

WIRELESS WEEKLY

Vol. 8. No. 18.

Registered at the G.P.O., Sydney, for transmission by post as a newspaper.

Friday, Aug. 27, 1926.



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COBHAM

on
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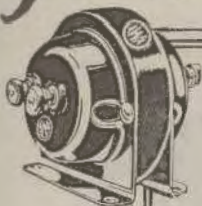
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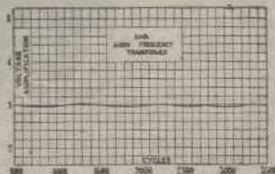
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WIRELESS WEEKLY

VOL. 8. No. 18.

AUGUST 27, 1926.

The Infant Radio

ONE of the noteworthy things about infant industries is that they retain their infancy so short a time. Barely have we time to cease our exclamations of wonder over the new arrival than it has reached adolescence.

So it was with the automobile, and later the moving picture. So it is with radio.

Although we never cease to find new things to wonder at in the radio-active world, radio broadcasting has long since outgrown the cradle.

Novelty is no longer the fly with which the radio enthusiast is baited. There are few homes which have not been invaded by wireless at some time, for so simple has become the control of a set that one can be operated by all members of the family.

A definite reaction following the early novel period has been experienced by the industry, but that is all over, and manufacturers and retailers are settling down to a steady, regular business. Invention after invention have followed each other so often of recent years that for a long time after radio was commercialised, people expected revolutionary developments.

Yet this has not come. Instead, there has been a rapid, all-round improvement in existing apparatus so that each year has seen a 50 per cent. increase in the efficiency of receiving and sending sets.

Upon this has been built a great industry, whose employees number hundreds of thousands, and whose factories are spread throughout the world.

Looking on the neat, compact, latest model receiver we can hardly realise that it is but a few years since the first broadcast receiver was operated in Australia. Today we have eight first-class broadcasting stations, many more second grade stations, and a host of amateur broadcasters. In addition, there are several stations in Japan received here regularly, and at least one New Zealand station which can be tuned in with ease. All of these stations are in the race for popularity and are continually effecting minor improvements.

Thus has radio outgrown the cradle and has entered upon a sturdy career. So gently, yet so rapidly has the change taken place that we show no astonishment. Its success is in the fact that we have taken radio for granted as part of our everyday life.

WHY NOT MARRY?

It is a question you might well ask yourself when you read the announcement below. For the privilege of broadcasting the ceremony a host of gifts will be received by

October's Most Beautiful Bride

TO be married in splendour is the dream of every girl. There is one lucky and beautiful bride, who is to have a wonderful start in married life regardless of her position in October.

As winner of a unique contest devised by Farmer's (2FC) Broadcasting Service, in conjunction with Beard, Watson Ltd., Mrs. Maclurean of the Wentworth Hotel, George A. Bond & Co., W. H. Paling & Co., Amalgamated Wireless, and Monte Luke, she will receive a grand array of costly gifts.

All for the privilege of allowing 2FC to broadcast the ceremony.

The conditions of the competition are:—

1. Entries will be received up to, and including, September 25.
2. Each competitor must fill in the coupon below, and forward it, with copy of her photograph, to the Manager, 2FC Broadcasting Studio, Farmer & Company, Ltd., Sydney, endorsed "Bridal Competition," before September 25.
3. Photographs of the competitions will be published in the "Evening News" each day.
4. The photographs will then go before a judging committee, who will select a group of girls from the competitors.
5. This preliminary selection will be made by the judges, and the names of the finalists will be announced in the "Evening News," and by 2FC Broadcasting Service, on Thursday, September 30.

6. The finalists will then be required to appear before the judges and the final selection will be made.

GIFTS WORTH £553

These are some of the gifts the lucky bride will receive:—

Bridal trousseau from Farmer & Co., Ltd., valued at 100 guineas.

Bedroom suite, from Beard, Watson Ltd., valued at 100 guineas.

Piano, from W. H. Paling & Co., Ltd., valued at £100.

Wedding cake, valued at 75 guineas, for 50 guests, from Mrs. Maclurean, Wentworth Cafe; floral decorations by Seal's, valued at 25 guineas (£105). Wireless set, with accessories, complete from Amalgamated Wireless (Australasia), Ltd., valued at £50.

Towels, hosiery, and underwear, from George A. Bond & Co., valued at 30 guineas (£31 10s.).

Three dozen photographs, at 10 guineas a dozen, from Monte Luke (£31 10s.).

Cine-Kodak camera and accessories, from Kodak (Australasia) Pty., Ltd., valued at £25.

Total, £553.

and the winner announced in the "Evening News" not later than Wednesday, October 5, so that the winner

will have ample time to complete arrangements for the wedding ceremony.

7. It is an absolute condition of the competition that the winner must be married next October, and as the wedding breakfast, which is one of the gifts, requires to be arranged, the winner will be asked to arrange the wedding in Sydney on October 28.

8. The decision of the judges is to be accepted as absolutely final.

9. The names of the judges will be announced at an early date.

All the girls who are contemplating marriage are eligible to enter this competition, provided they are prepared, if selected by the judges as the most beautiful competitor to be married in October, and if possible, on October 28. The conditions of the competition have purposely been framed so that to allow her to make the final arrangements for her wedding.

A unique round of social engagements will be awaiting the winner. Already Mrs. Maclurean is arranging a preliminary dinner dance at the Wentworth for the group of girls who are selected by the judges from the photographs—the finalists from among whom the most beautiful bride will be chosen.

A coupon will be found in any current copy of the "Evening News." Cut it out, and forward it, together with the photograph, to the manager, 2FC studios, Farmer & Co., Ltd., Pitt, Market, and George Streets, Sydney. Write your name clearly on the back of the photograph.

THIS IS YOUR OPPORTUNITY

HOW RADIO WILL HELP

Aerial Transport



By Capt. Alan Cobham

(As told in an interview).

PROBABLY no one factor will contribute more to the success of commercial aviation than radio. It will be the one element in the combination ensuring the greatest possible safety to passengers and pilots.

Even now it plays an important part in aerial transport, keeping pilots informed of every change in the weather, so that sudden squalls and storm centres can be avoided. In Western Europe weather conditions are much against aviation, and the services of radio are almost indispensable. England, especially the South Eastern portion, from London to the Channel ports, is, aside from the banks of Newfoundland, one of the foggiest parts of the world.

Fogs and low hanging clouds are the bugaboo of flyers and the one condition of weather that baffles them. Fog is a menace to the Western European commercial pilot, especially those who fly from Paris to London. The British Isle is so narrow that, the wind conditions just right and a heavy fog covering the land, a fast plane would be out over the Atlantic without knowing that England was miles to the East.

During the war young flyers were always instructed to fly East whenever lost—it gave them all of Europe and no small part of Russia and Asia

to land in when petrol gave out. Many of the unaccounted for flyers whose names passed from the rolls of the Allied armies during the war met their end somewhere off the West Coast of England, while trying to find a break in the banks of fog that rolled in from the Atlantic as thick and heavy as the proverbial sea of mud.

The great advances in the passenger service between London and Paris are tributes to the potentialities of radio. The Western terminal of the line located at Croydon, a few miles from London, supports one of the most extensive radio installations in all Europe. Here the pilots receive their flying orders and instructions before leaving the ground with meteorological data gathered by radio from every part of Western Europe. After the plane leaves the ground, the pilot, by means of a transmitter in the plane, makes half hourly reports to the control tower at Croydon. In these he gives his exact location, the condition of the atmosphere and all pertinent information that will assist other aviators passing through the same area within a few hours. Just what weather conditions the flyers will meet with on their course are transmitted to them when they report to the control tower by wireless.

This constant exchange of intelli-

gence is used in many ways. It gives the ground crew a check on the exact location of the planes that is almost as accurate as that kept by railway signalmen in keeping tabs on the movements of their trains. As each plane reports a flag is stuck in the map of the route at the point over which the aviator is passing at the time. The time of his report and the speed he is making, as well as his course, the wind direction and velocity are all noted, so that in the event of an accident the location of the plane can be calculated within a few miles and all necessary relief sent from the nearest depot.

Meteorological data is tabulated along all the routes of flight which run West from London to Cailloux, in France, and then fork to the North and South. One route goes to Amsterdam, the Southern route to Paris, and the extension of the line from London, to the first port of call in France, goes directly West to Brussels.

The planes are equipped with powerful transmitters, and the head phones and small transmitters are as much a part of the pilot's equipment as goggles and a helmet. The service is maintained for the sole purpose of keeping track of the planes and warning them of all impending storms or

other atmospheric phenomena that may prove dangerous.

It is possible to order every plane out on the air in case of emergency within half-an-hour and, while it has never been necessary to do so, it shows the complete domination of radio over the whole situation, centralising the command and leaving nothing to chance. Every storm is tabulated and its movement plotted so that the aeroplanes can be sent out over routes to avoid them.

A radio watch is maintained until the last plane has been reported down and in for the night. The service is not open to the general public for the transmission of messages to or from persons riding as passengers, but is maintained solely as a means of communication between flight headquarters and machines in the air.

However, despite the important service rendered by radio, it is yet more convenient than essential to the aviator. The time has not yet come when radio will completely control aircraft. There is no doubt that this will eventually take place. Paucity of machines is our chief protection against collisions at present.

An extensive air transport service would greatly increase the element of risk. Our only remedy is radio. An automatic signal system will have to be developed so that the position of a plane is automatically registered in the control cabin on the ground, just as the signal man traces the position of his trains by the little electric

light on the plan of the track. It should be fairly easy also for apparatus to be developed which would give the alarm to the pilot on the approach of another plane.

I would not like to say just how much radio would have helped me on my recent flight. But it is certain that when an air service is inaugurated over that route radio will play an important part.

I believe that Dr. J. H. Dellinger, Chief of the Radio Laboratory of the Bureau of Standards, U.S.A., has assured his government that radio can be applied as a practical instrumentality in guiding aircraft. He has made some inspections and trials of the experimental use of the radio beacon and has been charged with the task of perfecting this radio device as a practical instrument in directing airplanes through fog, darkness or other adverse conditions of navigation.

The device mentioned by Captain Cobham is actually the renewal of tests made in the U.S. some years ago.

The large transmitting coils, which are arranged to revolve around the telegraph poles, have been scientifically designated as double-beam radio beacons. This term has been selected as fittingly descriptive of similar aids to aerial navigation. As the term double beam implies, two radio waves are flashed from the transmit-

ting antennae. In practice, this means that, on the flying course, where these two interlocking signals are of the same intensity, a third signal is formed, such as the Morse telegraph letter "T," which is a continuous and unbroken sound.

The aviation pilot, hearing this constant sound, knows he is following his flying course unerringly. If, however, the sound becomes broken into two radio signals are received—for example, the International Morse telegraph letters "N" and "A"—either of the two signals before mentioned, he knows he is to the right or the left of the course and must correct his craft until he hears the constant signal once more. One difficulty with this aid to navigation has been that the pilot has had to depend entirely upon hearing, involving the possibility of error. To overcome this obstacle a visual indicator has been devised.

This consists of three small lights, mounted on the instrument board of the airplane and connected with the radio receiving set, which flash constantly. The unbroken signal obtained by the interlocking of the two separate signals at a point of equal intensity causes a relay to close. While the white light is flashing the pilot knows he is on his correct course. To either side of the course the component signals operate relays, which in turn cause the selector to close the circuit, lighting a green or red light to the right or the left of the course, respectively.

This is the status of the radio beacon, which is experimentally used by the Air Service in U.S., and it remains to be seen what modifications will be made by the Radio Laboratory of the Bureau of Standards in reducing the instrument to a practical aid in aerial navigation. Suffice it to say that the radio beacon, at this writing, is not in daily, practical service. The Air Service and the Air Mail Service have both applied the device experimentally, but it now remains for the Bureau of Standards to make the double-beam radio beacon a thing of everyday utility value.

The virtual assurance of Dr. Dellinger that this realisation is just around the corner foreshadows the

(Continued on Page 53.)



On the Berlin-Koenigsburg air line telephones have been installed in the German aeroplanes for the convenience of the passengers. They can converse with those on land, and here we see a lady passenger getting her first thrill.

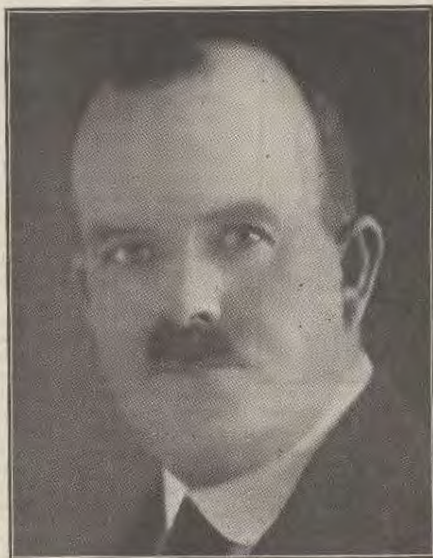
THEATRICAL artists suffer most acutely from microphone fright.

Without the applause of the audience, the approval or disapproval of the hundreds of faces before them, the bright glare of the footlights, they are lost. There seems to be an air of repression about the silent, carpeted studio, with its sound absorbing curtains, which bows them down. They betray a tense nervousness, frankly admitting their dislike of the unseen.

This always seemed to me remarkable, for with hundreds of eyes upon him an actor appears wholly at his ease, showing his indifference or nonchalance in a hundred casual and easily recognised mannerisms. But I have since concluded that it is the absence of these very gestures and expressions before the "mike" that makes them nervous. They are unable to face their audience to discover how their words are being taken.

To help them out we always encourage artists to go through the movements accompanying their delivery, when broadcasting. It is easily understood that for a professional artist to withhold the natural gestures and facial expressions in his or her piece cramps the style, and the words become stilted.

Perhaps the most unconsciously comic thing about a comedian are these expressions before the microphone. We have become indifferent to the hundred small humorous situations surrounding the studio, but I often think how irresistibly funny such situations must seem to a



"Mike" Fright

By F. C. COCHRANE

stranger visiting the control room. Through the glass panel he looks into the sound proof studio, where he sees an ordinary well-dressed citizen in everyday clothes performing the most amazing antics and making the most curious grimaces before a small, perforated black disc.

Without grease paint and his stage clothes the comedian becomes almost a tragedy to those in the studio. Were it not for the imagination of his listeners, and that he is able to impart some of his personality across the air, he would be a farce to his listeners.

Although actors, as representing a class, are the most affected when broadcasting, they are by no means the only speakers to suffer from "mike" fright. It attacks all types. Nervous tension and self

consciousness cause the failure of many good radio speakers. The symptoms include quaking knees, excessive brow perspiration and inability to keep the arms and hands in their natural position.

The worst example of "mike" fright that I can remember was that of a city business man addressing, as vice-president, fellow members of a well-known institution. There were no strangers present, and he had delivered many excellent speeches to the same institution, but because of a microphone before him, it was all he could manage to put two words together. He showed all the symptoms in their most alarming form.

There was not one man present who did not recognise his trouble and feel uncomfortable. I had great pity for him, but at any moment expected to see him strike the microphone from the table. He afterwards confided to me that the speech had been a painful ordeal.

"Mike" fright is truly a queer thing. Here was an educated, modern business man, abreast of the times, but afraid of a recent product of science. Perhaps the most unconcerned people I have ever had speak before the microphone were a number of American red indians, who addressed listeners recently. With all their natural superstition and ignorance of science, they advanced stoically to the microphone and delivered their few words without any sign of emotion whatever. Radio was not new to them, they could not understand it, but just accepted it.

Such is often the case. The

unimaginative who do not attempt to probe matters are often less concerned than the most intelligent of students. I recall the case of a pair of elderly North-country rustics who visited the studio. It was the testing hour, and at their request I allowed one to speak over the "mike." Instead of showing nervousness he showed eagerness. Going right up to the microphone he addressed it as he would a telephone, speaking to his wife listening in the next room:



"Are you there, Millie? Can you 'ear me?"

Immediately his wife heard these words she sprang to the loud speaker, and with her face to the horn, said:

"Oh, 'es. I 'e'n 'ear you."

She betrayed no evidence of microphone fright whatever.

Many speakers forget to become nervous in their efforts to make good with listeners-in. Showing a well-known prelate over the station, when about to make his debut on the air, I went to some pains to explain that, having finished his address, he must not speak until I had entered and switched off the microphone. He stated he was well aware of the procedure in the studio, but sure enough as I entered and approached the switch, with a warning finger raised, he turned and said:

"Well, was I too long as usual, Mr. Cochrane?"

The words were broadcast all over Australia, to the amusement of hundreds of listeners. Afterwards he secretly showed me a letter from Nambucca Heads, in which a listener-in protested that he did not think the address was too long at all.

A youthful case of microphone fright occurred when the Governor-General's children came and broadcast a message to their father at Longreach, in Queensland. They did not like the idea of greeting their daddy in such a strange way at a good hour

past bedtime. They needed a great deal of persuasion, and when it came to the test the younger one of the two little ladies flatly refused to speak.

Domain oratory fails absolutely before the microphone. The old strident, hackneyed phrases fall dead. In the studio the most aggressive speaker becomes subservient.

The microphone is the test of a good orator. It reveals a poor speaker and magnifies all his weaknesses. The poor speaker knows

this. He fears inwardly the ridicule which he will bring upon himself, and so increases his self consciousness. For behind the microphone he sees thousands ready to pull his speech to pieces. There are no actions, no movements to distract the listeners' attention from the words broadcast. His pronunciation is watched most carefully. Enough to make anyone nervous, you say.

Thus a really good orator is not affected whether speaking directly to an audience or over the air. Among those possessing good microphone voices are the Governor, Mr. W. M. Hughes, Col. Bruxner and the Chief Justice. These men are recognized orators, and are proof that a successful broadcast address is but the test of good oratory.

If it were not a general rule for speakers to write, or at least outline on paper what they are going to say, most radio talks would develop into a series of expressions such as, "I mean to say," "I think," "It seems to me." To be successful over the radio a

speaker must be authoritative, and assert, and declare, and believe, if his audience is to believe him. He must keep his voice at an even pitch. Yet, in order to get his personality over, he must get expression into it. He must have complete control over his voice.

It is not necessary to shout. The necessary attributes of a good radio voice are evenness of tone, resonance, diction, and a complete knowledge of English.

It is curious how the microphone can alter a speaker's personality so that listeners receive an entirely different impression of the man. I have been told by listeners-in that they considered weak the words and expressions of men widely admitted to have forceful personalities. On the other hand, speakers whose conduct was most reserved, and who give one the impression of insignificance, before the microphone have created a remarkable impression on listeners.

I have not fathomed the reason for this. Perhaps it is because the big forceful man, relying on his appearance for the impression he creates on his hearers, is lost when speaking by radio, and that the small, insignificant man, whose appearance is rather a handicap to him, can get good results by radio even though he may have a weak voice. I know that many visitors to the station who have met me exclaim, "Why, you're not a bit like I imagined you to be!" I leave it to the reader to judge whether the remark is complimentary or not. I do not know.





Studio News & Notes

NEW JAZZ BAND.

Henry Santrey's Band of 17 musicians, the most expensive dance band ever brought to Australia, will give a programme from 2FC on August 30.

The remainder of the evening's entertainment will include choral items by the Welsh Choral Society. Popular "Psychology" talk by Mr. B. C. Doig. Talk on "Esperanto." Instrumental items from the Haymarket. Another Poster drawing by Mr. Nevin Tosseau and dance music from the Town Hall on the occasion of the Royal Orange Ball. In the early evening session, will be instituted a special 10 minutes devoted to the elder boys and girls, a serial, entitled "Three Little Bricks." This will be commenced and carried on until finished, at 6.49 each night.

OSCAR WILDE COMEDY.

Lady Windemere's Fan, Oscar Wilde's delightful comedy, will be given from 2FC studios, on Tuesday evening, August 31st, by a complete company organised by Mr. H. W. Varua. Musical items will be given



Miss Marie Bremner, who appeared before the microphone at the 2FC studio recently.

by the Metropolitan Band, violin solos by Mr. Lionel Lawson, Joyce Hadley, soprano, and Mr. Charles Stephens, tenor, also Mr. Maurice E. Price, in humorous patter songs including several numbers heard for the first time.

BIG EVENING FROM 2BL.

Mr. Norman Jansen, baritone, and Miss Helena Stewart, dramatic soprano, will feature in solo and duet numbers from 2BL on Tuesday, August 31st. Amongst the interesting numbers broadcast this night will be the Broadcasters' Miniature Orchestra, under the baton of Mr. J. Barnett. As this orchestra has been rehearsing a great deal for the forthcoming transmissions, listeners can look forward to having some wonderful music. Mr. Joseph Rost and Mr. Reg. Harrison, comedian, will also be featured on the programme. Very appropriately timed will be a final talk on the compilation of income returns given by Mr. Montague Orr. The dance part of the programme will be broadcast from the Marrickville Town Hall, by the Elite Old Time Dance Orchestra, while the jazz part will be supplied by Stan. Fotheringham's Palmgrove Orchestra.



As an artist in oils and seeking local colour, Miss Mary Edwards has wandered through the Seven Seas. Her travelogue talks from the Studio on 2BL are interspersed with art talks on Rembrandt and Velasquez. Miss Edwards is a brilliant and most informative talker, who is a favourite with the listeners who enjoy talks.

(comedian), a prominent artist in Western Australia, will feature in comical songs and sketches. The dance music will be provided by the Ambassadors' Dance Orchestra until midnight.

"NO LECTURE NIGHT" FROM 2BL.

Thursday, September 2, is a full musical night from 2BL, no lectures being included in the programme. Prominent artists who will appear include Miss Dorric Ward (mezzo-soprano) and Mr. W. E. Stone (baritone), who will sing solo and duet numbers. Broadcasters' Instrumental Trio, under the baton of Mr. G. Vern Barnett, will render instrumental numbers, and Mr. Gerald Walenn will provide violin solos. Mr. Les. Ship

CAPT. HURLEY SOON.

Capt. Frank Hurley, well known explorer will be heard from 2FC shortly. He was to have delivered a talk some time ago, but at the last minute slipped away to Thursday Island. Farmer's have received a telegram from there as follows:

"Will call on you in about a fortnight re Shackleton. Congratulations—splendid programmes which have delighted hundreds of natives throughout Islands."



Stewart Tulloch as
Guy Stanley.



Trixie Hall as
Winifred.

MATINEE FOR SICK CHILDREN.

A special programme, arranged for the entertainment of sick children, will be broadcast from 3AR studio on Monday, September 13. Various hospitals have been notified of this arrangement, and many have notified their intention of arranging for their little patients to have the benefit. The programme is to be broadcast from 3 to 4 p.m. on Monday, September 13, and, if successful, may be repeated monthly.

FOOD EDUCATION LECTURES.

Beginning on Thursday, September 2, 3AR will broadcast a series of twelve lectures under the auspices of the Food Education Society, by Dr. G. Payne Philpotts (President), and Mr. Rupert E. Wood (Hon. Sec.). This Society has for its objects the promotion of public health by means of sanitation, the use of vitamins foods for mothers and growing children, amendment of laws permitting chemical preservative foods, and to assist in the improvement of any industry that stands for public health.

The first lecture by Dr. Philpotts will be on "The Chinese System of Medicine," on September 2, at 9 p.m., and the second by Mr. Rupert Wood on September 9, on "Our Bodies are made up of the Foods we Eat." Other lectures will be announced at intervals.

NEW STATION FOR LISTENERS.

Absence of fading is the most noteworthy feature about 1YA, the New Zealand Government's new station at Auckland, opened on August 7. Although only on an output of 500 watts, 1YA can be tuned in strongly on 420 metres.

A Runaway Girl

A REMARKABLE number of comic opera transmissions have been carried out by 2FC during the last few weeks, culminating in the production by the Kuring-gai-Gordon Operatic Society of the delightful musical play, "A Runaway Girl," to be given at the Lindfield Picture Theatre. The first act will be given.

At the top of the page a scene from the play is reproduced, Flipper, Mr. Bert Cook, being forced by brigands to sign a heavy guarantee. As a jockey, he objects to the odds.

The Society, existing mainly for the development of the artistic talent of the district, welcomes application from young people of good address who have musical, elocutionary, or dancing experience or ability.



Mr. Arthur Champion, conductor of the Kuring-gai Operatic Society, who is producing "A Runaway Girl," from 2FC shortly.

EXPENSIVE PROGRAMME.

Listening closely to a 2FC programme last week, Mr. Walter Bradley, and his family gathered around a radio set, did not hear a bedroom window stealthily opened. Later he found the bedroom ransacked. The thief had stolen property to the value of £25.

DEPTH OF SOUND.

From more than 2,000 feet below Sydney Harbour, 2FC will broadcast its next stunt programme. The proprietors of the Sydney colliery at Balmain have granted permission for this to be done. Shafts of the mine extend below the Harbour.

POLITICAL SPEECHES.

