Short Wave Stations of the World

## T THE

 POPULAR RADIO
November 21,
1931.

Vol. 7.
No. 47

## TVIREE DSRAM ACES



THREE valves that have made radio history-MiS4, a very stable screen grid valve with an amplification factor of 550 MHL4, a very sensitive detector suitable for use with high plate voltages in "Power Grid" circuits - and PX4, the perfect 4 -volt Power Valve.
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ITHOUT electricity-without mechanical power, this home refrigerat or keeps meat, fish, nilk, cream, butter, eggs and all perishable food fresh and wholesome. The Icyball provides perfect cold storage and ice cubes for the glasses of your guests. It costs little more than a good ice chest, and can be bought on terms.

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(W.-MCF.)


# The World We Listen In wireless news from all quarters 

## Broadeasters Help Charity

$A^{T}$ the invitation of Amalgamated Wireless (A/asia) Ltd., an advisory committee has been established in connection with the programmes of the Bendigo broadcasting station, 3BO.
The committtee comprises the Mayor of Bendigo (Cr. G. D. Garvin), who is also president of the Advance Bendigo and the North League, the president of the Chamber of Commerce (Mr. W. M. Bolton), Cr. A. Staples, a prominent member of the local musical and broadcasting circles, and Mr. J. L. Mulholland, Victorian manager of A.W.A. The committee is endeavoring to arrange the programmes on a basis which will suit the largest number of listeners possible.

As a gesture of goodwill, Mr. E. T. Fisk, of Amalgamated Wireless, arranged to run 3 BO for the first four months entirely at the company's expense. Advertising matter is now being included in the programmes and Mr. Fisk has arranged that one-third of any profit that may be made will be placed at the disposal of the advisory committee for distribution among local charities.
Station 3BO has now settled down into its stride and is regarded as one of the finest in the Commonwealth outside the capital cities. Its wave length is 309 metres.

## Radio a Public Utility

$A^{\text {RE broadcasting }}$ stations public utilities, such as are railways, trams, buses and the like, to serve all who would use their facilities? In other words, since radio wave lengths are used under franchise from the Government, has anyone, as a Citizen, a right to speak or sing on the radio for whatever cause or whenever he chooses?
An American judge insists that broadcasting stations are utilities of a sort. If one commercial interest is allowed to broadcast, he maintains, or if one side of a controversial issue is presented, all interests and all sides must be accorded the same opportunity to use this great natural medium of communication. m

## Fire-Fighting Aeroplanes

ONTARIO has a fire-fighting air force of nearly 30 planes, which protect her vast forest resources above and on the railway. Up to the Hudson Bay these planes fly, carrying men and firefighting equipment during the heavy fire seasons. And each plane is dispatched by radio, for the Department of Lands and Forests has nine short-wave stations in operation in that country at forestry rangers' headquarters, while 10 more of these stations were established during the past summer, . so successful have they proved.

When the forestry service can spare the stations for a few hours, many commercial messages from fur traders, prospectors, trappers and hunters await transmission to the head offices in Toronto and Montreal.
In Quebec it is the same, only here water-power companies are the users as well as mining operators. Everywhere across the Dominion, wherever business men have gathered, radio stations take the place of wires which are not due for many years to come.


HORACE CAMERON, captain of the visiting South African Team of Cricketers, took the opportunity while in Melbourne, of introducing his team to listeners. The above picture shows the popular captain facing the microphone.

And in order that there shall be no interruption when wires go down, the two great railways, the Canadian Pacific and Canadian National, have supplemented their telegraph systems with high-powered short-wave radio stations.

## Police Radio

A $^{\text {LTHOUGH }}$ police wireless is less than four years old in America, more than 50 cities and towns and two States already are operating police signal stations; but in Michigan the pursuit of the criminal over the air waves has become an exact science.
In fact, the entire activity of the Michigan State Police is built upon its broadcasting station, WRDS, at East Lansing. Messages flash day and night not only to cruising patrols and scout cars on the State highways, and to 40 posts of its own organisation, but to every police desk and every sheriff's office in the 1000 -mile length of the State.
Thus a bank robbery in an isolated village in the northland is reported simultaneously to the sheriffs of all near-by counties, to all posts of the State police, and to all city police offices. All the 40 cruising squad, patrol and scout cars pick up the same alarm.

## New Television Receiver

A. NEW home television receiver using an improved light source, which enables the received images to ve projected on a screen so that the whole family can view them, has been announced by the Short Wave and Television Corporation of Boston, Massachusetts. N O technical details of the apparatus are yet available, but it is understood that many improvements have been included in the new model.

## Broadeasting in New Zealand

THE licence of the broadcasting company in New Zealand expires in December of this year. The New Lealand Government has decided not to renew this licence, but to place all broadcasting stations under the control of the Post Otfice. The power of these stations will be considerably increased, and eight new relay transmitters will be built. Another beneficial measure will be the prohibition of advertisement broadeasts.

## The Government's Radio Hour

A CCORDING to the Philips Kadio Press Bureau, the broadcasting of messages by the German Government to the people during the recent time of crisis proved to be of such inestimable value that other countries, too, are now advocating the use of broadcasting as a means of enabling the Government to address the whole nation and enabling other nations to make their voices heard. This should bring about a better understanding between Governments and peoples, and also between the various nations.
Words spoken before the microphone by a responsible Government personage will serve to refute any incorrect, alarming reports and to preserve order throughout the country.
It may safely be assumed that in most countries the bulk of the population can nowadays be reached by broadcast messages, so there is much to be said in favor of instituting a "Government hour:
The principal affairs of State should be explained in detail by a member of Parliament or other prominent person during this "Government hour.
This would establish the same close contact as the camp-fire among uncivilised tribes, where the chieftain addresses his fellow-tribesmen in terms calculated to inspire contidence.

## COMPETITION SOLUTION No. 12

The following are the solutions of the Puzzle Competition No. 12 that appeared in the issue of November 7 . The names of the prize-winners will be published in the issue of December 5:-
1, Book; 2, Stock; 3, Track; 4, Stop; 5, Bavel; 6, Bind; 7, Evade; 8, Clash; 9. Quiver; 10, Apt.

Look up your list and see if you were right in EIGHT or more of these in any single set of PICTURES you sent in. If so, forward a claim, stating the exact number you answered correctly in any single set. Sign your name and address the same as that which you wrote on the back of your envelope containing your entry.

Address you claim to-
The Editor,
The Listener In, Box 1924R,
G.P.O., Melbourne,
and post in time to reack us not tater than 3 p.m. on Saturday, November 28.

## Competition No. 10 Result

Only one reader-Mrs R. E. Rass, 7 York St, Surrey Hills, E. $10-$ succeeded in correctly naming all the pictures. A cheque for $£ 10$ is being forwarded to this competitor.

## Short Wave Section, W.I.A.

TWO meetings of the newly-formed short-wave group of the Wireless Institure of Australia have been held, and the next is planned to take place at the rooms, Kelvin Hall, on Tuesday, November 24.
A visit to VK3ME and the A.W.A. station at Braybrook was quite successful, and proved extremely interesting. The next place to be visited will probably be the police installation at Russell Street.

## The Vatican Station

THE competent authorities of the Vatican station have published an ofticial communication in reply to a great number of enquiries as to the report that they do not intend to maintain a regular broadcasting service. The hours of transmission are 8 p.m. on the wave length of 19.84 metres and $5 \mathrm{a} . \mathrm{m}$. on the wave length of 50.26 metres. At these times news, information and communications will be transmitted. These are Sydney times.
On Sundays and Holidays a special transmission will be given for the sick.

## Wireless Sets Burned

AFEATURE of Radio Week, in Cardiff, England, was the burning of a large number of antiquated radio sets. The event was preceded by a torchlight procession, and followed by a monster radio ball.

## Television Today

A SURE sign that television will soon be here is that the British Broadcasting Corporation has agreed to admit television within the recognised programme hours. In place of two midnight transmssions which were being conducted, there will be a broadcast at 10.30 one evening each week.

## Radio on a Camel

AT a radio congress recently held at Casablanca, a competition was organised for the most original radio receiving station. The prize was unanimousiy awarded to a radio listener who had mounted a receiving installation on a camel's back and used a frame aerial which was fixed to the head of the proud animal.


A replica of the original laboratory in which Michael Faraday, to whom radio is deeply iniobted, conducted most of his electrical experiments.

Callous:
Radio Enthusiast (to falling aviator): "Hey! mind my aerial, I'm trying for

- WAVELETS

Radio Hits, Quips and Snips

Sounded Bad for the Set.
The Set Builder: "Who's that man that's been looking at my set all the evening? He seems impressed."
Friend: "That's Professor Robinson, the celebrated antiquarian."

## She Needs a Brake!

A LADY listener who found it difficure to keep pace with the tunes played by the dance bands, in desperation sought advice from the editor of a wireless publication. "Will you please tell me how I can slow down the music for dancing?" she inquired. "I have tried turning all the knobs, but it is no use."

## Too Rough!

I'S rather rough on the birds since they've done away with telegraph wires. They cannot secure a footing on the wireless waves before it goes.

## Mere Words

"But," said the prospective purchaser to the second-hand dealer, "this pole seems to be too rotten to hold my aerial. Is it safe?"
"Safest on earth," replied the dealer knowingly.

## Brickbats Would be Better

## A

 LTHOUGH radio experts claim that radiating receivers are small broadcast stations, it is a fact that the owners do not receive any congratulatory telegrams for their programmes.
## A Knotty Question!

A. CERTAIN old lady found that she was rapidly becoming deaf, so she called in the family doctor.
"Well," he said, "an excellent cure for your complaint is to listen in as often as possible on the headphones of your radio poss
"But, doctor"" she replied, remembering how she had been treated for her previous illnesses, "will I do it before or after meals?"

She: "What's he like, anyway?"
He: 'I really don't know; but I heard that he once burst a blood vessel whille listening in to the description of a

chess match."

Dad: "This school report of yours is the worst yet. What do you mean by it?" Boy: "Economy, dad. I wanted to save you the price of the wireless set you
promised me if it was good!"

## Not So Good!

ACERTIAIN man boasted that he could deliver a good lecture on any subject under the sun. One day, after he had just finished lecturing on "Wireless," he turned to his assistant and said:
"I wonder who that man in the front row was! He seemed to be hanging on my every word. Quite a nice chap, I should think. Why, here he comes now!"
"Your lecture," remarked the man in the front row, as he came up, "interested me very much, but I think this would be very useful to you."

And he handed him a book entitled "Eirst Principles of Radio for the Beginner"!

## Rough on Bill

BILL was a wireless enthusiast. Anything pertaining to the new science was eagerly sought after, and when someone recommended a new book that was just out, Bill rushed down to get the first copy. He waited only long enough to read the title before he paid over the money and secured the book. Five minutes later Bill was looking for blood. The book he had "bought was "In Tune with the Infinite."


THE enthusiasm of Mr John D. Rockefeller, jur., combined with the widespread ramifications of the Radio Corporation of America, has resulted in plans being settled for one of the most colossal business and entertainment enterprises hitherto conceived, namely, Radio City.
This is to be a huge building-literally a city within a city-in Fifth Avenue, New York, in which it is proposed to house a theatre, the National Broadcasting Company, a talkie palace, to say nothing of shops, suites of offices, and a gigantic motor car park.
When the site on which Radio City is to be built came, a few years ago, under the contrsl of Mr Rockefeller, his original idea was to form a great monumental square having an Opera House in the middle. The idea grew until it was finally decided to rebuild the business section as a new city of air and sunlight.
Radio City has been planned as a monster business and amusement centre combined. The actual radio interest will occupy nearly a quarter of the whole area. The very latest broadcasting apparatus is to be assembled, several studios being set aside for Television. A huge experimental laboratory has been arranged for, and here an army of technicians will work under ideal conditions with such dreams os the transporting of electricity in bulk by means of radio, the transmission and reception of ether waves on wave lengths measured in centimetres, and on the practical control by radio of moving objects.

## RADIO CITY

A City within a City is embodied in New York's latest architectural scheme. Broadcasting stations, cinemas, and theatres will all be housed in the one huge square which is arranged to accommodate 50,000 people.

Radio City will be completed in four years' time, and will dwarf even the towering buildings that already exist in New York. It has been planned to accommodate 50,000 people, and will have its own Mayor in the person of Mr S. L. Rothafel, better known, perhaps, as Roxy, the Entertainment King.
Fifty million pounds have been set aside as the approximate cost, and contracts have already been placed for 125,000 tons of steel to make its 700 miles of girders forming the framework.
Three sky-scrapers will form the main design. In the centre will tower a building of sixty-eight storeys, flanked on each side by twins each forty-five storeys high. Between the three sky-scrapers the designers are planning another novelty-an egg-shaped building of fourteen storeys.
The National Bradcasting Company will be housed in the centre tower, and will occupy fifteen floors. These will be window-less and sound-proof. The twenty-seven studios will be suspended in outer rooms by wires. The Broadeasting Company will hâve its own talkie palace, its own theatre, and other entertainment halls. The public are to be admitted to these, just like the ordinary houses of amusement, and broadcasts will be selected from each centre as desired.

The architects of Radio City are going to bring to reality the dream of making in New York the hanging gardens of Babylon. Hanging gardens will be visible all over New York, and will occupy eight acres. They will be spread over the roofs at various levels-a garden pattern, or living rug for each roof, with lesser rugs of landscape distributed picturesquely about the terraces that cling to the steep cliffsides above.
The site is owned by the Columbia University, and Mr Rockefeller holds it on a short lease of twenty-one years. However, in the contract there is a renewable clause, and
it is not likely that the site will pass out of his hands.
The site comprises three blocks complete except for one plot out of one and a corner out of another occupied by the Collegiate Church of Nicholas. Provision has been made, however, to include the church buildings in the great scheme.
Though the lobbies of the great buildings have all the
 Plan view of the Sunken Plaza,
which will be one of the features of "Radio City."
which will be one of the features of latest approved effects-shining chromium plate overlaid on marble of curious colors-even though they are lined with painted steel, Mr Jones on the nineteenth or Mr Brown on the thirtieth floor may elect to surround himselt with a complete Georgian settingpanelled walls, fireplace, overmantel and costly original furniture to mateh. I'hat is to say, although the buildings are made with machine-like modernity, the various tenants may please themselvels with the designs of their suites.
"Radio City" will be the greatest engineering feat of the present century. It will be the broadcasting centre of the world-a huge clearing-house of programmes, as it might be, from which the various stations connected with the National Broadcasting Network may pick and choose according to what they desire.

The National Broadcasting Company is one of the outstanding wireless networks in America. It has stations which extend from coast to coast. All of these are so arranged that they may be linked up to one central station for a simultaneous broadcast, or each may broadcast its own local programme.
The switchboard to be included in "Radio City" is being specially designed. With it, changes may be made instantaneously, programmes may be faded out or in as desired, and stations linked with any notable event in America or, in fact, with any part of the world in tune by short waves.


Spectators at the annual Radio Electric World's Fair, at Madison Square Garden, in New York City, were impressed with the display of the National Broadcasting Company which indicated on a giant geographical board, by means of little red lights, the cities and countries where overseas programmes were being picked-up, and relayed over the company's coast-to-coast network, City" how being built.

## A treasure ship, a submarine attack, and a thrilling rescue in which wireless plays an important part


"TII stake my reputation that that ship is German built. . She is one of those submarine cruisers they built in the late war for long distance work," said Cornforth.

## The <br> Private Line

## By Julian Storm

COMMANDER PETER CARNFORTH, R.N., looked round the spacious two-berth cabin of s.s. Dramatic, and sighed with satisfaction. Dramatic, and sighed with satisdeck once more beneath his feet, New York basking in cloudless sunshine outside, and bound for dear old London on a much needed "drop 0 ' leaf," as the Navy calls its leave. Moreover, by the time the sun was over the yard-arm they would be out of the fifteen-mile limit, and he would be able to enjoy an "aperitif" at leisure again, without glancing nervously over one's shoulder between hurried gulps. What more could a man want?

A cloud momentarily darkened his mental horizon, as he reflected that he had yet to meet the other occupant of the cabin; the one blot on what otherwise promised to be a perfect trip.
S.S. Dramatic was one of the latest turbo-electric giants on the Atlantic run, and accommodation had been difficult to obtain, even for one who had until
recently been Naval Attache at Washington, hence his inability to get a cabin to himself. His companion would probably be a dyspeptic American, who thrived on a bad temper and dry toast, with false teeth and a three-ply snore.
At this moment his reverie was interrupted by a commotion in the corridor, and the cabin door burst open. A dangerous-looking projectile, which reminded him vaguely of a Roman testudo, consisting of two large suitcases animated by a pair of grey trousers, was bearing down upon him at a rate of knots. Carnforth avaided a nasty-looking, brass-bound corner by a neat sidestep, the swiftness and accuracy of which would have made Jack Dempsey envious.
"Ahoy, there!" he said, as the suitcases deposited themselves with a grunt on to the nearest bunk. "Handsomely, lads, handsomely. You ought to take a turn round something with your braces before you start careering about like that."
"Im sorry," said the "deep voice of the new-comer. "But they are devilish heavy, and I daren't trust them to a porter-"
He broke off and stared for a moment, and then two voices shouted in delighted unison.
"Peter! You old sonuvagun!" from the newcomer, and "P.J., by all that's lucky!" from Peter Carnforth.
Whereupon Lieut.-Commander PierceJones, ex-R.N., and wireless inventor (hereinafter, as those lawyer fellows say, known as P.-J.), seized his erstwhile brother officer round the waist and waltzed him heavily round the cabin.
"Shipmate 'o mine," he warbled, in a voice that made the bulkheads bulge. "Laddie, this is going to be one 'wow' of a trip."
"You've said it!" gasped Comdr. Carnforth, from which it may be gathered that both had assimilated some of the speech of the land of their temporary adoption.
"And what are you doing in this perambulating home for millionaires?" demanded P.-J. some minutes later. thought you were still in the service."
"So I am," said Carnforth. "I've been at Washington for some time, but when my revered uncle was sent over as Britain's representative at this big Gold Conference, I was loaned to him as his assistant. You know how successful the old boy has been for England. In fact, it is no secret that the first fruits of our labor are on board here now. We are carrying the first consignment of $£ 5,000,000$ in bullion in the strong-rooms up for'ard."
P-J. whistled. "Five million 'jimmy-$o^{\prime}$-goblins' in loose change, so to speak!" he said thoughtfully.
"Yes, it's a bit of a responsibility, isn't it?" said Carnforth gloomily. "What are you doing over here, anyway?"
"Oh, I've just been kicking around, doing some experiments with wireless, and so on," said P-J. with elaborate carelessness. "Let's go on deck."

THREE days later, s.s. Dramatic was a bare 500 miles off the Fastnet, the first of the great lighthouses that warns the homeward-bound mariner of the dangerous Irish coast.
They were stretched comfortably in their deck-chairs on the boat deck, enjoying the "best pipe of the day," in the friendly silence that tells of true companionship, when suddenly, from high above them on the towering bridge, came the musical clang of bells. Carnforth sat up with a jerk and stared for'ard for a moment.
"Am I dreaming, or did I hear the engine-room telegraph?", he asked. P-J. turned his head and blinked lazily.
"You certainly did, old busybody," he rumbled. "Can't they test replies, and see if the old gadget is workin', without you sendin' up distress signals? Let me digest my breakfast in peace.
Carnforth snorted. "Judging from the amount you managed to get outside you'll have to hibernate for months, like the bears do," he retorted. Then, jerking up again. "Here, P-J., can't you feel anything?"
"Holy Moses!" said P-J., waking up at last, "I believe you're right. It's devilish hard to tell with these new-fangled electrics, but I'll bet a radio set to a beetroot we've stopped main engines. Let's go looksee!"
A moment later they joined the knot of passengers already collected at the rail, and an unusual sight met their eyes. About a cable's length away on the beam lay the long, low shape of a huge submarine, the almost imperceptible movement she made in the big swell indicating the vast hulk hidden under the water from the watching eyes high up on the liner's superstructure.
"Hullo 'ullo 'ullo!" said P-J., who had served all his time in big ships. "Pretty grim-looking brutes, those 'tin-fish,' aren't they?"
"Curious!" he murmured. "I wonder what all the excitement's about!"
"Here comes Marks; let's ask him," replied P.-J., referring to the first officer, with whom the two were already fast friends. "What's the answer, Marks?" continued the speaker as that officer hurried up to them. "I thought you lads never pulled up a crack liner on any pretext whatever-besides the blockade was off, the last I heard of it."
Carnforth didn't reply. With a puzzled expression, he was gazing at her through his glasses.
The First Officer laughed.
"Yes, she does look rather like the old ' U ' boat, doesn't she?" and turned to speak to Carnforth, without noticing the latter's startled expression.
"We've got one over on you this time, Commander," he went on with a sly twinkle. "It isn't often the Navy calls for help from the Merchant Service, is it? Usually the other way round. As a matter of fact, she's had some sort of accident, and they wirelessed us, a short while ago, for a first-class surgeon, as we were the only ship in the vicinity. Some poor devil is so mangled that their own surgeon daren't touch him. We don't know yet if we can get him aboard to our hospital, or whether we shall have to leave our M.O. to do the job, and follow on in her," and, with a cheery nod, he continued on his hurried way to the bridge.
"So that's it," said Carnforth, heaving a sigh of relief. "But it's rummy all the same."
"What is?" demanded P.-J.
"Well, have a look at her through your glasses, laddie, and tell me if you see anything funny."
"Um!" said P.-J. a few minutes later. "Except that she's the biggest thing in the tin-fish line I've ever seen. I don't see anything particularly rummy about her.-Wait a minute, yes I do, though. She hasn't got any class marks or numbers on her conning-tower.
"It isn't only that," said Carnforth, "but I'll stake my professional reputation that that ship was German built: I know the breed only too well. She's one of those submarine cruisers they built late in the war, for long distance work. She displaces 3000 tons at least, and that is more than is allowed by the Geneva Convention; they had to be broken up. Besides, I never heard of us putting any captured ships into commission."
A large collapsible boat, driven by an out-board motor, had put off from the submarine, containing four men and an officer.
"Here comes her skipper, anyway," said P.-J., who had caught a glimpse of three "gold rings on the officer's sleeve. "Let's slip down to the upper deck and have a yarn with him, when he comes aboard."
The two moved down the zig-zagging companions, through the shelter and two promenade decks, to where a rope ladder had already been thrown over the side. They arrived in time to see the captain of the liner greeting the naval commander, as the latter climbed aboard, followed by two naval ratings. "Curiouser and curiouser!" murmured P.-J. to his friend as they approached. "It's the first time I've ever seen No. 1 rig worn at sea." He pointed to the badges of rank, worked in gold, instead of the usual red or working rig, on an L.T.O's (leading torpedo-man), sleeve, "Besides, I don't like that fellow's face."
"Yes," agreed Carnforth. "And have a look at the officer. He's a threeringed commander, but he hasn't got any oak-leaves on his cap-peak. I don't like the look of this, P-J!"

$\mathrm{T}^{\mathrm{E}}$HEY had joined the crowd round the two officers by this time, and failed to notice the actions of the L.T.O. with the peculiar eyes. The latter had started sidling towards the companion that led to the boat deck, as soon as he got on board; and presently glided up it without attracting any attention.
Once out of sight, he moved with a speed and certainty of direction that was amazing; due entirely to a long and careful study of the ship's layout, from a plan provided in the offices of the thoughtful shipping company.
Arriving on the boat-deck, he quickly made his way for'ard, to the space between the bridge and the foremost funnel, where the ship's wireless cabin was situated. Despite warning notices to the contrary, he opened the sound-proof
door without hesitation, and quietly stepped inside.
The wireless-room of the s.s. Dramatic was larger and better equipped than that of her older sisters.
The two operators on duty looked up with polite inquiry at the entrance of the stranger; but their expressions changes to ones of amazed incredulity when they found themselves looking down the barrel of a business-like automatic. Above the weapon gleamed a pair of cold green eyes, while swinging in the other hand the man held a heavy winch-handle.
"Git over to that wall, an' don't try any wise-cracks," said the stranger with a strong American accent.
Neither of the operators attempted to argue. They more than half guessed what was afoot, but a swift glance passed between them as they got up as though to obey. The operators assistant, who was Irish, sidled slightly to one side, and then, with a shout to his companion, dived for the gun-man's legs.
It was a brave but foolish thing to do. Had they had more experience they would have read the deadly message behind those cold eyest. Also, they were not to know that they were dealing with a man whose life for many years had depended on his speed with a gun.
Irish Mike was dead before he touched the deck, with a bullet through his heart, and the operator dropped back with a smashed shoulder, before either of them had moved a foot-so quick and accurate was the shooting.
Knowing that the sound of the shots would not penetrate the sound-proof walls, the American lost no time, and, callously ignoring his victims, set to work to wreck the set with the winch handle. He did more havoc in three minutes than could be replaced in ten times that number of hours,
Leaving the wounded operator to shift for himself, he slipped along to where the emergency set was installed on a big raft, lashed down to the flying deck. Here he completed his destructive work, and swiftly returned to where he had left his chief. So quick and efficient had he been that barely five minutes had elapsed since he had slipped through the crowd on the deck below.
Here he found the whole atmosphere had already changed. The submarine commander had dropped his pose and got down to business with a brusqueness that banished all doubts as to what he was after.
One of his men was already on guard near the bridge, keeping a watchful eye on the captain's quarters, where he knew the ship's arms were kept.
In the meantime, with an ugly automatic in his hand, the pseudo-commander gently pointed out that, at the first sign of resistance, he would have no compunction in raking the passenger accommodation of the ship with the wickedlooking $15-\mathrm{pdr}$. gun that was now cleared for action on the fore-deck of the submarine. He much regretted that women and children should be exposed to such danger; but if the captain was sensible, and opened the strong-rooms and allowed him to remove the gold without interference, nothing of the sort would happen. Further, should the captain think his superior speed would save him, and attempt to get his ship under way, he would be forced, much against his will, to put a torpedo into her stern.
"Finally" he finished, understanding the nod of his subordinate coming down the companion, "as your wireless is now destroyed, and you cannot call for help, even if it were any good, I must ask you to order all passengers to their cabins, and to remain there until we are clear."
(Continued on page 62)

# Broadcasting in America 

## Too Much Advertising Irritates Listeners

THE only cost to the radio listener in the United States of America is the amount he pays for his receiving set. There is no licence fee demanded by either the Government or the National Broadcasting Company of America
The revenue of N.B.C. is derived from advertising firms which buy certain hours and provide the programme. Tnis, of course, is interspersed with advertisements of their various commodities, business service, in fact, anything and everything that needs publicity. Advertising on the radio broadeast has reached to such dimensions that often only a short part of the time allotted to some firms and advertisers is devoted to entertainment. A concert by a famous orchestra may be listed on the programme sponsored by a certain firm. One tunes in to the station hopefully, but one has to endure so much talk about the firm's product, or business whatever it may be, that very little time is left for the music.

Tempted to give up in disgust, the listener shuts off the irritating advertisement, only perhaps to find, when tuning in later, that he has missed half of the item on the programme ne wished to hear.

The N.B.C. also supplies entertainment as well as the advertising firms, or radio would become so unpopular that it would cease to be a payable proposition. Artists are engaged and paid by N.B.C. for special features, operatic productions, soloists, and orchestras, but a great part of their broadcasts is obtained at no cost to the company, which considers that the publicity obtained by the speaker or performer is sufficient payment.

Enormous fees are paid to popular entertainers such as "Amos and Andy", who are supposed to have more listeners than any other stars, and to Evangeline Adams, an astrologist, who plays on the credulity of people by advising and foretelling their actions according to the stars under whose influence they were born! The police were being given instructions, at the end of August, to raid all fortune tellers, tea-cup readers, and astrologers, so probably Evangeline Adams would be deleted from N.B.C.

One of the busiest places in New York is the N.B.C station in Fifth Avenue, at 55 th Street. Hundreds of people
crowd the elevators all day long-performers and would-be performers, hopeful aspirants who have at last received notice of an audition after months of waiting and inquiries of all description. On each floor is a large entrance lounge where a "hostess," as she is called, receives the visitors listens to their requests, and arranges appointments. All ot these hostesses are very charming and courteous, and the well-furnished lounges, decked with gay flowers, are very restful.
As one enters the thick padded doors of the broadcasting studio there is a cheerful scene. Chatting and laughter amongst those who are to give the rogramme, tuning of many instruments of the orchestra, last minute directions to accompanists and speakers. The studio is beautifully coot even on the hottest davs of summer, as there is a very efficient air-cooling svstem. Electric fans, of course, could not be used owing to the noise of their whirling propellers.

The moment the programme begins there is an instant hush as the hand of warning is raised. Thereafter not another sound must be made, as the "Mike" is ready for transmission.

Each performer or speaker has been carefully timed and tested days before, so each knows what he has to do.

A large glass partition separates the engineer's room from the studio, and all directions and interrogations are carried out by signals and pantomime sestures. Ine announcer has his whole programme for the hour writter out, even to the playful comments he intends to make at the announcing of the various items of the orchestra.

An amusing incident occurred one afternoon when the writer was waiting for her turn to speak. The announcer had divided his programme into three parts and the orchestra had all their music in order for each announcement. The first part went smoothly, but in a moment of temporary aberration the announcer started on part three. Instantly the conductor of the orchestra, Vincent Lopez, saw the mistake and signalled his men. The change was quickly made, and a catastrophe averted.
when the transmission was finished the announcer breathed a deep sigh of relief, and said, "Thank you, Vincent! You saved my life!"

## What's on the Air for Women?

## Dear Sylvia, -

 I HAD the good fortune to be present at the first meeting of the 3DB Women's Friendship Club, organised by Miss Iris Turnbull and Miss Margaret Manning, who conduct those very helpful morning talks for women from this station. The afternoon was a huge success, Sylvia, and even the musical programme included items by one of the listeners. This club is very rightly named, because the chief impression I gained was the friendly atmosphere which pervaded this meeting.Prizes were awarded to listeners who sent in the best suggestions for the month to each of the four sessions of the Women's Radio Service. Afternoon tea was served in the attractive studio.
This club is sure to bring a great deal of happiness in its wake.

## Beauty Suggestions

$\mathrm{N}^{\mathrm{o}}$OW that the swimming season is upon us, we would do well to listen to the helpful beauty suggestions given from the various broadcasting stations during the women's talks. I listened to Madame Jeanette speaking from 3UZ recently, when she gave some advice for refining and toning up the skin. She advised the woman who has a skin of normal texture to use this lotion-one teaspoonful of almond meal, one teaspoonful of oatmeal, the strained juice of one lemon, and an amount of water equal to the amount of lemon juice.

For those women who have slightly dry skins, this speaker advised the use of two teaspoonsful of almond meal, with the other ingredients as above. On the other hand, the woman who has a skin which is inclined to be oily should use in this lotion two teaspoonsful of oatmeal and only one teaspoonful of almond meal, using the same amount of lemon juice and water as in the first formula.

## Christmas Cakes

I NOTICE that Miss E. H. Eddy is dealing with the subject of Christmas cakes at her next cookery talk from 3LO next Tuesday. This experienced speaker has been conducting cookery classes at
the Domestic Homecraft Exhibition at Capitol House.
Here is an economical Christmas shortbread recipe which was given from the Diet and Cookery Session of the Women's Radio Service from 3DB re= cently.

CHRISTMAS SHORTBREAD (Econo-mical).- $\frac{1}{2}$ lb. flour, 2oz. sugar, pinch of salt, $\frac{1}{4} l b$. margarine (or butter); $\frac{1}{2}$ oz. lard, $\frac{1}{2}$ teaspoonful vanilla essence. Butter a shallow oblong tin measuring approximately 10 by 7 in . Mix the dry ingredients and rub in the butter. Work with the hand until the shortbread is thoroughly pliable. Press evenly into the tin, taking care to avoid thin edges, Pinch the edges and bake in a moderate oven for about $\frac{3}{4}$ hour or until pale brown and firm. Cut into fingers and turn out when cold.

VIRGINIA.

## TALKS TO WOMEN

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# Some Letters from Listeners 

# $3 L O$ and Favoritism-Sunday Evening with Sandy McNab-Appreciation - Criticism of Band Music Desired. 

Address: The Editor, The Listener In, 62 Flinders Street, Melbourne.

## THOSE PROGRAMMES

Sir,-In your issue of $24 / 10 / 31$, "Hopeful" complains of the "Wretched and untuneful classical music" which is put over the air, and explains his attitude very clearly in the following words:"Not 10 per cent. of listeners are sufficiently musically educated to appreciate this class of programme, nor do they want to be." Where ignorance is bliss, "tis folly to be wise. "Hopeful" has an easy remedy, as he can tune in another station putting over some Yankee rubbish, so aptly described by "Floreat Jazz" and "Another G.A." in your issue of $31 / 10 / 31$, also by "Anti-Adenoids" in L.I. $7 / 11 / 31$.

I can appreciate classical music, and enjoy decent jazz, a march, or a humorous item, but I detest the abominable noises made by Yankee jazz bands, and

the weeping, wailing sob-stuff, per medium of the nose, which in most cases constitutes the so-called vocal refrain. It is high time we had an "All-British Empire Drive" in the realm of jazz.
"Be Fair" (L.I. 7/11/31) unjustly accuses 3 LO of favoritism. This station is to be commended on its action in this matter, and the daily press clearly stated that the initiative in the action mentioned was taken by a member of the controlling body of the Church, at the request of 3 LO .

In conclusion, I wish to thank The Listener In for the very interesting reading matter published, and I feel sure that if the programmes were followed by those who complain about our broadcasting stations, they would be able to find something to suit them, and would thus be saved the trouble of writing complaining letters. Constructive criticism such as that under the heading "The Critics Tune In" is never objectionable, and it is to be hoped that this spirit will very shortly become much more general.-Yours, etc.,

Pt. Lincoln, S.A.

## SANDY MeNAB

Sir,-Last week a letter in The Listener In castigated 3DB for its Sandy McNab programme, saying that this commercialised the Sabbath. The nicest thing I can say about this letter is that it is unkind. 3DB has dropped the broadcasting of church services, which cost nothing to put on the air, and, in a spirit of service, is spending a considerable sum each Sunday on this new feature, and we are then called "Commercial!" Actually, "Sunday evening with Sandy McNab," is a thoughtful attempt to provide a religious programme suitable to people of all creeds. It involves a lot of work and expense from which 3DB can hope for no financial return. If we cannot arouse the enthusiasm of listeners we certainly hope for their sympathetic interest.

By the way, 3DB does not earn any revenue from its Sunday evening programmes, and steadfastly refuses all adveit tising.
Another critic of 3DB last week blamed us for not apologising when we changed our Women's Radio Service programme from that published. The only case in which we are guilty occurred recently, when a speaker was refused the air at the last moment because his material would have offended women. He made a nuisance of himself, flustered the women and they forgot to apologise.
The criticism hurts because 3DB prides itself on station efficiency.
D. WORRALL, Manager 3DB.

## A SUGGESTION TO THE A.B.C.

Sir,-I would suggest that the A.B.C. make a relayed description of the last half-hour each day during the coming Test matches from either 3LO or 3AR from whichever ground the Test matches are played on.

During the last season listeners had to wait a long time for the scores when they were played in other States.Yours, etc.
"VICTORIAN TEST CRICKETER LIS-

## APPRECIATION

Sir,-I wish to thank 3DB for its enterprise in bringing Captain Ballentine to the microphone during the cricket match between South Africa and Victoria. Captain Ballentine's resume on the day's cricket was excellent. I hope 3 DB will make arrangements during the Test matches for Captain Ballentine to speak on the day's play.-Yours etc.,

CRICKET LISTENER.
Sir,-I wish to express my appreciation of the vaudevlile programme presented on Monday evening, November 9 , to which Mr Hector St. Clair contributed some amusing items.
In this time of depression, such enjoyable humor is most welcome.-Yours etc.;
Mont Albert.
I. BRIEN.

Sir,-I wish to tender my thanks to the Shell Company for the excellent selections given through 3DB. It is a great pleasure to listen to the splendid numbers, and I trust the high standard will be maintained. As regards the Sundowners' Quartette, I consider that it is the best ever heard over the air, and I agree with "F.M." that anyone unable to enjoy its numbers must be lacking in an appreciation of good music.-Yours ete.,

Canterbury.
G.W.W.

Sir,-Permit me to say how thoroughly I enjoyed Sandy McNab in his party broadcast from 3DB last evening. Eh, mon, 'twas fine. The old familiar hymns were so beautifully sung and the humor so perfectly wholesome. Please keep it going. It will, I am sure, give great pleasure to an immense number of lis-teners.-Yours etc.,
Geelong. A MINISTER OF RELIGION.

## BAND CRITICISM WANTED

Sir,-I have been following with interest William G. James describing the best music for the week, also Louis Lavater, The Listener In's musical critic. Some time ago Mr Lavater used to give an educational criticism on the
playing of the various brass bands, but of late he has not been including the brass bands. Is there any chance of arranging with Louis Lavater to give a constructive criticism on the playing of the various brass bands broadcast from time to time?
Could it also be arranged to have William G. James to describe the music each week to be played by the brass bands? If that were done every amateur bandmaster would have a thorough knowledge of the structure and meaning of every movement in most of the difficult selections played by the various first grade bands from Melbourne. The country bandmasters would be able to teach them with some show of authority if he had a real love for music.-Yours, etc.,

## BAND MUSIC LOVER.

[We think this suggestion is a good one, and are passing it on to our Musical Critic.-Ed. LI.]

## FRIEND MAURICE

Sir,-What of Maurice Dudley? He has vanished without a word of explanation after becoming quite one of the family circle of acquaintances over his years of "Thrree-EI-Oh-Melbourne."
Surely this grand old man of radio should not fade away with never a par for farewell.-Yours, etc.
"MT. GAMBIER LISTENER."
( Mr Dudley, who has been very ill, is recovering slowly, and it is hoped that he will soon be back at his accustomed place at the microphone.Ed. L.I.)

## MY CANARY

Sir,-A word to all those listeners who are everlastingly complaining about "My Canary." This song, I admit, is ridiculous, and speaks of things that could not happen; but if all our songs were about things that do happen, think what sordid things some of the songs would be. In these times of depression we want something bright and silly to take

our minds off the dismal things that are happening around us. I sincerely hope no notice will be taken of all the letters you have published from readers who are against American records. Personally, I think the only chance we get of hearing real vocalists and dance bands is through these records. Thanking you for your courtesy.-Yours, etc.,
"CHEER UP?"
P.S.-May I suggest that anybody who thinks our orchestras are better than American listen for a few minutes to one of our dance bands any night and compare it with the poorest American combination.

## The Classical Music Reviewed

## By LOUIS LAVATER, The Listener In's Musical Critic

## VICTORIAN PROFESSIONAL ORCHESTRA

ON Friday night, November 13, a programme given by the Victorian Professional Orchestra was transmitted from the Melbourne Town Hall through 3LO. Robert H. McAnally conducted. The opening number was Meyerbeer's "Coronation" march from the opera "Le Prophete." With the exception that, as sometimes happens, the performance sounded "hollow," as if given in a tank, it was a spirited rendering and came through well.
A still better number-perhaps the most satisfactory of the evening-was Mendelssohn's overture known as "Fingal's Cave." The restless surge of the ocean and the delicious fragments of melody working up to exciting climaxes were perfectly heard. It was an unusually good transmission.
Then Florence Ericsen sang (with piano, accompaniment) the aria "Casta Diva," from Bellini's opera "Norma." The recitative was delivered with considerable dramatic power, the air more quietly, but still with emotional coloring. The voice was fresh and vital, but lacked something in flexibility. There were symptoms also of tremolo when pressure was applied. At "Return, O M" Beloved," genuine feeling was conveyed to the listener. An "encore", number, "Music, When Soft Voices Die" (Maurice Besly), showed good taste and musical feeling. All through the words were distinctly heard.
The orchestra then played the chief item, Tschaikowsky's Sixth ("Pathetie") Symphony. There were a few flaws here: the horn once entered flat, but was afterwards "humored" successfully (this was in the first movement), and in the slow movement there were slight differences in intonation among the wind instruments; the tone in the scherzo was too heavy; and the opening of the last movement r . s a little ragged. The pizzicato scale-passage, however, which occurs at the end of the slow movement, and the cour rpoints in the scherzo. were excellently done and came through well.
From a musician's point of view it was unfortunate that the finale was interrupted in the middle by a discourse on the "Prosperity" campaign, delivered by the Federal Treasurer, E. G. Theodore.
Mabel Nelson followed with a verv. well played Foup of piano works. mostly modern. A Chopin nolonaise was succeeded by Chassin's "Flirtation in a Chinese Garden," light stuff. but neat and clever; Then came Grainger's "Colonial Sono." in his manner of repetitions slightly varied; "Quand il Pleut" ("When It Rains"), by Buishneff, good descrintive stuff. and Grainger's, "Irish Tune from County Derry," with his own band of contrapuntal accompaniment All these clear and interesting.
The conductor (Robert MeAnally) here introduced a composition of his own, a tone-poem for orchestra, entitled "Life Triumphant." It was
fairly well played, and the orchestration is skilful, but one did not at first hearing retain any memorable theme. The intermezzo from Mascagni's "Cavalleria Rusticana," and the "Barcarolle," from Offenbach's "Tales of Hoffmann, were bracketed for the next number. The latter was the best played, and, moreover, owing to, the thin, clear texture of the scoring is better suited for broadcasting. It came through beautifully.
Another tone-poem of the conductor's, "The Philosophy of Life," was now begun. I say "begun," because I did not hear it ail; at the sounding of the bells I thought the end had come. This is a work of inordinate length, and difficult to follow without the accompanying "story." Moreover, I heard many obviously wrong notes, and it is clear that, though some parts sounded impressive, others were in need of more rehearsal. The Tschaikowsky Symphony and these "wo tone-poems were "much too much" for one programme, and I had to miss the rest.

## Sunday Night Programme

$\mathrm{O}^{\mathrm{N}}$ Sunday night, November 15, ever, it took some time to locate, I missed the early part of the programme at 3LO, which I had planned to hear.
The first number I got in its entirety was a brace of part-songs, "My Love is Like a Red, Red Rose" (Cyril Jenkins), and "Comrades in Arms" (Adolphe Adam), sung by the Victorian Postal Institute Choir, under George English. The choir showed fine balance of tone, clean attack and release, and wellmanaged contrasts of loud and soft. The
delivery of the second song was most dramatic and effective.
The A.B.C. Light Orchestra then played incidental, music to "The Merchant of Venice" by Fred Rosse, not very striking; though a slow waltz-subject and the freakish march-like final were not unpleasing. This composer is not afraid of monotony, for he repeats figures of accompaniment without variation for considerable periods at a stretch.
The Postal Institute Choir then sang Granville Bantock's beautiful and original "On Himalaya" very expressively, though the intonation was not always perfect. Elgar's "My Love Dwelt in a Northern Land" was perhaps better sung in this respect, but the music, though effective, lacks the charm of the former item.
Allan MeCristal, pianist, then gave a short recital. opening with Brahms's Caprice in B minor. This genial little work was neatly shaped and the iingerwork was exceptionally clean.
Five of Chopin's shorter preludes followed, of which the first and last were the best. Those in G (ostinato in left hand) and F (ditto in right hand) were the least satisfactory in that the rapid figures of the ostinato were blucred.
The Light Orchestra then played three movements from Delibes's "Sylvia" ballet, of which (much to my surprise) the "Pizzicato" came through best.
The choir's final number was "Worthy is the Lamb," from Handel's "Messiah," sung with fine vigor and true intonation.
H. Green, flautist, then gave three short numbers of which I unfortunately (owing to the fault already referred to) had to miss the first and most important.

