.15: British Official Wireless News. 10.20: Close down.



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RADIO BATTERIES
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Local Programmes, Thursday, October 3

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 TO 8.15 A.M.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction.
- 7.45: Mails and shipping.
- 7.58: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: Close.

MORNING SESSION—10.30 A.M. TO 12.30 P.M.

- 10.35: Announcements.
- 10.32: A.B.C. Racing Observer
- 10.45: Horace Weber at the grand organ.
- 11.0: Household Helps—Domestic notes, by Miss Ruth Furst.
- 11.10: Cables (copyright)—A.P.A. and "Sun"—"Herald" news service.
- 11.15: Morning devotion.
- 11.30: Austradio musical reproduction.
- 11.53: British official wireless press.
- 12.0: "Big Ben"; Stock Exchange, and metal quotations.
- 12.5: "With the Poets" by Eleanor Ross.
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: Close.

THE LUNCH HOUR—1 P.M. TO 2.30 P.M.

- 1.0: Lunch to music with the National Broadcasting Orchestra.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: Popular Education—"Spoken English" by C. N. Baeyeritz.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 TO 4.30 P.M.

- 2.30: The 2FC Instrumental Trio.
- 2.42: Florence Bentley, mezzo—(a) "Down in the Forest" (Landon Ronald).
- (b) "God Touched the Rose" (Brown).
- 2.49: Jean M'Arthur, pianist—(a) "Pastorale" (Scarlati-Tausig).
- (b) "Etude C Sharp Minor" (Scriabine).
- 2.56: The 2FC Instrumental Trio.
- 3.11: Doris Lascelles, monologues—"The Chinese Cook" (Sims).
- 3.18: Jean M'Arthur, pianist—"Alceste-Caprice" (St. Saens).
- 3.25: The 2FC Instrumental Trio.
- 3.42: Florence Bentley, mezzo—(a) "Thank God for a Garden" (Del Riego).
- (b) "One Little Hour" (Sharp).
- 3.49: The 2FC Instrumental Trio.
- 4.0: An afternoon story.
- 4.15: The 2FC Instrumental Trio.
- 4.28: Stock Exchange, third call.
- 4.30: Close.

EARLY EVENING SESSION—5.45 TO 7.55 P.M.

- 5.45: Kiddies' "Goodnight" Stories, told by Aunt Goodie.
- 6.45: The National Broadcasting Orchestra.
- 7.30: A.B.C. Sporting Service.
- 7.37: Special country session; Stock Exchange resume; markets; weather forecast; late news from the "Sun" and "News"; truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 TO 11.30 P.M.

- Our Night of Contrasts—our night of sections, which veritably cater for thousands. Classic, vocal groups, vaudeville, drama, xylophone solos, and popular numbers. An unusual something by Jack Lumsdaine and Goodie Reeve. Here is a bit of everything to please everybody. 2BL's feature is a radio play arranged by Brunton Gibb.
- 8.0: Clifford Lathlean, basso, with trio accompaniment—(a) "Breathe Soft Ye Winds" (Handel).
 - (b) "Fair House of Joy" (Quilter).
 - (c) "Serenade" (Mozart).
 - (d) "Rolling Down to Rio" (German).
 - (e) "Silver" (Gibbs).

- (f) "Glorious Devon" (German).
- 8.20: Cameos of our City, by C. R. Hall.
- 8.40: Joan Fry, pianist—(a) "Adagio" (Mozart).
- (b) "Presto from Sonata in D Major" (Haydn).
- (c) "Gavotte" (Arne).
- (d) "Alt Wien" (Godowsky).
- (e) "A Frolic" (Cairo Rego).
- (f) "Oife" (Phillip).
- 9.0: The country man's weather session—(a) New South Wales forecasts.
- (b) Inter-State weather synopsis.
- 9.2: Dan Thomas and Mae Crean, entertainers—(a) Songs—Dan Thomas, "Honeymoon" (Mellor and Gifford).
- Mae Crean, "You've No Idea" (Dougherty and Ponce).
- (b) Dialogue, "Power of Suggestion" (Thomas).
- (c) Duet, "On My Radio."
- 9.22: The Janetski Trio, vocal and xylophone numbers—(a) Fox-trot, "Rainbow Man" (Dowling).
- (b) Overture, "Raymond" (Thomas).
- (c) Waltz, "Sleepy Valley" (Dowling and Hanley).
- (d) Song, with ukulele accompaniment, "There's a Rainbow Round My Shoulder" (Jolson).
- (e) Song, with ukulele accompaniment—"Girl of My Dreams" (Clapp).
- (f) Song, with ukulele accompaniment—"Fox-trot, "Old Man Sunshine" (Marvin).
- 9.42: Jack Lumsdaine and Goodie Reeve in an unusual something.
- 10.2: From the Hotel Australia—Cec. Morrison's Dance Band.
- 10.15: From the Studio—Announcements; late official weather forecast.
- 10.20: From the Hotel Australia—Cec. Morrison's Dance Band.
- 11.30: Close. National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 a.m. to 11 a.m.

- 8.15: G.P.O. chimes.
- Music for every mood.
- 8.45: Meteorological data for the country.
- 8.50: Austradio musical reproduction.
- 9.30: British official wireless news.
- 9.35: New music.
- 10.2: News from the "Labor Daily."
- 10.5: News from the "Sydney Morning Herald."
- 10.10: The Australian Broadcasting Company's Women's Association, conducted by Miss Gwen Varley.
- 10.30: Austradio musical reproduction.
- 10.40: This morning's story.
- 11.0: G.P.O. chimes. Close.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes. Announcements.
- 12.2: The National Broadcasting Orchestra.
- 1.0: Afternoon news from the "Sun" and "News."
- 1.5: Studio music.
- 1.15: Women's interest talk—Mrs. Mildred Muscio will speak on "The Legal Guardianship of Children."
- 1.30: Austradio musical reproduction.
- 1.55: J. Knight Barnett at the Wurlitzer.
- 2.5: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business efficiency talk—Brunton Gibb.
- 2.45: The "Magic Carpet Series"—F. H. Raward, "Little Old New York."
- 3.0: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- From the Studio:
- 3.12: Ruby Lesley, soprano—(a) "Sing, Sing, Blackbird" (Phillips).
- (b) "Perhaps" (Forster).
- 3.19: A popular number.
- 3.22: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- From the Studio:
- 3.39: Melody memories.
- 3.43: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

- 3.53: From the studio, Les. Harris, saxophone solos.
- 4.0: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.
- 4.12: From the studio, Ruby Lesley, soprano—

- (a) "I Live for You" (Wheatherley).
- (b) "The Amorous Goldfish" (Jones).
- 4.19: Dismal Desmond, entertainer—"The Cup" (Anson and Arphor).
- 4.26: Les. Harris, saxophone solos.
- 4.33: Radio rhythm.
- 4.45: The trade hour—demonstration music.
- 5.45: Weather information. Close.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: The National Broadcasting Orchestra.
- 6.45: The A.B.C. Younger Set session—Girls' Radio Club, conducted by Miss Gwen Varley.
- 7.5: Studio music.

- The country man's market session—wheat, stock, farm produce, fruit, vegetables, pig and poultry markets.

- 7.30: The National Broadcasting Orchestra.

- 7.45: Studio music.

- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- Thursday is 2BL's turn for a radio play, and to-night's production, in the capable hands of Brunton Gibb, will attract many listeners. 2FC service is devoted to a sectioned programme, in which the light and shade of classic, comedy, and drama is attractively blended to meet the needs of all tastes.

- 8.0: G.P.O. chimes.
- From the Capitol Theatre: Ted Henkel and the Capitol Orchestra. Fred Scholl at the Wurlitzer organ.
- 9.0: From the studio, a radio play, arranged by Brunton Gibb.

- 9.30: Weather information.
- 9.32: Gwladys Fimister, soprano.
- 9.35: J. F. Julian, cellist.
- 9.46: Alfred Wilmore and Victor Evans, vocal duets—

- (a) "Solenne in Quest'ora" ("In This Solemn Hour") (Verdi).
- (b) "Arise, O Sun" (Day).

- 9.58: Gwladys Fimister, soprano.
- 10.3: J. F. Julian, cellist.
- 10.10: Alfred Wilmore, tenor, and Victor Evans, baritone.

- (a) "The Moon Has Raised Her Lamps Above" (Benedict).
- (b) "In the Garden of My Heart" (Ball).
- 10.20: Announcements.
- 10.25: Late weather report.
- Late news from the "Sun" and "News."
- 10.30: Close. "National Anthem."