Much of the misunderstanding surrounding the Federal Government's Referendum Proposals will be cleared by Parliamentary leaders in a series of speeches broadcast by 2FC. The first was given on August 20 by the Prime Minister (Mr. Bruce). The next will be that of Dr. Page, transmitted from Tamworth, 150 miles distant. A date has yet to be fixed for a speech by Mr. Charlton.

WORLD WHEAT PRICE.

At the suggestion of the Farmers' and Settlers' Annual Conference, in Sydney, the Sydney broadcasting stations are now broadcasting daily the world parity price of wheat, so that farmers in outlying districts who cannot learn the price by other means for a day or two are now kept fully informed on the latest quotations.

What's on the Air in Melbourne

HEALTH AD. FOR 3LO.

Just like a patent medicine advertisement was the letter of a 3LO listener recently.

"I had a bad nervous breakdown for two years and was down and out to it. I can say that the wireless did more good for me than all the doctors," he says, writing from Kwobrup, Western Australia.

Strangely enough he is not the only correspondent who has stated that nervous troubles have been improved and in some cases cured by listening-in. No medical opinion has yet been expressed on the subject, but it should be an interesting field for investigation. The same writer states that for 12 years he had lived in the bush and had never heard anything but a local concert for most of the time until the advent of 3LO. When he lived in Scotland he had been an enthusiast in choral and operatic work, and the change from Edinburgh to the bush had been a hard one. Now he gets unlimited pleasure from broadcasting programmes.

"HELLO, ALOHA!"

"It may be of interest to you to learn that for some weeks past, whenever I have tried to tune-in on you at the proper hour, I have usually received your broadcasting programmes on a loud speaker," writes Mr. H. A. Jordon, to 3LO, Melbourne, from Honolulu. Strangely enough the first programme he heard contained considerable Hawaiian items.



Madame Ely Trowek, who played Marguerite in 3LO's recent opera, "Faust."



Mr. F. Sullivan, whose lost in the bush stories from 3LO have created widespread interest.

He states that some of the Californian studios came through very faintly sometimes, whilst the Australian stations are fairly strong.

3LO CHILDREN'S COMPETITION.

Last year's radio song competition for children was so successful that 3LO, Melbourne, are repeating the idea this year. The competition commences on October 2nd, but entries in writing must be made to 3LO before September the 25th. There are three classes: Boys and Girls over 11 and under 14; boys and girls over 8 and under 11; boys and girls under 8 years. First and second prize in each class is a gold and silver medal. Mr. Alfred B. Lans will again be musician adjudicator.

ELLA SHIELDS VERSUS RADIO.

Does the wireless affect the theatres? It has long been proved that theatrical entertainments are stimulated rather than affected by broadcasting competition. However, there are exceptions. During a recent visit to South Australia, Miss Ella Shields, the noted English comedian was playing at the town at Kadina, one hundred miles from Adelaide. Her quiet methods had captivated the audience and all went well until a loud speaker some distance across the road from the theatre, announced that an orchestra from 3LO, Melbourne, would play "Roll 'em Girls," an up-to-date fox trot melody. So loud and clear was the tone that all windows and doors had to be closed to keep out the competing entertainment. But the strangest part of it all was that Miss Shields had intended to include "Roll 'em Girls" in her programme that night, but had to abandon it after being forestalled by the wireless

MORE MINSTREL SHOWS.

Some months back, 3LO, Melbourne, conducted a series of little minstrel shows, which were pronounced a popular success by the majority of listeners. Mr. Darvall Thomas, the organiser and producer, has been re-engaged by 3LO to do another series of miniature minstrel entertainments. He has secured most of his former company, and, in the meantime, has obtained a wealth of new material.



George Gee, inimitable comedian, speaking from 3LO recently.

The House for Quality Radio Supplies



1.—Why YOU should call upon us for your Radio Requirements.

We have full stocks of all good apparatus at keenest prices.

Our staff of experts will gladly advise you upon the selection of the right material.

Our premises are the most roomy and up-to-date in Australia.

2.—A few selected items from our enormous stocks of better quality parts:—

	£	s.	d.		£	s.	d.
Pilot, S.L.F., 13 Plate Condensers	0	12	0	Philips Valves, B406	0	13	6
Pilot, S.L.F., 17 Plate Condensers	0	13	6	Philips Valves, A109	0	13	6
Pilot, S.L.F., 23 Plate Condensers	0	14	3	Philips Valves, C509	0	13	6
R.V.G., S.L.F., 23 Plate Condensers	0	13	6	Philips Valves, A306	0	13	6
Montrose 23 Plate Low Loss Condensers	1	2	6	Mullard Valves, P.M.3	0	13	6
Igranite Square Law .0005 Condensers	1	15	0	Mullard Valves, P.M.4	0	13	6
Igranite Square Law .0009 Condensers	1	12	6	Osram Valves, H.F. and L.F.	0	13	6
Burgess 45 volt "B" Batteries	1	3	0	Radiotron Valves, UX199	0	13	6
Ever-Ready W.P.40 Batteries	0	12	6	Radiotron Valves, UX201A	0	13	6
American 45 volt Batteries	1	5	0	GECO Valves, RV5	0	13	6
Rayovac 45 volt Batteries	1	16	0	Cunningham Valves, CX301A	0	13	6
Rayovac 22½ volt Batteries	0	15	9	Radiotechnique, Super Ampli	0	13	6
Quam Audio Transformers	1	12	6	Amplion Loud Speakers.			
Signal Audio Transformers	1	1	0	G.A.V. Loud Speakers.			
Igranite Audio Transformers, 5-1	1	11	6	Quam Loud Speakers.			
Igranite Audio Transformers, 3-1	1	9	3	GECOPHONE Loud Speakers.			

Country clients are invited to take advantage of our
SPECIAL MAIL ORDER DEPARTMENT



The AUSTRALIAN WIRELESS COMPANY

140 CASTLEREAGH STREET, SYDNEY

(Between Market and Park Streets)

'PHONES—M 2037, M 2038

Manufacturers of the well known
"RADIATR" Radio Sets.

What's on the Air in Melbourne

Continued

THE SEPTEMBER BRIDE.

Such has been the public interest in the September Bride competition, conducted by 3LO, Melbourne, that the lucky winner only needs to win, as the Irish would say, and she lives happily ever afterwards, without much need to worry over matters of domestic economy. The large numbers of promised gifts will need a special storehouse for the lucky bride if she is to house all that she is to receive. The most beautiful bride during September would originally have secured a prize of £25 and a free honeymoon, but now various business people have promised wedding rings, wedding cakes, wedding breakfasts for 150, three photographs, furniture, wardrobe, clothes cleaning service, champagne, garden hose, watches, pianos, suits and costumes, aerial honeymoon flights, dairy produce, wireless sets, bread, and practically every commodity a household is likely to secure. One far-sighted firm has offered a perambulator, and further state if the happy couple are blessed with twins, they will make the perambulator meet the requirements.

COMPLIMENTARY.

It must be very convenient to be a studio announcer. In time the announcers of 3LO, Melbourne, will be able to start a general store, if the flow of gifts from appreciative listeners keeps up. Recently a large box of chocolates came to 3LO from N.Z. "If I am as good a chocolate maker as you are an announcer you will have pleasure in eating these," said an accompanying letter. The donor was Mr. Hudson, proprietor of one of the biggest confectionery factories in N.Z. "We over here are very friendly disposed towards 3LO, Melbourne, and we would like you to be the same towards us," he stated.

ANOTHER MUSICAL COMEDY.

Good news! 3LO, Melbourne, will produce another musical comedy or comic opera in the near future. Although they could go on reproducing the "Belle of New York" indefinitely, the studio management in its never ceasing search for variety has looked

around for another suitable studio production. Mr. Andrew will probably supervise the new show and the chorus and principals will be up to the high standard now created. The name of the new show is not yet available.

PORTABLE TRANSMISSION SET.

By the design and construction of a portable radio broadcasting transmitter the field of operations of 3LO, Melbourne, has been considerably widened. The studio engineers have been busy lately in perfecting apparatus that will do away with the necessity for land lines for transmission of concerts away from the studio, and the new machine will be especially suitable for work on moving objects, such as trains, aeroplanes, ships, etc. The invention was hurried up in time to be used for the description of Melbourne from an aeroplane. A short wire trailed from the plane sufficed for an aerial, the earth connection being the framework of the flying machine. These portable transmitters are by no means common. Only a few of the world's great studios have them, and that now constructed by 3LO, Melbourne, contains many novel features which are entirely original.

ARTHUR CORNELL AT 3LO.

It is always interesting to again come across the stage notabilities whose names have become household words during the past ten years or so, and the latest old friend to arrive at 3LO, Melbourne, is Arthur Cornell, the well-known actor-producer who has been associated with most of the biggest theatrical successes for the past sixteen years or more. Mr. Cornell's repertoire for listeners in has been painstakingly prepared in order that his aim to combine literary merit with entertaining matter might be achieved. Unfortunately, his scope has been fairly limited, as many of the moderns refuse to have their treasured gems scattered through the air. However, with selections from Thackeray's "Vanity Fair," H. G. Wells, Will Ogilvie, Arnold Bennet, a varied and interesting fare is promised.

RELIABLE

"B" Batteries

GIVE BETTER SERVICE

That is why we are offering

"Columbia" "B" Batteries

FOR

BETTER RESULTS

45 Volt Units

Each **25/-** Each

When you purchase from us you are certain that you are getting the best.

Every Battery fully tested before despatch.


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LTD.

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Manufacturers of
"BURGINPHONE"
WIRELESS RECEIVERS

Prompt despatch guaranteed to users, or country dealers of all standard wireless goods.

MINGAY'S WIRELESS MANUFACTURING CO.



Special Announcement
to all Radio Traders

WHOLESALE AND RETAIL.

We are pleased to announce that our factory is equipped in a most up-to-date manner for the manufacture and supply of radio sets and kits to the trade only.

Many years of experience in the wireless industry place us in a unique position. Close attention to details and keen observation, together with a realisation that the "Set" business must come, finds us ready to serve you.

**Let us solve your manufacturing difficulties, and so
allow you to devote your whole attention to selling**

All our products are thoroughly tested, and arrangements can be made to suit your individual requirements in practically every direction. You can have special models made with your name engraved.

Call and talk your problems over with our Mr. Mingay, or he will call on you by appointment.

Remember—We are in business to give service to our clients. Every member of the staff has had considerable practical experience in wireless.

Country Dealers—Post us your detailed requirements and we will quote you.

Sets made up from dealers own materials

Quantity production a speciality.

Mingay's Wireless Manufacturing Co.

O. F. MINGAY, Manager

City Address: 302-3 Dalton House, 115 Pitt St., Sydney

Telephone B 5463

News from the North

Broadcasting in Queensland is showing remarkable progress. Read what is happening in the Studios.

RECEPTION IN QUEENSLAND.

A letter typical of a thousand listeners-in is quoted below. Writing from Ilfracombe, Central Queensland, Mr. A. Eddolls says:

"It was not my intention to bother you with a letter for some time, but on Thursday night, we got such an interesting time, that I just have to tell you, and it is only doing 2FC an act of justice to do so.

"We tuned in about 8 p.m., as usual, and after spending a little time visiting Brisbane, Adelaide, and Sydney (2BL), decided to see what 2FC was doing. I had a "W.W." programme for the evening. Changed the coils, and tuned in just after 9 p.m., and soon got him. To our intense surprise we found a speaker talking Aviation. We are keen on that, and I am a shareholder in Quantas—Ilfracombe, is really a part of the Longreach district—and I am a member of the crowd that want to take on flying, so soon as the flying club is formed here.

"It was the opening sentences of Captain Cobham's speech at the dinner. I was right on to that, and only spent a few seconds adjusting for maximum clearness, etc. My colleagues froze on too; no one asked for jazz or anything else. We just sat right along until 10.30, listening to it all. There was a dose of atmospherics at times, but otherwise the story came over the wire in good style.

"If anyone wants a reason for installing radio, I think this is one great reason for its use. Cobham came through here on Tuesday and on Thursday we heard him tell his story of the trip from Sydney just as well as if he were in our own aerodrome.

"It's one up on Farmer's as regards enterprise, and good transmission, which discounts the state owned 4QG.

"The reception the other week, here, of "Faust," from 3LO, was another example of good work well handled. The Melbourne Philharmonic Society

is undoubtedly a good one, and their Marguerite, one of the best.

"Anyway, Cobham's flight, and Cobham's story—also by air—is a good example of what 1926 is doing."

HOT TIME IN THE STUDIO.

An efficient ventilating system has been added to the 4QG studio.

In the tropical climate of Queensland it has been almost unbearable for artists in the close sound-proof, air-tight studio. The new apparatus includes two electric centrifugal fans. By employing one to force air through vents in the wall and the other to draw it out, a constant stream of air passes through the studio, rendering the work of artists much more pleasant.

COON DUO.

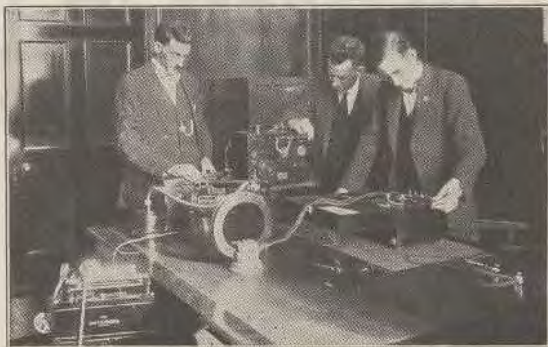
The Coon Duo, Sambo and Pete, have established themselves as laughter specialists at 4QG. Recently they assisted Uncle Ben and

Uncle Jim during the bedtime story session, and so popular were they that it was found necessary to include them as a turn in the regular programme. Sambo with his banjo and Pete at the piano, introduce many exceptionally clever effects into their numbers.

4QG CHURCH SERVICE.

A radio enthusiast who has been busy calculating the length of land line laid by 4QG, estimates that with the one installation at St. Stephen's Church there is more than 10 miles.

Certainly great pains have been taken to make the cathedral line an excellent one. Much thought and time have been put into the installations by the engineers. Three microphones have been installed, at the pulpit, the choir, and the sanctuary. Although a great length of wire is used none will be seen by the congregation, so carefully has the work been carried out.



An interesting experiment was carried out recently at Station 4QG, Brisbane. While the Brisbane Federal Band was playing in the Studio a receiving set was operated in one of the offices and the band music was received by wireless. It was amplified and then, by the use of a Dictaphone, a gramophone record was made. When the band had finished playing, the record was taken into the Studio, played, and then transmitted by wireless. The photograph shows the experiment being conducted. On the table is seen the wavemeter, a portable W.E. Amplifier, and the Dictaphone. Mr. F. W. Stevens (chief engineer, 4QG), is on the left, Mr. Barkess (Dictaphone Co.) in the centre, and Mr. J. W. Robinson (Director, 4QG) on the right.

SERVICE
POWER

DISTANCE



AT LAST! FAITHFUL REPRODUCTION, ELIMINATION OF DISTORTION
ATTAINED BY USING

RADIOTECHNIQUE

SCIENTIFIC SUPER VALVES

Manufactured at the Famous Laboratories of La Radiotechnique, Paris

SUPER AMPLI

R46 5 volts .25 amp. (201A)
Detector, and high and low freq.
ampl.

13/6

RADIO MICRO

Fil. 3.5 volts .06 amp.
Low consumption detector or
amplifier.

Obtainable with English or American Base

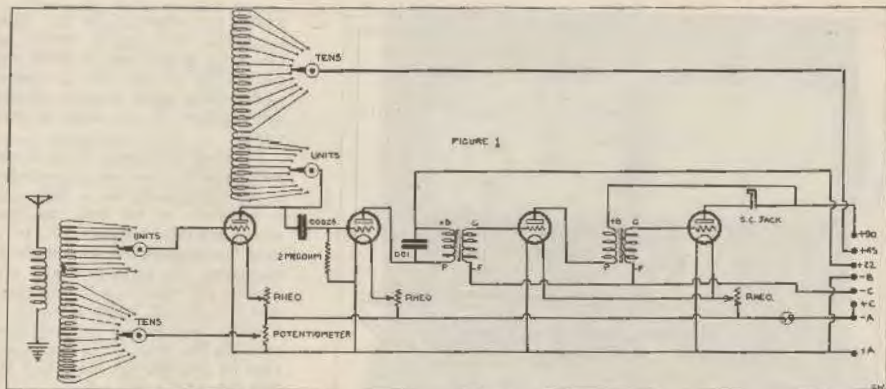
INSTAL THEM

Australasian Representatives—

BROWN & DUREAU LTD.

BROUGHTON HOUSE, CLARENCE STREET, SYDNEY

And at Melbourne, Perth, Wellington and Auckland, N.Z.



Circuit diagram of set.

Wireless Weekly Receiver No. 6

Simplicity is the keynote of this Four Valve Receiver
—there are neither variable condensers nor plug-in coils

NO plug-in coils and no variable condensers are the two features of the receiver which we describe in this issue. It efficiently tunes to all the lower wave Australian broadcast stations, without any external loading and is reasonably selective, despite the fact that the tuning operation is simplicity itself.

Those young readers who are out to make a present to the old folks in the way of a cheap and easily operated broadcast receiver, should study the unique features this set incorporates. The complete cost of good quality parts does not exceed £15, and providing solid types of switches are used, there is absolutely nothing that can possibly get out of order. The photographs of the front and back view, together with explanatory drawings make it particularly easy for the novice to construct, and we hasten to assure our readers that if they will follow our instructions, wire for wire and connection for connection, the set will operate immediately the tens and unit switches are adjusted and the filament switch is made.

The Circuit Described.

Four valves are used, viz., one radio frequency amplifier (tuned plate method) detector and two audio amplifiers. The tuning coils for the grid and plate circuits are wound with 110 turns of No. 22 D.C.C. wire, the first 100 turns being tapped at every tenth turn, and the remaining ten turns are

tapped at every single turn. Four eleven-point selector switches are provided, the two on the left controlling the tuning of the grid coil and the two right hand switches, the tens and units of the plate coil.

Three rheostats are used, one for the H.F. valve, one for detector, and one for the two audio amplifiers. The filament switch shown at the centre of the panel cuts off the receiver, and entirely obviates the necessity of disconnecting the A or B batteries when the receiver is not in use.

Method and Order of Construction.

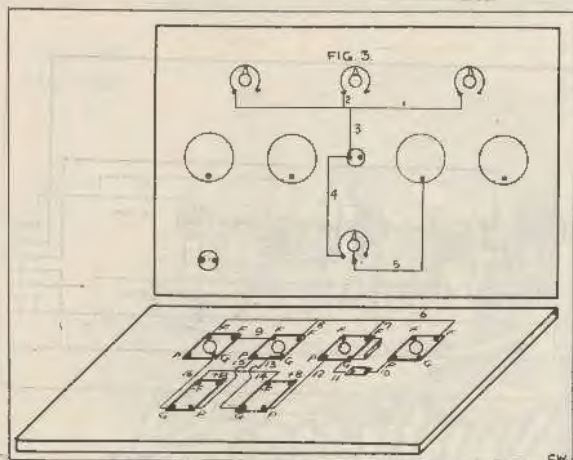
First drill and mount the panel components according to the template and back view, after which the following connections should be wired.

Panel Connections.

No. 1 left hand terminal of 3rd rheostat to left hand terminal of first rheostat. No. 2 left-hand terminal of second rheostat to No. 1. No. 3 filament switch to No. 1. No. 4 filament switch to left hand terminal potentiometer. No. 5 moving arm contact of potentiometer to moving arm contact of the unit selector switch.

List of Parts Required.

- 1 Panel, 13in. x 8½ins.
- 1 Base board, 13ins. x 5ins. x ½in.
- 4 11-point Switches (good type).
- 3 Rheostats to suit valves.
- 1 Potentiometer.
- 1 Filament Switch.
- 1 S.C. Jack.
- 4 Valve Holders.
- 4 Valves.
- 2 Audio Transformers.
- 1 piece 3in. Radio Tubing, 1½in. long.
- 1 lb. of 22 D.C.C. wire.
- 1 .001 Fixed Condenser.
- 1 2 megohm. Grid Leak.



Baseboard and panel layout.

These completed, mount up the base board connections as shown in Fig. 4, and wire the following connections in their numerical order.

Base Board Connections.

No. 6 is the positive A bus bar connection which links the left hand F terminal of fourth valve holder with the right hand F terminal of first valve holder. No. 7, right hand F terminal, of second valve holder linked to No. 6 connection. No. 8, right hand F terminal of third valve holder linked to No. 6. No. 9, left hand F terminal of third rheostat linked to right hand F terminal of fourth valve holder. No. 10, P of first valve holder to one connection of the .00025 grid condenser. No. 11, grid condenser to G terminal of second valve holder. No. 12, P of second valve holder to P terminal of first transformer. No. 13, G of first transformer to G terminal of third valve. No. 14, negative F of first transformer linked to the negative F terminal of second transformer.

No. 15, P of third valve holder to P terminal of second transformer. No. 16, G of second transformer to G terminal of fourth valve holder. These completed, wire the following panel to baseboard connections:—

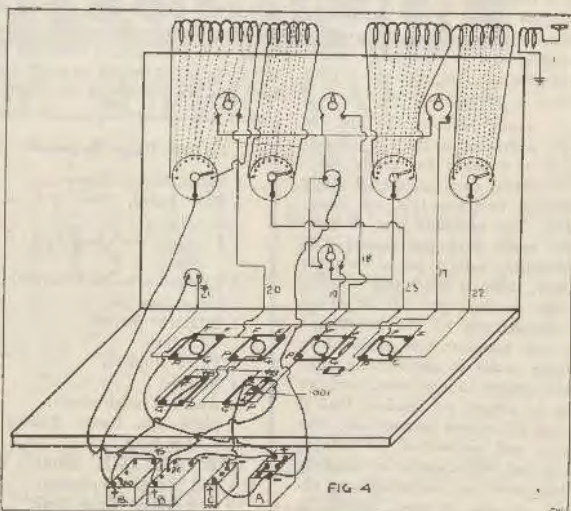
No. 17, left hand F terminal of first valve holder to right hand terminal of first rheostat. No. 18, left hand

F terminal of second valve holder to right hand terminal of second rheostat. No. 19 is a link taken from No. 6 connection to the right hand terminal of potentiometer. No. 20 is a link from No. 9 to the right hand terminal of the third rheostat. No. 21, P of fourth valve holder to one point of the S.C. jack. No. 22 links the

moving arm contact of the first selector switch with the G terminal of first valve holder, and the final connection, No. 23, links the P terminal of first valve holder with the moving arm contact of the third selector switch.

The drawing showing the coil connections to the tens and unit switches is self-explanatory, but a little care is necessary to see that the first, second and third lappings, etc., go to their first, second and third studs respectively. The aerial and earth connections are joined to a 15 turn aperiodic primary coil, which is wound on a spider web former and cut down to fit the 3in. tube. It is then placed edge on immediately underneath the first turn of the grid coil.

A word about the battery connections. Those readers who do not understand circuit diagrams are advised to carefully study our back of panel view, Figs. 3 and 4. It will be noticed that the No. 1 connection feeds each of the rheostats, and is the common negative A bus bar controlled by the filament switch. No. 6 connection feeds one of the F terminals of each of the four valve holders, and is the common positive A bus bar. No. 16 connection goes to negative C and positive C is then joined to negative

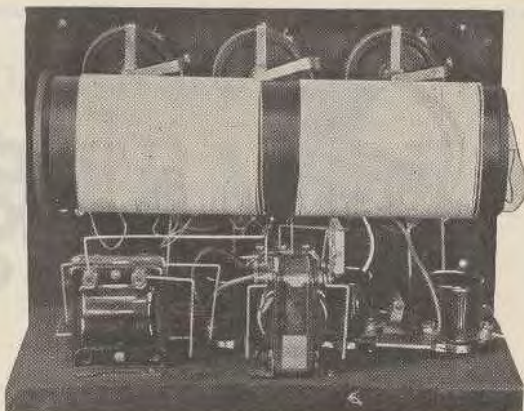


Wiring diagram of set.

A. There are three positive B tapings, the positive 22 joined to the positive B terminal of first transformer, the positive 45 going to the moving arm contact of the fourth selector switch and positive, 90 to 120 going to the positive B terminal of second transformer and also to the other vacant connection of the S.C. Jack. The positive A and negative B connections are permanently linked together.

Capabilities of the Receiver.

