

WIRELESS WEEKLY

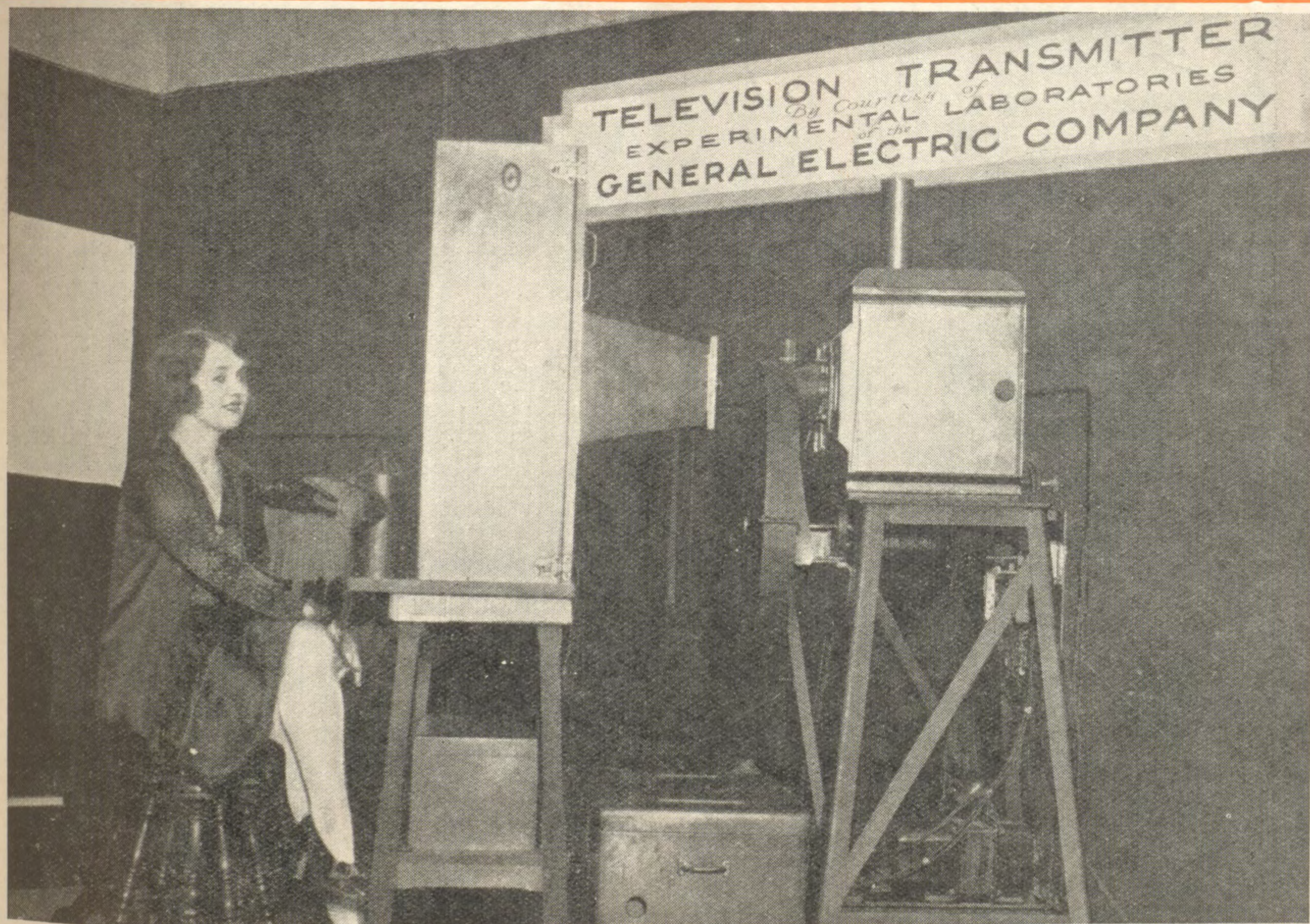


Broadcast Programmes a Week in advance

VOLUME 12

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NUMBER 30



Friday, November 16, 1928 Price Threepence

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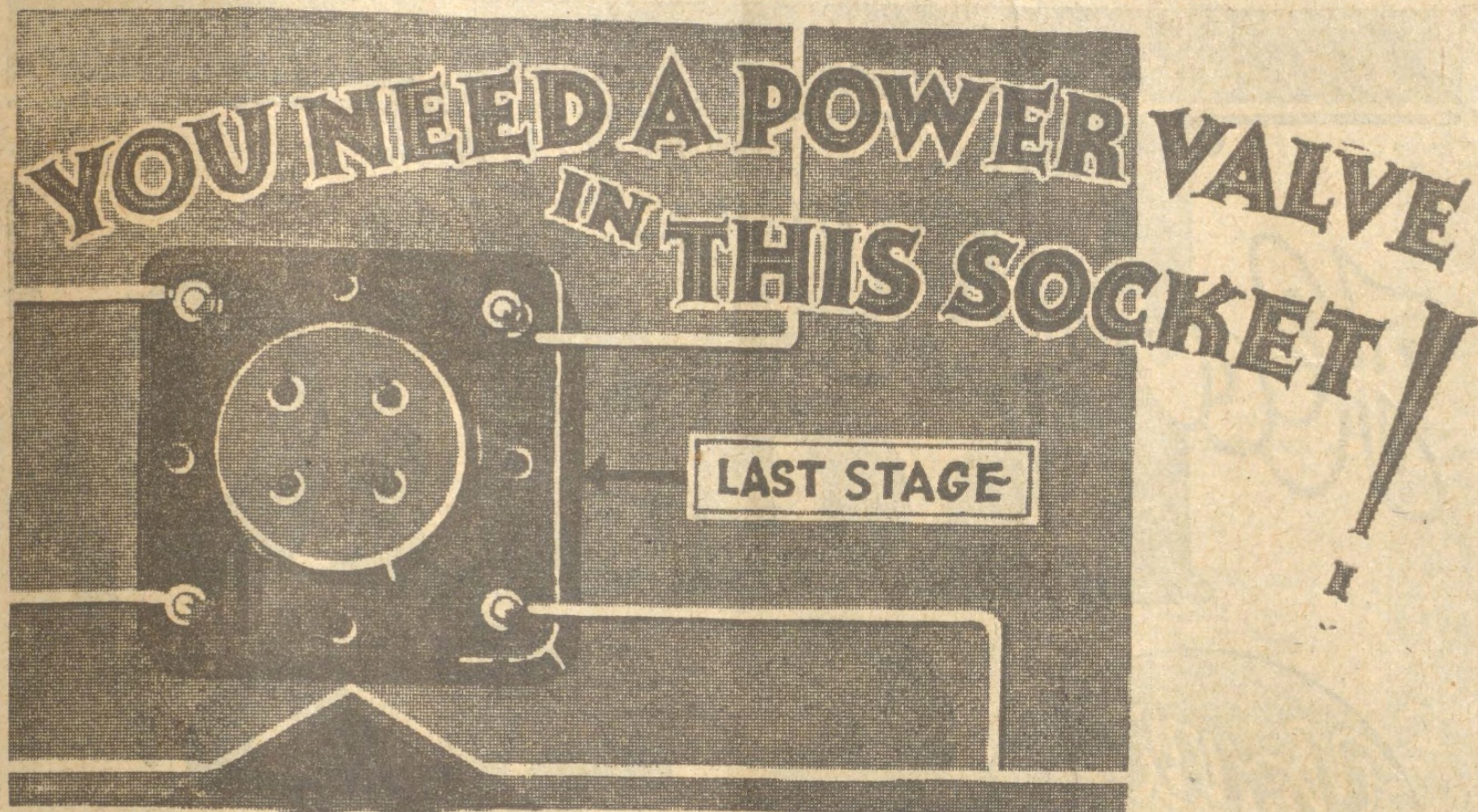
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B 7148-9

WIRELESS WEEKLY

VOL. 12. No. 30.

FRIDAY, 16th NOVEMBER, 1928.

Telephotography as an Adjunct to Broadcasting

LAST month the British Broadcasting Corporation began the transmission of photographs and diagrams from various stations of the B.B.C. chain. The system employed is known as the Fultograph and a company has been formed for the manufacture and distribution of small devices which, attached to a receiver, will bring in the broadcast picture.

The transmission and reception of pictures by radio is by no means a novelty. For some years fashion newspapers in New York have received daily fashion plates transmitted from Paris and a telephotography service of weather maps for ships in the Atlantic has been in operation for some time.

But the transmission and reception of pictures on a widespread scale such as is suggested by the B.B.C. is something entirely new. It means that local British listeners are able to attach a simple device to their present receivers, insert a slip of light-sensitive paper and are able to receive from the studio photographs, diagrams, fashion plates and other pictures which are used to illustrate talks and special concerts.

It has been the custom of the B.B.C. during recent years to handle an enormous amount of literature in connection with such programmes. For almost every talk there has been some kind of booklet for distribution

among listeners, while for operas and special concerts score sheets and illustrated programmes have been available for a small fee. This department of the B.B.C. operations has grown to such dimensions that the telephotography device has become a necessity.

This supplementary service of the B.B.C., made possible by the huge incoming revenue of that institution with its millions of listeners, is a distinct advance in broadcasting and will probably result in a large increase in the number of listeners-in.

When will a similar service be in operation from our local stations? The question is an important one to out-back listeners in particular. It was announced recently that a telephotography service was shortly to operate between Melbourne and Sydney for the benefit of newspapers in those cities. When will this service be extended to listeners-in through the broadcasting stations?

One thing, it is certain that it will not be for some time. The experiments necessary and the large amount of money required for its inauguration will no doubt prohibit its use here. Not until the manufacturers of the Fultograph have supplied the requirements of British listeners and are turning elsewhere for markets, is it likely that Australian listeners will have this service extended to them.



Between you and me and the Microphone.



"SO YOU ARE the happy owner of three wireless sets?"

"At the moment, yes—they are all out of order."

WIFE: "You must get a new radio set. This one is becoming too shabby."

HUSBAND: "Have a little patience, dear. When our wireless set gets a little older, it will be antique."

"WHAT?" asked the radio lecturer of his unseen audience, "is the cause of a hundred per cent. of all divorces?" A telephone bell rang, and a man's voice answered, in one word—"Marriage!"

"I WILL SEND YOU messages from time to time," wrote Captain Frank Hurley, to 2FC Studio, on the eve of his great flight, "which I am sure will help to maintain the grand spirit of friendship which has been created far and wide through broadcasts made at your station. I hope to see you all again—when we have achieved."

LISTENERS TO 2FC will learn with regret the departure of Rev. F. H. Raward, from his parish at Manly. Mr. Raward has been transferred to the Albert Street Methodist Church, Brisbane. It will be three or four months before he leaves to take up his duties, and during that time Mr. Raward will probably find an opportunity of giving one or two of his interesting talks from 2FC. He is a much-travelled man, and a finished speaker.

"2FC'S ENTERPRISE in giving the Bernard Shaw record, recently," writes a listener, "must have been appreciated, and leads one to hope we may be given the opportunity of hearing the voices of other prominent people." In commenting on it, Sir John Ervine says:—"I have amused myself by going into his flat to talk to him, and then, immediately afterwards, turning him on the gramophone in an attempt to catch the record out, but it remains unshaken. It is an exceedingly good one."

"WHY NOT get your husband to address listeners-in on this subject?"

"John make a speech! Why, he can't even address an envelope, without getting flustered."

"SO you're going to give up your radio business, and marry that time-payment customer of yours?"

"Yes, we'll be all right; she owes me enough money to keep us for years."

HAROLD (showing granny his wireless set): "Of course, Granny, you know who invented wireless? It was Marconi."

GRANNY: "Harold! how disrespectful! You should say 'Mrs. Coni.'"

"WIRELESS WHIMPERS."

By Whisker.

"FROZEN WIRELESS WAVES."

*We often lie in bed and think,
How brave a man must be,
To leave his home and friends and land,
To sail a Polar Sea.*

*The glamour first might lure us on
To chase the sportive whale,
But when we see the 'glass' go down
Our nerve is apt to fail.*

*But now we all shall have the chance
To feel the very thrill,
Of whaling in Antarctic seas,
Without the usual chill.*

*How can this be, you ask? Well soon
You'll hear from 7ZL,
The calling of a whaling ship
Upon the ocean's swell.*

*And though the wind be chill, and food
And water may run low,
They'll smile to hear the Short-Wave Tests,
Come clear, from 3LO.*

*They hope you'll hear them, 'mid the clash,
Of ice-bergs in the breeze
And so you will, unless, of course,
The wireless waves should freeze.*

EVERYBODY who had heard the announcement over the radio, stopped to congratulate Jones on his being presented with triplets. The minister met Jones in the street, and said: "Well, Jones, the radio has just told me that the Lord has smiled on you."

"Smiled!" said Jones. "He nearly busted himself larfin'."

"THAT MUST be a new piano forte solo coming over the radio."

"No, the piano wants tuning."

"WHY is your husband in such a rage?"

"They're praising marriage over the radio."

THE MELBOURNE CUP aroused great interest in listeners. The descriptions from Melbourne were very vivid, and the announcer kept up a constant flow of interesting speech. Not once did he falter. Newspapers were at one time sadly smitten by radio, yet on this occasion, the Sydney "Sun" had the results in their papers, which were being sold within five minutes of the finish of the race. A writer in Melbourne bemoaned the fact that radio would keep thousands away from the Flemington Race-course, yet there were many who blessed the invention that saved them no small sum.

A BROADCASTING station gets some curious correspondence in its daily mail bag. Lately the New South Wales Broadcasting Company received a letter, written in a laboriously infantile hand, asking that Station 2BL, during the usual Sunday morning musical programme, should play "Melancholy Baby," followed by an item described as "Sunshine." The small correspondent further requested that her sister—the baby of the family—"Emily Ann," aged 18 months, might have a few words addressed to her by the announcer, at lunch time, "as she was having trouble with her first teeth!" The announcer on that occasion is not a deputy uncle for nothing, and he rose nobly to the occasion.

The Difference Between BROADCASTING and TELEPHONING to America

Mr. E. T. Fisk,
who arranged
and carried out
the first "official"
telephone conver-
sation between
Sydney and New
York.



2ME, SYDNEY.

ON September 5th, 1927, in broadcasting to England and America, Amalgamated Wireless demonstrated that music and the human voice could be transmitted from Continent to Continent in a reliable manner, and the public have since been educated to regard international broadcasting as little more novel than interstate reception.

Broadcasting, whether limited to 5 miles or to the world, consists essentially of a transmitter radiating in all directions, enabling any person with a suitable receiver to pick it up. When two-way conversation is required, it involves much more apparatus, also certain technical difficulties in associating the outward and incoming voices in the one instrument, apart, of course, from the necessity of having a transmitting station at each end.

The method adopted by Amalgamated Wireless, and by their American friends in the recent tests, was to employ four stations—a transmitting station in Australia talking to the receiving station in America, and vice versa. These stations are connected through amplifiers to the one instrument, which permits inward and outward speech to be carried on without interference. Once the inward and outward signals are associated, the wireless station may be connected through an exchange to any telephone subscriber in the state, or wherever it is possible to use the long distance telephone. The same would apply in America, so that this system would allow a person in, say North Sydney, to communicate with a friend in Brooklyn, outside New York, each subscriber speaking on the telephone in his own home.

2ME, the local end of the telephony talks, is a short-wave station operating on a wavelength of 28.5 metres and is located at A.W.A. Radio Centre, Pennant Hills, some 14 miles from Sydney. The station is owned and operated by Amalgamated Wireless and the equipment was specially designed and manufactured in Sydney by local engineers.

The new 20 k.w. short-wave transmitter is of the very latest design in radio engineering, and it is of interest to note that the main modulator and amplifier bank employ valves of the very latest pattern, the anodes of which are cooled by means of oil circulating through a specially constructed jacket surrounding the anode.

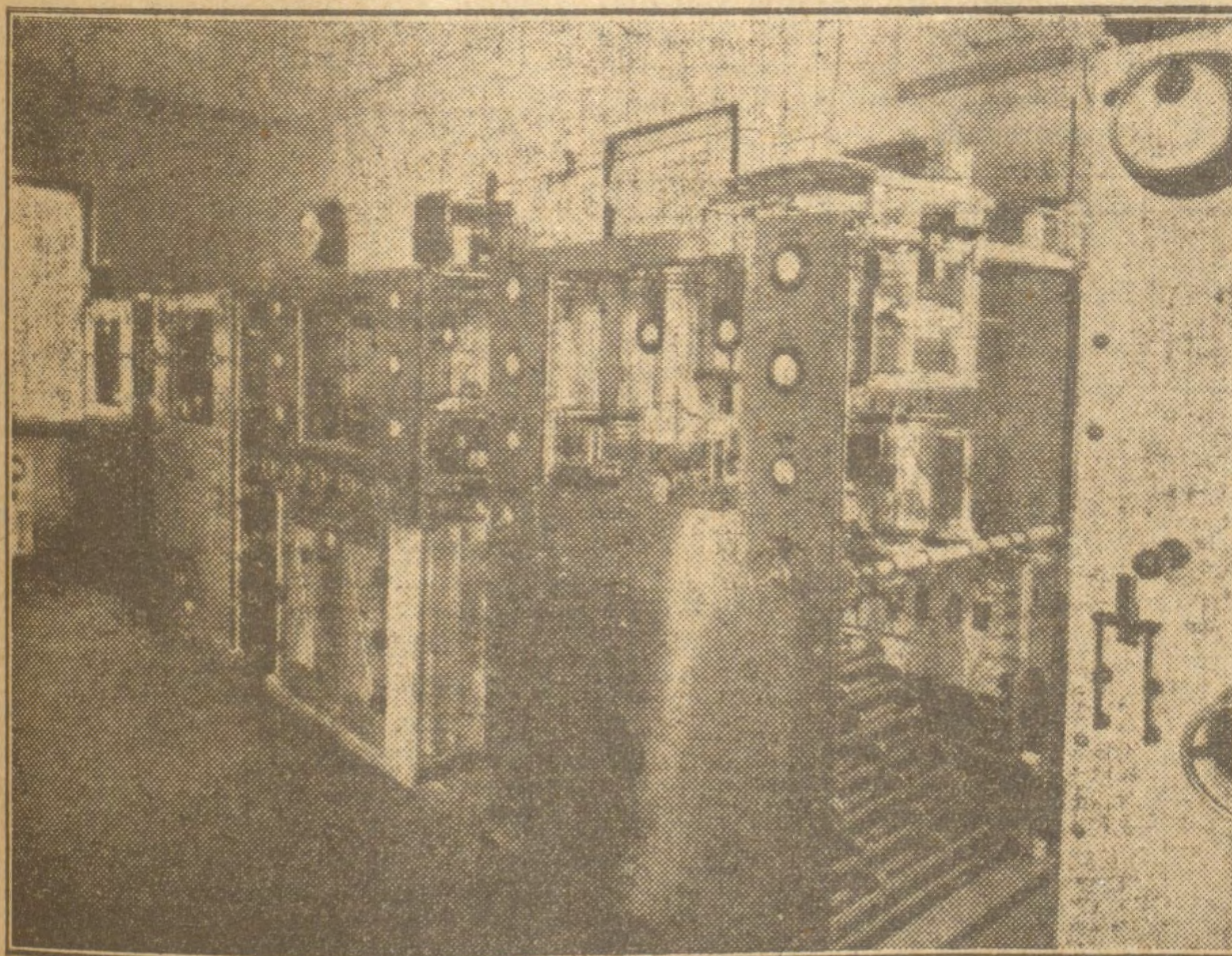
The Transmitter itself consists of seven main units.

1. Drive and No. 2 Magnifier (1 k.w. each).
2. No. 1 Magnifier (3 k.w.).
3. Power Magnifier (20 k.w.).
4. Keying Unit (20 k.w.).
5. Modulator Unit (25 k.w.).
6. Large Rectifier.
7. Small Rectifier.

The filaments of the valves in the first 5 units are heated from two 140 amp. 25 volt D.C. generators with the exception of the Drive and sub-modulator valves, which are heated from a 500 amp. hour battery.

The filaments of the rectifying valves are heated by current at 12½ volts 50 cycles stepped down from 240 volts.

Power for the anodes of the valves in the transmitter circuit proper is



A view of the 20 k.w. Transmitter at Pennant Hills, which was used for the telephone tests between Sydney and New York.

obtained from a 30 k.w. Rectifier Unit comprising 6 large glass rectifying valves and appropriate smoothing circuits composed of inductances and condensers, whilst power for the anodes of the Drive and buffer circuits is obtained from a low power Rectifier of approximately 3 k.w.

The wave range of the transmitter is 15 to 50 metres, and can be used for telegraph signals up to 300 words per minute or for telephony.

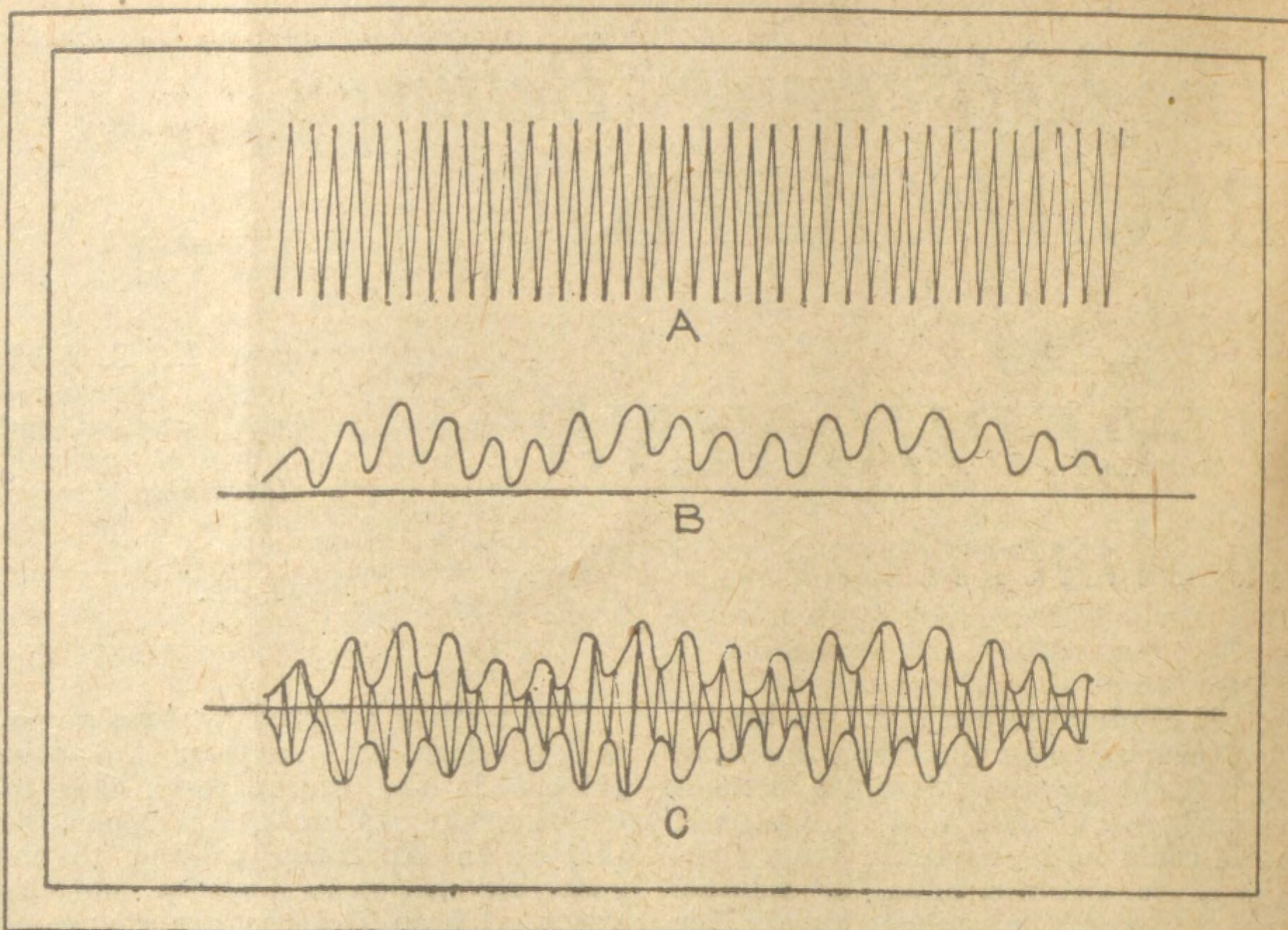
The aerial, which is of the vertical type, is about 400 feet from the transmitter and is fed by means of lecher wires, which arrangements permit of the greatest possible efficiency being obtained from the radiating system.