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0: Music. 10.10: Happiness Talk by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. 11.30: Music. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Movie Know All. 3.0: Labor Saving Demonstration from Buckingham's, Ltd. 3.30: Close down. 5.15: Children's Session, by Uncle George. 7.0: Music. 7.45: Feature Story. 8.0: Miss Hazel McClelland, contralto. 8.7: Violin solos. 8.15: Mr. Cecil Houghton, tenor. 8.22: Symphony Orchestra. 8.30: Mr. Jack Win and Miss Nora Windle, in a dramatic sketch. 8.40: Miss Mary Mulconry soprano. 8.50: Symphony Orchestra. 9.0: Weather report. 9.3: Address. 9.15: Miss Hazel McClelland, contralto. 9.25: Violin solos. 9.30: Mr. Cecil Houghton, tenor. 9.40: Mr. Jack Win and Miss Nora Windle, in a humorous sketch. 9.50: Miss Mary Mulconry, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION.

- 12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Home-craft, by Pandora. 1.40: Music and request

numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 8.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 7.45: Garden Talk, by Mr. S. H. Hunt. 8.0: Drinking and hunting songs. 9.0: G.P.O. clock and chimes. Comments on Foreign Affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

2KY

Trades and Labor Council, Gough St., Sydney (Wavelength, 280 Metres).

MORNING SESSION

10.0: Tune in to the ticking of the clock. 10.3: Popular fox trots. 10.15: Hawaiian steel guitar selections. 10.30: Women's Session. Home hints and information, conducted by Mrs. Gray. 11.0: A few laughs. 11.5: Piano forte selections. 11.15: Calls and announcements. 11.20: Musical interlude. 11.30: Labor's Federal Radio Campaign. 11.40: Music and vocal items. 11.55: Where to go to-night. 12.0 noon: Closing announcements.

CHILDREN'S SESSION

6.0: Birthday calls, request numbers, and kiddies' entertainment, Aunt Jemima and Uncle Bert.

EVENING SESSION

7.0: Musical interlude. 7.5: Birthday calls. 7.15: Request numbers. 7.30: Hawaiian steel guitar selections. 7.45: Humorous interlude. 8.0: Orchestral selections. 8.10: Tenor solos, Mr. G. Mason. 8.17: A humorous interlude. 8.30: Frederick Holt presents a recital of Australian compositions and composers, with musical and vocal illustrations. 8.45: Selection of humorous records. 8.10: Request numbers. 9.40: Continue record recital. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.—7.15 a.m.: Breakfast time hour orchestral music. 8.0: Clock and chimes. 8.1: Musical items. 8.30: Weather report. Close down.

MIDDAY SESSION.—11.30 a.m.: Orchestral and vocal music. 12.30: Close down.

AFTERNOON SESSION: 1 p.m.: Vocal and instrumental items. 1.45: Organ recital. 2.0: Music. 2.30: Announcements. Close down.

EVENING SESSION.—7.15 p.m.: Orchestral and vocal dinner music. 7.58: programme announcements. 8.0: Clock and chimes. 8.1: Overture, "Maritana" selections. 8.11: Orchestral and vocal concert. 10.15: Close down.

A NEAPOLITAN PROGRAMME

AN attractive programme of Neapolitan music is programmed at 3AR on September 26, when vocal and instrumental solos comprising some little-known folk songs will be given. Madame Elsie Davies, who completed her musical education in Italy, and toured successfully in many operas throughout the country, will be heard in some lilting Neapolitan serenades, and Signor Manzoni, a great favorite with listeners, will contribute several mandolin solos.

YACHTSMEN'S AND FISHERMEN'S SPECIAL FORECAST

AT the suggestion of the Royal Motor Yacht Club the Australian Broadcasting Company, Limited, is inaugurating a special forecast for the benefit of yachting and fishing enthusiasts. To carry out this work the company approached Mr. D. J. Mares, Government Meteorologist, who will give special data in relation to probable southerly busters for the week-ends. Arrangements have also been made with the officers of South Head and Barrenjoey lighthouses to secure from them each night the condition of the sea. From this combined information it is hoped to give sufficient warning to yachtsmen and fishermen as to the probable condition of the weather.

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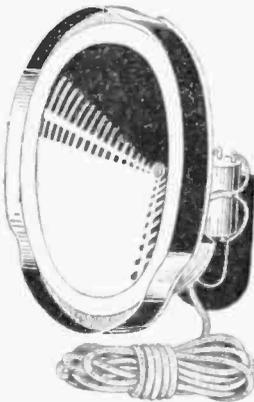
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ELECTRAD

Interstate Programmes, Thursday, October 3

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION

7.0 to 8.15: See Friday.
MORNING SESSION
10.30: Current Happenings in Sport, by Eric Welch.
10.45: Melody broadcast. 12.0: Melbourne Observatory time signal. 12.15: News service; British Official Wireless news; Corn Exchange Midday report; Queensland stock sales—Associated Stock and Station Agents' official report. 12.30: Close down

MIDDAY SESSION

1.0: Melbourne Observatory time signal; Stock Exchange information; meteorological data; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecast; river reports; rainfall; comments on the day's news.

LUNCHEON MUSIC

1.15: Luncheon music, supplied by the Studio Light Orchestra.

EDUCATIONAL SESSION

2.0: Great Australians. Archbishop Carr. 2.15: Musical interlude. 2.20: Music Explained and Illustrated, by Mr. C. E. Monteath, F.R.C.O. 2.35: Musical interlude. 2.40: Romantic Stories of Australia's Early Days, by Mr. C. R. Long, M.A. 2.55: Musical interlude.

THE RADIO MATINEE

3.0: The Studio Light Orchestra, overture, "If I Were King" (Adam). 3.8: Charles Frewais, baritone, "Lady Min" (Lohr), "For the Green" (Lohr). 2.13: Ith. Mornement, piano, "Gavotte in A Major" (Gluck-Brants), "Two Larks" (Tscheltzky), "Coronach" (by request), "Barrett", 3.21: Studio Light Orchestra, "By the Waters of Minnetonka" (Lienhard), "Dance of the Debutantes" (Langley) 3.26: Freda Northcote, contralto, "The Mission of a Rose" (Cowan), "Somehow, Somewhere, Sometime" (Wallace). 3.33: Norman Pill, entertainer, comicallities. 3.40: One-act play, "The Mistake", by Harry Paul, produced by Winifred Moverley. The Eurldar, J. Alexander Browne; The Woman, Winifred Moverley. The scene opens on a room in darkness. There are a few indefinite noises—not loud, and the faint click of a light switch. The light goes on, revealing a burglar by a window. The Studio Light Orchestra, "Serenade" (Pierne). 3.56: Charles Frewais, baritone, "The Crown of the Year" (Martini), "The Stock Rider's Song" (James). 1.3. Ina Mornement, piano, "Ballet des Ombres Heurcuses" (Gluck-Friedman). "Cradle Song" (Brahms-Grailinger). "Hornpipe" Water Music (Handel-Grailinger). 4.10: Freda Northcote, contralto, "Sapphic Ode" (Brahms). "Cradle Song" (Brahms). 4.1: Norman Pill, entertainer, more comicallities. 4.24: Studio Light Orchestra, "The Flashing Eyes of Andalus" (Souza). 4.30: Acceptances and barrier positions for V.R.C. races at Flemington. 4.35: Close down.

THE CHILDREN'S CORNER

5.45: Bobby Bluegum has some bright songs and stories for the children. 8.0: Birthday greetings and answers to letters by "Bobby Bluegum". 6.20: For the older boys and girls, an adventure story.

EVENING SESSION

8.35: Melody broadcast. 6.40: Let's talk about our animals. 6.55: Melody broadcast. 7.0: Melbourne Observatory time signal. 7.1: Countryman's session. 7.25: For the man on the land. 7.40: News service. 7.45: Novels and authors of to-day. 8.0: Melbourne Observatory time signal.

NIGHT SESSION

8.0: Elise Stewart and Victor Brooks will entertain. "The Sun is at my Window," "That's What Puts the Sweet in Honey, Sweet Home," "I Can't Give You Anything But Love," "Behind the Clouds." 8.15: You will hear the outstanding subject or personality of the week.
8.30: The A.B.C. Troubadours, "My Annapolis and You" (Blito), "Sarita" (Burton), new number.
8.39: Victor Drinkwater, tenor, "Red Devon, by the Sea" (Coningsby-Clarke).
8.42: A.B.C. Troubadours, "I'll Get By" (Turk), "Down South" (Widely), new number.
8.50: Fred Whitlow will entertain.
8.53: A.B.C. Troubadours, "Everybody Loves My Girl" (Lewis), "Me and the Mau in the Moon" (Monarco), new number.
9.2: Grace King, mezzo-contralto, "The Man Who Brings the Sunshine" (Gosse), 8.0.
9.5: A.B.C. Troubadours, "South Wind" (Henderson), "Broadway Melody" (Brown).
9.14: William Laird, baritone, "The Hundred Pipers" (Moffatt).
9.17: A.B.C. Troubadours, "Dawning" (Silver), "Paradise and You" (Packay), "Love Dreams" (Mendon).
9.26: Violet Jackson, soprano.
9.29: A.B.C. Troubadours, "Weary River" (Clarke), "Thinking of You" (Marvin), "Wobbly Walk" (Green).
9.38: Fred Whitlow, entertainer, humorous sketch, "The Girl at the Telephone."
9.41: A.B.C. Troubadours, "Blue Hawaii" (Baer), Request numbers.
9.50: William Laird, baritone, "To a Miniature" (Brahe).
9.53: The A.B.C. Troubadours, "Wake Up, Chillun, Wake Up" (Robison), "My Mother's Eyes" (Baer), new number.
10.2: Violet Jackson, soprano.
10.5: A.B.C. Troubadours, "Just Another Day"