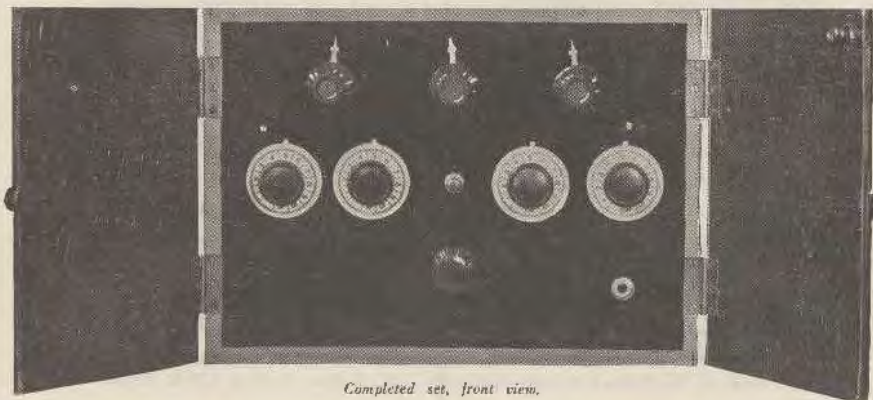
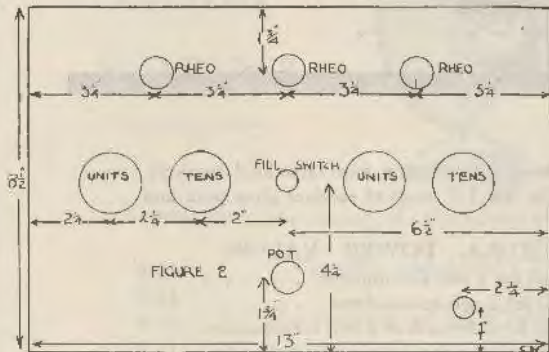
No claim for extreme long distance reception is made, but we believe that it would be very difficult to make a receiver which is easier to operate. When once the positions of the four switches have been found for the various stations, they will always re-



Rear view of set.

main the same, due to the fact that no alteration of coupling is made with any of the tuning coils.

In conclusion the writer would like to state that a similar receiver was recently given to an old lady, over 80 years of age, who claims that it is her best friend because it never fails her, and is simple to operate. To the enthusiast who wants a long distance receiver with numerous controls we do not recommend this receiver, but for the average family man's use, where good loud speaker volume is desired from nearby stations with a minimum amount of trouble, this receiver is the "Rolls Royce."



Completed set, front view.



**FOR INCREASED
VOLUME
AND CLARITY**

DESIGNED for power amplification with large loud speakers. When inserted in last L.F. stage of receiver gives pure and abundant volume.

MULLARD D.F.A. POWER VALVES.

- Type D.F.A. 0 (.35 amp.) for 4 volt accumulator 13/6
- Type D.F.A. 1 (.2 amp.) for 6 volt accumulator 13/6
- Type D.F.A. 3 (.06 amp.) for 4 dry cells or 6 volt accumulator. 17/6
- Type D.F.A. 4 (.2 amp.) for resistance capacity circuits (6 volts). 13/6

HF Amplification.				LF Amplification.				Power Valves.				Detectors.
Type	Fil. Volts	Fil. Current	Price	Type	Fil. Volts	Fil. Current	Price	Type	Fil. Volts	Fil. Current	Price	
HP	3.5	0.6	7/-	1P	3.5	0.8	1/-	DFA.1	5.0	0.35	14/0	When valve is followed by an Intervalve Transformer or telephones, use an LF Amplifier or Power Valve. When valve is followed by a resistance Capacity Intervalve system, use HF Amplifying Valve.
D.96	3.0	0.08	13/6	1.65	3.0	0.08	18/0	DFA.3	5.0	0.06	17/0	
D.3	1.8	0.3	13/0	D.3	1.8	0.3	12/0	PM.4	3.7	0.1	1.0.0	
DFA.4	5.0	0.25	15/0	DFA.1	5.0	0.35	13/6	DFA.0	3.5	0.35	13/0	
UM.3	2 to 4	0.1	14/0	DFA.3	6.0	0.06	17/0	DFA.1	5.0	0.25	13/0	
				1M.1	3.7	0.1	12/0					

All Mullard Valves are manufactured at Mullard Works, London, England.
OBTAINABLE FROM EVERY RADIO DEALER IN AUSTRALIA.

Mullard

THE MASTER VALVE

(ARKS. 4)

Advertisement of the Mullard Wireless Service Co. Ltd., Balham, London, S.W.12, ENGLAND.

Incomparable ! THE "SFERAVOX"

FOR PURITY
OF TONE
AND POWER



THE LATEST
FRENCH CONE
SPEAKER

Representing the Acme of Perfection in Wireless Reproduction.

Complete with Cord, **£5/5/-**

The Greatest of all 5-VALVE SETS

THE "NEUTRODYNE"

Complete IMPROVED Kits for the building of the superlative "Neurodyne" **£13**
(Special loading for 2FC. Write our Wireless Expert for all particulars)

	£ s. d.		£ s. d.
Neuroformers (wound on bakelite)		Burndept Micrometer Crystal Detectors, each	0 7 6
with Neutralising Condensers	1 17 6	Carborundum Detectors, each	0 11 0
Filko-Stats (new shipment), each	0 12 6	Phillips B Battery Eliminator, each	9 15 0
Phillips A Battery Chargers, each	6 0 0	Guaranteed to deliver pure direct supply from the electric light or power point—thus doing away with B battery troubles and expense.	

Cash or Terms.

Cash or Terms.

Mick Simmons Ltd

"The World's Greatest Sports Store"

Headquarters : HAYMARKET, SYDNEY
And at BRISBANE

Broadcasting Programmes

for the Coming Week

Friday, August 27

2FC

Early Morning Session.

- 7.—Time Signals; The Chimes of 2FC and Announcements.
 7.10—Music from the Studio; Cricket Scores, 2nd day's play, Australia versus Sussex.
 7.15—Weather Information, Commercial News, Shipping Intelligence and Markets.
 8.—Time Signals, Music from the Studio.
 8.15—Cricket scores.
 8.16—Close down.

Morning Session.

- 9.15—The Chimes of 2FC and Announcements, Cricket scores.
 9.20—Music from the Studio.
 9.45—A Morning Reading.
 10.—Time signals, Music from the Studio.
 10.5—Late "Sydney Morning Herald" News service.
 10.15—Music from the Studio.
 11.—Progress Cricket Scores, Cubes.
 11.15—Cooking talk and Recipes by Miss Ruth Furt.
 11.30—Close down.

Midday Session.

- 12.—The Chimes of 2FC and Announcements.
 12.5—Stock Exchange, First Call.
 12.10—Music from the Studio.
 12.50—Rugby Wireless News.
 1.—Time Signals, Weather Intelligence.
 1.3—"Evening News" midday service. Producer's Distributing Society's Report.
 1.40—Music from the Studio.
 1.50—Stock Exchange—Second Call. Musical Items.
 2.—Close Down.

Afternoon Session.

- 2.30—The Chimes of 2FC and Announcements. Broadcast from the Haymarket Theatre, Sydney; Operatic Orchestra, under the baton of Mr. Stanley Porter.
 2.39—From Farmer's Tea Rooms, The Oak Hall Trio will play (leader, Mr. Horace Kent).
 3.40—Miss Ida Johnstone, soprano.
 3.45—The Oak Hall Trio.
 4.25—Music from the Studio.
 4.—Miss Kathleen Stollery, mezzo.
 4.5—A piano recital by Mr. Ewart Chapple: (a) "Music Box" (Lidow); (b) "Au Concert" (Bordone); (c) "Herceus" (Ilynski); (d) "Naxos" (Bordone); (e) "Jumorewque" (Leone).
 4.20—Miss Ida Johnstone, soprano.
 4.25—Oak Hall Trio.
 4.35—Music from the Studio.
 4.40—Miss Kathleen Stollery, mezzo.
 4.45—Stock Exchange, Third Call.
 4.46—Music from the Studio.
 5.—Close down.

Early Evening Session.

- 6.—Time Signals; The Chimes of 2FC and Announcements.
 6.5—"The Hello Man" talks to the children.
 6.55—Broadcast from the Hotel Australia; Orchestral Items.
 7.15—From the Studio, "Evening News" service. Weather Information.

7.30—Dairyle's market reports (wool, wheat, stock), fruit and vegetable markets.
 7.32—A Film Talk.
 7.45—Close down.

Night Session.

- 7.45—The Chimes of 2FC and Announcements.
 8.—Announcing a programme from Tamworth over a land line of 150 miles approximately. Broadcast from Tamworth: Dr. Earle Page's speech on the Referendum.
 8.50—From the Studio: Mr. Walter Kingsley, baritone.
 9.25—Mr. George Searle, entertainer: (a) "Back Answers" (Covendale); (b) "I Think of You" (Wesley).
 9.45—Announcements.
 9.50—Mr. Walter Kingsley, baritone.
 9.59—Mr. George Searle, entertainer: (a) "Smile" (Clarke); (b) "Thanks Very Much" (Parry).
 10.5—Broadcast from the Crystal Palace Theatre, Sydney: Items by the orchestra under the baton of Mr. Harry Stone.
 10.40—Broadcast from the Westwood Hotel, Sydney: Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.
 12.—National Anthem. Close down.

Farmer's service, Sydney, call sign 2FC, wave length 1100 metres.

Broadcasters Ltd., Sydney, call sign 2BL, wave length 368 metres.

Broadcasting Co. of Australia, Melbourne, call sign 3LO, wave length 371 metres.

Associated Radio Co., Melbourne, call sign 3AR, wave length 484 metres.

Queensland Radio Service, Brisbane, call sign 1QG, wave length 365 metres.

Central Broadcasters Ltd., Adelaide, call sign 3CL, wave length 395 metres.

Radio Broadcasting Co. of N.Z., Auckland, call sign 1YA, wave length 420 metres.

Westralian Farmer's, Perth, call sign 5WF, wave length 1250 metres.

2BL

Early Morning Session.

- 7.15—Physical Training and Health Exercises.
 7.30—Talk on Health and Hygiene.
 7.35—Physical Training and Health Exercises.
 7.45—Broadcasters' Special News Service.
 7.52—Special News from Rugby.
 7.55—Musical Programmes from the Studio.
 8.—G.P.O. Clock and Chimes. Close down.
 Morning Session.
 10.—G.P.O. Clock and Chimes. Special News Service from the "Daily Telegraph."
 10.10—Music from the Studio.
 10.25—Special news from the "Daily Telegraph."
 10.45—Music from the Studio.
 11.—G.P.O. Clock and Chimes. Special News Service from the Bondi Casino.
 11.5—Musical Programmes from the Studio.
 11.15—Markets.
 11.20—London Metal Quotations.
 11.25—Broadcasters' Information Service, including Mails, Shipping, Weather, Rainfall, Social Fixtures for the following day.

- 11.40—Musical Programme from the Studio.
 11.50—News from "Sun", Cable Edition.
 12.—G.P.O. Clock and Chimes. Talks to women by Mrs. Jordan.
 12.30—Broadcasters' Turf Expert will discuss the training operations and horses' form from Randwick.
 12.45—Hiller's Instrumental Quartet, under the direction of Caryl Castling.
 1.15—Music from the Studio.
 1.45—Sydney Stock Exchange Call.
 2.—G.P.O. Clock and Chimes. Close down.

Afternoon Session.

- During the afternoon, results of races broadcast immediately after each race.
 3.—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun."
 3.15—Civil Service Restaurant Trio under the direction of Miss De Cury Bremer.
 3.30—A talk on English Literature and Poetry by Mr. J. M. Prentice.
 3.45—Music from the Studio.
 4.—G.P.O. Clock and Chimes. Music from the studio; Civil Service Restaurant Trio, under the direction of Miss De Cury Bremer.
 4.15—Musical Programme from the studio.
 4.30—Serial Story, entitled "The Mad Song" (Mabel Magnella).
 4.45—Music from the Studio.
 5.—G.P.O. Clock and Chimes: Producers Distributing Society's Market Report.
 5.15—Shipping Information when available.
 5.15—G.P.O. Clock and Chimes. Close down.

Early Evening Session.

- 6.—G.P.O. Clock and Chimes. Uncle George and the Kiddies. The pupils of Miss Monica Seilly will entertain the kiddies.
 6.45—Broadcasters' Dinner Orchestra. Special Country Session.
 7.15—Australian Mercantile Land & Finance Co.'s Stock and Wool Report.
 7.20—Weather Report.
 7.24—Talk on Land Subjects.
 7.30—Stock Exchange Reports.
 7.37—Producers' Distributing Society's fruit and vegetable reports.
 7.41—Fruit and vegetable reports (Sun).
 7.45—Grain and Fodder Reports (Sun).
 7.48—Country news from "The Sun."
 7.55—Close down.

Evening Session.

- 8.—G.P.O. Clock and Chimes: Hoyt's Imperial Orchestra, under the direction of Mr. Lionel Hart, broadcast from Hoyt's Picture Theatre.
 8.20—Mr. Lance Jeffre, tenor.
 8.25—Miss Daisy Richards (violin solos).
 8.35—Miss Phyllis Atkinson (mezzo soprano).
 8.42—Concerning your Valve Set.
 8.52—Resume of following day's programme.
 8.55—Weather Report and Forecast by courtesy of Mr. C. J. Mares, Govt. Meteorologist.
 8.58—Announcements.
 9.—G.P.O. Clock and Chimes: The Senior Sporting Editor of "The Sun" will talk on "The Prospects of Tomorrow's Races."
 9.30—Interval.
 9.35—Mr. Lance Jeffre.
 9.42—Hoyt's Imperial Orchestra.
 9.52—Lecture by Mr. J. M. Prentice.
 10.15—Miss Daisy Richards.
 10.25—Miss Phyllis Atkinson.
 10.30—Cec. Morrison and the Gloomchasers' from the ballroom of the Bondi Casino. During the intervals between dances, News Reports, by courtesy of the Sun will be broadcast.
 11.—From the Studio: The Palmgrove Orchestra and the direction of Mr. Stan Fotheringham.
 12.—G.P.O. Clock and Chimes; National Anthem.

3 L O

Midday Session.

12—Time Signal. Latest cricket news, by courtesy of Reuters Ltd. British Official Wireless News from Rugby. Reuters and the Australian Press Association cables. "Argus" and "Herald" news services.

13.45—Stock Exchange information.

12.55—Meteorological information. Weather forecasts for Victoria, Tasmania, South Australia, and New South Wales. Ocean forecast.

1—Time Signal.

11—Studio Orchestra.

1.10—Vera Spanil, soprante, in solo.

1.17—Dorothy Roxburgh, viola.

1.25—Studio Orchestra.

1.35—Vera Spanil, soprante.

1.42—Tasma Tiernan, 'cello.

1.50—Studio Orchestra.

2—Close down.

Afternoon Session.

3—Singing by Students of Brighton Technical School, transmitted from School Hall.

4—Miss Frances Fraser, "Naples in Story."

4.15—Studio Orchestra.

4.25—"Au Pair" of Messrs. Buckley and Nunn Ltd., "Fashion Talk."

4.40—Studio Orchestra.

4.45—Latest cricket scores, by courtesy of Reuters Ltd. "Financial" news-service. Stock Exchange information.

5—Close down.

Evening Session.

6.45—Children's Hour. Announcements to leters and birthday greetings.

6—Miss Billie Lockwood will sing "Pretty Little Baby," and "Dreams Daddy."

6.7—"Billy Bunny," "Littlest's Fairy Story," "The Lost Princess," "Black Beauty."

6.48—Latest cricket news, by courtesy of Reuters Ltd. "Argus" and "Herald" news services. Reuters and the Australian Press Association Cables.

6.55—Weather synopses. Shipping movements.

6.57—Stock Exchange information.

7—Fish Market Reports by J. H. Barrett Ltd.

7.4—River Reports.

7.6—Market Reports by the Victorian Producers' Co-operative Co. Ltd. Haymarket sales. Poultry, grain, chaff, hay, straw, etc.

7.8—Market prices of oranges and lemons, supplied by the Victorian Central Citrus Association Pty. Ltd.

Night Session.

7.20—Under the auspices of the Department of Agriculture, Mr. J. S. England, Assistant Apiculturist, "Honey and Bees—Possibilities."

7.48—Under the auspices of the "East and West" Missionary Exhibition, Auckland, N.Z. Specially transmitted for the benefit of New Zealand listeners. His Grace the Archbishop of Melbourne, "Why should there be any missionaries at all?"

7.50—Miss Thurnz Rogers, Premier Ballerina with the Pavlova Company, now appearing as a specialty dancer in "Tell Me More," will speak to you from her dressing-room at His Majesty's Theatre, by permission of J. C. Williamson Ltd.

8—Collingwood Citizens' Band.

8.10—Organ Recital by Dr. Floyd, transmitted from St. Paul's Cathedral.

8.40—Collingwood Citizens' Band.

8.50—Elay Treweek, soprano.

8.57—Alberto Zelman, violin.

9.7—Mr. Herman Krolin, a talk on "Watlas."

9.22—Collingwood Citizens' Band.

9.32—Elay Treweek, soprano.

9.35—Announcements. Road reports supplied by the Royal Automobile Club of Victoria.

Latest cricket news, by courtesy of Reuters Ltd.

9.54—Alberto Zelman, violin.

10.4—Collingwood Citizens' Band.

10.15—British Official Wireless News. "Argus" news service. Meteorological informa-

tion. Announcement.

10.26—Elay Treweek, soprano.

10.33—A. Franks and R. Spencer, euphonium and cornet solo.

10.40—Collingwood Citizens' Band.

10.50—A. Thorn, trombone solo.

11—God Save the King.

3 A R

Morning Session.

11.20—The British Official Wireless Press, received by 3AR's operator from Rugby Wireless Station, England. Express train information.

12—Time Signal Chime from the G.P.O., Studio Barometer Readings; 1st Weather Forecast; Events of the Day.

12.35—Musical Selections, relayed from Hoyt's De Luxe, Bourke Street.

12.40—Stock Exchange news.

12.55—General Market Reports.

12.50—Musical Selections.

12.55—Mail Notices. Shipping Movements.

1—Close down.

Afternoon Session.

2.30—Hoyt's Premier Orchestra, under the direction of Miss Edith Brien.

6—The Glaciarium Orchestra, under the direction of Mr. Ed. Butler, relayed from the Glaciarium.

4—Time Signal Chime from G.P.O.

4.30—Gardening Talk to the Children by Mr. B. Stanley Haines.

4.55—The Evening Amusement Guide.

5—Time Signal Chime from G.P.O.; Studio Barometer Readings; 2nd Weather Forecast; Close down.

Early Evening Session.

6.45—The Children's Corner, by Uncle Rad.

Evening Session.

8—Time Signal from the G.P.O.; British Official Wireless Press; Studio Barometer Readings.

8.15—Reciting Anticipations by "Field Glass."

8.35—Gardening Talk, by Mr. R. Stanley Haines.

8.50—Concert given by the Merry Mixtures Concert Party, under the direction of Mr. Ern Ritter.

8.27—Introducing "The Merry Mixtures."

8.30—Mr. Roy Ramage (cellist).

8.35—Mr. Roy Ramage (humorous songs).

8.40—Miss Nell Walls (songs).

8.45—Humorous item.

8.55—Miss Nell Walls and Mr. Roy Ramage.

9.15—Miss Marion Daniels (songs).

9.22—Miss Elsa Domec Carre and Mr. Ern Ritter (comedy duo).

9.30—Mr. Fred Cond (baritone).

9.35—Miss Hazel Ralph (songs).

9.45—Mr. Fred Harris (violinist).

9.52—Finale, "The Merry Mixtures."

10—Time Signal Chime from G.P.O.; Studio Barometer Readings; Age News Service, exclusive to 3AR.

10.10—Lazzetti's Ballroom Orchestra, under the leadership of Mr. Harry Naugle.

11—Time Signal.

4 Q G

Midday Session.

12.55—Time-in.

1.25—Time Signal.

1—Market Reports. Weather Information.

"The Daily Mail" news, the "Daily Standard" news.

1.20—Close down.

3.25—Time in.

3.30—A Programme of Music.

4.15—"The Telegraph" news.

4.20—Close down.

Early Evening Session.

6.25—Time-in.

6.30—The Children's Session. Stories by "The Sandman."

7—From the Council of Agriculture. The Turbette, "Some of the Causes of Stained Farmers' Session. Market Reports. Lec-

otton." Mr. F. G. Ballard (Government

Colony Entomologist).

7.20—"The Telegraph" news. Stock Exchange.

7.30—Close down.

Night Session.

7.50—Portion of the Public Meeting in connection with the China Inland Mission which will be held in the Ann Street Presbyterian Church, will be relayed.

7.55—Yonn Ann Street Church, address by the Rev. Dr. Howard Taylor (son of the late Rev. Hudson Taylor, founder of the China Inland Mission).

8.30—From the Studio—"The Savoy Orchestra

8—Week-end road information for motorists, officially supplied by the Royal Automobile Club of Queensland. Continuation of Classical night.

9.25—Weather Information, officially supplied by the Commonwealth Bureau, Announcements.

9.30—Savoy Orchestra.

10—"The Daily Mail" news service. Close down.

5 C L

Morning Session.

11.30—G.P.O. Chimes.

11.31—Featuring Stock Dun Art Number.

11.40—"Advertiser" News Service.

11.55—Vocalion number.

12—G.P.O. Chimes.

12.1—"Advertiser" News Service and Cricket scores.

12.15—Featuring a Stock Dun Art Number.

12.30—5CL Studio Orchestra will be heard in a series of classical numbers.

1.55 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.

2—G.P.O. Chimes.

Afternoon Session.

2—G.P.O. Chimes.

8.1—Relay from "Maple Leaf" Cafe—Orchestra numbers.

3.45—From Studio—Serial Story.

4—G.P.O. Chimes.

4.1—Bronzed from "Arcadia" Cafe—Orchestra numbers.

4.55—Stock Exchange Reports, General Information, and Station Announcements.

5—G.P.O. Chimes.

Evening Session.

6.30—G.P.O. Chimes.

6.31—Bedtime Stories.

7.30—Market Reports.

7.48—Sporting talk by "Old Timer."

8—G.P.O. Chimes.

8.1—Special programme of revue numbers composed by Mr. Kenneth Duffield, the celebrated Australian composer, performed by the Merry-makers' Orchestra and assisted by Messrs. C. Langley, C. Verne, D. Wildsmith, Mostyn Skinner and Miss Linda Wald.

9—G.P.O. Chimes.

9.55—Weather Reports.

9.8—Relay from new Pavilion Theatre; Miss Dempsey's Orchestra.

9.23—Concert, continued.

10—G.P.O. Chimes.

10.1—Relay from new Pavilion Theatre.

10.15—"Advertiser" news service.

10.30—Concert Continued.

10.35—Merry-makers' Orchestra.

10.55—Station Announcements.

11—G.P.O. Chimes. National Anthem.

7 Z L

Morning Session.

11—"The Mercury" news, stock market, shipping, commercial intelligence, weather information. Records from the Studio.

12—Time Signal.

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BATTERIES.

Afternoon Session.

- 5—Musical items from the Studio, weather information.
- 6.30—Hobart Stock Exchange quotations.
- 6.45—Time Signals.

Early Evening Session.

- 7—Children's Corner. "Big Brother" chats to his Pat.
- Evening Session.
- 8—"The Mercury" special Tasmanian news service. Railway auction produce sales. Weather forecasts.
- 8.5—Hobart Stock Exchange quotations.
- 9.10—Weekly gardening edit, by Mr. George Nation.
- 9.20—"Sports Budget" supplied by Mr. T. W. Newton, of Hobart Sports Depot.
- 9.30—Miss Ruby Wallace, soprano; Miss R. Plesse, pianist; Mr. S. Hall, baritone; Mr. Hugh Taylor, elocutionist; Master Victor Pharoah, baritone soloist.
- 9.50—"The Mercury" special interstate news service. Weather synopsis. Station announcements. National Anthem.



Saturday, August 28

2FC

Early Morning Session.

- 7—Time Signals. The Chimes of 2FC and Announcements.
- 7.25—Cricket Scores: 3rd day's play of the match, Australia versus Kent.
- 7.30—Weather Information, Commercial News, Shipping Intelligence and Market Reports.
- 7.35—Investment Market, Mining Share Market, Metal Quotations.
- 7.35—Wool Sales, Breadstuffs Markets, Interstate Markets, Produce Markets.
- 7.45—"Sydney Morning Herald" News Service.
- 8—Time Signals; Music from the studio.
- 8.15—Close down.

Morning Session.

- 9.15—The Chimes of 2FC and Programme Announcements.
- 9.20—Music from the Studio.
- 9.45—A Talk by the 2FC Racing Commissioner.
- 10—Time Signals; Cricket scores.
- 10.5—Late "Sydney Morning Herald" news service.
- 10.15—Music from the Studio.
- 11—Australian Press Association and Reuter's Cable Service.
- 11.15—A Talk on Gardening by "Red Gum."
- 11.30—Close down.

Midday Session.

- 12.15—The Chimes of 2FC and Announcements.
- 1—Time Signals; "Evening News" Midday News Service and Weather Information; Race Results will be given at intervals.

Afternoon Session.

- 2.35—The Chimes of 2FC and Announcements.
- 3—Time Signals; Musical Items will be transmitted from the studio during the intervals between race and sporting results.
- 4.30—A complete resume of the afternoon's sporting events.
- 5—Time Signals. Close down.