HOW IT IS DONE.

All wireless telephony transmissions depend for their existence upon a carrier wave. This carrier wave (Diagram A) is a wave ripple across the ether space—not like a leisurely water wave, such as one sees following in the wake of a boat, or spreading in rings from a point of disturbance in a pond, but a very rapid unbroken train of waves.

In wireless telephony transmitted on short waves, the frequency may vary from, say, 5 million to 15 million per second, according to the wave-length used. A wave-length is the distance between the crest of one wave and the crest of the next.

Upon this bridge of high-speed unbroken waves, which are spreading outwards through the ether in all directions at a speed of 186,000 miles per second, is superimposed an electrical replica of the sounds spoken by a person into the telephone. The impulses, or vibrations, in this electrical replica are of much lower frequency than the carrier



Diagrams A, B, and C mentioned in the accompanying article.

waves, ranging from, say, 100 to 5,000 beats per second. These electrical replicas of speech or music "modulate" the carrier wave mentioned above, i.e., they vary the amplitude of the high-speed waves, and create new wave forms, in which the original waves become but component parts.

A fair idea of what really happens can be gauged from the continuous high-speed carrier wave (Diagram A), which forms the bridge across space between the transmitting and receiving stations. The peculiar wave form set up by a simple sound is shown in Diagram B. The result of super-imposing the sound wave

upon the carrier wave is shown in Diagram C.

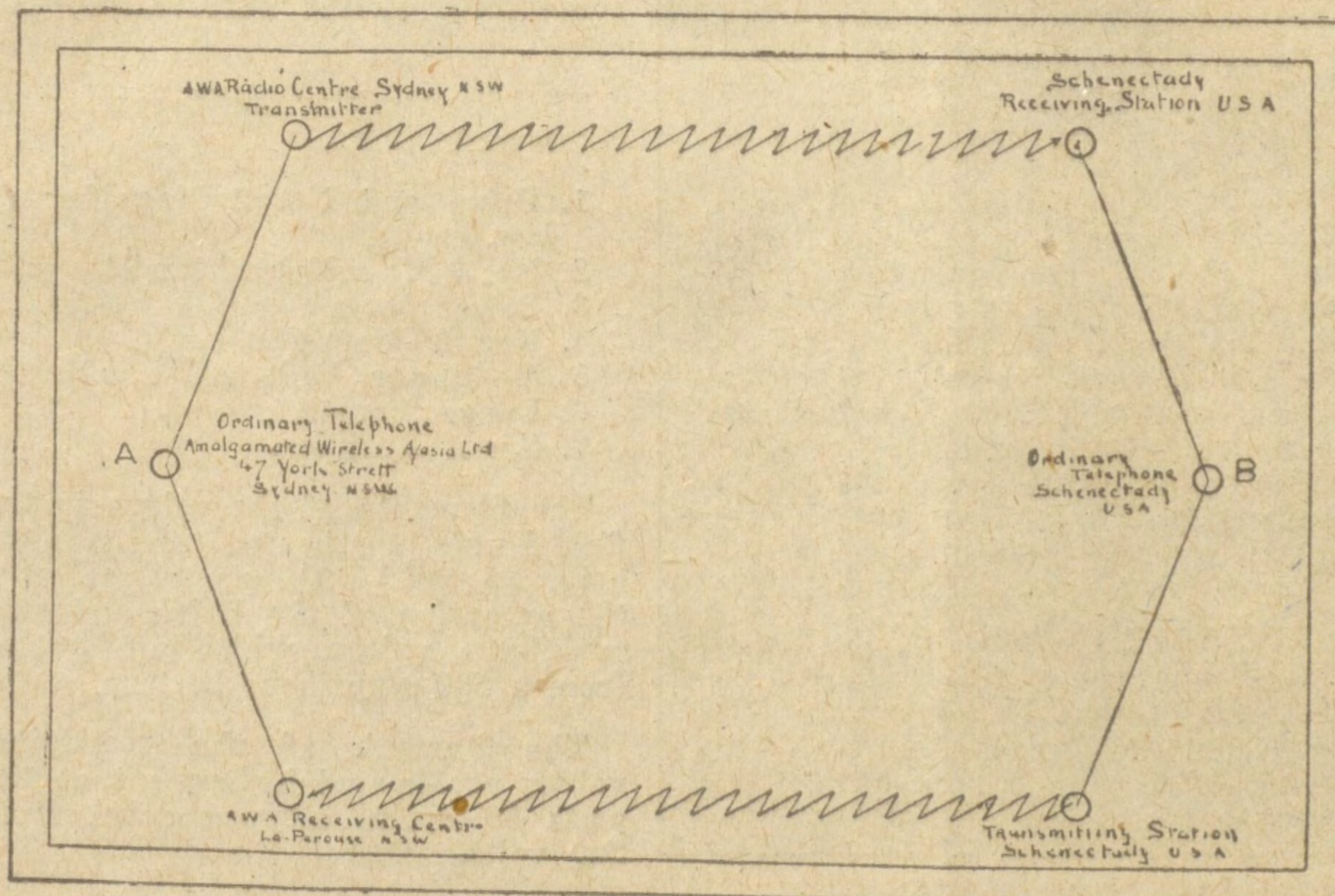
The sound waves of the human voice, spoken into the ordinary telephone mouthpiece, are thus transposed into corresponding current fluctuations, which are radiated from the aerial of the specially-designed transmitter at the wireless station through the medium of the ether. At the receiving station these wireless waves enter the receiver, and an audible sound is produced, similar to that which was spoken into the mouthpiece at the transmitting end.

Working Overtime for Listeners

THE N.S.W. Broadcasting Co. is receiving a large batch of letters from both 2FC and 2BL in connection with the broadcasting of the big cricket matches. The company has arranged that both stations will, at alternate times, give descriptions of all the big matches played in Sydney, and will also transmit from both services the latest scores as they come to hand from the other States.

One listener, writing from the Far West, says: "I am arranging matters on my property this season so that I may be free to stay at home all day long whilst the Test Matches are being played in Sydney, and I will spend the day on the front verandah, smoking my pipe and visualizing the Sydney Cricket Ground as I hear your announcer describing the game."

Most of these broadcasts will be done at hours when the stations would be normally off the air.



A simple diagram illustrating the duplex arrangements.

2FC and 2BL Service

THE 2ND AND 3RD ACTS of "The Vagabond King" are to be broadcast by courtesy of J. C. Williamson, Limited, through the service of 2FC on Friday evening, 23rd November.

COMMENCING AT 9 p.m., the results of the Federal elections will be transmitted at regular intervals through 2BL and 2FC throughout the evening of Saturday, 17th, continuing until 1 o'clock.

HARRISON WHITE and Conni are presenting a very acceptable instrumental act at 2BL studios. Banjo, mandoline, guitar—all these instruments Harrison White handles with equal ease, and as they are a recognised broadcasting feature, his work is always acceptable to listeners.



Mr. Ad. Cree and Miss Jennie Cree, the Versatile Scottish Entertainers, who are to delight 2FC listeners once again on 2nd November, with "The Freemason," a humorous character sketch.

THE H. W. VARNA COMPANY is repeating the famous "If Winter Comes" on Wednesday, 21st November, through 2FC Service. This clever company, under Mr. H. W. Varna's personal direction, produces some very attractive radio versions of popular plays, and provides listeners with an entertaining hour, every alternate Wednesday.

FEW ARTISTS have gained—or earned—a more honest reputation than Laurel Streeter, who is appearing at 2BL. Her work is lightsome and gay, but she conveys the impression she is taking it very seriously, and all listeners are seized with her obvious sincerity. She will be on the air again on Saturday, 17th November.

New South Wales Broadcasting Company Limited Coming Features of the Week

2FC Service

TALKS

2BL Service

FRIDAY, 16th NOVEMBER:

3.45 p.m.—"Tea Cups Chatter," by Doreen Walsh.

SATURDAY, 17th NOVEMBER:

10.30 a.m.—"Redgum":

"Gardening."

SUNDAY, 18th NOVEMBER:

2.30 p.m.—A Talk to the Children by Frank Grose.

MONDAY, 19th NOVEMBER:

3.45 p.m.—"Tea Cups Chatter," by Doreen Walsh.

TUESDAY, 20th NOVEMBER:

9 p.m.—Freda Sternberg: "What Keeps Women Young."

THURSDAY, 22nd NOVEMBER:

9.5 p.m.—Dr. T. J. Henry:

"Vignettes of the Pacific."

FRIDAY, 16th NOVEMBER:

4.15 p.m.—Basil Kirke: "Wandering thro' Coral Seas and Tropic Isles."

TUESDAY, 20th NOVEMBER:

9.5 p.m.—Hyam Marks: "Cricket."

WEDNESDAY, 21st NOVEMBER:

4.10 p.m.—"Radio in the Home," by Frank Buckell.

MUSIC—COMEDY—DRAMA

FRIDAY, 16th NOVEMBER:

8 p.m.—1st Act of "The Vagabond King," by courtesy of J. C. Williamson Ltd.

SATURDAY, 17th NOVEMBER:

8 p.m.—The Saxophone Sextet.

SUNDAY, 18th NOVEMBER:

8.30 p.m.—Austral Quartet: Schubert Programme.

MONDAY, 19th NOVEMBER:

8.17 p.m.—Carlton Fay, Pianist.

TUESDAY, 20th NOVEMBER:

9.10 p.m.—Sydney Madrigal Society, from Conservatorium Hall (Second Half).

WEDNESDAY, 21st NOVEMBER:

8.30 p.m.—H. W. Varna Company: "If Winter Comes."

THURSDAY, 22nd NOVEMBER:

8 p.m.—Prologue from Capital Theatre.

FRIDAY, 16th NOVEMBER:

8.15 p.m.—Harry Croot, Baritone.

SATURDAY, 17th NOVEMBER:

8.10 p.m.—Laurel Streeter, Comedienne.

SUNDAY, 18th NOVEMBER:

9.30 p.m.—Norman Janson, Baritone.

MONDAY, 19th NOVEMBER:

8 p.m.—British Music Society Quartet: Schubert Programme.

TUESDAY, 20th NOVEMBER:

8 p.m.—Sydney Madrigal Society Concert (1st Half).

WEDNESDAY, 21st NOVEMBER:

8 p.m.—Harry Graham's Revue.

THURSDAY, 22nd NOVEMBER:

9.2 p.m.—Acts 2 and 3 of "To Have the Honor," from St. James' Hall.

THE SYDNEY MADRIGAL SOCIETY concert on Tuesday, 20th November, will be broadcast through 2BL and 2FC—the first half through 2BL, and from 9.10 onwards through 2FC. Beatrice Tange is doing the 1st Movement of the Grieg Concerto with the Orchestra. Arnold Mote is arranging, and Madame Emily Marks will also be associated with the programme.

NORMAN JANSON is singing at 2BL Studios on Sunday, 18th November. He is a popular figure on the air, and although his voice is somewhat big for broadcasting, he "nurses" the microphone carefully, with successful results. There is a good deal to be said for microphone training. Artists are a little apt to think vocal training suffices, but "mike" very quickly dispels this idea.

KATHLEEN ROE, the English pianist who has made a name for herself with remarkable rapidity in Sydney's musical circles, is not going Home after all. Rumor had it that she was due to sail on 10th November, but is it the lure of broadcasting, which has proved too strong for her? She is appearing regularly through 2FC and 2BL Services.

LISTENERS WILL BE GLAD to know Graham Kent has fully recovered from his slight indisposition: his bridge series are more eagerly sought after—and have caused more quarrels!—than any other series of talks 2FC conducts.

THE DIALOGUE in the Scottish sketches by Ad. and Jennie Cree is excellent. After their appearance last week, the telephone rang with flattering consistency for ten minutes or more, in congratulation. They are busy preparing fresh material for Thursday, 22nd November, at 2FC Studios.

UNCLE BAS of 2BL continues his Educational Talks to the delight of parents, and also the children themselves. Mr. Basil Kirke speaks four languages—Moto, Fijian, Hindustani, and Malay. He is an Australian by birth, and was educated at Fort Street High School. Having travelled considerably, he is well equipped to lecture on various parts of the world. Uncle Bas claims the distinction of being one of the first to ride a surf-board at Manly, the board in question being brought from Suva, where the natives enjoy this sport. Being fond of music, and of children, Mr. Kirke says he enjoys his work immensely.



The Safety Valve

Readers are urged to express their opinion on matters pertaining to broadcasting. If you have some grievance, if you have some constructive criticism to offer, here is your chance for expression—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page, as opinions of correspondents do not represent our editorial policies or beliefs. Anonymous letters are not considered.

"A BOUQUET."

Dear Sir,—Our Association desires to express our pleasure of the manner in which your paper prints so fully 7ZL's programme. We are strong advocates of another well-known Australian radio paper on account of the information given about our local stations, and we feel sure you could obtain the same information from one of the local journals. Our station appears to be getting a move on and more interest is being taken throughout the island.

Yours, etc.,
B. M. ENGLISH.

Hobart, Tas.

"THOSE HA HA SOPRANOS."

Dear Sir,—Why broadcast those high-pitched sopranos at all? It is now well known that very few of them come through well. As a dealer, I have heard a great number of sets and almost without exception, when a soprano starts her item, there is a rush to the set to turn it off until she is finished. The sounds emitted by these sopranos are far too reminiscent of the girl next door practicing her singing lessons. The enunciation is bad, it being impossible to catch one word sung, and the feeling and expression is in most cases entirely absent. These songs mostly terminate in a long high-pitched wail which gives the listener the impression that the artist is in great pain and is about to collapse in a heap at the microphone.

Yours, etc.,
A.R.
Rylstone.

2FC RECEPTION.

Dear Sir,—I wish to take advantage of your "Safety Valve" to let off some of the steam which I have been collecting with regard to 2FC. This station can never be received clearly here, and even as I write the announcer's voice is decidedly mushy, with occasional clear patches as he broadcasts the results of the cricket match. I am sure that this is not due to the fact that this locality is a dead spot, as 2BL is remarkably clear, always.

Hoping this fault can be rectified and wondering if other listeners in my district strike the same trouble.

Yours, etc.,
K. N. HOLMES.

Hamilton West.

A MEAL FOR THE MIND.

Dear Sir,—As a listener since the inception of broadcasting in Australia, the comments upon the transmission of 2BL give me food for reflection. It is fairly obvious the consensus of opinion is that the said transmission is not what it ought to be, being groggy with neither the strength nor the clarity of 3LO or 4QG, the reason whereof is puzzling, in as much as during the earlier period of this station and until about two years ago 2BL's transmission was the best in the Commonwealth. There seems to be a leakage somewhere which requires attention. I have tried various towns in N.S.W. with always the same result. Reception is feeble and groggy, especially items from the Stadium, these being very popular with most hams I come into contact with. Note that most of the correspondents defending 2BL either extol the virtues of a proprietary machine or mention the excellent results obtained per medium of 6 valves or more. I have not had the best of results with such a set. Four valves is my limit and I get excellent results from all but Sydney A class stations.

What about "W.W." taking a vote of popularity by rotation of Aunts and Uncles?

Yours, etc.,
F. H. COLEY.

West Maitland.

PROOF.

Dear Sir,—Allow me to tell wrestling enthusiasts whose letters have been appearing in "W.W." recently, that 2BL's transmission is O.K., and I think I can prove it. A few weeks ago 2BL broadcast the Eucharistic Congress from the Showground. It was impossible to get this direct from 2BL, but I got it perfectly from 3AR and 2YA, who were relaying 2BL. I also received this transmission through 2UE. This is fairly conclusive proof that there must be some other station coming in on 2BL and spoiling their transmission. During the daylight 2BL is perfect, but as soon as it gets dark, reception is mushy.

Yours, etc.,
R. MACKENZIE.

Mangrove Mountain.

FADING TROUBLE.

Dear Sir,—At times I have read complaints from several listeners re fading trouble on broadcast wrestling matches from 2BL. I also have noticed this trouble at Toowoomba, but must say that on Monday night last, 24th ult., it was particularly good, the fading occurring only twice. Perhaps it may be the trouble of the "mike."

Yours, etc.,
Toowoomba, Q. JOHN SCULLY.

"MUSHY RECEPTION."

Dear Sir,—I would like to endorse A. J. Davey's letter in "W.W." of the 7th. Also Joe Hay's reception from 2BL during the description of the wrestling matches, and at all times.

I have an excellent set, but cannot get 2BL clearly. During daylight, reception is very mushy and the carrier has a side band. Reception at night time is bad at times, and I particularly notice when 2BL switches over to the Stadium, reception is even worse. I do not think this is the fault of the station or my earphones. It is in the air.

4QG gets bad during summer months, but is a good station in the winter. I have a friend 20 miles from here. 2BL is his best station; 2FC is mushy; so how can we blame the stations? Still I think the stations could do with a tune-up so as to detect that trouble and, if possible, have it remedied. One night, about a week ago, during 2BL's advertising session, their transmission came in with good volume and was very clear, in fact I wondered if the station was using extra power. Half-an-hour after, however, it was very mushy again.

Yours, etc.,
Barellan. "MAC."

THE JAVANESE STATION.

Dear Sir,—Herewith particulars of the Javanese Station. Wavelength, approx. 40 metres, call sign. 3RA; Address, Radio Amateur Society, Sourabaya, Java, D.E.I. Schedule (Sydney Standard Time), Tuesdays, 9.30 p.m.—11.30 p.m.; Thursdays, 9.30 p.m.—1.30 a.m. Fridays; Saturdays, 10.30 p.m.—1.30 a.m. Sundays; Sundays, 10.30 a.m.—12.30 p.m.; Mondays, 8.30 p.m.—11.30 p.m.

Yours, etc.,
Wave Hill Station. J. HENRY.

4QG's Fruitless Search For an Ideal Programme

NOT long ago 4QG offered a prize of £5 to the listener who forwarded the best programme which could be broadcast from that station. It was pointed out that programmes drafted by listeners should be such as to fill an ordinary evening session from eight until ten o'clock and should be of such a character as to make it possible to arrange them in Brisbane.

A large number of listeners went out of their way to compile programmes and forward them to 4QG. The judging of the efforts submitted was a rather difficult task, and it was finally decided to ask three persons to scan carefully all the efforts and to express their views regarding them independently. The Director of 4QG first went through the entries, the Musical Director then read them over, and finally they were reviewed by Mr. Sydney May. None of these people discussed the efforts with each other: each expressed his own opinion irrespective of what the others thought.

Although the numerical strength of the replies was satisfactory, the novelty of the programmes was disappointing. Those who entered for the competition apparently had devoted some time to the matter, but their entries, while indicating who were the favorite artists at 4QG, did not bring forth any new ideas which might be incorporated in future programmes.

Mr. J. W. Robinson, the Director of 4QG, commenting on the competition, said that perhaps the station should not have used the expression "Ideal Programme." Perhaps it should have asked listeners to give what they considered a first-class programme, for most listeners interpreted the competition as one in which they were to supply a list of their favorite artists and items. Hundreds of the attempts to provide programmes consisted merely of a list of items and the names of artists whom the listeners considered they liked best.

"Those who listened to 4QG some few nights ago," said Mr. Robinson, "and heard extracts from some of the letters in connection with the criticism scheme, will realise that a mere list of one's favorite artists and favorite items does not comprise an ideal programme. The great majority of those who entered the Ideal Programme

competition did so from an entirely wrong angle; they did not place themselves in the position of the broadcasting manager who has to please everybody, but regarded the programmes from their own personal point of view, and submitted suggestions which were ideal in their own eyes, but which indicated that not the slightest thought had been given to the vast general audience which a station has to serve.

"One lady who took particular pains to assure 4QG that she held a university degree, handed in a programme composed entirely of gramophone records. This type of programme might suit her personally, but she quite overlooked the fact that she is not the only person who listens, and she, therefore, did not realise that what might please her immensely, would not be at all satisfactory to, say, the lady who lives next door.

"A few of the entrants who apparently thought the matter over very carefully, endeavored to provide programmes containing a little bit of everything. Such programmes indicated that the compilers were alive to the fact that all sorts go to make a radio audience, but 4QG does not believe in attempting to give a little bit of everything every night in the week. Those responsible believe in giving, and attempt to give, as much variety as possible, but they do not try to crowd the whole of that variety into one night. Were we to do so they would give a jumbled programme.

"Every programme broadcast from 4QG, or any other station, pleases some of the listeners and displeases others. Almost every day some caller or some writer to 4QG states that some particular item or programme which has been broadcast, was the best ever given, and other writers or callers invariably class the same item as the worst. Both critics are right. The man who says a certain item or programme is beautiful is quite right. It is beautiful. It is beautiful because it appeals to his tastes or fancies or emotions and, therefore, pleases him. The man who says it is painful is also right. It is painful. It is painful to him because it does not appeal to his frame of mind. Both men forget, however, that what is pleasing to them is distasteful to the other fellow, and vice versa.

4QG, searching for an ideal programme offered a prize for a suggestion. The failure of the competition is told in an interview below with Mr. J. A. Robinson, Director of 4QG

"At 4QG it has long since been realised that this state of affairs exists, and the responsible officials have long since refrained from endeavoring to give programmes, each of which includes something for everybody. Instead, they endeavor to group programmes in such a way that various types of listeners are catered for at various times.

"They even go further than this. Programme arrangements are made so far ahead that programmes are placed in print many days before they are actually given. This enables listeners to scan carefully a week's programme some days before it is broadcast, decide what they desire to listen to, and what they desire to switch out, and to make their arrangements accordingly.

"One of the greatest troubles of broadcasting to-day lies in the fact that very few people know how to listen in. If a man owns a gramophone, he does not for one moment play it from eight to half-past each morning, from eleven to twelve, from one to two, from three to half-past four, and from six to half-past ten or eleven, every morning, afternoon, and night of his life. Were he to do so he would soon be very sick of gramophones. Similarly, if a man owns a gramophone and buys a record which he does not like, he does not solemnly sit and listen to it in spite of the fact that he does not like it. Also if a gramophone company makes records which do not suit the particular taste of a gramophone owner, that owner does not write an anonymous letter to a newspaper and sign it 'Disgusted,' and say that the gramophone company is a badly run institution simply because it makes a certain type of record he does not care for. Not at all! He simply does not play the record he does not like, and plays the records he does like.

"So it is with a broadcasting station. No listener can reasonably expect to get all he wants all the time. The other fellow must be catered for. If a distasteful item comes along a snap of the fingers cuts it out. It must always be remembered, however, that an item is not distasteful merely because one individual listener thinks it distasteful. One man may not like boxing, but that does not for a

moment constitute any fragment of a reason why 4QG should not broadcast from the stadium. There may be many listeners who do like it, and they all have to be catered for. Similarly, some listeners may not like classical music, but many others do. A station exists not to please either section, but to try and cater for all.

"It will be a happy day for the whole broadcasting business when everybody realises that all parties must be catered for, that it is not reasonable to expect to be able to listen in eight hours a day for a whole year and get just what one wants the whole of the time, and that a wireless set should be used just as a gramophone is to-day. The owner should listen when there is something on the programme in which he is interested, and should switch off when something comes on he does not like.

"These remarks are by the way, but they have some bearing on the question of the choice of an ideal programme. As was previously stated, the programmes submitted to 4QG did not give anything at all new in the way of ideas. Every single thing which was suggested was something which has been given over and over again from the station."