(Turk), "Makin' Whoopee" (Donaldson), "Chiquita" (Wayne).
10.14: Fred Whitlow, entertainer, monologue, "The Coquette."
10.17: A.B.C. Troubadours, "Four Walls" (Jolson), "Dream House" (Cowan), selected.
10.20: Violet Jackson, soprano.
10.30: Meteorological information; British Official Wireless news from Rugby; items of interest.
10.40: A.B.C. Troubadours, "That's Why" (Henderson), "I'm Wild on Horns on Autos." (Enskill), selected.
10.49: William Laird, baritone, "My Mary, Sweet and Brown" (Kilner).
10.52: A.B.C. Troubadours, "Sweet Seventeen" (Donaldson), "Chilly Pom Pom Pee" (Wendling), selected.
11.0: Frederick Whitlow, entertainer, humorous monologue, "The Street Walk."
11.3: A.B.C. Troubadours, "Third Rail" (Vern de Mars), "Two Weeks' Notice" (Seeman), "Old-fashioned Locket" (Marvin), "Rocky Road" (Gibbs), "By the Fireside" (Phillips), "Susie's Sister" (Sarony), request numbers.
11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 481 Metres).

MORNING SESSION

8.15 to 11.0 (see Friday).

MIDDAY SESSION

12.0: G.P.O. chimes. Community singing. 12.1: Community singing from the Melbourne Town Hall (conductor, Frank Hatherley). 2.0: G.P.O. chimes.

AFTERNOON SESSION

Modern music produced and reproduced. 2.1: "A.B.C. Troubadours"—"If You Want the Rainbow" (Rose), "When Summer is Gone" (Wilbke). 2.5: Fletsam and Jetsam—Rupert Hazell and Elsie Day. 2.13: Piano recital—Victor Lane. 2.21: Jack Kennedy, "The Whispering Baritone"—Latest popular songs. 2.25: "A.B.C. Troubadours"—"Susie's Sister" (Sarony). "It Wasn't Meant To Be" (Endori). 2.31: Part songs—Real Male Quartette. 2.39: Piano recital—Adm Carroll. 2.47: Soprano solo—Belle Forbes Culter. 2.58: "A.B.C. Troubadours"—"Which am de Best Way Home" (Hall), "Where Do I Want to Be" (Barry), "Heigh-ho, Everybody, Heigh-ho" (Wood). 3.5: Request numbers. 3.20: "Choosing My Cup Dresses"—Miss Hattie Knight. 3.35: Musical interlude. 3.40: "Food and Cookery," electric cooking—Miss B. Osborne. 3.55: Musical interlude. 4.0: "Your Health and Appearance, Good Sense, Good Health, and Good Appearance"—Miss Evelyn N. Ellis. 4.15: Reproduced music. 5.0: G.P.O. chimes; reproduced music. 5.30: Weather data. 5.45: Close down.

EVENING SESSION

6.15: Dinner music, supplied by the Studio Light Orchestra. 7.30: What's on the Air To-night? 7.32: Sporting results. Acceptances and barrier positions for the V.R.C. races at Flemington on Saturday, October 5. 7.35: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION

8.1: A special studio presentation of "Tristan and Isolde" (Wagner).
10.20: Weather information and "Herald" news.
10.30: God Save the King.

3DB

The "Herald" Broadcasting Station, Flinders Street, Melbourne (235 Metres).

MORNING SESSION

11.0: International Concert Orchestra, "Lazy Pete." 11.30: Franklyn Baur, "Whispering Trees." 12.0: Edward O'Henry (organ), "Paust Waltz." 12.30: Market reports—John M'Namara and Co. Pty. Ltd. 12.32: Fletsam and Jetsam, "We Never Know What to Expect." 1.0: Nat Shikret and his Orchestra, "I Want a Daddy." 1.30: Bourne-mouth Municipal Orchestra, "Two Imps." 1.45: Close down.

AFTERNOON SESSION

2.15: Berlin State Orchestra, "Forest Murmurs." 2.30: Alfred O'Shea, "Then You'll Remember Me." 3.0: Atwater Kent Radio Hour—Sponsored by A. G. Healing, Ltd., and E. T. Muir. 4.0: Close down.

EARLY EVENING SESSION

5.30: Coldstream Guards Band, "Folle Fergere." 6.0: Special session of Children's Requests. 6.30: Alma Gluck (soprano), "Fiddle and I." 7.0: Rudy Wiedoff (saxophone), "Serenade." 7.15: Market reports—John M'Namara and Co. Pty. Ltd. 7.20: Charles Hackett, "The Sunshine of Your Smile." 7.30: Gippsland and Northern Co-operative Co., Ltd.—Market reports. 7.40: De Groot and Piccadilly Orchestra, "The Flower."

EVENING SESSION

8.0: Brussels Royal Concert Orchestra, "Stenka Razin." 8.30: Phyllis Lett (contralto), "Hills of Donegal." 9.0: Band of the Royal Air Force, "Repass Band." 9.30: English Singers, "The Dark Eyed Sailor." 10.0: Lionel Tertis (viola), "Minneled." 10.30: Marjorie Hayward (violin), "Slumber Song." 10.40: News. 10.45: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 383 Metres).

For day sessions, see Friday.

NIGHT SESSION

7.45: A talk on books, by Mr. J. Doyle (M'Leod's). 4QG Symphony Orchestra (conducted by Erich John).

Group I.—Grand Opera—The 4QG Symphony Orchestra—Overture, "Oberon" (Weber). Mabel Malouf (soprano)—selected. Symphony Orchestra—"Menuet" and "Gavotte" (from "I Pagliacci", Leoncavallo); "Wedding March" (from "Lohengrin", Wagner). W. W. Crisp (tenor)—"Total Eclipse" (Handel); Symphony Orchestra—Overture, "William Tell" (Rossini); "Dawn"; "The Storm"; "The Calm"; "Finale."
Group II.—In the Land of the Midnight Sun. Mabel Malouf (soprano)—"Solveig's Song" (Grieg); Symphony Orchestra—"Peer Gyn" Suite, No. 1 (Grieg); Part 2, "Morning"; Part 2, "The Death of Ase"; W. W. Crisp (tenor)—"Norwegian Shepherd's Song" (Norwegian folksong); Symphony Orchestra—"Peer Gyn" Suite, No. 1 (Grieg); Part 3, "Anitra's Dance"; Part 4, "Dance of the Imps in the Hall of the Mountain King."
9.0: Metropolitan weather forecast.

Group III.—Classical.—A. N. Falk (baritone) and W. W. Crisp (tenor)—vocal duet, "Autumn Song" (Mendelssohn). Symphony Orchestra—"Jupiter Symphony" (Mozart), first movement. Mabel Malouf (soprano) and W. W. Crisp (tenor)—"Jupiter Symphony" (Mozart), "Menuet" and "Finale."
Group IV.—Miscellaneous.—A. N. Falk (baritone)—"Twas in a Land" (Chaminade). Symphony Orchestra—"Second Hungarian Rhapsody" (Liszt). Mabel Malouf (soprano) and W. W. Crisp (tenor)—"In the Garden of My Heart" (Lohr). Symphony Orchestra—Overture, "Poet and Peasant" (Suppe).
10.0: News supplied by courtesy of the metropolitan dailies; weather information; close down.

6WF

Australian Broadcasting Company, Ltd., Wellington St., Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION.—7.30: Town Hall chimes, meteorological report, the day's maxim, 7.35: Early rising music (reproduced). 7.55: Mails and shipping intelligence. 8.0: What's on today? 8.5: Market reports. 8.10: Early rising music (reproduced). 8.25: World-wide cables ("Sun-Herald" and A.P.A. service). 8.27: Features of to-day's programme. 8.30: Close down.

MORNING SESSION—TRADERS' DEMONSTRATION.—10.0: Town Hall chimes. 10.1: Reproduced music. 10.15: Women's interest talk. 10.30: Organ recital from the Ambassadors—Jack Laing at the console of the Wuriltzer organ. 11.0: Close down.

MIDDAY SESSION.—12.30: Town Hall chimes. 12.31: Reproduced music. 12.37: Racing acceptances. 12.45: Midday news service. 12.50: Items of interest. 12.58: Weather report. 1.0: Town Hall chimes. 1.1: Luncheon music by the National Broadcasting Orchestra. 2.0: Close.

THE RADIO MATINEE.—3.30: Town Hall chimes. 3.31: Reproduced music. 3.45: Talk of interest to women, "Women's Service Guild." 4.0: Town Hall chimes. 4.1: Reproduced music. 4.15: Town Hall chimes. 4.1: Ambassadors' Orchestra, conducted by Bert Howell. 5.0: Close.