## Recent Popular Broadcasts <br> \section*{By "CRITICUS"}

## "An Ideal Husband"

MORE than any form of entertainment perhaps, save music, is the. English comedy naturally adapted to wireless Plays from such diverse dramatists as Shaw, Milne, and Wilde seem to come over the air with equal ease.
In Wilde's "An Ideal Husband," broad cast from 3LO on Tuesday night, thert was not a difficult moment. The tangle of voices which greeted one on the opening of the first act, quickly straightened itself out, and, from then on till thr end, each character stood out clearly

This was thanks, naturally, not only to Wilde, but to producer and actors. Evi. dent care had been taken to fit each role suitably, and the voices matched the characters remarkably well.

Lady Markby, though a comparative pawn in the game, was quite outstanding in this respect. Her crisp voice, touched with an occasional drawl, painted in a few deft strokes a personality we have all met at times. A woman of middle years, to whom life has been so amiable that she can afford to pass on this ami-
ability, she is the possessor of a manner inconsequent enough to call forth the remark of Mrs Cheveley's "she talks more, and says less, than any woman I know ": yet manages to slide forward under this manner as many quick comnents as anyone in the play.
Mrs Cheveley was excellent. And here me must thank the player more than the slaywright. It is not easy at any time to make of an adventuress a convincing haracter, and the Mrs Cheveley, according to Wilde, is frankly, at times, a sather improbable character.
Clever people often make false steps, sertainly, but to force a character of any brains at all to steal a unique ornament, and then wear it at a gathering at which she might meet any number of her victim's friends, is rather a too violent sacrifice of psychology to plot.
Yet the voice which controlled this part was so good that it took the edge off this crudity. Very fine and clear, it managed the scene with Sir Robert Chiltern exceedingly well, smoothing out any possibility of melodrama with its
(Continued Opposite)

## TALKS TO TUNE TO 3LO, 3AR. November 22 to 28

| Subject | Speaker and Title | Station. | Time and Day |
| :---: | :---: | :---: | :---: |
| Popular Science |  | $\begin{aligned} & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{AR} \\ & \hline 9 \mathrm{nd} \end{aligned}$ | $\begin{aligned} & 8 \text { p.m., Monday }: 23 \\ & 8 \text { p.m, Tuesday }{ }^{23} \\ & 7.25, \text { Wednesday } 25 \\ & 3.30 \text {, Thursday } 26 \\ & \hline \end{aligned}$ |
| Art <br> and Literature |  | $\begin{aligned} & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \end{aligned}$ |  |
| History and Travel |  | $\begin{aligned} & \text { 3LO } \\ & \text { 3LO } \\ & \text { 3AR } \\ & \text { 3LOR } \\ & \text { 3AR } \end{aligned}$ | 7.10, Sunday $\ldots 22$ <br> 2.30, Tuesday $\because: 24$ <br> 3.0, Tuesday <br> 7.45, Tuesday <br> 12.15, 24 <br> 3.45, Wednesday <br>  Wednesday |
|  | W. H. Elsum <br> H. Burton <br> "Cement Creek and the Acheron Ẅay" <br> "Australian Settlement and Self- | $\begin{aligned} & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \end{aligned}$ | 3.0, Thursday . . 26 <br> 8.0, Thursday !. 26 |
|  |  | $\begin{aligned} & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{LO} \end{aligned}$ | 3.0,Friday <br> 2.0, <br> 7.45, <br> Saturday <br> Saturday$:$28 <br> 28 |
| Farm and Garden |  | $\begin{aligned} & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \end{aligned}$ | 2 p.m., Monday . ${ }^{23}$ <br> 7.25, Tuesday <br> 7.25, Friday . . 27 |
| Health and Home |  | $\begin{aligned} & \text { 3AR } \\ & 3 \mathrm{LO} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{AR} \end{aligned}$ |  |
| General |  | $\begin{aligned} & \text { 3LO } \\ & \text { 3AR } \\ & \text { 3LO } \\ & \text { 3AR } \\ & \text { 3LO } \end{aligned}$ |  |
|  |  | $\begin{aligned} & 3 \mathrm{AR} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{LO} \\ & 3 \mathrm{AR} \\ & 3 \mathrm{AR} \end{aligned}$ | 3.0. Wednesday . 25 <br> 6.35, Wednesday • 25 <br> 7.45, Wednesday . 25 <br> 6.35, Thursday 12.15, Friday ${ }^{26}$ <br> 8.0. Friday $\qquad$ |
| Sporting and Descriptive |  | 3LO 3LO 3LO 3LO 3AR 3LO 3AR 3LO | 6.35, Monday $:{ }^{23}$ 7.45, Monday 2.0, Wednesday 2.0. |
|  | From 4QG, Brisbane .. .. .. .. Summary of Day's Play .. .. .. .. .. .. | $\begin{aligned} & 3 \mathrm{AR} \\ & 3 \mathrm{LO} \end{aligned}$ | $\begin{array}{r} \text { 1.15, Saturday } \\ \text { 10.15, } \\ \text { Saturday } \end{array}{ }_{28}$ |

## RECENT POPULAR BROADCASTS-(Continued from opposite page)

naturalness - the type of voice which has probably helped many ladies of this ilk to rich reward
Sir Robert Chiltern himself was also good. His even, rather heavy voice was very pleasing, and revealed easily a man who, having made one bad slip in his youth, has spent the rest of his career in sincerely trying to run straight. His state of mind when asked to choose between exposure and another slip worse than the first was portrayed with simple restraint.
His wife's accent followed her character like a glove. The quiet inflexible voice to which this part was entrusted could not have been chosen better. It was not really attractive, but then Lady Chiltern is not an attractive person. A woman living her deep, narrow life with the intensity with which the Vietorians did live, knowing black and white, but no shades in between, hard as nails and not at all appealing from the 20th century standpoint, she yet claims our interest by her very rigidity.

Only once did she fail to convince, and here again Wilde himself was to blame. There was something irritatingly unnatural in her intense anxiety over the discovery of her letter in Viscount Goring's flat.
Viscount Goring is a type very popular with certain English-dramatists. He seems so much a lily of the field that we feel sure he is going to be particularly useful before the end of the third act, and we are not disappointed. The voice itself was an attractive one; clear and crisp; eminently well suited, as was Mrs Markby's to Wildian wit.
It is this last, of course, which saves "An Ideal Husband" from being merely a mechanical play with a rather banal end.
Characters may squeeze themselves into various strange shapes to suit the plot, but while they make remarks such as "Surely Providence can resist temptation by this time! . . Women can discover everything except the obvious. . . It is dangerous to be too modern;
it's apt to grow old-fashioned so suddenly

## "For Valor"

This play, specially written for Armistice Day by the Melbourne author, John Scott Simmons, was an interesting example of what can be done over the air in the way of quick scene-changing. In fifty minutes one was taken through a boy's life, commencing with his parents' comments on him in his cradle, and ending with their rejoicing when he returns from the Front, and his subsequent comments on his son.
Certain scenes, such as the dinnertable conversation between Mr and Mrs Rutherfield, and their son, Hugh, were most natural. The talk was typically that of any family at dinner, and Hugh managed a very good boy's voice.
The boat-race scene gave 3AR good opportunity for sound effects, and the station certainly availed themselves of it, A really vivid picture of the Yarra, with its wildly excited banks, its maze of voices, sometimes muffled, sometimes swelling louder, came over the air,

W. H. L. MAWSON, A.L.C.M., conductor of the Hawthorn Banjo Club, to be heard over 3 AR , November 28.
"Shamus O'Brien"
A LOVABLE gossoon, a bewitching colleen, bands of soldiers, the cry of the Banshee under the Irish moon-all these play their part in the romantic comic opera, "Shamus O'Brien," which is being relayed from 3LO to 5CL, Adelaide, on November 23. The story (which is founded on the poem of Jos. Sheridan Le Fanu, and set to music by Sir Charles Villiers Stamford, the famous Irish composer), concerns the fortunes of Shamus O'Brien, the beloved outlaw, who has a price on his head, and the scene is laid in the village of Ballyhamis, in the mountains of Cork, at a time immediately after the suppression of the rebellion of 1798, when the loyal villagers are seeking to shelter their hero.
But one, Mike Murphy, who is enamored of Shamus' wife, Nora, and stiired by greed of gold, turns informer, and promises (for the reward of 100 guineas) to lead Captain Trevor, of the British Army, and his men to the house where Shamus is hiding. Mike leads the way, but ere the soldiers reach the house Shamus has heard of their approach and appears in the disguise of the village idiot. In this guise he persuades Captain Trevor that he knows where Shamus is hiding, and following the "idiot" the Captain ard his men are led by Shamus into a bog. The pursuit of Shamusassisted by Mike Murphy-does not end with this, however, and there are many


JOHN WARREN, tenor, who will be heard from 3 LO on Tuesday, Nov. 24.

# A Tour of The Studios 

## Cossip about this Week's Programme Features and People in the Programmes, gleaned from a visit to the Broadcasting Stations.

other exciting incidents before the play reaches its conclusion.
Well-known operatic artists will be heard in the leading roles, and the ensemble numbers-in the hands of a specially chosen chorus, and under the direction of William G. James-will complete an excellent performance.


ART CHAPMAN, who regularly conducts the Rex Orchestra over 3LO and 3AR.

## "Ma Mie Rosette"

A REPEAT performance of "Ma Mie Rosette," a romantic comedy opera, in two acts, by Paul Lacome and Ivan Caryll, will be given from 2 FC , relaying to 3LO on Friday, November 27. The opera, which has a delightful old-world atmosphere, to which the charming melodies contribute, created a furore when it had its Australian premiere at the old Princess Theatre, Melbourne, when the late Nellie Stewart, in the hey-day of her youth and charm, played Rosette
The period of the play is in the days of the French King, Henry of Navarre, and is the story of the village belle, Rosette, and her love for one, Vincent, a young gardener. The A.B.C. Light Opera Company will present this attractive musical play.

## Henley-On-the-Yarra

MELBOURNE'S great water pageant Henley-on-the-Yarra, will be held on Saturday November 28, and as wel as being a delightful spectacle for those present to witness, it will also provide those who stay at home with a picturesque broadcast-and some little excitement.
The picturesqueness will come from the description of the scenes on the river bank, where the fair sex will be seen in their Spring and Summer finery, and the excitement ... ! Well, that will come from the relating of rowing races in which the interstate competitive spirit will be much in evidence.

Crews have come from Queensland, New South Wales, South Australia and West Australia, while scullers will also be there from every State for the important sculling races, such as the Grand Challenge Sculls and the Diamond Sculls.
From a carnival point of view, Henley is Melbourne's most spectacular function, and 3AR is making the most of it in their broadeasts on this Saturday.

## "The Sun Vow"

$\mathrm{F}^{\text {ROM }} 2 \mathrm{FC}$ on Thursday, November 26 , an enjoyable programme will be presented to listeners in which the outstanding attraction is "The Sun Vow," a romantic North American fantasy, adapted for broadcasting by John Bevan, and presented by the A.B.C. Players.
The scenes are a backwater of the River of Leaping Waters-the Waters of Mair-ama--and the mountain village of Tarshinga, and the story is that of tribal warfare between the rival chiefs, Ranaoke and Tarshinga. It tells of the treachery of the former, who by false moves towards peace desires to overthrow Tarshinga-and how the latter calls upon the Sun God's wrath to avenge the wrongdoing of his rival.

## 'Strad Trio Pianist

MISS MAY BRODERICK is the pianist of the Strad Trio, who is to be heard next week from 3DB, in its Household Harmonies Hour, at 2.15 p.m. Miss Broderick-who in private life is Mrs Cecil Parkes-is a former student of the late Benno Scherek, Edward Goll and A. G. Nickson. She has had wide concert experience, and was selected by the Sistine Choir while in Australia as the ideal pianist for their rehearsals.


MISS MAY BRODERICK, pianist of the Strad Trio, now being heard from 3DB.

## Joseph Bates

ISTENERS to $3 L O$ and $3 A R$ this week may have wondered, if they tuned-in in the middle of a Joseph Bates item, how it. was that these stations were playing Maurice Chevalier records in the middle of their ordinary evening session. But the familiar voice crooning "You've brought a new kind of 'lov' to me", was not that of the fascinating Matrice but of his Australian imitator, Joseph himself, who has for some time past heen singing the songs of the favorite French-man-accent included.

Mr Bates was recently heard at the Capitol Theatre during the season of Maurice's "The Smiling Lieutenant," when he gave his imitations to Wurlitzer accompaniment, and it was after this that he was given his opportunity to broadcast from the Melbourne "A" class stations.
Mr Bates first broadcast at the Queensland Radio Exhibition some five years ago. At the time he was appearing at the Bohemian Theatre, in partnership with Blanche Burns, and since then has been on the air regularly with 40 G . He has also been heard from 7LA, Hobart.

## "Household Pests and Their Control"

MR T. McCARTHY, Senior Assistant Entomologist of the Department of Agriculture, will give a talk on "Household Insect Pests and Their Control," from 2BL at $6.45 \mathrm{p} . \mathrm{m}$. on Tuesday, November 24.
The study of economic entomology includes the study of the investigation of the life history and control of various species of insect pests that affect the welfare of man, both from the point of view of his health and the various phases of his activities. Perhaps one of the most important is the study of household insects, which may affect man by attacking the human body, and also his own personal property.

## Composer-Comedian Frem 3AR

THOSE who enjoy something really funny (and who doesn't?) must not forget to tune in to 3AR on November 23, when Alf. Lawrence and his versatile partner, Nell Crane, will be heard in two original comedy numbers. It is some time now since Mr Lawrence leapt into fame by writing the popular melody, "I Wouldn't Leave My Little


ALBAN WHITEEHEAD, baritone, who will contribute vocal numbers to the day, November 26.

Wooden Hut for You," but he has steadily added to his successes ever since, and his songs have been popular on both sides of the Atlantic.

## "The Enemy"

A
PLAY in four acts by the distinguished Ameriean playwright, Channing Pollock, will be broadcast from 2FC and 2NC on Sunday, November 24 , at 8.45 p.m. with the A.B.C. Players, and will be relayed to 4 QG and 4RK.
The four acts of the play will take place in Vienna in June, 1914-August, 1919-March, 1917- and June, 1919. and the characters are a little group of "the enemy" during the crisis of the Great War, and after. Enemy hate in war-time is a tremendous thing which no one can account for, and this play-dealing as it does with the thoughts and feelings of those who were not our Allies-will make people register the hope that war will not again blot the escutcheon of civilisation.

## "The Solenelle"

$\mathrm{O}^{\mathrm{NE}}$ night about 18 months ago extreme pleasure was given to listeners by the broadcast from 3 LO of Gournod's "Nass of St. Cecilia"-usually referred to as "The Solenelle"-by choir and orchestra.
There was a rare beauty in it that appealed to all music lovers, but, apart from that, the performance struck a new note in broadcasting, giving to listeners for the first time in this State a suggestion of the impressive ritual and liturgy of Catholicism - the broadcast being enlightened by verbal explanations of the relation of the music to august ceremonies of the ancient Church. Since that memorable night other masses by Gounod, Haydn and Beethoven have been broadcast, and the general desire is for more and still more.
That 3 LO is able to meet this demand is due to its having the whole-hearted co-operation of Mr Hugh McRae, the


DAVID CRAVEN, who takes the part of Henry IV. of France, in the romantic comedy-opera "Ma Mie Rosette", to be
director of St. Ambrose's choir, Bruns wick-a choir that has come out of comparative obscurity into the limelight in no small way. Of the several Masses which have been broadeast-Haydn's "Imperial", with its coronational splendor; Beethoven's in C,. with its profound depths and sublime heights; and Gounod's softly-breathed "Sacre Coeur" -it is the "Mass of St. Cecilia" which is dearest to Catholic hearts, and makes the widest appeal.
The Mass will be sung at 3 LO on Sunday night, November 30 , with ful orchestral accompaniment.

## RADIO CLUB NOTES

## 3DE "Smile Away" Club

A BIG Smile Away party is to be held in the Auditorium next Wednesday Thursday and Friday, and more than 6000 will be entertained by the club in this way. The entertainment will be somewhat similar to that given previously at the King's Theatre and at the Auditorium, and will consist of minstrel show items, a one-act play, vaudeville, farces, and so on. The previous entertairments were voted a tremendous success, and it has been decided to give this year's members a final opportunity of seeing it.
This probably twill be the last big party for 1931 members, but an ambitious programme of entertainment and cheerful activity is being planned for 1932 members. Enrolnent for members for 1932 will commence at the beginting of December.
The Tailwaggers' Club now has more than 800 members and a number of activities are how being arranged for these. The Tailwaggers' parliament will be selected soon, and a special Tailwaggers' show is being discussed.
The fortnightly hikes have been attracting large crowds, and the leader of the hikes Mrs Way) has been begging for less publicity since the number of hikers threatens o become too large to handle conveniently. The Smile Away club rooms, underneath the Capitol Theatre, were opened recently, and are proving a convenience. Tickets given out nightly are now distributed there between the hours of 9.30 and 5 . The tickets for the big Auditorium parties will be distributed from the club rooms except after 5 p.m.

## Fox Hoyts Radio Club

THE membership of Fox Hoyts Radio Club L is now nearly 13,000 , and branches are well established at Albury and Ballarat. A branch has also been formed at Oakleigh.

Last Sunday, the club gave a private screening to its members at the Regent Theatre. A very good programme was provided and the theatre was packed. The orchestra and Choral Society, under the leadership of Mr Kevin Bradley, gave a splendid performance before the show. Many hikers were present, special arrangements having been made with the Railways Department to enable them to get back in ime. They have gone from Berwick via Harkawaif, to Selby, and, although they received a thorough wetting, this did not dampen their spirits in the least.

The motor cyclists were out last Sunday on the same route as the hikers. They are having another outing on lvovember 22, and will be meeting outside the club rooms at $10.30 \mathrm{a} . \mathrm{m}$.
There will be a meeting of the Camera Club at ivar Vivian Harrison's rooms, Empire Arcade, Flinders Street, on Monday. November 23, when a lecture on "Exposure and Development of Films" will be given.
The cricket club has a fixture arranged for the season. The ground is No. 29 pitch, Carlton,
Commencing on Monday, November 23 , the Central Council of Victorian Benevolent Societies is holding a carnival at the Green Mill. On the Friday night, the combined musieal societies of the Fox Hoyts Patio Club are providing the programme. Tickets, 1) each, are obtainable at the club rooms, and attached to each ticket is a coupon which may entitle the holder to a free firstclass trip to Tasmania.

Listen in to the club's sessions every Monday, Wednesday, Friday, and Saturday, at 7 p.m., and to the Fox Talkietone halt hour, from 7.30 till 8 p.m. every Sunday.

# - AUSIIRAIIINE ITROGGRAMMIES 

Note. - Programmes of Melbourne, Sydney, Brisbane and Hobart Stations are arranged according to Eastern
or Melbourne Time-5CL Adelaide is half an hour behind Melbourne, and Perth two hours behind Melbourne time.

## MORNING

10.0: Time Signal Latest Cricket Information. Programme Review.
10.10: "A ustradio" Musical Reproduction.
10.20: Express Train Information. British Official Wireless News. Items of Interest. Police Messages
10.30: Bells of St. Paul's Cathedral
10.45: DIVINE SERVICE From

ST. PAUL'S CATHEDRAL SERMON: ARCHDEACON HERRING.

## AFTERNOON

3.0: PLEASANT SUNDAY AFTERNOON

WESLEY CHURCH CENTRAL MISSION. Soloist: MISS GRACE JACKSON.

## EVENING

6.0: "BROTHER BILL'S" Talk is entitled-
"ARMY OR ARK"
6.15: THE OPTIMISTS' CHORUS SINGERS Led by TREVOR MORRIS In Children's Songs and Choruses.
6.53: Birthday Greetinge
7.10: AN INFIDEL IN ISLAM-
"Kahns and Caravanserais."
MR GEORGE MATTHEWS.
7.30: Musical Interlude
7.35: THE NEWS BEHIND THE NEWSBy "THE WATCHMAN.

## NIGHT

BAND MUSIC
8.0: RAILWAYS MILITARY BAND:
(Conductor: A. BELCHER) -


November 22

## 3LO, Melbourne

## WAVE LENGTH, 375 metres

Grand March: "Entry of the Gladiators" (Fucik).
Gavotte: "Flirtation" (Langey)
8.10: COLIN THOMSON, Tenor:

Two Songs by Roger Quilter:
"Weep You No More."
"To Daisies."
8.17: TWO PIANO RECITAL-

RITA HOPE AND KATIE LIDDELL -
"Piece in A Minor" (Ropartz).
8.27: RAILWAYS MILITARY BAND:

March: "The Bull-Fighters.
(Relaying to Station 2BL).
8.30: Selection: "The Count of Luxembourg" (Lehar).

## The Story of a Famous Song

8.44: MR. J. HOWLETT ROSS-

Will tell the story of "The Rosary" and its Author.
8.59: RAILWAYS MILITARY BAND: Overture: "Les Cloches de Corneville"
(Tubular bell solo, by E. MARRIOTT).
"Dance of the Mountain Gnomes" (Eilenberg).
"By the Fireside" 9.5: "THE SUNDOWNERS' QUARTETTE-

## with ARNOLD COLEMAN

at the Grand Organ.
9.25: RAILWAYS MILITARY BAND:
"Slavonic Dance No. 6" (Dvorak).
"Humoreske" (Dvorak).
9.33: COLIN THOMSON, Tenor:
"The Vagabond" (Vaughan Williams).
"Sylvia" (Oley Speaks).
9.40: RITA HOPE AND KATIE LIDDELL:
In a Further Two-Piano recital:
"Berceuse" (Aubert).
"Romance" (Arensky).
"La Coquette" (Arensky)
"Nocturne" (Gliere).
"Les Nymphes" (Gliere),
9.50: RAILWAYS MILITARY BAND:

Entr'acte No. 2 from "Rosamunde" Serenade: "By Moonlight" (Moret).
Cornet Solo: "The Trumpeter" (Dix).
(Soloist: ROBERT BOWDEN).
10.3: British Official Wireless News. Official Weather Data. Police Messages. Items of Interest.

EPILOGUE
10.15: "Seek, Ye Shall Find."
10.30: Close Down.

## 3AR, Melbourne

WAVE LENGTH, 491 METRES

MORNING
11.0: DIVINE SERVICE from COLTINS STREET BAPTIST CHURCH, MELBOURNE. MELBOURNE.
Sermon: REV. W JACKSON, B.A.

## AFTERNOON

12.15: A Studio Programme of Special Reproduced Music.
"Belphegor"
"Marche (Brepsant).
BAND OF H.M.
GREN ADIER GUARDS.
Conductor, Captain
G, Miller. Awake,
Beloved", (Cowen),
"Can't Remember" (Goatly).
HAROLD
WILITAMS
Baxitone, with piano.
ido Not Go, My
Love" (Hageman).
Homing"
Del Riego)
MAKGUERITE
D'ALVAREZ,
contralto, with piano
find organ.
"Somewhere a Voice
is Calling" (Tate).
${ }^{6} \mathrm{II}$ Know of Two
Eright Eyes"
NEW MAYFAIR
ORCHESTRA.
"Murmuring
Breezes" (Jensen)
Cherry Blossom"
ORCHESTRA.


HAWTHORN BANJO CLUB, under the direction of W. H. L. Mawson, who will be heard from Station $3 A R$ on November 28.
"I Travel the Road" (Thayer)
"My Sword and I" (Byng).
PETER DAWSON, baritone, with orches-
"Wand of Youth"
Waite (Elgar) March, "Little Belles -Moths and Butterflies."
Fountain Dance: Tame Bears - Wild Bears.

IONDON
SYMPHONY
ORCHESTRA:
Conductor:
SIR ED. ELGAR.
"Way Down Upon the Swanee River ${ }^{\text {' }}$
Nego spiritual.
Got shoes.
Negro sa THOMAS
soprano, with piano
by COLTN
CAMPBELL.
The Court Ball" Op. 161 (Tanner).

GRAND
SYMPHONY
ORCHESTRA -
Conductor,
Dr. Weissman. Away "The (Gar Alls" (Gordon).

MCCORMACK,
McCORMACK
tenor, with
L'Heure Exquise"
(Vorlaine-Hahn).
Si Mes Vers. Avient des Alles" (Hahn)
NINON VALIIN, soprano, with piano.

Sousa Marches: "National Game" Gridiron Club.
SOUSA'S BAND, Conductor, "Sousa."
1.45: "QUESTIONS AND ANSWERS"

THE REV. C. IRVING BENSON'S halfhour talk on Biblical, moral and ethical problems, submitted by Listeners.
2.15: ARNOLD COLEMAN at the GRAND ORGAN
Will illustrate the story of the opera Girofle-Girofla."
By Lecocq.
3.0: Close down.
4.30: "Rakoczy" - March "Damnation of Faust (Berlioz)
PHILADELPHIA ORCHESTRA
Duet: from "Hansel and Gretel" (Humperdinck).
META SEINEMEYER, with orchestra.
"The Beggar's Opera" Selection (Gay). BAND OF H.M. GRENADIER GUARDS Conductor, LIEUT. GEORGE MILLER.
"Wein, Weib und Gesang" (Strauss). B.B.C. WIRELESS CHORUS AND ORCHESTRA
"L Apprenti Sorcier" (Dukas).
NEW YORK SYMPHONY ORCHESTRA.
(Conductor, Arturo Toscannini)
"Butterfly's Entrance" from "Madame Butterfly" (Puccini),
ALESSANDRO GRANDA, GINO VANELLLI, GUISEPPI NESSI, ROSETTA PAMPANINI, with chorus and orchestra.
"Spanish Dances" (De Falla),
PHILADELPHIA SYMPHONY ORCHESTRA.
"Solveig's Song" (Grieg).
"Know'st Thou the Land" from "Mignon" (Thomas).
EMMY BETTENDORF, soprano, with orchestra.
"Slavonic Dances No. 6" (Dvorak).
BERLIN STATE OPERA ORCHESTRA.
5.30: CULLED FROM THE CLASSICS:

Second Series: "Haslet, on 'Going on a
Journey,'
KATHLEEN BOOTH, B.A.
5.45: "Tod und Verklarung, Op. 24 (Strauss) LONDON SYMPHONY ORCHESTRA,
Conductor: ALBERT COATES.
"O Paradiso" (Meyerbeer).
BENIAMINO GIGLI, tenor. with orches-
"Christmas Concerto" (Corelli)
BERLIN STATE OPERA ORCHESTRA,
Conductor, Dr, Weissman.
6.20: Request numbers.
6.40: Request numbers.
6.45; What's on the Air Tonight.
6.47: St. Paul's Cathedral Bells.

## EVENING

7.0:

## DIVINE SERVICE

SCOTS CHURCH, MET BOURNE
SERMON: Rev. DR. W. BORLAND, M.A.

## NIGHT

8.30:

PROGRAMME
Arranged
PROFESSOR BERNARD HEINZE, F.R.C.M. ARTISTS.
ELISE STEELE-Violinist. HELEN SPEEDING-Pianist.

CARRIE CAIRNDUFF-Soprano.
GORDON PEART-Baritone.
Sonata for Violin and Piano in D. Major (Mozart).
Soli: (a) "Jeune Fillettes" Bergerette
(b) "Je sais Attacher des Rubans"
(Dourlens).
(c) "Je ne veux pas d'autre chose" (Widor).
Pianoforte: Chorale-
"Jesu, Joy of Man's Desiring" (Bach-
Myra Hess).
(From 147th Cantata).
"Nocturne D. Flat Major" (Chopin).
"Mazurka A. Minor" (Chopin).
"Mazurka C. Major" (Chopin).
Gavotte (Gluck-Brahms).
Violin Soli (Unaccompanied)
"Prelude in E" (Bach).
"Andante Sostenute" (Bach).
Baritone Solo: Aria: "Credo" from
"Othello" "(Verdi); (Sur le nom d"Haydn) (Ravel).
"Une Barque sur l'Ocean" (Ravel).
"Three Preludes" (Delius).
"April" (Frank Bridge).
Soprano Soli: "Twilight Fancies" (Delius).
"Someone" (Maurice Besley-Quilter).
Baritone Soli: A. Group of English Songs
(a) "Isabel" (Frank Bridge).
(b) "An Epitaph" (Maurice Besly).
9.55: Weather Information. Police Messages.
9.55: Weather Info

## 2FC, Sydney

## WAVE LENGTH, 451 METRES

VLADIMIR HOROWITZ, Pianist-
"Paganini Etude in E Flat Major" (arr
Busoni)., Corner Suite-"Serenade fo:
Children's Corner Suite-"Serenade for
LONDON SYMPHONY ORCHESTRA-
"Crown of India Suite" (Elgar).
"Pomp and Circumstance" (Elgar).
7.15: From St. John's Presbyterian Church,

Wahroonga-
Evening Service.

## NIGHT

8.30: Relayed to 2 NC , Newcastle.

WILLIE MENGELBERG AND HIS ORCHESTRA (recorded)-
Leonora Overture (Beethoven).
8.45: (Relay to 4QG Brisbane and 4RK Rockhampton from 8.45).

THE A.B.C. PLAYERS
${ }^{66}$ THE ENEMY ${ }^{9}$
A Play in Four Acts Channing Pollock.

Produced by Laurence Halbert.
His purpose was to show how like ourselves were creatures we should have called contemptible; how like ourselves they thought and felt, and how they regarded us; and so to show us ourselves through their eyes.'
-William Dean Howells with refereence to "Gulliver's Travels." The Persons:
(In the order in which they speak)
Carl Behrend .. .. ARTHUR KEANE
Pauli Arndt . . .. NANCY STEWART
Baruska ... .. LORIS BINGFIAM
Bruce Gordon ... .. ERIC MASTERS
August Behrend ARTHUR CORNELL
Jan .. .. .. .. .. .. JOHN DURNE
Dr. Ärndt $\because$ ÄRTHÜ GREENAWAY
Mizzi Winckelman .. ROSLYN VANE
Fritz Winckelman - JOHN BEDOUIN
The action takes place in the Arndt flat in Vienna-
Act 1-June, 1914.
Act 2-August, 1914.
Act 3-March, 1917.
Act 4-June, 1919.
10.0: Meditation Music.
10.30: Close.

## 2BL, Sydney

## MORNING

10.55: Announcements.
11.0: Morning service from St. Jude's Church of England. Rector: CANON CAKEBREAD. Organist: Mr. F. R. COOKE.
12.15: Musical items.
12.30: News.
12.40: A specially-arranged Programme of recorded vocal and instrumental music.

WAVE LENGTH, 351 METRES
2.30: Mental and Musical Reflections. 3.0: Close.

## AFTERNOON

4.30: A Celebrity Recital.
4.45: "BRINGA" will tell of
"The Aboriginal Bushranger."
5.0: A Celebrity Recital.

## EVENING

6.0: The Children's Session, conducted by 50. Musi
6.50: Musical items.
7.0: Evening Service from Killara Congregational Church:

## NIGHT

8.30: Relayed from 3LO, Melbourne. See 3 LO for details.
9.58: Weather forecast.
10.0: Close

FOR

## MORNING

Relayed to 4 RK . Rockhampton Until
10.30: City Hall Chimes
10.31: GATTY SELLARS, Organist- "At the Temple Gates" (Dellans)
10.70: Weather Information
10.42: Cable News.
10.13: MASTER JOHN BONNER, BOY SOprano, and TEMPLE CHURCH CHOIR"Hear My Prayer" (Mendelssohn). 10.48 News.
11.0: The Morning Service will be Broadcast from the City Congregational 12.15: Close.

## 4QG, Brisbane

WAVE LENGTH, 395 METRES

## AFTERNOON

Relayed to 4RK, Rockhampton
3.0: Garden of Roses- The Wedding of the Rose." "The Rose of Tralee," "To a Will Rose," "The Last Rose of Summer," "Roses," "Rose in the Bud," "Roses of Picardy," "Roses and Women," "Rose For Every Heart," "Roses of the South," "Rose Softly Blooming," "Hedge Roses," "Rose Marie."

### 4.30: Close.

## EVENING

Relayed to 4 RK , Rockhampton.
6.0: A Special Service for Children, arranged by The Queensland Council of Churches.
6.30: The Children's Own Hour, conducted by "THE SANDMAN."
NIGHT
Relayed to 4 RK , Rockhampton, from 8.45 p.m.
7.30: Evening Service will be Broadcast from St. Andrew's Church of England. Preacher: REV. L. J. HOBBS.
8.45: A Programme from Sydney. See 2FC for Details.
10.0: Close.

## 5CL, Adelaide <br> WAVE LENGTH, 411 METRES

## MORNING

10.30: Message of Cheer
10.31: Sabbath Chimes and Music.
11.0: Time signal.
11.1: Morning Service

Maughan Methodist Church.
Preacher: REV. S. FORSYTH.
12.25: Items of Interest.
12.30: Close down.

## AFTERNOON

3.0: Time Signal.

## 3.1: A Pleasant Sunday Afternoon Service Maughan Central Mission.

## 3DB, Melbourne <br> WAVE LENGTH, 255 METRES

## AFTERNOON

2.30: Two Hours of Melody.

## EVENING

6.0: An Hour of HarmonyROYAL ALBERT HALL OR
FRASER GANGE, Baritone -
"On the Road to Mandalay."
W. H. SQUIRE, 'Cello-
"Prize Song" ("The Mastersingers").
MURIEL BRUNSKILI, Contralto-
"There Reigned a Monarch in Thule."
DAJOS BELA ORCHESTFA -
"La Tosea"-Fantasia.
CHARLES HACKETT; Te tor-
"Beloved It Is Morn.
IGNAZ FRIEDMAN, Piai :-
"Viennese Dance, No. 1 ."
DORA LABETTE \& HUBERT EISDELL,
"Come, Silver Moon."
HARRY GOSS-CUSTARD, Organ-
La Nuit
EVEREADY HOUR GROUP-
"Goin' Home"
"Kamennoi-Ostrow,"
ARMAND CRABBE, Baritone-
NATIONAL SYMPHONY ORCHESTRA-
"La Traviata"-Prelude.
7.45: International Programme-Greece.
8.45: Your Eyes.
9.15: Sunday Evening at Sandy McNab's10.0: Sun News; weather.

## 3UZ, Melbourne

WAVE LENGTH, 319 METRES
5.45: Programme of light music, 6.45: "Vill on the Cliff Overture" (Retssiger): TRA. 6.54: "Cavatina" (Faust-Gounod): M. MICHELETTI. 6.59: "Caprice EspagHeavens Are Telling" (Haydn): SHEF= Heavens Are Telling" "Rigoletto Fantasia" (VIELD CHOIR. DAJOS BELA ORCHESTRA, (Verdi): DAJOS BELA ORCHESTRA,
7.16: "Rose Songs" (Eilenberg) EMMMY BETTENDORF. 7.21: "William Tell Overture" (Rossini): NEW QUEEN'S HALI OR-
CHESTRA 7.43: "Asleep in the Deep" CHESTRA 7.43: "Asleep in the Deep" (Petrie): PETER DAWSON. 7.50: Recred Hour (Ketelbey): REGINALD
Sact FOORT. 7.54; "Academic Festival" (Brahms): BERLIN STATE OPERA HOUSE ORCHESTRA, 8.4: "Song of the Sea"
(Kunneke): FOSTER RICHARDSON. 8.7: (Kunneke): FOSTER RICHARDSON, 8.7: "Shepherd's Hey" "Grainger): MARK
HAMBOURG. 8.10 : $i$ isten Lord" (Turandot) (Puccini): ROSA TORRI. 8.13:
4.30: Close down.

## EVENING

6.0: Children's Birthday Greetings by "Big Brother
6.10: Children's Sing Song.

The Bird Lady
6.30: Sabbath Celebrity Reproductions 7.0: Evening Service

> Scots Church, North Terrace
> Preacher: REV. N. L. D. WEBSTER.

## NIGHT

7.30: From Wests Olympia-
"Grand March" - Tannhauser (Wagner): ROYAL GUARDS BAND. 8.18: "The Curtain Falls" (D'Hardelot): PETER DAWSON. 8.21: "New Sullivan Selection (Arr. Dan Godfrey): REG. BAND OF H.M. 9.0: "Ballet Music" - Faust (Gounod): MASSED BANDS. 9.8: "Melisande in the MASSED BANDS, 9.8: "Melisande in the Wood" (Goetz) : ESSIE ACKLAND. 9.12: "Triumphal March-Aida" (Verdi): CHORUS and ORCHESTRA of STATE OPERA HOUSE, BERLIN, 9.21: Romance in ${ }^{\text {F }}$ (Violin) (Beethoven): JACQU", (Pazeller): DAJOS BELA ORCHESTRA. 9.35: "Hine Kura" (Niura): THE TAHAWIS. 9.39 : "Slavonic Dance No. 8 (Dvorak): BERLIN STATE OPERA HOUSE ORCHEID.... 9.45: Close down.

## 3KZ, Melbourne

WAVE LENGTH, 222 NETRES
2.30 to 3.0 : Recorded music. 3.0 to 4.0 : "Labor Hour." 4.0 to 4.30 : Watchtower Bible Society. 4.30: Close down.
6.0 to 7.30 : Evening music. 7.30 to 8.0 : Fox Hoyts Talkie Session. 8.0 to 8.30 : Melbourne College of Music. 8.30 to 9.0 : Clyde Shoe Session. 9.0 to 10.0: Akron Tyre "Happy" Session. 10.0: Close down.

## 7ZL, Hobart

WAVE LENGTH, 517 METRES
10.30: Message of cheer. 10.31: Reproduced Music. 10.35: Comments on Current Topics. 10.45: Trinity Church Chimes and Organ Music. 11.0: Divine Service this morning will be broadcast from St. David's Cathedral, Hobart. Preacher: VERY REV. DEAN RIVERS. 12.15: Close down. 3.0: G.P.O. Clock chimes the hour. Pleasant Sunday Afternoon Programme, arranged by the visiting captain of the Church Army in England, CAPTAIN COWT.AND. 4.0: G.P.O. Clock chimes the hourPiano and Violin Recital. WILLIAM MURDOCH (Pianist) will play: Sonata "Appassionata" F Minor, "Allegro Assai," "Andante con Moto"" "Allegro ma non Andante con Moto, "AlSLEgro ma non
tropps." FRITZ KREISLER (Violinist) will play: "Caprice "Giennois" (Kreisler), "Hungarian Dance" (Brahms), 4.30: Close down.
6.0: G.P.O. Clock chimes the hour. 6.1: Service of Song - Children's Community Singing, Under the leadership of C, thy BERON. 6.45 . Originai rales and Stories by Berila so this evening will be broadEvening Service this evening will be broadcase from Memorial Congregational 8.30: Orchestral Concert, arranged and directed by E. J. MICCANN. Full Professional Orchestra. Assisting Artists:-
MADAME VERA TASMA, Soprano; FRED

## Grand Concert

The Toc H
Xmas Cheer and Comforts Fund. Unley Symphony Orchestra Conducted by NORMAN SELLICK
CLIVE CAREY, Baritone
PETER BORNSTEIN, Violinist.
ADA WORDIE, Soprano.
JAMES CURRIE, Tenor.
MARY EDSON, Soprano.
HAROID TIDEMANN, Baritone
LOMBARNI'S NEAPOLITAN
QUARTETTE,
LYNNIE GILBERT, Soprano.
9.50: News Session.
10.0: Close down.

HERAUD, Baritone. Overture: "Barber of Seville" (Rossini), Incidental Music.Music, "Monsieu Beaucaire" (Rosse), "Intermezzo" (Bizet). March, "Cleopatra" (Mancinelli) "Serenade" (Titl) (Flute and Horn), "Melodie", (Rachmaninoff), "Dance of the Tumblers" (Snow Maiden). 9.45: News. Resume of tomorrow's programme Comments on Current Topics. 9.50: Epilogue on the theme: "Light." 10.0: Close down.

## 2GB, Sydney

## WAVE LENGTH, 316 METRES

10.0: Music from studio. 10.25: Organ music from St. Alban's Church, Regent St. Sydney. 10.30: Morning service from St Alban's Church. 12 noon: Music from studio. 12.30: Close down.
2.0: Sunday afternoon musical programme. 3.0: The Radio Comain, conducted by UNCLE FRANK, from Savoy Theatre.
5.0: The Radio Sunday School, conducted by UNCLE FRANK. 5.15: Cheer Up Community Singing Service for children, conmunity singing Service for chilaren, conic. ducted by UNCLE FRANK. ADEN.A5: MT, 7.30 : 7.0: Aderess by Mr. A. E, Benness from Savoy Theatre. 8.20: Nusic. Address from Savoy Theatre. 8.20: Music.
8.30: Wilks Concert Programme. Piano solo 8.30: Wilks Concert Programme. Piano solo
by VINCENT BLIGHT- Valse in E" (MOSby VINCENT BLIGHT- Valse in $\mathrm{E}^{\prime \prime}$ (MOS kowski) 8.34; CASSIE HUGHES, contraito (Schube Maria" (Mascheroni), "To Music (Schubert). 8.38: RENE RICH, violinist"Souvenir de Moscow" (Wienawski); "The Canary" (Poliakin). 8.52: LEONARD HOWELL, tenor-"You are My Heart's Delight' (Lehar). 8.54: Orchestra. 8.55: LEONARD HOWELL, tenor-"Wonderfut' (Lehar), 9.0: Piano, solo by VINCEN'I BLIGHT-"Arabesque" (Arnold). 9.4: CAS SIE HUGHES, contralto-"Ombra mal fu' (Handel). 9.7: Orchestra. 9.11: CASSIt HUGHES contralto - "Nearer My God to Thee" (Clarey), 9.15: RENE RICH, violin-ist- "Hejre Kati" (Hubat; "Romanza Andalusia" (Sarasate). 9.24: LEONARD HOW ELL, tenor- "When Dawn Breaks Through" (Wood): "Oh Malden, My Maiden" (Lehar). 9.32: Piano solo by VINCENT BLIGßA"Fledermaus" (Strauss). 9.40; Orchestra. 9.45: Close down.

## 2KY, Sydney

WAVE LENGTH, 280 METRES
7.30: Fostars Happy Musical Session. Conducted by GOODO FOSTAR. 9.30: Sam Lands Request Programme. 10.30: Closing announcements.
6.0: The Sam Lands Request Programme, Presented by HARCOURT GARDENS. 7.0: The Heenzo Entertainment. Presented by Hour. Presented by HERBERT BEAVER 9.0: Popular programme. Presented by BEAR and CO. 9.30: Continuation of Sam Lands Pequest Programme. 10.0: Closing announcements.

SUNDAY-Continued

## 2UW, Sydney

## WAVE LENGTH, 267 METRES

10.30: Music and request items. 11.0: "Surprise" symphony in ( G major (Hayden). 12.39: Moonlight Sonata (Beethoven). 1.0: Close down.
3.0: Music. 3.30: Suite from music to "Le Bourgeois Gentilhomme" (R. Strauss). 4.30: Music. 5.0: Close down.
5.15: The Quiet Hour: Orch: Hungarian Rhapsody, No. 1 (Liszt). 5.23: Vocal: Hail Smiling Morn (Spofforth), 5.27: Organ-The Pilgrim's Song of Hope (Batiste). 5.30: Orch.-Operatic gems. 5.38: Violin-Goir Home (Dvorak-Kreisler). 5.41: OrganMarch (Handel-Guillmant). 5.45: Orch. Sel. Princess Ida (Sullivan). 5.53: ViolinSong of Volga Boatmen (arr. Kreisler), 5.56; Quartet-Sweet and Low (Barnby). 6.0: Organ-Lhargetto (Wesley). 6.4: Orch. Spanish Rhapsody (Chabrier). 6.14: Vocal Shelum Boat Song (Woodforde Finden) 6.20: Organ-Offertoire pour deur Noels (Guilment). 6.24. Vocal-Kingfisher Blue (Wuiment). Finden). 6.24: Pocal-Kingfisher Blue (W. Finden). 6.30 : Piano Recital by Mr . FRANK HUTCHENS. 7.0: Musical programme. 8.45: Shuron programme: "You Eyes.", $9.0:$ Story and music of La Gio-
conda" (Ponchielli). $10.0:$ Music. 10.30 : conda" (Pon
Close down.