Early Evening Session.

- 6—The Chimes of 2FC and Announcements.
- 6.5—"Hello Man" talks to the children.
- 8.45—Broadcast from the Hotel Australia: Orchestral Items.
- 7.5—Late "Evening News" News Service and Weather Information.
- 7.30—Late Sporting Results.
- 7.45—A Talk on Motor Car Lubrication.
- Night Session.
- 7.55—The Chimes of 2FC and Announcements.

- 8—Broadcast from Palling's Concert Hall. Items from the concert arranged by Professor C. Sauer. Orchestral Class "Prelude" Op. 28 (Chopin); piano: "Liebestraum" (Liszt); Miss R. Foster; soprano; Miss Lillian May, "Prelude" (b) "Summer" (Landon Ronald); violin: "Midnight Bella" (Kreisler); Miss N. Soular; piano: "Au convent" (Borodin); Miss V. Welch; contralto: (a) "Im wunderbaren Monat Mai" (Schumann); Miss E. McAlpin; (b) "Aus meines Trauen Spriesen" (Schumann); Miss E. McAlpin; violin: "Cantzonetta" (d'Ambrósio); Miss Ethel Broadhurst; mezzo contralto: "The Sea" (Travers); Miss N. Rowe; Choral and Orchestral class: "The Snow" (Ellgar); Accompanist: Mme. Adeline Sauer.

- 8.45—From the Studios: Mr. Walter Hunt and Miss Eve Warhurst and Company in a one act Comedy.
- 9.5—Miss Elsie Fearless, soprano: (a) "Una Voce Poco Fa" (Rossini), (b) "An Emblem" (Thompson).
- 9.14—Mr. Charles Kingsley, comedian.
- 9.25—A Talk by Captain Fred Akrons on: "Penalty."
- 9.35—Pianist.
- 9.45—Mr. Walter Hunt, Miss Eve Warhurst, and Company in a one act play.
- 9.55—2FC Dance Band.
- 10.5—Mr. Charles Kingsley, comedian.
- 10.15—2FC Dance Band.
- 10.35—Late Sporting Information and Announcements.
- 10.32—2FC Dance Band will play until 11.30 p.m.
- 11.50—Broadcast from the Wentworth Hotel, Sydney: Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.
- 12—National Anthem; Close down.

2BL

Early Morning Session.

- 7.15—Physical Training and Health Exercises.
- 7.30—Talk on Health and Hygiene.
- 7.35—Physical Training and Health Exercises.
- 7.45—Broadcasters' Special News Service.
- 7.55—Special Mail News from Rugby.
- 7.55—Musical Programme from the Studio.
- 8—G.P.O. Clock and Chimes. Close down.

Morning Session.

- 10—G.P.O. Clock and Chimes. Special news service from the "Daily Telegraph."
- 10.10—Broadcasters' Turf Expert will discuss the training operations and horses' form from Randwick.
- 10.25—Special news from the "Daily Telegraph."
- 10.45—Music from the Studio.
- 11—G.P.O. Clock and Chimes. Special Cricket Session.
- 11.5—Musical Programme from the Studio.
- 11.15—London Metal Quotations.
- 11.25—Broadcasters' Information Service, including Mail, Shipping, Weather, Rainfall, Social Fixtures for the following day.
- 11.35—Musical Programme from the studio.
- 11.45—News from Sun Cable Edition.
- 11.55—Talks to Women by Mrs. Jordan; Race Results broadcast immediately after each Race.
- 12.25—Talk on Sporting and Athletic Fixtures for the day.
- 1—G.P.O. Clock and Chimes. Close down.

Afternoon Session.

- 2—G.P.O. Clock and Chimes. Special Sporting Information broadcast by courtesy of the "Sydney Newspapers."
- 5.45—G.P.O. Clock and Chimes. Close down.

Early Evening Session.

- 6—G.P.O. Clock and Chimes. Uncle George and the Kiddies.
- 6.45—Pavilion Dinner Orchestra.
- 7.15—Results of football, lacrosse, and sporting information.
- 7.20—Country news from "The Sun"
- 7.45—G.P.O. Clock and Chimes. Close down.

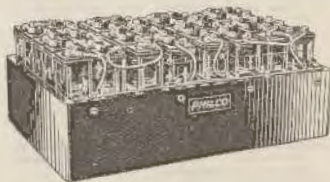
Evening Session.

- 8—G.P.O. Clock and Chimes; Enmore Theatre Symphony Orchestra, under the direction of Mr. R. F. Waskins.
- 8.15—From the Studio: Lecture Recited by Mr. Roland Foster, of the State Conservatorium.

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- 8.45—Miss Freda Glider (contralto).
 8.52—Professor Randel Woodhouse (tenor).
 8.59—Announcements.
 9.0—G.P.O. Clock and Chimes.
 9.05—Resume of following day's programme.
 9.2—Weather Report and Forecast by courtesy of Mr. C. J. Mares, Govt. Meteorologist.
 9.5—Announcements.
 9.10—Marris & Vale (musical interlude).
 9.25—Interval.
 9.30—Lecture from the Studio.
 9.50—Miss Freda Glider.
 9.57—Professor Randel Woodhouse.
 10.4—Kenzie Theatre Symphony Orchestra.
 10.15—Al. Hammett, and the Ambassadors Dance Band, broadcast from the ballroom of the Ambassadors. During the intervals between dances "Sun" News will be broadcast.
 12—G.P.O. Clock and Chimes: National Anthem.

3 LO

- Morning Session.
 11—Sonora Recital.
 11.10—Harold Rogers, organ, "Festal March."
 11.20—Johnny Marks, comedian.
 11.30—Sonora Recital.
 11.40—Harold Rogers, piano.
 11.50—Johnny Marks, comedian.
 12—Time Signal. Latest cricket news, Australia v. Kent, at Usherbury, by courtesy of Reuters Ltd. British Official Wireless news from Rugby. Reuters and Australian Press Association cables. "Argus" and "Herald" news services. Shipping intelligence.
 12.45—Stock Exchange information.
 12.50—Meteorological information. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales. Ocean forecast. River reports.
 1—Time signal.
 1.1—Studio Orchestra.
 1.10—Zoe Harrison, violin.
 1.15—C. Richard Clukey, flute.
 1.22—Studio Orchestra.
 1.32—Gwen Harrison, piano.
 1.30—Tasma Turnan, cello.
 1.45—Studio Orchestra.
 2—Result of Hurdle Race, Williamstown Races.
 2.35—Result of Bendish Handicap.
 Afternoon Session.
 3—Speeches incidental to the laying of the foundation stone of St. Mark's Social Settlement Hall, by Lord Somers, transmitted from the building site in Fitzroy.
 3.30—Result of Underwood Stakes, Williamstown Races.
 3.31—Swansea Synoposers.
 3.40—Result of Underwood Stakes.
 3.41—Swansea Synoposers.
 4.15—Result of Sleephechio, Williamstown Races.
 4.16—Swansea Synoposers.
 4.45—Result of August Handicap and Welter Handicap. Sporting results. "Herald" news service.
 5—Close down.
 Evening Session.
 5.45—Sporting Results.
 6—Children's Hour. Miss Billie Lockwood will sing "Noney Parker" and "Dutch Lullaby."
 6.7—"Mary Gumsley," Poems: "The Island," "The Three Foxes," Stories for the little ones, "The Secret," Musical number by Betty Horniss, "The Sleeping Beauty Suite," For the boys and girls, "Saturday Island."
 6.8—Latest Australian Cricket Eleven scores, by courtesy of Reuters Ltd.; "Argus" and "Herald" news services. Sporting results. Reuters and Australian Press Association cables.
 6.53—Weather synopses. Shipping movements.
 6.57—Stock Exchange information.
 7—Fish Market Reports by J. R. Borrett Ltd.
 7.4—River Reports.
 7.6—Market Reports by Victorian Producers' Co-operative Co. Ltd.: Grain, chaff, hay, straw, lute, dairy produce, potatoes and onions.
 Night Session.
 7.30—Mr. Frederick Chapman, "Incidents in the life of Frank Buckland."

- 7.40—Dr. J. A. Louch, "History of Australasian Ornithology."
 8—Harmonisk Male Quartette.
 8.15—Crackajak Mouthorgan Band.
 8.22—An original sketch written by Mr. Evelyn Turner, "Dad's New Suit."
 8.43—Robert Gilford, bass.
 8.51—Moena Lua Dao, Hawaiian instrumentalists in Island Melodize.
 9—Tom Messers, tenor.
 9.5—Crackajak Mouthorgan Band.
 9.15—Herbert Sanderson, baritone.
 9.20—British Official Wireless News from Rugby. Latest cricket news by courtesy of Reuters Ltd. Meteorological information.
 9.50—Crackajak Mouthorgan Band.
 9.55—"Toll Me Mure," Second Act.
 10.30—Sporting Results—Haees, Football, Metropolitan Soccer League, Metropolitan Amateur Association Lacrosse. "Argus" news service. Announcement.
 11—God Save the King.

3 AR

- Morning Session.
 11.30—The British Official Wireless Press, received from Rugby Soccer Wireless Station, England, by 3AR's Operator; Express Train Information; The Age News Bulletin.
 12—Time Signal Chime from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; 1st Weather Forecast; Events of the day.
 12.5—Musical Selections, relayed from Hoy's de Luxe, Bourke Street.
 12.30—Stock Exchange News; Foreign Exchanges of the world, supplied by Messrs. Thos Cook & Sons.
 12.5—Market Reports.
 12.40—Musical Selections.
 12.55—Mail Notices; Shipping Movements.
 1—Close down.
 Afternoon Session.
 Williamstown Meeting.
 2—Description of the Hurdle.
 2.30—Hoy's Premier Orchestra, under the direction of Miss Ella Eriem.
 2.35—Result of the Seaside Handicap; Hoy's Premier Orchestra.
 3.10—Result of the Williamstown Stakes; Hoy's Premier Orchestra.
 3.40—Result of the Sleephechio; Hoy's Premier Orchestra.
 4—Time Signal Chime; 2nd Weather Report; Hoy's Theatre.
 4.10—Result of the August Handicap.
 4.55—Evening Amusement Guide, Result of Welter Handicap.
 5—Close down.
 Early Evening Session.
 6.45—The Children's Corner, by Uncle Peter.
 Evening Session.
 8—Time Signal Chime from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; The British Official Wireless Press; Sporting Results; Local News.
 8.15—Dance Night! The Rhythmic Dance Orchestra, relayed from the Maison-de-Luxe, Broadway, St. Kilda, under the leadership of Mr. George Lewis.
 9.50—Week-end Travellers Information, supplied by the Victorian Railways Department, and the Melbourne Tramways Board.
 9.50—The Maison-de-Luxe Dance Orchestra.
 10—Time Signal Chime from G.P.O., Melbourne; Studio Barometer and Outdoor Thermometer Readings.
 10.5—The Maison-de-Luxe Dance Orchestra.
 11—Time Signal Chime; Close down.

**BURGESS—Used by
American Navy—
—BATTERIES.**

4 QG

- No Midday Transmission.
 Afternoon Session.
 3.25—Tune-in.
 3.35—A Marriage for Middle Listeners.
 4.30—Close down.
 Early Evening Session.
 6.30—Tune in.
 6.35—The Children's Session. Bedtime Stories by "Uncle Ben" and "Uncle Jim," assisted by "Mabel Sunshine."
 7.15—Sporting News.
 7.30—Close down.
 Night Session.
 7.45—A sporting talk, by Rugby League Officials. The Gaiety Theatre, Tuwong, by courtesy of the proprietor, the overture played by the Gaiety Theatre, Tuwong, will be relayed. Concert from the Studio. Ten minutes music by the Orchestra, at the Gaiety Theatre, Tuwong.
 8.25—Weather information, officially supplied by the Commonwealth Weather Bureau. Announcements.
 9.30—From Lennon's Ballroom, by courtesy of the proprietors of Lennon's Hotel, a programme of music will be relayed from Lennon's ballroom. There will be included between dances a musical comedy act by "Fred and Wairid."
 10—From the Studio: "The Daily Mail" News Service. Close down.

5 CL

- Morning Session.
 10.50—G.P.O. Chimes.
 10.51—Studio Orchestra.
 11.45—"Advertiser" News Service.
 Afternoon Session.
 Relay from Victoria Park Racecourse—running description of the racing programme by Mr. Arnold Treloar.
 2—From the Studio: Interchange sporting results and "A" grade football results as available.
 Evening Session.
 6.30—G.P.O. Chimes.
 6.31—Bedtime Stories.
 7.30—Market Report.
 7.40—Resume of the chief sporting results throughout the Commonwealth.
 8—G.P.O. Chimes.
 8.1—Studio Concert.
 8.20—Relay from Palais Royal—Dora Swift's Palais Royal Orchestra.
 9.15—Concert, continued.
 9.40—Relay from Palais Royal.
 10—G.P.O. Chimes.
 10.1—Concert, continued.
 10.15—"Advertiser" News Service and ships within wireless range.
 10.30—Relay from Palais Royal.
 10.55—Station Announcements.
 11—G.P.O. Chimes. National Anthem.

7 ZL

- Morning Session.
 11—"The Mercury" news, stock market, shipping, commercial intelligence, weather information and sporting anticipations. Records from the Studio.
 11.45—Hobart Stock Exchange quotations.
 12—Time signal.
 Early Evening Session.
 7—Children's Corner, "Big Brother" chats to his Pals.
 Evening Session.
 6—"The Mercury" Special Tasmanian News Service. Railway auction produce sales. Weather information, and sporting results.
 6.5—Hobart Stock Exchange quotations.
 6.10—"Talk" "Commonwealth," subject: "The Attractions of Tasmania."
 6.20—Palais de Danse Band. City Hall.
 6.55—"The Mercury" Special Interstate News Service. Weather synopses. Station announcements. Close down.

Sunday, August 29

2FC

Early Morning Session.

- 8—Time Signals; The Chimes of 2FC and Announcements; Cricket Scores; the 1st day's play; Australia versus Sussex.
- 11—Broadcast from St. Mary's Church of England, Waverley, Morning Service. Preacher: Rev. W. C. Pritchard; soloist: Mrs. North Ash; organist, Dr. J. G. Gardiner; organ solo; "Kleidertraume" (Liszt); "Consolation" (Liszt); Introit; "Praise ye the Father" (Gounod); choral Eucharist; "Agnus in B. Flat."
- 12.15—News and Cricket Scores.
- 12.30—Close down.

Afternoon Session.

- 2.55—The Chimes of 2FC and Announcements.
- 3—Broadcast from the Pitt Street Congregational Church; Items from the Organ Recital by Miss Lilian Frost.
- 3.15—Broadcast from the Sydney Colliers, Balmain—a programme taken from the lowest depth of this mine which reaches out 2,000 feet below the earth's surface under Sydney Harbour. 2FC artists will descend to the bottom by means of the mine cages, and the transmission will be carried out and a complete description of the mine with musical items, including numbers from a male voice quartette. This will create a record for Australian transmissions.
- 3.45—Items from the Pitt Street Organ Recital.
- 4.6—From the Coal Mine, further descriptions and music.
- 4.20—From the Pitt Street Congregational Church; Organ Recital.
- 4.40—From the Coal Mine, continuation of the descriptions and music.
- 5—A Talk on the R.S.F.C.A.
- 5.15—Close down.

Night Session.

- 6.10—The Chimes of 2FC and Announcements.
- 6.15—Broadcast from the Petersham Congregational Church; Evening Service; Organ Recital by Mr. Christian Hollemann.
- 7.15—From the Petersham Congregational Church; Evening Service; the sermon will be given by the well-known evangelist Mr. W. P. Nicholson.
- 8.30—Broadcast from the Strand Theatre, Leichhardt; The Leichhardt District Band Conductor, Mr. E. P. Kerry.
- 10—National Anthem; Close down.

2BL

Morning Session.

- 11—Service broadcast from Petersham Baptist Church.
- Afternoon Session.
- 8.30—Bible Class, conducted by Mr. W. (Cairo) Bradley.
- 9—G.P.O. Clock and Chimes; From the Studio; Broadcasters' Instrumental Trio.
- 9.10—Madame Iva Clarke (contralto).
- 9.15—Broadcasters' Instrumental Trio.
- 9.25—Mr. Norman Wright (tenor).
- 9.40—Broadcasters' Instrumental Trio.
- 9.47—Madame Iva Clarke.
- 9.55—Broadcasters' Instrumental Trio.
- 10—G.P.O. Clock and Chimes; Close down.

Early Evening Session.

- 6—G.P.O. Clock and Chimes; Uncle George and the Kiddies.
- Evening Session.
- 7.15—Service broadcast from St. Jude's Church, Randwick.
- 8.30—Manly Band, broadcast from the Rialto Theatre, Manly.
- 9.30—Interval.
- 9.35—From the Studio; Broadcasters' Trio.
- 10—G.P.O. Clock and Chimes; National Anthem.

3LO

Morning Session.

- 16.30—Express Train Information.
- 16.30—Latest Cricket Scores, by courtesy of

Reuters Ltd., Australia v. Sussex, played at Brighton.

16.45—Service from St. Paul's Cathedral, Melbourne.

12.15—Latest cricket scores, by courtesy of Reuters Ltd., Australia v. Sussex, played at Brighton. British Official Wireless news from Rugby. Close down.

Afternoon Session.

- 2.55—Latest Test Cricket scores, by courtesy of Reuters Ltd., Australia v. Sussex, played at Brighton.
- 4—Broadcast Sunday Afternoon Service from Wesley Church, Lonsdale Street. Chairman, Rev. J. H. Cain.
- 4.30—Latest Cricket Scores, by courtesy of Reuters Ltd., Australia v. Sussex, played at Brighton.
- Evening Session.
- 5.45—Children's Hour. Answers to letters and birthday greetings. Songs by "Billy Bunn" and his "Brer Rabbits." Stories—"Mimosa" and "Loveliest Life."
- 6.40—Close down.

Night Session.

- 6.55—Latest Cricket Scores, by courtesy of Reuters Ltd.
- 7—Service from Baptist Church, Collins Street, Melbourne.
- 8.30—Collingwood Citizens' Band.
- 8.40—Elsy Treweek, soprano.
- 8.47—Mr. J. Howlett Ross, stories of great hymns. Choral items by Madame Aunlin's pupils. Solos by Elsy Treweek.
- 9.33—Collingwood Citizens' Band.
- 9.42—Elsy Treweek, soprano.
- 9.49—Collingwood Citizens' Band.
- 9.55—"Argus" news service. Announcements. Latest cricket scores, by courtesy of Reuters Ltd., Australia v. Sussex, played at Brighton.
- 10—God Save the King.

3AR

Morning Session.

- 10.30—The Bells of St. James' Old Cathedral.
- 11—Service from the Independent Church, Collins Street, Melbourne. Preacher: Rev. Dr. J. D. Jones, M.A., D.D., of Bourne-mouth, England.

Afternoon Session.

- Concert by the City of Brunswick Lodge Choir, No. 316, relayed from Masonic Homes, Punt Road, Frankston.
- 9—Mr. Bert Lewis (organ solo).
- 9.4—Choir.
- 9.9—Mrs. Aird (songs).
- 9.13—Choir.
- 9.20—Mr. Bert Roberts (songs).
- 9.30—Mrs. Aird (songs).
- 9.37—Mr. Edgar Stranks and Choir, solo and chorus.
- 9.44—Mr. Bert Roberts (songs).
- 9.52—Choir.
- 9.56—Mr. Bert Lewis (organ solo).
- 4—Close down.

Evening Session.

- 6.30—The Bells from St. James' Old Cathedral.
- 7—Service from the Collins Street Independent Church, Melbourne. Preacher: Rev. Dr. J. D. Jones, M.A., D.D., of Bourne-mouth, England.
- 8.30—From the Studio; Miss Dorothy Adams (soprano).
- 8.37—Mr. Robert Christian (baritone).
- 8.44—Mr. David Shaw (flautist).
- 8.51—Miss Iris Morison (soprano).
- 8.56—Mr. C. Yorke Ray: "A talk on 'The Genius of Shakespeare.'"
- 9.6—Miss Dorothy Adams (soprano).
- 9.12—Mr. R. Christian (baritone).
- 9.20—Mr. D. Shaw (flautist).
- 9.27—Miss Irla Norton (soprano).
- 9.34—Miss Dorothy Adams and Mr. Robt. Christian (duets).
- 9.50—"Age" News Bulletin, Exclusive to BAR.
- 9.55—Close down.

4QG

Morning Session.

- The complete morning service from the Albert Street Methodist Church will be relayed.

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Afternoon Session.

- 2.—Pleasant Sunday afternoon service provided by Young People's Department, Newmarket Baptist Church, in Studio of 4GG.
- 3.30—Concert by O'Hara's Band, in Botanical Garden.
- 4.30—Close down.

Night Session.

- 7.—Organ voluntaries. The complete evening service will be relayed from Albert Street Methodist Church.
- 7.40—Anthem, Invocation, Hymn, Prayer, Hymn, Lesson, Solo, Announcements and Offertory. Anthem. Hymn. Address by Dr. Howard Taylor, of the China Inland Mission. Hymn. Benediction. Vesper Hymn.
- 8.40—Greater Brisbane Municipal Concert Band, relayed from Wickham Park.
- 9.30—Close down.

5CL

Morning Session.

- 11—Relay from Flinders Street Church—Divine Service.

Evening Session.

- 6.30—G.P.O. Chimes.
- 6.31—Sunday Stories for the children.
- 7—Relay from St. Bartholomew's, Norwood—Divine Service.
- 8.15 Approx.—Holden's Silver Band: Programme of Band Music.
- 8—G.P.O. Chimes.
- 9.1—Weather Report.
- 9.5—Holden's Band, continued.
- 10.25—Station Announcements.
- 10.30—G.P.O. Chimes; National Anthem.

7ZL

Evening Session.

- 7—Service from Memorial Church, Harold. Preacher: Rev. Arthur C. Nelson. Sermon: "The Lost Church."
- 8.15—Concert from the Studio: Miss Frances Evans, contralto; Miss Ruby Preece, accompanist; Mr. W. E. Foller (dramatic recital); Mr. Audley Jones, baritone; Mr. Ch. G. Bennett, baritone.
- 9.45—"The Mercury" Special Interest News Service. Weather Synopsis. Station announcements. National Anthem.



Monday, August 30

2FC

Early Morning Session.

- 7.—The Chimes of 2FC and Announcements. Time signals.
- 7.5—Music from the Studio.
- 8.10—Weather Information, Commercial News, Shipping Intelligence, and Markets.
- 7.48—"Sydney Morning Herald" news service.
- 8.—Time Signals. Music from the Studio.
- 8.15—Close down.

Morning Session.

- 2.15—The Chimes of 2FC and Programme Announcements.
- 3.20—Music from the Studio.
- 3.45—A Morning Reading.
- 10.—Time Signals. Music from the Studio.
- 10.5—Late "Sydney Morning Herald" news service.
- 10.15—Music from the Studio.
- 11—Progress Cricket Talk.
- 11.10—Australian Press Association and Reuter's Cable Services.
- 11.15—Music from the Studio.
- 11.30—Close down.

Midday Session.

- 12.—Time Signals. The Chimes of 2FC and Announcements.
- 12.5—Stock Exchange, first call.
- 12.10—Music from the Studio.
- 12.40—Rugby Wireless News.
- 1.—Time Signals. Weather Intelligence.
- 1.3—"Evening News" Midday News Service. Producer's Distributing Society's Report.
- 1.35—Music from the Studio.
- 1.30—Stock Exchange—second call.
- 1.35—Music from the Studio.
- 2.—Time Signals; Close down.

Afternoon Session.

- 2.30—The Chimes of 2FC and Announcements.
- 2.35—A Recital on the Behring Player Piano.
- 3.30—From Farmer's Tea Rooms: The Oak Hall Trio will play leader, Mr. Horace Keays).
- 3.40—Miss Kathleen Beverley, soprano: "My Ain Folk" (Lesson).
- 3.45—From Farmer's Tea Rooms: Oak Hall Trio.
- 3.55—Music from the Studio.
- 4.—Miss Muriel Humphries, contralto.
- 4.—From Farmer's Tea Rooms: The Oak Hall Trio.
- 4.20—Miss Kathleen Beverley, soprano: "Good Morning Brother Sunshine" (Lehmann).
- 4.25—From Farmer's Tea Rooms: The Oak Hall Trio.
- 4.35—Music from the Studio.
- 4.40—Miss Muriel Humphries, contralto.
- 4.45—Stock Exchange, Third Call.
- 4.40—Music from the Studio.
- 5.—Time Signals; Close down. NOTE.—During the afternoon, items from the Street by Henry Sandford's famous combination of 17 American dance musicians.

Early Evening Session.