EARLY EVENING SESSION.—5.45: Children's "Goodnight" stories, by Uncle Bas and Aunt Maxine. 6.15: A.B.C. Younger Set session, "A.B.C. Junior Radio Club." 6.30: Dinner music by the National Broadcasting Orchestra. 7.30: Weather report. 7.41: A.B.C. news service. 7.45: A.B.C. market reports. 7.42: Travlogue. 7.57: Features of to-night's presentation.
EVENING SESSION.—Centenary Musical Festival.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Recital. 11.34: Midlands weather forecast. 11.35: Recital. 11.45: Miss Adeline Eager will speak on "Household Hints." 11.50: Recital. 11.55: Tasmanian Station's 9 a.m. weather report. 12.0: Chimes. 12.1: Shipping information; mail notices; housewives' guide. 12.8: Recital. 12.30: News service; announcements. 12.40: Recital. 1.5: British official wireless news; railway auction sales. 1.10: Recital. 1.30: Close down. 3.0: Chimes. 3.1: Recital. 3.4: Weather information. 3.5: Recital. 4.15: A representative of the Child Welfare Association will speak on "The Care of Milk." 4.30: Close down. 6.15: Children's Hour with "Uncle David" and "The Story Lady." 6.30: Shella Keating will sing to the wee folk, "Daddy's Sweetheart." "The Lilac Tree." 7.10: Recorded music. 7.30: News session. 7.40: Under the auspices of the "Come to Tasmania" Organisation, J. B. Reid will speak on "Tasmania for Tourists." 7.50: H. J. Corrigan will speak on "Soccer." 8.0: Chimes. 8.1: Recital. 8.15: 7ZL's community singing; artists, F. Mourant, A. E. Roberts, Mr. and Mrs. Clifford Hughes, R. J. Dobbie. 9.30: News session. 9.45: Record recital. 10.0: G.P.O. clock chimes the hour. 10.1: Close down.

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Levenson's High-grade Air Column Loud Speaker. the Famous British Built "ULTRA," £6, and there's no better Speaker made. Inspection Invited. A Week's Trial with each one. If not up to expectation will exchange.

Compact .00035 Brass Plate Variable Condensers, 10/6 Value. Now 4/9.

20ft. Speaker Cords, 2/3. Head Phone Cords, 1/9.

Marwol Rheostats, 1/9. 3-gang Valve Sockets, 3/-.

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By Pass Condensers. 600-volt test, 1 mfd., 2/9. 1000-volt test, 2 mfd., 3/3. 1000-volt test, 4mfd., 7/-.



Push-pull Filament Switches, 1/-.

German Cabinet Speakers, 21/-, Now 15/-.

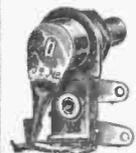
Continental Cone Speaker Units, 13/6.



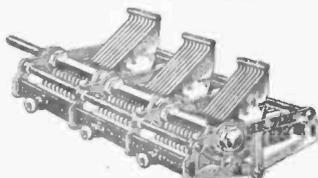
De Jur .00025 Grid Condensers with clips, 1/9.

Heckworth High-grade "B" Batteries, Light Duty, 45-volt. A wonderful Battery. Portable size, 11/6 each. High-grade 4 and 6-volt Accumulators, 30/- and £3. Almost 1/2 Usual Price.

Alpha De Luxe Vernier Dials. The best made. 6/6.



De Jur Filament Switches, 2/3.



De Jur Triplex Variable Condensers. Brass Plates, .00035. 50/-; .0005. 52/6.

A few pair only. Ultra high-grade English Headphones, 45/- list price. Now 19/6. 4000 ohms.

Frost's Headphones, 21/. Now 12/6. 4000 ohms, to clear.

Lissen R.F. Chokes, perfect in every detail. 6/9.

Build your own "B" Battery Eliminator, for sets up to 3 valves. Everything needed. £2/8/6; for sets up to 6 valves, £4/5/6. Easy to Build. Charts 6d Free with Parts.

Amplion A.R.23 Loud Speakers, £9/9/. My price now £4.

Thousands of Variable Condensers Value up to 15/-. Now 3/- and 3/6. All capacities, excepting .0005

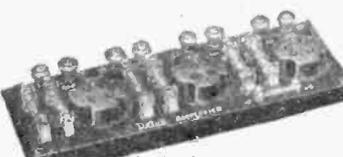
Amplion A.R.88 Loud Speakers, 90/-, Now 1/2 price, 45/-.

De Jur Grid Leaks, 1930 design. All capacities to 10 meg. 3/9. Now 1/3 each.

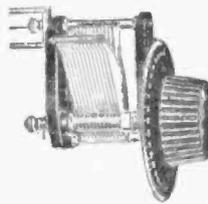
Salkite Accumulator Chargers, 70/-, Now £3.

Amplion A.R.19 Loud Speakers, £6/10/-. My Price, 50/-. To arrive late this month. Book orders now.

Like a Flash 45-volt Heavy Duty "R" Batteries, 25/- value. Now 15/-. Lissen British new process "B" Batteries. 60 volt, 13/6; 100 volt, 22/6.



De Jur 3-stage Amplifier, 42/. A Wonderful Job.



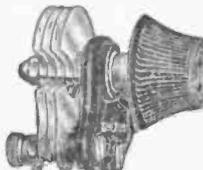
Ormonde Variable Condensers. .00035, with 4in. dial, Now 8/6. British and Best



2000 mfd Electrolytic Condensers, for the Stedi-power Unit. 25/-.



S.C.O. Continental Audio Transformers, 17/6. Now 12/6.



Alpha De Luxe Spring U.X. Sockets, with terminals, 1/9.

English .0001 Reaction Condensers. just landed, Single hole mount, 5/6.



Lissen Super Audio Transformers. British and Best, 24/-.



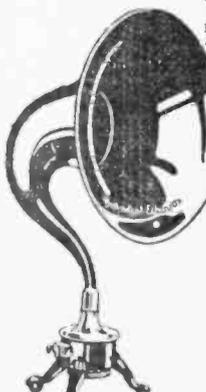
De Jur Switch and Rheostat combined. 1 hole panel mount. 3/9. 30 ohms.

Amplion Cone Speakers. Cabinet. £8/8/. Now £4.

Genuine French Sieravox Cone Loud Speakers. £5/5/. Now 50/-.

English Base 4-Volt Valves. Detector or Amplifier, 10/6. Now 1/6.

Like a Flash 200,000 ohm Variable Resistance wire wound for B Eliminators, or Volume Control, 11/- value. Now 8/-.



A few left out of thousands. Burned British Built Echo-vox Loud Speakers, £5/5/. Now £3.



Ball Bearing British Condensers, .0005, single hole mount, Aluminium plates, 10/6 Value. Now 5/9.



De Jur Variable Condensers. Built like a Battleship. Brass plates, single hole mount. .0005 12/6 .00035 12/- .00025 11/6 .00014 10/6

B.T.H. British Valves, 2 and 6-volt series List Price. 13/6 and 22/6. Now 6/6 each.

Like a Flash High grade Valve. U.X. 201A type. 6/6. U.X. 199 type, 8/6.



De Jur U.Y. Valve Sockets, 1/9.

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Home-constructed B eliminators, using small bell-ringing transformers, have been condemned by the City Commissioners. Apart from this, they are uncertain and unsafe, and will seldom work sets of more than three valves.

But why worry—We supply a full kit of eliminator parts, with commercial-type power transformer, full diagram and instructions, suitable for any set, and complying with all regulations, complete for **59/6**

ANYONE CAN BUILD IT

Something New in Home-assembly Eliminators

Experts point out that most C Batteries do not supply sufficient voltage when B eliminators are used. And C Batteries must be replaced periodically. To overcome this we are offering something entirely new in Eliminator kits. The completed job will work any size set, supplying both B and C current, is simple to construct, and costs only **95/-**

It will pay for itself in a short time in the saving on C Batteries. For additional 10/6 this eliminator will provide A current also.

Diagrams for both eliminators supplied with
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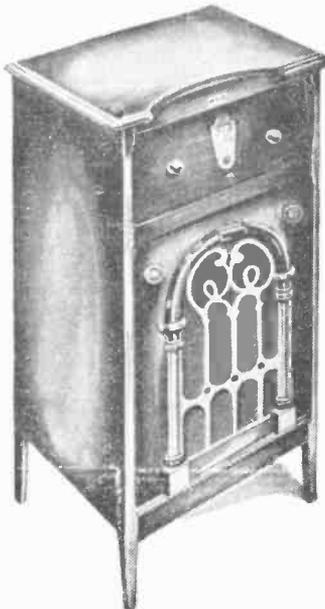
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The Imperia 3

"B" Eliminator Construction

F.W.R. (Mackay).—"I intend building a "B" Eliminator to be used on a radio receiver which I am presenting to a friend. Will you please give me some hints on general construction."