The Musical Director of 4QG, in commenting on the entries, said that none of them in his opinion were worthy of the prize. The best, he stated, was merely a copy of existing programmes, and none of them contained any new ideas. Most of the entrants, he added, saw nothing more than the usual elements in a programme, such as vocal numbers, violin or piano solos, and such like.

Mr. Sydney May, in commenting on them, said:

"After perusing the programmes I find little to commend them. The idea of trying out something of everything each night is folly. I think that 4QG's idea of one night for a different type of programme is the only possible one."

In announcing the trial results, Mr. Robinson said that he regretted to state that none of the attempts were worth the £5 which was offered and, therefore, no award would be made. At the same time, however, he stressed the fact that all at 4QG were keen to receive ideas. It has been decided to give one pound to the sender of every original idea for a programme feature which reaches 4QG during the month of November. These ideas must be quite original and must not have been carried out at any time by 4QG. It will be no use any listener suggesting, for instance, a Nigger Minstrel Show—a type of entertainment which has been given five or six times during the past six months. Each suggestion must be original. In the event of more than ten original suggestions being received, the ten best ideas will each be awarded a prize of £1.



Mr. Bruce delivering his policy speech at Dandenong, Victoria, which was broadcast by the A class stations throughout Australia. The transmission was not a record one for land line work, but was especially noteworthy for the clear distortionless delivery.

"The Customer is Right"

THERE IS A well-known principle in salesmanship which is impressed on budding salesmen—"the customer is always right." The customers of the broadcasting stations are members of the general public, and when, in no uncertain voice, they demand a certain class of music, it must be assumed that "they are right." Lately the New South Wales Broadcasting Company initiated the idea of a long musical programme of studio music every Sunday, from Station 2BL, between the hours of 12.30 p.m. and 2 p.m. It was intimated, through the announcer, that these programmes would be made up

of request numbers. Immediately following this announcement, numerous requests were received, and the selection made was significant. It would seem that there is a distinct desire on the part of the majority to hear music of a classical nature, as opposed to music of a modern jazzy type. Here are a few of the requests received:—"Solveig's Song" from Peer Gynt Suite (Grieg); Prologue from Pagliacci; Melody in F (Rubinstein); Minuet (Beethoven); Serenade (Tosselli); Ombra Mai Fu (sung by Caruso); Impromptu and Mazurka (Scriabine); Serenade (Moszkowski), etc., etc. It is astonishing how many people want to hear organ music.

3LO Service

What's in the Air

A TALK OF great interest to many listeners will be given from 3LO on Sunday evening, November 18, by Miss F. L. Clarke, of the Presbyterian Old Girls' Association, her subject being "The Korean Girls of To-day."

TO ADD to the comedy side of the programme at 3LO comes Mr. Syd. Hollister, an English Comedian and entertainer, with a budget of his own original character studies, which should be much to the taste of a wide circle of listeners.

"THE TALE OF Two Cities," one of the best known of the works of Charles Dickens, will form the basis of the "Book Talk," given by the Rev. Wm. Bottomley from 3LO during the Education Hour of Thursday, November 22.

ANOTHER OLD TIME Dance Night is due again at 3LO on Tuesday, November 20, to the huge delight of hundreds of listeners. In connection with these functions, a great many requests for old time songs and dance tunes come to hand, and it is quite impossible to accede to them all. However, the majority of requests seem to demand the famous "Blue Danube" Waltz, and this will be included in the excellent music played by Hoffman's Band. Mary Mack, the popular contralto, will contribute some familiar melodies, and the comedy side of the programme will be in the capable hands of Sydney Hollister and Frank Harwood. Mr. Spaven, as M.C., will be in his customary place before the microphone, and a thoroughly excellent programme of both dance and vocal music is promised.

TO MARK the centenary of the death of Franz Schubert, one of the greatest composers the world has ever known, a grand programme of stringed and vocal items will be given from 3LO on November 19, under the direction of Mr. Wm. Mallison. Orchestral items will be rendered by a string quintette, and the Royal Vic-

torian Liedertafel, conducted by Mr. Mansley Greer with Mr. William Burrell at the piano, will render "The Nightingale," "Gondoliers Serenade," and "A Night in the Forest."

A VERY FINE programme of vocal and instrumental music will be broadcast from 3LO on Friday, November 23, when the Cecilia Choir of Women, under the direction of Miss Minnie Bull, will render some little known excerpts from the works of Schubert. The excellent work of this choir is already known to listeners who may expect a musical treat. On the same programme are selections including "The Merchant of Venice," by Rosse, by the Victorian Railways Institute Orchestra.

UNDER THE AUSPICES of the Purple Cross Association, Miss I. J. H. Anderson, Acting Secretary of the Association, will give a talk from 3LO on Tuesday, November 20, on the Aims and Objects of the Purple Cross. It is generally known that this League was formed with the primary object of helping aged and neglected horses of all descriptions, and did much good during the War, feeding thousands of starving beasts, and supplying veterinary advice and treatment gratis.

NOW THAT THE fruit season is just upon us, the timely talk to be given by Mr. J. M. Warr, superintendent of horticulture, from 3LO on November 19, on "The Handling and Marketing of Soft Fruits" should be greatly appreciated by many orchardists. Faulty packing and grading of fruit often results in a serious financial loss to the grower, and the object of this talk, which is given under the auspices of the Department of Agriculture, is to help the orchardist with many practical hints on how to pack and grade the fruit so that it will secure top market price.

Extracts from 3LO's Programmes

SUNDAY, NOVEMBER 18:

11 a.m.—Morning Service from Independent Church.
7 p.m.—Evening Service from Scots Church.
8.30 p.m.—Programme of Schubert MUSIC.

MONDAY, NOVEMBER 19:

2.49 p.m.—Imperial Russian Trio.
8.51 p.m.—Royal Victorian Liedertafel.
9.48 p.m.—Victor Harding, bass.

TUESDAY, NOVEMBER 20:

Afternoon—Radi-O-Aces: Dance Session.
Night—Old-Time Dance Night.
9.41 p.m.—Frank Harwood, Character Vocalist.

WEDNESDAY, NOVEMBER 21:

12.50 p.m.—Sydney Hollister Comedian.

8.15 p.m.—James Hay, Tenor.
8.54 p.m.—Memories of Schubert, "Lilac Time."

THURSDAY, NOVEMBER 22:

12.20 p.m.—Community Singing with Frank Hatherly.
Night—Radi-O-Aces: Dance Night.
9.12 p.m.—Sydney Hollister, "Just for Jim."

FRIDAY, NOVEMBER 23:

12.57 p.m.—Tasma Tiernan, 'cello:
9.20 p.m.—Imperial Russian Trio.
10.32 p.m.—Victorian Railways Institute Orchestra.

SATURDAY, NOVEMBER 24:

Afternoon—Description of Epsom Races, by Eric Welch.
8.22 p.m.—James Hay, Tenor.
9 p.m.—Eric Welch, to-night's Stadium Events.

FOLLOWING the great success of the recent novelty community singing session at the Assembly Hall, conducted by Frank Hatherly, where the hall was not nearly large enough to accommodate the visitors, it is the intention of 3LO to conduct a monster session of Community Singing on the same lines at the Town Hall on November 15. Assisting artists will be the Radi-o-Aces, the Sundowners' Male Quartette Party, with piano solos from Edward Goll. A feature of the session will be the series of old-time choruses conducted by Mr. Frank Hatherly, and altogether a most enjoyable time is assured for everyone.

MISS ANN MIDDLETON, whose lyric soprano voice is a great favorite with Listeners, will be heard from 3LO on Thursday, November 22. Since she was a student at the Conservatorium, where she had the good fortune to receive personal lessons from Dame Nellie Melba, she has become prominent in the Melbourne Concert World.

THE NEWLY FORMED Austral Quartette will be heard from 3AR on Thursday, November 22, in a vocal and instrumental "Rose Marie" programme. The individual members, Vida Lugg, pianist and mezzo soprano; Julia Russell (Soprano), Dorothy Taylor (Violin), and Jean Buchanan ('Cello), are all thoroughly experienced artists, well known in the concert and broadcasting world, and their new venture will be watched with interest.

MADAME EMILY MARKS has arranged a special Schubert programme for the evening of 18th November, which includes the famous "Serenade," played by Enid Hynes, and "Hark, Hark, the Lark." Madame herself will sing "Who is Sylvia," and Peggy Dunbar's contributions to this attractive programme are "The Wanderer" and "The Fisher Maiden." 2FC listeners should spend a very entertaining hour.

Difficulties Still Confronting Good Reception

BY RAY DIO

THE broadcast listener is beset with many kinds of interference with reception. That is, in some localities, and the nature of the interference varies with the locality. The listener in the interior or in the sub-tropical and tropical districts finds that while endeavoring to follow the description of a wrestling match, say from 3LO Melbourne, there is a roar of noise. Atmospherics are a severe form of interference in those parts, and unfortunately there is no remedy.

Atmospherics can be very troublesome in the cooler climates of the Southern States, but if the receiver is near the city in which the transmitting station is located the effect is not so annoying so long as the transmission is picked up strongly—if the signals are strong—extraneous noises are not of serious consequence. The signal is strong enough to drown the noise, or at all events is a little louder. That is the basis of good service, for the ratio of the signal noise is the important thing aimed at by all designers of broadcast stations.

Transmissions from stations working with ships is a general cause of complaint of listeners in many countries where the coast stations are near the large centres of population. That form of interference was bad in Australia a few years ago, but it is fairly well controlled now. That is fortunate, for all the coast stations are situated in or near the capital cities.

With transmitters in the coast stations of the spark type it is practically impossible to prevent the interference. The signals cannot be tuned out as easily as can transmissions from broadcasting stations which transmit on the continuous wave principles, as distinguished from the spark transmission. Nevertheless it is a pity that the coast stations are in the city areas, as their signals "spread" much more than those from continuous wave stations, and some interference with broadcast reception is experienced by listeners when tuned in to a station like 7ZL whose wavelength is near the coast station wavelength.

Of course atmospherics, or static as the nuisance is sometimes called, form the most annoying and consistent type of trouble in some parts. There are other forms of "noise" which are frequently confused with atmospherics—radiations from electrical machinery, tramways, etc. Those plants are not supposed to be

radio transmitters, but they do transmit and radiate energy which is well termed man-made static.

It can be removed, or at all events, eliminated, but a cordial and willing co-operation of the electric companies is essential. Apparently the Government authorities cannot order the companies to "stop their noise."

TRADE NOTES

AFTER November 1, the following reduced prices on certain Radiotron Valves will operate:—

Type.	New Retail Price.
UX112A	19/-
UX171A	19/-
UX226	17/6
UY227	30/-
UX250	£3/15/-
UX280	30/-
UX281	£2/5/-

It will be noticed that these valves include the most recent additions to the Radiotron range and that in many cases the reductions are substantial. The reduction on A.C. Valves will be of particular interest to the trade. Rebate will be given with respect to all above valves purchased from Amalgamated Wireless during the month of October, and in Dealers' Stocks on 1st November, 1928. Claims should be submitted on attached form not later than 7th November, 1928.

SOME NEW MARCONI AND OSRAM types of screen grid valves are due for production. They will be made on the same plan as the UX222 with the ordinary four pins in the base and the fifth or control grid connection on top of the bulb. A copper "lid" is to be supplied that will screen the valve externally. Standardisation and facility in manufacture are the reasons for this design.

"Six-Sixty" Valves on the "Southern Cross"

MR. T. H. McWILLIAMS, wireless operator on the "Southern Cross," in a recent communication to the agents for the famous "Six-Sixty" Valves, praises these English products to the utmost. On the Sydney-Perth return flight, and also on the two trips across the Tasman, these "Six-Sixty" Valves functioned excellently on all occasions. Surely this glowing testimonial is all that need be said about these truly remarkable glowless valves, and the above test the most critical to which a valve could be subjected.

3LO'S SPORTING NOTES

AFTER A VERY busy round of important race meetings at the principal racecourses in Melbourne a return will be made to suburban races on Saturday, November 24, when the Epsom Turf Club will hold a meeting.

ACCEPTANCES and barrier positions for the Epsom Turf Club's races to be held on Saturday, November 24, will be broadcast by 3LO at half past five on Thursday afternoon, November 22.

ERIC WELCH, 3LO's Special Sporting Commissioner, will make the journey to Woodend on Wednesday for the Spring meeting of the Woodend Race Club. Descriptions of all of the races at the spring meeting will be broadcast by 3LO.

A MATCH of great interest in which the English Eleven will take part is the match against an Australian Eleven which will commence in Sydney on November 16. On Monday and Tuesday, November 19 and 20, the progress scores of the match will be broadcast by 3LO Melbourne at regular intervals during the afternoon. On the Tuesday night the final scores will be broadcast as well. The match will not be a test match, but it will give followers of cricket some idea of the chances of the English team in its fight to retain the ashes.

MANY READERS will be interested to know how Mr. R. H. Campbell, who is giving a series of entertaining talks on Test Cricket and Cricketers from 3LO, became one of the World's Champion Statisticians. Like most of these happenings, it came about by a pure fluke, and grew into quite a big thing. "Since seeing my first Test Match, I had always been interested in scores and totals," said Mr. Campbell, "and, as good luck would have it, soon found I had something quite extraordinary in the way of a memory. I had been in Australia a few years, these were the days when the 'progress scores' of matches were recorded on a board outside the various newspaper offices, and one afternoon, I was standing with the crowd waiting for the results, when a score was put out, which claimed to be a record. 'That's not a record' I said to someone standing near me. 'I saw that beaten easily at Lords when I was in England.' 'Why not go in and tell them so,' he suggested. I said that I did not think it would be any good, that as I was a mere nobody, they would not take any notice of me, but he finally persuaded me to go in, and, not only did the good people sit up and take notice, but I did a great deal of work for them from that time on."

Great Opening Pairs in Test Matches

A second talk on Cricket which is to be broadcast from 3LO shortly is published below. The subject is particularly interesting in view of the recent match in Sydney

By R. H. CAMPBELL

OUR story to-night is of some of the many and magnificent first wicket stands in Test Cricket, and it is at this stage of the matches that the bowlers have come to expect an expensive time. Test match bowlers, however capable, have been required to pay 100 runs for the first wicket on no fewer than 33 occasions. Opening English batsmen have exacted this price 23 times or just twice to Australia's once. Hobbs has been the outstanding hero in this as in many other aspects of test batting; his eminent coadjutors being Rhodes and Sutcliffe. Australia therefore holds Surrey and Yorkshire in high esteem. Separate these counties are sufficiently formidable, but when fused, as in the tests, their power has sometimes proved well-nigh unconquerable. The distinguished firm of Hobbs and Rhodes did the first special trading with Australia in January, 1912, at Adelaide. The transaction put 187 runs to Hobbs' account, Rhodes taking 59 as his share in the deal. Their joint credit was 147. Hobbs did not overwork himself, but was satisfied with 34 runs per hour. Sixteen fours represented the tit-bits in a big parcel. Only half a dozen times has the issue to a test batsman of 187 runs been exceeded in Australia.

Having tasted century sweets together, the Surrey-Yorkshire firm further cemented its partnership in the following month. Thousands of Melbourne people recall the occasion with much wonder, and no regret, although the business was transacted at Australia's expense. Hobbs was first to yield on this occasion, but 323 runs had been placed to our debit in the score book before the Surrey man cried enough with 178 in his personal credit. This time business was brisker than in Adelaide, the hourly turnover in runs averaging 40. There were 22 fours in the haul. Rhodes carried on until 179. His steadier trading yielded 27 runs an hour, with 15 fours in the basket. This partnership of 323 is a test record for any wicket.

Comparative moderation marked the opening operations of the gifted partners at Lord's in June 1912, their joint effort producing 112. The full count gave Surrey 107 and Yorkshire 49. Two months later they were at it again, this time with a collection

of 107, made in just two hours. It was slow going, but runs were in short supply. Hobbs with 66 had no equal in either innings. It is interesting to bunch the product of these four pioneering adventures. They accounted for 687 runs in the aggregate, or 171 on the average—not such a bad total for a whole side. Deprived of the co-operation of Rhodes, the insatiable Hobbs joined forces with Sutcliffe, and seven more century openings have to be chronicled.

Australian onlookers know a good deal about these, as they all occurred during the visit of Gilligan's team in 1924-25. Sydney people saw the extra special performance—two century openings in the one match. It was in the first test of the trip that the now famous pioneering combine opened England's first innings with 157 and the second with 110. Hobbs claimed the lion's share in the first example—115 to Sutcliffe's 59. Up to this point in our examination, the champion had with one exception (when Rhodes beat him by a run in their second partnership) always proved the larger contributor to the innings, but subsequent cases found Sutcliffe outliving and overscoring his great partner.

Their contribution to the second innings were Hobbs 57, Sutcliffe 115. This was Sutcliffe's first appearance in a test. He helped to make it very memorable by thus supplying with Hobbs the only case recorded of the opening pair raising a hundred runs in each innings.

Fascinated with the idea of a good beginning the new firm indulged in another glorious bout at Melbourne in January. On this occasion Hobbs rattled on to 154, but again his partner outclassed him, and was not dismissed until he had amassed 176. The joint account showed 283, thus providing the second highest opening in the test series. Comparative moderation again marked the opening essay of this insatiable pair at Melbourne, their joint effort producing 126. Again Sutcliffe outdistanced his partner with 143, Hobbs this time being content with 66. It was a fine breezy partnership made in even time. They next met Australia—Collins'

team in England in 1926. It cost Australia 182 runs at Lord's before the Hobbs-Sutcliffe combine was dissolved. Surrey alone reached the century line with 119 to Yorkshire's 82. This effort provided the third highest opening in these games. At Leeds in the following month they were at it again, a second innings outing of 156, a record for the ground. Neither reached the century, Hobbs being satisfied with 88 to Sutcliffe's 94. Their last flutter of the kind was at the Oval in August, another second innings affair, and earned 172 before the separation came. Hobbs then dropped out with an even 100, but Sutcliffe carried on to 161. These joint run-hunts accounted for 1186 runs altogether, or 499 above the Hobbs-Rhodes level. "Prodigious" is the only word appropriate to such figuring.

What has Australia to show of a corresponding type. The only pioneers on our side who have supplied even three examples of the century opening are Bardsley and Collins. Their triumphs date back to 1920-21, when Douglas and Co. visited us. At Sydney in December of that season, Collins being a test debutant, he scored 104 in the second innings, Bardsley got 57, their partnership bringing in 123. It was a measured effort, the joint scoring rate being only 59 runs an hour. At much the same rate the new test pioneers raised 116 together in the following months at Melbourne, Collins once more being the senior partner with a score of 64 to Bardsley's 51. For the third time they "did the trick" at Melbourne in February, 1921, and once again Collins headed his distinguished companion by 59 to 56. The progress was much accelerated on this occasion, runs coming through at 80 per hour. As emphasising the merit of these three stands, it may be recalled that the Englishmen failed to record one opening effort worth 100 runs during that season. But the full Bardsley-Collins count of 386 is less than one fifth the totals claimed by Hobbs and his Yorkshire mates. As nine of the fourteen quoted cases took place in Australia, perhaps we should look for material additions this season. Hobbs and Sutcliffe may do anything, just as may Ponsford and Woodfull, and some notable pioneering is easily possible.

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1 Toggle Battery Switch	0	1	6	2 2in. dia. 4in. long Radion Former	0	5	4
1 B.M.S. Single Circuit Jack	0	1	7	1 2in. dia. 5in. long Radion Former	0	3	4
1 Philmore 30 ohm. Rheo- stats	0	2	0	2 ½lbs. 30 D.S.C. Wire, at 2/5	0	4	10
3 Alpha UX Sockets, 1/3	0	3	9	1 Doz. Sq. Bus Wire ...	0	0	10

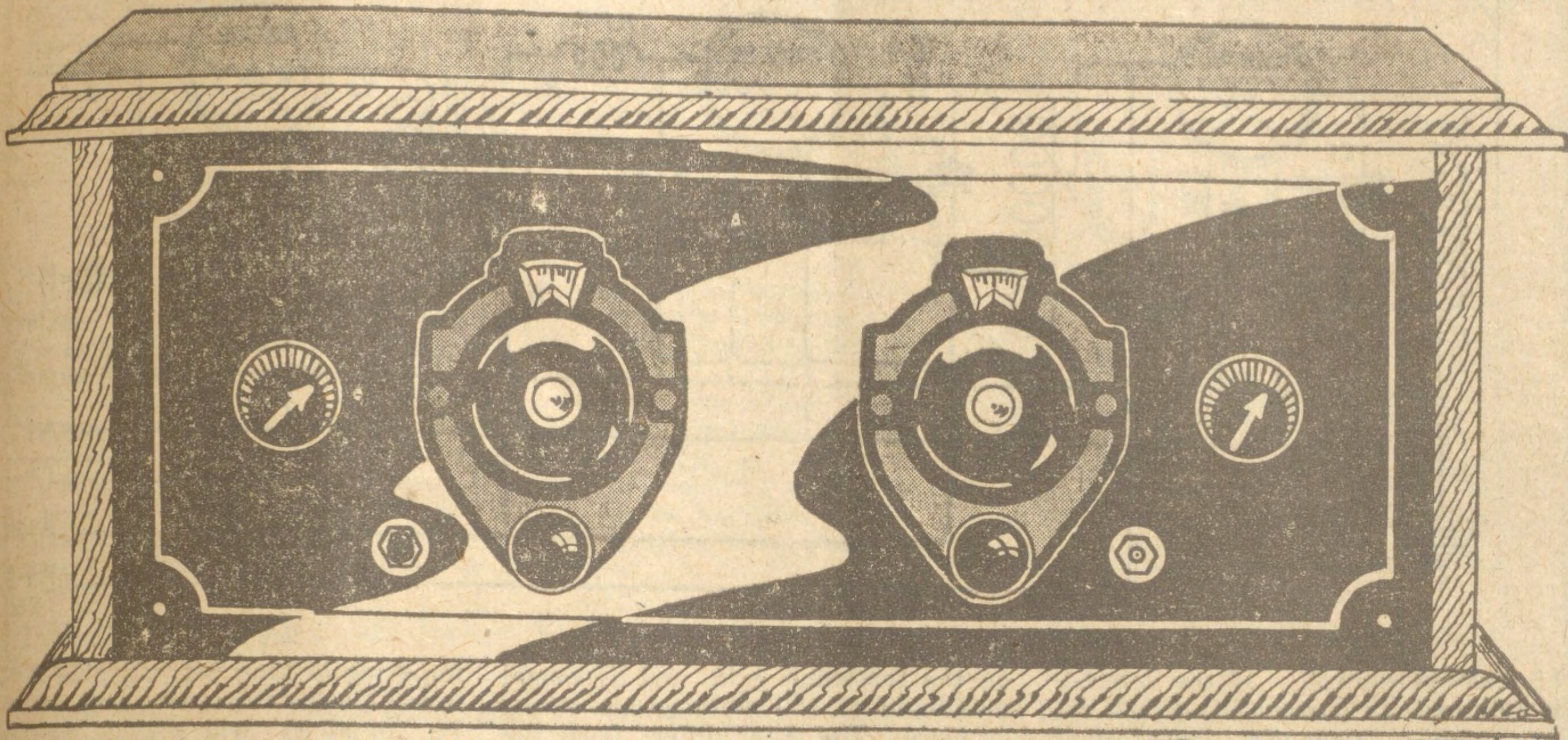
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How to Build The Tetrodyne Three

ONE of the most popular of "Wireless Weekly" circuits has been the Marcodyne—previously described in various forms, but mostly centred round the Marco Four. The evolution of the Marcodyne circuit was inevitable, and very simple.