- 8.—Time Signals. The Chimes of 2FC.
- 8.5—"The Hello Man" talks to the child.
- 9.30—Radio-gram Competition.
- 6.45—Broadcast from the Hotel Australia, Sydney. Orchestral items.
- 7.15—From the Studio: "Evening News" late news service, weather information.
- 7.30—Dalgely's Market Reports (wool, wheat, stock), fruit and vegetable markets.
- 7.40—Talk on "Sperato" by Mr. H. Pfall. NOTE.—At 6.40 a story for the older boys commencing to-night, and will be continued until finished in the book: "The Three Little Bricks" by the Australian writer, Gratian Smith.

Night Session.

- 7.55—The Chimes of 2FC and Announcements.
- 8.—Broadcast from the Haymarket Theatre, Sydney: Operatic Orchestra, under the baton of Mr. Stanley Porter.
- 8.25—From Paling's Concert Hall: A programme supplied by the Welsh Choral Society, excerpts from Mendelssohn's "Elijah."
- 8.50—Talk on "Sperato" by Mr. H. Pfall. NOTE.—At 8.40 a story for the older boys commencing to-night, and will be continued until finished in the book: "The Three Little Bricks" by the Australian writer, Gratian Smith.
- 9.—Time Signals; Close down.
- 7.55—The Chimes of 2FC and Announcements.
- 8.—Broadcast from the Haymarket Theatre, Sydney: Operatic Orchestra, under the baton of Mr. Stanley Porter.
- 8.25—From Paling's Concert Hall: A programme supplied by the Welsh Choral Society, excerpts from Mendelssohn's "Elijah."
- 8.50—Talk on "Sperato" by Mr. H. Pfall. NOTE.—At 8.40 a story for the older boys commencing to-night, and will be continued until finished in the book: "The Three Little Bricks" by the Australian writer, Gratian Smith.
- 9.—Time Signals; Close down.

2BL

Early Morning Session.

- 7.15—Physical Training and Health Exercises.
- 7.30—Talk on Health and Hygiene.
- 7.35—Physical Training and Health Exercises.
- 7.45—Broadcasters' Special News Service.
- 7.52—Special News from Rusby.
- 7.55—Musical programme from the studio.
- 8.—G.P.O. Clock and Chimes. Close down.

Morning Session.

- 10—G.P.O. Clock and Chimes. Special News Service from the "Daily Telegraph."
- 10.10—Music from the Studio.
- 10.25—Special news from the "Daily Telegraph."
- 10.40—Music from the Studio.
- 11—G.P.O. Clock and Chimes. Special Cricket Session.
- 11.5—Musical Programme from the Studio.
- 11.20—Markets.
- 11.25—Broadcasters' Information Service, including Mail, Shipping, Weather, Rainfall, Social Fixtures for the following day.
- 11.40—Musical Programme from the Studio.
- 11.50—News from "Sun" Cable Edition.
- 12—G.P.O. Clock and Chimes. Talks to Women, by Mrs. Jordan.
- 12.30—Broadcasters' Turf Export will discuss the training operations and horse form from Randwick.
- 12.45—Hillier's Instrumental Quartette, under the direction of Carl Gostling.
- 1.30—Sydney Stock Exchange calls.
- 1.45—Latest sporting information from the "Sun."
- 2—G.P.O. Clock and Chimes. Close down.

Afternoon Session.

- During the afternoon results of races will be broadcast immediately after each race.
- 1.—G.P.O. Clock and Chimes. Weather report and Social Notes from the "Sun."
- 1.10—Resume of night's programme.
- 2.15—Civil Service Restaurant Trio.
- 3.30—A Talk on "A Course in English Literature and Poetry," by Mr. J. M. Prudden.
- 4.—G.P.O. Clock and Chimes: Civil Service Restaurant Trio.
- 4.15—Music from the Studio.
- 4.30—Serial Story, entitled "The Mad Song" (Mabel Westella).
- 4.45—Music from the Studio.
- 5.—G.P.O. Clock and Chimes; Producer's Distributing Society's Market Report.
- 5.10—Shipping Information.
- 5.15—G.P.O. Clock and Chimes. Close down.

Early Evening Session.

- 6—G.P.O. Clock and Chimes. Uncle George and the Kiddies.
- 6.45—Daffion Dinner Orchestra, under the direction of Cec. Morrison. Special Country Session.
- 7.15—Australian Mercantile and Finance Report.
- 7.20—Weather Reports.
- 7.24—What's On, a guide to the visitors and citizens of Sydney.
- 7.30—Stock Exchange Reports.
- 7.37—Producers' Distributing Society's fruit and vegetable report.
- 7.42—Fruit and vegetable Reports (Sun).
- 7.45—Grain and Fodder Reports (Sun).
- 7.48—Country News from the Sun.
- 7.55—Close down.

Evening Session.

- 8—G.P.O. Clock and Chimes; Newtown Band, broadcast from Industrial Hall, Newtown.
- 8.20—Miss Marjorie Skil, baritone.
- 8.27—Lecture from the Studio.
- 8.47—Mr. Clem Williams, soprano.
- 8.55—Resume of following day's programme.
- 9.58—Weather Report and Forecast by courtesy of Mr. G. J. Mares, Govt. Meteorologist.
- 9.—G.P.O. Clock and Chimes; Announcements.
- 9.5—Al. Hammett and the Ambassadors Dance Band broadcast from the ballroom of the Ambassador. During the intervals between dances, description of frocks and social notes will be broadcast by Mrs. Potts.
- 9.30—Interval.
- 9.35—Duet by Miss Marjorie Skil and Mr. Clem Williams.
- 9.40—Lecture from the Studio.
- 10—Miss Marjorie Skil.
- 10.7—Mr. Clem Williams.

BURGESS—"Constant satisfaction assured" BATTERIES.

10.15—Al. Hammott and the Ambassadors Dance Band, broadcast from the ballroom of the Ambassadors. During intervals between dances, News Reports by courtesy of the Sun Newspapers will be broadcast.

12—G.P.O. Clock and Chimes; National Anthem.

3 L O

Midday Session.

12—Time Signal. Latest cricket news, by courtesy of Reuters Ltd, British Official Wireless news from Rugby. Reuters and the Australian Press Association cables. "Argus" and "Herald" news services.

12.45—Shipping Intelligence, Stock Exchange information.

12.50—Meteorological information. Weather forecasts for Victoria, Tasmania, South Australia and New South Wales, Ocean forecast. River reports.

1—Time signal.

1.10—Studio Orchestra.

1.10—Billie Lockwood, humorist.

1.17—Studio Orchestra.

1.22—Victorian Dried Fruits Board. Her Excellency Lady Somers will speak from State Government House, Malvern.

1.27—C. Richard Chugg, flute solo.

1.35—Billie Lockwood, humorist.

1.42—Studio Orchestra.

2—Close down.

Afternoon Session.

3—Latest cricket scores, by courtesy of Reuters Ltd.

3.1—Studio Orchestra.

3.10—Messrs. Silk will talk on homecrafts.

3.25—Studio Orchestra.

3.25—Agnes Fortune, Pianoforte solo.

3.40—Victorian Dried Fruits Board, Miss Flora Pell, Supervisor, Domestic Arts, Education Department.

3.55—C. R. Chugg, flute, and F. Stanham, clarinet, duet, "Sweet Louceng."

4.5—Vera Spaul, soubrette.

4.12—Hessie Gaunson, violin.

4.23—Station Trio.

4.27—Vera Spaul, soubrette.

4.34—Studio Orchestra.

4.45—"Herald" news service. Latest cricket news, by courtesy of Reuters Ltd. Stock Exchange information.

5—Close down.

Evening Session.

5.45—Children's Hour. Answers to letters and birthday greetings. Miss Billie Jones will sing to the children, and "Little Miss Kookaburra" will tell to her teeny weeny friends, "Bobo of the Red Coat," to be followed by the 4th instalment of "The Girl who played the Game" for the blivver boys and girls.

6.40—Latest cricket news, by courtesy of Reuters Ltd. "Argus" and "Herald" news services. Reuters and the Australian Press Association cables.

6.53—Weather synopsis. Shipping movements.

6.57—Fish Market Reports by J. R. Borrett Ltd.

7.2—Stock Exchange information.

7.4—River Reports.

7.6—Market Reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sheep sales, poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes, and onions. Market prices of oranges and lemons, by the Victorian Central Citrus Association Pty. Ltd.

Night Session.

7.20—Under the auspices of the Develop Australia League, Mr. E. C. Brady, "The Great Trek."

7.40—Under the auspices of the Department of Agriculture, Mr. W. C. Ruzs, Poultry Expert, "Poultry Management—Seasonable Hints."

8—Lomana an Fenne (Members' Night) transmitted from Geddong, Congregational Church Choir, C.N.F. Reel Party, Victorian Railways Institute Quartette Party, W. Roberts, tenor, M. Paton, soprano.

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11

SYDNEY

Florrie Gordon and W. Davy, diat. Jack Miller, solo, W. Davy, tenor, Florrie Gordon, contralto. Victorian Dried Fruits Board. W. Roberts and M. Paton, diat. Florrie Gordon, contralto, W. Davy, tenor, M. Paton, soprano, W. Roberts, bms. Victorian Railways Institute Quartette Party, Accompanists, Mrs. E. H. Davy. 10.45—Arcade news service. Latest cricket news, by courtesy of Reuters Ltd. British Official Wireless News from Rugby. Announcements. Weather Forecast. 11—God Save the King.

3 AR

Morning Session.
11.33—The British Official Wireless News, received from Rugby Super wireless station, England, by 3AR's operator. Events of the day; the "Age" News Bulletin, exclusive to 3AR.
12—Time Signal Chime from G.P.O.; 1st Weather Forecast; Studio Barometer and Outdoor Thermometer Readings.
12.15—Musical Selections relayed from Hoy's de Luxe, Bourke Street.
12.30—Stock Exchange News; Market Reports.
12.40—Musical Selections.
12.45—Mail Notices; Shipping Movements.
1—Close down.

Afternoon Session.

Pitany Ponies: Results after each race and at half-hourly intervals.
2.40—Hoy's Premier Orchestra, under the direction of Miss Ella Brown.
3—Mr. Bert Pettifer (violinist).
3.15—Miss Violette Gault (clarinetist).
3.44—Mr. Ronald Brerley (cellist).
3.47—Melbourne Piano Trio.
4—Time Signal Chime from G.P.O.
4.15—Evening Announcements (G.P.O.).
5—Time Signal Chime from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; End Weather Forecast; Close down.

Early Evening Session.

6.45—The Children's Corner, by Uncle Red.
Evening Session.
8—Time Signal Chime from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; British Official Wireless News.
8.8—Mr. J. Lloyd Jones (clarinetist).
8.15—Miss Phyllis Hall (mezzo-soprano).
8.23—Mr. Anthony Lucas (flautist).
8.30—Miss Yetty Landau (entertainer).
8.37—Mr. Lionel Davis (solo pianist).
8.46—Mr. J. Lloyd Jones (clarinetist).
8.53—Miss Phyllis Hall (mezzo-soprano).
9—Mr. Stephen McDonald will talk on Voice Production; "Close Emotion".
9.16—Mr. Anthony Lucas (flautist).
9.23—Miss Yetty Landau (entertainer).
9.30—Mr. A. J. Sullivan will talk on "Lost in the Australian Bush".
9.45—Mr. Lionel Davis (solo pianist).
9.53—Miss Yetty Landau (entertainer).
10—Time Signal Chime from G.P.O.; Studio Barometer and Thermometer Readings; Age News Service, exclusive to 3AR.
10.10—Hoy's Premier Orchestra, Birthday Month, Special programme.
10.40—Close down.

4QG

Midday Session.

12.55—Tune-in.
12.58—Time Signal.
1—Market Reports supplied by the Council of Agriculture; Stock Exchange Information, supplied by the Committee of the Brisbane Stock Exchange; Weather Information supplied by the Commonwealth Weather Bureau; News Service supplied by "The Daily Mail"; News service supplied by "The Daily Standard".
1.20—Close down.

Afternoon Session.

2.30—A programme of Music from the Studio.
4.15—News Service supplied by "The Telegraph".
4.30—Close down.

Early Evening Session.

6.25—Tune-in.
5.30—The Children's Corner—Stories by "The Sandman".
7—The Farmers' Session, Market Reports supplied by the Council of Agriculture, Lecturated, "Tom Green's Pig Farm," Mr. E. J. Shelton (Instructor in Pig Raising).
7.30—News Service supplied by "The Standard"; Stock Exchange Information supplied by the Committee of the Brisbane Stock Exchange.
8.30—Close down.

Night Session.

7.45—Lecture Session, "A trip to ML Kocinski," by Mr. J. Deemey.
8—The Clwaria Orchestra.
8.20—Weather Information and Announcements.
8.30—From the Crystal Palace, by courtesy of the proprietors, dance music will be relayed from the Crystal Palace Dance Hall, South Brisbane.
10—From the Studio, "The Daily Mail" News Service. Close down.

5CL

Morning Session.

11.30—G.P.O. Chimes.
11.31—Featuring a Stock Duo Art Number.
11.40—"Advertiser" News Service.
11.45—Vocalist number.
12—G.P.O. Chimes.
12.1—"Advertiser" News Service and Cricket scores.
12.15—Featuring a Stock Duo Art Number;
12.30—5CL Studio Orchestra will be heard in a series of classical numbers.
1.53 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.
2—G.P.O. Chimes.

Afternoon Session.

3—G.P.O. Chimes.
3.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.
3.46—From Studio—Serial Story.
4—G.P.O. Chimes.
4.1—Broadcast from "Arcadia" Cafe—Orchestral numbers.
4.45—Stock Exchange Reports, General Information, and Station Announcements.
6—G.P.O. Chimes.

Evening Session.

6.50—G.P.O. Chimes.
6.31—Bedtime Stories.
7.30—Market Reports.
7.40—Mr. W. W. Fredrickson, automotive engineer, of Vacuum Oil Co., will give his weekly motor talk.
7.50—Care of the Teeth, by Mr. A. E. Duncey.
8—G.P.O. Chimes.
8.1—A programme of dance music relayed from the Palais Royal, interspersed with vocal items from the studio.
8.20—Twispick's Boys Club.
8.40—Palais Royal, continued.
8—G.P.O. Chimes.
9.1—Weather Reports.
9.3—Palais Royal Orchestra.
10.15—"Advertiser" news service and sldps within wireless range.
10.30—Palais Royal Orchestra.
10.35—Station announcements and International Cricket.
11—G.P.O. Chimes; Close down.

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7ZL

Morning Session.

11—"The Mercury" news, stock market, shipping, commercial intelligence, weather information. Records from the Studio.
12—Time signal.

Afternoon Session.

1—Musical items from the Studio. Weather information.
1.30—Hobart Stock Exchange quotations.
4—Time signal.

Early Evening Session.

7—Children's Corner, "Big Brother" chats to his pals.

Evening Session.

8—"The Mercury" special Tasmanian news service, Railway auction products - us. Weather information.
8.6—Hobart Stock Exchange quotations.
8.10—Miss A. Nowtice, M.A., Inspector of Infant Schools, subject: "The Modern Kindergarten".
8.30—Miss Bertha Marshall, soprano; Miss Dulcie, Tait, alto; Miss Ruby Piesse, accompanist; Mr. Jack Broadbent, baritone; Mr. William P. Harwood, cellist; Mr. Roy Sutcliffe, cornet.
9.50—"The Mercury" special Inbata news service. Weather synopsis. Station announcements. National Anthem.

Tuesday, August 31

2FC

Early Morning Session.

7—The Chimes of 2FC and Announcements.
7.50—Time Signals.
7.55—Cricket Scores of the second day's play, Australia versus England.
7.10—Weather information; Commercial News; Shipping Intelligence and Markets.
7.40—"Sydney Morning Herald" News Service.
8—Time Signals; Cricket Scores; Music from the Studio.
8.15—Close down.

Morning Session.

9.10—The Chimes of 2FC and Announcements; Cricket Scores.
9.20—Music from the studio.
9.45—A Talk by the 2FC Racing Commissioner.
10—Time Signals; Music from the Studio.
10.15—Lain "Sydney Morning Herald" News Service.
10.15—Music from the Studio.
11—Progress Cricket Talk.
11.30—Australian Press Association and Reuters Cable Service.
11.15—Music from the Studio.
11.30—Close down.

Midday Session.

12—Time Signals; The Chimes of 2FC and Announcements.
12.1—Stock Exchange—First Call.
12.10—Music from the Studio.
12.50—Rusby Wireless News.
1—Time Signals; Weather Intelligence.
1.3—"Evening News" Midday News Service, Producer's Distributing Society's Report.
1.20—Music from the Studio.
1.30—Stock Exchange, Second Call.
1.35—Music from the Studio.
2—Time Signals; Close down.

Afternoon Session.

2.30—The Chimes of 2FC and Announcements.
2.40—An Elementary Recital by the pupils of Miss Grace Stafford.
3.35—From Farmer's Tea Rooms: The Oak Trio will play (Under, Mr. Horace Keats).

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3 Certified Low Loss condensers, .0005 at 12/- each. Price	1 16 0	1 Battery switch, push pull type, Price	0 1 8
3 4in. "Ajax" black dials, at 2/4 each. Price	0 7 0	1 Crescent 6 to 1 audio transformer. Price	0 13 6
1 Double circuit jack. Price	0 2 4	1 Crescent 3 1/2 to 1 audio transformer. Price	0 13 6
1 Single circuit jack. Price	0 1 9	1 Dozen square buswire. Price	0 0 11
		Circuit supplied free.	
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2 Ajax 30 ohm rheostate at 2/1	0 4 2	1 Audio transformer	0 13 6
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NEWCASTLE

- 3.49—Miss Joan Shorter, soprano: "Phyllis like such German Girls" (Lanc).
- 3.45—From Farmer's Ten Rooms: The Oak Hall Trio.
- 3.55—Music from the Studio.
- 4.—Miss Peggy Dunbar, contralto: "The Garden of your Heart" (Dore).
- 4.15—From Farmer's Ten Rooms: The Oak Hall Trio.
- 4.15—Music from the Studio.
- 4.20—Miss Joan Shorter, soprano: "The Robin" (Arms).
- 3.59—The Oak Hall Trio.
- 3.55—Music from the Studio.
- 4.05—Miss Peggy Dunbar, contralto: "Just a Dream" (H. Hedges).
- 4.15—Stock Exchange, Third Call.
- 4.45—Music from the Studio.
- 5.—Time Signal: Close down.

Early Evening Session.

- 6.—The Chimes of 2FC and Announcements.
- 6.5—"The Hello Man" talks to the children.
- 6.45—Serial Story for elder boys: "Three Little Bricks."
- 6.50—Broadcast from the Hotel Australia, Sydney—Orchestral items.
- 7.15—From the Studio: "Evening News" into news service, weather information.
- 7.30—Dulger's Market Review (wheat, wheat, stock), fruit and vegetable markets.
- 7.40—Mr. J. K. Powell of the Food Reform League, will talk on "Gardening for Health."

Night Session.

- 7.45—The Chimes of 2FC and Announcements.
- 8.—Broadcast from the Dalhousie Town Hall: Items from the Metropolitan Ball.
- 8.20—From the Studio: Maurice E. Price in a humorous monologue: "The Schoolmaster."
- 8.28—Mr. Lionel Lawson, violin solo.
- 8.37—Metropolitan Ball.
- 8.45—Miss Joyce Hadley, soprano.
- 8.5—Broadcast for the first time. Oscar Wilde's famous comedy "Lady Windermere's Fan," by the H. W. Yarns Dramatic Company. Lord Windermere, George Pastors; Lady Windermere, Gwendoline Shortwood; Miss Frelwyne, Constance Soderwood; Miss Wynne, Kathleen Talbot; Cecil Graham, Horace Toller; Duchess of Berwick, Molly Burrell; Lady Augusta, Beatrice Kevlar; Mr. Brandy, William Hume; Lord Augustus Lorton, H. W. Yarns. Scene: Room in Windermere's House.
- 9.24—Mr. Charles Serpauze, tenor.
- 9.—Metropolitan Ball.
- 9.4—Maurice E. Price, piano novelties.
- 9.53—Miss Joyce Hadley, soprano, and Mr. Charles Soderwood, tenor.
- 10.—Mr. Lionel Lawson, violin solo.
- 10.6—Miss Joyce Hadley and Mr. Charles Soderwood.
- 10.28—"The Third Act of "Lady Windermere's Fan."
- 11.—Broadcast from the Wentworth Hotel, Sydney: Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.
- 12.—National Anthem; Close down.

2 BL

Early Morning Session.

- 7.16—Physical Training and Health Exercises.
- 7.20—Talk on Health and Hygiene.
- 7.25—Physical Training and Health Exercises.
- 7.45—Broadcasters' Special News Service.
- 7.52—Special News from Rugby.
- 7.56—Musical Programme from the Studio.
- 8.—G.P.O. Clock and Chimes; Close down.
- 8.—Morning Session.
- 16—Night Morning Session.

Afternoon Session.

- During the Afternoon results of races will be broadcast immediately after each race by courtesy of The Sun Newspapers.
- 8.—G.P.O. Clock and Chimes; Weather Report and Social Notes from "The Sun."
- 8.15—Civil Service Restaurant Trio.
- 8.30—"Talk on Modern Psychology" by Mr. J. M. Frenchie.
- 8.45—Musical Programme from the Studio.
- 4.—G.P.O. Clock and Chimes; Civil Service Restaurant Trio.
- 4.15—Miss Euby Michael (soprano).
- 4.30—Serial story, entitled "The Mad Song."

- 3.45—Musical programme from the studio.
- 4.—G.P.O. Clock and Chimes: Shipping Information when available.
- 5.15—G.P.O. Clock and Chimes; Close down.
- 5.—Early Evening Session.
- 6.—G.P.O. Clock and Chimes; Uncle Jack and the Kiddies.
- 6.45—Broadcasters' Dinner Orchestra. Special Country Session.
- 7.15—Australian Mercantile Land & Finance Co.'s Stock and Market Report.
- 7.20—Weather Reports.
- 7.24—Talk on Land Subjects.
- 7.31—Stock Exchange Reports.
- 7.37—Producers' Distributing Society's Fruit and Vegetable Report.
- 7.41—Fruit and Vegetable Report (Sun).
- 7.45—Grain and Sucker Report (Sun).
- 7.48—Country News from the Sun.
- 7.55—Close down.

Evening Session.

- 8.—G.P.O. Clock and Chimes; Broadcasters' Dinner Orchestra.
- 8.20—Mr. Norman Jansen (baritone).
- 8.27—Mr. Joseph Post (bass solo).
- 8.35—Miss Helena Stewart (soprano).
- 8.42—Mr. E. G. Harrison (comedian).
- 8.50—Broadcasters' Miniature Orchestra.
- 9.10—Mr. Norman Jansen.
- 9.18—Mr. Joseph Post.
- 9.35—Intermission.
- 9.39—Lecture from the Studio.
- 9.50—Miss Helena Stewart.
- 9.57—Broadcasters' Miniature Orchestra.
- 10.15—Little Old Time Dances, from Marrickville Town Hall. During the intervals between dances, news reports, by courtesy of the Sun, will be broadcast.
- 11.5—From the Studio: Palmyra Orchestra, under the direction of Mr. Brian Polhemus, until midnight.
- 12.—G.P.O. Clock and Chimes; National Anthem.

3 LO

Midday Session.

- 12.—Time Signal. Latest cricket, Australia v. Somerset, by courtesy of Reuters Ltd. British Official Wireless news from Rugby. Reuters and the Australian Press Association cables. "Argus" and "Herald" news services. Shipping intelligence.
- 12.45—Stock Exchange information.
- 12.48—Meteorological information. Weather forecasts for Victoria, Tasmania, South Australia and New South Wales. Ocean forecast. River reports.
- 1.—Time Signal.
- 1.—Studio Orchestra.
- 1.18—Mr. E. Turnbull, President, Victorian Branch, Returned Soldiers' Association, a dried fruits week talk. "Victorian Dried Fruits."
- 1.15—Connie Courtney, soprano (of "Tell Me More" Company) by permission of J. C. Williamson Ltd.).
- 1.22—Studio Orchestra.
- 1.32—Walter Smith, tenor.
- 1.40—Connie Courtney, soprano.
- 1.47—Studio Orchestra.
- 2.—Close down.

Afternoon Session.

- 3.—Latest Cricket Scores, by Courtesy of Reuters Ltd.
- 3.1—Studio Orchestra.
- 3.16—Arthur Cornell, elocutionist.
- 3.17—Billie Lockwood, humorist.
- 3.23—"An Fair" of Messrs. Buckley & Nunn Ltd., will give a Fashion Talk.
- 3.37—Studio Orchestra.
- 3.47—Arthur Cornell, elocutionist.
- 3.57—Miss A. Knight, Fruit Bottling Expert, Agricultural Department. A Dried Fruits Week talk.