Answer: There is nothing complicated about building an eliminator. Given good components and a reliable rectifier, it is simply a question of proper mounting and wiring. The following hints may prove useful. Remember you have a transformer at one end and choke coils at the other. Both have a.c. flux. Therefore, guard against interacting fields which may cause excessive hum. Provide sufficient separation and place cores at right angles. Use rubber covered wire rather than bus-bar. There is high voltage in the eliminator. It is well to guard against accidental contact which may prove dangerous or even fatal. Earth metal cases of transformers, chokes, and condensers. It is well to place an electromagnetic shield such as sheet iron or roofing tin over the entire assembly to prevent stray energy, which would cause hum in the receiver. If motorboating is encountered, try a larger condenser for the last filter condenser. Values as high as 12mfd. will be found to stop many cases of motorboating, as well as to improve the tone quality for sustained bass notes. Also try an audio choke in the B plus lead from the eliminator to the audio amplifier, together with 2mfd. condenser between each B plus lead and B minus. In the R.F. end, try resistors in the B plus lead with a 1mfd. condenser, shunted across the R.F. plate lead and B minus. Avoid overloading the gaseous rectifier, either through excessive transformer voltage or excessive drain. Rectifier valves are shortened in life by being overloaded. See recent WIRELESS WEEKLY articles on eliminator construction.

M.U.G. (Wollongong).—"Try changing detector valve and experiment with grid bias and various resistance grid leaks."
J.P. (Port Kembla).—"Should not think the power-house would be the cause of the trouble. There is evidently something wrong with your batteries, or in the method of connecting up or operating the set, perhaps the valve has become damaged since it was tested at the other locality."
J.P. (Port Stephens).—"Valves O.K., but you have placed them wrongly. Use the two A609 valves in the R.F. stage as detector. B406 first audio and B605 as last stage."

L.L.B. (Summer Hill).—"Re by-pass. No. Circuit correct."
"Lebanon" (No address).—"Four volt valves will be quite O.K."
A.G.V. (Five Dock).—"There should be no space between L1 and L2. L3 should only consist of 26 turns when the new circuit is used. If the old circuit is that followed, L3 should consist of 50 turns. Increase detector voltage, and place a .001 fixed condenser across the telephones."

W.G. (Bexley).—"This set should not be repaired by yourself without breaking it open, as it is of the tuned type. Return to makers."
J.C. (Queensland).—"Capacities of midget condensers are approximately as follows:—3 plate. .0001; 5 plate. .00015; 7 plate. .00025; 13 plate. .0005; 23 plate. .0015."
W.R. (Bilpin).—"Wind coils as mentioned in diagram. Plate condenser to high capacity. Use a .0025 or .0035 mfd. condenser. Place a .001 fixed condenser across the telephones. You have got the two circuits mixed. Not enough room on valve base for coil mounted."

L.O.T. (Blenheim).—"It has been frequently requested that all loose papers be pinned together. We have your letter mentioning that queries were attached, but they were not, and there were no pinholes in the letter. Please repeat queries."

W.C.E. (Roma).—"Aerial coil 15 turns. Secondary tapped at 47th turn for reaction. Wound with 24 gauge D.S.C. wire on a three inch diameter former. Tuning condenser .0005. Reaction condenser .0025 or .0035."

W. (Bondi).—"The back of panel wiring diagram appeared in these columns, April 10, 1929. Experiment with aerial coupling in dead spots are found, and also try various capacity fixed condensers in series with the aerial."
G. (Parkdale).—"Reduce detector plate voltage and try change D.S.C. wire on valve base."
J.J. (Wagga).—"Stage of R.F. suitable for the set was published last week."

W.V. (Moree).—"Experiment with R.F. plate voltage, and try change D.S.C. wire on valve base. The circuit is not correct."
"Chim" (Canberra).—"Battery should be fully charged. If I remember rightly the head of the Pirc

Department there is rather an expert on batteries. Mr. Dunne will be able to advise you where you can get hold of him. If not, Mr. Dunne, Jr., is an electrician, and will probably be willing to assist you.

O.E. (Bellbird).—"Wavetrap will not help. Try .002 fixed condenser across transformer secondary."
H.R.H. (Mascot).—"Try reversing connections to primary of last transformer."

B.C. (Queensland).—"Disconnect F terminals of transformers from filament and connect to C negative (4½-9 volts). C plus connects to C negative. .0025 condenser can be used as reaction control. Board may be shelled. No. set will not bring in Interstate stations in daytime. Many sets using R.F. amplification cannot do that. Thanks for kind remarks."
J.F. (North Adelaide).—"A425 valves could be used as suggested. If wire is not broken coil will be O.K. Re grid bias, see reply to B.C. (Queensland) above."

J.S. (West Gosarah).—"Circuit O.K. See A.C. Marco Four. Output transformer not necessary but an improvement."

J.M.H. (Northbridge).—"Another stage of audio should be added, otherwise you will get poor results on the dynamic speaker. Suggest audio, followed by stage of push-pull with super-power valves."

W.E.R. (Artarmon).—"Transformer O.K., but if you get whistling reverse connections to primary. Yes, celluloid O.K."

J.B.B. (Centennial Park).—"Electrons are particles of negative electricity. Read 'Proving Radio' and 'Amateur Proficiency.' Circuit incorrect, several amplifier circuits have appeared in these columns. Write to the Radio Inspector, c/o G.P.O. Sydney, regarding the A.C.P.C. Your request published below."

GENERAL.—"Can any reader please supply copies of WIRELESS WEEKLY as follows: Vol. 14, Nos. 2, 3, 4, 5, 7, 8, and 11. Inquirer, J. B. Byrne, "Brampton," 17 Robertson Road, Centennial Park, offers to pay 3d per copy, each of which must be complete."

E.F. (Epping).—"Thanks for the advice, which is published under a general par below."

GENERAL.—"E.F., of Epping, advises that circular signs for primary batteries may be obtained from Siemens Pty., Clarence Street, Sydney, who make a speciality of this class of work. E.F. adds that he has been using primary cells for at least four years, and finds their life is about 500 actual hours for four volt valves used."

F.D. (Randwick).—"Circuits were published in queries columns recently, and you will find another in the A.W.A. Handbook."

J.P. (Fairfield).—"B" battery probably shorted or flat. Also try changing over detector valve."

GENERAL.—"Mr. R. Foster, 20 Cessnock Street, Aberdeen, writes: 'I have the following copies of WIRELESS WEEKLY available. If any reader requires same he is requested to forward postage: Vol. 9, Nos. 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26. Vol. 10, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26. Vol. 11, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 26. These dates from November, 1926, to December, 1928.'

C.M. (Double Bay).—"D.G.C. wire, however, would make no appreciable difference if D.S.C. wire was used. Would be necessary to add a few more turns in order to get same readings."

GENERAL.—"Mr. J. R. Gailer, Coff's Harbor (full address), writes: 'I have all issues of WIRELESS WEEKLY from February 4, 1929. Any of your correspondents can have the lot by forwarding enough to cover postage, but I don't feel inclined to carry them to the post one at a time. The only thing missing is the supplement list of stations, which I forwarded to an inquirer to-day.'

F.W.M. (Leichhardt).—"Sounds like open grid circuit."
Pommy (Adeelong).—"An internal short. Mr. J. Martin, 48 St. Marks Road, Randwick, No. Not worn out."

"Anxious" (Baberfield).—"An A.B.O. Eliminator you can take tappings off as required. Circuit and diagram showing how to connect 25 supplied."
"Short Wave" (Narromine).—"Yes, these are harmonics. The noise is probably oscillation. Try a 100,000 ohm fixed resistor across first audio primary Short-wave (phone) is not usually as free from distortion as ordinary broadcasting."

R.M.W. (Gympie).—"Plugs are provided whereby the voltage can be varied. Cannot advise which valves to use unless you let us know voltage of "A" accumulator. No alteration in wiring necessary. Circuit returned as requested."

L.A.K. (Prahan).—"Set not neutralised."
J.M.A. (Victoria).—"IYA, 3 p.m.—10.30 p.m., silent day Monday, 2YA, same hours, silent day Wednesday, 3YA, same hours, silent day Tuesday, 4YA, 5 p.m.—10 p.m., silent days Monday and Thursday. See list of stations published in supplement."

A.D. (Bullaheadin).—"R.F. stages, A425. Detector, A15. First audio, B406. Last stage, B495. Yes, dry cells can be used temporarily, but they won't last long."

Radio Information

Under The Direction OF ROSS-A-HULL M.I.R.E

Wavetrap (Wagga).—"Wind 50 turns 24 gauge wire on a three inch diameter former, and tap every ten turns for aerial. Connect .002 mfd. variable condenser across coil. Last turn of coil goes to aerial terminal of set. Aerial is taken to one of the tappings on the coil."

F. (Lithgow).—"A fixed condenser may be used between the P and B plus terminals of the coil for regeneration. This should have a capacity of .0001 mfd."