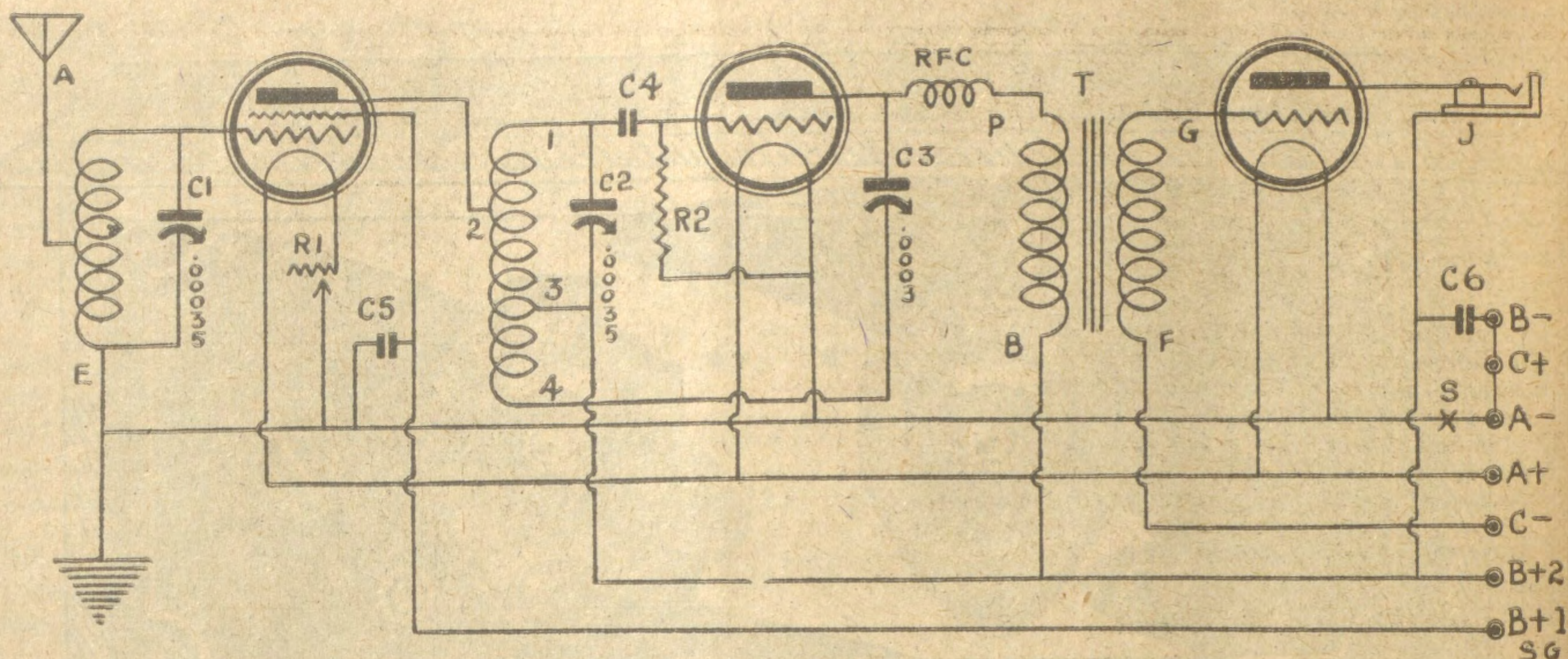
There were many conventional types of receivers in use, employing a neutralised, or "suppressed," radio frequency amplifier, preceding a detector of the movable reaction coil type. While such a detector circuit was reasonably efficient, it was generally not considered to compare with the Reinartz circuit, which used a form of capacity reaction. In view of the outstanding performance of the many Reinartz receivers in use, Mr. F. J. Marco, an American engineer, decided upon an addition. He coupled a radio frequency amplifier, with a loosely-spaced primary coil, to the Reinartz detector, and named the arrangement the Marcodyne.

This circuit flashed into quick popularity, and it is due to the constancy of the Reinartz principle of reaction control that such good results were obtained, with only one R.F. amplifier. Following on the Marco Four, I described early this year in "Wireless Weekly" the "Marco Special." This was exactly

LIST OF PARTS FOR THE TETRODYNE THREE.

- 1-Bakelite or Formica Panel, 18 x 7 x 3-16in.
- 1-Baseboard, 17½ x 10 x ½in.
- 2-Emmco, Pilot, or JB .0005 SLF Variable Condensers.
- 1-Emmco, Pilot, or JB .0003 SLF Variable Condenser.
- 2-Emmco Velmo vernier dials.
- 1-Plain Knob.
- 1-Battery Switch.
- 1-Single Circuit Jack.
- 1-30-ohm Rheostat.
- 3-Pilot UX valve sockets.
- 1-Ferranti AF3 audio transformer.
- 1-TCC 2 mfd. condenser.
- 1-TCC .01 mfd. condenser.
- 1-Wetless .00025 grid condenser.
- 1-Mullard 4-meg. grid leak, with mounting.
- 1-Radiokes R.F. choke.
- 9-Terminals.
- 1-Former, 2in. diameter, 3½in. long.
- 1-Former, 2in. diameter, 4½in. long.
- 1-16oz. reel of 30 DSC copper wire.
- 18's tinned copper wire, insulating sleeving, solder, etc.

the same circuit as the Marco Four, but used a Pentatron valve as the combined radio frequency and detector stages. Again the Reinartz detector arrangement lived up to its name. Before going on to the "Tetrodyne Three," let us examine the virtues of the Reinartz type of circuit, and consider why we should make use of it. If we took a census among up-to-date receivers at the present time, we should find that the majority of them make use of capacity controlled reaction. The reason for this is that once the correct tuning adjustments have been made, the operation of the circuit is so simple that a child can readily understand it. Many readers will find more than a passing interest in this reference to the Reinartz circuit, for a great number, no doubt, use the circuit, followed by one or two stages of audio frequency amplification. It is in this arrangement that the reaction control is so important, and is the stepping-stone to success or failure. To obtain the required reaction effect in a detector circuit, it is necessary to feed back energy from the plate circuit to the grid circuit of the same valve. A condition is then reached where the set breaks into oscillation. In the Reinartz circuit, its special feature is the extreme smoothness



of reaction control. If the detector is followed, as it most likely will be, by audio frequency transformer coupling, a radio frequency choke must be included in the plate circuit. With resistance capacity coupling after the detector—it is quite in order to omit the choke—but the small expense of a good R.F. choke, such as the Radiokes, in a capacity reaction receiver, is money well spent. In most cases, the R.F. choke is a necessity. Consider a one-valve arrangement—the detector alone. If we have only a pair of headphones in the plate circuit, there may be a large self capacity in the telephone windings or leads, together with body capacity, which will all by-pass the R.F. currents we seek to check.

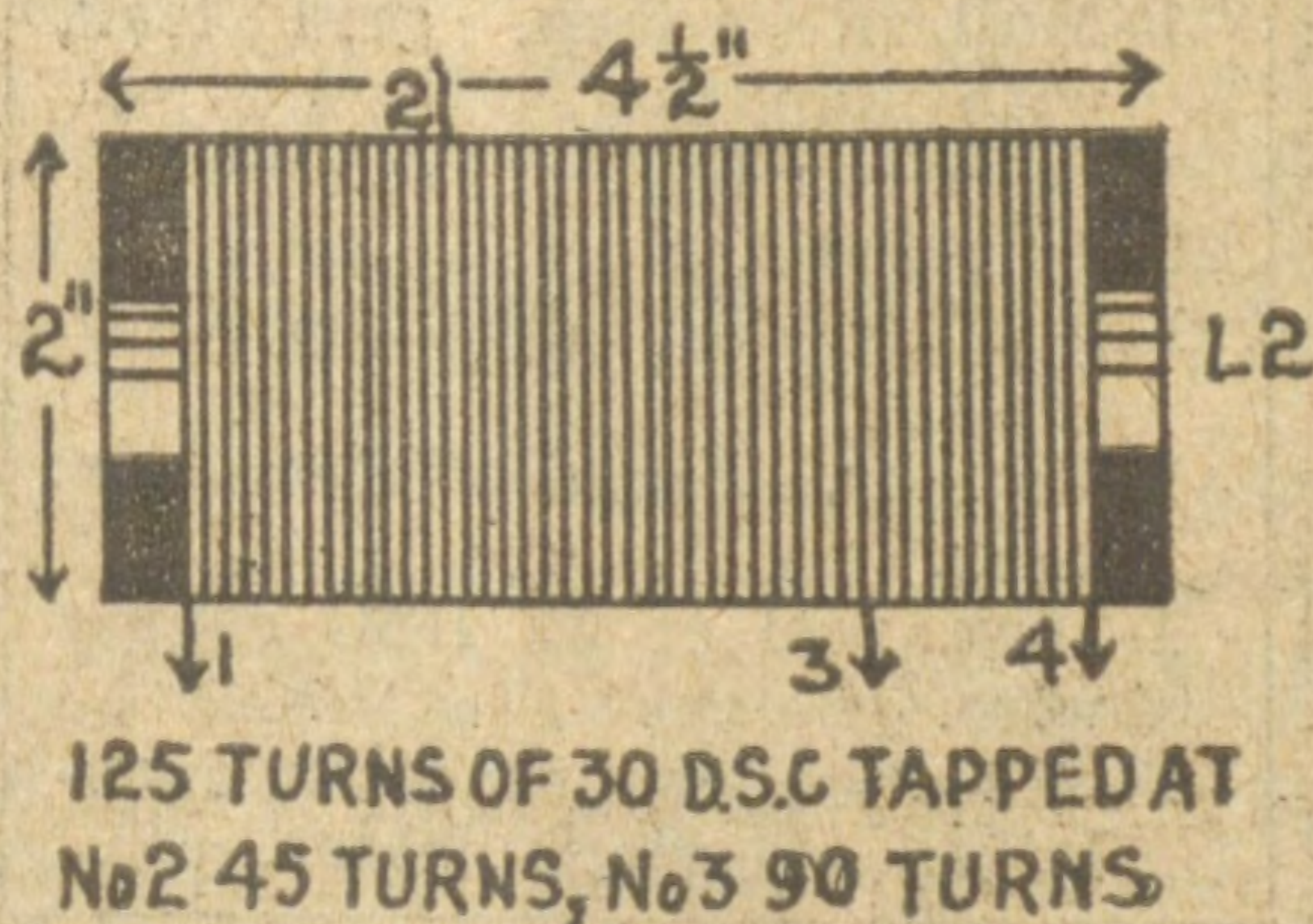
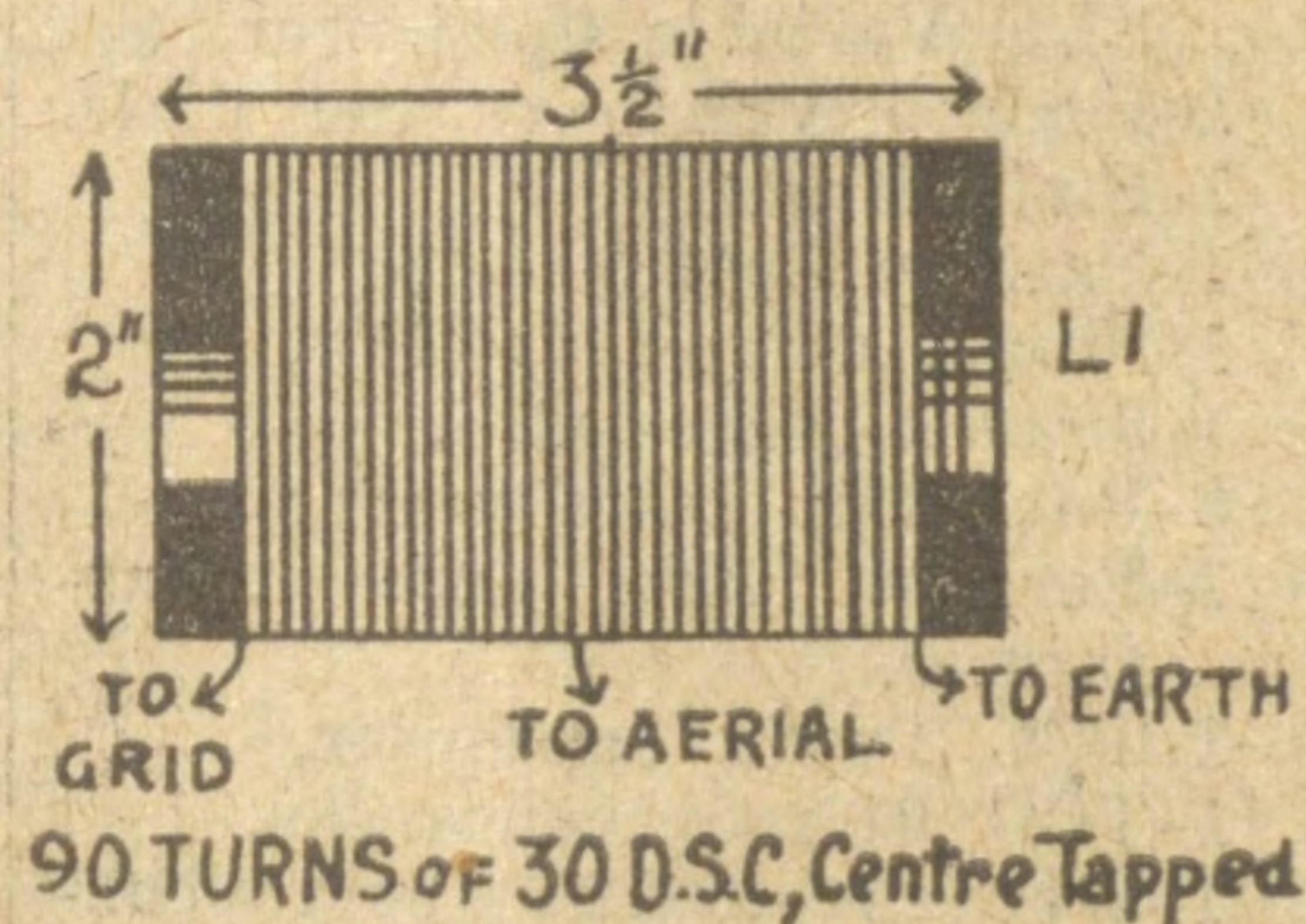
By the inclusion of a really efficient choke, the reaction control is rendered independent of these vagaries—and here the Radiokes choke excels. Following on the Marcodyne, we are now able to add a still more efficient radio frequency amplifier, with which we obtain a much higher ratio of amplification before the detector. The Tetrodyne Three will serve to introduce to "Wireless Weekly" readers one of the simplest possible methods of using the screen grid R.F. amplifying valve before a capacity controlled detector circuit. This circuit arrangement is very easy to control, and gives results vastly superior to the original Marco circuit; only one stage of audio amplification is used—and if the reader wishes, he may, without any trouble, add another in the usual way.

All should now be familiar with the Philips A442 Screen Grid valve, as its application has been clearly explained in various articles, and chiefly in the "All Empire" short wave receiver. It is sufficient to mention that it is a 4-volt valve, operative with a fairly flexible voltage

on the screening grid, and a normal maximum of 120 volts on the anode or plate. The A442 differs from the UX222 (Radiotron), both in appearance and internal construction. On the Radiotron UX222 screen grid valve, the cap on top of the valve is the control, or normal grid, with the screen grid connection taken from the terminal of the UX socket. In the Philips A442, the terminal on top of the valve itself is the plate connection, and the terminal P of the valve socket becomes the screening grid connection. Confusion should not arise with the differences in these valves, as the makers give very clear details and instructions with the leaflet in the carton. The Tetrodyne Three shows the use of the Philips A442, but it will be obvious that the UX222 may be used with a change over of connections. This little un-

imposing-looking set will give a remarkable performance, and, due to its simplicity, will provide material for "breaking ground" in connection with screen-grid valves for those who are just beginning to take an interest.

You may look upon the Tetrodyne Three as a three-valver with the heart of four or five. If attention is paid to the layout and potentials applied, the results will surprise you. The first item to consider is the coils used. They are very easily home constructed, or may be obtained direct from the Metropolitan Electric Co., Ltd., the makers of Radiokes coil kits. There are two coil units—L1 and L2. When these coils are wound, they may be mounted, as usual, on the baseboard, at right angles to each other; but, for safety's sake, in preventing instability of the R.F. amplifier, shielding should be used. Even if you make your own coils or not, the Radiokes screening cover for coils may be obtained, and the coils enclosed therein. The wiring diagram shows the coils, minus screening—but this is for the benefit of the reader in following the wiring. Fitting the coils in metal covers will immediately improve the selective qualities of the set, due to the minimisation of direct pick-up in the coils themselves. If you possess a set with screened coils, and the screens are easily removable, try lifting the screens off during distant reception, and you will hear, in most cases, interference from local stations. Replacing the screens restores the selectivity. Coil L1 is wound on a 2in. insulating former, 3½in. long. It has 90 turns of 30 D.S.C. copper wire, and is tapped at the centre, or 45th turn. It is easy to make your own former, from sheet celluloid, with the aid of a mixture of Amyl Acetate and thin cel-

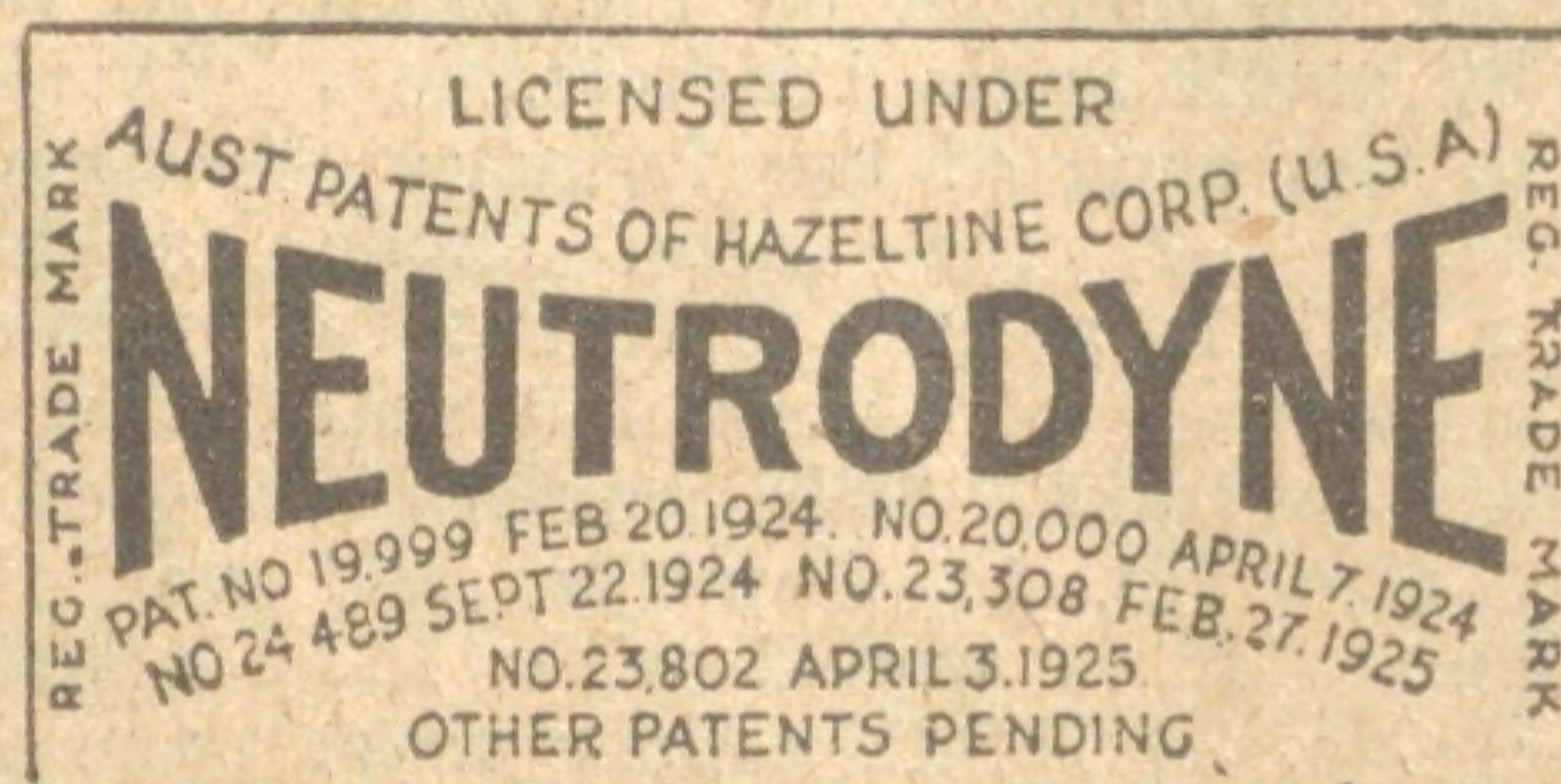


Now Additional Protection for RADIOKES Users

In addition to the protection offered to home constructors using Radiokes quality products, covered by the Famous Radiokes Perpetual Guarantee, the manufacturers have now arranged to provide for a further measure of safety.

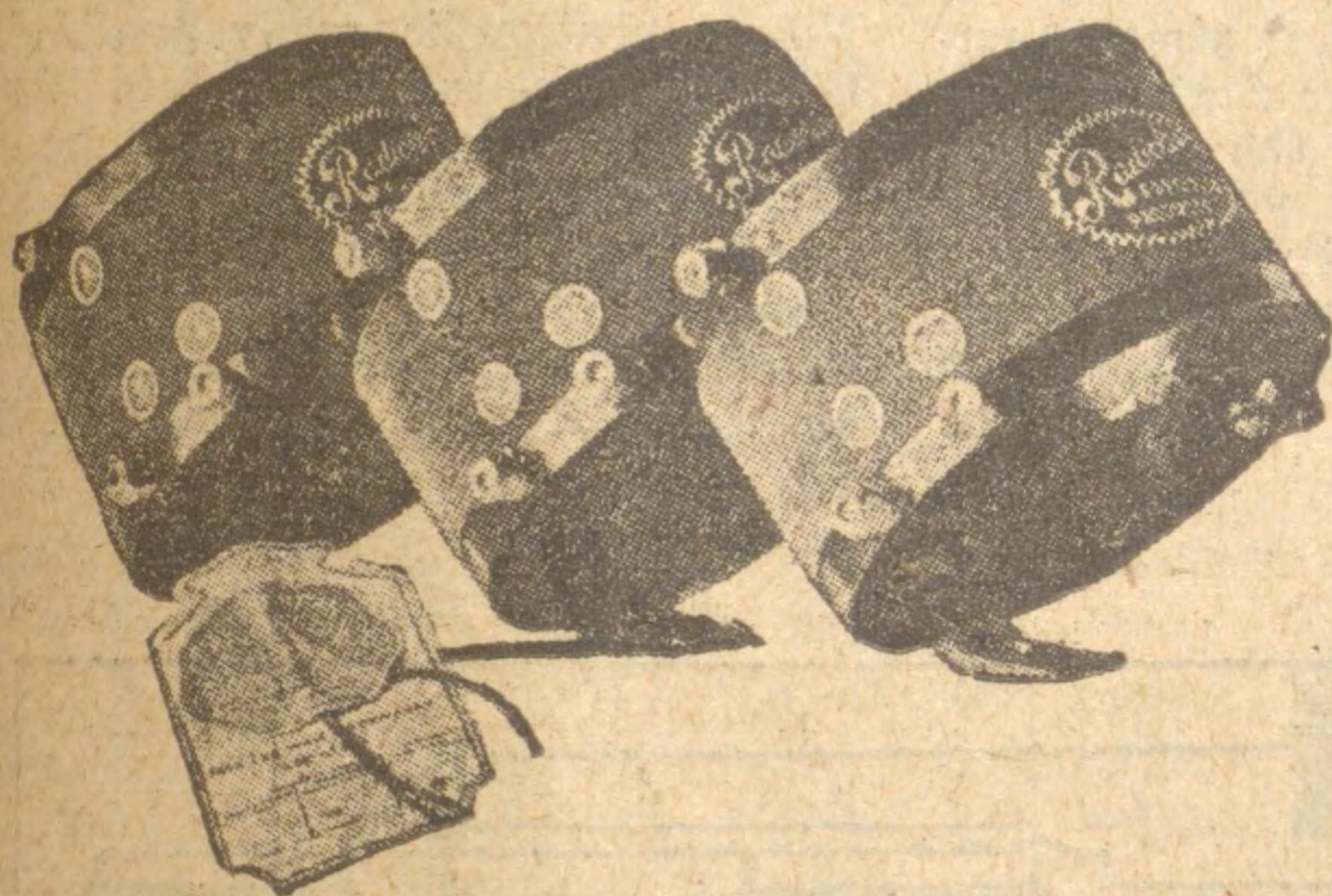
It is now a well known fact that as a result of recent Radio legislation, persons using certain "bootleg" apparatus made up into patented circuits are liable to prosecution.