- 4.2—Billie Lockwood, humorist.
- 4.9—Frank Stronham, clarinet solo, with orchestral accompaniment.
- 4.12—Matron, Marcella, "Infant Welfare."
- 4.18—Henric Gertzen, violin.
- 4.25—Studio Orchestra.
- 4.46—Latest Test Cricket Scores, by courtesy of Reuters Ltd. "Herald" news service, Stock Exchange information.
- 5.—Close down.

Evening Session.

- 5.45—Children's Hour. Answers to letters and Birthday Greetings.
- 6.—Billy Jones will sing to the children, and then "Macy Quimby" will recite the poems, "Somebody's Mother," "The Dinn Dumppa," "The story for the littlest one," "Aunt Jack and Bill," "Songs by The Wattle Girl and Mary Quimby." For the girls and boys, "Princess Moonbeam" and "The Boastful Bambon."
- 6.48—Latest Cricket Scores, by courtesy of Reuters Ltd. "Argus" and "Herald" news services. Reuters and the Australian Press Association cables.
- 6.53—Weather reports. Aerial mail information by the Australian Aerial Services Ltd.
- 6.58—Stock Exchange information.
- 7.—Fish Market Reports by J. R. Borrett Ltd.
- 7.4—River Reports.
- 7.6—Market Reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarkets, poultry, grain, chaff, hay, straw, tules, dairy produce, potatoes, and onions.

Night Session.

- 7.20—Under the auspices of the Town Planning Association, Councillor W. A. Wharington, member of the Town Planning Commission, "John Gibbins' Big Worries."
- 7.40—Under the auspices of the University Extension Board, Mrs. E. M. Waddell, B.A., "Some Harrie Plays."
- 8.—Royal Victorian Institute for the Blind Orchestra, overture.
- 8.27—Junior Choir, two part song.
- 8.31—Studio Orchestra.
- 8.37—Address by W. Hedger, Superintendent and Secretary, Royal Victorian Institute for the Blind.
- 8.42—Albert Harris, Violin.
- 8.49—Fred Sutcliffe, "Angela Guard Thee."
- 8.55—Frank Stronham, clarinet.
- 8.47—Royal Victorian Institute for the Blind Quartette Party.
- 8.51—Dr. Lefrus Hills, "Popular Science."
- 9.5—Royal Victorian Institute for the Blind Orchestra, "Popular Song."
- 9.15—Mr. Frank Brennan, M.H.E., will speak on the Heterodermic Process.
- 9.45—Studio Quartette.
- 9.55—W. Rule, "Sometimes at Dawn."
- 9.50—Latest Cricket news, by courtesy of Reuters Ltd. British Official Wireless news from Rugby. Announcements.
- 10.—George Vindley, pianoforte.
- 10.14—Studio Orchestra.
- 10.19—Jack Byrns, solo.
- 10.23—"Assoc" news service. Meteorological information.
- 10.33—Royal Victorian Institute for the Blind, march, "Old Faithful."
- 10.40—C. Richard Chapp, Auto.
- 10.45—Studio Quartette.
- 11.—God Save the King.

3 AR

Morning Session.

- 11.30—British Official Wireless Press, received from Rugby Super Wireless Station, England, by 3AR's operator. Express Train information. "Aero" News Bulletin.
- 12.—Time Signal Chime from G.P.O. Studio Harometer and Outdoor Thermometer Readings. First Weather Forecast. Events of the day.
- 12.5—Musical selections, relayed from Hoy's de Luxe, Bankers Street. Mr. T. I. Campbell at the Wurlitzer.
- 12.55—Stock Exchange news.
- 12.56—Market Reports.
- 12.58—Musical selections.

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2 Valves, Radiotron, Philips, Geco or De Forest	1	7	0
5 Mounted coils, covering 200-1300 metres	1	1	0
2 1.5 Columbia dry cells	0	5	6
1 Pair Headphones	0	15	0
1 60-volt high tension battery	0	18	0
100 ft. Aerial wire	0	2	6
15 ft. Lead-in wire and 4 insulators	0	1	7

THREE VALVE SET.

	£	s.	d.
With polished maple cabinet and all panel equipment, wiring diagram, wire, solder, flex, etc., but without coils	6	5	0
Accessories required to fully equip this set are as follows:—			
3 Valves, Radiotron, Philips, Geco or De Forest	2	0	6
5 Mounted coils, covering 200-1300 metres	1	1	0
3 1.5 Columbia dry cells	0	8	3
1 Pair Headphones	0	15	0
1 60-volt high tension battery	0	18	0
100 ft. Aerial wire	0	2	6
15 ft. Lead-in wire and 4 insulators	0	1	7

FOUR VALVE SET.

	£	s.	d.
With polished maple cabinet and all panel equipment, wiring diagram, wire, solder, flex, etc., but without coils	8	0	0
Accessories required to fully equip this set are as follows:—			
4 Valves, Radiotron, Philips, Geco, or De Forest	2	14	0
7 Mounted coils, covering 200-1300 metres	1	0	8
3 1.5 Columbia dry cells	0	8	3
1 Pair Headphones	0	15	0
1 60-volt high tension battery	0	18	0
100 ft. Aerial wire	0	2	6
15 ft. Lead-in wire and 4 insulators	0	1	7



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12.54—Mail notices. Shipping movements.
1—Close down.

Afternoon Session.

- 2.30—Hoyt's Premier Orchestra. Under the direction of Miss Ella Briss.
- 3—Studio Concert: Miss Doreen Ryan, contralto.
- 3.7—Rev. H. Onians (entertainer), dramatic monologue, "The Old Front Door."
- 3.14—Mr. and Mrs. Edward Kinley, of Kool's Hawaiian Troubadours.
- 3.23—Miss Doreen Ryan, contralto.
- 3.30—Mrs. A. E. Bone, soprano.
- 3.37—Rev. H. Onians (entertainer), "The Grand Empress Decease."
- 3.44—Mr. and Mrs. Edward Kinley, Hawaiian Entertainers, in a duet.
- 3.53—Mrs. A. E. Bone, soprano.
- 4—Time Signal Chime. Second Weather Forecast.
- 4.15—Hoyt's Premier Orchestra.
- 4.55—Evening Amusement Guide.
- 6—Time Signal Chime. Studio Barometer Readings. Close.

Early Evening Session.

- 6.40—The Children's Corner, by Uncle Peter.
- Evening Session.
- 8—Time Signal Chime from G.P.O. Studio Barometer and Out door Thermometer Readings. British Official Wireless Press.
 - 8.4—Mr. A. Cohen, of the Direct Supply Jewellery Co., will speak on "Workmen and Wages."
 - 8.24—Mr. Vernon Hallam, baritone.
 - 8.30—Miss Marjory Anguy, violiniste.
 - 8.43—Mr. Les. Butler, tenor.
 - 8.50—Mr. Laurie Hill, comedian.
 - 8.57—Mr. Donny Sullivan, baritone.
 - 9.4—The Girl Guides' Month Organ Band.
 - 9.25—Mr. Laurie Hill, comedian.
 - 9.35—Mr. Vernon Hallam, baritone.
 - 9.39—Mr. Les. Butler, tenor.
 - 9.45—Miss Marjory Anguy, violiniste.
 - 9.53—Mr. Bert Sullivan, baritone.
 - 10—Time Signal Chime from G.P.O. Studio barometer and outdoor thermometer readings. "Age" news service, exclusive to 4A.
 - 10.10—Lagetta's Ballroom Orchestra, relayed from Penrthra.
 - 11—Time signal chime from G.P.O. Close down.

4QG

Midday Session.

- 12.54—Tune-in Signal.
- 12.58—Time Signal.
- 1—Market Reports, Stock Exchange, Weather, "The Daily Mail" News, the "Daily Standard" News.
- 1.25—Close down.

Afternoon Session.

- 3.10—A Programme of music from the Studio.
- 3.15—The Telegraph News.
- 4.30—Close down.

Early Evening Session.

- 8.25—Tune-in.
- 8.30—The Children's Session. Stories by "Uncle Ben" and "Uncle Jim."
- 7—The Farmers' Session; Market Reports; Lecture; "A Queenslander's Impressions of Scottish Breeding," No. 2 of a series, by Mr. J. F. F. Reid (Editor, "Agricultural Journal").
- 7.20—"The Standard" News. Stock Exchange.
- 7.30—Close down.

Night Session.

- 7.15—Lecture Session, "A Gardening talk by 'Tecona'."
- 7.30—The Brisbane Apollo Club in Instrumental pieces.
- 8.20—Weather information, officially supplied by the Commonwealth Weather Bureau. Announcements.
- 8.35—From the Centennial Hall, by courtesy of the lessee, half an hour's dance music will be relayed from the Centennial Hall.
- 10—From the Studio, "The Daily Mail" news service. Close down.

5CL

Morning Session.

- 11.30—G.P.O. Chimes.
- 11.31—Featuring a Stock Duo Art Number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalian number.
- 12—G.P.O. Chimes.
- 12.1—"Advertiser" News Service and Cricket scores.
- 12.15—5CL Studio Orchestra will be heard in a series of classical numbers.
- 1.05 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.
- 2—G.P.O. Chimes.

Afternoon Session.

- 5—G.P.O. Chimes.
- 5.1—Relay from "Maple Leaf" Cafe—Orchestra numbers.
- 5.15—From Studio—Serial Story.
- 5.4—G.P.O. Chimes.
- 5.11—Broadcast from "Arcudia" Cafe—Orchestra numbers.
- 5.43—Stock Exchange Reports, General Information, and Station Announcements.
- 5—G.P.O. Chimes.

Evening Session.

- 6.30—G.P.O. Chimes.
- 6.31—Bedtime Stories.
- 7.30—Market Reports.
- 7.40—Milling talk by Mr. Jackott.
- 8—G.P.O. Chimes.
- 8.1—Programme relayed from Hindmarsh Town Hall of band numbers by Hindmarsh Town Band, interspersed with vocal numbers.
- From the Studio: The Cadmus Quartet, interspersed with vocal items.
- 8—G.P.O. Chimes.
- 9.1—Weather Reports.
- 9.8—Studio Concert, continued.
- 10.15—"Advertiser" news service, and ships within wireless range.
- 10.16—Studio Concert, continued.
- 10.55—Station Announcements.
- 11—G.P.O. Chimes. National Anthem.

7ZL

Morning Session.

- 11—G.P.O. Clock Chimes; "The Mercury" News; Stock Market; Shipping; Commercial Intelligence; Weather Information; Records from the Studio.
- 12 noon—G.P.O. Chimes. Close down.

Afternoon Session.

- 2—G.P.O. Clock Chimes; Musical Items from the Studio.
- 3.30—Hobart Stock Exchange quotations.
- 3.55—Weather Information.
- 4—G.P.O. Clock Chimes; Close down.

Early Evening Session.

- 7—Children's Corner. "Big Brother" chats to his pals.
- 7.15—The adventures of George the Bookshelf Cat. "Nugget gets into trouble," by Aunt Stella.

Evening Session.

- 8—G.P.O. Clock Chimes; "The Mercury" special "Australian news service; Railway auction produce sales; Weather Information.
- 8.5—Hobart Stock Exchange quotations.
- 10—Literary Luncheon and Library Lists, by Mr. W. E. Fuller.
- 8.30—Musical Items from the Studio (special request) numbers.
- 9—Photography talk, by Mr. Ch. H. Sims, manager of Kodak Ltd., Hobart. "Sending Photographs by Telegram."
- 9.20—Musical Items continued.
- 9.50—"The Mercury" special interstate news service. Weather synopsis. Station announcements. National Anthem.

BURGESS—"Standard of Comparison"—BATTERIES.

Wednesday, Sept. 1

2FC

Early Morning Session.

- 7—The Chimes of 2FC and Announcements, Time Signals.
- 7.5—Cricket Scores of the third day's play, Australia versus Sussex.
- 7.10—Weather Reports; Shipping Intelligence.
- 7.40—"Sydney Morning Herald" News Service.
- 8—Time Signals; Cricket Scores; Music from the studio.
- 8.15—Close down.

Morning Session.

- 8.15—The Chimes of 2FC and Programme Announcements.
- 9.20—Music from the studio.
- 9.10—A Morning Reading.
- 10—Time Signals; Music from the Studio.
- 10.5—Late "Sydney Morning Herald" news service.
- 10.15—Music from the Studio.
- 11—Process Cricket Talk.
- 11.10—Australian Press Association and Reuters' Cable Service.
- 11.15—Cooking Talk and Recipes by Miss Ruth Purst.
- 11.30—Close down.

Midday Session.

- 12—Time Signals. The Chimes of 2FC and Announcements.
- 12.5—Stock Exchange, first call.
- 12.10—Music from the Studio.
- 12.50—Rugby Wireless News.
- 1—Time Signals. Weather Intelligence.
- 1.2—"Eventos News" Midday News Service; Producer's Distributing Society's Report.
- 1.20—Music from the Studio.
- 1.30—Stock Exchange, Second Call.

Afternoon Session.

- 2.30—The Chimes of 2FC and Announcements.
- 2.35—An Elucatorium Recital by the pupils of Harcourt Albyn.
- 2.30—From Farmer's Tea Rooms: The Oak Hall Trio (Leader, Mr. Horace Kautz).
- 2.40—Miss Jeanie Slapoffski, soprano.
- 2.45—From Farmer's Tea Rooms: The Oak Hall Trio.
- 2.55—Music from the Studio.
- 3.20—Miss Jeanie Slapoffski, soprano.
- 3.25—The Oak Hall Trio.
- 3.35—Music from the Studio.
- 3.40—Miss Sybil Atholwood, mezzo.
- 3.45—The Oak Hall Trio.
- 3.55—Music from the Studio.
- 4.20—Miss Jeanie Slapoffski, soprano.
- 4.25—The Oak Hall Trio.
- 4.35—Music from the Studio.
- 4.40—Miss Sybil Atholwood, mezzo.
- 4.45—Stock Exchange, Third Call.
- 4.55—Music from the Studio.
- 5—Close down.

Early Evening Session.

- 8—Time Signals. The Chimes of 2FC.
- 8.5—The "Hello Man" talks to the children.
- 9.40—A Serial Story for older boys: "Three Little Bricks."
- 6.50—Broadcast from the Hotel Australia, Sydney; Orchestral items.
- 7.15—From the Studio: "Evening News" late News Service; Weather Information.
- 7.30—Daisy's Market Reports (wool, wheat, stock), fruit and vegetable markets.
- 7.40—Final Talk in connection with the Commonwealth Band of Guides, to be captained by Mr. E. J. Van-de-Velde. Telephone enquiries from listeners will be answered on the air.

Night Session.

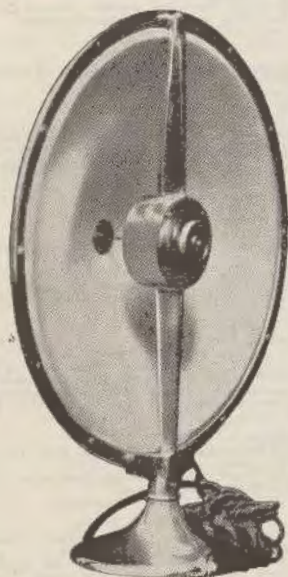
- 1.55—The Chimes of 2FC and Announcements.
- 8—Broadcast from the Lindfield Picture Theatre, by special arrangements with J. C. Williamson Ltd. the first act of the ever-green musical play, "The Runaway Girl" produced by the Kuring-gai-Gordon Operatic Society, conducted by Mr. A. L. Champion.
- 9.30—The Sixty of the Radio Australia Bridge series in which four players led by Mr. W. E. H. Maxtor, will play through a selected hand of Bridge. The complete play will be broadcast. Mr. Maxtor, who alone has the key to the perfect playing of the hand will answer on the phone and

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SOCIETE FRANCAIS RADIO-ELECTRIQUE, PARIS

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BROWN & DUREAU, Ltd.

Broughton House
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broadcast simultaneously inquiries by listeners concerning the play. The perfect band as played by expert players in U.S.A. will be available to Bridge enthusiasts each week after the games are played every Wednesday.

- 1.—Maude Emily Marks, soprano.
- 10.8.—A Talk by Mr. J. G. Luckley—No. 4: "Recollections of an Eppand Boy."
- 10.25.—Madame Emory Marks, soprano.
- 10.40.—SFC Dance Band.
- 11.—Broadcast from the Westworth Hotel, Sydney, Westworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.
- 12.—National Anthem; Close down.

2BL

Early Morning Session.

7.16—Usual Early Morning Session.

Morning Session.

10—Usual programme.

Afternoon Session.

During the afternoon Race Results will be broadcasted immediately after the race.

- 2.—G.P.O. Clock and Chimes; Weather Report and Social Notes from "The Sun."
- 3.10—Resume of night's programme.
- 3.15—Special Olympic Session with explanatory talk by Mr. J. M. Prentice.
- 3.46—Music from the Studio.
- 4.—G.P.O. Clock and Chimes; Music from the Studio.
- 4.30—Serial story, entitled "The Mad Song."
- 4.45—Music from the Studio.
- 5.—G.P.O. Clock and Chimes; Producers' Distributing Society's Market Report.
- 5.10—Shipping Information.
- 6.10—G.P.O. Clock and Close down.

Early Evening Session.

6.—G.P.O. Clock and Chimes; Uncle George and the Kiddies.

6.45—Evilwin Organ Orchestra, under the direction of Cec. Morrison.

Special Country Session.

- 7.15—Australian Mercentile Land & Finance Co.'s Stock and Wool Report.
- 7.24—Special Country session; Talk on Land Subjects.
- 7.30—Stock Exchange Reports.
- 7.37—Producers' Distributing Society's Fruit and Vegetable Reports.
- 7.41—Fruit and Vegetable Reports (Sun).
- 7.46—Grain and Fodder Reports.
- 7.48—Country News from the Sun.
- 7.55—Close down.

Evening Session.

- 8.—G.P.O. Clock and Chimes; City of Sydney Band broadcast from Barlow Chambers.
- 8.20—Lecture from the Studio.
- 8.40—City of Sydney Band.
- 9.—G.P.O. Clock and Chimes; Resume of following day's programme.
- 9.5—Weather Report and Forecast by courtesy of Mr. G. J. Mares, Govt. Meteorologist.
- 9.5—Announcements.
- 9.30—City of Sydney Band.
- 9.30—Interval.
- 9.35—Mr. J. M. Prentice will talk on "Foreign Affairs."
- 10.—G.P.O. Clock and Chimes; Cec. Morrison and his Glouchesters, broadcast from the ballroom of the Bondi Casino. Daring intervals between dances, News Reports by courtesy of Sun Newspapers will be broadcast.
- 11.—From the Studio; Jazz Band.
- 12.—G.P.O. Clock and Chimes; National Anthem.

3LO

Midday Session.

- 12—Time Signal. Latest cricket news by courtesy of Reuters Ltd., Australia v. Sussex, played at Brighton. Reuters and the Australian Press Association cables. "Arkus" and "Herald" news services. Shipping intelligence.
- 12.45—Stock Exchange information.
- 12.50—Meteorological information. Weather forecasts for Victoria, Tasmania, South

Australia, and New South Wales. Ocean forecast. River reports.

- 1.—Time Signal.
- 1.—Versa Spaul, soloistette.
- 1.7—Ham Johnson's Monte Carlo Band.
- 1.30—Victorian Dried Fruits Board. Mr. J. Callender, Torrighway Editor, "Weekly Bulletin" will speak.
- 1.35 Ham Johnson's Monte Carlo Band.
- 1.53—Versa Spaul, soloistette.
- 2—Close down.

Afternoon Session.

- 2—First act of the Musical Comedy, "Tell Me More," transmitted from His Majesty's Theatre, by permission of J. G. Williamson Ltd.
- 3.30—Result of the Yering Hurdle Race, Yeringrup; High Weight Handicap, and Cave Hill Handicap. Latest Cricket Scores, by courtesy of Reuters Ltd.
- 3.45—Mrs. M. Callaway Mahood, "Colour in Dress."
- 3.56—Result of Yarra Glen and Lilydale Hunt Cup, Yarra Glen and Lilydale Hunt Club races.
- 3.58—Billie Lockwood, humorist.
- 4.2—Victorian Dried Fruits Board, Miss A. Knight will speak.
- 4.7—Studio Orchestra.
- 4.17—Arthur Cornell, electrocutionist.
- 4.24—Sister Paul, "Mathercraft."
- 4.34—Result of Eloworfield Welter Handicap, Yarra Glen and Lilydale Hunt Club races.
- 4.36—Billie Lockwood, humorist.
- 4.41—Quintette, "Schumann's 2nd movement."
- 4.48 "Herald" news service. Latest cricket scores, by courtesy of Reuters Ltd. Stock Exchange information.
- 5—Result of Olinda Corinthian Handicap, Yarra Glen and Lilydale Hunt Club races. Close down.

Evening Session.

- 5.45—Children's hour, "Bobby Bingham" will answer letters and give birthday greetings.
- 6—A musical programme arranged by Mr. Felix Hart.
- 6.40—Latest Cricket scores, by courtesy of Reuters Ltd., Australia v. Sussex, played at Brighton. "Arkus" and "Herald" news services. Reuters and the Australian Press Association cables.
- 6.53—Weather Synopsis; Shipping Movements; Overseas Shipping News.
- 7.—Stock Exchange Information.
- 7.1—Fish Market Reports by J. R. Borrett Ltd.
- 7.45—River Reports.
- 7.5—Market Reports by the Victorian Producers Co-operative Co. Ltd.; Haymarket Sheep sales; poultry, grain, chaff, hay, oats, jute, dairy produce, potatoes and onions. Market prices of oranges and Lemons, by the Victorian Central Citrus Association Pty. Ltd.

Night Session.

- 7.15—Wedding of Miss Thelma Crowther, 310's most beautiful September bride, transmitted from St. Jude's Church of England, Carlton, Vic. Officiating minister, Rev. J. Snooks.
- 7.45—Mr. T. J. Purvly, Secretary, Council of Agricultural Education, "Our Agricultural Colleges," Booklet. College.
- 8—First half of Third programme, by permission of Tivoli Theatre.
- 9.10—Prachan City Band, conductor, Mr. Percy Cook.
- 9.—Mr. Captain Peters, books, wise and otherwise.
- 9.25—Elsy Treweek, soprano.
- 9.42—Prachan City Band.
- 9.52—Latest cricket scores, by courtesy of

Reuters Ltd., Wireless news from Rugby. Announcements.

- 10.2—Tom Semple, tenor.
- 10.6—Prachan City Band will accompany Miss Margie Lennox, in solos.
- 10.14—Elsy Treweek, soprano.
- 10.21—"Arkus" news service. Announcements. Weather forecasts.
- 10.31—Tom Semple, tenor.
- 10.38—Prachan City Band.
- 10.45—Elsy Treweek, soprano.
- 10.52—Prachan City Band.
- 11—God Save the King.

3AR

Morning Session.

- 11.30—The British Official Wireless Press, received by 3AR's Super Wireless Station, England, from 3AR's operator.
- 12—Time Signal Chime from G.P.O. Studio barometer and outdoor thermometer readings. First weather forecast. Events of the day. "Age" news service, exclusive to 3AR.
- 12.5—Musical selections, relayed from Hoyt's de-Luxe, Bourke Street. Mr. T. I. Campbell at the 3AR's operator.
- 12.30—Stock Exchange news.
- 12.35—Market reports.
- 12.40—Musical selections.
- 12.55—Mail notices. Shipping movements.
- 1—Close down.

Afternoon Session.

- 2—Result of Yering Hurdle, Hunt Club Meeting at Monasa Valley.
- 2.30—Result of High Weight Handicap, Hoyt's Premier Orchestra, under the direction of Miss Ella Irwin.
- 3—Result of Cave Hill Handicap, The Three Shades Instrumental Trio.
- 3.55—Miss Ruth Bardett, contralto.
- 3.58—Miss Elsie Solstad, soloist.
- 4.30—Miss Ruth Bardett, contralto.
- 3.37—Miss Jean Chaplin, violinist.
- 3.44—The Three Shades Trio.
- 4.—Time Signal Chimes; Hoyt's Premier Orchestra.
- 4.10—Result of Corinthian Handicap.
- 4.55—Evening Amusement Guide.
- 5—Time Signal Chime from G.P.O. Studio barometer and outdoor thermometer readings. Second weather forecast. Close down.

Early Evening Session.

6.35—The Children's Corner, by Uncle Rad.

Evening Session.