S.C. (Campele).—"Set not properly neutralised. Re portable, you won't get one that will give you the daylight reception mentioned."

G.H.G. (Strathfield).—"Please send full address. Have a letter for you. No, cannot be bought ready made. Would cost, complete, about £15, i.e., with speaker, batteries, and valves."

S.C. (Queensland).—"S.G. Marnock Five. Use a good filter and smoothing circuit with resistances to break down voltage as recommended."

R.J.K. (Dunrobin).—"Since you experience the same type hum as you had with your other set (Peridyne, wasn't it?) think you will find the trouble is outside your set. Have you tested eliminator and rectifier? Did you make tests previously mentioned regarding power lines near your house? Is Power House interference? Keep all A.C. leads in twin flex. Set MUST be shielded as described, otherwise alterations must be made in layout, and larger baseboard will be necessary."

T.F. (Peakhurst).—"When listening to Morse code transmissions, I notice at various intervals a series of 'Vs' are sent, followed, in most cases, by three letters, this being repeated several times. Will you please explain this, as I have started to take an interest in Morse transmissions."

Answer: The "Vs" are sent as a continuity test. If the operator desires to test his transmitter in operation, he sends a series of "Vs," followed every now and again by his call sign. Also where the receiver has difficulty in properly tuning in the station to which he wishes to listen, he transmits the abbreviation QRV, which means "Please send a series of 'Vs,' so that I can tune you in properly, or so that I can make adjustments to my receiver." In some cases where transmitters are continually on the air with press messages, etc., it is necessary that the person receiving the transmissions can tune his receiver to other stations during an interval, and then come back and be ready to receive the other station. He tunes back to the "Vs," and then ready to decode when the station starts transmitting. The three letters represent the call sign, and as a rule these will be found to be commercial stations. Quite a number of American commercial stations can be heard, and as the practice is universal, German and other foreign stations can be heard, too. It is possible to distinguish one station from another by the call sign, which is transmitted every few minutes. An article on this subject will probably appear at a later date.

(Mrs.) L.M.C. (Telegraph Point).—"This may be done, but nothing will be gained. You will have to change over to six volt valves. One side of the speaker is connected to B plus, and the other to the plate of the valve."

M.A.J. (Tamworth).—"An article on the subject is to appear in an early issue."

GENERAL.—"Mr. E. M. Jones, 31 Ay Street, Southland, Invercargill, New Zealand, wishes to know if any reader can supply him with WIRELESS WEEKLY containing the Screen Grid Marco circuit."

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QUERY COUPON

If you are in difficulties about reception or set-construction let us know, and we will endeavor to set you right. Make your questions brief to the point, and, where possible, show layout and wiring design. Under no circumstances will answers to queries be made by letter or by telephone. All answers will appear in the columns of this department.

For 3000/- P.P. (P.P.O.) Sydney: Write to Ross-A-Hull, M.I.R.E., 111-113, Pitt Street, Sydney, N.S.W.

Please enclose the accompanying meter in your coupon in order to indicate the value of the information service. I enclose a meter that I am a bona fide reader.

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MAGNETIC SPEAKER
UNIT

a beautiful STAND, suitable to hold this Unit. This STAND will also hold Eliminator, Battery, Etc.

We are clearing OUR ENTIRE STOCK of these Units at the ridiculously low price of

£3'10'/-



Don't delay, purchase one now—this offer will not last long.

See and hear them at
United Distributors Ltd.,
151 CASTLEREAGH ST.,
SYDNEY
Makers of "Udisco" Radio Apparatus.

J.M. (Haberfield).—Keep eliminator two feet away from set, and try by-pass condenser in earth lead.

GENERAL.—T. G. Allcock, Claremont Avenue, Concord, asks if any reader can supply him with a back number of WIRELESS WEEKLY containing the Renown Three. He is willing to pay cost of same.

P.C.C. (Mudgee).—May be due to faulty detector valve or through using too high detector plate voltage. Set may not be neutralised properly. Three good pickups are Phillips' Webster, Stromberg Carlson, Blue Spot, but there are plenty of other good ones.

J.T. (Armidale).—See reply to P.C.B. (Mosman) above.

T.T.T. (Queensland).—Price of A.R.R.L. Handbook is 5/. Postage 6d. Obtainable from Angus and Robertson, Castlereagh Street, Sydney. Advisable to use separate rheostat on detector.

J.R. (Ashfield).—Coils on three-inch diameter former. Primary, 25 turns. Without spacing continue winding secondary, 50 turns. At end of former mount a coil consisting of 50 turns wound on a 1 1/4 in. diameter former. Mount as article mentioned, i.e., so that it is free to rotate at end of coil. Reverse connections to this coil if results are poor.

J.B. (Auburn).—Not enough details. May be flat "A" battery. Are you using an eliminator? If so, trouble may be due to connection in house switch or faulty rectifier. Every time house switch breaks contact, set will not stop suddenly, but will receive a certain amount of energy from the charged condensers.

C.R.W. (Sutherland).—Yes, valve can be used. A better plan would be to add an audio stage. It can be done in this receiver by using resistance coupling set which has this addition. Writer recently heard improvement. Yes, "A" eliminators are available. The "Stedipower" is a good unit. Your request published below.

GENERAL.—Capt. Claude R. Weber, c/o T. Hill, Sutherland Post Office, writes: "I would like to hear from readers who use a Cosor set, re general reception, distance, speaker, and phones, and how it compares with a standard all-electric three."

M.E. (Campsie).—Add the R.F. booster unit described in last week's WIRELESS WEEKLY.

J.R. (Tasmania).—Dynamic better. D.C. types are available. No need to alter set in any way. No, the Lion Ampion speaker will not be marketed here, as it is unsuitable to Australian receivers and conditions.

N.F. (Ryde).—No, the circuit is not correct. The earth lead connects to the filament of the R.F. valve, also to the rotor plates of both tuning condensers. You show the detector secondary condenser reversed. C plus connects to A minus. You show no grid leak or grid condenser, and the .001 fixed condenser is left out. It will be necessary to place an R.F. choke in series with the plate lead of the detector valve. The connections to the regeneration condenser are shown reversed in your circuit. The coil "A" cannot be included in the detector secondary when an R.F. stage is added to the Countryman's receiver. A plus should connect to earth. If the detector primary also served purpose of R.F. reaction coil, and it was joined to secondary in usual manner, the B plus R.F. voltage would burn out filaments of valves through secondary. Condensers will be quite O.K., providing they are rated at about 350 volts.

A.E.L. (Rozelle).—No, this cannot be done, except by use of a "bar" amplifier, which instrument also makes use of a battery.

A.W.S. (Rurwood).—Yes, set is all-electric. The E type valves are the A.C. type Phillips. You should be able to get a little further than local stations with four valves. Cannot advise what may be wrong unless you give us more details. What is the circuit? Is it a commercially-made set?

??? (Waterloo).—Please write plainly, and on one side of the paper only. Be brief and to the point. Re power pack, yes. How can we advise what valves to use, when you don't mention whether your set is a crystal or a superhet? The Pilot outfit is sold in kits, and has to be built up. The Phillips Power Pack is a finished product. Cannot advise which would be suitable, unless you mention set in use. Did not see your previous letter.

F.D. (Moss Vale).—Yes, build the Marco, leaving out the last audio stage. Size of former, and number of turns are given in the article. Use a 5-1 transformer.

M.F.A. (Adelaide).—Your queries have been answered previously. As the Marco has been published about four times in the last year or so, followed by the A.C. Marco and the Screen Grid Marco Five, the Screen Grid Marco Four was not made the subject of an article. Leave out the second R.F. stage. Details of coils remain the same. Approximately one-third more turns for two-inch diameter formers, but the correct number must be found by experiment unless you care to enter into mathematics, and intricate curves. The S.G. Marco Five is a better circuit.

E.V.O. (Five Duck).—Transformer, Emmcoast, and valve O.K. The resistance lamp to be used will depend on the valves to be used in the receiver, and the output voltage required from the eliminator.

M.H. (Sydney).—Build the R.F. Booster unit published last week.

A.V.E. (Scone).—Have no record of any station with that call at Königswusterhausen. The place was named correctly. The only S.W. stations in Königswusterhausen, of which we have record are APT, APL, and AFU. They are all German stations.

R.W.W. (Lakemba).—Use A625 valves for R.F. stages. Other valves O.K.

R.S. (Narromine).—Yes the battery can be charged by the car. The charging rate can be increased by making the necessary adjustments.

"AMPLIFIER" (Upper Rouchel).—See paragraph below. Amplifier O.K. Pick-up can be connected as shown in your circuit, or the transformer may be left out and the pick-up connected to the grid and filament terminals of the detector valve socket. Good reception. Advise use of a 405 valve in first audio stage in place of the other.

GENERAL.—Where readers desire non-de-plumes be used, this should be placed at the end of their letter, and their correct name in brackets. If the non-de-plume is stuck away in some corner of the letter it is easily missed.