## 5KA, Adelaide

## WAVE LENGTH, 250 METRES

10.0: "Blue Danube Waltz" (Strauss), INTER. CON. ORCHESTRA. 10.5: "O Worship the King" (Thalben Ball). CHOIR UF THE TEMPLE CHURCH, LONDON. 10.10 COUSIN ADELAIDE conducting the children's session. 10.25 : "Fiddle and I" (Goodeve), ALMA GLUCK, Soprano. 10.30: Leeture by JUDGE J. F. RUTHERFORN. 11.45 "Cavatina" (Raff), Violin and Wurlitzer Organ, DE GROOT AND CASE. 10.48: "Orphee Ballet" (2 parts) (Gluck), SYMPHONY ORCHESTRA OF PARIS.
3.0: "Marien Klange" (Strauss), DAJOS BELA ORCHESTRA. 3.5: "There Is a Green Hill" (Gounod), SYDNEY COLT HAM. 3.10: "The Dance of the Moonbeam Fairies" (Varney), INS. 3.14: "Coronation March," (Saint Saens), BLACK DIAMOND BAND. 3.20: Lecture. 3.40: "Polish Life" (Nebdal), DAJOS BELA ORCHESTRA. 3.45: "Cherry Ripe" (Cyril Scott). VTNT OLAF SEXTET. 3.50: "Aloha Oe" HAWAIIAN INS. QUINTETTE.
7.0: "Dancing Demoiselle" (Fall), DAJOS BELA ORCHESTRA. 7.5: "Feuillet D'Album" (Chalriu), RENEE CHEMET, VioD Album (Chalriu), RENEE CHEMET, Violin. 7.10: Lecture, "Satan," by JUDGE J F. RUTHERFORD, 7.25: "The English Rose" (German), CORNET GODARD, WITH
BLACK DIAMOND BAND. 7.30 : Organ BLACK DIAMOND BAND. 7.30: Organ music from the Regent Theatre, $8.0:$ Special Fox Talkie feature. 8.30: "The Skaters" (Waldteufel), INT. CONCERT ORCHESTRA. 8.40: "1812 Overture" (Tschaikowsky), Orchestral. 8.45: "What Has Come O'er You Lovely Forest" (Mendelssohn), SEIBER CHOIR. 8.50: Radiologue. 9.10 "O Come All Ye Faithful," JOHN McCORMACK, Tenor. 9.15: "Andantino in D Flat" (Lemare), Organ. 9.25: "Serenade" (Moszowski), DAJOS BELA ORCHESTRA 9.30: Close down.

## 5AD, Adelaide

## WAVE LENGTH, 229 METRES

5.30: Children's Choral Service, under the irection of the National Council of Reigious Education of South Australia, 6.0 : igious Orchestral Selections. 7.0: Grand Organ Recital, with Vocal Interludes. $7.30^{\circ}$ Organ Recital, with Vocal interiudes. 8.30 : Excerpts from Opera. 8.0 : Recital. 9.0 News Bulletin, Weather Forecast. 9.5

Ship" Melodies." 10.0: Close Down.


## 3LO, Melbourne

## MORNING

7.0: Time Signal
7.1: Shipping News
7.3: Physical Exercises to Music.
7.18: Musical Interlude.
7.40: Mail Notices.
7.42: What's on Today?
7.45: Market Reports.
7.53: Weather Forecast.
7.55: News Service. Cable News Service. Police Messages.
8.0: Time Signal
8.1: Arrival Times of Express Trains.
8.2: Musical Interlude.
10.30: Close down.
10.30: CURRENT HAPPENINGS IN SPORT

By MEL. MORRIS.
10.45: "Austradio" Musical Reproduction
(Continued overleaf)

### 8.30 A Romantic Comic Opera in Two Acts - 3 LO <br> "SHAMUS O'BRIEN"

Founded on the Poem by Joseph
Sheridan Le Fanu


Written by Geo. H. Jessop

Composed by Charles
Villiers Stanford

With Full Orchestral Accompaniment under the Direction of WILLIAM G. JAMES.

Characters-

SHAMMUS O'BRIEN ("On his keeping" -i.e., outlawed)
FATHER O'FLYNN (the Parish Priest of Ballyhamis)
CAPTAIN TREVOR (of the British Army).
MIKE MURPHY (a Peasant Farmer). SERGEANT COX (of Captain
Trevor's Company).
NORA O'BRIEN (Wife of Shamus). KITTY O'TOOLE (Sister to Nora).
LITTLE PAUDEEN (the Heir to the O'Briens)
Soldiers, Peasants, Villagers, etc.
Period-
Immediately after the suppression of the rebellion of 1798 .
Scenes-
Act I.-Village of Ballyhamis, in the
Mountains of Cork,
Act II.-Scene 1: The Barrack Square.
Scene 2: A Country Road.
Musical Numbers-
ACT I.
Overture
Chorus: "It's Bitter News."
Recitative: "Peace Be With You."
Song (Father O'Flynn, with Chorus): "I'll give ye to next Nichaelmas." Chorus: "Let the Army Come On." Song (Kitty): "Where is the Man That is Coming?"
Trio (Mike, Captain and Kitty): "He's as Straight as a Dart."
Duet (Kitty and Captain): "Well, He'd Take me by the Hand."

Song (Shamus): "I've Sharpen'd the Sword.'
Quartet: "Come Boys, Come."
Chorus: "From the Moor, from the Hill."
Trio and Ensemble: "Is it Shamus You Seek?"
Finale: "Push the Jug Around."
Song (Nora): "A Grave Yawns Cold."
Song (Shamus): "The Soldiers Are
Safe."
Chorus: "Come, All Ye True Bred Irishmen."
Entracte.
ACT II.-
Introduction.
Song (Captain): "My Heart is Thrall to Kitty's Beauty."
Duet (Captain and Mike): "What the
Devil are you Doing?"
Song (Mike): "Ochone, when I used to be oung."
Ensemble: "Walk, Girls, Walk."
Duet (Kitty and Captain): "So It's Kisses You're Craving."
Duet (Nora and Shamus): "Darling, Darling."
Ensemble and Melodrama.
Introduction to Scene II.
Chorus and Ensemble: "They're Taking Him from the Jail."
Finale.
Solo (Shamus): "Listen to $\mathrm{Me}, \mathrm{Men}$."

## 3LO, MONDAY-Continued

11.0: Express Train Information.
11.3: "Austradio" Musical Reproduction.
11.30: Morning Sales. Melbourne Stock Exchange.
11.33: "Austradio" Musical Reproduction.
12.1: "Austradio" Musical Reproduction.
12.10: Programme Announcements. News Service. Cable News Service. Police Mervice. Cable News Corn Exchange Midday Report. Mressages. Corn Exchange Midday Keport.
Newmarket Stock Sales. Associated Stock and Station Agents' Official Report.

## AFTERNOON

.0: Time Signal. Stock Exchange Information. Sydney Prices of Tasmanian Farm Produce. Shipping Information. Meteorological Data. Weather Forecast. Ocean
Forecast. Rainfall Data. River Reports.
15. Comments on Current Topics.
1.30: "Austradio" Musical Reproduction.

2: THE WEEK'S WORK IN THE GARDEN "Iris."
MR. A. ANTONIO
2.15: Musical Interlude.
2.20: THE A.B.C. WOMEN'S ASSOCIATION, Conducted by HATTIE KNIGHT
This session will include an interview with a prominent woman.
2.50: Musical Interlude.

3: ST. VINCENT DE PAUL'S BOYS' BAND. (Conductor: LES HOFFMAN)-
Selection, "Stars and Stripes" (Greenwood).
3.8: COLIN THOMSON, Tenor-
"Out Where the Big Ships Go" (Hewitt) "Time, You Old Gipsyman" (Warren).
3.14: PICCINI and CERA, Novelty Instru-"Mentalists- "My Florence" (G. Dorio)
Selection, "La Traviata" (Verdi)
3.21: ST. VINCENT DE PAUL'S BOYS
"RaND
Rrey).
3.31: COMPTON COUTUS, Comedian-

Supplies a little "Radio Relish."
3.37: EDITH PARNELI, Piano-
"Romance." (Sibelius).
3.40: MORAN HIMFORD, Basso-
"Grey Days", (Johnson).
Nita Gitana (Newton). PAUT'S BOVS
BAND-
An Eastern Romance, "Under the Palms" (Rimmer), "The Gladiator" (Sousa).
3.55: COLIN THOMSON, Tenor"O Flow'r of All the World" (Woodforde-
"The Gates of 'If Ever'" (Eric Coates).
4.1: PICCINI and CERA, Novelty Instrumen-

Overture, "Tancredi" (Rossini).
March, "On the Paragon.'
4.10: COMPTON COUTTS, Comedian"Aerial Anecdotes."
4.16: MORAN HILFORD, Basso-

Two Desert Love Songs.
4.22. ST. VINCENT DE PAUL'S BOYS

Selection, "The Yeoman of the Guard" During the afternoon progress scores in the International Cricket Match-South Africa v. Queensland-played at Bris-
bane, will be broadcast as they come to bane,

## EVENING

5.45: "BILLY BUNNY" has a chat to his little listeners, and then tells a delightful story suitable for tiny folk. The News from the Children's Bulletin will be read next.
6: The Cuckoo Clock.
A SURPRISE ITEM
"JACK HORNER" and "LITTLE MISS MUFFET."

## 3AR, Melbourne

MORNING
8.15: "Austradio" Musical Reproduction. 8.45: Weather data.
9.1: News Service. Cable News Service. Police Messages.
9.5: "Austradio", Musical Reproduction.
10.1: "Austradio" Musical Reproduction.
10.10: Announcements.
10.15: "Austradio" Musical Reproduction.
10.30: ARNOLD COLEMAN at the Grand Organ.
10.45: THE DAILY BROADCAST SERVICE.
12.1. "Austradio" Musical Reproduction.
12.15: SOME PROBLEMS IN MODERN ART
"A Contrast in Sculpture-Two Statues
by Rodin."
MISS STEPHANIE TAYLOR.
12.30: "Austradio" Musical Reproduction.

## AFTERNOON

The Artistic Reproduction of Absent 2.1: GRAND OPERA: "Thannhauser" Act 1. (Wagner.) Sung in German at the Beyreuth Festival, by Principals, Chorus and Orchestra.
Note.-During the afternoon, Progress
Scores of the SOUTH AFRICA $v$
QUEENSLAND Cricket Match will be
broadcast as they come to hand.
3.0: THE WEFK'S HEALTH TALK:

DR. J. DALE, Melbourne Medical Officer
of Health.
3.15: Musical Interlude.

30: HUMAN GEOGRAPHY
"Man, the Maker"
DR. G. L. WOOD, M.A
.0: Musical Interlude.
4.15: "Austradio" musical reproduction
5.0: G.P.O. chimes.
5.1: "Austradio" musical reproduction.
5.30: weather data. Shipping information. 5.45: Close down.

## EVENING

6.15: DINNER IMUSIC
7.30: What's on the Air Tonight.
7.32: Sporting results. Stump scores of cricket match, SOUTH AFRICA versus
QUEENSLAND at Brisbane.
7.55: Latest musical releases.

## NIGHT

8.0: EVOLUTION-

No. 8: "Sex and Sexual Selection." DR. O. V. TIEGS,
BRASS BAND MUSIC AND VARIETY.
8.20: ST. AUGUSTINE'S BOYS' BANDSelection: "Irene" (Tierney)
8.30: J. CLARKE SCOTT, tenor-
"My Beloved Queen:'
"Skippers of St. Ives" (Roeckel).
8.36: PICCINI AND CERA, instrumentalists
"Pot-pourri Populaire" (Arr. Piccini and "era).
6.20 Birthday Greetings by "BILLY 6.30: Nusical Interlude.
6.35: WOMEN IN SPORT-
6.35: WOMEN IN SPORT- Summary of the Week's Activities. AISS M. A. BECKINGSALE.
6.50: Musical Interlude
6.50: Musical Interlude. What's on the Air Tonight.
6.58: Time Signal.
7. Time Signal.
7.25: THE FINANCIAL BAROMETER. The Official Weekly Report from the Stock Exchange of Melbourne.
7.40: News Service. Cable News Service. Police Messages.
7.45: SCHOOL LIFE AND SPORT.

MR E. C. H, TAYLOR.
At approximately 7 p.m. "Stumps" scores in the International Cricket Match-South Africa versus Queensland - at Brisbane, will be broadcast.

## NIGHT

8.0: A.B.C. Concert Orchestra-
"In a Lover's Garden" (Ketelbey).
8.10: THE MASTER FOUR-

Harmonised Numbers.
8.20: HON. J. A. BOYD, "Prosperity Campaign."
8.30: See panel on previous page. After Act I. of scene I. of "Shamus O'Brien," PAUL EDMONDS, Examiner for Trinity College in London, will speak on "The Value of Elacution in Education."
10.30: Official Weather Data. Police Messages. Items of Interest.
10.33: ART. CHAPMAN AND HIS REX ORCHESTRA -
Latest Numbers.
11.30: Close Down.
8.44: ST. AUGUSTINE'S BOYS' BAND-

Selection: "L'Arlesienne" (Bizet).
8.54: MINNIE MARKS, mezzo-soprano-
"Happy Song" (Del Riego).
"The Little Hills" (Gleeson).
"Joy" (Harvey Gaul).
9.0: Comedy sketch-"WELL, I DECLARE," By ALF. J. LAWRENCE.

He
She ....... ALF. J. LAWRENCE
She
9.15: ST. AUGUSTINE'S BOYS' BAND-
(a) "Millions of Harlequins" (Drigo).
(b) "Good Night, Sweetheart."

23: J. CLARKE SCOTT, tenor-
"Afton Water" (Hume).
Selected
9.30: PICCINI AND CERA, instrumentalists,
"Lucia di Lammermor"' (Donizetti).
"La Paloma" (Yradier).
9.39: ST. AUGUSTINE'S BOYS' BAND-
(a) "Hungarian" (Berlioz).

Cornet solo, "My Song of Songs" (Moya).
9.47 : MINNIE MARKS, mezzo-soprano-
"La Serenata" (Tosti).
"Wait" (D'Hardelot)
9.53: "MUSICAL MUSINGS," by

ALF J. LAWRENCE and NELL CRANE.
10.5: ST. AUGUSTINE'S BOYS' BAND-

Selection, "The Gondoliers" (Sullivan).
10.15: Weather information and Herald news. Cable News Service. Police Messages. Cable Nows.
sages.
10.30: Close down.

## 2FC, Sydney

## MORNING

(Relayed to 2NC, Newcastle)
7.0: "Big Ben." Early Rising Music, Meteorological Information for the Man on
the Land
7.10: This Morning's News
7.13: Cables.
7.15: Studio Music.
7.20 : A Short Daily Commentary for the

Man Outback.
7.28: Radio Rhythm.
7.45: Mails and Shipping
7.48: What is on Today.
7.50: Music from the Studio
8.15: Close.
(Completion of Relay to 2 NC, Neweastle)
(Relayed to 2NC from $10.40 \mathrm{a} . \mathrm{m}$.)
10.30: Announcements.
10.42: HORACE WEBER at the Grand Organ.
10.45: Morning Devotion.
11.0: Studio Music.
11.5: Household Helps.
11.5: Household Helps. Austradio Musical Reproduction.
12.0: "Big Ben," Stock Exchange and Metal

Quotations.
12.5: Current Topies. Synopsis. Special Produce Market Sessynopsis. Special on the Land.
12.30: Close.
(Completion of Relay to 2 NC , Newcastle.)
Completion of Note.-Scores in the Match,
South Africa v. Queensland, played at
Brisbane, will be given at the fall of
each wicket, lunch, and tea adjournments, and stumps drawn.
1.0: THE A.B.C. STRING SEPTET.
1.57: Sectional Weather Forecast.
1.57: Sectional Weath
2.2: A Glance at the Afternoon Sun and World.
2.8: Austradio Musical Reproduction.

## AFTERNOON

(Relayed to 2 NC , Newcastle)
2.30: Announcements
2.32: MISCHA DOBRINSKI, Violinist-

Eargo from "New World Symphony"
(Dvorak-Kreisler),
"Serenade" (Lehar).
2.39: ROBERT AGNEW, Tenor-
"O, Maiden, My Maiden" (Lehar).
2.42: VICTOR OLOF SEXTET-

A Group by MacDowell-
"To a Water Lily:"
"To a will Rose.
"In Autumn."
2.48: MADAME DOBRINSKI, Monologues"Jamie" (Scott-Gatty).
"Butterflies" (Shaw-Mayer).
"Foolish Questions" (Sloane)
2.55: LOTTE LEHMANN, Soprano--
"How Like a Flower Thou Bloomest" (Schumann)
2.58: ARNOLD BRILHART, Saxophonist"Fascination" (Bernie).
3.1: The Latest Melodies.
3.8: ROBERT AGNEW, Tenor-
"Look Down, Dear Eyes" (Fisher)
3.11: Music of the Moment
3.19: MISCHA DOBRINSKI, Violinist-
3.22: Popular Numbers.
3.22: Popular Numbers.
3.30: CAPTATN FRED AARONS will tell
of "The Democracy of Athens."
3.45: Musical Items.
3.52. MISCHA DOBRINSKI, Violinist"Danse Szigane" (Nachez)
3.55: MADAME DOBRINSKI, Monologues -
"There are Fairies at the Bottom of Our Garden" (Lehmann).
Jest Her Way", (Aitken).
Daddy's Sweetheart" (Lehmann).
4.2. Popular Metodies.
4.9: ROBERT AGNEW, Tenor-
"God Put a Rose in My Garden" (Lohr). "The Waltz of Love" (Armstrong and Dyson).
4.16: RAIE DA COSTA, Novelty PianistThe Big Pond" (Fain).
4.19: Music of Today.
4.28: Stock Exchange.

## EVENING

(Relayed to 2 NC , Newcastle)
5.45: Children's "Good-night" Stories, told by the "HELLO MAN," assisted by AUNT EILY.
6.15: The 2FC Hospital Birthday League.
6.30: The Serial.
6.45: THE A.B.C. STRING SEPTET.
7.20: A.B.C. Sporting Service. Special Coun-
try Session. Stock Exchange Resume.
7.45: Late News.
7.51: Cables.

## 58: Announcements

(Relayed to EVENING
8 and 11 peweastle, Between

## NIGHT

8.0: (Relayed to 2 NC , Newcastle) from the Mosman Town Hall)-
Community Singing
Under the direction of CHARLES LAWRENCE. Assisting Artists-
THE KAMALA TROUPE, Instrumen-talists-
"Southern Blues" (Keowi).
"My Canary Has Circles Under his Eyes" (Kohler, Pola, Golden).
"Hawaiian Twilight" (Keowi).
"Apple Blossom Time" (De Rose, Tobias).
"Hello, Beautiful" (Donaldson).
"Hawaiian Hotel" (Oeman).
"Dream a Little Dream of $\mathrm{Me}^{\text {" }}$ (Schwant).
"You're Driving Me Crazy (Donaldson).
THE CAVALIERS, Vocalists -
"Pale Moon" (Logan),
"Bells of Notre Dame" (Klemm).
"Marika" (Peters).
"Plantation" (Steiner)
"Drink to Me Only"; (arr. Parks).
"Funiculi, Funicula" (Denza).
JOHN STUART, Comedian-
"The Wise Man and the Fool" (Rutherford and Elliott).
"Dame Study:. Now You Know" (Rose).
SADIE ANDERSOI, Soprano-
"Yours and Mine" (Burke).
"Girl of Yesterday" (Lawrence).
"My Rose" (Malcolm).
"Carolina Mammy" (James).
10.30: Late Official Weather Forecast.
10.32: MERV. LYONS' ORCHESTRA, from Romano's Cafe. (Completion of Relay to 2NC, Newcastle, at 11 p.m.) 11.30: Close.

## 2BL, Sydney

## MORNING

8.15: G.P.O. Chimes.

A Musical Interlude.
8.40: Meteorological data for the country.
8.45: Mails and shipping information.
8.50: Memory Melodies.
9.0: This Morning's Story.
9.30 : Songs grave and gay.
9.40: Moments Musical.
10.5: News.
10.8: Cables.
10.10: Studio Music.
10.15: A Racing talk by the A.B.C. Racing

Observer, M. A. FERRY.
10.30: Musical items.
10.35: The Australian Broadcasting Company's Women's Association, conducted by MISS GWEN VARLEY.
Tennis Queries and their Answers."
"Intimate Facts About Fashion," by MRS. MARY LIDDELL.
11.0: Close.
12.0: G.P.O. chimes -and announcements. Metropolitan forecast and weather synopsis.
NOTE-Cricket scores at the fall of each wicket and at lunch and tea adjournments, and stumps drawn in the match, South Africa v. Queensland, played Brisbane, will be transmitted as received.
12.2: Studio music.
12.30: THE A.B.C. STRING SEPTET.
1.0: Afternoon News.
1.6: Cables.
1.8: Sectional weather forecast.
1.11: Radio Rhythm.
1.25: Austradio Musical Reproduction.
2.0: This Afternoon's Story.

## AFTERNOON

2.30: BROWNING MUMMERY, Tenor-
(a) "Love Went a-Riding", (Bridge)
(b) "Had You But Known" (Denza).
2.36: Selections by Orchestras of the world.
2.45: The Women's Hour, conducted by THE A.B.C. WOMEN'S ASSOCIATION. "C.W.A. News."
A Musical Interlude.
"Women's Contribution on Municipal
Councils," by MRS. HOWELL.
Musical items.
"Keeping Your Child Busy and Happy," by Miss GWEN VARLEY.
3.45: JOHN BARBIROLLI'S CHANIBER Introduction and Allegro for Strings (Elgar).
4.0: WITH THE OLD MIASTERS-

LONDON SYMPHONY ORCHESTRA.
"Fantasia and Fugue" (Bach)
LOTTE LEHMANN, Soprano-
"Frauenliebe und leben" (Schumann). "Seit ich ihn geschen-er, der Herrlichste von allen."
4.15: RAYMOND NEWELL, Baritone-
"I Married a Wife" (arr. Melvin).
4.18: MADAME VAN BARENTZEN, Pianist "Andaluza" (de Falla).
4.22: DR. EUGENE ORMANDY, Violinist Hymn to the Sun" (Rimsky-Korsakoff).
4.35: Radio Rhythm.
4.45: Demonstration music.
5.40: Weather information.
5.45: Close.

## EVENING

6.15: THE A.B.C. STRING SEPTET.
6.45: The Boy Scouts and Girl Guides' Session.
7.5: The Country Man's Market Session.
7.20: THE A.B.C. STRING SEPTET.
7.35: The University Extension board lec-
ture. General subject: "Some Writers of this
and the last generation"
Tonight MR. H. M. GREEN will speak
on "Galsworthy as a Satirist."
7.55: A Musical Item.
7.58: What's on the air tonight?

## NIGHT

8.0: THE NATIONAL BROADCASTING ORCHESTRA, conducted by E. J. ROB-
"Mignon Overture" (Thomas).
8.10: MOLLY DE GUNST, Soprano-
(a) "Aimons-nous" (Saint-Saens).
8.17: "Leaves of Memory.

This is chapter four of "Leaves of Memory," and is arranged for radio by ELLIS PRICE.
8.32: THE NATIONAL BROADCASTING ORCHESTRA -
Poem Symphonique, from Viennese Nights (Romberg, arr. Fred White).
8.42: JOYCE AND INEZ LANG, Harp and (a) "Nina" (Pergolese).
(b) "A Rose" (Ethelburt Nevin).
8.49: FRANCIS HALLS, Basso. A group by Allitsen-
(a) "Since My Love Now Loves Me Not."
(b) "Oh Death, It is the Cold, Cold Night,"
(c) 'King Duncan's Daughters."
8.56: THE NATIONAL BROADCASTING "Surprise Symphony" (Haydn).
9.11: JULES VAN DER KLEI, 'Cellist"Air" (Bach).
9.18: MOLLY DE GUNST, SopranoTwo numbers by Kramer.
(a) "The Last Hour.
9.25: THE NATIONAL BROADCASTING ORCHESTRA -
"From India, Suite Orientale" (Popy).
9.35: JOYCE AND INEZ LANG, Harp and "La Capricciosa" (Ries).
9.42: THE NATIONAL BROADCASTING ORCHESTRA-
Fantasia from the Opera, "Don Juan" (Mozart, arr.- Schreiner).
9.54: FRANCIS HALLS, Basso-
(a) "Doubt" (Coates).
(b) "Charity" (MacDermid).
(c) "Sons of the Sea" (Coleridge-Tay-

10r).
10.1: JULES VAN DER KLEI, 'Cellist-
(a) "Moment" (Schubert).
10.8: THE NATIONAL BROADCASTING ORCHESTRA-
(a) "Juex d'Enfants, Petite Suite" (Bizet,
arr. Finck).
(b) "Gipsy Rondo" (Haydn).
10.25: Late news.
10.28: Late weather forecast.
10.30: Close.

## MORNING

(Relayed to 4 RK Rockhampton)
7.30: The Radio Chimes.
7.31: Musical Greetings.
7.34: Weather Information.
7.40: Cable News.
7.50: Morning Melodies.
8.0: Comments on Today's News.
8.10: Musical Interlude.
8.25: What's On Today.
8.30: Close.
(Relayed to 4RK Rockhampton, except from 11.23 a.m. to 11.30 a.m.
11.0: The Daily Broadeast Service.
11.10: The Morning Musicale.
11.23: Social News.
11.30: Popular Musical Releases.
12.0: The International Cricket Match between Queensland and South Africa will be described from the Cricket Grounds. be described from the Cricket Grounds.
The relay will continue until the luncheon adjournment, the commercial session beadjournment, the commercial session being delayed for half an hour in order to enable listeners to
the morning's play.
1.30: Countryman's Service-Section.
2.0: Close.

## AFTERNOON

(Relayed to 4RK Rockhampton)
3.0: A description of the International match between Queensland and South Africa will be broadcast from the Brisbane Cricket Ground.
4.0: During the afternoon tea adjournment mail train running times will be announced followed by a musical interlude
from the Studio.

## 4QG, Brisbane

4.15: With the resumption of play the description will be continued until stumps are drawn

## 6.0: Stumps Drawn.

## EVENING

Relayed to 4 RK Rockhampton from 6.15.
6.5: Listeners' Shipping Service. Express Train Information. Mail Notices, Stock Exchange Notes.
6.15: For the Children.
6.45: Countryman's Service Section.
7.0: Dinner Music.
7.23: Ninner Music.
7.23: News Service. will talk on "Books."
7.40: A.B.C. Sporting Notes.
7.40: A.B.C. Sporting
7.55: Musical Interi,

## NIGHT

(Relayed to 4RK Rockhampton).
8.0: THE 4QG QUINTETTE-

Overture: "Maid and Minstrel" (Greun-
8.8: JAMES MARTIN (Tenor): "A Spirit

Flower" (Campbell - Tipton). "Duna" (McGill).
8.15: HILDA WOOLMER (Pianist): "The Submerged Cathedral" (Debussy), "Valse in E Minor" (Chopin).
8.22: LOLA DEACON (Contralto): "Like to the Damask Rose" (Elgar). "Kashmiri Song (Woodforde-Finden).
8.28: THE 4QG QUINTETTE: The "Andante" and "Scherzo" Movements from Strings (Brahms) Minor for Piano and Strings (Brahms).

## 5CL, Adelaide

## MORNING

7.30: Cheer Up and Cheer On Message.
7.31: The Morning's News.
7.40: Bright Morning Music.
8.0: Time Signal.
8.1. News and Notes of Many Topics.
8.10: Bright Morning Music.
8.30: Close down

During the day scores of the cricket-
South Africa v. Queensland, at Brisbane,
will be broadcast immediately they come to hand.
11.0: The Daily Broadeast Service, conducted by REV. E. A. DAVIES.
11.10: Morning Melodies.
11.28: Sporting fixtures.
11.30: Homecrafts, conducted by "SUZETTE,"
11.45: Popular Songs and Music (Latest recordings).
12.0: Time Signal.
12.1: Commercial Session.
12.15: News Session.
12.30: Austradio Mid-day Melodies.
12.50: Weather and Grain Report.
1.0: Popular Music Session.
1.5: The World's News.
1.15: Popular Musical Session (continued). 1.59: Items of Interest.
2.0: Time Signal. Close down.

## AFTERNOON

3.0: Time Signal.
3.1: "In Town and Out," by "LADY TULLIVER."
3.15: A selection of light classics with vocal interspersions
4.29: Items of Interest.

### 4.30: Close down.

## EVENING

5.50: Birthday Greetings and Correspondence.
8.44: PATRICIA McONIGLY (Soprano): "O Divine Redeemer" (Gounod).
8.48: MAX MULLER ('Cellist): "Madrigal" (Gillet). "Petite Valse" (Wittenbecker).
8.54: JAMES MARTIN (Tenor): "Ave Maria" (Mascagni). "I Hear a Thrush at 0: Metropolitan
9.0: Metropoltan Weather Forecast. "Cul9.2: Trio for Piano, Violin and 'Cello: "Luilaby" (Brahms). "Sizilietta" (Von Blon):
9.7: PATRICIA McONIGLY (Soprano) 9.7: PATRICIA McONIGLY (Soprano); 9.14: THE 4 QG QUINTETTE: Suite, "A Lover in Damascus" (Woodforde-Finden). ". "Far Across the Desert, Sands." 2 . "Where the Abana "Flows." 3. Beloved, in . Your Absence." 4. How Many a Lonely Caravan." 5. If in the Great Bazaars," 6. Allah, be with us."
9.25: LOLA DEACON (Contralto): "Thanks be to God". (Dickson). "Litile Rose of Love" (Forster).
9.31: Trio for Piano, Violin and Cello: First Movement from Trio in B Flat
(Schubert). MARTIN (Tenor): "Like Stars Above" (Squire).
9.45: STRING QUARTETTE: "2nd Movement from Quartette No. 7"' (Dohnanyi). 9.50: PATRICIA McONIGLY (Soprano):
"Pale Moon" (Knight Logan). "Home, Little Maori Home" (Alfred Hill).
9.56: THE 4QG QUINTETTE: 'Love Waltz' (Moskowski).
10.0: Weather Information. Cable News. News Service
10.15: A Review of Today's Play in the International Match-South Africa versus Queensland
10.30: Dance Music.
11.0: Close

## 3DB, Melbourne

## MORNING

7.0: Brighter Breakfast Session, conducted by DAYBREAK DAN.
12.0: Community Singing, conducted by CHAREIE VAUDE and RENN MILLER.
1.30: Market Reports.

## AFTERNOON

2.15: A. \& R. Ingwersen's Session.
2.30: Household Harmonies-

## STRAD TRIO

(a) "Andante" (Beethoven).
(b) "Guitar Player" (Schytte).

DOROTHY DORN, Soprano-
"Waltz Song" from "Romeo and Juliet."
MAY BRODERICK. Piano-
"Miusical Box" (Liadoff),
DOROTHY D'ORN and PERCY BLUN-
DELT -
"The Miserere" from "Il Trovatore,"
CECII, PARKES, Violin-
"Caprice No. 20", (Paganini).
PERCY BLUNDELL, Tenor-
"Moire My Girl!"
(a) "When the Clock is Striking Twelve"
(Wayne). The Toy Soldiers' March" (Kreis(b) "
3.15: The Sun Sunshine Hour.

## EVENING

5.30: Musical Interlude.
6.0: Dinner Music-

BERLIN PHILHARMONIC ORCHESTRA'Carnaval Romain.'

PETER DAWSON, Bass-baritone-
"Follow Me 'Ome."
ALBERT SPALDING, Violin-
"ClBERT SPALDING, Violin-
SYLVIA CECIL, Soprano-
"Early in the Morning."
NEW MAYFAIR ORCHESTRA-
"Five O'clock Girl."
PERCY HEMING, Baritone-
B.B.C. MIIITARY BAND-
"Dance of the Tumblers."
MARIE MORRISEY, Contralto-
"When Twilight Comes."
RAIE DA COSTA, Piano-
"Ol' Man River."
"RICHARD TAUBER, Tenor"Spring."
GRAND SYMPHONY ORCHESTRA"Calliph of Bagdad,"
7.0: Smile Away Club Free Theatre Tickets. 7.15: Market Reports.
7.30: Pompadour Salon Concert-

LA GARDE REPUBLICAINE BAND OF FRANCE-
PAUL GODWIN QUINTET-
"Chant d'amour.,
TUDOR DAVIES, Tenor-
"Ah, Moon of my Delight."
MAURICE COLE, Piano-
ALMA GLUCK, Soprano-
"The Lass With the Delicate Air."
MELSA, Violin-
"GYTESY Airs." DAWSON, Bass-baritone-
"I.over in Damascus"
MINNEAPOLIS SYMPHONY ORCHES-
"Waiata Poi."
6.0: "AUNTIE PEGGY" will entertain.
6.30: Bright Dinner Music Reproductions.
7.0: "Nright" Dervice. Sporting service, including cricket scores in the match South Africa v. Queensland, at Brisbane Stock Exchange information. Market reports.
7.15: Musical Interlude.
7.25: The 5CL Twinkler Boys' Club. Conducted by "THE TWINKLER" (MR F. J. MILLS
7.50: Let's Talk of Places and Things - of People ans Kings.

## NIGHT

8.0: Shamus O'Brien. A delightful old Trish comic opera in two acts. See 3LO
for details.
10.15: News Session. ORCHESTRA. Latest numbers.
11.0: Close down.

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8.15: Rowntree's Revels:
8.45: Shur-on presents "Your Eyes."
9.0 : Shell Company's Entertainment, conducted by Mr F. J. CAVE.
9.30: A. W. Allen's Session.
9.45: Anderson's Home Furnishing.
10.30. News.
10.45: Slumber Music-
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## 3UZ, Melbourne

7.0-7.30: John Browning's brighter outlook session. 7.30-8.30: Cheerful breakiast session. $9.0-9.30$ : Wittner's foot comfort session. $9.30-10.0$ : Nilsen's housewives' session. $10.0-11.0$ : Veall's Radiola hour. 11.011.30: Women's World morning tea session. 11.30-12.0: S. L. Hickman's furnishing ses-11.30-12.0:S. L. Hickman's $\quad 12.0-12.30: ~ R$. Brooks' furnishing sion. $12.0-12.30:$ R. H. Brooks furnishing
session, $12.30-1.0$ : Huntsman's millinery session. to 2.0: Community singing from the
1.0 to 2.0: Community singing from the Assembly Hall, conducted by Mr. G. J. MACKAY. 2.0-2.30: New Idea and Every-
lady's Journal Housewives' session. $3.30-$ lady's Journal Housewives session. music. 4.30 : Argus hour of specially selected musio.
4.30 Radio Club session. 5.30 : Swallow 4.30 : Radio Club session.

Cook entertains.
6.0: Binthday greetings. $6.50-7.0: 3 \mathrm{UZ}$ Iisteners' Club-free theatre tickets. 7.157.30: Preservene entertains, 7.30-7.45: Pioneer Motor Tours' session. 7.45-8-15: Maples musical session. $8.15-8.30$ : Mr. C. Carlson's Eugene permanent wave session. 8.30-8.45: MacRobertson's novelty centres' session, 8.45-9.0: Coles and Garrard's session, 9.0$9.15:$ A. W. Allen's "Florison" session. 9.159.30 : Gramophone selections. 9.30-9.45: Fisher's "Champion" brand session. 10.15: Argus news service. 11.0: Close down.

## 3KZ, Melbourne

8.30 to 9.0 : H. S. K. Ward's breakfast session. 9.0 to 10.0: Morning music. 10.0: Station announcements. 10.5 to 10.20: Morning music. 10.20 to 10.50 : Davis Bros.' furniture session. 11.30 to 12.0 : Russell's yeast. 12.0 to 12.30: Pears Pty Ltd. Furniture Session. 12.30 to 1.0 : Luncheon music. 1.30 to 2.30: Campbell's car and radio ses-
sion. 2.30 to 3.0 : Rev. Dr. BLACKNEY (health talk). 3.0 to 3.30 : Robur Tea session, conducted by Robur Tea girl. 3.30 to 4.0: Swallow Cook session. 4.0: Close down. 5.30 to 6.0 : UNCLE JOE talks to all kiddies in hospitals. 6.0 to 6.30 : Evening music. 6.30 to 6.40 : Old Man Talkie ( 10 min .). 6.40: Drawing of theatre tickets. 6.45 to 7.0 : Universal motor cycle parts session. 7.30 to 8.0: Madame Pompadour's session. 8.0 to 8.15: Lifesave 10.0 . Station announcements. 10.5: Dance music. 11.30: Close down.

## 7ZL, Hobart

7.30: Time signal. 7.31: News. Cable news. 7.40: Morning melodies. 8.0: G.P.O. clock chimes the hour. 8.1: News and Notes of chimes the hour. 8.1: News and Notes of 11.0: G.P.O. Clock chimes the hour. 11.1: The Daily Broadcast Service. 11.15: The A.B.C. Women's Session. The younger set session, conducted by MISS M. EADY,
MISS E. VAGLE, Talk: "Items of Interest.; 11.45: Midday Melodies. 12.30: Comments on Current Topics. 12.40: Commercial News. Stock Exchange information. 12.47: News. 12.53: Weather information. 1.0: G.P.O. elock chimes the hour. 1.1: "Austradio" Reproductions. 2.0: Close down.
3.0: G.P.O. clock chimes the hour. A programme of Springtime Melodies. "Wild a Wild Rose" (MacDowell). FELIX SALMOND, Cello. "Sweetest Flower that Blows" (Hawley). EDNA THORNTON, Contralto. "Rose Mousse" (Bosc). Band. "Last AUSTRAL, Soprano. "A Sprig of Boronia" SYDNEY COLTHAM, Tenor. "Rustle of Spring" (Sinding). MAX DORRESKI, Piano. "Lilac Time" (Schubert). COLUMBIA LIGHT OPERA ORCHESTRA. "Fair Rosemary" (Kreisler). FRITZ KREISLER, Violin. The Rose of Tralee." JOHN delssohn). NEAPOLITAN TRIO. 3.50 : Today's Short Story, 4.0: G.P.O. Clock chimes day's Short Story, 4.0: G.P.O. Clock chimes
the hour. An Afternoon Concert. "Maid of the Mour. An Atternoon Concert. "Cimpson). "Caprice Viennois" (Kreisler). SAN FRANCISCO ORCHESTRA. "Song of the Nightingale." EVELYN SCOTNEY, Soprano. "Blue Danube" (Strauss). "Tales of the Vienna Woods." PHILADELPHIA ORCHESTRA. 6.0: G.P.O. Clock chimes the hour. 6.1 The Children's Corner, with "THE RAINBOW MAN" and "WIITENA." 6.30: Dinner music. 7.15: News. Stock Exchange information. Market reports. 7.25: PROFESSOR A. B. TAYLOR, M.A. Talk: "English Books-The Making, of English Grammar," chimes the hour. Unit I. Music and Sons of the Orient. An Oriental Mosaic in sound with poetry, comedy and philosophy, and romance, March: "Crown of India" (Elgar). Suite: "Lover in Damascus" (Finden). A.B.C. STUDIO ORCHESTRA. "Where My Caravan Has Rested" (Lohr). "Temple Bells" (Finden). JACK CARTER, Baritone "Hymn to the Sun" (Rimsky-Korsakov). "In a Persian Market." A.B.C. STUDIO ORCHESTRA. "Song of India" (RimskyKorsakov). "Feast of the Lanterns" (Bantoc). LIIA HARVEY, Soprano. "Orientale" (Cui). LYNDA SHEEN, Violin. "Kashmiri Love Song" "(Finden). JACK CARTER Baritone. "Vision of Salome" (Joyce) A.B.C. STUDIO ORCHESTRA. "Hindoo Song" (Bemberg). LILA HARVEY, Soprano "In a Persian Garden" (Lehmann). A.B.C.
STUDIO ORCHESTRA. 9.0 Unit 2. STUDIO ORCHESTRA. 9.0:" Unit 2. 3: "A Rhapsody in Blue." Played by RITA AND NANCY FOX. 9.30; Unit 4: Fireside Fantasy. A Reproduced Musical Scena entitled Slumber Time. 10.0: Unit 4: News. Meteorological information. Resume of tomorrow's programme. Comments on current topics. 10.15: Unit 5: Dance session.

## 2GB, Sydney

7.0: Breakfast session, conducted by Miss GOODIE REEVE. Music. 7.8: News from the Daily Telegraph. 7.15: Music and en-

Tiny Tóts' Breakfast Session, by Miss REEVE, 9.0: Morning talk to old and sick folk by Mrs. JORDAN. Personal problem by Mrs. JORDAN. 10.0: Storeyette of in dustry. 10.1: Address by Mr. A. E. BEN-NETT- "The Happiness Doctor," 10.15 Women's radio service by Mrs. DOROTr JORDAN. Music. $=11.0$ : Recipe by Mrs JORDAN. Music. 11.30: Close down.
12.15: Lunch hour musical session. 2.0: Women's session, by Mrs. W. J. STELzER founder of the 2 GB Happiness Club. Housekeeping hints and shopping guide. Music.
3.0 : Address by Mr. HAROLD MORTON. 3.10: Afternoon tea musical programme 2GB at home. Radio hostess, Miss GOODIE REEVE. 4.30: Storyette of industry. 4.32 : Music. 4.45 : UNCLE GEORGE'S Tiny Tots Session. 5.0: Children's Session by UNCL GEORGE. 6.0: Choco's Aeroplane trip. 6.45: Advanx Radio Club. 7.15: Storyette 6.45: Advanx Radio Club
8.0: Orchestra. Overture. 8.10: EIL,EEN MACK, soprano-"It is a year almost, MACK, soprano-"It is a year almost,
"Star of love." 8.18: Violin solo. 8.22 "Star of love." 8.18: violin solo. of Romany"' (Sanderson). 8.26 : Piano solo by VINCENT BLTGHT-"Sylvia Ballet" (De libes). 8.30: ALFRED BARCLAY, baritone - "Slow Coach" (Bennett). 8.35: Banjo solo. 8.40 : Piano solo by VINCENT BLIGHT"Liebesireud" (Kreisler). 8.45: Violin solo 8.50: EILEEN MACK, soprano-"Deares Love, I love the morning." 8.54: 'Cello solo 8.58: EILEEN MACK, soprano-"Twas in the Merry Month of May." 9.0: Weather re port. 9.3 : Piano solo by VINCENT BLIGH' - "Silver Stream" (Barnes). 9.7: ALFREL BARCLAY, baritone. 9.11: ALFRED BARCLAY baritone- "Dedication" (Schumann) 9.20 : Violin solo. 9.30: Orchestra. 9.35: Cello solo. 9.40: Banjo solo. 9.50: Vocal T1artet. 9.55 : Orchestra. 10.0: Instrumental music.. 10.45 : Slumber music.

## 2KY, Sydney

10.0: Tune in to the ticking of the clock. 10.3: Popular Fox Trots. 10.15: Musical and vocal entertainment. 11.0: Women's Session. Conducted by MRS GRAY. 11.30: Music from the studio. 11.55: Resume of tonight's programme. 12.0: Closing announcements.
6.0: Birthday calls, request numbers and Kiddies Entertainment - UNCLE BERT 6.45: Fostars Dinner Entertainment. With GOODOH FOSTAR. 7.40: A Talk on the Garden-MR G. L. GELLATLY. 7.55: Musical interlude.
8.0: Clock chimes. 8.1: Studio programme. 9.0: Popular Dance Music. Presented by HARCOURT GARDEN.