- 6.—Time Signal Chime from G.P.O. Studio barometer and outdoor thermometer reading. The British Official Wireless Press.
- 6.2—Miss Hazel Lee, pianist.
- 6.8—Miss Daisy Crook, mezzo.
- 6.10—Mr. David Coster, tenor.
- 6.23—Miss Rosa Kohb, violinist.
- 6.30—Mr. Edgar Mayne, professional.
- 6.35—Mr. Ray Hodges, baritone.
- 6.52—Miss Dorothy O'Keefe, electrocutionist.
- 6.59—Miss Gladys Richards, soprano.
- 7.—Miss Hazel Lee, pianist.
- 7.13—Mr. David Coster, tenor.
- 7.20—Miss Daisy Crook, mezzo.
- 7.27—Miss Rosa Kohb, violinist.
- 7.34—Mr. Ray Hodges, baritone.
- 7.41—Miss Gladys Richards, entertainer at the piano.
- 7.45—Miss Dorothy O'Keefe, electrocutionist.
- 10—Time Signal Chime from G.P.O. Studio barometer and outdoor thermometer readings. "Age" news bulletin, exclusive to 3AR.
- 10.10—Louis Coen's Annual Staff Ball, with the Four Aces Orchestra, relayed from Memorial Hall, St. Kilda.
- 11—Time Signal from G.P.O. Close down.

4QG

Midday Session.

- 12.35—Tone-in Signal.
- 12.53—Time Signal.
- 1—Market Reports; Stock Exchange; Weather; "The Daily Mail" News; "The Daily Standard" News.

PHILCO—"Experience teaches"—BATTERIES.



BURGESS ADVENTURES.

During the next 12 months, and commencing shortly, the wholesale distributors of Burgess Batteries, Messrs New System Telephones Pty. Ltd., of Sydney, Melbourne, and Adelaide, will feature in their advertisements throughout Australia, the "Adventures of Burgess Radio Batteries," for many and remarkable are these, for where there's danger upon, above, or below the earth, sky and sea, will be found Burgess Batteries.

They are to be found where there's need for the most efficient batteries made—in emergencies where failure brings disaster—with explorers in far-off lands—with the unsung heroes of the Air Service—beneath the seas with the crews of the submarines. They are to-day faithfully serving nation's armed forces on land and sea and in the air. They are used by leading radio broadcasting stations, experienced radio engineers and amateurs. They are used by those who wander across the world or spend their lives in the lonely outposts on the frontiers of civilisation. Almost every day from somewhere in the world news comes to us of new Burgess adventures.

Also the many other interesting events, in which Burgess Batteries have contributed their bit whether in Sport, Commerce and Science, will be featured in attractive illustrated advertisements.

When the airship Goodyear III. won the right to represent the United States at Belgium, Burgess Radio Batteries supplied the electrical energy for the operation of the balloon radio equipment. This will be featured with illustrated pictures showing the take off of the winning flight, and also the radio equipment carried. "Burgess roamed the world in Speejack's radio room." This is the millionaire's yacht we all remember anchored in Sydney Harbour not so long ago.

Illustrations of dog sledges carrying Burgess to the Arctic outposts of civilisation will also be shown. Actual photographs of battleships of the United States' Navy who use Burgess will be included, also of the giant airships we have read so much about, the Shenandoah and Los Angeles.

Rather interesting is the story of Captain MacMillan's dash to the North Pole. Our own Australian-born Captain Wilkins and his Polar attempt will also be amongst the Adventures, for he, too, carried Burgess.

More fortunate than most of us, are

Afternoon Session.

- 3.25—Tune-in.
- 3.30—A musical programme.
- 4.15—"The Telegraph" News.
- 4.30—Close down.

Early Evening Session.

- 6.25—Tune-in.
- 6.30—The Children's Session: Stories by Little Miss Brinkley.
- 7—The Farmers' Session. Market Reports. Lectorett, "Cotton as a factor in Tropical Settlement." Mr. Daniel Jones.
- 7.20—"The Standard" News. Stock Exchange.
- 7.30—Close down.

Night Session.

- 7.45—Lecture Series: "Around the World Travelogue. No. 4—London and English Towns." Mr. C. V. Woodland.
- 8—Popular Concert.
- 8—Radio Voice Contest Items.
- 9.15—The Savoy Orchestra; Mr. S. Henry, concert solo; The Savoy Orchestra, march.
- 9.20—Weather information officially supplied by the Commonwealth Weather Bureau. Announcements.
- 9.30—From Gaiety Theatre, Towns, by courtesy of the proprietor, half an hour's music by the Gaiety Theatre Orchestra will be relayed.
- 10—From the Studio. "The Daily Mail" News Service. Close down.

5 CL

Moralis Session.

- 11.30—G.P.O. Chimes.
- 11.35—Featuring a Stock Due Art Number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalion number.
- 12—G.P.O. Chimes.
- 12.15—"Advertiser" News Service and Cricket scores.
- 12.10—Featuring a Stock Due Art Number; 12.30—5CL Studio Orchestra will be heard in a series of classical numbers.
- 1.55 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.

6—G.P.O. Chimes.

Afternoon Session.

- 3—G.P.O. Chimes.
- 3.1—Relay from "Maple Leaf" Cafe—Orchestra numbers.
- 3.45—From Studio—Serial Story.
- 4—G.P.O. Chimes.
- 4.1—Broadcast from "Arcadia" Cafe—Orchestra numbers.
- 4.55—Stock Exchange Reports, General Information, and Station Announcements.
- 5—G.P.O. Chimes.

Evening Session.

- 6.35—G.P.O. Chimes.
- 6.31—Redtino Stories.
- 6.35—Market Reports.

Burgess Batteries, for they travel to and fro from America to England on the Mammoth Atlantic liners, one of which, the Leviathan, will be featured.

Being standard equipment of the United States submarines, we must not forget this arm of the U.S.A. Navy.

Many a thrill Burgess must have had for the World's Flyers carried them.

The aeroplane mail services throughout America and Canada have Burgess stowed away somewhere with their wireless equipment.

Australian "Burgess Adventurers" will subsequently be published, too, for although the first shipments of Burgess batteries have hardly touched our shores, almost every day comes news which reflects the esteem in which they are held. *

7.10—Boy Scouts' corner.

- 8—G.P.O. chimes.
- 8.1—Programme of dance music relayed from the Palais Royal—Tom Swift's Palais Royal Orchestra, interspersed with vocal items from the Studio.
- 9—G.P.O. Chimes.
- 9.15—Weather Reports.
- 9.3—Palais Royal continued.
- 10.15—"Advertiser" news service, and ships within wireless range.
- 10.30—Palais Royal continued.
- 10.45—Station announcements and International Cricket.
- 11—G.P.O. Chimes. National Anthem.

7 ZL

Morning Session.

- 11—"The Mercury" news, stock market, shipping, commercial intelligence, weather information, and sporting anticipations. Remarks from the Studio.
- 12—Time Signal.
- Afternoon Session.
- 3—Musical items from the Studio. Story from "Illustrated Tasmanian Mail."
- 3.30—Hobart Stock Exchange quotations.
- 4—Time Signal.

Early Evening Session.

- 7—Children's Corner. "Big Brother" chats to his pals.
- 7.15—Story from Illustrated "Tasmanian Mail."

Evening Session.

- 8—G.P.O. Clock Chimes; "The Mercury" special Tasmanian news service; Railway auction produce sales; Weather information and sporting results.
- 8.10—Hobart Stock Exchange quotations.
- 8.14—Talk by "G. Guider"; "The Union Jack" (Legends of the Crosses) by request.
- 8.10—Palais De Danco Band, City Hall, Hobart.
- 9.50—"The Mercury" special interstate news service. Weather synopsis. Station announcements. Close down.

Thursday, Sept. 2

2 FC

Early Morning Session.

- 7—The Chimes of 2FC and Announcements. Time Signals.
- 7.5—Music from the Studio. Cricket Scores, the first day's play of the match, Australia versus The English Eleven.
- 7.10—Weather Information, Commercial News, Shipping Intelligence, and Markets.
- 7.40—"Sydney Morning Herald" news service.
- 8—Time Signals; Music from the studio.
- 8.15—Close down.

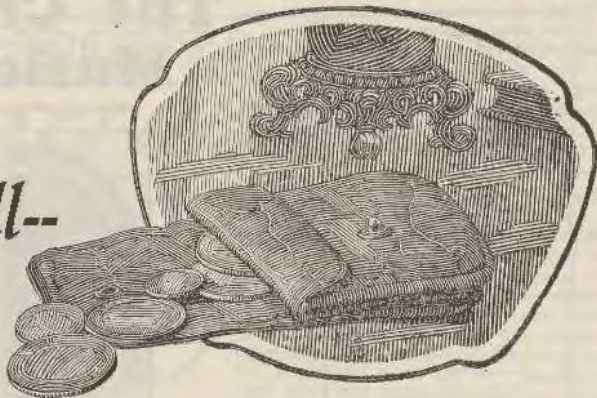
Morning Session.

- 9.15—The Chimes of 2FC and Programme Announcements.
- 9.20—Music from the Studio.
- 9.45—A Talk by the 2FC Racing Commissioner.
- 10—Time Signals. Music from the Studio.
- 10.5—Late "Sydney Morning Herald" news service.
- 10.15—Music from the Studio.
- 11—Frores Cricket Talk.
- 11.10—Australian Press Association and Router's Cable Services.
- 11.15—Musical items from the Studio.
- 11.30—Close down.

Midday Session.

- 12—Time Signals. The Chimes of 2FC and Announcements.
- 12.5—Stock Exchange, first call.
- 12.10—Music from the Studio.
- 12.50—Rugby Wireless News.
- 1—Time Signals. Weather Intelligence.
- 1.4—"Evening News" Midday News Service. Producer's Distributing Society's Report.
- 1.25—Music from the Studio.
- 1.30—Stock Exchange. Second call.
- 1.35—Music from the Studio.
- 2—Time Signals. Close down.

Choose the Wuncell--



--and be money in pocket

EVERY week sees several thousand wireless enthusiasts leaving the ranks of the bright emitter valve users and changing over to WUNCHELLS. And each month these new adherents make a practical saving of several shillings in reduced accumulator recharging fees. But this is not the only economy effected. The new WUNCHELL possesses a filament having exceptional long-wearing qualities. Owing to the fact that the valve operates at its best when filament is barely glowing, it is subjected to very few stresses. The WUNCHELL filament is made under a process known only to Cossor. It is built up layer upon layer. Each layer means additional strength. This process ensures a filament wonderfully productive of electrons—and when allied to the well-known Cossor electron-retaining design of Grid and Anode, obviously an ultra-sensitive valve is the result.

Now is the time to change over to WUNCHELLS—and start saving money. If yours is a multi-

valve set operated from a 4 or 5-volt accumulator it may be easily converted into one of 3 volts. Each cell of an accumulator is of 2 volts (approx.)—i.e., a 4-volt accumulator has two cells, a 5-volt accumulator 3 cells, so that if the battery is converted to 3 volts an accumulator of 3 volts will give double the ampere hour capacity, and a 5-volt triple the ampere hour capacity. In other words, the "A" battery would LAST TWICE OR THREE TIMES AS LONG BETWEEN CHARGINGS. All you have to do is connect all the positive poles together, instead of positive to negative, as originally arranged. Your 4-volt or 5-volt "A" battery then becomes a 3-volt—the capacity of it is doubled or tripled immediately. Get acquainted with these super-economy valves without delay. They are "All British," made at Highbury, London. Ask your dealer for our interesting descriptive folders—free of charge.



THE WUNCCELL DULL EMITTER.

Voltage, 1.5 volts.

Consumption, .3 amp.

W1 for Detector and Audio, 19/6 each.

W2 for Radio Frequency, 13/6 each.

COSSOR LOUD SPEAKER VALVES.

W3, Voltage, 1.8 volts. Consumption, .5 amp. Price, 17/6

P3 Voltage, 4.5 volts. Consumption, .175 amp. Price, 24/- each.

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RADIO PRESS MESSAGES.

The time is close at hand when the country newspapers of N.S.W. will be receiving their press messages by radio instead of by the slow methods of telegraph and post. After a two years' battle the Country Press Association, which has had the co-operation of the Radio Broadcast Bureau, has received the following letter from the Postmaster-General, as follows:—

"Adverting to previous correspondence, and to the interview which members of your Association had with me on April 15th, the whole subject of the transmission of country press news by the medium of wireless communication has been considered, and the Department is prepared to grant licenses for the purpose under certain conditions.

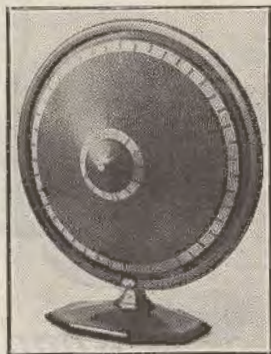
"As you are aware, the matter is one of some difficulty, and it would be advantageous if it could be further discussed. Perhaps you will let me know whether it is likely you will be visiting Melbourne in the near future, when you might find it convenient to call on me.—Yours faithfully, (sgd.) W. G. Gibson." To Mr. T. M. Shakespeare, Secretary, N.S.W. Country Press Association.

COWHERDLY JOKE.

Persistent pleadings and visions of children faced with a milkless night so touched the heart of the manager of 3LO recently that he agreed to broadcast an appeal for a lost cow. The request was made by an elderly woman who had missed her prize Friesian. A few minutes after the appeal was broadcast the lady was called outside to find a procession of 16 cows driven to her front door by as many good natured drovers. Not one of the callers had the required animal, though it later turned up, having been noticed by a listener five miles' distant.

PHILCO—"Have you got one yet?"—BATTERIES.

The Crosley Musicone



£4/17/6

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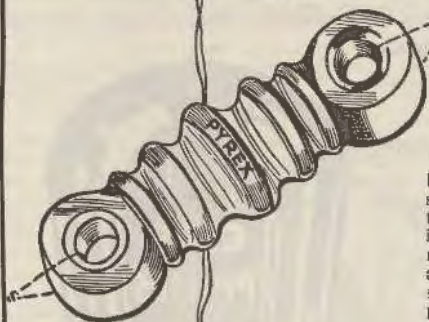
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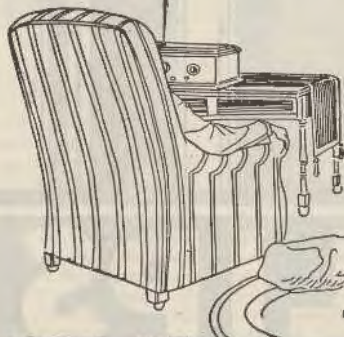
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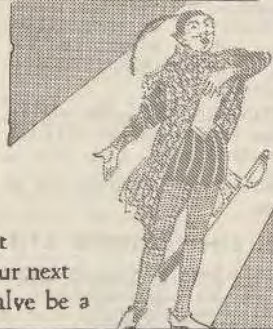
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Radio Auction Bridge

Game No. 6—Broadcast by 2FC

"Wireless Weekly" has secured from 2FC, Farmer's Broadcasting Service, the exclusive right of publishing the Radio Auction Bridge Games which 2FC commenced broadcasting on Wednesday, 21st July.

There are 24 Bridge Games in the series, and one will be broadcast each Wednesday evening, and the following Friday's issue of "Wireless Weekly" each week will give the game in detail as it should be correctly played. These games were arranged by the United States Playing Card Company of Cincinnati, Ohio, U.S.A., and played by Bridge experts. Some very slight alterations have been made in the original games broadcast in America in order to adapt them to the calling of the Portland Club, which is the most universally followed rule, so far as Auction Bridge is concerned, in Australia.

Mr. F. J. Master, an acknowledged expert in the game of Auction Bridge in Sydney, is carrying out the transmissions from 2FC, and if any Bridge enthusiasts, on reading these articles, care to submit any questions or problems arising out of the games, as published, arrangements have been made for Mr. Master to answer them through the columns of "Wireless Weekly."

THE complete hands held by each of the players of the Radio Auction Bridge Game played on August 25th, were as follows:

"South" holds:

Spades: A, K, 10, 6, 4.

Hearts: 8, 5, 3.

Diamonds: 10, 2.

Clubs: A, 9, 2.

"West" holds:—

Spades: Q, 8.

Hearts: A, K, J, 10.

Diamonds: Q, J, 9, 7.

Clubs: Q, J, 3.

"North" holds:—

Spades: 9, 5, 2.

Hearts: 9, 4.

Diamonds: A, K, 8, 6, 5.

Clubs: K, 8, 7.

"East" holds:—

Spades: J, 8, 7.

Hearts: Q, 7, 6, 2.

Diamonds: 4, 3.

Clubs: 10, 6, 5, 4.

South (the Dealer) opens the bidding with one spade. The holding fully justifies a spade bid because of the ace, king and three other cards in the spade suit; besides which, although not required she holds a side ace. West bids two hearts. While his cards would not justify more than an original bid of one, nevertheless, as a following bid, his four honors in hearts, together with three side queens, make a bid of two hearts in this position sound.

With West's hand, many Bridge

players would have doubled informatively South's bid. Although holding sufficient high-card strength for an informatory double, prefers to bid the hearts on account of the four honors. North bids two spades. By this bid, he shows his partner that he has normal assistance in spades, that is, at least three small cards of the suit, and better than average assistance in side suits. With his ace and king of diamonds, the king of clubs and a possible ruff on the third round of hearts, he holds two full assists for his partner's bid.

East although holding four cards of her partner's suit, has not sufficient side strength to assist on the first round of the bidding. Therefore, East passes. West having bid the full strength of his hand on the first round, is not guilty of the Bridge crime called "bidding the same cards twice," so he passes. South is the Declarer, her contract being two spades.

West leads the king of hearts. This is the correct opening lead against a suit contract from any suit of three or more cards headed by the ace, king. North is Dummy. He plays the 4 of hearts, East plays the 6 of hearts. This play of the 6 by East is made with the hope that West can read the 6 as not being her lowest card. Such a reading would show West that East wishes the heart suit continued in order to be sure that he will follow

the king with the ace and save a slam, as East herself, has no possible defence against it. South plays the 3 of hearts.

West leads the ace of hearts. From his viewpoint his partner's 6 may be the start of a "come-on" signal. If so, he wishes to be in the position to continue the heart suit, in the hope that his partner can trump the third round. Dummy plays the 9 of hearts, East plays the 7 and South plays the 5.

The play of the 7 by East practically informs West that East had originally at least three hearts. If she had held only two—the 6 and 7—she would have played the 7 first and then the 6 unless she did not wish to be forced to trump. Therefore, West is sure that she holds at least one more heart, either the 8 or the queen. Also, she probably holds the 2, as it has not been played, although a shrewd Declarer, if he held the 2, would not play it, in order to handicap the leader in deducting the distribution of the suit.

West now considers his next lead. He has already won two tricks, and in order to prevent Declarer going game, he and his partner must win two more. If his partner has one trick in her hand, it is probably the ace of clubs; and so he considers that the most probable way to save game is to play his partner for the ace of clubs by leading through Dummy's

king. Therefore, he leads the queen of clubs, in the hope that dummy will play the king, his partner win it with the ace, and return another club, thus winning four tricks and preventing Declarer going game.

South now considers her plan of campaign. She has already lost two tricks and in addition must lose a spade trick unless the queen and knave are alone in one hand, which is extremely doubtful; and also a club trick unless she can figure some way of getting rid of a small club from her own hand. The only apparent way to do this is to establish a long diamond in Dummy, on which she can discard her losing club. By "long diamond" is meant a small card of the suit that can be established as a trick by exhausting all the outstanding cards of the suit. There are five diamonds in Dummy, and two in her own hand, making seven between the two hands. She knows that in the great majority of instances, when partners hold seven cards of a suit, that the other six are divided four and two between the opponents. If the diamonds should be split three and three between her opponents it will be easy for her to establish not only one but two good diamonds in Dummy, but as the odds are about two to one against the 3-3 split, she should not take this chance unless necessary. In this instance it is not necessary to rely upon an even division of the six adverse diamonds as even with a four-two split the object can be accomplished as there are two re-entry cards in Dummy, besides the ace and king of diamonds. One re-entry must be used to get into Dummy in order to lead diamonds, the fourth time if necessary, so as to exhaust opponent's diamonds, and the other re-entry to get in to make the fifth diamond. The only two re-entries besides the ace and king of diamonds that Dummy has are the king of clubs and the heart ruff, both of which must be kept. Consequently, she does not play the king of clubs from Dummy on West's queen, but plays the 7. East plays the 4, thereby showing West that she lacks strength in the suit. South wins with the ace of clubs.

South leads the king of spades, in the remote chance of finding the queen, knave alone in one hand, West plays the 3, Dummy the 2, and East

plays the 7. South leads the ace of spades, West plays the queen, Dummy plays the 5, and East plays the 8.

As there is now only one adverse trump out, and that one is high, and as she needs the third trump in Dummy as a card of re-entry to ruff a heart, South does not sacrifice two trumps, one from her own and one from the Dummy hand, in order to force her opponent to win with the high trump. (She knows that as soon as the opponent with the high trump gets into the lead, that trump will be led.) Of course, she does not know which opponent holds the knave. West may hold it, perhaps having false-carded the queen; or East may hold it.

Now South realizes that it is time to start on the diamond suit, so she leads the 10 of diamonds, which West covers with the knave. West is perfectly correct in covering, holding the queen, knave 9, and by so doing, prevents South possibly finessing the 10 through Dummy. Dummy plays the king and East plays the 3. East does not play the 4 in this instance, because she realizes that South is trying to obtain all of the information possible in regard to the location of the outstanding diamonds. If she played the higher of her two diamonds and then the lower, she, of course, would be playing the down and out signal, which would inform her partner, and South as well, that she only held two diamonds. As the information, in this instance, would be of no value to her partner, she conceals her doubleton by playing the 3.

Dummy leads the ace of diamonds, East plays the 4, South plays the 2, and West the 7. From the play of the diamond suit, it looks to South as if there is a chance of it being split three and three. She leads the 5 of diamonds from Dummy. East plays the 2 of hearts, thereby destroying South's hopes. East does not trump because she can read from the fall of diamonds that her partner holds the queen. If South had held it, she undoubtedly would have led it to the first trick and followed it with another diamond. The knave of spades is good for a trick at any time, and she can gain nothing by using it to trump in now. East is safe in discarding a heart by reason of her count

of the heart suit. West must have had at least four to have bid the suit, Dummy had two, East, herself, had four, so South could not have held more than three.

South trumps with the 4 of spades, West plays the 9 of diamonds. South leads the 8 of hearts, West plays the 10, Dummy trumps with the 9 of spades, and East plays the queen of hearts. Dummy now leads the 6 of diamonds, East discards the 5 of clubs, South trumps with the 6 of spades, and West plays the queen of diamonds. South has now set up the long diamond in Dummy's hand, while still retaining the king of clubs as a re-entry, so she leads the 9 of clubs and West plays the 3. West does not cover with the knave, because he realizes that if South has the 10, to cover would be useless, and if his partner has the 10, the same condition prevails.

Dummy plays the king of clubs and East the 6. Dummy now leads the 8 of diamonds. East is in a dilemma. If she trumps, South will be able to obtain a discard, and if she does not trump, South will also discard. She knows that West originally held four hearts, four diamonds, three clubs, and therefore, only two spades, so that the two cards South now holds must be a trump and a club, and that it makes no difference how she, East, plays. She throws away her last club, South discards the 2 of clubs, and West the knave of hearts. Now, East's knave of spades wins the last trick, so that South, as Declarer, has made four odd and game.

The important features are as follows:—In regard to South's original bid of spades, your attention is called to a fact many Bridge players do not know, and that is, that in modern Bridge an original bid should be made by Dealer or Second Hand when holding five cards of a suit to the ace, king, without any side strength whatsoever. Although South held a side ace, that side ace would not have been necessary for her to have bid one spade. For many years, it was stipulated that, to bid a five card ace, king suit, a trick outside of the trump suit must be in the hand of an original bidder. Analysis and experience have proven this to be a fallacy, so that a five card suit to the ace, king without

(Continued on Page 45.)



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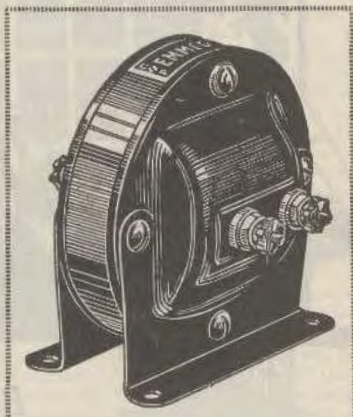


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any side strength, not only may, but should be bid originally in the positions of first and second hand.

Let us analyze West's bid of two hearts. His top strength was sufficient to justify an informatory double of Declarer's spade bid, but naturally, with four honors, he preferred to play the hand with hearts as trump, if his partner held normal support in hearts, rather than with one of the minor suits as trump. Thus, it was wiser to inform his partner of his preference than to double in the remote hope that his partner would bid hearts. If the suits in West's hand had been transposed, that is, if his heart holding had been in diamonds or clubs and vice versa, then he would have doubled informatorily, hoping for a heart bid from his partner. Informatory doubles by advanced players usually show a preference for a major suit response by partner.

North assisted his partner's original spade bid instead of bidding three diamonds, because to bid three diamonds in his position would have denied normal assistance in spades; and after that apparent denial, if South had held normal support in diamonds, she would have been obliged to allow the diamond bid to stand, if she did not happen to be strong enough to re-bid her spades, in which case there might have been four odd in either spades or diamonds and a game possible in spades might not be made in diamonds. West's lead of the queen of clubs was a desperate effort to save game. Although it failed, it was the only sound play to make under the circumstances.