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These Kits are correctly designed, and robustly constructed to make a lifetime job.

Precision in manufacture makes this kit consistent, reliable and thoroughly dependable. The coil formers consist of highly polished, best quality Bakelite, accurately machine cut to given dimensions.

The windings are carried out in brilliant green silk, covered wire without the use of any dope whatsoever, and are accurately and permanently anchored so that irrespective of time, weather, or service conditions Radiokes Master Neutrodyne Kits remain constant and retain their original characteristics.

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RADIOKES NEW NEUTRALIZER represents the last word in neutralizing devices—for use in all modern circuits, employing small variable capacities. These Neutrodons are new in design, and are completely shielded, making them particularly applicable for use in modern multistage R.F. Amplifiers.

The adjustment is easy, sensitive, and positive. Locked in position when adjusted—small in size, conveniently arranged for mounting and wiring in receiver.

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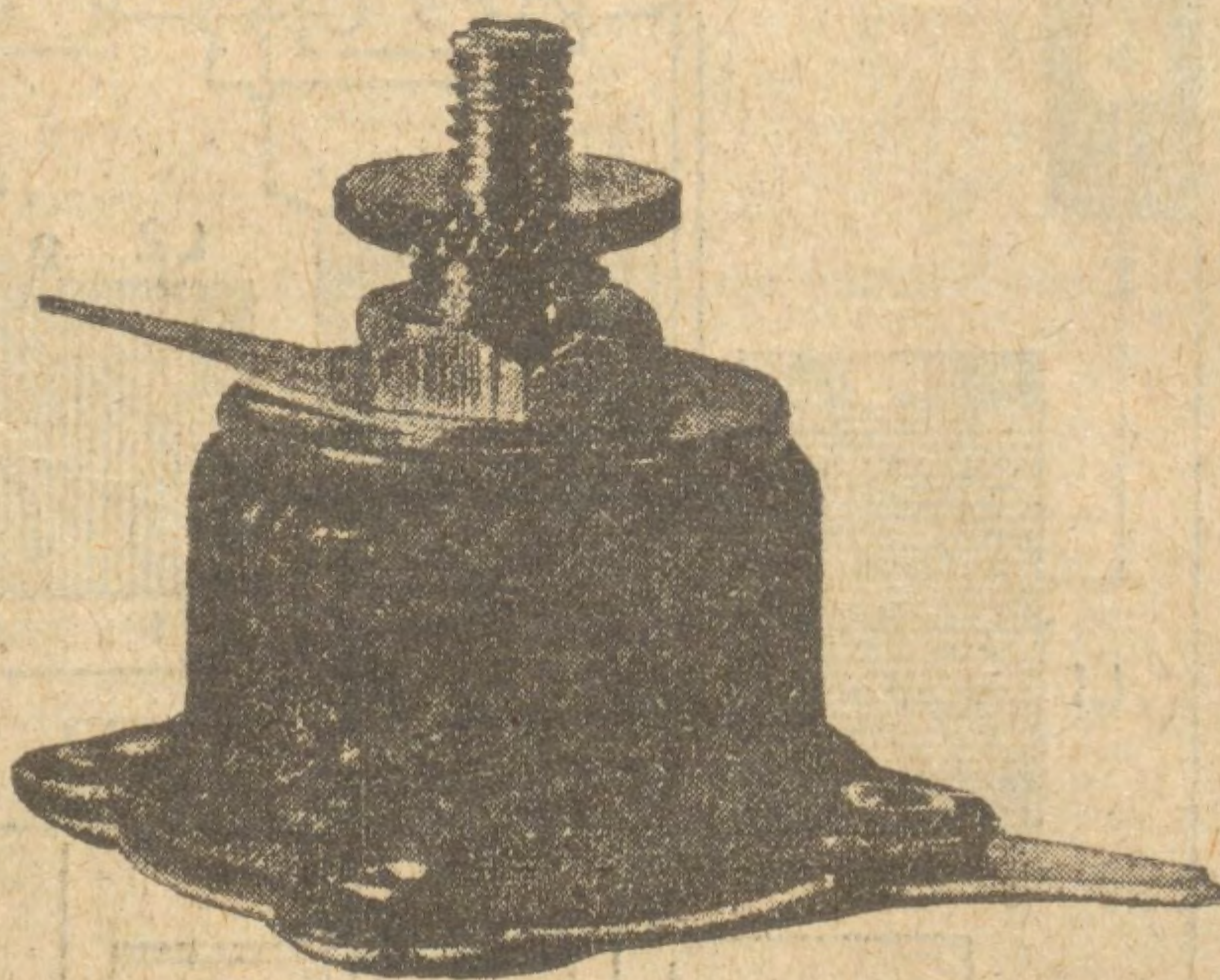
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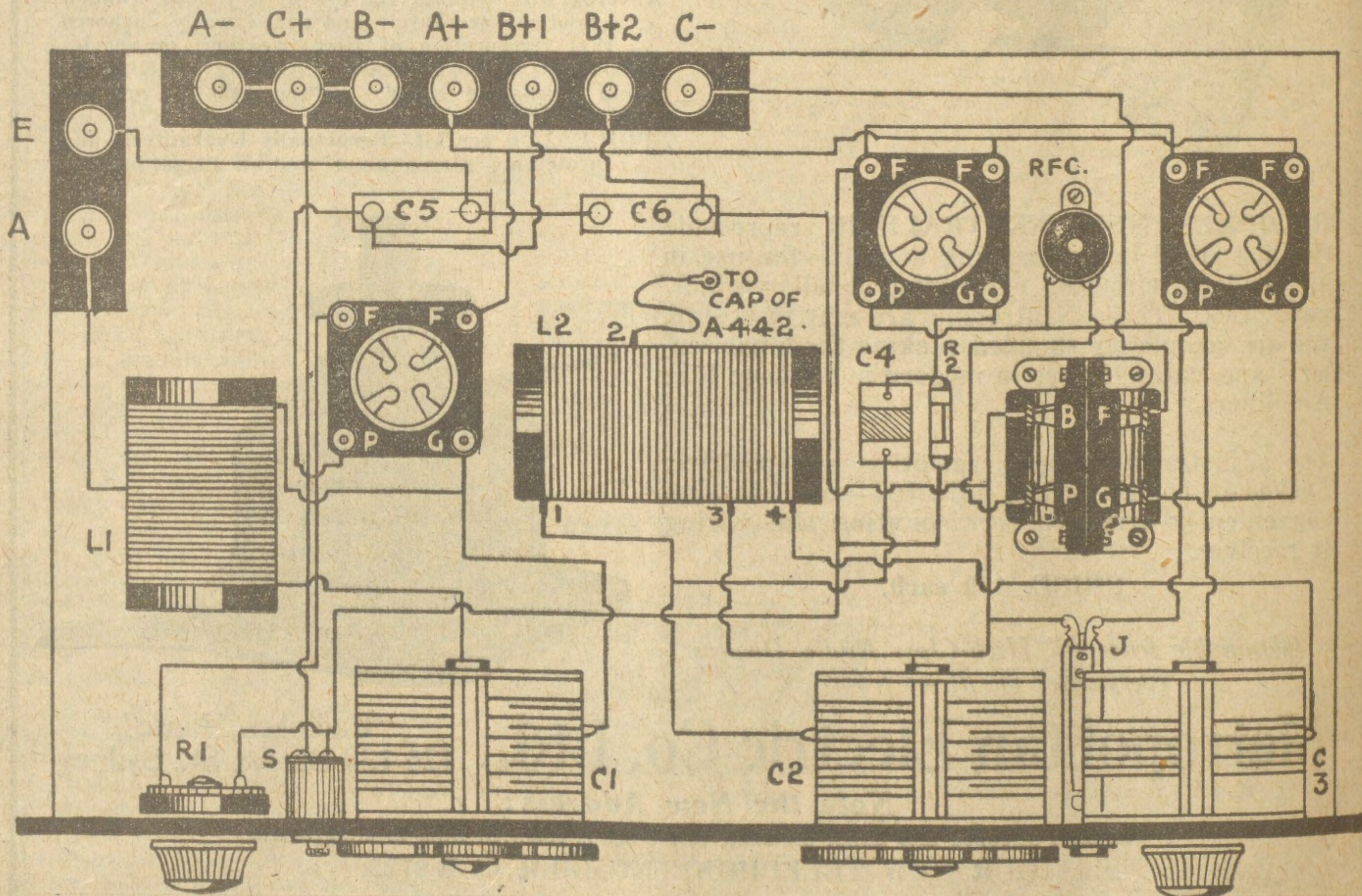
OUR NEW TELEPHONE NUMBER IS B 2722.



luloid as a cement. When the coil is subsequently wound on the former, it should be painted with the Amyl Acetate cement, to prevent the turns slipping, and to preserve against moisture. If you live a long way from the local stations, as most readers of "Wireless Weekly" do, the question of selectivity becomes a secondary consideration, and the coils may be mounted on the base-board by small angle brackets, fastened to the ends of the former as indicated. L2, the tuned anode coupling coil, is a little different to the usual scheme of things, but still very easy to make. This requires a former, also 2in. in diameter, and 4½in. long. It is wound with 125 turns of No. 30 D.S.C. copper wire, and is tapped in two places (2 and 3), at 45 and 90 turns respectively. The ends of the coils and the tapings are marked 1, 2, 3, and 4, to avoid any errors. Tap No. 2 is really a centre tap, for the tuned portion of the coil between 1 and 3; 3 is also a B voltage connection. The winding between 3 and 4 is the reaction coil, which has from 4 a .0003 mfd variable condenser, in series with the plate of the detector valve, V2—the conventional Reinartz method. The B plus supply to the plates of the R.F. and detector valves is common, and although this potential is

divided up as regards reaction by the variable condenser C3, it is important to use a special detector valve. This is one of the new Mullard PM4D valves. This valve is designed to operate as a detector, with a high or low plate voltage, and is thus particularly suitable behind a screen-grid R.F. amplifier, owing to the heavier R.F. amplification to be handled. The PM4D will pass this on to the audio stage, with an intensity which compels the single audio amplifier to be worked to its utmost capacity. It is important that a good, proved, transformer is used in this position, and, in view of the immunity from breakdown, apart from all frequency qualities, the Ferranti type AF3 transformer is the one chosen. Wireless enthusiasts should remember that it pays in the end to use only the best of components, such as you see referred to in the pages of "Wireless Weekly." The wireless set is like the automobile—"it's not the initial outlay, but the upkeep." Get an automobile of a cheap, almost unknown make, and your first expense is not by any means the last. Put poor components into your wireless set, and you are faced with intricate trouble, baffling to the inexperienced, and needing examination at regular periods by an expert. The detector

and audio valve of the Tetrodyne Three have no rheostats controlling the filaments. This is not necessary, but care must be taken that the filament supply to the set never exceeds four volts. The screen-grid valve has a 30-ohm rheostat in the negative filament. This serves in some cases as a volume control of strong signals, as well as a necessary filament control for R.F. amplification. The panel size for this set is the usual standard for a three-valver—18 x 7 x 3-16 in. The base-board is 17 x 10 x ½in. Make a template of drawing paper, corresponding to the drilling diagram, and lay it over the panel. Hold it firmly in position, and mark the positions for the various holes by the indentation of a pointed instrument, such as a fine centre punch. There are only three tuning controls—C1, 2, and 3. These variable condensers are of a good make, such as Emmco, JB, or Pilot. C1 and C2 are controlled by Emmco Velmo vernier dials, but (the reaction condenser) by a plain knob. No calibration is really possible on C3, and a vernier dial here is not necessary. The Velmo dials are obtainable in both sizes, large and small. They are particularly smooth running, and excellent for very fine tuning. The 30-ohm rheostat R1 is on the left of the panel, with the



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Below is a list of parts for building

The Tetrodyne Three

	£	s.	d.
1 Bakelite or Formica Panel, 18 x 7 x 3-16in.	0	8	0
1 Baseboard, 17½ x 10 x ½in.			
2 Emmco, Pilot, or J.B. .0005 S.L.F. Var. Condensers £1/15/- or	1	4	0
1 Emmco, Pilot, or J.B. .0003 S.L.F. Var. Condensers 16/6 or	0	12	0
2 Emmco Velmo Vernier Dials,, 15/- or	0	10	0
1 Plain Knob	0	1	0
1 Battery Switch	0	2	0
1 Single Circuit Jack	0	1	7
1 30 ohm. Rheostat	0	2	6
3 Pilot U.X. Valve Sockets	0	9	0
1 Ferranti A.F.3 Audio Transformer	2	5	0
1 T.C.C. 2 mfd. Condenser	0	9	3
1 T.C.C. .01 mfd. Condenser	0	4	6
1 Wetless .00025 Grid Condenser	0	1	9
1 Mullard 4 meg. Grid Leak, with mounting	0	3	3
1 Radiokes R.F. Choke	0	8	6
9 Terminals	0	2	3
1 Former, 2in. diameter, Bakelite, 3½in. long	0	1	9
1 Former, 2in. diameter, Bakelite, 4½in. long	0	2	3
1 16oz. Reel of 30 D.S.C. Copper Wire, per lb.	0	13	0
18 Lengths Tinned Copper Wire—insulating, sleeving, solder, etc.	0	2	6

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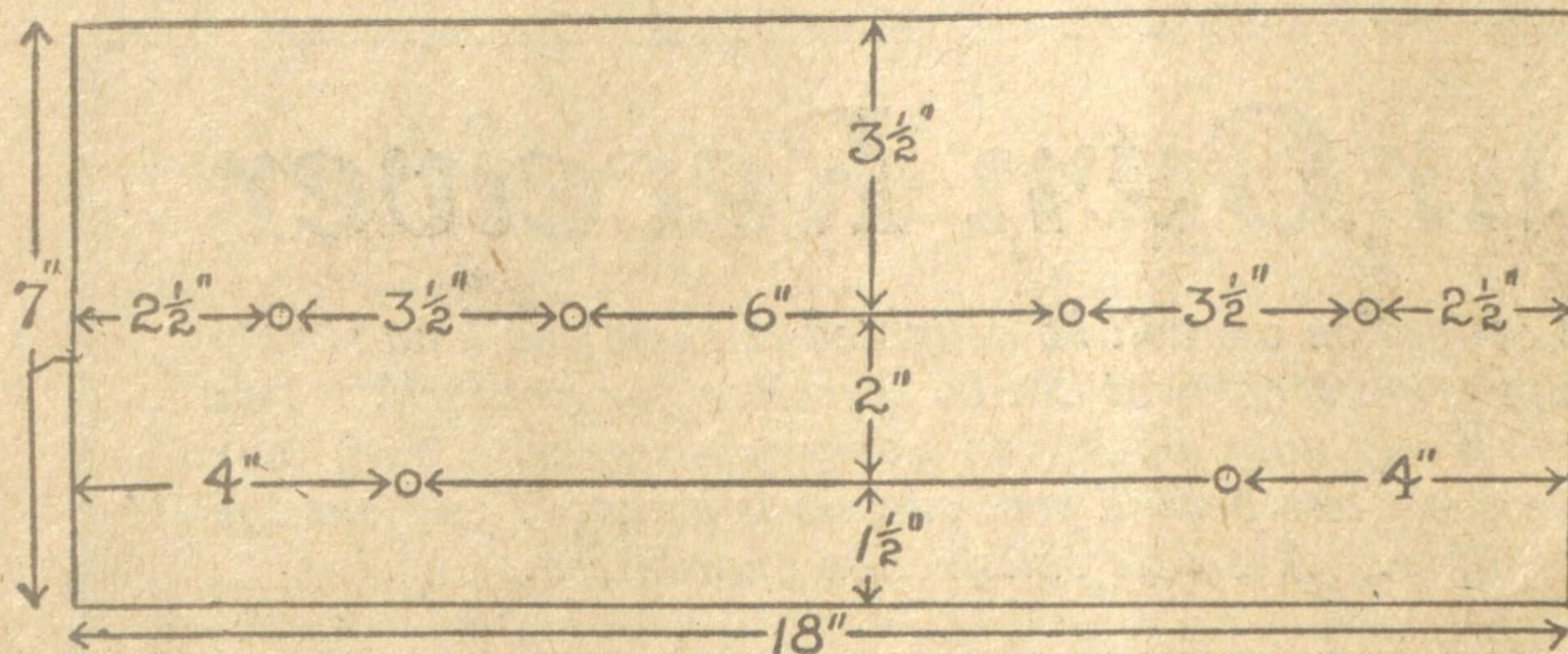
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filament switch below R1 and C1. The single circuit jack is below C2 and 3, on the right. All the panel components should be mounted first, as the spacing of the baseboard parts will then be an easy matter.

The positions of the components are clearly shown in the back of panel diagram, so there is no need to comment upon this. Nine terminals are required, and two of them are mounted on a separate bakelite strip, on the left of the baseboard, for aerial and earth. The remainder for the battery connections are arranged in the order shown. Do the wiring with No. 18's tinned copper wire, and use "spaghetti" insulation to protect the wire. Start by joining together the A negative, B negative, and C positive. One side of the by-pass condenser, C6, is also connected here.

Run a lead to one side of the battery switch, and from the other to the negative filament terminals of the valve sockets for V2 and V3. Continue from V2, and join up to one side of R1—the rotor of C1 and one end of L1, and also the earth terminal. The other side of R1 goes to the negative filament terminal of socket V1. Next connect one side of the by-pass condenser, C5, to A negative. The A positive terminal on the battery strip next links up to each A positive terminal of the valve sockets V1, 2, and 3.

Dealing with the R.F. end of the set, first join G of socket V1 to the other end of L1 and the stator of C1. Terminal P of this socket is joined to B plus 1SG terminal on the battery strip. The centre tap of L1 goes to the aerial terminal. The other side of C5 connects to B plus 1 lead also. From tap 2 of L2 (45 turns) take a length of flex wire. Solder this to the tapping. This is for the plate connection to the screen grid valve itself. Two connections are taken from tap No. 3 on L2. One goes to the stator plates of C2, and the other to B plus 2 terminal on the battery strip. This connection

also goes to B plus terminal of the Ferranti AF3 transformer (T). Next join tap 1 of L2 to the grid condenser C4, with the other side to the grid of V2, and one side of the grid leak R2. The other side of R2 is joined to the A negative supply. The remaining connection from L2 is No. 4. This goes to the stator of the reaction condenser C3, with the rotor to the plate terminal of V2, and one side of the R.F. choke (R.F.C.). The other side of R.F.C. connects to P of the transformer T. Join G of the transformer to terminal G of V3, with C negative, to the corresponding terminal on the battery strip. A connection is then taken from B of the transformer (T) to the other side of C6, and to one side of the single circuit jack (J). The other side of the jack joins to the plate of V3. This completes all wiring of the set.

You will need 120 volts in B batteries—or the set may be run from a B eliminator. As the supply is common to all three valves, 120 volts may sound a lot for the detector. I found that, with the Mullard PM4D, no trouble, with ease of oscillation control, was noticed, although some trial of various grid leaks was necessary, until the desired state of oscillation was found. A Mullard 4-meg. leak was the best value of leak. Vary the screen grid voltage (B plus 1) from 70 to 100 volts, to find the best position. In my case, it was at 92 volts. The aerial for the Tetrodyne Three need only be short—about 25-feet long. With an inside aerial, about 8 feet long, the speaker delivered 3LO and 3AR with very good volume. The tuning is the same as you now use with your Reinartz set. Locate the carrier wave with C2 and C3, and then rotate C1 until the strength increases—which it will do with suddenness. The circuit of L1, C1 tunes quite sharply. The last valve V3 may, of course, be any good power valve, with the requisite grid bias. Any of the following are excellent:—Osram DEP 410 (or Marconi), Cossor (Stentor) 410P, Six-

Sixty 410 SP, and Mullard PM4. If you do have any trouble with oscillation control of the detector, then try a separate B voltage for this—but, normally, the control should be smooth.

The Tetrodyne Three is easy to build, and use. Its performance, as it stands, is better than any of the usual R.F. Det. and two audio combinations. If you wish to add another audio stage, be sure you use a good quality transformer. Another Ferranti AF3 will be suitable. The loud-speaker, with which this set was tested, is a Ferranti, of the exponential horn type.

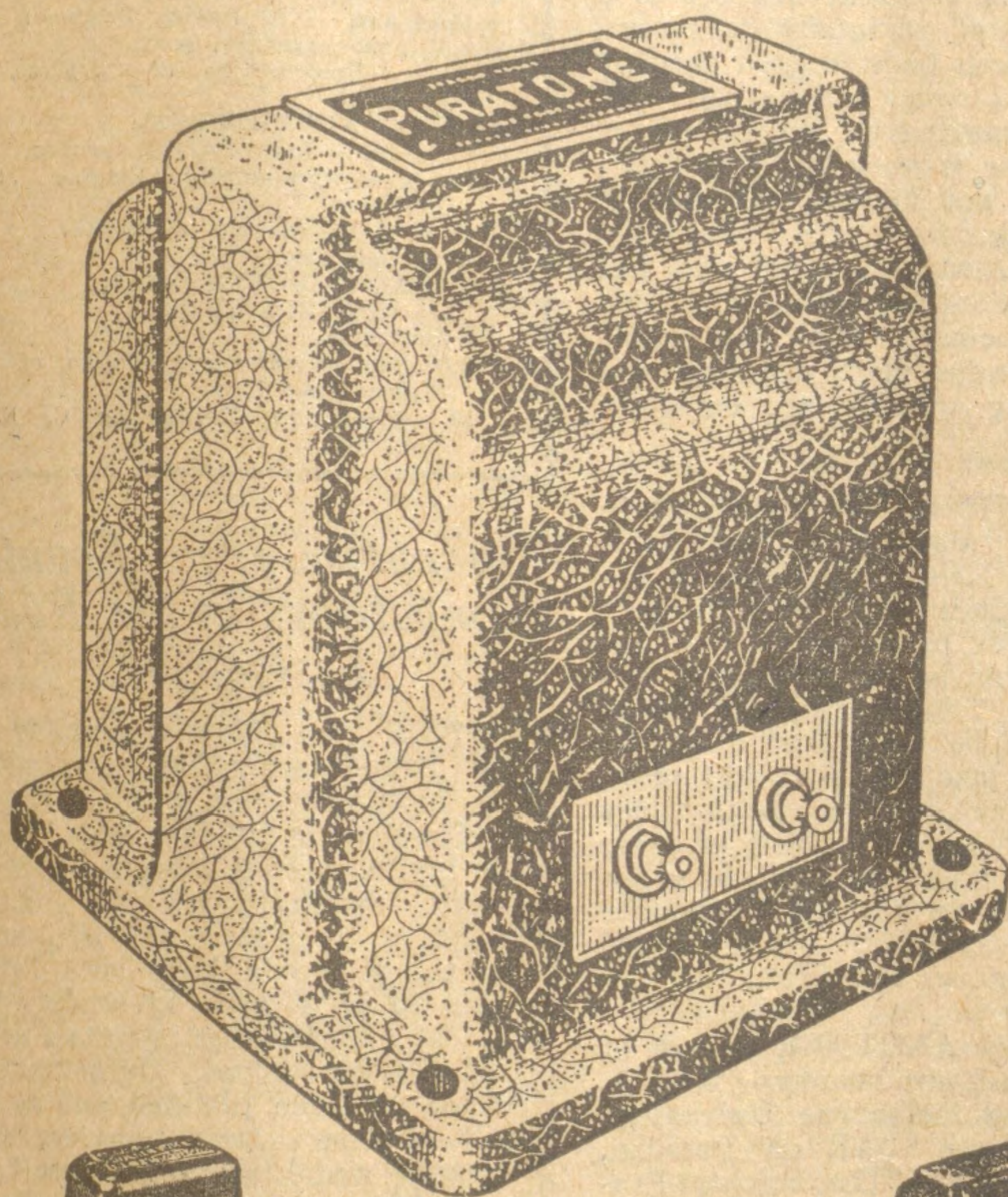
Breakfast Music from 8,000 miles away.