## 2UW, Sydney

7.30: Breakfast music and news. 8.45:

Housewives' Guide, 9.0 : Close down. 10.30:
"Carnival Overture" (Dvorak). 10.40: Music and news. Women's Session, conducted by LOUISE, comprising news, The Adventures of Mrs. 'Arris, music, homecrafts, birthday readings. 12.0: "Waltz of the Flowers" (Tschaikowsky). 12.10: Music.
Note.-During the afternoon, at $2,3,4$ and 5 p.m., the latest scores in the cricket match, South Africa v. Queensland, played at Brisbane.
2.30: Music for the trade
5.15: Farmer's Children's Session, conduc6.0: Farmer's Dinner music 6.30: Fos Hoyts Radio Club. 6.40: Music. 6.58: "Miss Sydney" Competition. 7.0: Comments on today's play South Africa $\psi$ Queensland 7.10: Music. 8.0: Piano recital, "Liebestraume" (Liszt). 8.4: "Naila Waltz" (Detraume (Liszt) "Military Mareh in E Flat" (Schubert). 8.13: "Triana" (Iberia) (Albaniz). 8.32: "Appassionata Sonata" (Beebaniz) 8.32: "Appassionata Sonata" (Beethoven). 8.32: "O April" (John Ireland) "Waitz C Sharp Minor" (Chopin). 8.40: A "Waitz C Sharp Minor" (Chopin). 8.40: A 13 episodes, sponsored by Philips radio. The 13 episodes, sponsored by Philips radio. The lase episode (Part 13) will be given tomight. Musical competition. 9.15 : Request items.

## 5KA, Adelaide

6.30: Dawn music. 7.15: Watchtower Early Morning Service. 7.30: Splashes from the Frying Pan. 8.0: Close.
10.0: Special Women's Session conducted by COUSIN ADELAIDE. 12.0: Close.
5.45: Children's session. 6.15: Dinner music. 6.45: "Old Man Talkie." 7.0: Extract from Life. 7.15: News service. 7.30 Wurlitzer organ recital. 8.0: Topical chorus and birthday greetings by LES DAL, : 8.10: Selections. 9.0: Shell Company's Session. 9.30: Musical programme.

## 5 AD , Adelaide

7.0: Morning News, Weather, Commercial. 7.15: Morning Melodies. 8.30: Close 10.0: News. 10.10: Musical Pot Pourri 11.0: Homecraft, by "NANETTE." 11.10: Morning Tea Musicale. 12.30: Close.
3.0: Grain Report, Weather, Music. 3.15: Radio Serial. 3.25: Pianoforte Recital. 4:0: Afternoon Tea Musicale. 5.0: Close.
5.30: Junior Listeners and Wireless Kangaroo. 6.0: Dinner Music. 6.55: Sunshine Club Notes. 7.0: RON and DON, the Singing Serenaders. 7.45: Citizens' League Address. 8.0: News Bulletin. 8.6: Musical Session. 8.36: Recital. 9.0: News, Weather, Market Report, Stock Exchange, Fat Stock Market. 9.15: Band Concert. 10.0: News. 10.3: Listeners' Request Numbers.

| Station | Location | Wave length Metres | Power Watt | Hours on the air |
| :---: | :---: | :---: | :---: | :---: |
| 3GL | Geelong | 214 | 50 | Sunday 1.30 to 3.0 p.m. W. Days 1.0 to 10.0 p.m. |
| 3 BA | Ballarat | 231 | 50 | Sunday 1.30 to $10.0 \mathrm{p} . \mathrm{m}$. W. Days 7.0 to 10.30 p.m. Saturdays 7.0 to 11.0 . |
| 3TR | Trafalgar | 234 | 50 | W. Days 12 to 1.0 p.m. -7.0 |
| 3WR | Wangaratta | 238 | 50 | Sunday 8.0 to 9.30 p.m. |
| 3SH | Swan Hill | 278 | 50 | W. Days 7.45 to 10.30 p.m. W. Days 7.30 to 10 . Sunday 12.15 to 2.15 .4 .15 to 6.30. 7.30 to 10 . |
| 3HA | Hamilton | 297 | 200 | 12.0 to 2.0 . 3.30 to 5.0 . 6.30 |
| 3 BO | Bendigo | 309 | 200 | Sunday 7.0 p.m. to 9.30 . W. Days 8 p.m. to 10.30 . |
| 2 AY | Albury | 203 | 50 | Sunday 7.30 to 10.0 . W. Days 7.0 to 10.30 . |
| 6WF | Perth | 435 | 5000 | Sunday 10.40 to 11.0 . 12.0 to 4.55. 6.30 to 10.30 . <br> W. Days 7.30 to $8.30,1.0$ to |
| 6 PR | Perth | 341 | 200 | 10.30 to 11.30 . 12.30 to 1.30 . |
| 4BC | Brishane | 262 | 600 | 4.30 to 5.30 . 6.30 to 10.30 . <br> Sundays 6.0 to 10.30 . <br> W. Days 10.30 to 12.0. <br> 2.0 to |
| 4TO 3 YB | Townsville Mobile | 256.4 262 | 100 25 | 3.30. 5.45 to 10.0 . 6.30 to 10.15 p.m. |
| 7LA | Launceston | 273 | 200 | Sunday 6.0 to 10.0 p.m. W. Days 3.0 to 4.30 p.m. 6.0 to $10.30 \mathrm{p} . \mathrm{m}$. |

## MORNING

7.0 to 8.15 as on Monday.
10.30: CURRENT HAPPENINGS IN SPORT

By ERIC WELCH.
11: Fish Market reports. Express train in formation
11.5: "Austradio" Musical Reproduction.
11.30: Morning sales. Melbourne Stock Exchange. Metal prices.
11.33: "Austradio" Musical Reproduction. 12.0: Time Signal.
12.1: "Austradio" Musical Reproduction. 12.10: Programme announcements. News Service. Cable News Service. British Official Wireless News. Police Messages Corn Exchange Midday report. Newmarket stock Sals and Station Agents Official Report.
2.30: Close down
1.0: Time signal. Stock Exchange information. Shipping information. Meteorological data. : Weather forecast. Ocear forecast. Rainfall data. River reports.
1.15: Comments on Current Topics.
1.30: "Austradio" Musical Reproduction.

## AFTERNOON

2.0: ATTRACTIVE COOKERYChristmas Cakes."
MISS E. H. EDDY.
2.15: Musical Interlude.
2.30: VIENNA SIDELIGHTS"The Courtesy of the Viennese." MISS MOLLIE M. LINK.
2.45: Musical Interlude.
3.0: Time Signal.
3.0: A.B.C. QUINTETTE-
"The Pipes of Pan" (Logan).
3.8: NORMAN BRADSHAW, tenor. "May the Maiden" (Carpenter). "Ma Banjo."
3.14: LES RAPHAEL at the pianoNovelty Numbers
3.20: J. HOWARD KING, BaritoneTwo Songs by Frederick Keel: "The Port of Many Ships."
"Trade Winds."
3.26: A.B.C. QUINTETTE-
"Merrie England" (German).
3.36: NORMAN BRADSHAW, tenor, and VIOLET SEMPLE, contralto-
"Still as the Night" (Bohm).
"You'd Better Ask Me" (Lohr).
"The Little Red Lark" (Traditional).
3.42: TASMA TIERNAN, 'Cello-
"Consolation" (Squire).
3.46: A.B.C. QUINTETTE-

Scenes from "An Imaginary Ballet" (Coleridge-Taylor).
3.54. VIOLET SEMPLE, Contralto"Have You Seen but a Whyte Lily Grow" (Trad., Air arr. Liza Lehmann).
"I Attempt from Love's Sickness to Fly" (Purcell).
4.0 : ${ }^{\text {LES }}$ RAPHAEL

More "Piano Pyrotechnies."

### 8.0 TONIGHT

3LO

## ORCHESTRAL AND CHORAL RECITAL


8.0: A.B.C. CONCERT ORCHESTRA: Suite: "Where the Rainbow Ends" (Quilter.)
ROYAL VICTORIAN LIEDERTAFEL (conducted by WILLIAM McKIE). (Accompanist: JOHN SIMONS.)
"Full Fathom Five" (Dunhill).
Old English Part Songs:
(a) "Lady, Those Eyes" (Morley).
(b) "How Merrily We Live" (Michael East).
THE ORCHESTRA:
Two Salon Pieces:
(a) "Menuet Impromptu" (John Ireland).
(b) "Villanella."
by the
A.B.C. Concert Orchestra and
Royal Victorian Liedertafel

## ROYAL VICTORIAN LIEDERTAFEL

 Cavalier Tunes (Bantock):(a) "Marching Along."
(b) "Give a Rouse."

THE ORCHESTRA:
"Lord Peter's Stable Boy" (Grainger). ROYAL VICTORIAN LIEDERTAFEL Traditional Songs:
"Drink To Me Only" (Arr. Elliott). "All Through the Night" (arr. Green). THE ORCHESTRA:
"Gavotte and Musette" (Raff). ROYAL VICTORIAN LIEDERTAFEL "Drake's Drum" (Coleridge-Taylor). THE ORCHESTRA:
Suite: "Joyous Youth" (Eric Coates).
4.6: A.B.C. QUINTETTE-

Waltz from "Faust" (Gounod).
4.12: J. HOWARD KING, Baritone "The Lowiand Sea" (Branscombe), "Five Eyes" (Armstrong Gilbos). 4.20: A.B.C. QUINTETTE-
"Twillght Lullaby" (Chenoweth).
"Can't You See" (MeKay).
4.30: Close Down.

Duxing the afternoon progress scores in the international cricket match, South Africa v. Queensland, played at Brisbane, will be broadcast as they come to hand.

## EVENING

5.45: A "Stray Sunbeam" commences the Children's Hour, then "BOBBY BLUEGUM" has a iolly chat to the members of the Name Club, also a word of welcome to new clubbers. The Children's News Bulletin comes next.
6.0: The Cuckoo Clock.

Tonight 'ORACE sings a special new
"BOBBY BLUEGUM" entertains with the assistance of 'Ector and 'Orace.
6.20: "BOBBY BLUEGUM" says "Many Happies."
6.30: COMMUNITY SINGING NEWS.
6.35: AT HOME AND ABROAD-

By "THE WATCHMAN."
6.50: British Official Wireless News.
6.58: What's on the Air Tonight.
7.0: Time Signal.
7.1: COUNTRYMAN'S SESSION.
7.25: FOR THE MAN ON THE LAND.
"Current Orchard Work."
Under the auspices of the Department of
7.40: News Service. Cable News Service. Police Messages.
7.45: THE CHARM OF TRAVEI-
"Aberdeen and the Dee Side."
MISS FRANCES FRASER.
At approximately 7 p.m. "Stumps" scores in the International Cricket match - South Africa versus Queensland - at Brisbane will be broadcast.
8.0: Time Signal.

## NIGHT

8.0: See panel.
9.0:

AN INTERLUDE
MEMORIES OF OLD MELBOURNE.

## Vaudeville

JOHN WARREN
Tenar.
COMPTON COUTTS, Comedian.
JACK O'HAGAN,
MARGOT SHERIDAN at the Piano. COURTNEY FORD in Old Time

Comedy Numbers.
MacDUFF WILLIAME, with his
Mr. and Mrs. FIELD-FISHER A Comedy Sketch.
"DARBY" and "JOAN," Old Favorite Duets.
A.B.C. CONCERT ORCHESTRA.
10.30: Official Weather Data. Police messages. ERTC WELCH'S selections for the first day of the Bendigo Cup meeting tomorrow. Items of interest. 10.35: "MEDITATION" MUSIC.
11.30: Close down.

## A LISTENER'S THANKS TO 3DB

Mrs L. V., Black Rock, writes:-When I had a wireless installed about a year ago I was suffering a great sorrow, and my world seemed to have fallen to pieces, but Charlie and Renn, with their nonsense, taught me to laugh again, and you with your bright morning sessions have been a wonderful tonic. So, my dear friends of the air, please accept my heartfelt thanks.

## Ensign All-DISTANCE



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Full stocks of the wonderful new Film are now available at Harringtons and Harringtons' Dealers. Box Ensign and Brownie users especially should try out Verichrome this summer - the improved snapshats will be a revelation!

## MORNING

8.15: "Austradio" Musical Reproduction. 8.45: Weather data.
9.1: News Service. Cable News Service. Police Messages.
9.5 : "Austradio"
10.0: G.P.O. chimes-
10.1. British Official Wireless News.
10.10: Announcements.
10.15: "Austradio" Musical Reproduction. 10.45: THE DAILY BROADCAST SERVICE.
11.0: Close down.
12.0: G.P.O. chimes.
12.1: "Austradio" Musical Reproduction. 12.15: NATIONAL GALLERY TREASURES. "The Coffin of the Egyptian Theby."
MR. N. BENPORATH.
12.30: "Austradio" Musical Reproduction.

## 2.0: G.P.O. chimes.

## AFTERNOON

The Artistic Reproduction of Absent 1: GRAND OPERA: "Tannhauser." Act. II. (Wagner).

Sung in German at BEYREUTH FESTIVAL by PRINCIPALS, CHORUS and ORCHESTRA.
2.45: "Merchant of Venice Suite."

JOHN BARBIRALLIS CHAMBER ORCHESTRA
NOTE.-During the afternoon Progress Scores in the Cricket Match, SOUTH AFRICA versus QUEENSLAND, at Brisbane, will be broadeast as they come to hand.

## 3AR, Melbourne

3.0: SEEING AMERICA UNCONVENTION-

ALLX-
"Niagara Falls to Geneva."
MR. W. RICHARD NORRIS.
3.15: Musical Interlude. BROADCAST TO SCHOOLS.
3.30: ENGLISH LITERATURE-
"Milton's Paradise Lost," No. 2.
PROFESSOR G. H. COWLING.
4.0: Musical interlude
4.15: "Austradio" Musical Reproduction.
5.0: G.P.O. chimes.
5.1: "Austradio" Musical Reproduction.
5.30: Weather data. Shipping information.
5.45: Close down.

## EVENING

6.15

## DINNER MUSIC Supplied by the RADIO PLAYERS

7.30: What's on the Air Tonight.
7.32: Sporting Results. Stump scores of Cricket Match, SOUTH AFRICA versus QUEENSLAND, at Brisbane.
7.45: Latest Musical Releases.
8.0: G.P.O. Chimes.

## NIGHT

8.0: EVERYDAY PSYCHOLOGY-
No. 9, "Learning-Are We Ever too Old to Learn.'

## 2FC, Sydney

## 7.0 to 2.8: As on Monday.

## AFTERNOON

(Relayed to 2 NC , Newcastle)
2.30: Announcements.
2.32: DAJOS BELA ORCHESTRA -

The Three Waltz Kings" (Strauss),
2.40: TERENCE NUGENT, Tenor-
"When the Lilac Blooms Again" (Doelle).
2.47: EDWARD D'EVRY, Organist-
"Albumleaf" (D'Evry).
2.51: Gems from Light Opera
2.59: OLGA LE GRAY, Soprano-

With You (Berlin).
3.2: CEDRIC SHARPE, 'Cellist-

The Gentle Maiden" (Sharpe).
3.5: An Interlude of Humor.
3.11: EDITH LORAND ORCHESTRA-
"After the Ball" (Harris).
3.15: TERENCE NUGENT, Tenor-
(I Remember You from Somewhere" (Warren).
3.18: With the Modern Composers.
3.23: OLGA LE GRAY, Soprano-
"Yours and Mine" (Burke).
"For You" (Burke).
3.30: ELSIE SEGARET will tell listeners
of Austrians.
3.45: J. H. SQUIRE CELESTE OCTET-
"Collette" (Fraser Simson).
"Memories of Devon" (Evans).
3.51: MILDRED DIILLING, Harp Solo-
"Am Springbrumnen" (Zabel).
3.55: TERENCE NUGENT, Tenor-
"While Harps are Singing" (Strauss)
3.58: H.M. COLDSTREAM GUARDS BAND "Tannhauser March" (Wagner).
4.2: OLGA LE GRAY, Soprano-
"Love Boat" (Brown).
4.5: EVLYN HOWARD-JONES, Pianiste-
"Fugue No. 12 in F Minor" (Bach).
4.9: Radio Rhythm.
4.28: Stock Exchange.
4.30: Close.

## EVENING

(Relayed to 2 NC , Newcastle.)
5.45: Children's "Good-night" Stories, told
by the "HELLO MAN."
6.0 : "BRINGA" will speak of the "Abo-
riginal Children." speak of the "Abo-
6.15: The 2FC Hospital Birthday League.
6.30: The Serial. STRING SEPTET.
6.45: THE A.B.C. A.B.C. Sporting Service. Special

Country Session. Stock Exchange ReCountr
7.45: Late news.
7.45: Late news.
7.51: Cables. Forecast.

## NIGHT

(Relayed to 2NC, Newcastle, between
8 and 11 p.m.)
8.0: (Relayed to 2NC, Newcastle).

THE A.B.C. DANCE BAND-
Dance Music.
"HOW TO STUDY,"
DR. R. D. COLLMAN, B.SC., B.A.
8.20: A Programme of Special Reproduc-

Sions- ${ }^{\text {Selection, }}$ "Land of Smiles" (Letiar)GRAND SYMPPHONY ORCEWSTRA, COnductor, DR. WEISSMANN.
"Thy Love is He" (Goldmark).
"Thy, Love I is He" (Goldmark). (Gold。 Mark) MARIA NEMETH, Soprano, with Vlenna State Opera Orchestra
"Ein Heldenleben," Op. 40 (Richd. "Ein Heldenleben," Op. 40 (Richd. parts). Violin-LEOPOLD PREMYSL,AV BERLIN STATE OPERA ORCHESTRA, Conductor, RICHARD STRAUSS.
"Now Vanquish the Fear," "Siegfried" (Wagner), Tristan Now is Going" (Weg -
"Where Tristan Now is Going" (Wagner.
LOURITZ VELCHIOR, Tenor, with LONDON SYMPHONY ORCHESTRA (Conductor, PROFESSOR R. HEGER.)
.25: UNDER THE AUSPICES OF THE MELBOURNE RECORDED MUSIC SOCIETY.
OF THE WORLD'S FINEST RECENT RECORDINGS,
MR. CHARLES MANBY.
10.15: British Official Wireless News. Weather information and Herald News, Cable News Service. Police Messages.
10.30: Close Down.

## 2BL, Sydney

8.15 to 2.0: As on Monday.

## AFTERNOON

2.30: Half an hour with absent celebritles. 3.0: CHRISTIAN HELLEMANN will speak on "Composers' Ages.'
3.15 : Popular numbers
3.23: THOE KARIE, Tenor-
(Come Where My Love Lies Dreaming" (Foster)
3.26: CEDRIC SHARPE, 'Cellist-
"Serenade" (Pierne).
3.29: Musical items.
3.39: THE BIG FOUR, Vocalists-
"Waiting by the Silv'ry Rio Grande"
(Mencher).
"I'm Alone Because I Love You" (Young).
3.45: Pot Pourri of Popular Melodies.
3.52: ELIZABETH SCHUMANN, Sopråno"Wiegenlied" (Mozart).
3.55: SANDY MACPHERSON, Organist.
"Starlight" (Brownsmith).
3.58: Popular music of the day.
4.5: Favorite songs of yesteryear. give a French Language Talk. She will speak on Sarah Bernhardt.
4.30 : Favorite melodies of today.
4.45: Demonstration music.
5.40: Weather information.

### 5.45: Close.

## EVENING

6.15: THE A.B.C. STRING SEPTET.
6.45: Department of Agriculture.

MR. T. McCARTHY, Senior Assistant En-
tomologist, will speak on
"The Control of Household Insect Pests."
7.5: The Country Man's Market Session.
7.20 : THE A.B.C. STRING SEPTET.
7.10: PROFESSOR MILLS will speak on
"Inflation and Deffation."
7.55: A musical item.
7.58: What's on the air tonight.

## NIGHT

8.0: THE A.B.C. ORCHESTRA-
"La Feria," Spanish ballet (Lacome).
8.7: ELSIE FINDLAY, Soprano-

A group by Dvorak.
(a) "The Rose."
(b) "A Bird Singing in the Night."
(c) "Like a Linden Tree Am I.". Planist-

[^0]Assisting Artists-
AUSTIN PUNCH, Tenor:
"At Dawning" (Cadman).
PHIL SMITH, Comedian:
"How Ya Goona Keep Your Mind on Dancing" (Brown and Hanley).

DOROTHY LOUISE, Contralto:
"Love's Echo" (Newton).
AUSTIN PUNCH, Tenor:
"Bird Songs at Eventide" (Coates),
PHIL SMITH, Comedian:
"Wottle" (Miller and Hurst)
DOROTHY LOUISE, Contralto:
"If I Might Come to You" (Squires).
AUSTIN PUNCH, Tenor:
"Boat Song" (Ware).
PHIL SMITH, Comedian:
"Riley's Cow Shed" (Damerell).
DOROTHY LOUISE, Contralto:
"Trees" (David).
"T Wonder If Ever the Rose" (Slater).
10.15: Late Official Weather Forecast.

AUSTIN PUNCH. Tenor:
"O Western Wind" (Brahe).
"Since We Parted" (Allitsen).
THE A.B.C. DANCE BAND in popular numbers.
(Completion of relay to 2 NC , New1.30: Close castle at 11 p.m.)
11.30: Close.
8.26: THE A.B.C. ORCHESTRA Selection, "Frederica" (Lehar). 8.36: ELSIE FINDLAY, Soprano-
(a) "Ingrid's Song"' (Kjerulf).
(b) "Tymmove's Song" (Kjerulf). (Cesar
8.43: LAURENCE GODFREY SMITH,

Pianist-
A group of Brahms.
(a) "Intermezzo"
(b) "Rhapsodie." ORCHESTRA-
"Ballet Russe" (Inigini).
9.0: THE A.B.C. PLAYERS,
in "The Ship,"
By St. John Ervine.
Cast.
Old Mrs. Thurlow ..... Madeline Howell
John Thurlow .... George Willoughby
Janet .. .. . .. ... Mrs. Heath Green
Jack .. .. .. .. ... .. Arthur Keane
Hester .... ........ Phyllis Magrath
Captain Cornelius .. ., Eric Masters

George Norwood .. .. .. .. Leo Stark
Maid.
10.0: Celebrity recital.
10.25: Late news.
-10.28: Late weather forecast.
10.30: Close.

### 7.30 to 7.23 as on Monday.

## EVENING

7.30: "Soft Fruit Packing-Its Troubles and How to Overcome Them," by MR J. GREGORY, Instructor in Fruit Packing, Department of Agriculture and Stock.
7.40: Sporting Session.
7.55: Musical Interlude.

## 40 Bishane

7.59: Time Signals.

## NIGHT

(Relayed to 4RK Rockhampton from 8.0: Relayed from 4RK Rockhampton.
9.45: A Reproduced Musical Programme from the Studio.
10.0: Weather information. Cable news. News service. British Official Wireless news.
10.15: A review of today's play in the International match between South Africa and Queensland.
10.30: Dance music.
11.0: Close.

## 5CL, Adelaide

### 7.30 to 2.0: As on Monday.

## AFTERNOON

## 3.0: Time Signal

3.1. "Romances of Famous Lives," conducted by BERYL ALFORD
3.15: A Pot Pourri Programme of Light Orchestral and Popular Ballad Reproductions.

### 4.30: Close Down.

## EVENING

5.50: Birthday Greetings and Correspondence.
6.0: "THE WATTLE LADY", will Entertain. 6.30: Bright Dinner Music Reproductions.
7.0: News Service. Sporting Service, including Cricket Scores in the Match, South Afriea V. Queensland, at Brisbane.
7.15: Stock Exchange Information. Market Reports.
7.20: Musical Interlude.
7.35: "Off the Beaten Track," by MR H. BREWSTER-JONES
7.45: Latest Austradio Reproductions.

## NIGHT

8.0: From the Theatre Australia - Grand Complimentary Concert to JAMES RILEY (the Popular Tenor). A Feature Parade of South Australia's Most Popular Artists Artists:-ST. CECILIA CHORAL SOCIETY; JEANNE ILLINGWORTH, Soorano; JAMES ANDERSON, Elocutionist; HAROLD DENTON'S MADRIGALS; LINDA WALD, Soprano: MADAME
CARYS DAVIES-DENTON, Contralto: CARYS DAVIES-DENTON, Contralto; HAROLD S. DENTON, Baritone; ORME FARLEY, Tenor; JEAN FINLAY, Pianist: HARRY HUTCHINS, Violinist; ALHARD VON DER BORCH, Baritone; MRS W. J.

O'DONNELL, Pianist; CECILIA NASI:, Soprano; MARGARET PIRIE, Contralto: MARIE HORGAN, Pianist; GWEN COLLETT, Contralto; OLIVE LYONS. Accompanist; MARCELLE BERARDI Soprano; MIOSTYN SKINNER, Baritone: TOM KING, Pianist; MURIEL MARKS: Entertainer; THELMA BAULDERSTONE, Elocutionist; AUSSIA REKA, Soprano: SPRUHAN H. KENNEDY, Pianist; PHYLLIS EVERETT, Contralto; WAITER HURST Pianist; VERA VAN RIJ and Pupils; JEAN SINCLAIR, Contralto; MARJORIE WALSH, Soprano; NORMAN MORPHETT, Tenor; GORDON HELE Bari. tone; TRIXIE WILSON and Pubils
10.20: News Service. Meteorological Information. British Official Wireless News. 10.25: Dance and Popular Musieal Reproductions.

## 3DB, Melbourne

## MORNING

7.0: Brighter Breakfast Session, conducted by Daybreak Dan
10.45: Studio Programme
11.0: Women's Radio Service, conducted by MISS IRIS TURNBULL-
"Fashions and Beauty Hints.'
12.30: Market Reports.

## AFTERNOON

2.15: A. \& R. Ingwersen's Session.
2.30: Household Harmonies-

## STRAD TRIO

(a) "Ave Maria" (Schubert).
(b) "Moment Musicale"

Preisler PERCY BLUNDELL, Tenor-
"Mary."
CHRISTINE FRAILLON, 'Cello-
"Gavotte" (Popper).
CECIL PARKES, Violin-
"Dance of the Goblins" (Bazzini)
DOROTHY D'ORN, Soprano (with violin obbligato by Cecil Parkes) -
"Il re Pastore."
STRAD TRIO
(a) "Menuett" (Paderewski)
(b) "Serenata" (Toselli).
(c) "One Night, Madame" (Brown)
3.0: Strand Furniture Programme
15. Sum Sunshine Hour
4.15: Strad Trio from Myer Emporium.

## EVENING

5.30: Musical Interlude
6.0: Dinner Music-
ST, LOUIS SYMPHONY ORCHESTRA-
'Fingal's Cave -Overture.
MELVILLE GIDEON, Baritone-
"Amsterdam,"
BENNO MOISEIVITCH, Piano-
"Hunting Song."
Nocturne Java."
JOHN McCORMACK, Tenor-
"When You and I Were Seventeen."
REGAL NOVELTY ORCHESTRA -
"Hiawatha's Melody of Love."
ESSIE ACKLAND, Contralto-
"My Treasure."
REGINALD GOSS-CUSTARD, Organcoronation March.
FRANK CRUMIT, Vocal-
"A High Silk Hat and a Walking Cane."
JOHN COCKERILI, Harp-
J. H. SQUIRE CELESTE OCIET-
"Memorles of Chopin."
7.0: Smile Away Club Free Theatre Tickets.
7.10: Market Reports.
7.15: Preservene Session.
7.30 : First Radio Broadeast of "New Moon" (by special permission of J. C. William(by specia
8.0: Vacuum Oil Musical Programme.
8.30: Akron Minstrels.
9.0 : Coles and Garrard's "Smiling wyes."
9.15: Golden Bell.
9.30: Russell's Yeast Programme. 10.30: News.
10.45: Slumber Music-

Madelon."
Liebestraume."
O Star of Eve."
"Songs My Mother Sang."
"Morgen."

## 3UJZ, Melbourne

DAY SESSIONS AS ON MONDAY
8.0-8.15: Life Savers' Merry Session. 8.15-8.30: Anderson's Entertain Old Friends. 8.45-9.15: MR F. J. CAVE, conducting The Shell Company's Entertainment. $9.15-9.30$ : Thomas Norman's Turf Session. 9.30-9.45: Kewley's Musical Programme. 10.15: Argus News Service. 11.0: Close down.

## 3KZ, Melbourne

DAY SESSIONS AS ON MONDAY.
8.0 to 8.15: Coles and Garrard entertainment. 8.15 to 8.30 : Evening music. 8.30 to 9.0: Maples (South Melbourne) session. y.u to 9.30 : Evening music. 9.30 to 9.45 : Mark Pizzey's session. 10.0: Station announcements. 10.5: Evening music. 11:30: Close down.

## 7ZL, Hobart

DAY SESSIONS AS ON MONDAY 8.0: G.P.O. Clock Chimes the Hour. Unit 1.-The Artists of the Music Lovers' Hour in a Programme of American Music. Artists: MRS B. E. SAUNDERS, Piano; MADAME VERA TASMA, Soprano HAZEL GUEST, Violin; BLANCHE SINCLAIR, Mezzo. MRS B. E. SAUNDERS, "American Aubade" (Mowrey), "Wind on the Prairie" (Morel), "Prelude Arabesque" (Rodgers), "Scherzo" (Cadman); MADAME VERA TASMA, "The Star" (James Rodgers), ran), "Change of Mind" (Pearl Curran), "Will o' the Wisp" (Spross), "Ah, Love but a Day" (Beach), "The Grey Blue Dove" (Sauer), "A Birthday" (Woodman); HAZEL GUEST, "Cradle Song" (Ern), "Contemplation" (Peery), "Berceuse" (Donath)," "Gipsy Serenade" (Banks), "Negro Spirituall" "Nobody Knows" (Burleigh); BLANCHE SINCLAIR, "The Last Song", (James Rodgers), Spirit Flower" (Tipton), "The Boat Song" (Ware), "Banjo Song") (Horner), "O That - "The World by the Way," by the "Man With a Lantern." 9.15: Unit 3.- MILITARY BAND, conducted by T, W. HOPKTNSOverture, "Light Cavalry" (Suppe), "Liebe sy BERYI BR by BERYL BRETT "- "He Fell Among Thieves," "Up Hill", "Ambition," "I Have South" (Solomon), "La Zarine" (Ganne)
(Finck). 10.0: G.P.O. Clock Chimes the Hour. 10.1: News, Meteorological Information. Resume of Tomorrow's Progranme. British Official Wireless Rebroadcast from 3AR, Melbourne. 10.15: Meditation Session.

## 2GB, Sydney

DAY SESSIONS AS ON MONDAY
8.0: 2GB INSTRUMENTAL QUARTE: leader, HORACE KEATS-"Tannhauser Selection" (Wagner). 8.12: Tenor solo. 8.12 : HERBERT WARDLEY, violinist-"Traumer" (Wagner), 8.22: Soprano solo. 8.27: 2GB QUARTET- "Three Dream Dances" (Coleridge Taylor). 8.37: A little humor. 8.42 : HORACE KEATS, pianist-"Chant d'Amour (Paderewski); "Danse Poetique" (Dutton, 8.50 Tenor solo. 8.55: Vocal quartet. 9.0: Weather Report. $9.3: 2 \mathrm{~GB}$ TRIO-"O Star of Eve" (Wagner); "Humoreske" (Dvorak). 9.11: Soprano solo. 9.16: CEDRIC ASHTON. 'cellist-"Tarantelle" (Popper). 9.21: Vocal quartet. 9.26: Flute solo. 9.31: 2GB QUAK. quartet. 9.26: Flute solo. 9.31: ${ }^{\text {TET- "While Hearts are Singing" (Strauss); }}$ "One More Hour of Love" (Strauss) 9.39 : "One More Hour of Love" (Strauss) 9.39 :
Novelty orchestra. $9.44:$ Vocal duet. 9.50 : Novelty orchestra. 9.44 : Vocal duet. 9.50 :
Band selection. 10.0 : Instrumental music. 10.45: Slumber Music. 11.15: Close down.

## 2KY, Sydney

DAY SESSIONS AS ON MONDAY
8.0: Clock chimes. 8.1: From the Auburn Town Hall. F. J. Palmer's Community Singing Concert, with SYD. HAYNES leading. UNCLE BERT and GEORGE and assiting artists. 10.30: Closing announce-
ments.

## 2UW, Sydney

DAY SESSIONS AS ON MONDAY.
8.0: Paling s Sponsored Session of MusicPiano and Orchestra, "Nights in the Gardens of Spain" (de Falla). 8.24: Voeal Spanish songs (de Falla). 8.30: Orch. Spanish dances (Granados). 8.46: Spanish songs (de Falla). 8.55: Orch." "Granada" (Albeniz). 9.0: Talk on Foreion Afranada" MR. J. M. PRENTICE. 9.10: Music. 9.15 : Shell Interlude by Saxon. 9.45 : Music

## 5KA, Adelaide

## DAY SESSIONS AS ON MONDAY

8.0: Topical chorus. 8.10: Musical pot pourri. 8.40 : Broadcast of talkie production. 10.30: Close down

## 5AD, Adelaide

DAY SESSIONS AS ON MONDAY 8.0: First News Bulletin. 8.6: Concert for The News. 8.30: Recital. 9.0: News Weather, Wheat Market, Stock Exchange 9.15: Recital. 9.30 : Song Medley. 9.45 $\begin{array}{lll}\text { Orchestral Interlude. 10.0: News. } & 10.3 \\ \text { Listeners' Request Numbers. } & 10.59: \text { News }\end{array}$

# 63 Swanston St. 

(almost opposite the Cathedral). Melbourne

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## producrs



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RCA 103 Tapestry model Speaker, illustrated. Equal in every respect to the $£ 8 / 10$ model. Homecrafts Price .. .. .. .. . .. .. .. 48/6


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Guaranteed for 12 months. Fitted with special extra durable separators. 4 -Volt 60 Amp., with carrying handle only .. .. ..... .. . 27/9 6 -Volt 105 Amp. Car or Radio Battery. As illustrated. Price . . 45/
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boxed,
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$42 /-\mathrm{A}$.
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Rationalised
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1) Grid Leak Clips (Bakelite)
2) Gramo Sound Boxes

2/3 Amsco Grid Leaks, all sizes. 1-9 megs. guaranteed accu55/ Philips 4005 Magnetic Pick-
5/ Silverknight $\quad 85 / \mathrm{M} \dot{\mathrm{A}}{ }^{\prime} \quad \mathrm{R} \dot{\mathrm{F}}$
9/6 Polymet 8 mfd ." Electrolytic
6d Nickel Plated Alligator Clips
3/6 Ayanbee "A" and "E" Bat-
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Phone cords, 6ft. long . ..
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9 d Special small screw drivers
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Ediswan 2V West B Batt
1/9 AWA UX sub panei sockets

## Vernier Dial News!

Just opened up. Handsome Black Bakelite 4 -inch Dial with finest friction drive.
 "THE MONA" As illustrated.
List Price, $8 / 6$; Homecrafts rice
$4 / 9$
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Capitol "Potentiometer" Vol. Control, absolutely noiseless and accurate. Totally enclosed in bakelite casing, compact one hole mounting. $0-50,000$ ohms $0-100,000$ ohms $0-150,000$ ohms $\quad 0-250,000$ ohms $0-500,000$ ohms.
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| Type. | Purpose. | Equiv. <br> Philips | Standard <br> Price. | Heraft's <br> Price. |
| :--- | :--- | :--- | :--- | :--- |
| MH4 | General Purpose | E438 | $23 / 6$ | $7 / 11$ |
| MIHL4 | Audio \& Det. | E435 | E424 | $23 / 6$ |
| U9 | Full Wave | E409 |  | $7 / 11$ |
|  | Rectifier | 506 |  |  |
| ML4 | Power | 2506 | $25 /-$ | $7 / 6$ |
| MS4 | Screen Grid | E409 | $23 / 6$ | $7 / 11$ |
| PX4 | 4V Super Power | E442 | $29 / 6$ | $11 / 3$ |
| P425 | Power | B403 | $25 /$ | $10 / 6$ |
| PT425 | UY Penthode | B443 | $27 / 6$ | $6 / 11$ |

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| Type. | Purpose. | Equiv. <br> Philips. | Standard <br> Price. | H'craft's <br> Price. |
| :--- | :--- | :--- | :--- | :--- |
| H210 | Det. \& R.F. | A215 | $14 /$ | $6 / 11$ |
| L210 | Power | A209 | $14 /$ | $5 / 11$ |
| H410 | Det. \& R.F. | A415 | $14 /$ | $6 / 11$ |
| L410 | General Purpose | A409 | $14 /$ | $6 / 11$ |
|  |  | B406 | $14 /$ | $6 / 11$ |
| P410 | Power | A615 | $14 /$ | $6 / 11$ |
| H610 | Det. \& R.F. | A. |  | $6 / 11$ |
| HL610 | General Purpose | A609 | $14 /$ | $6 / 11$ |
| P610 | Power | B605 | $14 /$ | $6 / 11$ |
| S410 | Screen Grid | A442 | $27 / 6$ | $9 / 11$ |
| P625A | Super Power | C603 | $16 / 6$ | $7 / 6$ |
| S610 | Screen Grid | A642 | $27 / 6$ | $9 / 6$ |
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## Crystal Set Competition

Good prizes and lots of fun.
Entries close December 14 th.
Set Builders See for Yourselves
Actual built-up models of new Constructional 4 Valve Set featured in this issue Listener In, page 46. At both shops, 63 and 211 Swanston St.

7.0 to 1.15 as on Monday.

AFTERNOON
1.30: Transmission from the ROTARY CLUB LUNCHEON.
1.58: Deseription by ERIC WELCH of Hurdle Race-two
2.5: Musical Interlude
2.10: MAINLY FOR WOMEN

THE A.B.C. WOMEN'S ASSOCIATIONConducted by HATTE KIGHT.
2.25 : Musical Interlude.
2.38: Description of Epsom Plate-six furlongs.
2.45: Musical Interlude
3.0: Time Signal.
3.0: THE RADIO PLAYERS-
"Earl Carrol's Vanities."
3.7: JESSIE SHMITH, Contralto"When the Night with Stilly Silence." "The Market" (Carew).
3.13: Description of Bendigo Cup-1 mile, 3 furlongs.
3.20: THE RADIO PLAYERS-

Fantasie of Works by Bizet.
3.26: SYD. EXTON, Tenor-
"A Spirit Flower" (Campbell Tipton). Pale (Logan)
3.32: MONA THOMAS, Sopbrette-
"Girl of a Million Dreams;"
"I Wanna Sing About You."
3.38: THE RADIO PLAYERS-
3.38: THE RADIO PLAYERS-
"Scenes Pittoresque" (Massenet)

3.43: Description of Three-year-old Handi-
3.50: JESSIE SHMITH, Contralto-
"The Auld Nest" (Longstaffe).
" "Four Ducks on a Pond" (Needham).
3.56: C. RICHARD CHUGG, Flute-
"Bolero" (Pessard).
4.1: THE RADIO PLAYERS -

Waltz: "Waltzing Around with Rosie" (Wayne).
Foxtrot: "Mother Indiana" (Skinner).
4.8: SYD EXTON, Tenor-
"Inter Noen" (Blumentha).
4.13: Description of President's Welterone mile.
4.20: THE RADIO PLAYERS

Selection from "Chu Chin Chow" (Norton)
4.30: MONA THOMAS, Soubrette"Pardon Me, Pretty Baby." Selected.
4.36: Two Request Numbers.
4.43: Description of Novice Handicap-6 furlongs.

### 4.50: Close down

## EVENING

5.45: "LITTLE MISS KOOKABURRA" will commence the Children's Hour with a happy laugh for all and then tell "How Mr Gander made a Goose of Himself., This will be followed by the Children's News Bulletin.
6.0: The Cuckoo Clock.
"MONTE THE DAME" meanders into the Children's Corner, bringing heaps of merry jokes and stories.
"MANDOLIN MADOLINE" will play a tune or two.
"LITTLE MISS KOOKABURRA" will now tell the second instalment of the exciting Yorkshire Moors story
6.20: Birthday Greetings by "LITTLE MISS KOOKABURRA.
6.30: Musical Interlude.
6.35: FRENCH.

MADAME SOWARD
6.50: British Official Wireless News.
6.58: What's on the Air Tonight.
7.0: Time Signal
7.1: COUNTRYMAN'S SESSION
7.25: UNIVERSITY EXTENSION BOARD LECTURES.
"The Use of Metals by Early Man."
PROFESSOR N. GREENWOOD.
7.40: News Service. Cable News Service. Police Messages. RERICE TO LIS7.45: TENERS

MR H. K. LOVE.
8.0: Time Signal.

## NIGHT

8.0: See panel.
10.30: Official Weather data. Police messages. Items of interest.
10.33: ART CHAPMAN AND HIS REX. ORCHESTRA -
Popular Dance Numbers.
11.30: Close down.

## 3AR, Melbourne

### 8.15 to 11.0 as on Monday.

## AFTERNOON

12.0: G.P.O. Chimes.
12.1: "Austradio" Musical Reproduction. 12.15: THE WHITE ARAB:

The Caravans of the Dead"
CAPTAIN DONALD MACLEAN.
12.30: "Austradio" Musical Reproduction.
2.0: G.P.O. Chimes.

The Artistic Reproduction of Absent
2.1: GRAND OPERA, "Tannhauser" Act 3
(Wagner). Sung in German at Beyreuth
Festival by Principals, Chorus and Orches-
2.37: ESSIE ACKLAND, Contralto.
2.41: JOHANN STRAUSS and SYMPEONY

ORCHESTRA.
2.49: LOTTE LEHMANN, KARIN BRANZELL, RICHARD TAUBER, etc. CHORUS and ORCHESTRA, STATE OPERA HOUSE, Berlin.
2.57: TOSSY SPIVAKOWSKY, Violin.

BROADCAST TO SCHOOLS.
3.0: FRENCH: Pronunciation Practice-
"Reading and Explanation of Poem-"Le
Savetier et le Financier"
MONS. TH, ROUEL.
Mr. W. H. FREDERICK.
3.30: Musical Interlude.
3.45: NOTABEE AUSTRALIANS
"Francis Ormond, the Founder of The
Working Men's College."
4.0: Musical interlude.
4.0: Musical interlude. "Austradio" musical reproduction.
5.0: G.P.O. Chimes
5.1: "Austradio" musical reproduction.
5.30: Weather data; shipping information.
5.45: Close down.

## EVENING

6.15: DINNER MUSIC-

Supplied by th:
A.B.C. STRING ENSEMBLE.
7.30: What's on the Air Tonight.
7.32: Sporting results.
7.50: Latest musical releases.
8.0: G.P.O. Chimes.

## NIGHT

8.0: ARCHITECTURE AND TOWN PLANNING -HUMAN HABITATIONSNo. 5-"Homes and Gardens in Australia"

## SISTERS OF MERCY CENTENARY

## BROADCAST BY 3DB

The Sisters of Mercy Centenary Celebrations will be broadcast by 3DB from the Auditorium on Saturday evening, November 21, from 8 to 10.30.

### 8.20: Thirty Minutes Light Classics.

## by

the Jedal ensembie-
Miss ALVA HATTENBACH, violin.
Miss EDNA HATTENBACH, 'celio.
Miss LILIAN FINSTER, piano,
Mr. ALAN EDDY, basso.
Trios: (a) "Romance sans Paroles" (D. van Goens),
(b) "Bolero" (Moszkowski).

Song: "Had a Horse" (Korbay).
Cello: "Elegie" (Massenet)
Piano: "Shadow dance" (MacDoweli).
Song: "Now Sleeps the Crimson Petal" Song: Now Sleeps the Crimson Petal"
(Qui)er),
(With violln obligato).
Trios: (a) "Cradle Song" (Schubert),
(b) "Mazurka Russe" (Glinka).