A.E.J. (Rankins Springs).—Adaptor can be used, but R.F. and detector valves must be removed from set. Additional "C" bias will be necessary using the power valve. Place a .002 fixed condenser across the rheostat. This will reduce the noise. A. G. Healing's address is 208-210 Castlereagh Street, Sydney, N.S.W. Reason why you get a slight shock is because one side of speaker connects to B positive, and shield is connected to B negative.

G.A.G. (Bexley).—Try a 2mf. fixed condenser in series with the earth lead.

E.F. (Balmain).—Most readers will know the circuit. The Reimartz is fairly well known, and is, in fact, one of the most popular circuits. There would hardly be any need for us to publish it so frequently. It has appeared in the queries columns many times besides in articles of recent date.

F.K. (Ballina).—Arrangement O.K. Use the .0025 for reaction. Primary 22 turns 24 gauge wire. Space, 1/16 in. Secondary, 68 turns. Space, 3/16 in. Reaction, 30 turns. Coils must be arranged in that order, i.e., primary, secondary, and reaction. No, we didn't find your queries too intricate. Yes, we know you by this!

2FC Feature Talk

REAR-ADMIRAL EVANS will be the speaker from 2FC on Sunday, September 29, at 6.40 to 7 p.m., and has chosen as his subject, "The Dover Patrol."

Correction

IN the advertisement of Exeltron Electronics, 54 Oxford Street, WIRELESS WEEKLY, September 20th, A.B.C. Power Packs were misquoted at £3/10/. The correct price is £5/10/.

YES!

We guarantee Country Daylight reception on our SUPER 5-valve Screen Grid, complete with Speaker, £45. All Electric Sets are our Masterpiece. NO HUM. Only perfect reception.

3 Valve
with Speaker
£23/10/-

Radiair
The Guaranteed Radio Set

5 Valve
Complete with
Speaker
£39/-10/-

And a 12 months' Guarantee.

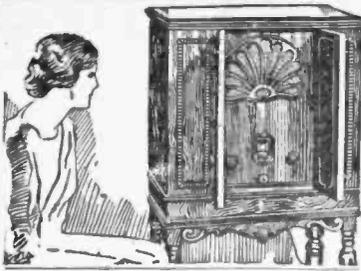
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Our Amplifiers for Dances, attached to your Portable Gramophone, give the volume of an orchestra. Happy nights assured.

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Built in Fada Dynamic Speakers—Push-pull Power Amplifiers—Radio Phono-graphic Combination.

All Electric Sets that leave nothing to be desired by lovers of Radio. Before buying any set call and listen to the full range of Fada models. Compare the Tone—Selectivity—Price—Quality.

7-8-9 VALVE RECEIVERS

Special Plugs for Using Gramophone Pickup.
 OPEN FRIDAYS TILL 9 P.M.

Winkworth's

337 George Street (nearly opp. Martin Place),
 SYDNEY; and at 160-164 Parramatta Road,
 ANNANDALE.

New 3LO Programmes

Gwen Selva at 3LO

CELEBRATED as an operatic soprano with a world-wide reputation Gwen Selva comes to 3LO to broadcast a series of song recitals, including many of her operatic numbers for which she became famous in London and on the Continent. Miss Selva is included in the 3LO programme during the coming week.

New Dance Band at 3LO

KEN COTTON'S Dance Band is hailed as a welcome feature in the programmes from 3LO and 3AR. In organising this successful band musicians of distinction with extensive broadcasting experience have been selected. The announcement that regular dance programmes will be broadcast by 3LO every Thursday night was received with delight, especially in the country, where dancing is held regularly in many centres to music broadcast by 3LO.

Sydney-Perth Air Race

OVER 30 'planes are entered for the great trans-Australian air race, to start at Sydney on Saturday, September 28. 3LO will broadcast descriptions by Captain Guy Moore of the arrival of the 'planes at Melbourne on September 28, and of their departure on September 29. Progress reports will also be broadcast at frequent intervals during the race.

Warrnambool-Melbourne Road Race

A REPRESENTATIVE from 3LO will accompany the competitors in the big road event for cyclists, which will be contested on Saturday, October 5, for the purpose of keeping listeners in touch with the progress of the great race. Reports and descriptions will be sent from every town en route.

Musical Examination Music

ARRANGEMENTS have been made by 3LO to broadcast pianoforte recitals by Lindsay Biggins, of the University Conservatorium Staff, of works set for the forthcoming musical examinations. These recitals will be broadcast on Monday evenings at 6.40.

JENSEN SPEAKERS

REG. ROSE, Radio

Distributor, Kembala Building, advise they now have stocks of the well-known "Jensen" auditorium and DA4 dynamic speakers which they are now, in addition to other radio lines, distributing.

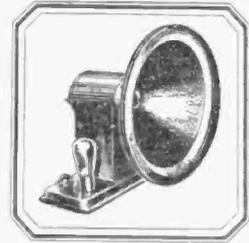
Jensen speakers are well known throughout America, many of the best set manufacturers having incorporated them in their complete console models. As an all-purpose speaker the Jensen is ideal for theatres and auditoriums and for out-of-doors. It will be especially appreciated in the time where its wide range of ability meets every individual requirement. It is also a most effective medium for demonstrating radio sets.

It is also a valuable adjunct when used in conjunction with the Thordarson push-pull amplifier, the result being most gratifying both on volume and fine reproduction. When added to a set with one type 171 amplifier tube the performance approaches that of much more powerful sets and amplifiers when used with ordinary speakers.



The New Jensen AUDITORIUM SPEAKER

Greater Volume and with Reproduction true as the original



Operates from 240 A.C.

Price of Unit with 280 Valve £17/10/-

The Jensen Auditorium Speaker Unit illustrated above is the Model DA5-AC, designed for use with radio sets or phonographs employing amplifier tubes up to and including type UX250 or CX350 in push-pull. The performance is equally extraordinary on either high or low power input.

WRITE FOR ILLUSTRATED FOLDER

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SWAIN & CO. LTD.

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NOT how cheap—BUT how Good!



WHY be troubled with frequent re-charging when a **TUNGSTONE** Patented BATTERY

WILL AVOID THIS INCONVENIENCE?

TUNGSTONE BATTERIES

2, 4, or 6 volts, 40 to 80 amps. ACTUAL, IN ALL-METAL ACID-PROOF CONTAINERS, WITH A **4 Years' Guarantee**

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NO SULPHATION. NO MORE BATTERY NOISES, ETC. ENTIRELY BRITISH MADE.

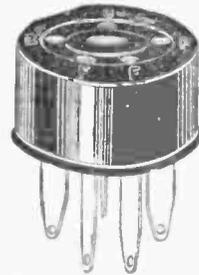
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PRICE 1/3

Type UY Five Prong Bakelite Socket

This Stromberg-Carlson Socket was designed to take all makes of five prong separate heater type valves. Supplied as shown, with mounting screw and nut.

Also made in UX Type at same price.

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Obtainable at all dealers, or direct from

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3/-

HYDRA 2MFD.

FIXED CONDENSERS 650-VOLT D.C. TEST

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FIXED CONDENSERS 500-VOLT D.C. TEST.
WITH SCREW TERMINALS

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Special Wireless Talks

from Station 2GB.

**By Victor E. Cromer and
Mary Rivett**

OCTOBER PROGRAMME

Sunday Mornings, 9 to 10 o'clock

- Oct. 6.—9 a.m.: The Elixir of Life. 9.30 a.m.: "The Hound of Heaven."
Oct. 13: 9 a.m.: The Philosopher's Stone. 9.30 a.m.: A Modern Mystic.
Oct. 20: 9 a.m.: The Crook of Gold. 9.30: The Spanish Mystics.
Oct. 27: 9 a.m.: The Food of the Gods. 9.30 a.m.: Christian Mysticism.

Sunday Evenings, 9.30 to 9.45 o'clock

- Oct. 6: The Will to Be Well.
Oct. 13: Reason and Intuition.
Oct. 20: Adjustment to the Divine.
Oct. 27: Science and Mysticism.

Monday Mornings, 11.30 to 11.50 o'clock

- Oct. 7: Ideals and Education, I.
Oct. 14: Ideals and Education, II.
Oct. 21: Ideals and Education, III.

Friday Afternoons, 3 to 3.20 o'clock

- Oct. 4: Bodily Perfection.
Oct. 11: Mental Health.
Oct. 18: Spiritual Unfoldment.

When the Loud-speaker Writes It's Own Story

EAR tests mean little in judging the excellence of a loud-speaker. Ears are not all alike—what sounds good to one may sound poor to another. Ears vary from day to day and from hour to hour. Ears provide no accurate readings for comparisons. And so loud-speaker manufacturers who want a quick means of obtaining an accurate response curve, must resort to laboratory procedure. Heretofore, the process of obtaining a highly accurate frequency response curve has been intricate, time-consuming, and costly, inasmuch as much apparatus has been involved and the readings have had to be taken and plotted by the laboratory staff. To-day, however, the process has been simplified to an automatic operation, and in the test rooms of many manufacturing plants loud-speakers virtually write their own story.