You will find that advanced players of Auction Bridge do not entirely exhaust the trumps unless it is expedient to do so. If the highest trump is still outstanding in the hand of one of your opponents, it is bound to make and there is no need of your wasting your trumps from your own hand or Dummy's in order to allow it to win. Of course, there are exceptions to this statement. Sometimes the high trump in the hand of opponents can be used to throw the lead; other times it is wise to get it out, in order to establish a long suit; but never exhaust this high trump

(Continued on Page 47.)

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5 Rheostats, General Radio, Price, each	9	6	0
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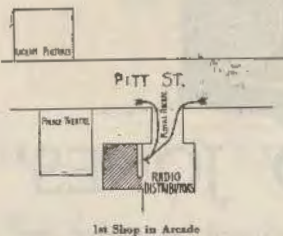
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GENERAL QUERIES:

"C.W." (Havilah, N.S.W.). South's opening bid of one diamond, at the radio game played on the 11th was quite good, notwithstanding that there was not much outside strength. A bid by a dealer is generally informative and does not necessarily mean that the dealer particularly wishes to play the hand. In a minor suit bid, if there is no outside strength, it is essential to hold both the ace and king.

"A.H." (Strathfield): Should not South have made a pre-emptive bid of two diamonds in the Radio game played on the 11th inst.? Yes, I think so, although it is risky to make a pre-emptive bid on one suit alone. South was certainly afraid of hearts, and there was always a possibility that hearts were not so strongly held by the opponents, in which case, they would have been left in spades and would not have got the game.

"W.H.T." (Hazelbrook): I must apologise for delay in answering your letter of 5th inst. The informative double is an American innovation and has since been adopted by the Portland Club, which is the recognised authority for the British Empire. A bid of one trick when doubled is informative, and means that the doubler's partner must bid his best suit, preferably a major suit, I would suggest you obtain "Wireless Weekly," of July 30th and August 6th, which will tell you all about informative doubles. Always lead the king from an ace king holding, so that when the Declarer does not take the trick your partner knows that you have the ace.

"V.G.W." New Zealand): "I made an underbid, and the opponent on my left, left the nature of the penalty to her partner. Could she do this?"

A.: No. In the case of an underbid, the player on the immediate left of the underbidder may:—(a), Allow the bid to stand as if it had been right and the bidding continues. (b), Force the player to bid the requisite number of tricks. (c), Elect that the hand shall be played in the previous bid and this closes the bidding. Any consultation between parties debars any penalty being inflicted.

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MUNICIPAL RADIO.

Inverell Municipal Council has decided to instal a radio receiving set with loud speaker in the Town Hall. The Council intends to give citizens the benefit of the daily and nightly entertainment sent out by the broadcasting stations in Sydney, Brisbane, Melbourne, Adelaide, and perhaps Perth and Hobart. This step is an innovation in N.S.W., a result of the excellent information and entertain-

ment service given by the broadcasting stations. It is intended to issue monthly or quarterly tickets, at a price low enough to defray the comparatively small cost of the set.

Inverell is the first town to undertake a Municipal radio receiving scheme, but a similar activity is being carried out by the parents and citizens' associations, and clubs attached to numbers of country schools. The value of the latter is evidenced by a

letter written on July 30th, by Mr. D. A. Watson, on behalf of the Glenreagh School Radio Club.

Mr. Watson mentions that Glenreagh is 405 miles by rail from Sydney, and that the school's radio club, without ever having seen a receiver, built their own, and they can pick up all the broadcasting stations in Australia except Perth.

"Test scores from station 2FC are eagerly sought," says Mr. Watson. "I am chief operator, though many of our members can handle the instrument. So can our school boys. During test matches, it is my duty to make the trip of about a quarter of a mile to school for 7 a.m. Then we listen in to progress talk at 11 a.m. Never has it failed us, and we have had the set for two years. In the evening, the loud speaker dispenses market reports, sporting and general programmes. The Goulburn Liedertafel and Canberra transmissions were received perfectly. This is the first occasion on which we have had anything to say of results, but we get them. Election results last year were clearly received at mid-day, and your time signals at any hour are quite strong."

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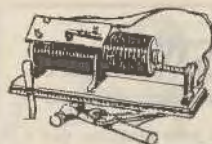
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"W.B." (Lakemba) writes:—"I would be pleased if you would tell me through the columns of 'Wireless Weekly,' if a bell ringing transformer giving 5 volts at 1 amp. is suitable for filament lighting. I also desire the directions for making a transformer working off 240 A.C., giving 40, 60, 80, and 100 volts for supplying the plate voltage." He adds, "I have pleasure in reporting my success with the long distance crystal receiver, published in 'Wireless Weekly,' July 16th. Stations 2BL, 2KY, 2FC, 2UE, 2BE, 3LO and 3QG all received at excellent 'phone strength."

A.: A bell ringing transformer is suitable for supplying the filaments of the audio valves, but we do not advise the use of A.C. for detector or I.F. valves. The 40 ohm potentiometer which is shown connected right across the filament leads is essential, careful adjustment of which is necessary in order to eliminate all traces of A.C. hum.

Readers who have only small capacity A batteries will be very wise to adopt this method of supplying filament current to the audio frequency valves (see Fig. 1).

The specifications of a transformer for supplying H.T. voltages of 48, 60, 80, and 100 volts, are as follows:—

Core cross section, 1½ ins.

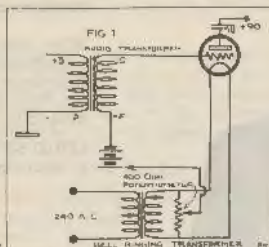
Length of core pieces, 6 ins. x 1½ ins. and 4½ ins. x 1½ ins.

Primary, 1000 turns of No. 22 D.C.C.

Secondary, 500 turns of No. 26 D.C.C.

Variable resistances are then used in series to obtain the various voltages needed (see "Radio," March 17, for constructional details of a "B" battery eliminator). Thank you for your report of the crystal receiver. Re large 2 m.f.d. condenser, we do not advise home-made ones. There are some very reliable and moderately priced condensers now on the Australian market, all of which are suit-

Beginners' Problems

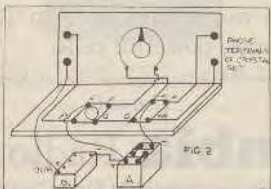


Illustrating how a bell ringing transformer can be used to supply the filament with current direct from the alternating current mains.

able for filter circuits of "B" battery eliminators.

"E.W." (Scoug) writes:—"Why is it that battery eliminators are generally applied to high tension supply, rather than the low tension?"

A.: Both high and low tension battery eliminators are now available in Australia. Each employ the same principles, but the low tension are generally more bulky. It is a far more complicated piece of apparatus than the H.T. one, especially where it entirely does away with the usual "A" battery accumulator. The reason being due to the fact that the H.T. eliminator only has to handle very small amounts of current, whilst the low tension one handles a current which is often 100 times as great, and the smoothing or filter circuits necessary with this very much larger current are correspondingly bulky. (Read answer to previous query concerning the use of A.C. on the filaments of audio amplifiers.)



Back view of set, showing how to add a valve amplifier to a crystal detector.



"A.G." (Ashfield) writes:—"Do straight line frequency condensers improve selectivity?"

A.: Many readers appear to be under the impression that a S.L.F. condenser will make their receiver more selective. The fact is, however, that the selectivity of a receiving set depends entirely upon the nature of the circuit, and is not connected in any way with the mode of variation of capacity of the variable condensers. The S.L.F. characteristic of a condenser depends upon the design and upon the way in which the capacity varies with the position of the moving plates in relation to the fixed plates, whereas, the actual selectivity of a receiver is the ability of a set to receive a given frequency or a very small band of frequencies to the exclusion of all other frequencies. Interpreted in a practical way, it means the ability to tune in one station to the exclusion of other stations which may be operating on a slightly different wavelength.

If it were possible to provide a sufficiently fine adjustment of the moving plates of a variable condenser there would be little or no advantage in the S.L.F. type. The outstanding feature of this type, however, is that the stations are more widely spaced on the dial, and this makes it somewhat easier to exclude undesired stations.

"G.S." (Coogee): "I live very close to 2BL, and find that I get exceptionally loud signals using the long distance crystal receiver published some weeks ago. Is it possible for me to add a one-valve amplifier for the operation of a small loud speaker? Please give me the simple back of panel views, as I do not understand the others. I wish to use dry cells."

A.: Yes. Our Fig. 2 gives explanatory drawing. This amplifier should provide ample volume for your requirements. Thank you for your kind remarks.



DON'T SWEAR

When you cannot get your stations, use a Neutron Crystal and get quick results. Interstate stations are being received on Neutron crystals throughout all of Australia.

LOUD SPEAKER can be operated with a Neutron Crystal on your crystal set.



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Carried in stock and distributed in
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MANUFACTURERS PRODUCTS
Pty. Limited,
 Challis House, Sydney.

Columbia 45 Volt "B" Battery No. 4767



DESIGNED for sets having not more than four tubes using 90 Volts. Especially suitable for "soft" detector tubes. Provided with seven Fahnestock spring clip connectors giving a range from 16½ to 22½ and 45 volts. Made of extra large, powerful cells.

Factory Representatives: Ellis & Company (Aust.), Ltd., 516 Kent Street, Sydney, N.S.W.

Use only

Columbia Radio Batteries

Made by the manufacturers of the Famous Columbia Dry Cell



New Radio Apparatus

THE SELECTRODYNE.

Wholly designed and constructed in Australia by the Radio Wireless Manufacturing Co., the Selectrodyne is claimed by the makers to be the only 4-valve set that will bring in 3LO without interference from 2BL.



Whatever justification there may be for this claim, the set will certainly bring in excellent results when carefully operated. K.G.O. has been received regularly by the builders each week.

A feature of the set is that it does not re-radiate. It is finished in polished maple, oak, and rosewood. There are four valves, detector, one-stage neutralised radio frequency, and two stages of audio.

AMPLION WEEK.

Dealers throughout New South Wales will feature Amplion loud speakers next week. From August 30 to September 4, display windows will be devoted to advertising all models of these instruments.

For the first time the new Radiolux loud speaker will be placed on the market. This new model has attracted a great deal of interest

through its neat appearance, while still being moderate in price. It is expected that this loud speaker, wholly manufactured in Australia, will make a popular appeal.

THE DUCON.

The Ducon is a simple piece of apparatus, enabling those having electric light to secure wireless broadcasting without an aerial. Plug the Ducon into an ordinary lampholder or wall socket, connect the terminals at the lower end of the Ducon to your receiving set, adjust your instrument in the usual manner, and broadcasting is received perfectly. The

Ducon is a neat, compact, well-finished article that can be used with any type of wireless receiving set. It is perfectly safe to use, each one being tested to 2,500 volts. It consumes no current and does not affect the electric light in any way.



DIAMOND DRY CELLS.

Whilst scientists are endeavouring to define electricity, the rest of the world is quite satisfied with the fact that it is a force which can be utilised in a variety of ways for the benefit of mankind. The dweller in the city secures his electric light and power



from a central supply source, but where there is no central supply source, this force is still available in the form of "dry cells." Dry cells may be likened to bottles of electricity. Like bottles, they are portable, and in various sizes for different purposes.

Years ago we had to rely on the

imported product, but to-day dry cells are being manufactured in this country by several concerns. One of these is the Widdis Diamond Dry Cells Pty. Ltd., West Melbourne, Vic. This firm manufactures dry cells for telephones, ignition purposes, telegraph work, and wireless. That their product is a good one is shown by the fact that they are contractors to the Defence Department, Public Works, Navy Department, Water Board, Fire Brigades, and the N.S.W. Government and Railways.

A MUSICONE.

We have received from the Metropolitan Electric Co. Ltd., particulars of the Crosley Musicone, an illustration of which is shown here. The particular features of this speaker are that it is claimed to give 95% undistorted reproduction, particularly on the highest and lowest notes.

The instrument has a floating cone, and light armature eliminates chat-



ting. The magnetic circuit is formed of permanent laminated magnets.

The Crosley requires no additional battery or adjustments and as will be seen, it has an exceptionally handsome appearance, and should certainly prove popular in Australia.



If it's
it's . . .

Wireless Equipment

EDISWAN

VALVES

Receiving.—	
A.R. & R.	5/-
A.R.D.B.	12/6
A.R. 86.	13/6
Power.—	
P.V.5	18/6
P.V.4	18/6
P.V.3	18/6

LOUD SPEAKERS

Televox.—	
Black	4/6 3/4-
Black and Gold	4/6 7/6
Brown	4/6 7/6
Dulcivox.—	
Black	4/2 1/10-
Black and Gold	4/2 1/12 1/6
Brown	4/2 1/12 1/6

Leading Dealers Sell EDISWAN Goods!

The EDISON SWAN ELECTRIC CO. LTD.
58 CLARENCE STREET SYDNEY

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British Made

CLARKE'S "ATLAS"—THE KING OF COILS

British Made



Test with
the best of the rest

Designed on Sound Scientific Principles.
Each Strand of the Twin-Wire Winding
is thoroughly Insulated.

TELEPHONES—BW 6938, B 4917

Low Loss Coils

give a good set its best chance

It's unfair to choke it with poorly designed coils. I.F. Currents demand area: ATLAS LOW-LOSS COILS are wound with twin wire and offer a double-surface path. Everything that is known of low-loss coil design is incorporated, and whether it's a question of distance, selectivity, volume, or all combined, there's no serious rival to Clarke's "ATLAS" LOW-LOSS COILS.

Wavelengths with variable condensers. In metres.

No. of Turns.	Min.	Max.		Prices Mounted	
		.0003 mfd.	.0005 mfd.	£.	d.
25	67	330	360	37s	6 0
35	83	360	380	31s	6 0
50	124	425	570	78s	7 8
75	170	620	830	112s	7 6
100	220	850	950	152s	9 6
150	340	1090	1520	230s	11 0
200	420	1400	2300	310s	13 9
250	600	2000	2900	415s	15 6

If you cannot readily obtain supplies, please communicate with—

THE GENERAL TRADING COMPANY
"WINGELLO HOUSE," Martin Lane, Near Martin Place, SYDNEY
Sole Australian Distributors

Aerial Transport

(Continued from Page 6.)

practical application of the device by aircraft companies in their systems to aid. Notable among the latter is Henry Ford.

Recent and frequent wrecks of airplanes emphasize the weakness of present methods of determining the altitudes and positions of aircraft in flight—hence the introduction of the double-beam radio beacon. Unfortunately visual means of signalling an airplane are incapacitated when they are most needed—during foggy or other adverse weather conditions. Then, merely to know the height of the flying machine, by noting the readings of the altimeter, is of little avail to the aviator. He needs information that will guide him along a preappointed course and above or below the storm area—such are the potential possibilities of radio aids to navigation. Obviously, great searchlights, brilliant though they may be, are unable to penetrate dense fog.

Radio waves, though they are referred to as invisible, are not circumscribed by such a limitation. They travel through fog, rain or sunshine at the incredible speed of 186,300 miles per second. Now, according to the proposal of interests devoted to the development of commercial aviation, radio waves are to be harnessed, so to speak, and used in guiding an airplane along a certain path, zone or sector. Ships already come into port safely by virtue of the guiding hand of radio, even when the powerful lighthouses fail to project their illuminating force to the mariner groping in fog or thick weather.

Instead of depending upon altimeters, magnetic compasses, conspicuous signs at landing fields, great beacons of light, and other visual means of signalling—devices for making known the altitude and location of an airplane—the use of radio beacons as a means of directing aircraft safely from one point to another is assured.

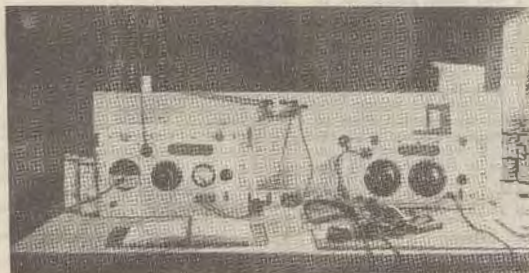
**BURGESS—"Power!
Harmony! Endurance!"
—BATTERIES.**

The Transmitter and Receiver

built by the BURGESS LABORATORIES and used by

HOWARD F. MASON

Chief Radio Operator for the Denhart Arctic Expedition.



View of portable transmitter and receiver built in the Burgess plant and used at Fairbanks and Point Barrow, Alaska. The transmitter has a wavelength range of 24 to 80 metres, over which operator Robert Waskey, at KFZH (Point Barrow), flashed all reports of the Expedition. Both transmitter and receiver were operated by Burgess "A" and "B" Dry Batteries.

It was Waskey who scored a news beat which scooped the entire world when he saw and reported the first view of the dirigible Norge after it had passed over the top of the world and was seen at Point Barrow on May 12th. A complete description of the radio equipment of this Expedition is contained in the Burgess Engineering Circular, No. 10, and you are invited to ask for a copy.

**BURGESS BATTERY COMPANY,
General Sales Office,
Harris Trust Building—Chicago**



First landing at Point Barrow of the Alaskan, the Fokker Monoplane used in transport supplies from Fairbanks. The Alaskan was later wrecked in taking off.

WHOLESALE DISTRIBUTORS:

NEW SYSTEM TELEPHONES PTY. LTD.,

280 Castlereagh St.,
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25 Queens Bridge St.,
Melbourne.

Charles St.,
Adelaide.

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Wm. Lambert Hamilton**Radio Specialist**

Bring your troubles to me.
What I will do for you.

I will remodel or re-wire your receiver, making every valve give of its best. Let me modernise your receiver.

I will build you a set to suit your local conditions.

I will answer any enquiries immediately.

My charges will be moderate.

I will buy your components for you at ruling city prices and despatch them to you within 24 hours of receipt of order. I will advise you as to the quality of the goods. This service is free.

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Neutron Crystals, Prompt Shipments
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In New South Wales for Louis Coen
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We represent 34 Foreign Radio
Manufacturers

Why Philco Drydynamic Re-chargeable B Batteries ?

All Philco batteries, both A and B, are specially designed for radio work, not adaptations of batteries originally made for some other purpose.

They are charged dry at the factory and the life of a Philco Drydynamic doesn't start until the Philco electrolyte (acid) is poured in. There's no deterioration in stock—no acid slippage. By reason of their scientific design, uniform voltage, rugged construction and perfect insulation, they give years of trouble free service, and absolutely does away with those annoying dry battery noises and those hum and buzzing sounds so prevalent with the use of B battery eliminators. They are more economical than either dry cells or eliminators, usually saving their first cost the first year. Current from a dry cell costs about 48/- to 64/- per kilowatt hour. Charging current for a Philco costs 3d. to 6d. per kilowatt hour—soon pays off the initial cost, doesn't it?

The cost of an 83X (replaces 90 volt dry battery), and, say, a Tungal charger, is only about the same as a B battery eliminator, and the Tungal will charge also your A battery for a few pence. So, quite apart from being more efficient, the Philco 83X is cheaper.

These Philco B batteries are really the only rechargeable ones on the market which meets the demands for spray proof self indicating batteries in any room in the house, either exposed or inside a fine cabinet. Their neat and attractive appearance makes them worthy companions for the finest of sets.

The capacity of an 83X is 3,000 M.A.H., and 86H 6,000 M.A.H. This is ample for the largest multi-valve sets.

The cell jars are square in shape—made by new automatic machinery which is a new achievement in glass making. The advantages of this square jar over round jars are that the battery occupies considerably less space for a given plate capacity.

A novel feature of the utmost importance in a B battery is the charge indicator visible in two front cells of each battery unit. When both balls are up the battery is fully charged. When one ball is up and one down the battery is partially charged. When both balls are down, the battery is discharged to a point where recharging is necessary. You should see one of these rechargeable B batteries, more especially if you have a set employing 4 or more valves. Of course, its simply wasteful using dry batteries with a super-het., when an 83X would save shillings a week. *

SLINGSBY & COLES Limited

Under Central Station,
482 PITT STREET.

OUR SPECIAL SUPERTONE

3-VALVE SET (complete)

with Loud Speaker and All Accessories, in handsome Cabinet.

PRICE, £19/10/-.



This beautiful and Efficient Set may be purchased on very Easy Terms, by arrangement with the Workers' Cash Order Co.

The best value ever offered in 3-Valve Sets
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THE MAN WHO PUT

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Advice Always Free

Electric and radio repairs
and installations of all kinds.
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CASH OR TERMS

296 PITT ST., CITY

Phone: 8070.

CONVERTS TO WRESTLING.

Prejudice often arises against things we know nothing whatever about, and perhaps this was one of the reasons why the first broadcasting of a wrestling match met with such a mixed reception. "A waste of time," "revolting cruelty," "Unnecessary enlargement," were just a few of the hard remarks which were intermingled with praise and criticism sent to 3LO, Melbourne. However, at that time the critics had not bothered to listen attentively to the description, and had made their comments without giving the item a fair trial. In the meantime, they must have been pondering over the omission, for the recent broadcast description of the big wrestling match between Clapham and Thye, transmitted by 3LO from the Melbourne stadium, has met with universal approval. Mr. Norman McCance's brilliant descriptions sustaining a breathless and excited interest throughout. Many letters have been received at the studio from listeners who had objected to the first transmission, but were now converted to sport by wireless.

CLYDE HOUSE ORGAN.

We have received from Mr. A. R. Allen, editor, a copy of the second issue of "Clyde Sparks," the house organ of the Clyde Engineering Co. Ltd., manufacturers of Clyde batteries.

"We hope to knit together the whole of the Clyde Service Organisation," says Mr. Allen, in a bright Editorial, "through the medium of this paper. It affords opportunity for the expression of individual opinions, criticisms, or any suggestions put forward by readers.

"There is room for a vast amount of matter of general interest to all service stations."

An interesting article gives some practical hints on the care of batteries and listing the various causes of faults.

Headed "Why not Radio?" an article is devoted to urging traders in Clyde batteries to investigate the radio field. It is pointed out that many motor car owners are radio enthusiasts.

Microphone Buttons

A NEW STOCK JUST ARRIVED

PRICE 9/6 EACH



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SWAINS
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SYDNEY



They NEVER Vary!

Not so much the gloriously pure tone or their astonishing range nor the valve-power volume, but it is by their day-in and day-out consistency—the absolute certainty of getting perfect and uninterrupted programmes—that these super crystals have made a new pleasure in Radio. They NEVER vary!

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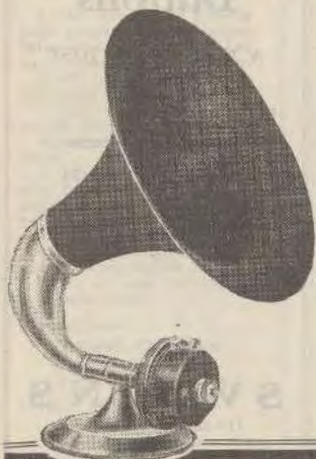
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Advertising. Copy must be in the hands of the Managing Editor by the Friday preceding each issue. If copy is not received in time, the previous week's advertisement will be repeated.

Agents in Great Britain.—The Colonial Technical Press Ltd., Dudley House, Southampton Street, Strand, W.C. 2.

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TEST it against any Speaker costing 5 times its price
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DEALERS desirous of further particulars should write to

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14 inch Bell, 21 inches high.
Nickel-plated Arm and
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Mahogany finished Bell **£4/5/-**



*Even the poorest Receiver with its harsh reproduction
can be converted into a mellow-toned musical instru-
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RECEIVES local and Interstate stations
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Housed in attractive cabinet of specially
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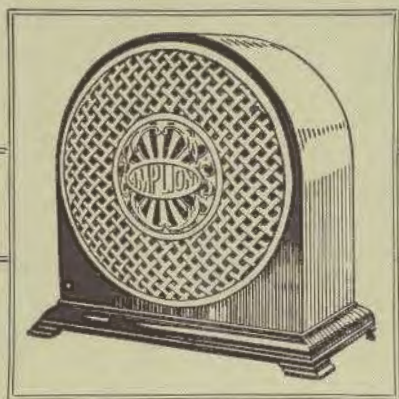
Amalgamated Wireless
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97 CLARENCE STREET, SYDNEY

To Radio Dealers—Write for particulars of authorized Radiola Dealer appointment

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AMPLION WEEK

August 30th to September 4th

THE AMPLION Range, which comprises the most extensive selection of Loud Speakers in existence, will be displayed at all main City dealers during AMPLION Week.

Dealers will be glad to arrange demonstrations of these Natural Tone Loud Speakers.

A special feature of the famous AMPLION Radiolux Loud Speakers is that the whole of the beautiful cabinet work is produced in Australia.

*Amplion week is arranged in the interests of
BETTER RADIO REPRODUCTION*

Do not miss your demonstration

THE WORLD'S
STANDARD

AMPLION

WIRELESS
LOUD SPEAKER