A PROGRAMME OF POPULAR MUSIC,
8.50: ART. CHAPMAN and his REX ORCH-

9STRA- FRANCES LEA
In Popular Numbers.
9.7: ART CHAPMAN AND HIS REX ORCHESTRA-
Latest-Dance Numbers.
Solo: Selected. A. B. WALTERS, pianist.
9.11: SYD, HOLLISTER and "THE GIRL FRIEND"
in Cleverly Concerted Comedy Concoctions.
9.20: ART. CHAPMAN AND HIS REX ORCHESTRA -
9.30: THE MASTER FOUR QUARTETTE
9.36: ART. CHAPMAN AND HIS REX ORCHESTRA-
9.46: FRANCES LEA

In Popular Numbers.
9.53: ART. CHAPMAN AND HIS REX ORCHESTRA-
Latest Dance Numbers.
10.0: SYD. HOLLISTER and THE GIRL FRIEND again in
Cleverly Concerted Comedy Concoctions.
10.8: ART. CHAPMAN AND HIS REX ORCHESTRA-
Latest Dance Numbers.
10.15: British Official Wireless News. Weather information and Herald news. Cable News Service. Police Messages.
10.30: Close down.

## 2FC, Sydney

## 7.0 to 2.25 as on Monday

## AFTERNOON

(Relayed to 2NC, Newcastle.)
2.30: Announcements.
2.32: FLORENCE WADDELL, Contralto:
"The Silver Ring" (Chaminade)
2.35: GWEN ROBSON, Pianiste:
"Concert Study" (Liszt).
2.45: ROTERUA MAORI CHOIR:
2.48: THE NEW SYMPHONY ORCHESTRA:
"Le Cid, Ballet Music" (Massenet).
2.56: MYRA LEARD, Elocutioniste:
"Taronga Jamboree" (Courtney).
3.3: LAWRENCE SALANRNO
3.3: LAWRENCE SALERNO, Baritone:
3.6: EFRAM RITMBANIST,
3.6: EFRAM ZIMBAIIST, Violinist:
3.9: Music of the Moment.
3.18: FLORENCE WADDELL, Contralto:
"The Fairy Tales of Ireland" (Coates). 3.25: "Mr Love's an Arbutus" (Stanford).
3.25: ARTHUR MEALE, Organist:
"Cavalieria Rusticana, Intermetzo
"Cavalleria Rusticana, Intermezzo" (Mascagni).
"Tales of Hoffmann, Barcarolle" (Offenbach).
3.31: GRAHAM KENT will speak on
3.46: GWEN ROBSON, Pianiste:
"Humoresque" (York Bowen)
"The Submerged Cathedral" (Debussy).
"Tango" (Albaniz).
3.56: MYRA LEARD, Elocutioniste:
"Wheels" (Weeks),
4.3: FLORENCE WADDELL, Contralto:
"We Sway Along", (Mallinson).
4.6: EDITH LORAND'S ORCHESTRA:
"La Serenade" (Metra).
4.10: THE BIG FOUR, Vocalists:
4.10: The Little Things in Life" (Berlin),
4.13: Radio Song and Story.
4.28: Stock Exchange.
4.30: Close.

## EVENING

(Relayed to 2NC, Neweastle.)
5.45: Children's "Good-night" Stories told
by the "HELLO MAN"" tertain.
6.15: The 2FC Hospital Birthday League.
6.30: The Serial.
6.45: THE A.B.C. ORCHESTRA.
7.20 : A.B.C. Sporting Service. Special Country Session. Stock Exchange re-
7.45: Late news.
7.51: Cables.
7.58: Announcements
(Completion of relay to 2 NC , New-
NIGHT
8.0: Relayed from 3LO Melbourne from the Melbourne Town Hall-

AN ORCHESTRAL CONCERT
VICTORIAN by the PROFESSIONAI ORCHESTRA.
10.30: Relayed to 2NC Newcastle-

Late Official Weather Forecast.
10.32: THE A.B.C. ORCHESTRA will play meditation music.
(Competion of relay to 2 NC Newcastle at 11 p.m.).
11.30: Close.

## 2BL, Sydney

### 8.15 to 2.0 as on Monday.

## AFTERNOON

2.30: Selections from light opera.

FREDDY KAUFMANN and his Orches-
The Gypsy Baron Selection (Strauss).
2.38: A group of ballads.
2.45: The Women's Hour, conducted by the
A.B.C. WOMEN'S ASSOCIATION.
"Hints to Knitters," by Mrs, EUGikN1A BAILEY.
A musical item.
"Suggestions for Christmas Gifts," oy Miss MARGOT HEALS.
Musical interlude.
Talk by a member of the Y.W.C.A.
Moments musical.
"Is Home a Woman's Place?" by Miss GWEN VARLEY.
3.45: PETER DAWSON, baritone-

The Blind Ploughman (Clarke).
3.48: MILITARY BAND.

Martial Moments (arr. Winter).
3.52. DON COSSACKS CHOIR-
3.56: SERGEI RACHMANINOFF
3.56: SERGEI RACHMANINOFF, pianist-
Polka de W.R. (Rachmaninofi))

Polka de W.R. (Rachmaninofi).
4.15: JAS reviews.
4.15: JASSICA DRAGONETTE, soprano-
4.18: ERICA MORINI, violinist-

Arioso (Bach, arr. Franko).
4.21: SYDNEY GUSTARD, organist-

Where My Caravan has Rested (Lohr).
4.24: Melodies Grave and Gay.
4.45 : Demonstration music.
5.40: Weather information.
5.45: Close.

## EVENING

6.15: A.B.C. ORCHESTRA.
6.45: Dr. J. C. C. BRADFIELD will tell of
the "Work Preparatory to Construction."
7.5: The country man's market session.
7.20: THE A.B.C. ORCHESTRA.
7.45: Rev. GEO. COWIE tells you what to do with it.

### 7.58: What's on the air tonight?

## NIGHT

8.0: THE SAVOYANS in a Symphonic pre-sentation-
(a) A group of Irish folk songs (Lenze)
(b) Moorish dance (Silesu).
8.7: ROGER JONES, baritone, and ANNE
(a) Our Little Home (Eric Coates).
(b) I Love the Moon (Rubens).
8.14: ERIC MASTERS and JOHN STUAR'IThe Experiences of Eezy and Breezy. Hunting (Jack Hylton)
8.24: THE SAVOYANS in a Symphonic
(a) Just a Little Closer (Meyer).
(b) Selection from Raymond Overture (Thomas).
8.31: JACK LUMSDAINE, the Radio Rascal
(a) Sugar (Meyer)
(b) I Wouldn't Change You for the Worta
(Jones).
8.41: R. M. SNIEDLEY, Mandolinist-
(a) Karoona (Saunders).
(b) I Close My Eyes and Dream (Hajos).
8.48: ANNE LUCIANO, soprano-
(a) I Think of You, My Sweet (Haydn Wood).
(b) The Wood Pigeon (Liza Lehmann).
(c) Sunflakes (Montague Phillips),
8.55: PETER PIPER at the Piano-
(a) Shades of Blue (Claypool).
(b) Are You Making a Fool of Me? (Wen-
9.2: ERIC MASTERS and JOHN STUART-

The Experiences of Eezy and Breezy.
A Matrimonial Experience, introducing
I'm Afraid of Love (Darewski),
9.13: LES HARRIS, saxophonist-
(a) A Japanese Sunset (Deppen).
(b) Synco Sax (Mazlett).
9.20: JACK LUMSDAINE, the Radio Rascal
(a) That's My Desire (Sterling).
(b) I Wonder How it Feels? (Woods).
9.30: "Sidelights on Old Sydney."
9.45: ROGER JONES, baritone, and ANN:

LUCIANO, soprano-
(a) A Song Remembered (Erlc Coates).
(b) The Hills of Beyond (Howard Fisher).
9.52: THE SAVOYANS, in a Symphonic ar-
rangement of -
(a) You Will Come Back to Me (Weiss).
(b) Selection from William Tell (Rossini).
0.0: R. M. SMEDLEY, mandolinist-
(a) Dear Hands (Saunders).
(b) Kiss Me Again (Victor Herbert).
10.7: THE SAVOYANS in popular numbers.
10.25: Late news.
10.28: Late weather forecast.
10.30: Close.

## 4QG, Brisbane

### 7.30 To 2.0 As On Monday

## AFTERNOON

Relayed to 4 RK , Rockhampton 3.0 : A Session of Reproduced Request Items.
4.30: Close.

## EVENINC

Relayed to 4RK, Rockhampton, from 6.15
6.0: Musical InterIude.
6.5: Listeners' Shipping Service. Express Train Information. Mail Notices. Stock Exchange Notes.
6.15: For the Children.
6.45: Countryman's Service Section.
7.0: Dinner Music.
7.23: News Service.
7.30: "Uncommon Commonplaces in the U.S.A."- by
MR. R. SANDALL.
7.40: A.B.C. Sporting Notes.
7.50: A.B.C. Sporting No

## NIGHT

Relayed to 3 RK, Rockhampton
(Continued overleaf)

THE LISTENER IN, NOVEMBER 21, 1931

4QG, WEDNESDAY-(Continued)
8.0: MRS., MATTHEWS' PLECTRAL CLUB "Sahara" (Crosby). ACCOMPANIED BY BANJO BAND-
Popular Numbers. "Irish Air" from "County Derry" (arr. Fisher).
CAI JZA PLECTRAL CLUB-
"Youth Triumphant" (Gibb).

VINCE AXELBY-
With. His Guitar.
THE BANJO BAND-
"The Mandarin" (Morris).
THE CADENZA PLECTRAL CLUB"Sullivan's Operatic Gems"
ANDREW EAGER AND DON STANTON ANDREW EAGER AND Banjo Duet: "Caprice of the Butterflies" Bickford).
VINCE AXELBY-
Songs with Guitar.
THE CADENZA PLECTRAL CLUB -
"Remembrance" (Telma).
LEO GRUMP AND THE BANJO BAND Popular Numbers.
CLARE MATTHEWS (violiniste)-
"Doll's Dance" (Poldini).
Popular Interlude
Popular Interlude. CADENZA PLEC-
MRS MATTHEWS TRA MATTHEWS CLUB AND BANJO BAND-
TRAL "The Black Prince" (Weidt).
10.0: Weather Information. Cable News, News Service. British Official Wireless News.
10.15: Dance Music.

## 5CL, Adelaide

### 7.30 to 2.0: As on Monday.

## AFTERNOON

## 3.0: Time Signal.

3.1: Bendigo Race Results.
3.2: MRS G. CAMERON (One of the VicePresidents of the Housewives' Association)
will speak. Reproductions.
4.15: THE A.B.C. BR
by "NO TRUMP"
4.29: Bendigo Race Results.
4.30: Close Down.

## EVENING

5.50: Bendigo Race Results.

## 3DB, Melbourne

MORNING
7: BRIGHTER BREAKFAST SESSION, conducted by DAYBREAK DAN.
10.45: Studio programme.

11: Women's Radio Service, conducted by
MARGARET MANNING., - "Homecrafts
and Interior Decoration."
12.30: Market Reports.

## AFTERNOON

2.15: A. \& R. Ingwersen's Session.
2.30: Household Harmonies-

STRAD TRIO-
(a) "Serenade" (Schubert)
(b) "Guitarre" (Moskowski).
(a) "Overtones" (Rasbach).
(a) "Overtones" (Rasbach).

MAY BRODERICK, Piano-
"Capriccio" (Mendelssohn)
DOROTHY D'ORN and PERCY BLUN-
DELL-
"Night in Venice."
CECII PARKES, Violin-
"La Capriceuse" (Elgar).
PERCY BLUNDELL, Tenor (with 'cello
obbligato by Christine Fralllon).
"At Dawning" (Cadman).
STRAD TRIO-
(a) "Rondino" (Beethoven-Kreisler).
(b) "Heavenly Night."
3.15: Sun Sunshine Hour.
4.45: Evensong from St. Paul's Cathedral.

## EVENING

5.30: Musical Interlude.

6: Dinner Music- GONABAS VON GECZY and ORCHES-
TRA -
"Student Prince" Fantasia.
ALFRED O'SHEA, Tenor-
GRAND SYMPHONY ORCHESTRA-
"Japanese Lantern Dance."
"RITZ KREISLER,
META SEINEIMEYER, Soprano-
"Entrance of Butterfly" ("Madame Butter-
NEW QUEEN'S HALL ORCHESTRA -
"Chant sans Paroles,"
JACK HYLTON and HIS ORCHESTRA-
"My Brother makes the Noises for the
Talkies.
GRESHAM SINGERS -
"Sweet Kitty Clover."
FELIX DYCK, Piano-
"Bohemian Dance."
"Wedding of the Winds."
7: Smile Away Club Free Theatre Tickets
7.15: Market reports.
7.30 : Pioneer Travelogue.
7.45: Murray's Chocolate Session.
CHARLES ANCLIFFE and HIS ORCHES-

## TRA -

"Ancliffe Waltzes Selection"
DORA IABBETTE, Soprano-
"Comin' Thro' the Rye."
DAJOS BELA ORCHESTRA-
5.55 : Birthday Greetings and Correspond-

## "ence. WIRELESS" will entertain.

6.30: Bright Dinner Music Reproductions.
7.0: "News" Session. Sporting service, in-
cluding Bendigo Race Results. Stock Ex-
change information. Railway informa-
tion. Items of special interest.
7.15: Musical Reproductions. . The 5CL Bluebird Girls, con-
7.25: The 5CL Bluebird Giris ducted by "THE BIRD LADY."
7.45: Boy Scouts' Corner.

## NIGHT

8.0: Vaudeville and Review from The Joy ful Waters," by HUGH HUXHAM and HIS

PETER DAWSON, Bass Baritone-
"Route Marchin"
GYPSY ORCHESTRA-
"Lolita."
FRED. WILLIAMSON, Tenor-
Kiss Me Again.
PAVILION LESCAUT ORCHESTRA"The Dancing Tailor."
8.30: A. W. Allen's Session.
8.45: Shur-on Presents "Your Eyes."

9: Maples' Musical Programme-
WILLIAM MENGLEBURG and HIS ORCHESTRA -
Introduction to Act 1 of "Lohengrin."
ELSA STRALIA, Soprano-
Waltz Song from "Tom Jones."
HERMAN FINCK, and HIS ORCHESTRA-
"Gaiety Echoes."
ALEXANDER KIPNIS, Bass-
J. H. Shantom DouIRE, Cello-
"Berceuse de Jocelyn".
"Berceuse de Jocelyn."
DEBROY SOMERS' BAND-
"Community Medley."
10.30: News.

## 3UZ, Melbourne

DAY SESSIONS AS ON MONDAY
8.0-8.30: Tye's Home Lovers', Session. 8.30-8.45: A. W. Allen's "Florison" Session. 8.45-9.0: Coles and Garrard's Session. 9.09.15: Preservene entertains. 10.15: Argus news service. 11.0: Close down.

## 3KZ, Melbourne

DAY SESSIONS AS ON MONDAY.
8.0 to 8.30: Stokoe Motors session. 8.30 to 9.0: Evening music, 9.0 to 9.30: Educational talk. 10.0: Station announcements. 10.5: Dance programme. 11.30: Close down.

## 7ZL, Hobart

DAY SESSIONS AS ON MONDAY
8.0: G.P.O. Clock chimes the hour. A concert programme arranged by CORRICK ORCHESTRA, transmitted from Launceston. Overture, "Prometheus" (arr. Seredy), CORRICK OHCHESTRA; "Le Cygne" (SaintSaens), MADAME ELSIE CORRICK, Violin; soli, "Down the Long Avenue" (Molloy), "I Be Hopin' You Remember Me" (Clarke), MABEL WRIGHT, Mezzo; flute solo, "Serenade" (Titl), with Orchestral accompaniment; soloist, N. PIPER. Soli, "Danny Boy" (Weatherly), "Arrow and the Song" (Balfe), J. MYLES-TAYLOR, bass; "Ballet Egyptien" (Lugini), CORRICK ORCHESTRA; "Valley of Laughter," "I've Been Roaming" (Horne), MADAME ALICE CORRICK; Suite No. 1. "Valse Gracieuse" (German), CuRRICK ORCHESTRA. "Pipe and Slippers," by the "MAGPIE." Overture, "Raymond" (Thomas), CORRICK ORCHESTRA; cornet solo, "The Rosary" (Nevin) B. HARGRAVES; soli, "None but an Aching Heart," "Meadowsweet" (Brahe), Mrs McARTHUR, contralto; instrumental, clarinet solo with Orchestra Accompaniment, "Fantasia on Favorite Scotch Melodies," LEONARD CORRICK; part songs, "Pale Moon" (Logan), "Lilacs" (Cadman), MADAME ALICE CORRICK, MIS MEARTHUR, MISSES JESSIE BROOMBY, M. WRIGHT, P. HAMILTON and H. SAYER; selection, "Nell Gwyn

SERENADERS. 2. TED SMITHERS' BAND-Syncopates. 3. The Plantation Singers in Popular Melodies. 4. Lila Kempster-Whispers some popular songs. 5. OSSIE SUMMERTON-In High Flights with a Cornet. 6. THE HUXHANI SERENADERS in Favorite OId Melodies. 7. "The Joy Ark Wireless." Set operated by NOAH HUXHAM tunes in London, Paris, Berlin, Rome, Madrid, Cairo, Newark, San Francisco and Tahiti.
(Statics Permitting). 8. TED SMITHERS'
JOY ARK BAND, and THE ARKADIANS in Popular Pops.
10.15: News Session
10.25: Modern Dance Music.
11.0: Close down.

Dances (German), CUKKICK UKLロESTRA; soll, "Thoughts, Have Wings" (Lehmann), "Grey Days" (Johnson), JESSIE BROOMBY; march, Characteristic Shilkert, "Old Colonel."

## 2GB, Sydney

DAY SESSIONS AS ON MONDAY. 8.0: Orchestra, Overture, "Pique Dame." 8.10: CECIL BROWN, baritone-"Was It a Dream" (Spyer); "For You a Rose for Me a Memory" (Nichols). 8.20 : Violin solo: "Schon Rosmarin"" 8.25: Piano solo by CLIVE HENRY - "The Jugglers" 8.30: Mme, BER, soprano - "Retrospective Memories" (Charito); "Will My Friend Come Back to Me" (Cherniavski), 8.40: Orchestra-"Dark Town Dandies." 8.45: CECIL BROWN, bari-tone- "Until" (Tesehemacher). 8.50: Piano solo by CLIVE HENRY - "Just An Ivy Covered Shack" (Rupp). 8.55: CECIL BROWN, baritone "The Silver in My Mother's Hair" (Courtney). 9.0: Weather report. 9.3: Mme, BER, Soprano - The Russian Sarafan" (Cherniavski), "I Wonder if Love is a Dream") (Forster), 9.14: Orchestra "Warbling at Eve", 9.18: Piano solo by CLIVE HENRY - "Rustle of Spring" (Sinding). 9.23: Orchestra- "Electric Girl," "Stephen Foster Melodies." 9.30: V olin solo. 9.35: Vocal Quartet. 9.40: Cello $\begin{array}{lll}\text { solo. } 9.45 \text { : } \\ \text { sole } & \text { Instrumental quartet. } & 9.50 \text { : }\end{array}$ Banjo solo. 9.55: Band selection. 10.0: Instrumental music. 10.45 : Slumber music.

## $2 K Y$-Sydney

DAY SESSIONS AS ON MONDAY.
8.0: Clock chimes. 8.1: From Grand Opera House, by kind permission of Mr Geo. Marlow, Celebrity Vaudeville. 10.0: Closing announcements.

## 2UW, Sydney

dAY SESSIONS AS ON MONDAY
8.0: Recital by RICHARD TAUBER: Finale Act 1, The Gipsy Baron (Strauss). 8.4: The Lotus Flower (Schumann). 8.7: Impatience, 8.10: Spring (Kuhe). 8.13: Finale Act 2, The Gipsy Baron (Strauss). 8.17: Had you but known (Denza). 8.21: The Wanderer (Schubert). 8.25: To the Sea (Schubert). 8.29: Finale Act 1, The Bat (Strauss). 8.32: Hand in hand (Borganofi). 8.37: Song of the Volga Boatmen (Russian). 8.40: Finale Act 2, The Bat (Strauss). 8.45: Shuron programme - "Your Eyes." Song, Etleen Allanah (Thomas). 8.49: Cornet-O Star of Eve (Wagner). 8.52: Quartet, Funiculi Funicula (Denza) 8.55: Waltz, Mexican Sky (Ramos). 9.0: Talk by Mr. J. M. PRENTICE on Foreign Affairs. 9.10: Musie. 9.15: Fox Tallejetones from their Miniature Theatre. 9.45 : Music. 10.30: Close down.

## 5AD, Adelaide

DAY SESSIONS AS ON MONDAY
8.0: News Bulletin. 8.6: Concert. 9.0: News, Weather, Stock Exchange, Wheat Market, Fat Stock Market. 9.15: Concert. 10.0: News. 10.3: Listeners' Request Numbers. 10.59: News. 11.0: Close Down.

7.0 to 1.30 as on Tuesday.

## AFTERNOON

1.58: Description by ERIC WELCH of Trial Handicap, 61/2 furlongs, BENDIGO CUP RACE MEETING
2.5: Musical Interlude
2.38: Description of Encourage Mile.
2.45: Musical Interlude
3.0: AUSTRAL BRASS BAND-

Overture: "Prince and Peasant" (Round).
3.8: The Sweetest Flower That Blows" (Hawley). Sweetest Flower
"To You" (Oley Speaks
3.13: Description of Bendigo Handicap, one mile.
3.20: AMY STRINGERAnd Her Mandolin.
3.26: YVONNE CONLY-WILMOT, Songs at the Piano-
"If You See Sally" (Donaldson).
"A Little Gleam of Sun" (Drummond). 3.32: AUSTRAL BRASS BANDSelection: "Il Trovatore" (Verdi).
3.42: Description of Brush Steeplechase, two miles.
3.50: GEORGE NICHOLLS, Baritone "Comrades of Mine" (Wm. G. James). "You Along 0 ' Me " (Sanderson).
3.56: AUSTRAL BRASS BAND"Chanson Indoue" (Korsakov), Waltz: "The Druids Prayer" (Dayson). 4.2: YVONNE CONLY-WILMOT, Songs at the Piano-
"I'm a-longin' fo' You" (Hathaway).
"A Fat Lil' Feller wid his Mammy's Eyes" (Gordon).


BEATRICE OAKLEY, Soprano-
"In the Woods" (Austin).
A. G. SPRY, Comedian-
"My Gal's Face."
ALBAN WHITEHEAD, Baritone"Two Smiling Eyes" (Manges).
BEATRICE OAKLEY, Soprano"The Pixies' Picnic", (Day), A. G. SPRY, Comedian"What Would the Congregation Say?" ALBAN WHITEHEAD, Baritone"Cinderella's Wedding Day" (Cobey).

## PAUL JEACLE

 andHIS RADIO DANCE BAND
Interspersed with Songs by BEATRICE OAKLEY, A. G. SPRY, ALBAN WHITEHEAD

BEATRICE OAKLEEY, Soprano-
"Come Out, My Dears" (Dessaur). A. B. SPRY, Comedian-
"Why Does the Hyena Laugh?"
10.0: ALBAN WHITEHEAD, Baritone
"The Man Who Brings the Sunshine" (Cooper).
BEATRICE OAKLEY, Soprano-
"The Fairy Laundry" (Montague Phillips).
A. G. SPRY, Comedian-
"Pat-a-cake Baker's Man."
4.9: AMY STRINGER -

And Fier Mandolin.
4.13:- Description of Handicap Trot, one mile and a quarter.
4.20: Acceptances and barrier positions for the Epsom Turf Club's races on Satur${ }_{4.30}$ day.
4.30: AUSTRAL BRASS BAND-

Selection: "Wilfred Sanderson's Songs" (Arr. Hume).
M.43: Desch: "The Voice of the Guns" (Alford).
4.43: Description of Welter Handicap. six furlongs and a half.
4.50: Close down.

## EVENING

5.45: "BOBBY BLUEGUM" invites you to his "Stray Sunbeam" and all the newsy bits about the Name Club. The Mail Bag is opened, and letters answered. Have your pencil and paper ready, "BOBBY BLUEGUM" may have a speciai message for you about a sick clubber. Now we'll have the Children's News Bulletin.
6. THE CUCKOO CLOCK announces the KIDDIES' KONCERT at 6BOE.
ANNOUNCER - 'ORACE.
(a) "AUNTIE EDIE" opens with a Harp Solo.
(b) "BOBBIE BLUEGUM" sings-
"The Dixie Sandman."
(c) "ECTOR" says-
"I'm Such a Nervous Boy."
(d) "BOBBIE BLUEGUM" has a brand new number straight from the printer. "Two Dittle Boys and the Applen (f) "Goodnight, Sweet the Apples.
(f) "Goodnight, Sweet Dreams," by the
6.20: "BOBBY BLUEGUM" and the BOYS say "Many Happies."
6.35: AT HOME AND ABROAD.-
"THE WATCHMAN."
6.50 : British Official Wireless News.
6.58: What's on the Air Tonight.

7: Time Signal.
7.1: COUNTRYMAN'S SESSION.
7.25: FOR THE WOMAN AT HOME-
"Various Preserves made with Cherries and Gooseberries." -
IVISS A. KNIGHT.
Under the Auspices of the Department of Agriculture.
7.40: News Service, Cable News Service.

Police Messages.
7.45: THE BOOKSHELF,-
"The Literary Log-Book,"
CAPTAIN PETERS.
8: Time Signal.

## NIGHT

8.0: See panel.
9.0: The Topic of the Week.
10.30: Official Weather Data. Police messages. Items of interest.
10.34: PAUL JEACLE AND HIS RADIO DANCE BAND-
Popular Numbers.
11.30: Close down.
8.15 to 11.0 as on Tuesday.

## AFTERNOON

12.0 : G.P.O. chimes.
12.1: COMMUNITY SINGING, transmitted from-
MELBOURNE TOWN HALL.
Conductor: Mr. FRANK HATHERLEY.
2.0: G.P.O. chimes.

The Artistic Reproduction of Absent Artists.
2.1: Symphony No. 3 in E Flat, "The Eroica" (Beethoven).
THE SYMPHONY ORCHESTRA
2.43: BUDAPEST PHILHARMONIC ORCHESTRA.
2.49: SIEBER CHOIR.
3.0: THE STORY OF EARLY MELBOURNE "Banking and Finance."
Mr. C. R. LONG, M.A.
3.15: Musical interlude.
"Boyle, Charles and Gay-Lussac."
Mr. J. STANLEY ROGERS.
4.0: Musical interlude

Traders' Demonstration Session
4.15: "Austradio" musical reproduction.
4.45: EVENSONG, transmitted from ST

PAUL'S CATHEDRAL.
5.30: Weather data Shi
5.30: Weather data. Shipping information.

## EVENING

6.15: DINNER MUSIC.

Supplied by the
AUSTRAL BRASS BAND.

## 3AR, Melbourne

7.30: What's On the Air Tonight.
7.32: Sporting Results. Acceptances and Barrier Positions for the Epsom Turf Club's races.

## 8.0: G.P.O. chimes.

## NIGHT

8.0: OFF THE BEATEN TRACK"Cement Creek and the Acheron Way." MR. W. H. ELSUM.

### 8.15: A Transmission from Bal.

 larat-RECITAL<br>THE BATT,ARAT SOLDIERS' MEMORIAL BAND. From the<br>Soldiers' Institute, BALLARAT. Assisted by-MRS. WILLIAM RITCHIE. MISS AGNES HIGGINS.

MESSRS. EDWARD DUFF and HERBERT DUNSTAN.
BALLARAT SOLDIERS' MEIVORIAT BAND. Conductor, MR. FRANK
WRIGHT - March, "Death or Glory", (Hall).
Overture, "Pique Dame" (Suppe).
HERBERT DUNSTAN, Baritone-
"Out Where the Big Ships Go" (Hewitt),
MRS. WILLIAM RITCHIE, Contralto-
"There is No Death" (O'Hara).

JOHN CARTASSO, Euphonium Solo-
DDanny Boy" (Weatherly).
EDWARD DAFF, Tenor-
Eleanore" (Coleridge Taylor).
JOHN D'ALBORA, Violin
"Air and Variations" (Frank Wright).
With Band Accompaniment.
AGNES HIGGINS, Soprano-
"Spring's Awakening" (Wilfred Sander-
SOLILARAT SOLDIERS' MEMORIAL
Selection, "William Tell" (Rossini).
EDWARD DAFF and HERBERT DUN STAN, Duet-
Selected.
MRS. WILLIAM RITCHIE, Contralto-
Song, "Harbor Night Song" (Sanderson).
HORMAN BRADFORD, Trombone Solo-
"Parted" (Tosti).
AGNES HIGGINS, Sopranoster Jones).
EDWARD DAFF, Tenor-
"Bird Songs at Eventide" (Eric Coates). HERBERT DUNSTAN, Baritone-
"A Dream" (Bartlett).
BALLARAT" SOLDIERS' MEMORIAL BAND-
Popular numbers.
10.15: British Official Wireless News. Wea-
ther information and Herald News. Cable
News Service. Police Messages.
10.30: Close down.
7.0 to 2.28: As on Monday.

## AFTERNOON

(Relayed to 2NC Newcastle)
2.30: Announcements.
2.32: AL HAMMET, Saxophonist-

Inspiration (Hazlett).
2.35: DORIS LASCELLES, Monologue-
2.42: JOHN CHARLES THOM A
2.42: JOHN CHARLES THOMAS, BaritoneIn the Gloaming (Harrison).
2.45: VICTOR ARDEN and PHIL OHMAN, Two-Piano Solo-
Canadian Capers (Cohen).
2.47: MIRIAM LESTER, Soprano.
2.55: AL HAMIMETT, Saxophonist

Saxophone Scandals (Dornhenger)
2.58: B.B.C. WIRELESS MIITTARY BAND The Black Domino Overture (Auber, arr. Winterbottom).
3.4: HUBERT EISDELL, NASH DENNIS,

NOBLE and NORMAN ALLIN, Vocak Quartet-
Passing By (Purcell).
3.7: AL HAMMETT, Saxophonist-

Juliana (Gurewich).
3.10: The Latest in Dance Music.
3.16: MIRIAM LESTER, Soprano.
3.19: Comic Opera Cameos.
3.30: MEL WARD will tell of "The Different Types of Magic-Their Origin and Use.'
3.45: AL HAMMETT, Saxophonist-

Saxanella (Sanella).
3.48: From the Ballroom of the Oriental.
3.55: DORIS Davis Orchestra.
3.55: DORIS LASCELLES, MonologueReggie (Harper).
4.2: JIM DAVIDSON'S ORCHESTRA.
4.7: MIRIAM LESTER, Soprano.
4.10: JIM DAVIDSON'S ORC
4.10: JIM DAVIDSON'S ORCHESTRA. 4.17: COVENT GARDEN OPERA COM-PANY-
Die Fledermaus-Oh, What a Feast (Strauss).

## 2FC, Sydney

4.21: JIM DAVIDSON'S ORCHESTRA.
4.28: Stock Exchange, third call.
4.30: Close.

## EVENING

(Relayed to 2NC Newcastle)
5.45: Children's "Good-night" Stories, told
by the "Hello Man."
6.15: The 2FC Hospital Birthday League.
6.30: The Serial.
6.43: THE A.B.C. STRING SEPTET
7.20 : A.B.C. Sporting Service. Special

Country Session. Stock Exchange Resume.
7.45: Late news.
7.51: Cables.
7.58: Announcements
(Completion of Relay to 2NC Newcastle)

## NIGHT

8.0: THE A.B.C. ORCHESTRA -
"Carmen Suite" (Bizet).
8.10: THE NEAPOLITANS, Vocalists"The Minstrel Boy" (Moore-Vogrich).
"Hey Diddle Diddle" (Beibel).
"The Parting Kiss" (Pinsuti-Nevin).
8.17: ETHEL LANG, Entertainer.
8.24: THE A.B.C. ORCHESTRA -
"Jeanne d'Are Overture" (Verdi).
8.30: THE A.B.C. PLAYERS in"The Sun Vow."
A Romantic North American Indian Fantasy
Adapted for Broadcasting by John
Bevan. Produced by L. Halbert.

Cast of Characters:
Tarshinga, a Young Indian Chief.
Natimiwa, a Beautiful Squaw.
Katchewan (the Man-Child) Son of Tarshinga.
Powakon (a Medicine Man of Tarshinga).
Ranaoka, a Rival Chief.
Witoka, his Medicine Man.
Matishka, a Squaw.
9.30: THE NEAPOLITANS, Vocalists-
"Santa Lucia" (Rees).
"A Wish For You" (Parks).
"Good-night" (Pfeil).
9.37: THE A.B.C. ORCHESTRA-
"Open Road Suite" (Ansell).
9.47: ETHEL LANG, Entertainer.
9.54: THE A.B.C. ORCHESTRA-

Whirled Into Happiness Selection.
(Stoltz).
10.9: MOLYNEUX PHILLIPS and
"SETER SUTHERLAND, Duet-
"Smile Through Your Tears" (Hamblen).
GEORGE GRAINGER and ROWELL
BRYDEN, Duet-
"Rose of My Heart" (Lohr).
10.15: Late Official Weather Forecast.
10.17: THE A.B.C. ORCHESTRA-
"Musical Gems of Tschaikowsky" (Langey).
10.30: Latest Melodies.

Relayed to 2 NC , Newcastle, from
10.30 p.m. Completion of Relay to 2NC, Newcastle, at 11 p.m.).
11.30: Close.

## 2BL, Sydney

### 8.15 to 2 as on Monday

## AFTERNOON

2.30: Half an Hour with Absent Celebrities.
3.0: FRAULEIN LANGE will give a German Language Talk.
3.15: BRITISH SYMPHONY ORCHESTRA:
"Sylvia Ballet" (Delibes).
3.30: KAROL SZRETER,, Pianist:
"Hungarian Rhapsodie" (Liszt).
3.45: Favorite Songs of Yester-Year.
3.55: ALBERT SPALDING, Violinist:
"Zapateade" (Sarasate).
3.58: HERBERT WALTON, Organist:
"Fugue alla Gigue" (Bach).
4.2: AMELITA GALLI-CURCI, Soprano:
"Kiss in the Dark" (Herbert)
4.8: Selections by Orchestras of the World. 4.20: THEO KARIE, Tenor:

20: THEO KARIE, Tenor:
4.23: TWO BLOKES and a BAND:
"T Took Janes Walking in the Rain" (Tilsley).
4.26: LIGHT OPERA COMPANY:
"Sunnyside Up Gems" (Henderson).
4.30: H.M. COLDSTREAM GUARDS BAND:
"Minuet No. 1" (Paderewski).
4.43: Radio Rhythm.
4.45: Demonstration Music.
5.40: Weather information.
5.45: Close.

## EVENING

6.15: THE A.B.C. STRING SEPTET.
6.45: Mr. R. M. CRAWFORD, B.A., will give
an English Language Talk.
7.5: The Country Man's Market Session.
7.20: THE A.B.C. STRING SEPTET.
7.45: Mrs. ALAN MILLER will speak on:
"Women and the Law."
7.58: What's on the air tonight?

## NIGHT

8.0: A Recital by VIRGINIA BASSETTI,

Contralto:
Songs by VIRGINIA BASSETTI:
Old Italian numbers:
(a) "Invocazione Di Orfeo" (Peri) (Invitation of Orpheus, from Euridici).
(b) "Obellissimi, Capelli (Falconieri),
(Hair So Beautiful and Shining).
(c) "Danza Fancuilla" (Durante) (Dance,

Gentle Maiden).
Chamber Music, by the SYDNEY
STRING QUARTET:
GEORGE WHITE .. .. .. 1st Violin
ROBERT MILLER $\because \cdot{ }^{\prime} \cdot \cdot \cdot$. 2nd Violin
WIILIAM ERASNIK $\because . . . .$. Viola
CEDRIC ASHTON ${ }^{\text {Songs by VIRGINIA } \dot{B} A \dot{S} S \in T T I I: ~ ' C e l l o ~}$
German Lieder Group, with accompani-
Gent by the SYDNEY STRING QUAR-
ment
(a) "Weylas Song" (Wolfe).
(b) "Weylas Song" (wolfe) is the Cobing Night"

Brahms).
c) "Cradle Song" (Taubert).
(d) "My Resting Place" (Schubert).

## 4QG, Brisbane

### 7.30 to 2.0 as on Monday.

## AFTERNOON

(Relayed to 4RK Rockhampton.)
3.0: A Session of Reproduced Items.
3.30: Mail Train Running Times. Melodious Moments.

## EVENING

(Relayed to 4RK Rockhampton from 6.15.) 6.0: Musical Interlude.
6.5: Listeners' Shipping Service. Express

Train Information. Mail Notices. Stock
Exchange Notes. For the Children-
"LITTLE MISS BRISBANE." assisted by
"BEBE" and "BUNTY."
6.15: The Bedtime Band.
6.30: Birthdays.
6.31: Another Cookery Lesson.
6.45: Countryman's Service Section.
7.0: Dinner Music.
7.23: News Service.
7.30: "The Pastoral Industry and Research Work," by Mr J. L. HODGE, Instructor in Sheep and Wool, Department of Agriculture and Stock.
7.40: A.B.C. Sporting Notes.
7.50: Musical Interlude.
7.59: Time Signals.
9.0: The Family Physician.
9.15: THE METROPOLITAN BAND, conducted by JOHN PALMER:
Overture, "The Bohemian Girl" (Balfe).
9.22: DAVID CRAVEN, Bass-Baritone:
(a) "Why, O Why are the Roses so Pale" (Tschaikowsky).
(b) Two Songs by Henry Purcell:
"More Love or More Disdain I Crave."
"Ah, How Pleasant "Tis to Love."
9.29: CHANDRA PARKES, Monologues:
(a) "A Rajput Nurse" (Edwin Arnold).
(b) "Philosophy" (Emmell).
9.36: THE METROPOLITAN BAND: Selection, "Verdi" (arr. Round).
9.46: RENE BIRKETT, Violiniste:
"A dagio Religioso" from "Concerto in "Adagio Religioso" from
9.53: DAVID CRAVEN, Bass-Baritone:
"The Witch of Bowden" (Breville-Smith).
"The Bitterness of Love" (James Dunn).
"Brothers of the Empire" (Thayer).
10.0: THE METROPOLTTAN BAND:

Fantasia, "Irene" (Tierney).
10.10: CHANDRA PARKES, Monologues:
(a) "Mother's Maxims" (Pelissier).
(b) "One More Chance" (Coslow and
(c) "I Was Sick of the Job, Anyhow"
(George Edwards)
10.17: THE METROPOLTTAN BAND:
(a) March, "Old Comrades" (Tieke).
(b) Waltz, "Springtime Reminds Me of You" (Rotter).
10.25: Late news.
10.30: Close.

## NIGHT

## (Relayed to 4RK Rockhampton.)

8.0: "THE RADIO TROUBADOURS." Conductor: HARDY GERHARDY. Dance and Ballet.
9.0: Aviation Notes, by Mr H. R. MAUGHAN.
9.15: Musical Comedies.
10.0: Weather Information. Cable News. News Service. British Official Wireless News.
10.15: Dance Music.
11.0: Close.

## 5CL, Adelaide

7.0: News Service. Stock Exchange Information. Market Reports.
7.15: MR A. M. WHITTENBURY.-Hints to Poultry Breeders and Fanciers.
7.35: A Member of the Red Cross Association will speak.
7.50: General Naval and Military News, by CAPTAIN J. T. SANDOW.

## NIGHT

7.55: Mail Facilities of the G.P.O., by MR A. G. TYLER (Superintendent of Mails).
8.5: From the Norwood Town Hall. Revue De Luxe. 1 : TOM KING AND HIS SYMPHONISTS. 2: LESLEY BOWMLAN'S BALLET CHORUS. 3: THE HUXHAMI SERENADERS. 4: THE REPERTORIANS in a One-Act Play. 5: TOM KING, pianist. 6: MOSTYN SKINNER, baripianist. 7 t EDOSTYN SKINNER, bari8: DON FRASER, comedian. 9: A Tap Dance Novelty. 10: TOM KING and WALTER HURST in a Two-Piano Novelty.
10.15: News Session.
10.25: Modern Dance Music Reproductions. 11.0: Close Down.

## 3DB, Melbourne

## MORNING

7.0: Brighter Breakfast Session, conducted by DAYBREAK DAN.
10.45: Studio Programme.
11.0: Women's Radio Service, conducted by MARGARET MANNING-
"Infant Welfare."
SISTER COLVIN-
"Minor Summer Ailments."
12.30: Market Reports.

## AFTERNOON

2.15: A. \& R. Ingwersen's Session
2.30: Household Harmonies-

STRAD TRIO-
(a) "Romance" (Rubinstein).
(b) "Gavotte" (Gossec).
(c) "Tambourin" (Gossec).

PERCY BLUNDELL. Tenor-
"Kashmiri Song" (Woodforde-Finden).
CHRISTINE FRAILLON, 'Cello-
"Le Cygne" (Saint Saens).
"Le Cygne" (Saint Saens).
"Homeward to You" (Coates).
"Homeward to Yo
(a) "Pale Moon" (Logan).
(b) "Two Little Blue Little Eyes" (Vallee).
3.15: Sun Sunshine Hour.

## EVENING

5.30: Musical Interlude.

6: Dinner Music-
IIGHT OPERA ORCHESTRA -
Pirates of Penzance" Overture,
ANNETTE HANSHAW, Vocal-
"Big City Blues."
JASCHA HEIFETZ, Violin"Valse Bluete."
BILLY MURRAY AND WALTER SCAN-
LAN, Vocal Duet-
"Since They're All Playing Miniature Golf:"
PLAZA THEATRE ORCHESTRA -
"A la Gavote.
DEREK OLDHAM, Tenor-
"I Love Thee."


THE REV. C. IRVING BENSON, who answers questions from $3 A R$ every

## JESSE CRAWFORD, Organ- <br> "Estrellita."

MARGUERITE D'AIVAREZ, Contralto-
"Pres des Ramparts de Seville."
OTTO FRITZ AND HIS SYNCOPATORS: "Elizabeth."
ROBERT WATSON, Baritone-
"The Border Ballad.'
BERLIN STATE OPERA HOUSE OR-CHESTRA-
"Suite Orientale,
7.0: Smile Away Club Free Theatre Tickets.
7.10: Market Reports.
7.15: Preservene Session.
7.30: Elliott's Cordials.
7.45: Clyde Booteries.
8.0: The White Crow Picks a Programme.
8.30: Chureh Brothers' Session.
8.45: Coles \& Garrard's Scotch Joke Competition.
9.0 : Hoadley's Half-hour of Harmony.
10.30: News.
10.45: Slumber Music-
"Serenata Napoletana."
Melodrama.
"The Old Refrain."
"Veni Creator."

## 3UZ, Melbourne

DAY SESSIONS AS ON MONDAY 8.0-8.30: Madame Pompadour's Session 8.30-9.0: Catanach's Session. 9.0-9.15: Russell's Yeast Session. 9.15-9.30: Truth's sporting session. $9.30-10.0$ : Shell Company's programme of carefully selected music. 10.15: Argus news service and weather reports. 11.0: Close down.

## 3KZ, Melbourne

DAY SESSIONS AS ON MONDAY.
8.0 to 8.15: Puntons Shoe session. 8.15 to 8.30: Coles and Garrard entertainment. 8.30 to 8.45: Tye's furniture session. 8.45 to $\mathbf{y . 0}$ : F. O'Brien. News from the tracks. 9.0 to 9.15: Clyde Booteries entertainment. 9.15 to 10.0: Evening music. 10.0: Station announcements. 10.5: Evening music, 11.30: Close down.