THE remarkable success of Station 2FC's recent short-wave transmission is exemplified in an interesting communication received recently from Mr. E. H. Walker, of All-American Cables, Lima (Peru). Mr. Walker, a Sydney man, reports that he heard 2FC very clearly on the short-wave transmissions during the Eucharistic Congress. "We got news by cable that this Congress would be broadcast on short wave," writes Mr. Walker, "and, with difficulty I must admit, I turned out of my warm bed at 6 a.m. on Thursday, September 6th, and, before my wife could prepare the morning tea (we still maintain our Australian habits!) I got a welcome carrier wave, on 28.5 metres. A few minor adjustments, and the first word that was audible was 'Australia.' A finer adjustment brought in a voice that I recognised as that of the 2FC announcer, whom I heard in Thirlmere in December, 1926, whilst we were on furlough. His expression, 'Can you hear the crowd cheering?' took me back to Aussie, listening to the broadcasting of the swimming races between 'Boy' Charlton and the Japs."

Later on, on Friday, September 7th, Mr. Walker tuned in at midnight (3 p.m., Saturday, in Sydney), and again was successful in picking up the short-wave transmission. He goes on to describe the noise of the 'planes flying over the city on the day of the great procession, and, so clear was the announcer's voice, he connected up the loud-speaker, and got him quite distinctly. Mr. Walker urges regular times daily for short-wave broadcasts, and is of the opinion that residents of Lima (which is 15 hours behind Sydney standard time) ought to be able to have orchestral music from Sydney, 8,000 miles away, for breakfast.

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The boom of the drum, the wail of the saxophone, coming in full and round and clear.

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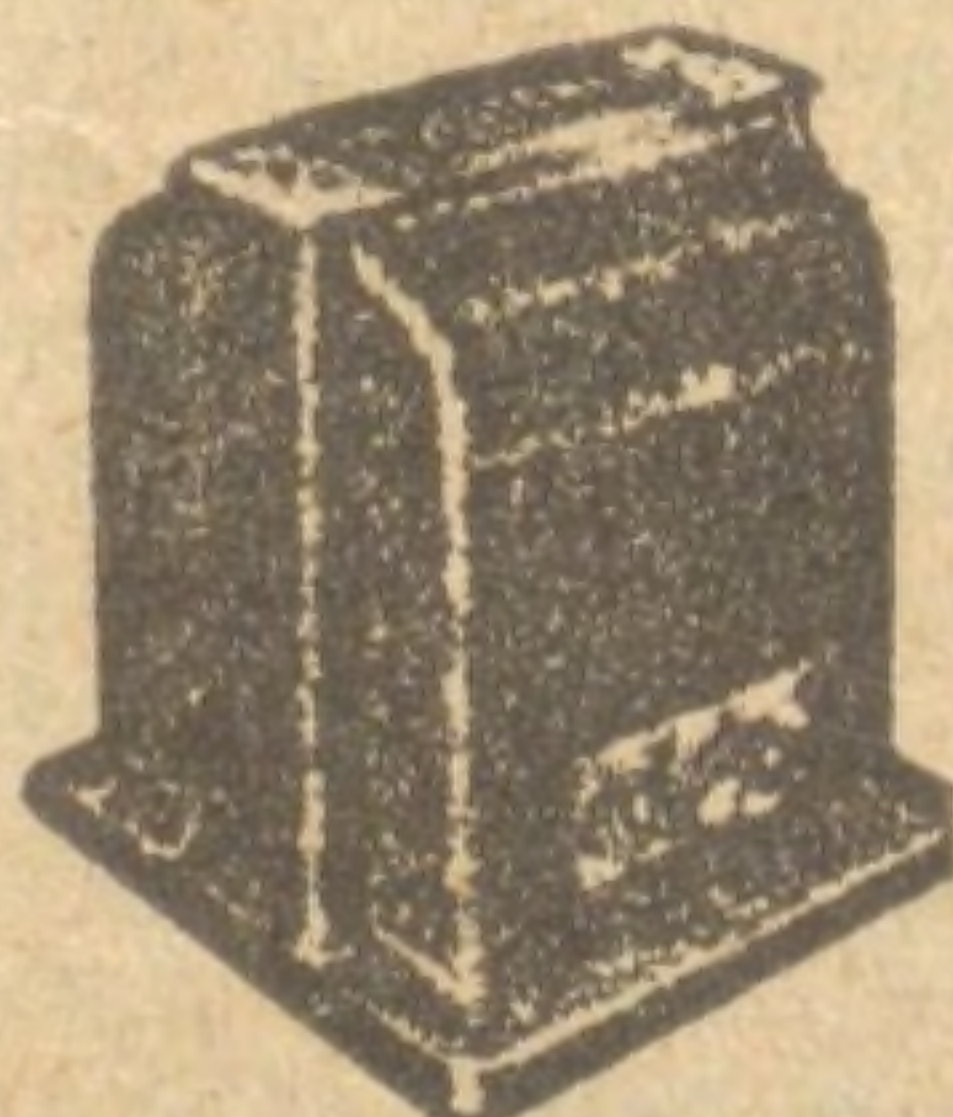
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MELBOURNE

New 3AR Features.

AN EXCELLENT programme is being broadcast from 3AR on Tuesday, November 20, in which the Second Act of the "Desert Song" will be included. Among the many good things in the second part of this alluring musical play, which is drawing crowded houses to His Majesty's, is the haunting "One Alone" sung by Lance Fairfax, and which causes a furore nightly.

MANY LISTENERS still continue to take full advantage of the series of excellent dancing lessons broadcast from 3AR by Miss Kathleen Lascelles, the popular Melbourne teacher of dancing, who is carefully piloting her pupils from the simple rhythm of the waltz, to the more intricate steps of the "blues." These talks are all illustrated by music, and the clear instructions used in conjunction with simple dance tunes, make her lessons particularly interesting and easy to follow.

WILL DAVIES, whose fine resonant bass voice is particularly adapted to the vagaries of the microphone, will be heard from 3AR on Saturday, November 24, in some typical bass numbers, including "Sea Fever" and "The Skippers of St. Ives." Mr. Davies, whose voice is one of the few true basses heard over the air, won the Champion Bass Solo of New South Wales a few years ago, also carrying off the Silver Cup in an open vocal championship. He has had much experience, both in Opera and Oratorios, and, as a member of the Lyric Male Quartette, is well known in the Melbourne Concert and Social world.

FINAL ARRANGEMENTS have been made by 3AR to broadcast the performance of "Cosi Fan Tutte," which is being staged at the Playhouse by the Melba Conservatorium Opera Co. under the direction of Fritz Hart. The production of this Opera, which is new to Australia, is regarded as quite an event in musical circles. Many Listeners will doubtless be glad to tune in on Wednesday, November 21, and avail themselves of the opportunity of hearing a new Mozart Opera. The entire production is in the hands of Fritz Hart, who is responsible for the "Week of Opera" staged every year by the Conservatorium Opera Co., and a performance of all round excellence and balance may be anticipated.

IN HONOUR of the Schubert Centenary, a studio presentation of that fragrant play "Lilac Time" will be given from 3AR on Saturday, November 24, under the direction of William G. James. The principal soprano role of Lilie will be portrayed by Saffo Arnov, and John E. Sullivan will be heard in the part of Schubert.

THE PERIODICAL talk on gardening given from 3AR by Mr. H. A. Brown proves of great interest to a large army of amateur gardeners, who are anxious to have their gardens a wealth of bloom and beauty this season. Regarding the cultivation of flowers, there is very little that Mr. Brown does not know. His gladioli farms at Burwood are celebrated throughout Australia, and he has carried off countless prizes with his beautiful blooms. His seasonable hints are always most welcome, and all gardening queries are carefully answered.

KEEN INTEREST is still shown in the "Stamp Talks" given from 3AR by Mr. A. G. Kelson, President of the 3AR Stamp Club, which now numbers some hundreds of members, and has representatives in all corners of the world. Few things are more interesting to the initiated than a discussion on rare prints or first editions—whilst the exchange of stamps does much to promote an interest in other countries. The next talk will be given by Mr. Kelson on Tuesday, November 20, and interested Listeners are asked to make a note of this date.

TOUCHING ANOTHER aspect of his American Tour, Professor R. J. A. Berry, of the Melbourne University, will speak from 3AR on Tuesday, November 20, on "The Prickly Problems of Prohibition—its dry or historical side." From time to time enthusiastic "white ribboners" in our midst are apt to advocate the introduction of total prohibition at all costs—"like the Americans" without devoting much thought to the side issues of the question. In his talk, Professor Berry will endeavor to look at the subject from many angles, and it will be interesting to follow his philosophical deductions on the subject.

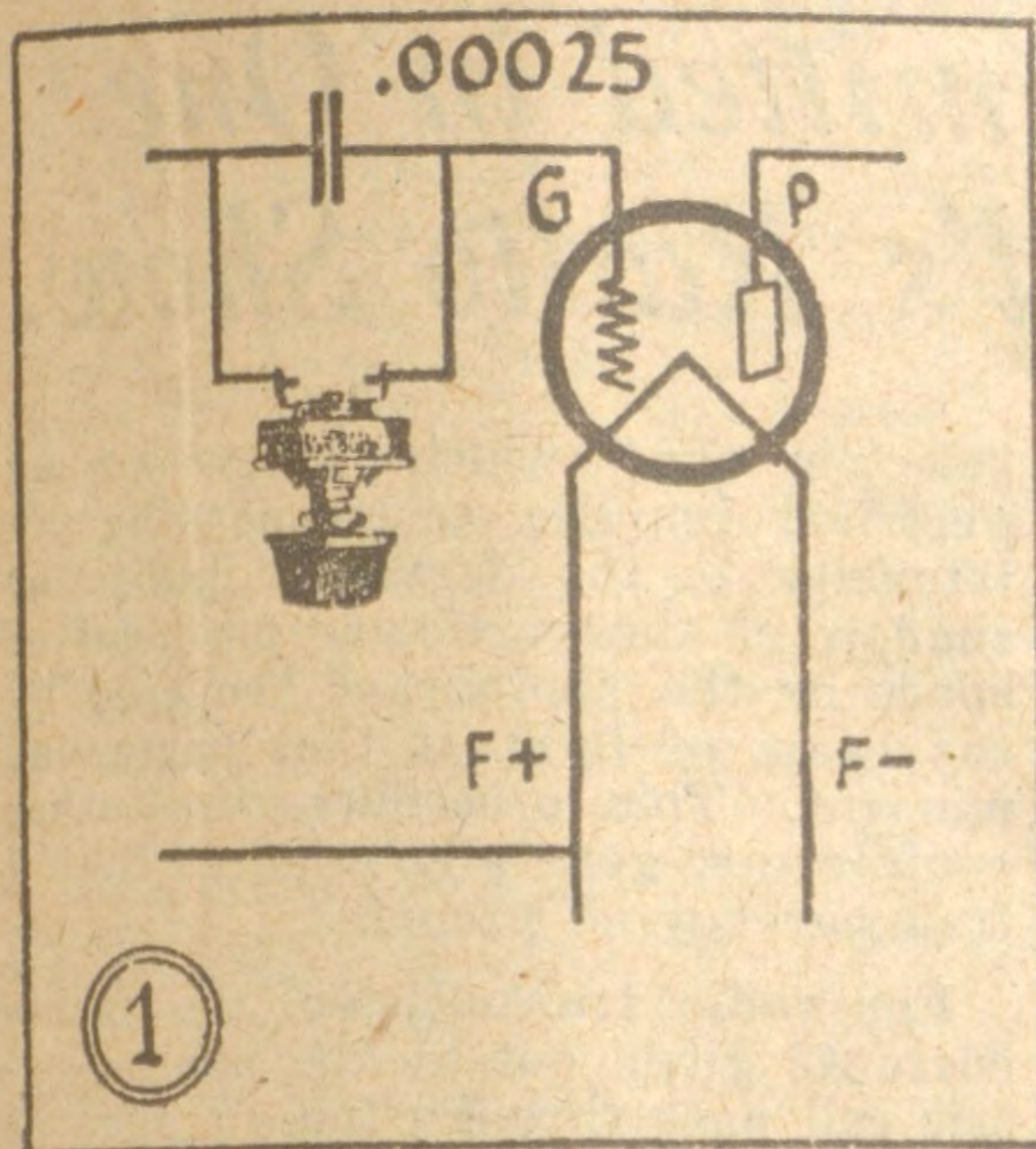
LISTENERS ARE requested to note the number of the G.P.O. Box of the New South Wales Broadcasting Company, Limited, to which it is asked all correspondence be directed, viz., Number 3934V.

Extracts from 3AR's Programmes

SUNDAY, NOVEMBER 18:
11 a.m.—Morning Service from St. Paul's Cathedral.
7 p.m.—Cairn's Memorial Church, Schubert Centenary.
9.17 p.m.—J. Howlett Ross: "Great Australians."
MONDAY, NOVEMBER 19:
12 noon.—Ettie Coe, contralto.
Night—Radi-O-Aces: Dance Session.
8.50 p.m.—Alan Adecock, Entertainer
TUESDAY, NOVEMBER 20:
5 p.m.—Sonora Recital.
8.57 p.m.—Professor Berry: "Prohibition."
9.30 p.m.—Second Act of "The Desert Song."
WEDNESDAY, NOVEMBER 21:
11.54 a.m.—Ida and Lorayne Wright.
7.30 p.m.—Kathleen Lascelles: "Art of Dancing."
8 p.m.—Mozart's "Cosi Fan Tutti."
THURSDAY, NOVEMBER 22:
11.54 a.m.—Will Davies, Baritone:
8.30 p.m.—Austral Quartette.
9 p.m.—Presentation of "Orpheus," by Gluck.
FRIDAY, NOVEMBER 23:
11.10 a.m.—Julia Russell, Soprano.
8.15 a.m.—Community Singing at Malvern.
10.30 p.m.—Austral Quartette: "Indian Love Call."
SATURDAY, NOVEMBER 24:
11.15 a.m.—Rita Hilton: Soubrette.
8.30 p.m.—Studio Presentation of "Lilac Time."
10 p.m.—Organ Recital by C. E. Monteath.

Enterprise from Country Competitors in the Radio Eisteddfod.

WHEN the New South Wales Broadcasting Company Limited, in co-operation with the "Evening News" and "Sunday News" decided to invite entries from residents in country districts for the Radio Eisteddfod, it was hoped that sufficient talent would have been forthcoming to have justified sending the trial test Adjudicators to quite a number of country centres. Unfortunately this has not been justified, and as the result of the entries received, only Newcastle and Lismore districts have given sufficient support to make it possible to hold local trial tests. It has now been arranged to hold trials at Lismore on Thursday, November 8th, and at Newcastle on November 11th. Competitors who are to appear at these centres will be written to and given full details. Those who have entered from other districts, to which it is impossible to send an Adjudicator, have been written to and asked whether they would care to make a journey to Sydney on any day till the 18th November, when their tests will be carried out. The Eisteddfod in some sections has now reached the stage in which semi-finalists will appear on the air, and the first batch of these are now appearing from station 2FC.



BECAUSE a .00025 mfd. condenser and a 2 megohm grid leak are generally specified in connection with valves used as detectors, it has become a religious belief that these values are correct and beyond reproach. Yet any one who has done a bit of experimentation soon arrives at the conclusion that the grid leak may run anywhere from $\frac{1}{2}$ to 8 megohms, depending on the valve, the circuit and the signal strength, while the grid condenser may give better results when of .001 mfd. capacity than the dogmatic .00025 mfd. However, the condenser is not as critical in its contribution towards better radio results than the grid leak, hence we shall confine ourselves to the latter.

With the usual three-element valve there are two methods of obtaining detector action, namely: (1) by means of a bias or C battery, which is rarely employed; and (2) by means of a grid leak, which is the popular method. The grid leak method is more sensitive than grid bias detection. However, marked distortion may take place with this method on powerful signals, unless the resistance value of the grid leak is materially reduced. Thus for distant reception, or the detection of weak signals, grid leak

Why Precise Grid-leak Values?

By Charles Golenpaul.

values as high as 5 megohms may be employed, with surprising increase in loud-speaker response, while on local and powerful signals, the grid leak value may be reduced to 2, 1 or even $\frac{1}{2}$ megohm, with ample loud-speaker volume accompanied by greater selectivity and absence of distortion.

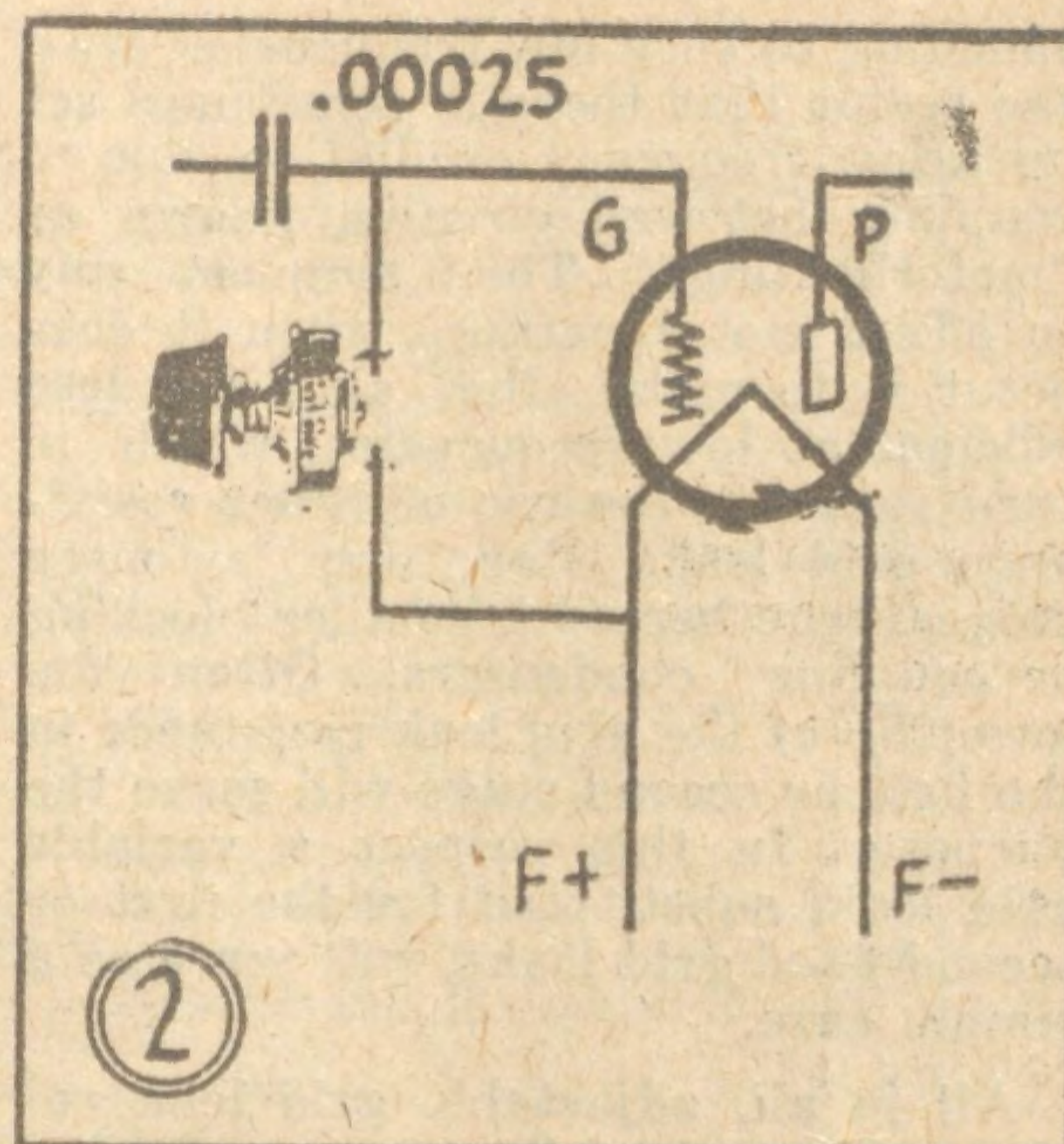
With the introduction of the grid leak clarostat, representing a resistance range of from .1 to 10 megohms, with precise adjustment and permanent resistance of any value, it becomes possible to place the grid leak function on the same precision basis as capacity or inductance in the radio circuit. Noise, heretofore the ban of variable grid leaks, has been entirely eliminated.

A typical grid leak and grid condenser arrangement, using a variable grid leak for obtaining precise detection under any given conditions, is shown in Fig. 1. The grid condenser may be of .00035 to .001 mfd. capacity, with satisfactory results.

In some circuits it is desirable to change the conventional location of the grid leak from across the grid condenser to a point between grid and grid return, as shown in Fig. 2. In this case the variable grid leak is simply shunted across the G and F plus terminals of the detector tube socket.

The heater type A-C valve requires a critical grid leak for best detection. The value is not known without trial, as valves and other conditions vary widely. Certain A-C valve manufacturers recommend trying several values between $\frac{1}{2}$ megohm and 9 megohm. With the variable grid leak, however, it becomes possible to determine the correct value. The most satisfactory arrangement is shown in Fig. 4, and not across the grid condenser as in usual practice. The variable grid leak in this case also acts as a satisfactory volume control and eliminates the need for a separate device for this purpose.