The apparatus usually records the frequency response of a loud-speaker over a range of 60 to 10,000 cycles. It does not provide merely a series of readings to be plotted by the laboratory workers, but actually draws the frequency response curve itself in about fifteen seconds. This makes possible the rapid comparison of speakers, and permits of checking the performance of new models in preparation as well as routine tests on production models. By selecting one speaker out of ever so many speakers and actually checking the selected speaker for performance—not relying on the ear alone, but obtaining an actual response curve—"bad lots" are avoided in loud-speaker production.

The loud-speaker tester consists of a beat oscillator, a moving carriage and pencil, microphone, amplifiers, meter, and the speaker under test. Many ingenious features have been developed to make its operation exceedingly simple, and two controls operated simultaneously often allow the curve to be drawn in 15 seconds. The beat oscillator in the assembly has one control knob which varies the frequency from 60 to 10,000 cycles. On the shaft of this control is mounted a long cam which, due to the pressure of the rod attached to the movable carriage, causes this carriage to advance or retreat, depending on whether the frequency is raised or lowered. The chart is placed on the carriage, and the graph curve is drawn by a pencil attached to a stationary rod running across it. Thus when the oscillator is adjusted for 60 cycles, the pencil is at the extreme left of the paper, and as the frequency is raised, the cam pushes the carriage away causing the pencil to draw a line across the graph paper. Obviously, the line is straight. To get the up and down movement of the pencil, which creates the curve, let us go back to the oscillator.

The output of the oscillator feeds an amplifier of compensated characteristics, which delivers a perfectly flat output to the loud-speaker under test. Placed a short distance in front of this speaker is a high-grade microphone which receives the audible output of the speaker and feeds a similar amplifier. The output of this amplifier is recorded on an output meter located at the end of the carriage. Above the needle of this meter is a second needle or pointer, attached to a knob, and on the other side of this knob is a fan-shaped tiller. The pencil on its bridge is fastened to a slider, and the two ends of this slider are attached to cords that go to each side of the fan or tiller, regulated by the knob and pointer over the meter.

The curve is obtained by advancing the frequency of the oscillator with the left hand while the right hand operates the pencil regulator knob. By causing the pointer on this knob to follow every variation of the pointer on the meter beneath it, we are

making the pencil move up and down. This, due to the fact that the carriage holding the paper is moving slowly from right to left, draws a perfect curve of the response of the loud-speaker to the oscillator. Although this description may perhaps sound complicated the entire mechanism is in reality often quite simple.

To insure a minimum of interference, the speaker and microphone are usually enclosed in a padded chamber and their relative distance remains unchanged, thus insuring the stability of the readings. For qualitative readings the standing waves which might exist between speaker and microphone cause no interference. For quantitative measurements, the microphone carriage is made movable or swinging, thus eliminating any danger of standing wave interference.

Home Talks From 3AR

MANY housewives anxiously wait each week for the talks given by Miss Kathleen Beningfield, whose helpful lecturines on home management are greatly appreciated by a wide circle. Especially seasonable is the talk arranged at 3AR for September 27, in which Miss Beningfield will discuss a few inexpensive methods of renovating the home. Much of her popularity lies in the fact that she does not seek to run her many listeners into additional expense, but is more concerned in assisting them to make the best use of the odds and ends nearest at hand and to attack the problem of home management from a systematic standpoint.

Seeing Off the Sydney Express

THERE are comparatively few listeners in Melbourne who have not had the experience of farewelling the Sydney express, and enjoying the general excitement of seeing the happy holiday-making crowds waving good-byes. "Seeing off the Sydney Express" is the title selected by Miss Hattie Knight for her next descriptive talk, to be given from 3AR on September 26, when listeners will be given an entertaining description of its departure.

Broadcast From Taronga Park

AS the result of negotiations that have passed between the Australian Broadcasting Company, Limited, and the trustees of Taronga Park, an opportunity is to be given at an early date to listeners to hear the Zoo described. A Sunday afternoon will be chosen for this purpose, and microphones will be taken to the various parts of the Zoo, and the animals will be described. It is the intention of the company to see that this description is carried out with the utmost dignity, as the wish of the trustees of Taronga Park is that the broadcast shall take the form of a nature study. This news should be particularly welcome to residents in the country who have not had an opportunity of visiting the Zoo.

Sunday Night Programmes

THE Sunday Night Ensemble continues to give general satisfaction with its popular Sunday night programmes from 3LO, in which the old classics and modern music and songs are presented in such a way that the programmes are regarded by many as the most successful of the week. Variety and quick changes are the secret of its success, and it is no wonder that Sunday night listening-in parties are the social vogue.

You hear them all with a
MARCONI



YWANG of the banjo—boom of the drum — high notes of the violin — blare of the cornet. They're all there with the Marconi Speaker. Nothing is lost; every single instrument is reproduced naturally just as though the orchestra were actually in the room. Volume controlled to any pitch by a simple adjustment—tone that satisfies the most critical ear.

Marconi Speakers and Valves
 are Obtainable at all Radio
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Allied to Marconi Speakers are Marconi Valves, famous alike for their economy of both "A" and "B" Battery consumption and their capacity to handle great volume without distortion.

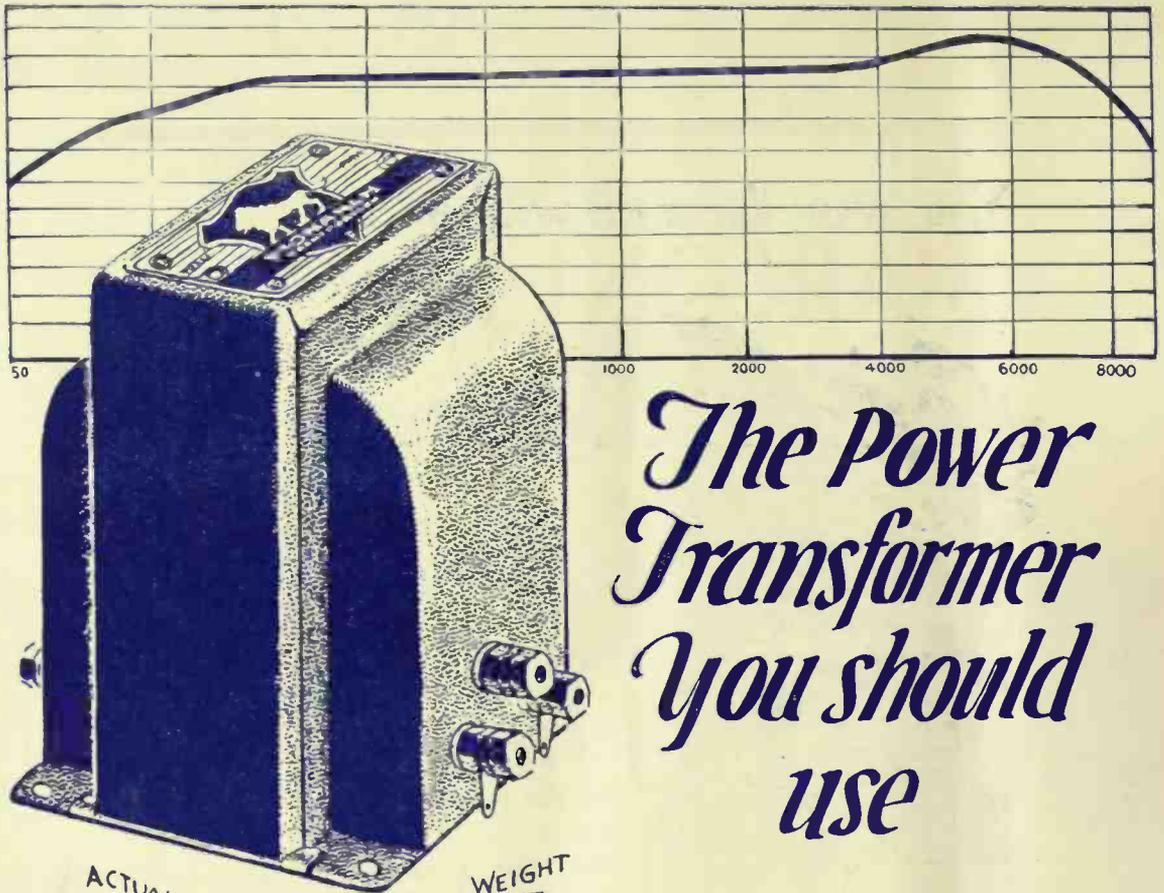
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ACTUAL SIZE **A NEW RELEASE** WEIGHT 33ozs.

MONARCH AUDIO Transformers

A last stage power transformer is now offered at a price within the reach of all. Carefully designed and manufactured to the highest degree of electrical and engineering efficiency, Monarch Transformers present the last word in Audio Frequency Amplification.

The illustration shows the actual size; whilst the weight is more than twice that of ordinary transformers.



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