## 7ZL, Hobart

DAY SESSIONS AS ON MONDAY
8.0: G.P.O. clock chimes the hour. 7 ZL 's Community Singing from the Town Hall, Hobart. Assisting artists: FREDA ELLIOTT, contralto; J. CHECCUCCI, flute; E. BARNETT, saxophone; DAISY WALTERS, soprano: Saxophone; MARY BEVIN, organ: MAANY soprano: MARY BEVIN, organ: MAANY ductor. FREDA ELLIOTT "Meadowsweet" (Brahe), "Down Here" (Brahe), "The Lilac Tree", (Grantlan), "The Cuckoo Clock" (Schaeter); J. CHECLUCLI, "Comin" thro' the Rye", (Pratten), "Valse Gracieus" (German), "Whistle and I'll Come to Thee My Lad," "Bonnie Dundee" (Pratten), "Gipsy Dance" (German); E. BARNETT, "Souvenir" (Drdla), "Silver Moon" (Frosini), "Kathleen Mavourneen"; DAISY WALTERS, "Down the Vale" (Moir), "Daffodil Time" (Gritton), "Last Rose of Summer" (Irish air), "To a Miniature" (Brahe). 10.0: News, meteorological information, resume of tomorrow's programme, British official wireless. 10.10: Meditation session. 11.0: Close down.

## 2GB, Sydney

DAY SESSIONS AS ON MONDAY 8.0: Orchestra: Overture "Carneval" 8.10: Vocal Quartet. 8.15: Storyette of Industry. 8.16: Violin Solo. 8.20: JACK LUMSDAINE, the Radio Rascal. 8.32: Orchestra. 8.37: LESLIE HERFORD, Baritone. 8.45: Soprano Solo: "Love will find a way" (Lehar), "Valse Song" (German). 8.53: Organ solo: "A Brown Bird Singing,"
"Schon Rosmarin." 9.0: Waldos Shoe Interlude. 9.15: Orchestra. 9.20: JACK LUMSDAINE, the Radio Rascal. 19.32 : Novelty Orchestra. 9.37: LESLIE HERFORD, Baritone. 9.45 : Soprano solo. 9.50 : Xylophone olo. 9.55: Orchestra. 10.0: Instrumental Music. 10.45: Slumber Music. 11.15: Close down.

## 2KY, Sydney

DAY SESSIONS AS ON MONDAY.
8.0: Studio programme. 8.1: Sporting Feature 10.0: Closing announcements.

## 2UW, Sydney

DAY SESSIONS AS ON MONDAY
8.0: Fanous Scenes from opera: Prelude Act 3 Tosca (Puccini), "The Bells of Dawn." 8.6: Sextette, La Gioconda (Ponchielli). 8.10: Lohengrin, Finale Act I (Wagner) 8.14: Brindisi, La Traviata (Verdi). 8.18: The Storm Scene, Otello (Verdi). 8.22: Intermezzo, Madame Butterfly (Puccini). 8.26: Judgment Scene, Aida (Verdi). 8.34: Death of Carmen, Carmen (Bizet). 8.42: Benediction of Daggers (Meyerbeer). 8.50: Prayer scene-La Forza del Destino (Verdi). 9.0: Talk on Foreign Affairs by Mr. J. M. PRENTICE. 9.10: Music. 10.30: Close down.

## 5KA, Adelaide

DAY SESSIONS AS ON MONDAY
8.0: Topical chorus and birthdays by MUFFIN." 8.10: Music and advertising novelties. 8.30: Messrs , Weather followed by studio concert. 10.30 : Close.

## 5 AD , Adelaide

DAY SESSIONS AS ON MONDAY 8.0: News Bulletin. 8.6: Recital. 8.36: Session. 9.6: News, Weather, Wheat Market, Stock Exchange. 9.21: Concert. 10.0: News. 10.2: Listeners' Request Numbers. 10.50: News. 11.: Close Down.


JESSIE SHMITH, the popular contralto, who will appear on 3LO's programme,
November 25 , during the Radio Matinee,


# 3LO, Melbourne 

7.0 to 1.30 as on Monday.

## AFTERNOON

2.0: MODERN APPLIANCES IN THE HOME Home Decorative Effects. MISS B. L. OSBORNE.
2.15: Musical Interlude.
2.20: THE A.B.C. WOMEN'S ASSOCIATION Conducted by HATTIE KNIGHT.
2.50: Musical Interlude.
3.0: Time Signal.
3.0: THE RADIO PLAYERS"Sylvia Ballet" (Delibes).
3.8: IZA CROSSLEY-
"The Sunshine Girl."
3.14: MR AND MIRS FIELD FISHER Present An Original Comedy , Sketch.
3.24: THE RADIO PLAYERS-
"Scotch Fantasie" (Naisbaum). 3.30: JEAN HARRISON LEE, ContraltoTwo Scottish Songs-
"Angus MacDonald", (Roeckel).
"Jock o' Hazeldene" (Loder).
3.36: MacDUFF WILLIAMS, Novelty Violin: "Songs D'extase" (Chuckerbutty).

## 8.0 The A.B.C. Light Opera Co. 3 LO <br> Presents

## A Romantic Comic Opera in Two Acts



English Version by GEORGE DANCE
Music by
PAUL LACOMBE CARYLL.
Production .. LAURENCE HALBERT
Musical Ensembles-
MADAME EVELYN GRIEG
Orchestra conducted by E. J. ROBERTS
CHARACTERS:
Henry IV. of France- DAVID CRAVEN
Col. Cognac
JOHN BEDOUIN
Bouillon
Segur GEORGE EDWARDS HARRY SCHOFIELD

## Boustajon .. .. .. JOHN BEDOUIN <br> Vincent ....... BRYSON TAYLOR <br> Corisandre .. PHILLIPA SCHIEDEL <br> Martha <br> GLADYS ROWLING Clochette . FLORENCE CRAWFORD Therese . . . ... DORIS ROBINSON Nichette .. .. .. . . JEAN SMYTHE Rosette .. .. .. .. .. IDA LEGGATT <br> ACT I.

SCENE: A Picturesque Farmyard near the Chateau de Nerac.

## ACT II.

SCENE: The Reception Hall at the Chateau de Nerac.

## 3AR, Melbourne

### 8.15 to 11.0 as on Monday.

## AFTERNOON

## 12.0: G.P.O. Chimes.

12.1: Musical Interlude.
12.15: STRAY THOUGHTS ON EVERYDAY MATTERS-
"On Our Domestic Pets-the Cat and the Dog."
By "SCRIBE."
12.30: Miusical Interlude.

TEST CRICKET
(Transmission from 4QG Brisbane)
1.15: A Relayed Description of the FIRST AFRICA, played at Brisbane.
1.30: Musical Interlude.
2.0: G.P.O. Chimes.

The Artistic Reproduction of Absent Artists.
2.1: Violin Concerto Op. 77 (Brahms)FRITZ KREISLER and THE BERLIN STATE OPERA ORCHESTRA.
2.41: PAUL ROBESON, Bass.
2.49: GRAND SYMPHONY ORCHESTRA.
2.53: PETER DAWSON, Bass-Baritone.
2.57: GRAND SYMPHONY ORCHESTRA,
3.0: INTERMEDIATE HISTORY - The Growth and Development of the British Empire.
3.40: HARRY ROSS, Tenor-
"I Cannot Sing the Old Songs" Claribel).
"Song of Songs" (Moya).
3.46: THE RADIO PLAYERS

Selection of Mendelssohn's Songs Without Words.
3.52: MR AND MRS FIELD FISHER Present "A Comedietta,
4.0: IZA CROSSLEY-,
4.6: HARRY ROSS, Tenor-
4.6: HARRY ROSS, Tenor-
"I Never Knew" (Fiorita).
4.14: C. RICHARD CHUGG, Flute-
"The Butterfly" (Kohler).
4.17: JEAN HARRISON LEE, Contralto-
"In Sweet September" (Hope Temple).
"Woman's Way" (Roeckel).
4.25: THE RADIO PLAYERS

Waltz, "Ended" (Lawn Hurst)
Foxtrot, "It's the Girl" (Baer).
4.30: Close down.

During the afternoon progress scores in the First Test Match-South Africa versus Australia-played at Brisbane, will be broadcast as they come to hand.

## EVENING

5.45: "BILLY BUNNY" holds the interest of both big and little listeners with an exciting story, and then reads the Children's News Bulletin.
6: "The Cuckoo Clock." sings an old tavorite. 'DOCTOR WHACKEM"
6.20 Birthday Greetings by BILLY B0. Musi
6.30: Musical Interlude
6.35: RECITALS OF SCHOOL LITERATURE.
"From the Western Hill Top," by Donald MeDonald.
"The Magpies' Song," by Frank W. Wiliamson.
"Heart of Spring," by Shaw Neilson.
MR. J. HOWLETT ROSS.
Under the auspices of the Education Department of Victoria.
6.50: British Official Wireless News.
6.58: What's on the Air Tonight.

7: Time Signal.
7.1: COUNTRYMAN'S SESSION.
7.25: GARDENING NOTES-
"Chrysanthemums."
MR. R. LEE.
7.40: News Service. Cable News Service. $7.45:$ SPORTING TALK -
ERIC WELCH will speak on tomorrow's Epsom Turf Club's Race meeting.
8; Time Signal.
At approximately 7 p.m. "Stumps" scores of the First Test match-South Africa v. Australia-played at Brisbane, will be broadcast.
Transmission from Station 2FC.

## NIGHT

FROM "THE LITTLE THEATRE." 8.0: See panel.

## TEST CRICKET

(Transmission from Station 4QG.)
10.15: Summary of the Day's Play in the

First. Test Match-South Africa versus
Australia-played at Brisbane.
10.30: Official Weather Data. Police

Messages. Items of Interest.
10.33: ART. CHAPMAN AND HIS REX ORCHESTRA-
Latest and Popular Numbers.
11.30: Close down.
"The Australian Settlement and SelfGovernment.' MR. H. BURTON.

### 3.30: Musical Interlude.

3.45: PLANNING YOUR CHILD'S FUTURE: "The Technical School and Its Opporunities,'
MR. G. R. GILES, B.Sc. Dip. Ed.
Vocational Guidance Officer.

## 4.0: Musical Interlude.

4.15: "Austradio" Musical Reproduction.
5.0: G.P.O. Chimes.
5.1: "Austradio" Musical Reproduction.
5.30: Weather data. Shipping Information.
(Continued overleaf)

3AR, FRIDAY-Continued TEST CRICKET.
Relayed from Station 4 QG Brisbane. 5.40: A Further Relayed Description of
FIRST
TEST MATCH, Australia versus South. Africa, played at Brisbane. 6.0: Close Down.

## EVENING

6.15: DINNER MUSIC Supplied by the A.B.C. STRING ENSEMBLE.
7.30: What's on the Air Tonight.
7.32: Sporting Results.

Stump scores of First Test Match, at Brisbane, Australia versus South Africa.
7.50: Latest Musical Releases.
8.0: G.P.O. Chimes.

NIGHT
8.0: EVERYDAY PEOPLE.

## 2FC, Sydney

4.2: MERV. LYONS' ORCHESTRA, from Romano's Cafe.
4.9: MISCHA ELMAN, Violinist:

Caprice in E Flat Major (Wienizwski).
4.12: MERV. LYONS' ORCHESTRA, from

Romano's Cafe.
4.17: RICHARD TAUBER, Tenor:

Good-bye (Reisch),
4.20: MERV. LYONS' ORCHESTRA, from

Romano's Cafe.
4.28: Stock Exchange.
4.30: Close.

## EVENING

## (Relayed to 2 NC , Newcastle) <br> 5.40: Relayed from 40G Brishane

Description of the play in the First Test Match.
6.7: Children's "Goodnight" Stories, told by the "Hello Man." Little Norma will
entertain.
6.15 : The 2 FC Hospital Birthday League
6.45: THE A.B.C. STRING SEPTET.
7.20 : A.B.C. Sporting Service by the A.B.C Racing Observer, M. A. Ferry.
Special Country Session. Stock Exchange Special
7.45: Late news
7.45: Late $n$
7.58: Announcements.
(Completion of relay to 2 NC . Newcastle).
NIGHT
8.0: (Relayed to 3LO, Melbourne). THE A.B.C. LIGHT OPERA COMPANY In
"Ma Mie Rosette."
"The Country Doctor"
MR. CHARLES NUTTALL.
8.20: A TRANSMISSION FROM BALLARAT COMMUNITY SINGING
Transmitted from Town Hall, Ballarat. Under the Baton of
SYD. CURNOW.
10.15: NEWS SESSION.
10.30: Close Down.

## 7.0 to 2.8: As on Monday,

## AFTERNOON

(Relayed to 2NC, Newcastle).
Announcements.
32: NELLIE KEMP, Soprano-
I Did Not Know (Trotere).
2.39: H.M. GRENADIER GUARDS BAND Merrie England (German).
2.47: DEREK OLDHAM, Tenor -

I Love Thee (Grieg)
Tango (Albeniz).
2.53: EDITH COWLEY, Monologues:

Bobbie Boy (Lee).
Baby, Oh, Where Can You Be (Korler
and Magine)
Lullaby (Petersen) 'Cellist:
3.3: SHEFFIELD ORPHEUS CHOTR: The Lincolnshire Poacher (Arr. Cham-
3.6: DE GROOT AND HIS PICCADILLY ORCHESTRA:
3.8: NELAy Street (Tibor).
3.8: NELLIE KEMIP, Soprano:
Wake Up (Montague Phillips)
3.12: Moments Grave and Gay.
3.20: NORMAN ALLIN, Baritone:

The Mighty Deep (Jude)
3.23: Selections from Grand Opera.
3.30: A Travelogue by F. H. RAWARD.
3.45: MERV. LYONS' ORCHESTRA, from

Romano's Cafe.
3.52: EDITH COWLEY, Monologues: Back I Went (Rose).
Bit I Do-You Know I Do (Donaldson),
3.59: NELLIE KEIMP, Soprano:

Why Shouldn't I? (Freed).

## MORNING

9.0: Old Folks' Session.

A homely little "heart-to-heart" talk on age and old memories.
An Old-time Record.
A further "between you, me, and the microphone talk," during which a suitable poem or two will be read.
A Reading.
A Memory Melody Record.
Remainder Morning Session as on Monday.

## MORNING

12.2: From the Sydney Town Hall: Community Singing Concert
Arranged by The Australian Broadcasting Company, Ltd.
1.0: Afternoon news
1.8: Sectional Weather Forecast.
1.11: Radio Rhythm
1.25: Austradio Musical Reproduction.
2.0: This Afternoon's Story.
2.30: Half an hour with Absent Celebrities,
3.0: Memory Mielodies.
3.15: ARTHUR CATTERALL, Violinist:

Menuet in D. (Mozant).
19: IGNAZ FRIEDMAN, Planist:
Scherzo in E Minor (Mendelssohn).
Can It Be Possible
Tete-a-Tete Tea (Lehar).
3.28: Gilibert and Sullivan Selection.

COURT SYMPHONY ORCHESTRA
Princess Ida, Selection (Sullivan).

## 2BL, Sydney

3.36: EDITH MASON, Soprano:

Serenade (Tosti)
3.39: JESSE CRAWFORD, Organist:

Ah, Sweet Mystery of Life (Herbert).
43: DON COSSACKS CHOIR:
Monotonously Rings the Littie Bell.
3.47: Selections by Orchestras of the world.
4.0: A Travelogue by MRS. MARY GREY.
4.15: RAYMOND NEWELL, Baritone.
4.18: W Grey Church on the Hill
4.18: W. H. SQUIRE, Cellist:

Passionne (Ranzato).
4.21: Varied Moment Musical.
4.45: Demonstration Music.
5.40: Weather information.

## AFTERNOON

6.15: THE A.B.C. STRING SEPTET.
6.45: The Boys' Aero Club, conducted by

Mr . Norman Lyons.
7.5: The Country Man's Market Session.
7.20: THE A.B.C. STRING SEPTET.
7.45: Austradio Musical Reproduction.
7.58: What's on the air tonight.

## NIGHT

8.0: (Relayed to 2NC Newcastle).

A Concert Programme arranged by the Musical Association of New South Wales. Assisting Artists
WILFRID ARLOM, Pianist.
SPENCER THOMAS, Tenor
MOORE MacMAHON, Violinist.
9.0: "REDGUM" will tell listeners about their "Gardens.

A romantic Comedy-Opera in two acts. English version by George Dance, music by Paul Lacome and Ivan Caryll. Production, Laurence Halbert.
Musical Ensembles, Madame Evelyn Grieg.
A.B.C. Orchestra, conducted by E. J. Roberts.

## Characters:

Henry IV. of France DAVID CRAVEN
Colonel Cognac .. .. JOHN BEDOUIN
Bouillon .. .. .. GEORGE EDWARDS
Segur .. .. .. HARRY SCHOFIELD
Moustajon ...... JOHN BEDOUIN
Vincent ...... BRYSON TAYLOR
Corisandre .. PHILIPA SCHEIDEI,
Martha
Martha .. "FLORENCE CRAWFORD
Clochette .. FLOREINE R ROBINSD
Nichette .. .. .. .. JEAN SMYTHE
Rosette .. .. ......
Act I.-A picturesque Farmyard near the Chateau de Nerac.
Act II.-The reception hall at the Chateau de Nerac.
10.15: (Relayed to 2 NC , Newcastle and 4QG, Brisbane) -
A talk on the day's play in the First Test Match.
10.30: Late Official Weather Forecast
10.32: MERV. LYONS' ORCHESTRA.
from Romano's Cafe.
(Completion of relay to 2NC, Newcastle, at 11 p.m.).

4QG, Brisbane

## MORNING

7.0 to 1.30 as on Monday.
12.0: The First Test Match between Australia and South Africa will be broadeast from the Brisbane Cricket Ground. The cricket relay will be continued until the luncheon adjournment, the commercial session being delayed for half an hour
in order to enable listeners to follow the
whole of the morning's play.
1.30: Countryman's Service Section.

## 2.0: Close.

## AFTERNOON

3.0: A description of the play in the First Test Match between Australia and South Africa will be broadcast from the Bris-

### 10.30: Close.

9.15: THE A.B.C. MALE QUARTET:
(a) Serenade (Schubert).
(b) The Turtle Dove (Vaughan Williams)
9.22: NANCYE STEWART, Monologues:
(a) Making It Up (Walford Hyden).
(b) The Song of the Singer (Wilcox)
(c) He's Coming Home (White and

9mith).
(a) Peter Gink (Cobb).
(b) Persian Market (Ketelby)

36: CLAUDE CORBETT wili give his
9.56: A.B.C. MALE QUARTET.
(a) Doan Ye Cry, Ma Honey (Noll).
(b) I'se Gwine Back to Dixie (White).
10.2: WILL JAMES, Banjoist:
(a) Stars and Stripes March (Souse).

OId Folks at Home.
(b) Selection Negro Melodies (Easter).

Kentucky Home.
Old Black Joe.
10.10: NANCYE STEWART, Monologue:

Agatha Green (Cooper),
(Completion of Relay to 2 NC Newcastle
at $10.15 \mathrm{p} . \mathrm{m}$.)
10.17: OTTO FRITZ AND HIS SYNCOPATERS:
(a) The Love Waltz (Heyman).
(b) You're the Only Girl For Me (Heyman).
10.25: Late News.
10.28: Late Weather Forecast.
4.0: During the afternoon tea adjournment mail train running times will be announced, followed by a musical interlude from the studio
4.15: With the resumption of play in the International match-the description of the game will be continued until stumps are drawn at six o'clock.
6.0: Stumps drawn.

## EVENING

(Relayed to 4 RK Rockhampton from 6.15.) 6.0: Musical Interlude.
6.5: Listeners' Shipping Service. Express train information. Mail notices. Stock Exchange notes.
For the Children - "UNCLE BEN" "UNCLE BOB" and "PROFESSOR SHERBERT."
6.15: A Race at the Exhibition Grounds.
6.30: Birthdays.
6.45: Good-night!
6.45: Countryman's Service Section.
7.0: Dinner Music.
7.23: News Service.
7.30 A.B.C. Sporting Session, including
7.45: MICK FLANAGAN will review tomor-
row's races.
7.59: Time Signals.

## NIGHT

(Relayed to 4 RK Rockhampton.) 8.0: FRANK COUGHLAN AND HIS BAND"Leave the Rest to Nature."
"I'm So Used to You Now."
"Yours and Mine."
"You Didn't Have to Tell Me."
HARRY BORRADALE, Entertainer
FRANK COUGHLAN AND HIS BAND-
"Wabash Moon."
"For You."
"The Kiss Waltz."
"One More Waltz."
CLEMENT Q. WILLIAMS-
"Ride on Vaquero."
"You'll Find Your Answer."
FRANK COUGHLAN'S BAND-
"My Canary Has Circles Under His
Eyes."
"You'll be Mine in Apple Blossom Time."
"One More Hour of Love."
"Sweet Jenny Lee."
GLADYS MONCRIEFF (Soprano) -
"Gypsy Charmer."
"Whisper and I Shall Hear."
FRANK COUGHLAN'S CARLTON ORCHESTRA -
"Dancing With Tears in My Eyes."
"While Hearts are Singing."
"Reaching for the Moon."

## 5CL, Adelaide

### 7.30 to 2.0: As on Monday. <br> AFTERNOON

3: Time Signal
3.1: Special request light musical reproductions.
4.0: The A.B.C. Women's Session. Conducted by VICTORIA REYNOLDS.
4.15: Musical Reproductions continued.
4.30: Close Down.

## EVENING

5.0: Time Signal.
5.1: Musical Reproductions.
5.10: From Brisbane Cricket Ground. A description of the play, South Africa V. Australia.
5.30: Musical Reproductions (continued).
5.50: Birthday Greetings and Correspond6. 0 .
6.0: "AUNTIE PEGGY" will entertain with songs and stories.
6.30: Bright Dinner Music Reproductions.

7: Sporting service, including the cricket
scores - South Africa v. Australia, at Brisbane. Stock Exchange Information. 7.15:- Musical Reproductions.
7.130: "SILVIUS" gives a late review of tomorrow's races at Epsom.
7.40: MR S. T. FACY will speak
7.50: Friday Night Musical Gems.

## NIGHT

8.0: Meanderings by "RUFUS,"
8.20: Popular Friday Night Cameo Concert. 8.50: Final Programme for 1931 of Classical Music, by members of THE ELDER CONSERVATORIUM, ADELAIDE UNIVERSITY. Under the direction of PROFESSOR E. HAROLD DAVIES, Mus. Doc. Artists. - PETER BORNSTEIN, violinist; JOHN HORNER, pianist; HAROLD PARSONS, 'cellist; SYLVIA WHITTINGTON, Violinist. CLARICE GMEINER, Violinist. Invitee vocalist, FRED WILLIAMSON, Quartet by B. SMETANA. In four move-
"You Will Remember Vienna."
ALFRED O'SHEA (Tenor)-
"A Pair of Blue Eyes,"
"I Feel You Near Me."
FRANK COUGHLAN'S BAND-
"Walking Ma Baby Back Home."
"She's a Gorgeous Thing."
"There Goes a Horse."
"I Bring a Love Song."
"MARIE BURKE (Soprano)-
"Body and Soul."
"What Have I Done,"
FRANK COUGHLAN'S ORCHESTRA -
"I Remember You."
"Swinging in a Hammock."
"I'm Bringing a Red Red Rose."
"Whoopee.
10.0: Weather information. Cable news. News service. British Official Wireless 10.15: Review of today's play in the First Test Match-South Africa versus Aus10.30: FRANK COUGHLAN AND HIS CARLTON ORCHESTRA -
Medley of Dance Tunes.

## 3DB, Melbourne

## MORNING

7.0: Brighter Breakfast Session, conducted by DAYBREAK DAN.
10.45: Studio Programme.
11.0: Women's Radio Service, conducted by "ISS IRIS TURNBULL-
"Diet and Cookery Hints." "Some Christmas Suggestions."

### 12.30: Market Reports.

## AFTERNOON

2.15: A. \& R. Ingwersen's Session.
2.30: Household Harmonies-

STRAD TRIO-
(a) "Songs My Mother Taught Me"
(Dvorak).
(b) "Serenade" (Drdla).

DOROTHY D'ORN, Soprano-
"Bell Song" from "Lakme"
MAY BRODERIC (Scott).
DOROTHY D'ORN and PERCY BLUN-
DELL- My Caravan has Rested."
CECIL PARKES, Violin-
"Spinning Song" (Popper).
PERCY BLUNDELL, Tenor-
Macushla" (McMurrough).
STRAD TRIO-
(a) "Mazurka de Concert" (Musin).
(b) "Serenade Espagnole" (Chaminade).
8.15: Sun Sunshine Hour.
4.15 : W. H. Rocke's Session.

## EVENING

5.30: Musical Interlude.
6.0: Dinner Music-
VIENNA PHILHARMONIC ORCHESTRA:
"ENNA PHILHA
JOHN BROWNLEE, Baritone -
"The Dreary Steppe."
RAIE DA COSTA, Piano-
META SOOM WITh a View.
"One Fine Day" (Madame Butterfly).
DE GROOT and PICCADILLY ORCHES-
TRA-
"Evensong."

HAROLD WILLIAMS, Baritone-
"Tomorrow."
JACK HYLTON'S ORCHESTRA-
"We all go Oo-ha-ha Together."
LAYTON and JOHNSTONE, Vocal Duet: Used to You."
JESSE CRAWFORD, Organ-
JOHN McCORMACK, Tenor-

B.B.C. ORCHESTRA- Nutcraeker Suite"-Overture Minia-
ture. Away Club Free Theatre Tickets.
7.0: Smile Away Club Free
7.15: Market Reports. 8.0 Hour.
8.0 ; Home Beautiful Hour.
8.45 : Holden's Motor Bodies Session.
9.15 : Half-hour of Fun.
10.30: News.
10.45: Slumber Music-

## 3UZ, Melbourne

DAY SESSIONS AS ON MONDAY.
7.0-7.30: Gramophone selections. 8.30-8.45: Oliver J, Nilsen's session. 9.0-9.30: Thomas Norman's turf session. 10.0: Argus news service. 11.0: Close down.

## 3KZ, Melbourne

DAY SESSIONS AS ON MONDAY. 8.0 to 8.30: Pears Pty. Ltd. furniture session. 9.15 to 10.0 : Evening music. 10.0: Station announcements. 10.5: Evening music. 11.30: Close down.

## 7ZL, Hobart

DAY SESSIONS AS ON MONDAY
8.0: G.P.O. Clock Chimes the Hour. 8.1 : 8.0: G.P.O. Clock Chimes the Hour. 8.1 : ORCHESTRA (interspersed with Vocal Recorded Numbers).
9.30; "How Industry has changed the earth,: "How Industry has changed 9.45 Garden." earth, Music by 7ZL'S Dance Band. 10.0: G.P.O. Clock chimes the hour. 10.1: News. Meteorological Information. Resume of tomorrow's programme. Comments on current topics. 10.15 : Dance Session. Music
by $7 Z L$ 's Dance Band. 11.0 : Close down.
ments. 1. Allegro Vivo Appassionato. 2. Allegro moderato a la polka. 3. Largo Sostenuto. 4. Vivace. Programme: JOHN tenuto. 4. Vivace. Programme: HORNER, Pianist. Sonata Op. 14 No. 2 HORNER, Pianist. Sonata Op. 14 No. ${ }^{2}$ (1st and 2nd movements) (Beethoven). ELDER CONSERVATORIUM QUARTET.
"String Quartet" (Smetana). Allegro vivo appassionato. Allegro moderato a la polka. FRED WILLIAMSON, tenor. Selections from his farewell recital. PETER BORNSTEIN, violinist. Violin Recital: (a) "Allegro" (H. Fiocco). (b) "Chanson Arabe ${ }^{\text {³ }}$ (from Scheherazade). (Rimsky-Korsakov-Kreisler). (c) "Ballet Music" from "Rosamunde" (Schubert-Kreisler) JOHN HORNER, pianist. "Two Miniatures" (Gerard Williams). FRED WILLIAMSON, tenor. Request selections. ELDER CONSERVATORIUM STRING QUARTET. "String Quarter" (Smetana). Largo sostenuto. Vivace.
10.0: The Latest Talkie Songs and Music. 10.15: News Session
10.25: Dance music.

## 2GB, Sydney

DAY SESSIONS AS ON MONDAY 8.0: Orchestra: Overture. 8.10: ERNEST GIBB, Tenor: "Pale Moon" (Logan). 8.14: Violin Solo. 8.18: ERNEST GIBB, Tenor: "If music be the food of love" (Travers). 8.22: Piano Solo by CLIVE HENRY: "Florence" (Liebling) 8.27: Comicalities by LES CONEY. 8.32: Violin Solo. 8.36: More Comedy by LES CONEY, 8.40: 'Cello Solo. 8.44: Ernest Gibb, Tenor: "At Dawning" (Cadman). 8.48: 'Cello Solo. 8.52: Tenor solo by Ernest Gibb: "Eleanore" (Taylor), 8.57 : Violin Solo. 9.0: Weather Report. 9.3 : Plano Solo by CLIVE HENRY: "Intermezzo" CONEY. 9.14 : Orchestra. 9.24 : Comicalities, by LES CONEY. 9.34 : Violin Solo. 9.44 : Vocal Quartet. 9.50 : Band Selection. 10.0 : Instrumental Music. 10.45: Slumber Music. 11.15: Close down.

## 2KY, Sydney

DAY SESSIONS AS ON MONDAY,
$8.0:$ Clock chimes. $8.1:$ Sporting Talk. MR ANDY FLANAGAN. 8.10: Specially arranged studio programme. 10.0: Closing announcements.

## 2UW, Sydney

day session as on monday
8: Trade Demonstration Music. 9: Talk on Foreign Affairs by Mr J. M. PRENTICE. 9.10: Result of musical competition. 9.15: Victor Radio Session. 9.45: Music. 10.30 : Close down.

## 5KA, Adelaide

dAy sessions as on monday 8.0: Topicál chorus. 8.10: Trader's music. 10.30: Close.

## 5AD, Adelaide

day sessions as on monday
8.0: News. 8.6: Concert. MONAY News, Weather, Wheat Market, Stock Exchange, 9.15: Recital. 10.0: News, 10.3: Listeners Reques


## November 28 3LO, Melbourne

## 7.0 to 1.30 as on Tuesday.

AFTERNOON
2.13: Description by ERIC WELCH, of Two-year-old Handicap-five furlongs.
EPSOM TURF CLUB RACES,
2.20: Musical InterIude.
2.43: Description of Epsom Plate-six furlongs.
2.50: Musical Interlude.
3.0: Time signal. Sporting results to hand.
3.3: Musical Interlude,
3.13: Description of Brush Steeplechasetwo miles 16 chains.
3.30 : Nporting results to hand.
3.33 : Sporting results to
3.43 : Description of Epsom Purse - $11 / 2$ miles. 3.50: Musical Interlude.
4.0: Time signal. Sporting results to hand. 4.3: Musical Interlude.
4.13: Description of Epsom Handicap-11/4 mines.
4.20: Musical Interlude.
4.43: Description of Highweight Welter4. nine furlongs.
4.50: Close down.

Progress scores in the First Test Match - Austratia versus South Africa-played at Brisbane, will be given as they come to hand.
During the afternoon the speeches from a combined meeting of Workers' Educational Association of Victoria, at the New Arts Building, will be broadeast.

## EVENING

5.45: "LITTLEE MISS KOOKABURRA'S" happy laugh will be followed with a story for the tiny ones

## MORNING

8.15: "Austradio" musical reproduction. 8.45: Weather data.
9.0: G.P.O. Chimes. Cable News Service.
9.1: News Service. Cable
9.1: News Service.
9.5: "Austradio" m
10.0: GPO. Chimes reproduction.
10.1: British Offcial
10.10: Announcements
10.15: "Austradio" musical reproduction.
10.45: THE DAILY BROADCAST SERVICE.

## AFTERNOON

12.0: G.P.O. Chimes.

- 12.1: "Austradio" Musical Interlude. TEST CRICKET
Relayed from 4QG Brisbane.
1.15: Relayed description of play in FIRST TEST MATCH, Australia versus South Africa, at Brisbane.
1.30: "Austradio" musical interlude.
2.0: G.P.O. Chimes.
2.1: A BALKAN INTERLUDE-

Mr. ANTHONY BRIDGES.
2.15: DESCRIPTION of Scenes and Events at the HENLEY REGATTA.
2.30: Musical interlude.
2.45: DESCRIPTION of Scenes and Events at the HENLEY REGATTA.
3.0: Musical interlude.
3.15: HENLEY and the HENLEY GIRL. "Through a Woman's Eyes."
3.30: Musical interlude

TEST CRICKET
Relayed from Station $4 Q \mathrm{Q}$ Brisbane
3.45: Relayed Description of play in FIRST TEST MATCH, Australia versus South Africa, at Brisbane.
.0: Musical interlude
4.15: DESCRIPTION of Scenes and Events at the HENLEY REGATTA.
"The Escapade of Jeremiah Twinkle-
The Childaren's News Bulletin
6.0: The Cuckoo Clock Bulletin.

THE RADIO PLAYERS.
a Popular Foxaye
A Popuras
CAPTAIN DONALD MacLEAN gives further excerpts from Alexandre Dumas's famous book, "The Count of Monte
"risto."
"The Captain of the Three-Mast-er."
"LITTLE MISS KOOKABURRA" will tell
the third, and last, instalment of "ithe
Explorers of the Yorkshire Moors."
6.20: Birthday Greetings by "LITTLE MISS KOOKABURRA.
6.30: Musical Interlude.
6.35: SPORTING RESULTS.
6.50: British Official Wireless News.
6.58: What's on the Air Tonight,
7.1: COUNTRYMAN'S SESSION.
7.25: SONGS AND THEIR SINGING.
"The Works of British Composers." Part
"'Trottin' to the Fair" (Stanford).
"A Soft Day" (Stanford).
7.40: News Service. Cable News Service. Police Messages. 7.45: AN ASTOUNDING IMPERSONATION CAPTAIN DONALD MactEAN

## NIGHT

8.0: See panel.

TEST CRICKET
(Transmission from Station $4 Q G$ ).
10.15: Summary of the day's play in the

First Test Match-Australia versus


NOVEMBER NONSENSE
A Nifty Negus of Numbers Naive
and New.
Nothing
Neolithic
Nondescript
Nor
Naughty!
A Natty Nimble Nostrum
Of Novelties But
Nothing to Nauseate Nobody!
The Show Produced by FRANK D. CLEWLOW, with
Incidental music by the A.B.C. CONCERT ORCHESTRA.

South Africa-played at Brisbane. 10.30: Official weather data. Police messages. Sporting results. Items of interest.
10.33: ART. CHAPMAN AND HIS REX ORCHESTRA -
Popular Numbers.
11.30: Close down.

## 3AR, Melbourne

## FROM THE STUDIO

4.30: "Austradio" musical reproduction. 4.45: DESCRIPTION of Scenes and Events at the HENLEY REGATTA.

FROM THE STUDIO
5.15: "Austradio" musical reproduction.
5.30: Weather data. Shipping information. TEST CRICKET
5.40: Further relayed description of First

Test Cricket Match, Australia versus South Africa, played at Brisbane.
6.0: Close down.

## EVENING

6.15:

DINNER MUSIC
Supplied by the
Supplied by the
RADIO PLAYERS.
7.30: What's on the Air Tonight.
7.32: Sporting Results. Stump scores of First Test Match, Australia versus South Africa, at Brisbane.
7.50: Latest Musical Releases.
8.0: G.P.O. Chimes.

## NIGHT

8.0: A Variety Programme with InterTHE HAWTHORN Events Descriptions THE HAWTHORN BANJO CLUB, under A. Direction of W. H. L. MAWSON, A.L.C.M.

Overture: "Caliph of Bagdad,"
THE BANJO CLUB.
THE BANJO CLUB.
Steel Guitar Duo: "Moonlight on Colora-do"-with vocal effects,
"Apple Blossom Time." THE BANJO CLUB and CHORUS.
"Alexander Waltz."
THE BANJO CLUB.
Banjo-Mandoline: "Savoy Medley."
W, H. L. MAWSON.
"She's a Gorgeous Thing."
THE BANJO CLUB and CHORUS.

Banjo-Mandoline Quartette: "Neapolitan Nights."
"Barcarolle" (Offenbach).
THE BANJO CLUB.
Steel Guitar: "Rosary."
W. H. L. MAWSON.
"Viennese Waltz"
THE BANJO CLUB and CHORUS
A group of Popular Numbers by THE BANJO CLUB.
JEAN LEWIS, contralto, will sing -
"When Dawn Breaks Through" (Haydn Wood).
"The Fairy Changelings" (Haydn Wood).
"Big Lady Moon" (Coleridge Taylor).
"Along the Road" (Del Riego).
"Blue Bells, Dew Bells" (Besley).
J. ALEXANDER BROWNE, baritone, wlll
sing two songs by Edith Harrhy-
(a) "A Song of the Land."
(b) "The Mallee Root,"
and
"Bush Night Song" (W, G. James).
"Comrades of Mine" (W. G. James).
NORM. BLAND is "Almost a Gentle. man," and will supply the "Lighter Side" of the evening's entertainment,
NOTE. - At intervals during the even-
ing descriptions by ERIC WELCH of high speed racing at the motordrome and by MEL MORRIS of dirt track racing at the Exhibition will be given.
In order that the most exciting races may be described, the usual practice of detailing the times at which descriptions will take place has been abandoned. This will allow of greater flexlbility in running the programme, and will ensure that no race will be missed through last minute changes in the time-table, or through othèr unforeseen circuinstances,
10.20: British Official Wireless News. Wea-
ther information and Herald news. Cable
News Service. Police Messages.
10.30: "Meditation" music.
12.0: Close down.

## 7.0 to 12.20 as on Monday.

## AFTERNOON

12.30: Radio Rhythm
(Relayed to 2NC Newcastle.)
Note.-Race results from Kensington will be transmitted as received.
12.50: From Canterbury Park-

Description of the following races in the running:-

1. The Park Stakes.
2. The Flying Handicap.
3. The Two-year-old Handicap.
4. The Canterbury Handicap.
5. The Highweight Handicap.
6. The Ashbury Handicap.

Important Note-Cricket scores in the First Test Match, played at Brisbane, will be given at the fall of each wicket, lunch and tea adjournment and stumps drawn. Descriptions of the play in the match will be relayed from 4 QG Brisbane, between 1.15 and $1.30 \mathrm{p} . \mathrm{m}$. and 3.45 and 4.0 p.m.

At approx. 1.57 p.m., sectional weather forecast.
At approx. 2.0 p.m., a glance at the afternoon Sun and World.
4.35: Late sporting results.
4.45: Close.

## EVENING

(Relayed to 2NC Newcastle.)
5.40: Relayed from 4QG Brisbane.

Description of the play in the First Test Match.
6.0: Children's Goodnight Stories, told by the "HELLO MAN."
6.15: The 2FC Hospital Birthday League.
6.30: The serial.
6.45: THE A.B.C. STRING SEPTET.
7.20 : A.B.C. Sporting Service. Special Country Session. Stock Exchange resume.

## 2世』, sydney

7.45: Late news.
7.51: Cables.
7.58: Announcements.
(Completion of relay to 2NC Newcastle.)

## NIGHT

8.0: THE A.B.C. ORCHESTRA-

Overture, La Burlesque (Suppe).
8.7: THE SYDNEY MADRIGAL SO-

CIETY- Threnody, They that go down to the sea in ships (Bantock).
Part Song, Summer Wind (Bath).
Madrigal, Awake, Sweet Love (Dowland).
8.17. HAYDON BECK, violinist-

Meditation, from Thais (Massenet).
Slavonic Dance in G Minor (Dvorak).
8.24: THE A.B.C. ORCHESTRA-

Selection, Blue Mazurka (Lehar).
8.34: THE SYDNEY MADRIGAL SOCIETY. A Group by MorleyMadrigal, I saw my lovely Phyllis.
Madrigal, April is in my mistress' face.
8.44: ALFRED CUNNINGHAM, baritone. Two Old English Songs, arr. Lane Wilson-
The Tinker's Song.
The Pretty Creature.
8.51: THE A.B.C. ORCHESTRA-

Who is Sylvia (Schubert).
Skater's Waltz (Waldteufel).
9.1: The Famous Australian Poet, A. B. ("BANJO") PATERSON, in reminiscent mood.
9.15: THE SYDNEY MADRIGAL SO-CIETY-
Madrigal, Cuckow (Old English).
Part song, Carydon, Arise (Stanford). Part song, Come, Pretty Wag, and Sing (Parry).
9.25: HAYDON BECK, violinist-

A group by Kreisler-
Caprice Viennois.
Tambourin Chinois.
9.33: ALFRED CUNNINGHAM, baritone.

The Horn (Flegier).
Gend-rmes (Offenbach).
9.40: THE A.B.C. ORCHESTRA-

Three I :sh Dances (Ansell).
9.50: THE SYDNEY MADRIGAL SO-CIETY-
Part song, My Love Dwelt in a Northern Land (Elgar).
Part song, Spring, the Sweet Spring (Ireland).
Madrigal, Fire, Fire, My Heart (Morley).
10.0: THE A.B.C. ORCHESTRA-

Selection of Russian Folk Songs, arr. Higgs.
Veil Dance, Mystic Beauty (Finck).
10.15: Rel ed from 4 QG , BrisbaneA Talk on the Play in the First Test Match.
10.30: Late Official Weather Forecast.
10.32: Meditation music by. the A.B.C. STRING SEPTET.
11.30: Close.

## 2BL, Sydney

## AFTERNOON

2.30: Sporting Descriptions, interspersed with
A Musical Programme from the Studio.
Note-Between 3.45 and 4 o'clock, relayed from 4QG Brisbane.
Description of play in the First Test Match. South Africa v. Australia.
5.0: Complete Racing and Sporting Resume. 5.15: Musical Reproduction.
5.40: Weather Information.
5.45: Close.

## EVENING

6.15: THE A.B.C. STRING SEPTET.
6.45: "Poultry Farming," by Mr CONRAD CHARLTON.
7.0: The A.B.C. Sporting Service.
7.20: THE A.B.C. STRING SEPTET.
7.45: Austradio Musical Reproduction.
7.58: What's on the Air Tonight?

## NIGHT

8.0: (Relayed to 2 NC Newcastle) -

THE SEVILLA GYPSIES, Instrumentalists
(a) Neapolitan Nights (Zamecnik).
(b) Senora (Nathan).
8.7: HARRY SCHOFIELD, BaritoneSong of the Tinker (Saleman).
8.10: Piebald Philosophy by PERCIVAL.
8.20: SUZANNE ENNIS, Contralto-

Five Little Piccaninnies (Robert Anthony).
8.23: THE SEVILLA GYPSIES, Instru-
(a) One More Hour of Love (Strauss).
(b) While Hearts are Singing (Strauss).
(c) Merry Makers (Hall).
8.30: From the Sydney Stadium-

Description of the Boxing Contest.
9.30: FRANK RYAN, Comedian-

The Man with the Swollen Head (Squire).
9.40: THE SEVILLA GYPSIES, Instru-
(a) Toreador's Song (Bizet).
(b) Marcheta (Schertzinger).
(b) Marcheta (Evana (Evans).
9.47: HARRY SCHOFIELD, Baritone-
(a) That Dear Old Song (Love)
(b) Glorious Devon (German).
9.54: THE SEVILLA GYPSIES, Instru-
(a) Santiago (Stothart).
(b) Violin Solo, Czardas (Monti).
10.0: SUZANNE ENNIS, Contralto-
(a) In Sweet September (Temple).
(b) All My Very Own (Mellville-Hope).
10.7: FRANK RYAN, Comedian-

Get Yourself a New Hat (Lamb).
10.17: THE SEVILLA GYPSIES, Instru-mentaists-
(a) Dark Eyes (Haviland).
(b) Tell Me, Mother (Yvain).
(c) Valentine (Christino).
(d) El Croclo (Villoldo).
10.25: Late News.
10.30: Late Weather Forecast.
10.32: JIM DAVIDSON'S ORCHESTRA.
(Completion of Relay to 2NC Newcastle at 11 p.m.)
12.0: Close.