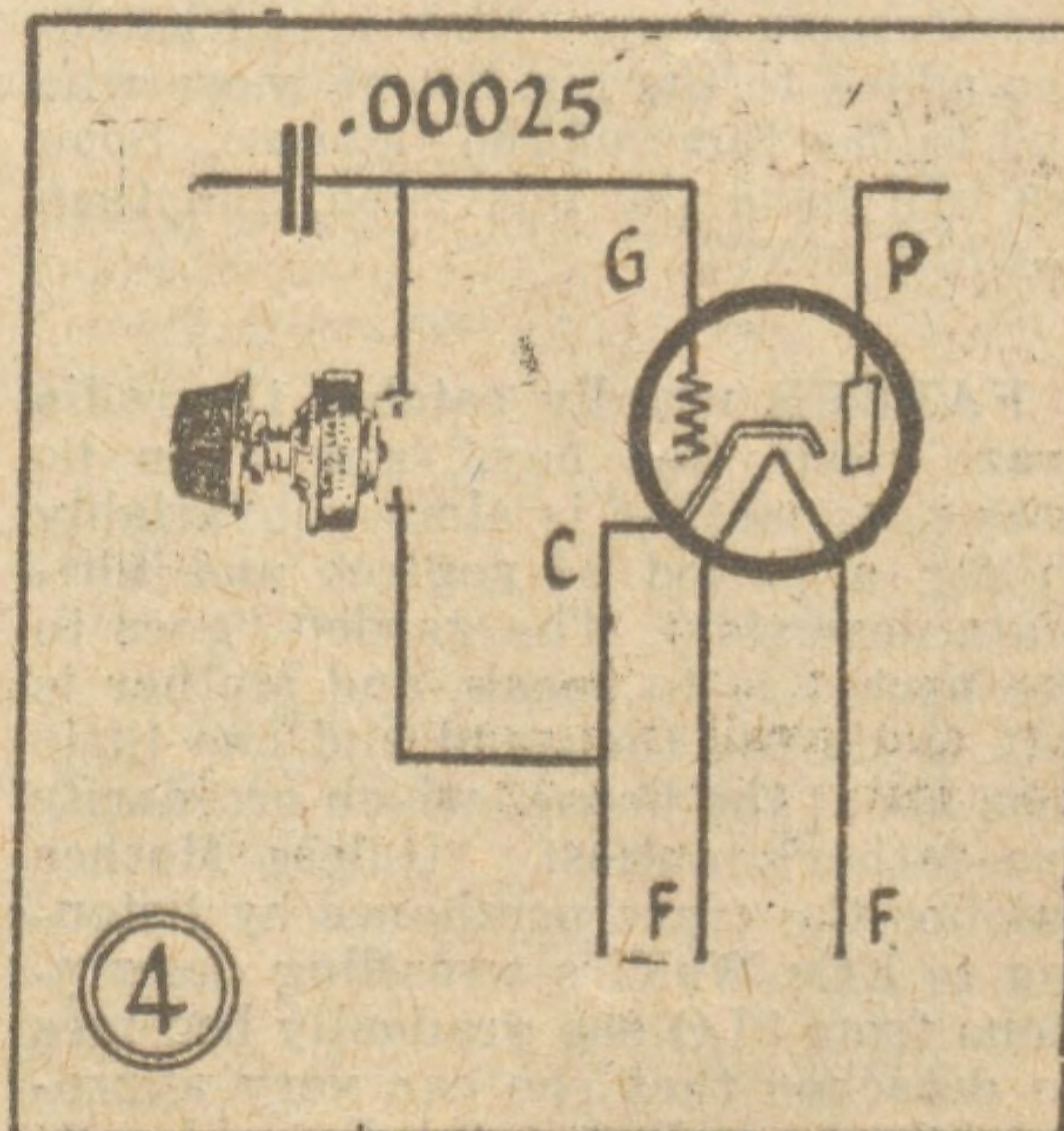
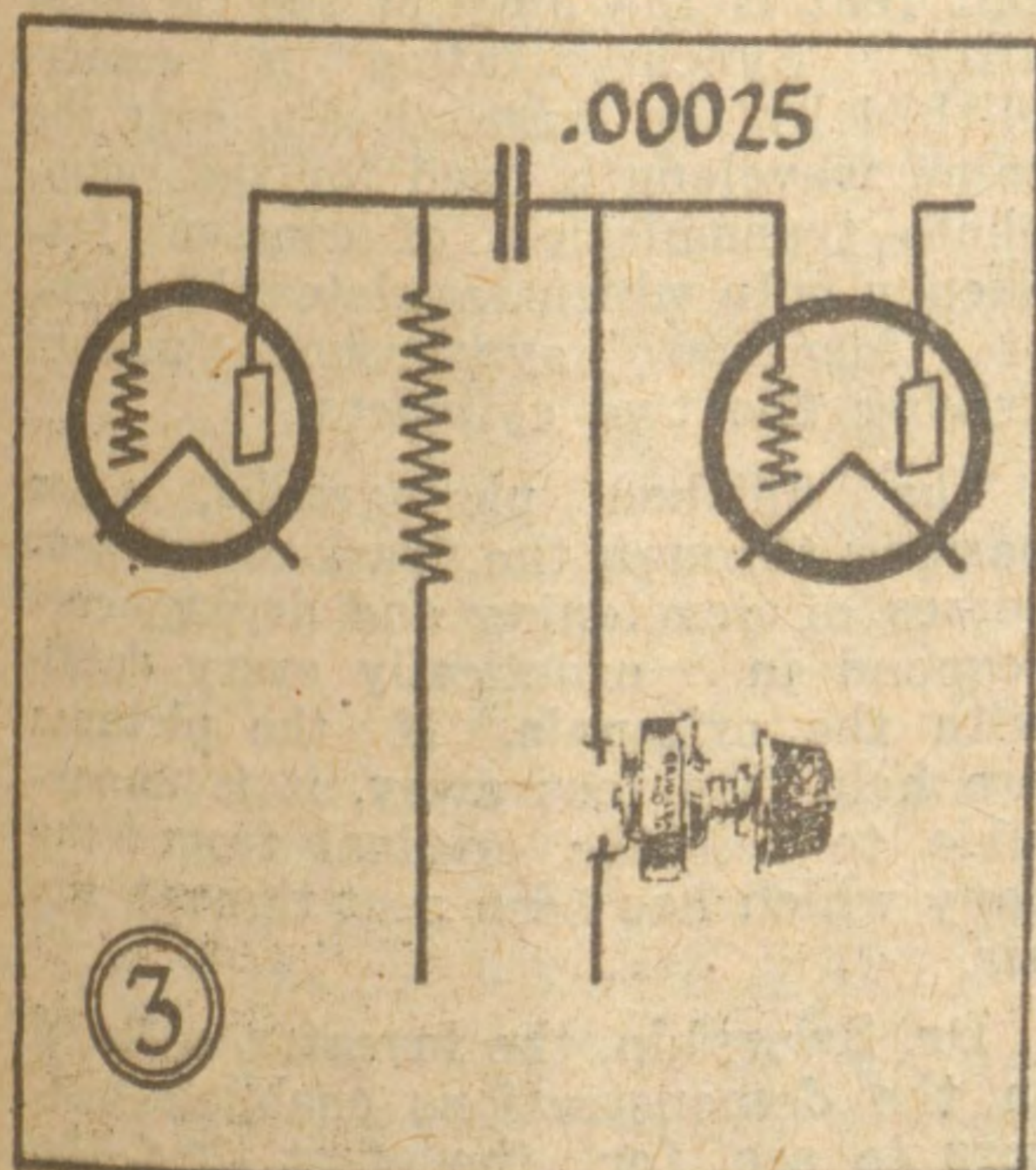
In short-wave reception, whether relay broadcasting or code, the grid leak is quite critical in value. Experimenters report trying as many as 50 grid leaks before the satisfactory value has been found. The best value is usually between 4 and 8 meg-



ohms. With a satisfactory variable grid leak, however, any and every value is instantly available, and when the best value is found it may be left permanently in circuit. In the case of the grid leak clarostat, the lug insulated from the shell should be connected to the grid of the valve, and the shell to the F plus detector socket terminal. This is a better arrangement than connecting the leak across the grid condenser, because when the shell is grounded to the tube filament no hand capacity effect is introduced.

Aside from the detector, the grid leak has an important function to serve in resistance and impedance coupling. While the plate coupling resistance usually is not critical, the grid resistor is of considerable importance. By means of precise resistance of grid leak it becomes possible to employ larger coupling condensers, therefore passing lower frequencies for the desired bass notes, while effectively preventing blocking or choking by lowering the grid leak resistance. The use of a variable grid leak in resistance coupling is shown in Fig. 3. In impedance-coupling the arrangement remains the same.

It is well to note in passing that resistance coupling is capable of re-



sponding to very low frequencies, with the result that there is sometimes set up a low-frequency oscillation, due to coupling between circuits, known as "motorboating." The simplest way to offset motorboating when it does occur is to make the amplifier less efficient at low frequencies, which in turn suggests the use of lower resistance grid leaks for one or more stages, together with smaller blocking or coupling condensers. Often the lowering of the grid leak resistance in the first or second stage will serve the purpose. In this respect a variable grid leak, substituted for the first or second fixed grid leaks, will serve as a simple cure.

All in all, adjustable grid leak resistance is virtually a necessity in any circuit for which maximum efficiency is a prerequisite.

Random Radioalities

REFERENCE was made lately in an American Journal to the fact that the programmes of one of the largest broadcasting stations in the United States were prepared always a fortnight ahead. It may interest listeners to know that the elaborate daily programmes of 3LO and 3AR Melbourne are not only prepared and printed, but are actually released to overseas papers about three weeks in advance. This, of course, entails a most exacting and comprehensive organisation, and despite the many difficulties of arranging items so far ahead it is surprising with what clock-like precision the programmes work to time.

ONCE UPON a time press interviewers were the only people apart from social moths who sought the glamour of famous people. With the advent of photographic illustrating the camera man joined the reporters. Then the cinema blossomed and the movie "shooter" came along with his cumbersome gear. Now broadcasters are added to the big list of those who add to the fame of the famous. Soon we will have the television, and then—what next?

FATHER usually catches the radio craze from "the boy," and when he does poor mother is almost invariably in for a period of neglect and ultimate desertion. The garden "goes to the pack," so to speak, and Mother is left to do the thousand and one little jobs about the house, which ordinarily are father's duties. Unless Mother catches the craze perchance by listening to Eric Welch's wrestling descriptions from 3LO she gradually becomes so detached that she can very appropriately be called a "radio widow."

Pictures Transmitted in One Minute at World's Radio Show.

A RADIOPHOTO apparatus capable of picking electrical impulses out of the air and converting them in less than one minute into a complete photograph was demonstrated publicly for the first time during the Radio World's Fair, held in New York last month.

This apparatus, developed in the research laboratories of the Westinghouse Electric and Manufacturing Company, has been used with marked success many times in recent weeks in experimental transmissions over short waves from Station KDKA at East Pittsburg, Pa.

Because of the difficulty of securing radio wave channel assignments, the demonstrations at Madison Square Garden was carried on with the use of wires, rather than air channels, for the transmission of the pictures. Westinghouse engineers state, however, that the equipment functions equally as well by radio as by wire within the limits of fading and static familiar to the broadcast listener.

Even in the field of transmitting pictures by wire, it is said, this new equipment is superior to any that has yet been developed, for the reason that it requires less than one minute to build up a photograph five inches by eight inches in size, whereas other sets take between four and five minutes for the same operation.

Unlike most other radiophoto and telephoto equipments, the new Westinghouse apparatus employs standard photographic processes for making pictures. Its pictures are made by the exposure of sensitized paper to light, in exactly the same way pictures are customarily made in photographic studios.

The Westinghouse radiophoto apparatus is the product of research and development work carried on by Dr. Vladimir K. Zworykin, research engineer, over a period of several months.

In addition to ordinary short wave transmitting apparatus, the new radiophoto system uses three principal pieces of equipment: a sending set, a receiving set, and a "synchronizer."

In the sending set, an ordinary photograph or manuscript is placed on a cylinder which rotates slowly and at the same time moves forward longitudinally. In this way, every point on the picture comes within the range of a tiny beam of light. By a system of mirrors, the beam of light is reflected at an angle from the photograph to a photo-electric cell, or

"electric eye," which gives out an electrical impulse corresponding in intensity to the degree of light or shadow of the particular pin-head of space on the photograph covered by the beam of light at that particular moment. This procedure, in other equipments, generally requires that a transparency be prepared.

For radio transmission, the feeble currents given out by the photo-electric cell pass through three stages of amplification and then go by wire to the radio broadcasting station, which may be located a short or long distance from the radio-photo sending set. There the light waves, already converted into electricity, go out into the ether in the form of radio waves. At KDKA, the short-wave 63-meter channel was used.

At the receiving end, which could be situated anywhere within the effective range of short waves, a standard short wave receiving set is used to pick the impulses out of the air. The impulses are carried to a special lamp, which flickers according to the fluctuations in intensity of the current. The light from this lamp is focussed into a tiny beam which plays on a cylinder moving in the same ways and at the same speed as the cylinder at the sending end. This cylinder is covered with sensitized paper, and as the light falls on it with varying brightness, a series of impressions of varying degree are made on the paper, which, when "developed," present facsimile of the picture placed on the sending cylinder.

An essential feature of this system is that the cylinders at the sending set and at the receiving set rotate and move forward at exactly the same speed. To accomplish this very difficult feat is the duty of the "synchronizer." Synchronization is accomplished by the transmission, over the same wavelength used for the radiophoto transmission, of constant frequency note which regulates the speed of identical synchronous motors driving the two cylinders.

The finished photographs, after passing through the "dark-room" processes of developing and drying, correspond in practically every detail with the originals. If the pictures are held two feet away, it is impossible to tell the original from the copy which has been sent through the air.

Dr. Zworykin, the inventor, assisted in the demonstrations enabling visitors to see, for the first time, the actual operation of radiophotography.

Broadcasting Stations

AUSTRALIA.

New South Wales. Metres. Watts.		
2FC—N.S.W. B'casting Co., Ltd., Market St., Sydney	442	5000
2BL—N.S.W. B'casting Co., Ltd., Market St., Sydney	353	5000
2GB—Theosophical B'casting, 29 Bligh St., Sydney	316	3000
2KY—Trades and Labour Council, Goulburn St., Sydney	280	1500
2UW—Radio House, 213 Eliza- beth St., Sydney	267	500
2UE—Electrical Utilities, Ltd., 619 George St., Sydney	293	250
2MK—Mockler Bros., Hawick St., Bathurst	275	250
2HD—H. A. Douglas, King St., Newcastle	288	100
2BE—Burgin Electric Co., Ltd., 340 Kent St., Sydney	316	100
Victoria.		
3LO—Dominions B'casting Co., Ltd., 120a Russell St., Melb.	371	5000
3AR—Dominions B'casting Co., Ltd., 120a Russell St., Melb.	484	1600
3UZ—O. J. Nilson & Co., Bourke St., Melb.	319	100
3DB—Druleigh Business College, Melb.	255	500
Queensland.		
4QG—Queensland Govt. Radio Service, Brisbane	385	5000
4GR—Gold Radio Service, Mar- garet St., Toowoomba	294	100
South Australia.		
5CL—Central B'casters, Ltd., 59 Franklin St., Adelaide	395	5000
5DN—5DN Pty., Ltd., 2-4 Mont- perier St., Parkside	313	500

Metres. Watts.	
5KA—Sport Radio Ltd., 51 Kin- tore Ave., Prospect	250 1000
Western Australia.	
6WF—Westralian Farmers Ltd., 569 Wellington St., Perth ..	1250 5000
Tasmania.	
7ZL—Tasmanian B'casters Ltd., 95 Elizabeth St., Hobart ...	535 3000
NEW ZEALAND.	
1YA—Radio B'casting Co. of N.Z., Karangahope Rd., Auk.	333 500
2YA—Radio B'casting Co., Wel- lington	420 5000
3YA—Radio B'casting Co. of N.Z., Christchurch	306 500
4YA—Radio B'casting Co. of N.Z., Dunedin	463 750
GREAT BRITAIN.	
2LO—British B'casting Co., Savoy Hill, London	361.4 3000
5XX—British Broadcasting Co., Daventry	1604.3 5000
	-10000
UNITED STATES OF AMERICA.	
KDKA—Westinghouse Elec. and Mfg. Co., East Pittsburg, Pa.	315.6 50000
KFI—Earle C. Anthony Inc., 1000 So. Hope St., Los Angeles	468.5 5000
KGO—General Electric Co., Oakland, California	384.4 5000
KOA—General Electric Co., 1370 Krameria St., Denver, Colo.	325.9 5000
	-10000
WEAF—National B'casting Co., 195 Broadway, New York ..	491.5 50000
WGY—General Electric Co., So. Schenectady, N.Y.	379.5 50000

Metres. Watts.	
WJZ—National B'casting Co., 195 Broadway, New York ..	454.3 30000

EUROPE.

FL—Eiffel Tower, Paris, France	2650 & 32 5000
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JAPAN.

JOAK—Tokyo Central B'casting Co., Tokyo, Japan	375 1000
JOBK—Osaka Central B'casting Co., Osaka, Japan	385 1000
JOCK—Nagoya Central B'casting Co., Nagoya, Japan	360 1000
JODK—Keijo B'casting Co., Keijo, Japan	345 1000

DUTCH EAST INDIES.

JFC—Bataviasche Radio, Jereen- ing, Batavia	220 40
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PHILIPPINE ISLANDS.

KZRM—Radio Corp. of The Philippines, Manila, Philip- pine Islands	413 1000
KZKZ—Radio Corp. of the Philippines, Manila, Philip- pine Islands	270 500
KZIB—Radio Corp. of the Philippines, Manila, Philip- pine Islands	260 500

INDIA.

7CA—Indian Broadcasting Co., Calcutta	370.4 3000
7BY—Indian Broadcasting Co., Bombay	357.1 3000

SOUTH AFRICA.

WAMG—African B'casting Assn., Cape Town, South Africa ..	375 1500
JB—African B'casting Co., Johannesburg, South Africa,	450 500

Short Wave Broadcasting Stations

Wavelengths

AUSTRALIA.

2ME—A.W.A. (Syd.) station used for 2FC transmissions	28.5
2YG—Ray Allsop (Syd.) station used for 2BL transmissions	32.5
3ME—A.W.A. (Melb.) station used for 3LO transmissions	32.
4.30 a.m. to 6.30 a.m. every Monday (Melb. time).	
6AG—W. E. Coxon (Perth) station used for 6WF transmissions	32.9

GREAT BRITAIN.

5SW—Marconi Company, Chelms- ford, England	24
2YT—Poldhu, England,	25, 32, 92, 94
2NM—Gerald Marcuse, Queen's Park, Caterham, Surrey, England	32.5 and 28 metres

UNITED STATES.

2XAA—Houlton, Maine, U.S.A.	21.99
2XAD—G.E.C. Schenectady, U.S.A. ..	21.96
2XAF—G.E.C. Schenectady, N.Y.	32.7
2ZAG—G.E.C. New York, U.S.A. 14, 16, 42.	
2XAC—W.G.Y. Radio, Schenectady 15 to 100	
2XBA—W.G.Y. Radio, Newark, N.J. ...	65.18
2XAL—"Radio News," New York	30.91
2XE—Richmond Hill, N.Y.	22.1
2XG—W.E.C. Rocky Point	16.02, 23.
6XAI—Inglewood, Cal., U.S.A.	66.04
6XAR—San Francisco, Cal., U.S.A. ...	33
8XK—c/o K.D.K.A., E. Pittsburg, U.S.A.	63.5, 42, 14.
8XP—c/o KDKA, E. Pittsburg, U.S.A.	63.5, 42, 14.
9XU—Council Bluffs, Iowa	61.06
KDKA—Westinghouse Ltd., Pittsburg	63.5, 42, 26, 14.
KFKX—Hastings, Nebr.	56
NPG—San Francisco, Cal., U.S.A. 40, 43, 81.	
NXF—Bellevue, Anna, D.C., 16, 17, 20, 50, 54,	
	71, 81, 84.
WCY—Schenectady, N.Y.	32, 79, 32.5
WGN—W.E.C. Long Island, N.Y.	75

Wavelengths.

WHAM—Rochester, N.Y.	Various.
WGY—Schenectady, N.Y.	15-100
WIZ—R.C.A., N. Brunswick, N.Y.	61.06
WJZ—Bound Brook, N.J.	Various.
WLW—Crossley Radio, Cincinnati ...	52.
WOW—Fort Wayne, Indiana	22.80
WRNY—Coteyville, N.J.	30.91
WBZ—Springfield, Mass.	70
8XF—Cleveland, Ohio	66.04
WAAM—Newark, N.J.	65.18
KFBC—San Diego, U.S.A.	65.18
2XAA—Newark, N.J.	65.4
XJ—Columbus, Ohio	54.02
2XBH—Coney Island, N.Y.	54.02
WCGV—Brooklyn, N.Y.	54
7XAD—Portland, Oregon	53.54
8XAL—Harrison, Ohio	52.05
6XAR—San Francisco, Calif.	33
2XAB—New York, U.S.A.	24
WOWO—Fort Wayne, Indiana	22.8
8XAO—Detroit, Mich.	32.

INDO-CHINA.

HVA—Hanoi, Indo-China	31.5
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HOLLAND.

PCJJ—Philips' Experimental Station, Hilversum, Holland	31.4
PCLL—Philips' Lamps, Ltd., Kootwijk, Holland	32.5, 46
PCTT—Philips' Lamps, Ltd., Kootwijk, Holland	21
PCMM—Philips' Lamps, Ltd., The Hague, Holland	25
PCPP—Philips' Lamps, Ltd., Kootwijk, Holland	27
PCUU—Philips' Lamps, Ltd., The Hague, Holland	42

UNION OF SOVIET SOCIALIST REPUBLICS.

RFN—U.S.S.R. Moscow	29, 60, 50
RFM—U.S.S.R. Siberia	60, 30

ITALY.

IMI—Unione Radiofonica, Milan	45
LDO—Ido Radio, Italy	33.5
IAX—Rome, Italy	45

Wavelengths

SOUTH AFRICA.

JB—Johannesburg Bd'g. Co., Cape Town	20, 25
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JAPAN.

JHBB—Ibarakiken, Japan	37.5
JIPP—Tokio, Japan	20
JIAA—Iwatsuki, Japan	79
JKZB—Tokio El. Co., Tokio	20

GERMANY.

AGJ—Naven	56.7
POX—Naven	70
POZ—Naven	19
EH9XD—Zurich Radio Club	85, 32.
AGC—Naven	17.2

NORWAY.

LGN—Bergen, Norway	30
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SWEDEN.

7MK—Copenhagen	39.2
7RL—Copenhagen	42.12

AUSTRIA.

OKK2—Vienna, Austria	70
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SPAIN.

—Casablanca, Spain	51
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FRANCE.

GC—Radio LL, Paris	61.
YR—Lyon, Rhone	40, 20
FL—Eiffel Tower, Paris	32

SWITZERLAND.

EH9OC—Berne, Switz.	32
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JAVA.

ANF—Malabar	56
JFC—Bataviasche Radic, Batavia ..	22, 40.
ANDIR—Bandeng	38.5
ANE—Malabar	32, 31.26, 15.93
ANH—Malabar	17.4, 27, 32

Wilkins helps you in *Judging Battery Quality*



Capt. Sir George Wilkins.

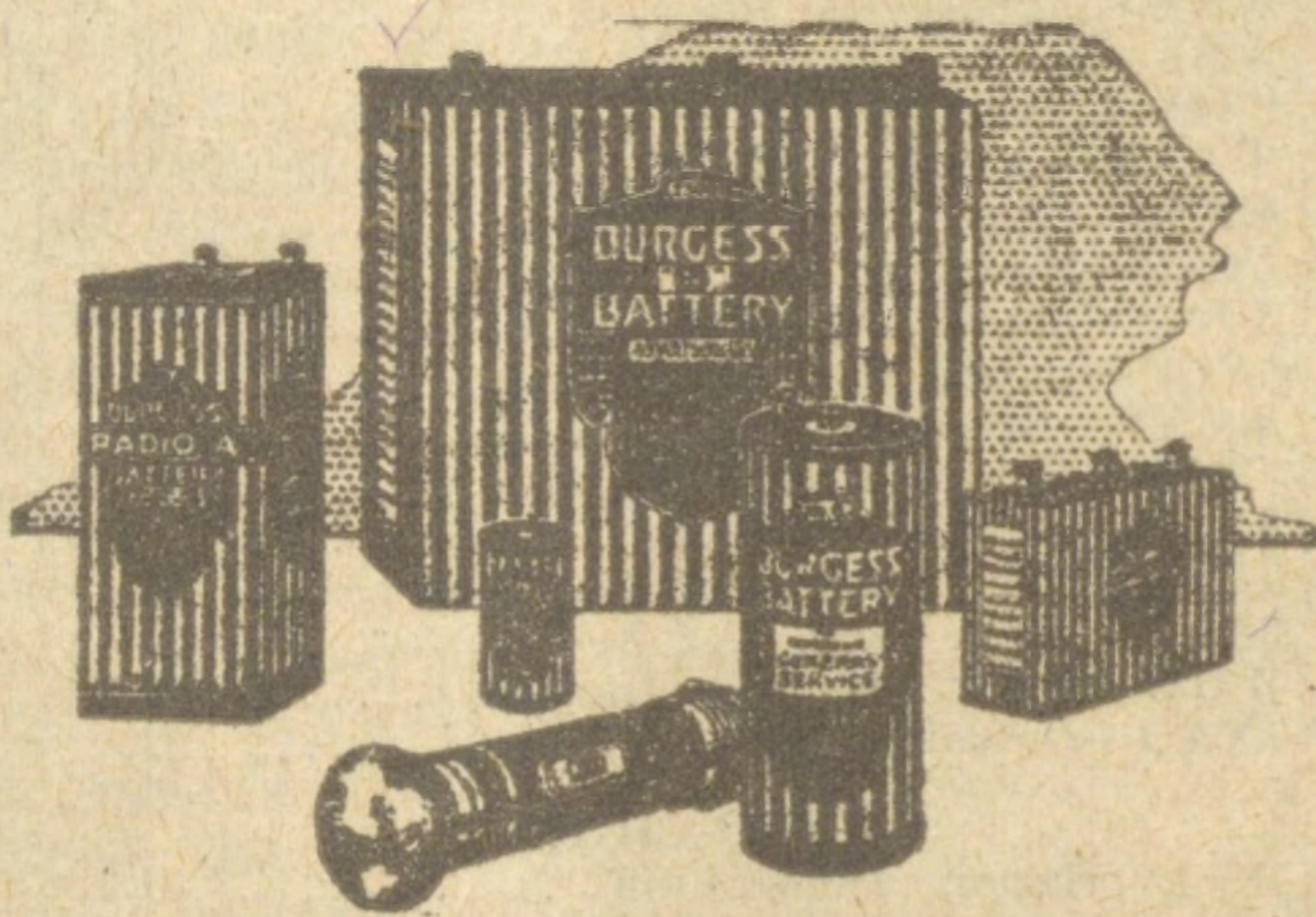
IF the quality of any product may be judged in part by the standing of its users, surely Burgess quality must be considered unusually high.