## 4QG, Brisbane

## MORNING

### 7.30 to 8.30: As On Monday. <br> Relayed to ARK, Rockhampton, except from 11.53 a.m. to 12 noon. <br> 11.30: Popular Music from the Studio.

## AFTERNOON

12.0: A Description of the Play in the First Test Match between Australia and South Africa will be broadcast from the Brisbane Cricket Ground.
1.30: News Service. British Official Wireless News. The various races held in connection with the Queensland Turf Club's Summer Meeting will be described from Summer Ascot Racecourse. The starting time of the first race will be announced from of the first race win the day.
During the afternoon, while races are not being broadcast, a description of the
play in the First Test Match between Australia and South Africa will be relayed from the Brisbane Cricket Ground.
6.0: Stumps Drawn.

## EVENING

Relayed to 4 RK , Rockhampton Until 7.45 . 6.0: Interstate Race Results in Brief.
6.10: Special Bi-weekly News Service.

FOR THE CHILDREN
"THE SANDMAN
6.15: "SANDY" and VINCE say "Hello!" Favorite Tunes. Birthdays. More Favorites. Goodnight!
7.0: MICK FLANAGAN will review Today's Racing.
7.15: General Sporting News, including Stumps Drawn Scores.
30: News Service.
7.37: Nailing. Notes, by STAN PHILLIPS.
7.45: A Pot Pourri of Popular Items. 7.59: Time Signals.

## NIGHT

Relayed to 4 RK , Rockhampton
8.0: From Tivoli Theatre-BILLY ROMAINE AND HIS TIVOLIANS. Musical Divertissement.
From the Bohemia Stadium-Description of the Main Wrestling Bout.
The Main Trophy Races described from The Main Trophy Races des
10.0: Weather Information. Cable News. News Service. British Official Wireless News.
10.15: A National Network Relay of a Review of Today's Play in the First Test Match-South Africa V. Australia:
10.30: FRANK COUGHLAN AND HIS CARLTON BAND. Meditation Music.
11.30: Close.

## MORNING

7.30 to 8.30 : As on Monday.

CONTINUOUS DAY
During the day scores of the First Test Match - South Africa v. Australia, at Brisbane, will be broadcast immediately they come to hand.
11.30: Saturday Morning Women's Session -Items of Interest.
11.40: Musical Interlude - Austradio Reproductions.
12.0: Time Signal.

## AFTERNOON

12.1: "SILVIUS" selections for today's races at Epsom.
12.6: Probable starters for today's races at Epsom.
12.16: Musical interlude.
12.26: News Session.
12.36: Musical interlude
12.50: Weather and Grain Report.

## 5CL, Adelaide

1.0: During the afternoon Epsom Race Results and Musical numbers from the Studio, with a description of the First Test Match-South Africa v. Australia, from the Brisbane Cricket Ground, between 3.30 p.m. and 3.45 p.m.

### 5.15: Close down.

## EVENING

5.50: All sporting results.
5.55: Birthday Greetings and Correspondence.
6.0: "MIISS WIRELESS" will entertain.
6.30: Bright Dinner Music Reproductions.
7.0: Today's cricket scores in the match -
7. South Africa v. Australia, at Brisbane.
7.5: "News" Service.
7.10: Tennis Talk by K. BERRIMAN.
7.15: Cricket Notes by LEN FORD
7.20: The 5CL Weekly Sketch, conducted by KERWIN MAEGRAITH. 7.30: REV. G. E. HALE, B.A., will deliver 7.30: REV. G. E. HAI
7.45: All Sporting Results.

## NIGHT

8.0: Old Time Dance Music by THE A.B.C. ORCHESTRA. Vocal interspersions by EDITH HUXHAM and HUGH HUXHANI. with a sprinkling of Old Time Humor with a sprinkling of Oid Mime Humor COLIN VIRGO. Dance Programme: 1. Waltz. 2, Schottische. 3, Quadrilles. 4 . Warn Dance. 5, Lancers. 6, 6, Waltz Barn Dance. 5, Lancers. 6, Waltz
Chain. 7, Valetta. 8, Polka. 9, AlChain. 7, Valetta. 8, Polka. 9, Al-
berts. 10, Waltz. 11, Polka Mazurka. berts. Country requests.
10.15: Nountry requests
10.15: News Session.
10.25: Old Time Dance (contd.)
11.0: Modern Dance Musical Reproductions. 11.30: Close down.

## 3DB, Melbourne

## MORNING

7.0: Brighter Breakfast Session, conducted by DAYBREAK DAN.

## EVENING

5.30: Musical Interlude.
6.30: News and Results from The Sporting Globe.
6.35: Dinner Music-

MAYFAIR ORCHESTRA-
"Maid of the Mountains."
FRASER GANGE, Baritone-
"Lassie o" Mine."
BOYD SENTER, Clarinet-
"New St. Louis Blues."
New St. Louis Blues
"Little Cotton Dolly."
Little Cotton Dolly.
MARION ANDERSON, Contralto-
"Deep River.'
NATIONAL SYMPHONY ORCHESTRA-
"La Boheme"-Fantasia.
JOHN McCORMACK, Tenor-
"Oh, How I Miss You Tonight.
EDWARD O'HENRY, Organ-
"Make Believe."
MALCOLM McEACHERN, Bass-
"Time To Go."
LONDON PAVILION ORCHESTRA "This Year of Grace": Selection.
7.0: Smile Away Club Free Theatre Tickets.
7.15: Market Reports.
9.0: Sutton's Musical Hour.
10.25: News.
10.25: News. Nusic.
10.30: Dar.ce Mus.

## 3UZ, Melbourne

7.0-7.15: MacRobertson's novelty centres session. 9.0-10.0: Nilsen's session. 10.15. Argus news service. 11.0: Close down.

## 3KZ, Melbourne

6.45 to 8.30 : Evening music. 8.30 to 10.0 : Dance music. 10.0: Station announcements. 10.5: Dance music.
11.30: Close down.

## 7ZL, Hobart

8.0 :: G.P.O. Clock Chimes the hour. "November Nonsense." The Monthly Review vember Nonsense. by F.D.C. Re-broadcast from 3 LO , Melbourne. 10.0: Meteorological information. Resume of tomorrow's proformation. Resume of tomorrow's pro-
gramme. British Official Wireless. Our Launceston Letter. 10.15:-Dance Session. 10.30: Close down.

## 2GB, Sydney

8.0: Musical Session. 8.15: Storyette of Industry. 8.16: Music. 10.0: Instrumental Music. 10.45: Slumber Music. 11.15: Close Mown.

## 2KY, Sydney

DAY SESSIONS AS ON MONDAY.
8.0: Clock chimes. 8.1: Sporting feature. 10.0 : Closing announcements.

## 2UW, Sydney

7.45: Music from the studio. 10: Bridge talk by Dr. F. V. McADAIM. 10.15: Music. 10.30; Close down.

## 5KA, Adelaide

dAY SESSIONS AS ON MONDAY
8.0: Topical chorus. 8.10: Novelty programme. 9.30 : Dance music. 10.30 : Close.

## 5AD, Adelaide

## DAY SESSIONS AS ON MONDAY

8.0: News Bulletin. 8.6: Vaudeville Concert. 9.0: News Bulletin, Weather Forecast, Wheat Market, Stock Exehange. 9.10: Vaudeville continued. 11.0: Close Down.



# The Quality Four-Valve Receiver 

The use of a "B" eliminator makes this A.C. set easy to build.

WHEN the novice starts out to construct an all-electric receiver he generally meets two troubles-the first fancied and the second, very often real. The object of this design is to show, by example, how such difficulties may be either avoided or removed.

The first hurdle to be reached by the newcomer to A.C. work is the fearsome word "Power-pack"-meaning a builtin unit that will supply the various valves with their diverse types and voltages of electric energy. If you will contemptuously dissect the word into its three component supplies, its dignity will dissolve and you will see that, like the l.b.w. law, it is only put in to make the game a little harder.
The power-pack's three functions are: (a) To supply raw A.C. at a low voltage suitable to the valves' filaments; (b) To provide a variety of high voltages for the diverse plate requirements; and (c) Directly or indirectly, to furnish negative grid bias where necessary.
The novice can most easily obtain these supplies as follows: (a) From an individual transformer which will convert the house lighting current down to, say, four volts at around five amps.; (b) from an ordinary B eliminator, such as was employed with the old D.C. set, and (c) from either the " C " side of that eliminator or from ordinary C bias batteries.
The second trouble, referred to in the first paragraph, is that your first A.C. receiver frequently appears to have a very poor tone - at least as compared with the previous D.C. hook-up-and this can almost invariably be traced to incorrect bias on the audio valves. "Free bias," which has so often been illustrated in these pages, and which depends upon the achievement of a suitable voltage difference through the intervention of resistances of predetermined values: is very beautiful when everything is exactly so. Without the employment of a high-resistance voltmeter, however, it is almost impossible to reach the required degree of exactitude, and, unfortunately, that instrument is rarely in the possession of the home constructor. By employing either the "C" of an eliminator or ordinary bias batteries, easy and accurate adjustments can be made to the highly important bias, and so tonal quality becomes assured. Further, if two audio stages are incorporated, a little mental arithmetic will show that a 22 -volt "C" battery is cheaper than a collection of wire-wound resistors and fixed condensers.

## The Circuit

Having, by these alternative means, asstred quality at the set's atidio end, it would be absurd to stultify our efforts by building a receiver which 'would only give strong signals from weak stations when the detector's regeneration is foiced To avoid such an anomaly, and foiced to avoider to feed an enlarged signal to

By "RADEX"

the detector, the circuit commences with an untuned stage of R.F. amplification centring round screen-grid valve V1.
This valve's grid circuit is completed by high-resistance potentiometer, P1, to the arm of which is connected the aerial via fixed condenser, C1. The adjustment of this arm simultaneously controls the

## List of Parts

B-B1, B2, B3 and B4, Leads from eliminator.
C Plus C1. Grid bias from eliminator or tapped 22 -volt battery
C1. Fixed condenser of 0.0005 mf .
C 2 and C3. Fixed condensers of 0.1 mf .

C 4 and $\mathrm{C}_{5}$. Fixed condensers of 1 mf .
CL. Fixed condenser of 0.0025 mf . with 2 megohm grid-leak.
CH1 and 2. Radio frequency chokes.
FT. Filament transformer to give 4 volts at least, 5 amperes with centre-tap CT.
L1, 2, 3. Coils made with 2 -inch diameter tube $3 \frac{1}{2}$ inches long, a reel of No. 30 d.s.c. wire and 5 yards of No. 36 enamel-covered wire. (See text).
LS. Loud-speaker comnections.
M. Midget condenser of 22 plates.

P1. Five-hundred thousand ohm. polentiometer.
PU. Connections for gramo pickup.
a1. One thousand ohm potentiometer. (A.G.N.).
T1 and T2. Audio transformers; both around ratio 3 or $3 \frac{1}{2}$ to 1.
V1. Screen-grid valve and UY socket.
V2 and V3. General-purpose A.C. valves and UY sockets.
V4. Power valve and UX socket. (See note in text).
VC. Variable condenser of 0.0005 mf . with illuminated vernier dial. Chassis. Sheet of No. 16 gatuge aluminium 16 inches by 10 , ebonite panel 16 inches by 6 , some scrap ebonite, 17 terminals, rubber covered flex wire for connections, pair angle-brackets to support panel against aluminitum base.
set's degree of selectivity and also the output volume to the speaker. In spite of previous remarks, we must use free bias on this tube, and it is obtained through the agency of resistance R1, and condenser C .
The only tuned circuit is formed by grid coil L2 and variable condenser VC-to the former of which the output of V1 is coupled by coil L1. L3 is
the fixed tickler coil supplying regeneration, and the effect is goversed by midget condenser $M$. Terminals for a gramophone pick-up PU are provided. Two conventional stages of transformercoupled audio complete the set, and it is presumed that 4 -volt A.C. valves are useä throughout in conjunction with a centre-tapped filament transformer and eliminator.

## Notes on the Parts

As the average commercially-built $B$ eliminator has a limited output, it will be unwise to use a high voltage power valve at V 4 . If we allow that the first three tubes will together consume around 15 milliamperes, a tube operating at a plate voltage of 150 , and using another $15 \mathrm{~m} . \mathrm{a}$. would suit V4. Such would be a Philips B403, Osram P425, or Cossor 415 XP .

Resistance R1 has a critical value, which will depend upon the voltage applied to V1's plate, and the plate milliamperage. We are, however, ignorant of these values, but the difficulty is easily overcome by making R1 variable. setting it initially to give the best signal strength, and then forgetting all about it.

All parts listed are essential, with the possible exception of condenser C5. This may be omitted initially, and only inserted if an eliminator hum arises. Its cost is small, however, and it is better in than out.

## Assembly

All parts and all wiring-with the exception of one section-are carried on top of the aluminium sheet which forms the chassis. The twisted filament wiring is run under the sheet with the object of shielding it from other connections, and so removing chances of hum.
Scratch lines parallel to, and one inch from, each of the sheet's longer sides, and then bend these inch-wide strips down at right angles - doing this after all necessary holes have been drilled. The ebonite face-panel is bolted to the front turn-down, and is also supported by the angle-brackets. Against the rear turn-down, fit a strip of ebonite to carry the 13 main terminals shown at the back of Fig. 3. The other two pairs of terminals (AE and E, and the LS pair) are also supported on ebonite at the points illustrated.
This drawing clearly indicates how the parts are located. Note how the relative positions of the $F$ pair of terminals on each valve-socket are placed and slew the sockets around accordingly. Potentiometer R1, which is employed solely as a variable resistance, should be of the one-hole mounting type, and can be supported on a small bracket.
Starting about half an inch from one end of the treated tube provided, wind on 25 turns of No. 36 enamel to form coil L1. Leave a very small gap (sixteenth inch or less), and then put on 60


Schematical diagram of the Quality four valve receiver.
turns of No. 30 for coil L2. Now leave a second gap, this time of half an inch, and complete the unit by winding 20 turns of No. 30 for the tickler L3. The order is illustrated in Fig: 2. The ends of L1, being of very fine wire that breaks easily, should be soldered to two small bolts which have been made fast to the tube. The ends of the other two coils should be left long so that they can be used as connections. The unit is to stand upright with L3 nearest the chassis.
Using a tightly twisted pair of leads, go from the main pair FT to the F"s on socket V3, running the wires under the aluminium and coming up through the adjacent hole. Similarly connect each of the remaining three sockets, so that there will be four pairs of leads going to the two main FT terminals.
In Fig. 3, all connections shown as dotted lines are leads that eventually go to earth, the chassis itself being earthed also. It follows, therefore, that all points

This set is on view at Homecrafts, Swanston Street, Melbourne.
so connected can simply be wired to the nearest screw or bolt that touches the chassis. This, however, may be confusing to the beginner, so the complete wiring will be described, just as though all dotted leads were insulated from the aluminium.


Showing the coil details.

Attach earth terminal $E$ to the chassis. Connect one end of condenser Cl to aerial terminal AE, and the other to the arm of potentiometer, P1. Take one outer terminal of P1 to G on socket V1. Join main terminal B1 to an end of condenser, C3, and continue to SG on socket V1-this latter will be marked "P" on the actual socket. Take K of V1 to an end of C 2 , and one outer terminal of 1000 ohm . potentiometer, R1.
From the fixed vanes (FV) of variable condenser, VC, go to end 60 of coil L2 (vide Fig. 2), and thence to one side of condenser-leak until CL. Connect the other side of CL to G. of socket V2, and one of the PU pair. Wire P of that socket to end S of coil L3. Run " 20 " of L3 to one side of choke CH2, and thence to the fixed vanes of midget M .
Attach a lead to the S end of L1 long enough to reach to the pip terminal $P$ on top of screen-grid valve V1. From " 25 " of coil 11 go to one end of fixed condenser C4 and a side of choke CH1. From the other side of CH1 run to main B4 and thence to ope of the LS pair.
(Continued on page 54)


Layout of the components for the four valve receiver.

# Eliminating Unwanted Oscillation <br> \section*{How to overcome and control oscillations due to feedback} 

ONE of the difficulties that the set builder has to contend with in designing a valve receiver is to prevent uncontrollable oscillation.

Were it not for the electrical oscillations which valves produce, broadcasting would not be possible. But, although valves deliberately made to oscillate in transmitters by adjusting various circuits, valves in receivers should only oscillate when required to.

If valves did not oscillate but merely amplify, as they are generally intended to in a multi-valve receiver, it would be a simple matter to build a set that


Showing the feedback between the plate and grid circuits of a valve.
would be able to receive the overseas stations by using a sufficient number of valves. Naturally the static would be terrifie, but the stations would be heard.
The greater the number of radio frequency amplifying valves that are used the greater is the tendency for the valves to oscillate due to feedback between the R.F. circuits.

It will be noticed, when operating a receiver which has at least one stage of R.F. amplification, using three electrode valves, that the receiver tends to oscillate when tuning in the lower wave-length stations, unless it is perfectly balanced, which is very seldom the case.
The reason for this is that, owing to the design of the set, a greater feedback occurs between the grid and plate circuits of the R.F. valve when the set is tuned to the higher frequencies than


Potentiometer method of controlling
oscillation in an R.F. valve, oscillation in an R.F. valve.

## By VK3FO

to the lower ones, but incorporated in the set there is generally a means for controlling these oscillations.
This feedback is caused by a portion of the signal strength in the plate circuit of the R.F. valve being sent back to the grid circuit which increases the signal strength fed into the grid and the amplification. This process of feeding back is called regeneration.
Enough of the output power can be fed back to the grid side to overcome the resistance in the grid circuit. When the output power overcomes the grid resistance the maximum point of regeneration has been passed and the point of oscillation is reached.

Although regeneration vastly increases the receiving signal, no distortion is caused if used in moderation. But if oscillation takes place in a valve it is almost impossible to hear music or speech, or if they are heard they will be badly distorted.
The difference between regeneration and oscillation will be seen.

## Causes of Oscillation and Prevention

In Fig. 1 the manner in which the energy in the plate circuit feeds back to the grid circuit is shown.

Oscillation may be prevented by arranging the couplings through which the energy can feed back between the output and input circuits in such a manner as to eliminate feedback. These couplings may be capacitive, such as a coupling between two wires, or inductive, an example of which is the coupling between two coils. Coupling may also take place through resistance, such as that of power units, connected to more than one stage.
Another method of preventing oscillation is to neutralise or balance our feedbacks by allowing an undesired feedback to take place, and adding another feedback which sends energy in the opposite direction into the grid circuit in the same amount as that of the undesired feedback, so that the two balance each other. An example of this is the neutrodyne receiver.
In Fig. 2, a system of controlling the oscillation of a radio frequency valve is shown, and was used to a large extent in the earlier types of receivers. By moving the arm of the potentiometer to either the positive or negative side of the resistance, the bias applied to the grid of the valve is altered, and results in increased or decreased plate current.
One of the simplest ways of stopping oscillation in a R.F. valve is to insert a resistance in the grid circuit, as shown in Fig. 3. The value of the resistance may be as high as 1200 ohms, but it is advisable to keep the value as low as possible, or lack of sensitivity and poor selectivity results.
Reducing the plate voltage applied to the anode of a valve by means of a variable resistance stops the valve from oscillating. This method of controlling oscillation is more satisfactory than that of altering the bias.

A sketch of the connections is shown in Fig. 4. It will be noticed that a bypass condenser is shown connected across the resistance, the action of which is to by-pass radio frequency currents. The capacity of the fixed condenser is .01 mfd ., and the value of the variable resistance is 50000 ohms.
An annoying howl is often caused by feedbacks from audio, frequency stages
to preceding amplifying stages. This trouble may be eliminated by using short wiring connections in the audio amplifier and by shielding the audio side from the remaining portion of the set.

If a loud speaker cord is placed near the aerial terminal of a set employing radio frequency valves, a feedback will occur, resulting in a medium-pitched howl. On moving the speaker wire away from the aerial terminal the howl will cease.

Capacity feedbacks are generally the most troublesome, as they are the most


Resistance method of eliminating
oscillation.
difficult to locate and the hardest to remedy.

A common offender in this respect is a feed back due to plate and grid wires of an audio amplifier running parallel. This can be eliminated by keeping the plate and grid wires as far away as possible. When it is necessary that they should come near each other run them at right angles.

In some cases capacity feedbacks can be traced to the actual capacity that exists between the elements of valves. This capacity cannot be eliminated, and varies according to the types.
To overcome this difficulty the screen grid valve was designed.
In multi-valve sets it is essential that the variable condensers should be shielded from each, other in order to prevent capacity feedbacks which would otherwise take place unless the condensers were spaced at a fair distance from each other.


By varying the plate voltage of a valve oscillation is controlled.

## Build this SUPER-DYNAMIC into your RADO!

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The whole construction of the unit is rugged and is capable of giving long and faithful service.
The 2063 is similar to the above but includes rectifying system for the field supply. Both units are complete with the exception of casing.

> These speaker units are arcalable from your local dealer at G REA TEY ITEDUCED PRICES.


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# Our Short Wave 

## Bureau

A Department to assist those who listen in to Commercial Broadcasting Stations operating on the lower wave belt. Readers are invited to help by forwarding to "Short Wave," c/o The Listener In, any information regarding such broadcasts.

By "SHORT WAVE"

TO publish a complete list of all the stations in the world which are known to transmit speech or music would be to publish the official list issued by the Berne International Bureau, but it would contain many low-powered stations which can never hope to be heard in Australia except under extraordinarily favorable conditions.
The stations contained in the list on the following pages have nearly all been heard in recent months, and the operating schedules have been checked by correspondence. However, in a number of cases, there may be discrepancies of an hour or so due to difficulties encountered in converting to local time. The original schedules were quoted in standard time, daylight saving time (for the countries in question), G.M.T., G.S.T., and G.C.T., and in two particular instances both in G.M.T. and D.S.T., which did not agree, although G.M.T., as being standard throughout the world, was requested.
In addition to the stations listed, there are a number of radiophone services which are audible and which may prove interesting to readers. They are usually engaged in traffic, and very seldom in broadeasting musie or pro-grammes:-
Irregular Phone Services.-CJA, 24.793 metres, Canadian end of beam circuit; HZA, 24.91 metres, Saigon end of ParisSaigon phone circuit; PLM, 24.46 metres, Java end of Aus-tralia-D.E.I. service (alternative wave length); ZLW, 24.4 metres, Wellington end of Australia-New Zealand phone; FTN, 24.4 metres, Paris end of colonial service; J1AA, 20.5 metres, Japanese experimental phone; J1AA, 19.1 metres, Japanese experimental phone; FFQ, 19 metres, Paris end of Saigon service; FZR, 18.5 metres, Saigon end of same service; PMC, 16.33 metres, Bandoeng terminal of HollandJava service; PCK, 16.3 metres, Hague end of same service.

Anglo-Australian Service, etc.-GBP, 28 metres, Rugby (England) end (alfernative wave lengths are available); VLK, 28.5 metres, Sydney end (alternative wave lengths are available); ZLW, Wellington; PLV, 31.86 metres, Bandoeng, and VLP Sydney, on a number of wave lengths, make up the terminals for extending the service to Java and New Zealand.
Transpacific Telephone (American). - KEL, Bolinas, Cal., heard on 43.46 metres mainly; KEE, Bolinas, Cal., heard on approximately 29 metres or 38.62 prineipally; KBK, Manile, P.I., heard on 31.25 , and 45 metres approximately, KQH Kuhuku, Hawaii Islands, heard on about 10 metres.
Transatlantic Telephones.-WND, 16.36 metres, 22.4 metres, 32.7 metres, 44.4 metres, to GBS, Rugby (Eng.) ; WLO, 14.01 metres, 18.44 metres, 28.44 metres; WMI, 15.14 metres, 20.05 metres, 30.9 metres, to GBU, Rugby; WNC, 15.61 metres, 20.73 metres, 30.77 metres, to GBW, Rugby; GBU, 16.11 metres, 24.41 metres, 30.15 metres, to WMI, Deal, New Jersey; GBS, 16.38 metres, 24.16 metres, 42.9 metres, to WND, Deal, New Jersey; GBW, 16.54 metres, 20.7 metres, 30.6 metres, to WNC, Deal, Ne:7 Jersey.

Atlantic Ship Phones. - GFWV, s.s. Majestic, on one or other of 17.1 metres, 22.5 metres, 34.1 metres, or 72.7 metres; WSBN, s.s. Leviathan, on 7.1 metres, 33.5 metres, 34.1 metres, 35.5 metres, 65.1 metres, or 72.7 metres; DDDX, s.s. Bremen, 130 metres; GLSQ, s.s. Olympic, 23.5 metres, 35 metres, 13 metres; OCW, 36 metres, is the English terminal; WOO, 17.52 metres, 23.36 metres, 34.76 metres, 73.13 metres, 96.03 metres, and 46.1 metres, is the American terminal; GZA, 62.7 metres, is at Drummondville, and works with s.s. Homeric.

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Build your own next set with Radiokes Precision Products, and ensure the best results from the circuit you are using.

## The Listener In World Short-Wave Chart

## Cut out these pages and paste them on cardboard for future reference

| Call | Location | W. Length | Operating <br> Melbourne time | Schedule <br> Station time | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PK2AG | Samerang, Java | 105 metres | M. T., W., F., Sa.-9.40- <br> S., 12.40 a.m. <br>  | Same Days. -6.40 to 8.40 Sun. -9.40 a.m. to 11.40 a.m., and 6.40 to 8.40 (Subtract 3 hours.) | Seldom reported. |
| $\begin{gathered} \text { Radio } \\ \text { Roma } \end{gathered}$ | Rome, Italy | 80 m | Not known deffnitely | Not known definitely. ( 9 hours behi | Audible occasionally after midnight and early morning. |
| PK1AA | Batavia, Jav | 77.5 n | $\mathrm{M}_{12}$ to to Sat- 9.40 p.m. to Sun. -1.40 . 10 . <br>  | Same Days. -6.40 p.m. to Sun. 9.10 .40 . <br> p.m., and 6.40 to 9.10 <br> (Subtract 3 hours.) | Seldom reporte |
| RV15 | Khaboravsk, Siberia | 70.2 m . | Daily -7 - 7 p.m. to mid- |  | m. |
| PMY ${ }_{\text {PK1 } 1 \text { RR }}$ | ${ }_{\substack{\text { Bandoeng, } \\ \text { Java }}}^{\text {Bineria }}$ | 58.3 m . | M. to 5.30 p.m... 3.30 p.m. to and 9.30 5.30 p.m... 3 and 9.30 Sun. $=1.30$ p.m. to 4.30 p.m., and 9.30 p.m. to p.m., and 12.30 a.m. | M. to Sa.-Midday to 2.30 p.m., and 6.30 p.m. Sun. 9.30 p.m. <br> p.m., and 6.30 p.m. to <br> 9.30 p.m. | Fair station, operated by amateur society. |
| HvJ | Vatican City, | 50.26 m. 5968 k.c. | Daily. -5 a.m. $\quad$ a.m. to 5.30 | Daily. -8 p.m. to 8.30 (Subtract 9 hours.) | Powerful station, used for various Papal services. |
| zL3zC | Christchurch, N.Z. . | ${ }^{50} \mathrm{~m}$ m $600 \mathrm{k} . \mathrm{c}$ | W. -4.30 to 6 p.m. F. -8.30 to $9.30 \mathrm{p} . \mathrm{m}$. | $\begin{aligned} & \mathrm{W}=6 \text { to } 7.30 \mathrm{p} . \mathrm{m} . \\ & \mathrm{F}=10 \text { to } 11.30 \text { p.m. } \\ & \mathrm{S} .100 \text { to } 11 \text { p.m. } \\ & \text { (Add } 13.6 \text { hours. } \end{aligned}$ | Very low power. V.Z. time is advanced by one hour between October and April. |
| xEw | Mexico City | ${ }_{6}^{50 \mathrm{~m}} \mathrm{~m}$. | Not known deffitely | Not known definitely.) (Subtract 16 hours.) |  ${ }^{\text {irreg. }}$ |
| Moscow | Moscow, |  | $\text { Dally }-2.30 \text { am. to } 8$ | $\begin{gathered} \text { Daily. }-7.30 \text { p.m. to } \\ \text { aim. } \\ \text { (Subtract } 7 \text { hours.) } \end{gathered}$ | Very strong station up till 7 a.m. |
| ${ }_{(\mathrm{WPENR})}^{\mathrm{W}}$ | Chicago. | ${ }^{4.8 .83 \mathrm{~m} .} 6$. | M.-Midnight to 3.30 T., , W., Th., F., Sa., S.Daily. $=6.30$ to 10 a.m. Daily. 6.30 to (M., close 9 a.m.) Mon. to Sat.- 11 a.m. to Mon. to Sun. ${ }^{4}$ p.m. p.m. to 5 p.m. | Sun.-8 a.m. to 11.30 M., T., W., Th., F., Sa.Daily. -2.30 p.m. to 6 (S.m. close 5 p.m.) <br> S. to F. -7 p.m. to midnight. S.m. to 1 a.m. (Sun. | Local afternoon sessions heard best here. |
| PK3AN | Sourabaya, | ${ }_{6} \mathbf{4 9 . 7} \mathbf{7}$ m. . | Daily. 9.40 p.m. to 12.40 <br> Sun. 10.40 a.m. to 11.40 <br> ${ }_{2}^{\text {a.m., }} 10$ p.m. additional. |  | Heard occasionally after 9.30 p.m. at fair strength. |
| $\begin{gathered} \text { W8XAL } \\ \text { WSLII } \\ \text { WSAL } \end{gathered}$ | Cincinatt, |  | Daily. -9.30 p.m. to 1.30 a.m. 9.30 a.m. to 4.30 p.m. | Daily. -5.30 a.m. to 9.30 <br> p.m. and 5.30 p.m. to (Subtract 16 hours.) | Heard best during late afternoon or early evening. ${ }^{\text {24- }}$ hour transmission on last and first day of month. |
| $\underset{(2 \mathrm{ZLW})}{\mathrm{ZL} 2 \mathrm{ZX}}$ | Wellington, N.Z. | ${ }^{49.51 ~ m} \mathrm{~m}$. | Mon. and Thurs. -5.30 p.m. to 9.30 p.m. | M. and Th. -7 p.m. to 11 (A.m. 11/2 hours.) | Excellent station after 7 p.m. operates irre in addition. |
| VQ7LO | ${ }_{\substack{\text { Natrobi, } \\ \text { Kenya }}}^{\text {col. }}$ |  |  |  | Weak station heard in the early morning. |
| w9xas | $\xrightarrow[\text { Chicago. }]{\text { U.S.A. }}$. 1 ., |  |  | First Sat. in every month, 8 p.m. to (Subtract 16 hours.) | Low powered station heard at good strength occasionally |
|  | ${ }_{\substack{\text { Batavia, } \\ \text { Java }}}^{\text {a }}$ | 49.3 m |  <br> 1 p.m. to 2 p.m. <br> p.m. to 3.15 <br> p.m. 3.45 p.m. to 10.45 p.m. 11.15p.m. to $12.15 \mathrm{a} . \mathrm{m}$. p.m. to 12.15 a.m. |  | Station heard regularly at quite good strength, but difficult to identify. |
| W3XAL | $\begin{aligned} & \text { Boundbrook, } \\ & \text { N.J. } \end{aligned}$ |  | Tues. to Sun. -7 a.m. to 8 a.m. $1 \mathrm{p} . \mathrm{m}$, to $3 \mathrm{p} . \mathrm{m}$. | $\begin{aligned} & \text { Mon. to. Sat. } \frac{4}{\text { Mop.m. to }} \begin{array}{l} \text { to } \\ \text { midinght. } \end{array} \text { p.m. to } \end{aligned}$ | Excellent station being heard afternoons, relays N.B.C. programmes. |
| Radio Salgon sil | $\underset{\text { Saligon, }}{\text { F.I.C. }}$ | ${ }^{49.05} \mathrm{~m}$. $6114 \mathrm{k} . \mathrm{c}$. | Daily, except Wed. 10 ${ }^{\text {p.m. }} 9.30$ to 1.45 a.m. to 1.30 a.m. a.m. |  | Excellent strength. European s.m. |
| (W2XE ${ }_{\text {W }}$ | New York, <br> S. | $\begin{array}{r} 49.02 \mathrm{~m} . \\ 6120 \mathrm{i} . \mathrm{c} . \end{array}$ | Daily. -10.30 p.m. to 4 p.m. next day. p.m. next day. | Daily. -7.30 a.m. to 1.30 a.m. next day (Subtract 15 hours.) | Irregular station not often re- ported. Relays Colombla B. ported. |
| W8xK | Pittsburg. | 48.85 m . | Thurs. \& Sun. 7 a.m. to Midnight. | Wed. to Sat. - 4 p.m. to ${ }^{9}$ (Subtract 15 hours.) | Alternative wave length occasionally reported. |
| $\mathrm{VEgCL}_{\mathrm{CJMM}}$ | Winnipeg, Can. | 48.8 m . | $\begin{gathered} \text { Daily. }-9.30 \text { a.m. to } 3 \\ \text { p.m. } \end{gathered}$ | Daily. -5.30 p.m. to 11 (S.M.btract 16 hours.) | Good station, but not heard regularly. Afternoon reception best. |


| Call | Location | W. Length or Freq. | Operating Melbourne time | Schedule <br> Station time | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| W2XL | Boundbrook, N.J. | $\begin{aligned} & 46.7 \mathrm{~m} \\ & 6425 \mathrm{k.c} . \end{aligned}$ | Sat. -4.30 p.m. to 9.45 p.m. Sun. -2 p.m. to 11 p.m. | Sat. -1.30 a.m. to 6.45 a.m., and 11 p.m. to 8 a.m. Sun. | Relays N.B.C. to Pacific Islands. Afternoon reception best. |
| REN | Moscow, U.S.S.R. | $\begin{aligned} & 46.6 \mathrm{~m} \text {. } \\ & 6414 \mathrm{k} . \mathrm{c} . \end{aligned}$ | Daily,-Midnight to 7 a.m. | Daily. -5 p.m. to midnight. (Subtract 7 hours.) | Weak station heard irreg. off broadcast band. |
| HSP2 | Bangkok, Siam | 41 metres. 7312 k.c. | Mon.-11 p.m. to 2 a.m. | $\begin{aligned} & \text { Mon.- }-7.30 \text { p.m. to } 10.30 \\ & \text { p.m. } \\ & \text { (Subtract } 31 / 2 \text { hours.) } \end{aligned}$ | Experimiental broadcaster heard at excellent strength when in operation. |
| Radio Maroc. | Moroceo | 32.26 m . | Mon. -5.30 to $8.30 \mathrm{a} . \mathrm{m}$. | Sun. -7.30 p.m. to 10.30 p.m. (Subtract 10 hours.) | Irregular reception. Operates telephone and telegraph with Paris normally. |
| VK3ME | Melbourne | $31.55 \mathrm{~m} .$ | Wed. and Sat. -8 p.m. to 9.30 or 10 p.m. | Local time. | Operated by A.W.A. |
| $\begin{aligned} & \text { W2XAF } \\ & \text { (WGY) } \end{aligned}$ | $\begin{aligned} & \text { Schenectady } \\ & \text { N.Y. } \end{aligned}$ | $31.48 \mathrm{~m} \text {. }$ | Daily. -7 a.m. to 1 p.m. | Daily. -4 p.m. to 10 p.m. (Subtract 15 hours.) | Only fair when heard at 8 a.m. but excellent when on irreg. schedule at 9 p.m. |
| Zeeson | German | $\underset{9560 \mathrm{k} \mathrm{c}}{31.38 \mathrm{~m} .}$ | Daily.- 11 p.m. to midnight. 1.30 to 4.30 a.m., 5 to 9.30 a.m., and in special cases to $10.30 \mathrm{a} . \mathrm{m}$. | Daily. -2 p.m. to 3 p.m. 4.30 p.m. to 7.30 p.m. 8 p.m. to midnight. In special cases to 1.30 a.m. (Subtract 9 hours) | Heard at best strength at about 3 a.m. to 7 a.m. Difficult to identify. <br> Transmission in German. |
| $\begin{aligned} & \text { W1XAZ } \\ & \text { (WBZZ } \\ & \text { WBZA) } \end{aligned}$ | Springfield. Mass. | $\begin{aligned} & 31.35 \mathrm{~m} . \\ & 9570 \mathrm{k} . \mathrm{c} . \end{aligned}$ | Daily. - 9.30 p.m. to 2 p.m. next day. Special for AustraliaSat:, 8 a.m. to 2 p.m. Sun. | Daily. -6.30 a.m. to 11 p.m. <br> Friday. -5 p.m. to 11 p.m. <br> (Subtract 15 hours.) | Weak station at present - time being unsuitable for Australia. |
| D.e.I. Co. | Batavia, Java | 31.3 m. | Tues. -9.30 a.m. to 10 a.m. 1 p.m. to 2 p.m. 3.15 p.m. to 4.15 p.m. $9.45 \mathrm{p.m}$. to 10.45 p.m. $11.15 \mathrm{p} . \mathrm{m}$. to $12.15 \mathrm{a} . \mathrm{m}$. | Tues. -6.30 a.m. to 7 a.m. 10 a a.m. to 11 a.m. $12.15 \mathrm{p} . \mathrm{m}$. to 1.15 p.m. $6.45 \mathrm{p} . \mathrm{m}$. to 7.45 p.m. $8.15 \mathrm{p} . \mathrm{m}$. to 9.15 p.m. (Subtract 3 hours.) | Changes pending in this schedule. Good reception usually. |
| VK2ME | Sydney, N.S.W. | $\begin{aligned} & 31.28 \mathrm{~m} . \\ & 9590 \mathrm{k} . \mathrm{c} . \end{aligned}$ | $\begin{aligned} & \text { Sun. }-3 \text { to } 5 \text { p.m. } 7 \text { to } \\ & 11.30 \text { p.m. Mon. } 5 \\ & \text { a.m. to } 7 \text { a.m. } \end{aligned}$ | Local time. | Only afternoon and morning sessions audible in Melbourne. |
| PCJ | Eindhoven, Holland | $\begin{aligned} & 31.28 \mathrm{~m} . \\ & \mathrm{k} \text { c } \end{aligned}$ | Th. -2 a.m. to $6 \mathrm{a} . \mathrm{m}$. Fri., Midnight to 2 a.m. 9 a.m. to 1 p.m. Sat. 4 a.m. to 6 a.m., and $10 \mathrm{a} . \mathrm{m}$. to $4 \mathrm{p} . \mathrm{m}$., or Sun.-Midn. to 3 a.m. | Wed. 4 p.m. to 8 p.m. <br> Thurs.-2 p.m. to 4 p.m. <br> Frid. - Midnight to 3 <br> a.m. 6 p.m. to 8 p.m. <br> Sat.-Midnight to 6 <br> a.m., or 2 p.m. to 5 | Patchy reception lately, although a very old timer. |
| Radio Goldberg | Sourabaya, Java | 26.5 m . | Mon., Wed., Frid. -8.30 p.m. to 10.30 p.m. | Mon., Wed. \& Frid. $6.30 \mathrm{p} . \mathrm{m}$. to $8.30 \mathrm{p} . \mathrm{m}$. (Subtract 2 hours.) | Only recently in operation. |
| Radio Coloniale (Paris) | France | 25.2 m . | Daily. -4.30 a.m. to 6.30 a.m. | Daily. -6.30 p.m. to 8.30 p.m. <br> (Subtract 10 hours.) | Very strong station under suitable conditions. |
| Radio Coloniale (Paris) | France. | 25.63 m . | Daily. -7 a.m. to 9 a.m. | Daily. -9 p.m. to 11 p.m. | This schedule is now seldom suitable for reception, but is excellent during winter. |
| G5SW | Chelmsfor Eng. | $\begin{aligned} & 25.53 \mathrm{~m} . \\ & 11.750 \mathrm{k} \end{aligned}$ | Mon, to Fri. 10.30 p.m. to $11.30 \mathrm{p} . \mathrm{m}$. Tues. to Sat. -5 a.m. to 10 a.m. | Mon. to Fri.-Midday to 1 p.m. Mon. to Fri. 7 p.m. to midnight. | Best reception at night for the present. Excellent transmission. |
| Radio Roma | Rome, Italy | 25.4 m . | Daily. -6.30 to 8.10 a.m. | Daily. -9.30 p.m. to 11.10 p.m. <br> (Subtract 9 hours.) | Signal strength drops to zero by 7 a.m., but should improve in a month or so. Excellent transmission. |
| W9XAA | Chicago, III. | 25.34 m . 11,840 k.e. | Sun.-2 p.m. to Mon. 2 | Sat.- 10 p.m. to Sun. 10 p.m. <br> (Subtract 16 hours.) | Schedule not confirmed. (See 49.34 m.$)$ |
| W8XK <br> (KDKA) | Pittsburgh, Pa. | $\begin{aligned} & 25.25 \mathrm{~m} . \\ & 11,880 \mathrm{k} . \mathrm{c} . \end{aligned}$ | Daily. - 4 a.m. to midday. | Daily. -1 p.m. to 9 p.m. (Subtract 15 hours.) | Fair reception round about 7 to $8 \mathrm{a} . \mathrm{m}$. An old-timer. |
| PK6KZ | Makassar, D.E.I. | 25 m . | Wed. and Fri.-10.10 p.m. to $11.40 \mathrm{p} . \mathrm{m}$. | Wed. to Fri. -8.10 p.m. to 9.40 p.m. <br> (Subtract 2 hours.) | Being reported fairly consistently lately. Often mistaken for a German. |
| HVJ | Vatican City. | $\begin{aligned} & 19.84 \mathrm{~m} . \\ & 15,120 \mathrm{k} . \mathrm{c} . \end{aligned}$ | Daily. -8 p.m. to 8.30 p.m. | Daily.-11 p.m. to 11.30 a.m. (Subtract 9 hours.) | Time generally unsuitable for good reception. HVJ stations used for Papal communications, etc. |
| W8XK <br> (KDKA) <br> Radio | Pittsburgh, Pa . <br> France | $\begin{aligned} & 19.7 \mathrm{~m} . \\ & 15,210 \mathrm{kc} . \end{aligned}$ | Th. and Sat. -4 a.m. to 7 a.m. | Wed. and Fri.-1 p.m. to 4 p.m. | No data. Should be heard during summer months. |
| Paris Coloniale | France. | 19.68 m . | Daily.-Midnight to 3.30 a.m. | $\begin{aligned} & \text { Daily.-2 p.m. to } 5.30 \\ & \text { p.m. } \\ & \text { (Subtract } 10 \text { hours.) } \end{aligned}$ | Very often duplex transmission is undertaken with 25.2 m . transmitter. Excellent recep- tion at midnight. |
| $\begin{aligned} & \text { W2XAD } \\ & \text { (WGY) } \end{aligned}$ | Schenectady. N.Y. | $\begin{aligned} & 19.56 \mathrm{~m} . \\ & 15.340 \mathrm{k} . \mathrm{c} . \end{aligned}$ | Mon. only.-3 a.m. to 5 <br> a.m. Daily. 5 to 8 <br> a.m. | Sun. only.-Midday to 2 p.m. Daily. -2 p.m. to 5 p.m. | Very seldom reported. |
| Batavia | D.E.I. | 19.55 m . | Wed. 9.30 a.m. to 10.30 a.m. 1 p.m. to 2 p.m. $3.15 \mathrm{p} . \mathrm{m}$. to $4.15 \mathrm{p} . \mathrm{m}$. $9.45 \mathrm{p} . \mathrm{m}$. to $10.45 \mathrm{p} . \mathrm{m}$. $11.15 \mathrm{p} . \mathrm{m}$. to $12.15 \mathrm{a} . \mathrm{m}$. | Wed. -6.30 a.m. to 7.30 a.m. 10 a.m. to 11 a.m. 12.15 p.m. to 1.15 p.m. 6.45 p.m. to 7.45 p.m. 8.15 p.m. to 9.15 | Same station as on 31.3 m . and 49.3 m . |
| PLF | Bandoeng, Java. | 16.8 m. | Daily. -10 p.m. | Daily. -7 p.m. <br> (Subtract 3 hours.) | Phone station commences tratfic oceasionally with records. |
| W9XAA | Chicago, III. | 16.57 m , | No reg. schedule. | (Subtract 16 hours.) | No data. Should be audible during summer. |
| PLE | Bandoeng, Java. | 15.93 m , | Tues. -11.40 p.m. to 1.40 a.m. | Tues $-8.40 \mathrm{p} . \mathrm{m}$. to 10.40 p.m. (Subtract 3 hours.) | Otherwise used for phone to Holland. Good reception during summer. |



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## TORCH REFILLS \& RADIO BATTERIES

## THE QUALITY FOUR VALVE RECEIVER-(Continued from page 4!)

One series of connections will now take in all the earthed points. For this purpose the following points are to be wired together successively: "S" end of coil L2; remaining outer terminal of P1; moving vanes of tuning condenser VC and midget M ; terminal K on socket V3; ends of condensers C5 and C4; terminal K on socket V2; remaining one of PU pair; main terminals $\mathrm{CT}, \mathrm{C}+$ and $\mathrm{B}-;$ end of condenser C 2 ; arm of R1; end of condenser C 3 , and, finally, to earth E , which has already been permanently wired to chassis.
On audio transformer $T 1$ join:- $P$ to vacant side of choke $\mathrm{CH} 2 ; \mathrm{G}$ to terminal G on socket $\mathrm{V} 3 ; \mathrm{F}$ to main $\mathrm{C}-1$; and B both to main B2 and to the free end of condenser C5. On audio transformer T2 join:- $\mathbf{P}$ to terminal $\mathbf{P}$ on socket V ; G to terminal G on socket $\mathrm{V} 4 ; \mathrm{F}$ to main $\mathrm{C}-2$; and B to main B 3 . Wire terminal $\mathbf{P}$ of socket V4 to the remaining one of the LS pair.

## Externals and Operation

We assume that your B eliminator will not give much more or less than 150 volts at its maximum tap on a load of $30 \mathrm{~m} . a$., and that one is to be connected to B4. The next lower tap will be wired to B3. For the defector about 90 volts to B2 is ample, while around 65 volts is fed to B1 for the screening-grid of valve V1. The negative end of the eliminator will go on to B-.

On the filament transformer there will be found three terminals. The two outers of these connect to pair FT on the set, and the middle one to CT .

The positive side of the bias (whether part of an eliminator or a separate 22volt battery) goes to main C positive. Take a tap off at 6 volts negative to C-1, and another at 15 volts negative to C-2. It will be understood, of course, that the values fed to B1, B2, B3, C-1 and $C-2$ are purely temporary, and are only made to get the set started. Once you have signals upon which to test, trial alterations should be made to all of them until your ear tells you that the speaker is producing quality music. True, a voltmeter would tell at a glance what your ear may take half an hour to discover, but a little time is cheaper than such a meter. Further, alterations to the above five points can do no harm provided you remember to turn off the power before touching any terminal.
Actual tuning is now very simple. Set the arm of R1 about half-way round and turn the arm of P1 hard over towards its outer that is already connected to $G$ of socket V1. Fully unmesh the moving vanes of M .

Tune in with VC. As soon as a signal is heard-the weaker the better in this case, adjust R1 for the best volume as regards it alone. In future, unless the voltages to either B1 or B4 are altered, R1 needs no further attention.

Further volume may now be reached by suitably adjusting $\mathbf{M}$, but it is not suggested that the set should always be operated at the detector's peak point. On the contrary, valve V1 has been included so that good volume can be obtained with a minimum use of reaction -through the agency of $M$. In other words, enmeshing $M$, will make strong signals bellow; and its real use is to make naturally weak signals up to normal volume.

On the other hand you will find that some local stations will be too strong for comfort. This trouble can be quickly removed by turning back the arm of P1. Set back a little, P1 will also sharpen tuning and then $M$ may be legitimately used to regain volume.

## The 247 and 235 Valves

RECENTLY we have submitted to us by the Associated General Electric Supplies Company two of their latest types of valves, namely, the RCA247 and the 235 for test.
The RCA-247, which is a power amplifier pentode, will be found to be quite suitable for use in the last stage of a receiver and for a comparatively small input a high gain may be expected.

A remarkable thing about this new valve is that the fifth electrode has been so designed that it plays as a suppressor. This suppressor is placed between the screen and the plate and is connected to the filament inside the valve. The surpressor is responsible for this high output.
A few hints regarding the operation of this valve may be helpful.
The load of the impedance should be maintained constantly to the impedance given in the characteristic chart.
The value given has been so chosen to minimise the distortion which is so common in a number of valves on the market at the present time.
It was found, when this valve was put under test, that it had a decided tendency to emphasise the high frequencies at the expense of the low. The high notes may be suppressed, however, by inserting a filter in the plate of the grid circuit of the valve.

Another way of overcoming this difficulty is to match the characteristics of the speaker with that of the valve.
The other valve mentioned was the RCA-235, which is similar in appearance to the popular UY224, which is mainly used in commercial receivers. This valve was designed principally to reduce cross modulation and modulation distortion, which naturally results in the ability to handle a very high signal voltage applied to the grid of the valve.
The filament consumption is 1.75 amps .
It is essential that, if the maximum efficiency is to be obtained, the heater should be operated at its rated value of 2.5 volts.

On test it was found that best results were obtained when the valve was used as a radio frequency amplifier with 180 volts on the plate, 75 volts on the sereen grid, and anything from 45 to 75 volts negative bias on the grid.

Copies of the characteristics of these valves may be had by sending in a stamped and addressed envelope to The Listener In.

## Radiovision One-Valve Receiver

$W^{\text {E }}$7 E have had submitted to us by Radiovision (Australasia) Ltd. a sample of a one-valve receiver designed to replace a crystal receiver.
It is all-electric and merely requires to be plugged into the electric power and tuned. No aerial is necessary and no earth. On test it tumed in all the local stations at very comfortable volume, and in an outer suburb 2 FC Sydney was received quite well at night.

Headphones are used with this receiver, and it should prove ideal for use under conditions where loud-speaker reception is not desired or may be inconvenient.
These receivers are supplied in two types-one for A.C. supply and one for D.C. supply. The latter may be used in a bedroom or flat in the city area, as no batteries of any description are required.

# A rectifying Valve with carbonised 

## anode the 280/c

Many improvements are em bodied in this new rectifying valve - the Cossor American Replica, $280 / \mathrm{C}$. First, the plates are carbonised, permitting exceptionally high heat dissipation with the consequent ability to carry unusually high temperatures without breakdown. The special coated ribbon filament is another new feature. By functioning at a comparatively low temperature its emission is increased and the life of the valve lengthened.


Like the 280/C, all Cossor "New Process" American Replicas embody advanced features giving knequalled efficiency, See tabls below.

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|  |  | Fil. Volts | Anode Volts | Impedencs | Slope | Old Price | $\begin{aligned} & \text { New } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 224/C. | Screen Grid | 2.5 | 200 | 400,000 | 1.1 | 29/6 | 22/6 |
| 227/C. | General Purp. | 2.5 | 180 | 8,000 | 1.5 | $23 / 6$ | 17/6 |
| 171/C. | Power Amplif. | 5 | 180 | 2,200 | 1.5 | 17/6 | 17/6 |
| $245 / \mathrm{C}$ | Power | 2.5 | 250 | 1,900 | 3.0 | 25/- | 19/ |
| 280/C. | Full Wave Rect | 5 | $\begin{array}{r} 350 / \\ 125 \mathrm{~m} . \mathrm{a} \end{array}$ |  | 3. | 20/- | 15/= |

Ask about Cossor Valves at Veall's 3 Big Cash Stores, Harrington's, Hartley's, of The Leviathan.

C. D. Machurcan, Australian Representaìive, 26 famieson St., Sydney

# WITH THE AMATEURS 

Visiting "Ham" Entertained-With the Inland Mission-Five and Ten Metre Experiments

## By MAX HOWDEN, VK3BQ

$M^{\mathrm{R}}$R CRABBE, of W6ESW, who spent most of last week visiting Victorian stations, has now moved on with the "Northern Light." He was able to attend the key section meeting on Thursday evening and give us a short description of the present conditions prevailing in U.S.A.
After the meeting he was taken home by VK3YJ - of whom more anon. On the way they called in at VK3YK, where they stayed until the early hours. The sleeping hours must have been few, because 3YJ had him up again in time to go up to the Observatory on Mt. Dandenong to see the sunrise.

The following day 6 ESW , after spending the morning cleaning up some of the mess made in the gear by salt water, was taken out to the 'drome at Essendon to see VK3WU and VK3WT. While there he was sent up with one of the section pilots and had a good view of the bay and surrounding country.

Much to our surprise he had not been "up" prior to his visit here. From there the party went out to VK3BQ, where several efforts were made to raise Californian stations, whose operators 6ESW knows, but they did not respond. Most of the week-end was spent in preparation for departure, and the only other station visited was VK3YL on the Tuesday afternoon.

On Wednesday morning we bade him adieu, but though he has gone personally, he is still with us on the air, and for the time being at least his 500 cycle signals with the 700 watts behind them on 36 metres are very strong. The call sign of the Northern Light is KGEG.

## Another Visitor

Then, on Thursday morning, VK5AX arrived here from Cloncurry, where VK8XT, the headquarters station of the

Central Australian Mission, is situated. He reports everincreasing activity amongst the stations that form this inland chain. There are now about twenty of them, and they extend from Innamincka right up to Milingimbi. In each case the station consists of two complete transmitters housed with the receiver inside one metal case. One of the transmitters operates on a frequency of $8830 \mathrm{k} . \mathrm{c}$. and the other on $2020 \mathrm{k.c}$., and all that is necessary to change from one to the other is to throw a switch. The one receiver covers both waves, and consists of a detector and two stages of audio frequency amplification.
The most interesting fact about these receiving sets is that double grid valves are used in them. These valves take one and a half volts on the filament and a maximum of six volts on the plate and space charge grid, so that the total voltage required for their operation is only $7 \frac{1}{3}$ volts.
The power supply for the transmitters, which are all crystal controlled, comes from D.C. generators that are driven by foot power, either with peddles like those on a bicycle or in some cases with a treadle like that on a sewing machine. The sets are so fool-proof in operation now that the only knowledge required is how to send and receive Morse Code.
Unfortunately the average person is much more at home with switches, etc., than with the code, so now VK5AX is taking a couple of months off while he tries to design a machine that will overcome even this difficulty and yet not be too expensive.

The Australian Gold Expedition
He also reports that for a while the stations of the Inland Mission heard the signals from the Australian Gold Expedition, and that when last heard this party was just starting


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off on the five weeks' camel journey. These five weeks are now about up, so we can start looking for VK8AG again.
This station was working to schedule at 10 a.m., 5.30 p.m. and 7 p.m., but most of the work seemed to be done in the mornings. The wave length is 36 metres, but provision has been made to tune up to 42 metres if necessary.

As expected, VK7JK arrived here on Friday morning, and he was met by 7CH and 3BQ. The two T's had the day together, and then Snowy had to catch the evening boat back to Launceston. He has acquired so much new gear that he had to send quite a lot of it on ahead by post, as there was not nearly enough room for it in his bag. He will be using crystal control again before long, now that he has enough meters and valves. He has bought 7JK's 50 foot mast, so his new aerial will no doubt radiate a much greater amount of energy.

## Tasmanian Visits the Mainland

VK7JK has brought most of his gear over with him, but has not yet decided where it will be installed. For the time bring he is stopping very close to the old QRA of 3 BQ at Ormond, and he may put it in there.
The conditions down in Hobart seem to have been marvellous on the 7 m.c. band lately, and during the last three weeks that 7 JK was on the air he worked with nearly 100 European stations.

VK3WL and some of the other Victorians have been doing good work, too, but the signals from quite fifty per cent. of these European stations have not reached here. VK7GE, who has not been on the air long, and who only uses low power, has been able to work with a couple of Englishmen and several Spaniards. He will probably be able to do even better now that there is practically no QRM down there.

VKTRB has come back on the air after a long absence, but he is not working on the "DX" bands. He is concentrating on five and ten metres, so if the conditions permit he should do well. Most of the stations that do any work on these bands are only there temporarily, and are constantly re-tuning their gear, so that the maximum efficiency is never obtained.

## Five Metre Work

Last Sunday VK3JJ tuned up his old oscillator that he built two years ago for five metre work, and put it on the air for the first time. His signals were picked up at R4 on a. low aerial at VK3BQ, but no other reports have been received. The second op. at VK3TA is very interested in five metre work and in future will have the receiver of that station at least in action for the 1.30 p.m. schedule on that wave. As soon as the present ten metre test is over the chances are that VK3PA and VK3WL will start working on five metres again.

The latter was very disappointed that he could not take more active part in the test last week, but it so happened that he was on duty during most of the schedules. Then when he did get on his accumulator ran down. However, he was able to put enough into it between periods to last over the rest. The signals from VK3PA were very strong, but for several hours he was working with an incorrect adjustment that gave him radiation on several frequencies at once. This made it possible for receiving stations to pick him up very easily, and since no DX signals came through the added QRM did not amount to enough to be noticeable.
VK3OC is still chasing the cause of the chirp in his signals that are steady on all the other wave bands. He is going to try radio frequency chokes in all the leads, including those going to the filaments now.

## On Ten Metres

Hhere were two additions to the gang on ten metres on Sunday morning. First of all VK3TD came down again with about 25 watts input to a TC $04 / 10$, and his signals are very steady except for a slight chirp in the note that is near to DC. The circuit is a TP/TG, but he is thinking of putting in a TNT push pull circuit.
5. The aerial is a standard half wave 42 metre zepp with 044 foot feeders, and he gets about half an amp. in these feeders, so he evidently loads them up to five quarter waves with a parallel condenser.

The other newcomer to the band was old VK3BD, who was putting about 30 watts into his aerial with a TC' $04 / 10$. His ncte was rather rough RAC, but quite steady, and his signais were RT locally.

Therc was no-DX, although VK3PA heard some signals modulated at 500 eycles at $9.30 \mathrm{a} . \mathrm{m}$. This is the schedule time for VK4SK to call, so the signals probably came from him. The weather seemed to be equally wet in Queensland as it was here, so that accounts for the lack of contact between here and there.

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## TROUBLE CORNER

Technical Queries for which answers are desired by post must be accompanied by a POSTAL NOTE FOR ONE SHILLING. Queries for which no fee is paid will be answered through the columns of The Listener In (as space permits). All queries should be addressed to the Technical Editor, The Listener In, 62 Flinders Street, Melbourne. Wiring diagrams, plans and layouts cannot be supplied.

STATIC AND FADING.-Could you tell me whether it is possible to cut out static and fading, as it is difficult at times to hear what the announcer is saying when a burst of static comes through. Fading is not so troublesome at night as it is in daytime in my locality, and is not nearly so bad as static. My set is a battery-operated neutrodyne.-G.M.C. (Swan Hill, Vic.),
It is not possible to eliminate static or fading. There are a great number of listeners, mostly in the country districts, who have to put up with static and fading, which is due to atmospheric conditions. The solution appears to be in the erection of relay stations in the affected areas. 1.

THE REINARTZ THREE-I have a three valve Reinartz circuit set which has one dial control with reaction coil. I can tune in a station at medium strength, and after it has been going for a few minutes it comes in with twice the volume.
The batteries $\mathbf{A}, \mathbf{B}$ and $\mathbf{C}$ are all right, also the valve sockets appear to be O.K., and I cannot see any loose connections. Would you advise me where to look for the trouble? "THREE VALVE" (St. James, Vic.).

The trouble you complain of can be caused by a number of things. First, a defective valve; second, a poor battery connection. A loose connection at the terminal where one end of the speaker coil is soldered could also cause the trouble. Have the valves tested and check the various connections that are mentioned in the foregoing. 1.
"JAC" (Brighton, S.A.).-The circuit that you enclose is quite suitable for your locality. The A415 valve is ideal for short wave detection. Using valve base coils and 30 -gauge wire, the approximate coils and 30 -gauge wire, the approximate bands are:-
Wave Length
in Metres. Grid Coil. Reaction Coil.


It may be necessary either to increase or decrease the number of turns on the reaction coil in order to obtain the smoothest oscillation. 1.
J.D.C. (Blackwarry) - The erackling noise could be caused by the "B" battery. Have this battery tested; also the audio transformer, as the primary winding may have broken down. 1.
F.A.N. (Essendon, Vic.) writes:-As I shall be going to Tasmania for a holiday during the summer, I should like to take two or three valve set with me. I have no idea of reception conditions in Tasmania, and should be glad if anyone in mania, and should be glad it anyone in a similar set, could let me know how the mainland stations come in.
A.F. (Charlton, Vic.).-The 800 ohms bias resistance should be R5 and not R3, and the reaction cofl consists of 20 turns The values of the R.C. unit are: - R3 100,000 ohms; $R 4,1 / 2$ megohm; and $\overline{C 4}, .01$ mfd . We are unable to recommend any particular make of valves, for obvious reasons. Blue prints and wiring diagrams for the receiver that you mention are not obtainable. 1.
P.H.W. (Hawthorn East, Vic.),-Thanks for the circuit of the crystal set, which we may publish at a future date. 1.
"AMATEUR TATURA" (Tatura, Vic.).There is very little difference in volume between two-volt and four-volt valves. As the set is three years old, the reason for the volume being poor is most likely due to the valves being weak. It would be, to the valves being weak. It would be advisable to have the valves tested for flament emission. Four-volt valves can e substituted to two-vo vaives without any alteration to the set. the present $B$ batteries will do for the four-volt valves, the only addition being a four-volt filament battery. You could convert your set to all-electric, but you would have to employ A.C. valves.

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## TROUBLE CORNER-Continued

H.P.R. (Reservoir, Vic.).-Your receiver is not designed for interstate reception, and it is doubtful whether you will be able to improve the performance of the set. Try increasing the length of the aerial wire by about 20 feet. 1.
"RECTIFIER" (Bentleigh, Vic.). - The cross section of the core is one and a quarter inches. For the primary wind 1000 turns of 26 -gauge wire. The number of turns per volt for the various secondary windings will be 5 . The gauge of ary windings will be 5, The gauge of wire for the $226,227,171$, and the 280 filament windings is $20,18,26$, and 17
gauge respectively. The gauge of wire for gauge respectively. The gauge of wire
the high voltage secondary is 36 . 1 .
M.G.C. (Yarram, Vic.).-Wind 15 turns of 26 -gauge wire for the aerial coil, and 50 turns of the same gauge wire for the R.F. grid coil. The space between these two coils is half an inch. For the primary of the R.F. transformer wind approximately 25 turns of 32 -gauge wire. About half an inch away from the finish of this coil, start winding the detector grid coil, which consists of 50 turns of 26 -gauge wire centre tapped for the neutralising condenser connection. The tickler or reaction coil consists of 25 turns of 26 -gauge wire wound on a separate former-having a smaller diameter than the grid coil, in order to be able to rotate inside it. The
size of the formers except the tickier former is 3 inches. 1.
G.H.D. (Mont Albert, Vic.).-Accompanying is the circuit of a simple continuity tester, which consists of an 0 to 6 volt D.C voltmeter connected in series with a four
volt battery. This tester is very handy for volt battery. This tester is very


Diagram of a continuity tester.
W.L. (Yarraville, Vic.).-The output of the eliminator under load is about 150 volts maximum. There should be no need to insert an extra resistance for the detector valve unless the voltage required is less than the audio valve, in which case connect another variable resistance between the output side of the choke and the " $B$ " positive detector lead. A bell transformer is unsuitable for an eliminator. 1.
J.M.G., of Jeparit, has kindly sent in his address for the benefit of O.V. and O.S. De G. It is Mr J. M. Gloury, Jeparit, Vic. Many thanks for the enclosed leaflet.-1.
H.C.J. (Ballarat East, Vic.)-There is undoubtedly something wrong with your receiver, as we have had numerous reports concerning the remarkable selectivity of the Cockaday circuit. Try reversing the connections on the tuning coil and varying the number of turns on coil L3. Your layout is correct, the trouble most likely being in the coils.-1.
A.F.T. (Carnegle, S.A.).-The following are the stations that you may have heard: -(1) HSP1 Radio Bankok, (2) WOV America, (3) WBMI America, (4) XGAH tion was a South Australian amateur. (6) The seven stations that you logged would probably be overseas. (7) Unable to place the station on 240 metres.- 1 .

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## TROUBLE CORNER-Continued

L.B. (Tasmania)-Providing the condensers are of good design they will work O.K. in the short wave set. Take 14 plates off both condensers, leaving 5 fixed and 4 movable plates.-1.
"STICKEY" (Plenty, Tas.) writes:-KFI Los Angeles appears to be the most popular station that is received here from California on the broadcast band, so would not be out of place.
would not be out of place. this station recently in reply to one I sent to KFI some months ago, and they gave me a few details of the station.
Previous to July 12, this station used a power of 5000 watts, but has since changed over to 50,000 watts. It is situated at Buena Park, some twenty miles to the east of Joos Angeles. The towers, 400 feet high, are the tallest in America, and they are insulated both at the ground and the 200 levels.
The ground system consists of twenty miles of eopper wire ploughed 18 inches into the soil. A two-storey brick building houses the power plant, and the transmitter, while the studios remain at the Anthony Packard building, 1000 South Hope, St., Los Angeles. The entire installation at Buena Park represents an investment of 300,000 dollars in round figures.
H.J. (Rockhampton, Qld.).-(1) The range of the crystal set is limited, and is designed for reception in the vicinity of 20 miles. (2) The crystal valve set has a range of about 50 miles. -1 .
"Q.R.M." (Roseville, N.S.W.)-As the electrical interference is apparently coming in through the A.C. mains, it would be adin through the A.C. line filter in the mains. visable to insert a line filter in the mains. A circuit of a line filter is shown. Each condenser has a capacity of 2 mfd.,
and the chokes consist of 150 turns of $20-$ and the chokes consist of 150 turns of $20-$
gauge wire wound on a 2 -inch former.


Eliminating the interference problem,
"No. 1406" (East Malvern, Vic.) - (1) Radio inspectors are not compelled to test and discover actual cause of electrical interference. (2) You can send in a complaint to the inspector regarding the inter-
ference. If he inspected your receiver, he would be able to tell you whether the induction was coming in through the A.C. mains or the aerial. (3) The Listener In of September 15, 1931, contained an article on "Improving Selectivity." (4) Wind 50 on Improving of 28 D.S.C. on the two inch former for the tumed coil and 15 turns of the same gauge wire for the other coil. The 50 turn coil is tuned by a .0005 mfd, condenser, and the space between the two colls is $1 / 2$ an inch. (5) Induction can sometimes be minimised when it is received by the aerial, by means of an aerial filter. (6) The verticle aerial has just as great a pickup, and is more selective. (7) 3 DB is now undergoing tests, but the trouble is most likely due to your set.-1.
I.W. (Preston, Vic.) -(1) As the audic valve does not respond to blas, the trouble could be due to a number of things. In the first place a weak emission valve would not function if the correct bias was applied. Secondly, flat low voltage B bateries. A defective bintery or a defective secondary winding on the audio transformer could also cause the trouble. Have all these components tested. The reason why the set works when the grid leak is removed may be due to a faulty leak. (2) A set would work with the "C"
R. O'N. (Arncliffe, N.S.W.). - There is no further information concerning the R.F. transformers. Three-inch colls are no more efficient than coils wound on a former one and three-quarter inches in diameter For the aerial coil, wind 15 turns of 24 gauge wire, starting $3 / 4 \mathrm{in}$. from one end of the former. A quarter of an inch away from the end of the 15 turn winding, start the winding of the grid coil of the R.F valve. The number of turns on this coil is 45 .
The correct number of turns on the primary of the R.F. transformer can only be determined by experiment. Try winding 30 turns of 30 gauge wire for the primary coil. Half an inch from the finish of this coil wind 45 turns of 24 gauge wire for the detector grid coil. The number of turns for the reaction coil depends upon the size of the reaction condenser. The improvement when using Litz wire is only slight. 1.

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One shilling a line for each insertion, with a minimum charge of $4 /$ for any one advertisement. Name and address included in rates Cash should accompany all classified advertisements unless placed by an aceredited newsagent, Advertisements for this column should reach The bourne, not later than Midday on Monday.
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# A PAGE FOR LITTLE LISTENERS 

Conducted by "Wiry," the Wireless Cat

Dear Little Listeners,-
HOW do you like the hot weather we selling pienty in the shop, I can tell you. We all help her at night; then, as a special treat, she allows us to finish up any ice-cream that might be left over.

One night Auntie was most puzzled, for, fter tea, although it was a very hot night not a single customer asked for ice-cream.
"My stripes and whiskers!" she muttéred angrily down in her Tiger throat, "what a lot I shall have over. It's no good to me."
What a feast we had that night, my Hearties! It seemed to be the loveliest ice-cream we had ever tasted. Monty and Ikey Inky kept bursting into fits of laughter and when we asked the reason, they just chuckled all the more and shook their just chuckled all the more and shook their silly heads until

When we were leaving to go home, Auntie pulled me to one side.
"There's something funny about this," she hissed, with her Tiger mouth close to my ear. "See me tomorrow as soon as Mont comes from school.'
Next day we noiselessly followed the bad scamp-cat to the corner of the street. He was standing there quite calmly holding out a little flag, on which was printed, in big letters:- 500 ILL THROUGH EATING ICE-CREAM. LEAVE IT ALONE IF YOU WISH TO KEEP WELL!
"Suffering Tom-cats!" shouted Auntie, in an awful voice, rushing up and grabbing him by the back of the neck, "so THAT"S your little game, is it?"
"WHERE'S TKEY INKY?" siee roared shaking poor old Mont backwards and forwards.
"He's a-at $t$-the 0 -o-ther c - 0 -corner," choked Mont.
Sure enough he was, my Hearties, waving another flag, with just the same words written on it.
"We never get enough ice-cream to eat," they explained to us, "so Mont thought that if we s-stopped the f-f-folks from buying it, $w$-w-we could have all that was left every $n$-night."

Aren't they rascals, my Hearties? Loud Purrs, WIRY, THE WIRELESS CAT.

## WEEKLY COMPETITION

A WRITING competition this week, for HALF-CROWNS my Hearties, and SLX HALF-CROWNS waiting to be won. MAIT-A-CROWN is always useful, and especially at this time of the year, when the shops are looking so full of good things. There are six Auntie Tiger Surprises, too, pencils, pens, brooches, notebooks, hankies and Binko Badges. These are awarded for the six next best entries. Then, all the Highly Commended will have their names in the R.U.R. Column. Ten times in this column wins you a special prize of $2 / 6$.
What you have to do:-Write the words, Christmas holidays will soon be here, then we shall have plenty of fun.
Be sure you put your name, age and address; this is most important, unless thou want your entry to make a feed for that old witch, the Waste Paper Basket.
In, Flinders Street, Melbourne, Listener In, Flinders Street, Melbourne, and see that it reaches me not la
nost Monday, November 30 .

> Loud Purrs,

BINKO.

PEN FRIENDS WANTED
Lavinia Munday, 31 Howitt Street, North cote South, N. 16 , Vic., would like a pencote South, N.16, Vic., Wou

## Winning Essay <br> \section*{THE DOG NAMED HILDA}

I AM a hophound and my name is Hilda I was born in a stable on a country farm. Before I was old enough to walk and find food for myself, Jane, the maid, used to bring nice bones, and milk to drink, but as soon as I was old enough to get my own food she didn't bring me any more. I remember the first morning I left my snug home to have a look about I poked my nose outside the door and as the sun was shining brightly I thought I would take a walk. When I was a good distance from my home, I saw another big dog from my home, I saw another big dog chained to a kennel and he had a nice feed of meat and bread beside him; so I walked up to him and said "Bow-wow," which means "Good morning." But he snarled at me. I thought I would like a taste of his delicious dinner, so I took one little piece.
He made a spring at me and gave me such a fright, and when Jane heard me howling she got hold of me and put me in my proper place, and I didn't sneak any more dinners.
Another morning I saw some yellow fluffy things and a big black hen strutting round the yard, and a thought came, to my head. After them I scampered, and they disappeared.
But where to? I thought I would go and see, so I started barking at the old hen, and she gave me such a peck on my nose that I didn't wait to see where the fluffy things went, but I made a hasty escape. This time Jane took me inside, and gave me to a nice little boy, who said he would take care of me. So here I am, still alive take care of me. So here I am, still alive and well. But I have grown much wiser now, and I never touch mother hens and their chickens, but keep a good distance
from them. I am growing old and am from them. I am growing old and am contented to do as my dear little master tells mim as far as il amas love him, and guard him as far as I am able. Good-bye.

> DOROTHY AUSTIN.


Binko will sing a song for you if you write and tell him you would like one. Address your letters to Binko, The Listener In.
Flinders Street, Melbourne.
Jean Stewart she would like a song,
Jean lives in Castlemaine,
A prize arrived for her before
She stepped into the train.
To visit dear old Melbourne town So happily she went,
Before she'd looked in many shops, I'm sure she'd have it spent.
Stan. Holden has two puss-cats brave
Who chase the hop-hounds bold,
They seel for rats and purr for pats,
By Stanley I was told.
One has a tail like Monty Manx, A little stump, no more,
We sighed a sigh and said, perhaps He caught it-in a door.
Flo Holland lives in Menindee, A strong and healthy lass is she, She has pink cheeks and eyes of brown And on her face there's ne'er a frown.

The competitions Florrie tries,
And, one day, she will win a prize;
And on that day she'll surely be
The proudest lass in Menindee.

## (20) Mifimiar amennuss

November 15.-Alfred Hutchison, Esther Grave, Lily Minett, Jessie Phillips, Frank Beavis, Jean Archibald.
November 16.-Joan Lowry, Peter Hendy, Lucy Swartz.
November 17.-Lillian Taylor, Joe Sanders, Vernon Blazely.
November 18. -Nancy Edwards, George Rowe, Edith Lovell.
November 19. Reg Phipps, Sheila Mathews, Joan McDonald.
November 20 . Lorna Whelan, Mary Thompson, Gary Thompson.
November 21. - Areta Marshall. Joyce Jacobs, William Pitt, Jean Carroll.

## COMPETITION RESULTS

The pastels and paintings sent in for the coloring and drawing competition, were exceptionally good. The office artist had a hard job to pick the winners. Here they are:-Six halfcrowns go to-Alf. Tremewen, Karoola Street, Hampton, S.7.; Jean Elliott, 9 Devonshire Square, "Trevallyn," Hobart, Tasmania; Joan and Geoffrey Lavender (between them), 19 McArthur Street, Malvern, S.E.4; Mollie Johnson,L 134 Park Street, Moonee Ponds, W.4.; Lois Davis, 282 Dorcas Street, South Melbourne; Joe Manton, 17 Higham St., Maryborough.
Six Auntie Tiger Surprises for:Winnie Jones, Hastings Road, Frank-1 ston; Bertha Clay, 108 Carpenter Street, ston; Bertha Clay, 108 Carpenter Street,
North Brighton, S.5; Phyllis Moore, North Brighton, S.5; Phyllis Moore, ville Avenue, Yeerongpilly, South Brisbane, Q.; Gladys Austin, Cummeroogunja, via Picola, Victoria; Dorothy Sandow, 9 Grice Street, Essendon, W.5.L Loud Purrs,

BINKO.

## RIGHT YOU ARE

 Ten times in the R.U.R. Column entitlesyou to a cash prize of $2 / 6$. Be sure you you to a cash prize of $2 / 6$. Be sure you
underline your name and cut out this underline your name and cut out this below. When you have ten columns conbelow. When you have ten columns con-
taining your name send them along to taining your name send them along to Binko, The Listener In, Flinders Street,
Melbourne. You will receive in return a Melbourne. You
cash prize of $2 / 6$.
Olwyn Cocking, Nancy Thornton,, Stella Cockroft, John Latham, Noel "Brown, Jean McAliece, Alma Turland, Jean Huddleston, Jean and Dorothy Kishere, Joyce Tagg, Dulcie Pollard, Mary Carey, Shirley Phillips, Gordon Crowle, Bessie Goldstein, Phyllis Hobbs, Florence Holland, Nessie Fox, Betty Down, Violet Greenfield, Venus Conroy, Shirley Boland.

[^1]If Auntie Tige should hear him bark, If $e^{\prime}$ er he should attack her, She'd give a spring right on' his back And go off like a cracker!

Loud purrs,

THE PRIVATE LINE-(Continued from page 13)
At this point a sudden gleam appeared in P.J.'s eyes, and he succeeded in restraining the anger that had been stead ily mounting during this discourse,
He caught Carnforth's arm as the latier was about to burst into speech and whispered in his ear, with the result that they allowed themselves to be shepherded away to their eabin without a word of protest.
It was then learned that the captain had no key of the strongrooms and they could not be opened till the ship reached Southampton.
The submarine commander merely grunted that "He had expected something of the sort," and sent aboard his ship for an oxy-acetylene plant and the gang of experts to work it. It would mean delay, for he dared not use explosive; but, so well had the coup been timed that a few hours mattered little to him.
IT was six hours later that Carnforth,
who had slipped out on tour of reconnaissance, burst into the cabin.
They are almost through, I think, as they're getting ready for the transhipment up topsides," he gasped breathlessly. "But, listen, P.J., listen!"
Clearly through the open port came the drone of an aeroplane engine.
"What-O! This sounds promising," said P.J., scrambling for the door. "Now things ought to liven up a bit," and despite orders and grim warnings, the two made a dash for the boat deck.
The submarine commander, however, had also heard the sound. Recognising an R.A.F. seaplane, he knew in a flash that somehow, help had been sent for. But, contrary to P.J.'s hopes, he in no way lost his head, Posting a man at the masthead to keep a lookout for the approach of any ship, he signalled the submarine to come alongside,
The submarine was under way before the seaplane made its first swoop, and the first bomb missed her altogether. Before the airmen could make another attempt she was snugly alongside the big liner, and secured fore and aft.
"Cunning gent, our little pirate, isn't he?" said P.-J. with a hint of grudging admiration in his tone. "What the devil do we do now?" He was eyeing the big hawser that ran down to the foc'sle of the submarine, as he spoke, and noticed that it was secured a couple of feet forward of the $15-\mathrm{pdr}$., still manned by two of her crew.
"I've got it!". he said suddenly, and whispered excitedly in Carnforth's ear.
"You're mad!" said the latter a few minutes later. "You could never make it. But it's a sporting chance, and I'm with you. Give me quarter of an hour -then let her go," and hurried off to carry out his part of P.-J.'s scheme.
The gang had lost some of ifs vigilance, - after six hours of unmolested acfivity, and Camforth had no difficuity, in getting to some of the liner's crew, and dispatching them, one by one, to assemble near the bridge.
P.J. left to himself, proceeded to tie some thick canvas round his legs, and procure a pad of the same material bbout a foot sqtuare.

With his eyes on his watch, he waited entil the quarter of an hour was almost up , and then crept forward to the place There the hawser was made fast to two
bollards on the liner's deck. A swif! bollards on the liner's deck. A swiff giance overside showed by the gun, and the second-inmen by the gun, and on the conning-tower, all with their backs to him, watching the rigsinge of the tackle for hoisting in the
sold, near a big hatch that had been sold, near a
He waited till a swift rush of 'feet nedr the bridge told him that Carn-
forth was rushing the guard on the

Captain's quarters. Then, placing the pad so that it formed a slip for his hands, and crooking his feet round the hawser, he shot down towards the submarine like a thunderbolt.
He was on the two men before they realised anything was amiss. One foot took the nearest in the small of the back, with a force that jarred every ounce of breath from his body and shot him off the narrow deck into the sea. The other man turned to meet the hamlike fist of a man who had been United Services champion for two years-and took no further interest in the subsequent proceedings.
With a lightning dive, P-J. made for the quick-release of the training gear on the 15 pdr ., and swung the gun on to the conning tower. Hearing the commotion, the second-in-command turned to meet the gaping muzzle pointing straight at him. Pausing only long enough to shout to the men on the after hatch, he disappeared through the conning tower hatch, slamming the watertight cover with a celerity that made P-J. chuckle.
The submarine's deck had cleared as if by magic, and the after hatch had been shut down. P-J. looked round for fresh fields to conquer, wondering what the next move would 'be.
He had not long to wait, for the next minute he felt an ominous tremor run through the steel deck under his feet. The sudden hiss of air rushing from the vents, as the forward tanks started to flood, told him all he wanted to know,
Without pausing to cast off, they were going to submerge under him, and wash him off the deck.
P-J.'s mouth set grimly, and he did three seconds of furious thinking. There was only one thing to do; and that was to fire point-blank at the base of the conning tower. He knew that the chances were ten to one against his coming out alive; knew that, even if the shell in the gun was not fitted with an instantaneous fuse and did not explode on impact, he stood a very good chance of being killed by flying fragments. But, whatever happened, the submarine must not be allowed to get back into the enemy's hands.
P-J. did not hesitate. Taking careful aim, and a firm hold on the firing pistolgrip, he pulled the trigger

## $\mathrm{I}_{\mathrm{B}}^{\mathrm{E}}$

EANWHILE, on the bridge, Carnforth had carried out his part of the daring programme, with equal success. The two guards, lulled into a sense of false security, had been taken by surprise and overpowered; and in less time than it takes to tell, the captain was issuing rifles, small arms and ammunition to Carnforth and his party.
Now that the menace from the 15 pdr . had been removed, events moved swiftly. One by one the guards, who had been posted all over the ship, were attacked and disarmed, without the alarm being given to the remainder of the gang, who were assembled outside the strong-rooms, to witness the triumphal entry.
These, too, were caught napping; and, With the exception of their chief and his American bodyguard, surrendered without resistance as soon as they realised the game was up. The latter two, however, were made of sterner stuffi, or perhaps realised what was in store for them if they were taken alive, and decided to
shoot it out. It was the liner's captain shoot it out. It was the liner's captain who shot the weapon out of the commander's hand, but the American had killed a second man and wounded a third before Carnforth shot him down.
It was at this moment that Carnforth remembered P-J., and, leaving the party to secure the prisoners, he dashed on to secure the prisoners, he dashed on

WHEN the smoke cleared away P-J. found himself, much to his astonishment, still in one piece, gazing at a large hole in the conning-tower. The shell had passed clean through, tearing another rent in the far side, low down by the water-line, and had gone richocheting out to sea.

The water, creaming from the vents a few minutes later, told P-J, that he had been successfut, and that the submarine crew were hurriedly blowing tanks again.
THE position was unchanged when, some hours later, a destroyer dashed on to the scene.
"Thank heaven you've got here at last. Tony," P-J. greeted her skipper, as that officer stepped aboard, after seeing a prize crew safely aboard the submarine. "I was getting infernally tired of being a sort of combination Horatius and Jim Bludsoe. What delayed you?"
"Delayed me! I like that," said the destroyer's captain indignantly. "I very nearly burst a boiler geting here, you ungrateful hound!"
But P-J. wasn't listening. He had spotted a large deputation, headed by the liner's captain, bearing down on him with, as he put it, congratulations written all over them.
"Let's go and have one while the bar's empty," he said hurriedly, and led the way below like a crack sprinter getting off the mark.
There was a merry scene of celebration that night. The submarine was being escorted to port and retribution, while S.S. Dramatic steamed on ahead, with her precious cargo still intact.
Everyone, of course, was curious to know how help had been summoned, and P.J. was at last prevailed upon to explain.
"Chance," he said. "Pure chance, I have always been keen on wireless, and just lately I have been across to America to try out a new idea of mine. The whole 'box of tricks' is in those two suitwhoses I lugged on board.
"It so happens that Tony Richards, the skipper of that destroyer, is an old friend of mine, and I fixed up one of my sets in his cabin. I have been in touch with him all the time, by wireless telephony, mark you, right across the Atlantic.
"For those of you who know something about wireless I will explain roughly the idea. Up till now, the main trouble with telephony has been the power required to transmit any distance. But I have got over that, mainly by reducing the wave length. I have managed to get down to one and a half metres, which enables me to transmit nearly 3000 miles, with a battery small enough to be carried about.
"One of the main advantages is that no one, without one of my sets, can either hear or interfere with you. It is as good as a private telephone line! That is why our late visitors never knew anything about it. All I had to do was to tune in to Tony's receiver and say, 'Help! Help!' so to speak, like fetching
the policeman on the beat. When he the policeman on the beat. When he
realised he couldn't get here in time, Tony had a seaplane lashed down on his deck, in the hopes of searing inquisitive gentlemen. but they refased to be scared.
"Anyway," he finished haopily. "I owe that naughty old pirate a debt of gratitude!"
"Eh?" said Cornforth. "How come?"
P.-J. grinned cheerfully. "Just think of the wonderful advertisement he's so kindly supplied me, free gratis and for nothing for the Pierce-Jones Private Wireless Telephone Company!"
"SHORTWORDS"
OUR FASCINATING COMPETITION $£ 10$ for Picking Ten Simple Words


Conditions of Competition No. 14
The ten little puzzles represent words as ndicated by the clues, which are printed inderneath each. Each square represents a etter, and where a picture is given the nitial letter of the word illustrated is the Wissing one.

Write only one word under each picture. Entries close by noon, Saturday, Novemjer 28, at The Listener In Office. Send as nany entries as you like, but each one must je on a set of pictures and filled in separitely. All your entries must be enclosed in one envelope. Write your own name and iddress clearly in block letters on the back of the envelope.
Sign each entry in space provided on the soupon below the picture.
Write the number of the Competition (No.
14) on the envelope. 4) on the envelope.

Each entry stands on its own, and in naking a claim you must not say, "I have ine (or more) right" unless they are all n the same set of puzzles. If you have five ight in one set and five right in another Keep a copy of your solutions correct.
rect words will be published in the issue of

((1)) PERFORMED BY QNES NOSE

(10) CONTAINETR

Saturday, December 5 , when you will be told how the prize is to be claimed. You may have to make a claim.
In the event of a tie the prize money wil: be divided. Should no person succeed in correctly placing all the words the prize will go to the competitor who has the greatest number of correct answers.
No responsibility can be accepted for the loss or delay of any entries. Proof of posting cannot be accepted as proof of delivery Mutilated or altered entries will be dispualified. Competitors enter this competition on the distinct understanding that the Editor's decision is final and legally binding. The correct solution is knowa only to the Editor. The competition is run in conjunction with Table Talk, and entry forms from that journal may be enclosed with those from The Listener In.
Entries delivered by hand may be placed in the box in the vestibule at The Herald Office, 62 Flinders Street, Melbourne, or in the Competition Boxes at the RAILWAY BOOKSTALLS AT SPENCER STREET, ELIZABETH STREET, MAIN CONCOURSE FLINDERS STREET AND PRINCE'S BRIDGE.

4 (vame)

## AFOBESS

## Enter The Listener In Competition No. 14. and agree to accept the Editor's decision as final and legally binding.

Address envelope No. 14 'Shortwords' Competition. The Listener in, Box 18616. G.P.O., Melbourne, C1, and put name and address on back of envelope. Envelopes may also be left at the Competition boxes at Railway Bookstalls at Spencer Street, Elizabeth Street, Main Concourse, Flinders Street and Prince's Bridge.

## ARE YOU A

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If so, you will be thrilled by the amusing account given by F. Keith Manzie with his artist friend, Fred Aldridge

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Pictures and accounts of all Social and Sporting

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[^0]:    A Chopin group
    (a) Study
    (b) Walz.

[^1]:    Kenneth Castell, he must have A little mention, too,
    He's not yet six, but goes to school,
    I think he's good, don't you?
    Four pigeons and three sea-gulls he Has round his place, oh, myl
    If we should pay a visit there,
    Now, Margaret Hammond, so I'm told,
    A pet she does not lacle,
    She has a puss-cat, Oscar, and