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Wilkins carried Burgess Batteries to the North Pole. Now he confidently faces the South with the same dependable batteries.

Can more be said to prove their quality?

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in South Pole
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BROADCASTING PROGRAMMES

For the COMING WEEK

Friday, November 16

New South Wales Broadcasting
Company, Limited.

2FC, SERVICE.

Wave Length, 442 metres.

EARLY MORNING SESSION.

- 7 a.m.—"Big Ben" and announcements.
- 7.5 a.m.—Studio Music.
- 7.20 a.m.—Country Session :Official wather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services, river reports.
- 7.25 a.m.—Investment market, mining share market, metal quotations.
- 7.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.
- 7.45 a.m.—"Sydney Morning Herald" summary.
- 7.50 a.m.—Studio Music.
- 8 a.m.—"Big Ben." Close down.

MORNING SESSION.

- 10 a.m.—"Big Ben" and announcements.
- 10.2 a.m.—Studio Music.
- 10.10 a.m.—"Sydney Morning Herald" news service.
- 10.25 a.m.—Studio Music.
- 10.45 a.m.—A Cooking Talk and Home Recipes by Miss Ruth Furst.
- 11 a.m.—"Big Ben."
- A.P.A. and Reuter's Cable Services.
- 11.5 a.m.—Close down.

MIDDAY SESSION.

- 11.55 a.m.—From the Sydney Cricket Ground: Details of the International Cricket Match, England versus "An Australian XI," to be played to-day.
- 12 noon—"Big Ben." From the Studio: Stock Exchange, first call.
- 12.2 p.m.—Official weather forecast, rainfall.
- 12.5 p.m.—From the Sydney Cricket Ground: Description of the play and progress scores, England versus "An Australian XI."
- 1.30 p.m.—From the Studio: Stock Exchange, second call.
- 1.32 p.m.—Weather forecast.
- 1.34 p.m.—"Evening News" midday news service.
- Producers' Distributing Society's Report.
- 1.42 p.m.—Rugby wireless news.
- 1.45 p.m.—Studio Music.
- 2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

- 2.30 p.m.—Programme announcements.
- 2.32 p.m.—Educational Session for the Schools: Subject, "Adventure—General Topics," interspersed with music.
- 3 p.m.—"Big Ben." Pianoforte reproduction.
- 3.15 p.m.—Radio Eisteddfod: Semi-finalists in the Radio Eisteddfod will be heard, drawn from the various sections, including Vocal, Instrumental and Humorous items.
- 3.45 p.m.—"Teacups Chatter," by Doreen Walsh.
- 4 p.m.—"Big Ben." Studio Music.
- 4.15 p.m.—From the Sydney Cricket Ground: Continuation of the play in the International Cricket Match, England versus "An Australian XI."

- 5 p.m.—"Big Ben." Close down.
- Note.—2BL Service will continue to describe the play from the Sydney Cricket Ground until stumps drawn.

EARLY EVENING SESSION.

- 5.40 p.m.—The chimes of 2FC.
- 5.45 p.m.—The "Hello Man" talks to the Children. Letters and stories.
- 6.10 p.m.—The "Farmyard Five," from Kookaburra Gully.
- 6.30 p.m.—Dalgety's market reports (wool, wheat and stock).
- 6.40 p.m.—Fruit and vegetable markets.
- 6.43 p.m.—Stock Exchange information.
- 6.45 p.m.—Weather and shipping news.
- 6.48 p.m.—Rugby wireless news.
- 6.50 p.m.—Late sporting news told by the 2FC Racing Commissioner.
- 7 p.m.—"Big Ben." Late news service.
- 7.10 p.m.—Dinner Music.

NIGHT SESSION.

- 7.40 p.m.—Programme announcements.
- 7.43 p.m.—Cricket resume for New Zealand listeners.
- 7.45 p.m.—Carlton Fay, Pianoforte solos:
 - (a) Six Egyptian Tone Poems (Fred Hall).
 - (b) "Green Leaves" (Doring).
 - (c) "Six Melodious Tone Pictures" (Doring)
- 8 p.m.—"Big Ben." From Her Majesty's Theatre, Sydney (by permission of J. C. Williamson, Ltd.): The First Act of "The Vagabond King."
- 9.10 p.m.—From the Studio. Late Weather forecast.
- The N.S.W. Broadcasting Company's Orchestra, conducted by Willie Redstone.
- 9.30 p.m.—Eugene Boland, Contralto.
- 9.38 p.m.—The N.S.W. Broadcasting Company's Orchestra.
- 9.55 p.m.—Eugene Boland, Contralto.
- 10.3 p.m.—N.S.W. Broadcasting Company's Orchestra.
- 10.20 p.m.—Dance music.
- 10.27 p.m.—To-morrow's programme and late news.
- 10.30 p.m.—National Anthem.
- Close down.

2BL, SERVICE.

Wave Length, 353 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MORNING SESSION.

- 8 a.m.—G.P.O. Clock and chimes. Metropolitan Weather report.
- 8.1 a.m.—State Weather report.
- 8.2 a.m.—Studio music.
- 8.15 a.m.—G.P.O. Clock and chimes. News from the "Daily Telegraph Pictorial."
- 8.25 a.m.—Studio music.
- 8.30 a.m.—G.P.O. Clock and chimes. Studio music.
- 8.35 a.m.—Information, Mails, shipping, arrivals, departures and sailings.
- 8.38 a.m.—News from the "Daily Telegraph Pictorial."
- 8.45 a.m.—G.P.O. Clock and chimes. Studio music.
- 9 a.m.—G.P.O. Clock and chimes. Studio music.
- 9.30 a.m.—Half an hour with silent friends.
- 10 a.m.—G.P.O. Clock and chimes. Close down.

MIDDAY SESSION.

- 11 a.m.—G.P.O. Clock and chimes. Women's Session. Sporting talk by Miss Gwen Varley, Women's Sports Authority.
- 11.15 a.m.—Talk on Electricity in the Home.
- 11.30 a.m.—Miss Pam—Recipes and other items of interest.
- 12 noon.—G.P.O. Clock and chimes. Special Ocean forecast and weather report.
- 12.3 p.m.—Studio Music.
- 12.30 p.m.—Shipping and mails.
- 12.35 p.m.—Market reports.
- 12.48 p.m.—"Sun" midday news service.
- 1 p.m.—Studio music.
- 1.30 p.m.—Talk to children and special entertainment for children in Hospital.
- 2 p.m.—G.P.O. Clock and chimes. Close down.

AFTERNOON SESSION.

- 2.15 p.m.—From the Sydney Cricket Ground: Description of the play in the International Cricket Match, England versus An Australian XI.
- 4 p.m.—Miss Hazel McGilvray, mezzo soprano:
 - (a) "O Sleep why dost thou leave me" (Handel).
 - (b) "Serenade" (Pierne).
- 4.7 p.m.—Talk on "Wandering through tropic seas and Coral Isles," by Mr. Basil Kirke.
- 4.17 p.m.—Victor Haines and Nell Judges, entertainers:
 - (a) "The Lesson of the Watermill" (Andrews).
 - (b) "The Greatest wish in the world" (Del Riego).
- 4.27 p.m.—Mr. Jack Barnett, novelty pianist.
- 4.34 p.m.—Miss May Matthews, mezzo soprano:
 - (a) "How do I know I love you" (Hewitt).
 - (b) "The Pipes of Pan" (Monckton).
- 4.41 p.m.—Victor Haines and Nell Judges:
 - (a) "Orange Blossom" (Rohmer).
 - (b) "Provence" (Carne).
- 4.51 p.m.—Mr. Jack Barnett.
- 4.58 p.m.—Features of evening's programme.
- 5 p.m.—From the Sydney Cricket Ground: Description of the play in the International Cricket Match, England versus an Australian XI.

EARLY EVENING SESSION.

- 6 p.m.—Children's letters and stories.
- 6.30 p.m.—"Sun" news and late sporting.
- 6.40 p.m.—Gulbransen Dinner Music.
- 7.10 p.m.—Australian Mercantile Land and Finance Co.'s report. Weather report and forecast by courtesy of Govt. Meteorologist. Producers Distributing Society's Fruit and Vegetable Market report. Grain and Fodder report ("Sun.") Dairy Produce report ("Sun.")
- 7.25 p.m.—Mr. Pim and Miss Pam in Advertising talks and nonsense.
- 7.55 p.m.—Programme and other announcements.

EVENING SESSION.

- 8 p.m.—G.P.O. Clock and chimes. 2BL Topical Chorus.
- 8.3 p.m.—Mr. Harry Croot, baritone:
 - (a) "Loving smile of sister kind" (From Faust) (Gounod).
 - (b) "Sea Fever" (Ireland).
- 8.10 p.m.—The Wurlitzer Organ Broadcast from the Arcadia Theatre Chatswood. Organist, Mr. N. Robins.
- 8.25 p.m.—Rodia Eisteddfod: A number of semi-finalists will be heard, drawn from the various sections as follows: Choral Section: Choirs drawn from those entering under Section 1, Church Choir, Section 2, Mixed Choirs. Section 3, Male

Choir. Section 4, Female Choir. Section 5, Mixed Quartet. Section 6, Male Quartet. Instrumental Section: Semi-finalists from the instrumental section include, Section 14, Championship Pianoforte solo. Section 15, Pianoforte solo under 16 years of age. Popular Section: Semi-finalists from the Popular section include Section 27, Popular Vocalists. Section 28, Comedians. Section 29, Radio Revue and Section 30, Entertainers. 9.35 p.m.—Mr. Harry Croot, baritone. 9.42 p.m.—Talk by Mr. C. Dexter on "The Prospects on Saturday's Races." 9.57 p.m.—Mr. Charles Renton, comedian. 10.4 p.m.—Miss Ivy Saxton in popular items. 10.11 p.m.—Talk on "Gardening Science" by Mr. G. Cooper, Park Superintendent, City Council. 10.31 p.m.—Miss Ivy Saxton. 10.38 p.m.—Mr. Charles Renton. 10.45 p.m.—Resume of following day's programme. 10.50 p.m.—Bennie Abrahams and his Romano's Restaurant Dance Band broadcast from Romano's. During intervals between Dances "Sun" news will be broadcast. 11.30 p.m.—National Anthem.

2GB, SYDNEY

Theosophical Broadcasting Service.
Wave Length, 316 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MORNING SESSION.

10 a.m.—Music.
10.10 a.m.—Happiness Talk by A. E. Bennett.
10.20 a.m.—Music.
10.30 a.m.—Women's Session by Miss Helen J. Beegling.
11.30 p.m.—Close down.

AFTERNOON SESSION.

2 p.m.—Music.
2.5 p.m.—Women's Radio Service by Mrs. Dorothy Jordan.
2.30 p.m.—Music.
2.45 p.m.—Address by H. Wood.
3.15 p.m.—Close down.

EVENING SESSION.

5.30 p.m.—Children's Session by Uncle George. Radio Movie Club.
7 p.m.—Stock and Market reports by New Zealand Loan and Mercantile Agency Ltd.
7.15 p.m.—Music.
8 p.m.—Cello solos by Mr. Cedric Ashton.
8.10 p.m.—Songs by Mr. Will Stelzer.
8.17 p.m.—Announcements.
8.22 p.m.—Miller and Mack, The Comedy Two.
8.30 p.m.—2GB Instrumental Trio: Miss Ada Brook, Mr. Cecil Berry, Mr. Cedric Ashton.
8.43 p.m.—Resume of Programme.
8.45 p.m.—Address by Professor E. Wood.
9 p.m.—Weather report.
9.2 p.m.—Songs by Miss Maesmore Morris.
9.9 p.m.—Violin Solos by Mr. Cecil Berry.
9.17 p.m.—Songs by Mr. Will Stelzer.
9.24 p.m.—2GB Instrumental Trio.
9.35 p.m.—Miller and Mack, The Comedy Two.
9.45 p.m.—Cello solo by Mr. Cedric Ashton.
9.50 p.m.—Songs by Miss Maesmore Morris.
10 p.m.—Close down.

2 UW, SYDNEY

Radio Broadcasting, Limited.

Wave Length, 267 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MIDDAY SESSION.

12.30 p.m.—To-day's anniversary.
12.32 p.m.—Music.
1 p.m.—Clock and chimes.
1.1 p.m.—Music.
2 p.m.—Political Address.
2.15 p.m.—"Cheerio Talk" and talks to women.
2.30 p.m.—Close down.

AFTERNOON SESSION.

4.30 p.m.—Music.
5.30 p.m.—Bedtime stories by "Uncle Jack."
6.30 p.m.—Close down.

EVENING SESSION.

7 p.m.—Clock and chimes.
7.1 p.m.—News items, etc.
7.10 p.m.—Talk by Mr. J. M. Prentice.
7.30 p.m.—Musical Interlude.
7.35 p.m.—Political address.
7.55 p.m.—Items of interest.
8 p.m.—Clock and chimes.
8.1 p.m.—Music.
9 p.m.—Clock and chimes.
9.1 p.m.—Comments on Foreign affairs by Mr. J. M. Prentice.
9.10 p.m.—Music and request numbers.
10 p.m.—Close down.

3LO, MELBOURNE.

Broadcasting Co. of Aust.
Wave Length, 371 Metres.

FRIDAY, 16th NOVEMBER, 1928.

EARLY MORNING SESSION.

7.15 a.m.—Morning Melodies.
7.20 a.m.—Morning Exercises to Music.
7.30 a.m.—Stock reports. Market reports. General News. Shipping. Sporting information.
8 a.m.—Melbourne Observatory Time Signal.
8.1 a.m.—Morning Melodies.
8.15 a.m.—Close down.

MORNING SESSION.

11 a.m.—3LO'S CULINARY COUNSELS—or How to Create Creature Comforts with a Minimum of Cash.

RECIPE—APPLE SHORT CAKE.

1½ lb. flour.
Pinch of salt.
¼ lb. butter.
1 tablespoon sugar.
½-teaspoon baking powder.
1 egg.
Little milk (2 tablespoons).
Apples.
2 teaspoons castor sugar.
1 teaspoon butter.
Little cinnamon.
Sift flour, salt and baking powder, rub in the butter, add sugar; beat egg, add milk to it, and mix all into a nice soft paste. Cut into two. Roll out and line pie plate. Peel and cut apples into thin slices, sprinkle sugar and cinnamon over, add butter in small pieces, and cover with other half of pastry. Brush over with water and sprinkle sugar on top. Bake in hot oven for half an hour. Dust with castor sugar.

HOUSEHOLD HINT.—The disagreeable odor arising from cabbage and cauliflower while cooking may be prevented by placing a piece of parsley on top of the vegetable. The parsley also improves the flavor.

11.5 a.m.—RUPERT E. WOOD, Dietitian: "How Some of the Various Foods Serve the Body."
11.20 a.m.—Musical interlude.
11.25 a.m.—"AU FAIT" will speak on: "Fashions."
11.40 a.m.—Musical interlude.
11.45 a.m.—Under the auspices of the Health Department, DR. ROWAN, will speak on "Clothing in Relation to Health."

MIDDAY SESSION.

12 noon.—Melbourne Observatory Time Signal. Express Train information.
12.1 p.m.—Prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. Official Wireless News from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service.
12.15 p.m.—Newmarket Stock sales. Special reports by John McNamara and Co.
12.20 p.m.—THE STATION ORCHESTRA: Overture, "Jeann D'Arce" (Verdi).
12.30 p.m.—JESSIE IRWIN, Soprano: "The Singer" (Maxwell).
"The Blackbird's Song" (Scott).
12.37 p.m.—Stock Exchange information.
12.40 p.m.—THE STATION QUARTETTE: "Allegro Grazioso" (Gretry).
"Deep River" (Pochon).
"Irish Reel" (Pochon).
12.50 p.m.—FRANK HARWOOD: Character Vocalist.

12.57 p.m.—THE STATION ORCHESTRA: "Mazurka," "Nocturne" (Chopin).
1.7 p.m.—Meteorological information. Weather forecast for Victoria, Tasmania, South Australia and New South Wales. Ocean forecasts. River reports.
1.15 p.m.—JESSIE IRWIN, Soprano: "Love's Echo" (Newton).
"The Cuckoo" (Lehmann).
1.22 p.m.—THE STATION ORCHESTRA: "Souer Angelica" (Puccini).
1.32 p.m.—FRANK HARWOOD: Character Vocalist.
1.39 p.m.—THE STATION ORCHESTRA: "Adieu" (Karganoff).
"Coquetterie" (Mathews).
1.45 p.m.—Close down.

AFTERNOON SESSION.

2.15 p.m.—THE IMPERIAL RUSSIAN TRIO (Arved Norit, violin; John Berzinsky, 'cello; William Ibster, piano).
THE TRIO, "Sarabanda" (Bach).
ARVED NORIT, violin, "Grave."
THE TRIO, "Bourree."
2.35 p.m.—ICIS BROWN, Soprano: "None but an Aching Heart" (Tschaikowsky).
"Diaphenia" (Samuel).
2.42 p.m.—THE STATION ORCHESTRA: Selection, "Turandot" (Puccini).
2.52 p.m.—DAWN HARDING, Mezzo-Soprano: "Secrecy" (Wolf).
"The Gardener" (Wolf).
3 p.m.—FRANCES FRASER will speak on: "English Cathedrals."
3.15 p.m.—THE STATION ORCHESTRA: "Eastern Romance" (Korsakoff).
"Serenade" (Arensky).
3.22 p.m.—AGNES FORTUNE, Piano: "Novelette" (Schumann).
3.30 p.m.—TOM MASTERS, Tenor: "Trees" (Rasbach).
"I Live for You" (Thompson).
3.37 p.m.—THE STATION ORCHESTRA: "Andante Cantabile from 1st Symphony" (Tschaikowsky).
"La Colombe" (Gounod).
3.47 p.m.—ARCHIE AND WATTIE: Specialists in Patter.
3.54 p.m.—THE STATION TRIO: "Trio" (Beethoven).
4.4 p.m.—ICIS BROWN, Soprano: "O Del Mio Dolce Ador" (Gluck).
"A Swan" (Grieg).
4.11 p.m.—JOSEPH BARRILLE, Flute: "Romance" (Langey).
4.16 p.m.—DAWN HARDING: "Easter Carol" (Martin Shaw).
"Land of Sky Blue Water."
4.23 p.m.—THE STATION ORCHESTRA: Selection of Songs (Schubert).
4.35 p.m.—TOM MASTERS, Tenor: "O Flower Divine" (Wood).
"Sigh No More" (Aikin).
4.42 p.m.—THE STATION ORCHESTRA: "Andante Melodioso."
"Barcarolle" (Rubinstein).
4.52 p.m.—ARCHIE AND WATTIE: Specialists in Patter.
5 p.m.—"Herald" news service. Stock Exchange information.
5.10 p.m.—Close down.
During the afternoon progress results of the Cricket Match, England v. an Australian Eleven, at Sydney, will be given as they come to hand.

EVENING SESSION.

6 p.m.—Answers to Letters and Birthday Greetings by "BILLY BUNNY."
6.25 p.m.—Musical interlude.
6.30 p.m.—CAPTAIN DONALD McLEAN will tell another thrilling adventure story.

NIGHT SESSION.

6.50 p.m.—MADAME SO WARD: "French Without Tears."
7.5 p.m.—Stock Exchange Information.
7.15 p.m.—Special Report by John McNamara and Co. Official Report of Newmarket Stock Sales by the Associated Stock and Station Agents, Bourke Street, Melbourne. Weather Synopsis. Fish Market reports by J. R. Borrett Ltd. Rabbit prices. River Reports. Market Reports by the Victorian Producers' Co-operative Co., Ltd. Poultry, grain, hay, straw, dairy produce, potatoes and onions. Market Reports of Fruit by the Victorian Fruiterers' Association. Retail prices. Wholesale prices of fruit by the Wholesale Fruit Merchants' Association. Citrus fruits.

7.30 p.m.—News session. Stumps scores England v. an Australian Eleven at Sydney.
 7.43 p.m.—Birthday Greetings.
 7.46 p.m.—C. H. J. WILLIAMS will speak on, "Tomorrow's Stadium Event."
A MAKER OF HISTORY.
 8.1 p.m.—Under the auspices of the Department of Agriculture, H. C. Wilson, manager State Research Farm, Werribee, will speak on, "Haystack Building."
 8.15 p.m.—COLLINGWOOD CITIZENS' BAND:
 March, "Independencia."
 Overture, "Pique Dame."
 8.25 p.m.—FRANK HARWOOD, Character Vocalist.
 8.32 p.m.—COLLINGWOOD CITIZENS' BAND:
 "Titania," euphonium solo by M. Scanlon.
 March: "National Honor."
 8.40 p.m.—ICIS BROWN, Soprano:
 "Sometimes in My Dreams" (D'Hardelet).
 "The Market" (Carew).
 8.47 p.m.—COLLINGWOOD CITIZENS' BAND:
 Novelty number, "The Whistler and His Dog."
 8.52 p.m.—MR. H. K. LOVE will speak on "Technicalities."
 9.2 p.m.—THE UNIVERSITY SYMPHONY ORCHESTRA. (Conductor, Bernard Heinze). (In the absence of Professor Heinze the Orchestra will be conducted by Mr. J. Sutton Crow).
THE ORCHESTRA:
 "The Unfinished Symphony" (Schubert).
MABEL NELSON:
 "Hai Luli" (Coquard).
PIANOFORTE AND ORCHESTRA:
 "Concerto in G Minor" (Mendelssohn).
 Soloist: John Simons.
MABEL NELSON:
 "Habanera" from "Carmen" (Bizet).
ORCHESTRA:
 "Air for Strings from Suite in D" (Brahms).
 "Serenade in C" (Haydn).
 "Gavotte" from "Mignon" (Thomas).
MABEL NELSON:
 "Life and Death" (Coleridge Taylor).
ORCHESTRA:
 Overture, "Ruy Blas" (Mendelssohn).
 10.2 p.m.—ERIC WELCH will speak on tomorrow's races at Caulfield.
 10.12 p.m.—COLLINGWOOD CITIZENS' BAND:
 Waltz, "Sweet Memories."
 10.20 p.m.—FRANK HARWOOD, Character Vocalist.
 10.27 p.m.—"Argus" news service. British Official Wireless news from Rugby. Meteorological information. Road notes, supplied by the Royal Automobile Club of Victoria. Announcements.
WEEKLY SEASONABLE GARDENING REMINDER. Supplied by Leslie Brunning.
 10.37 p.m.—ICIS BROWN, Soprano:
 "Gossiping" (Dodge).
 "The Woodpecker" (Nevin).
 10.44 p.m.—COLLINGWOOD CITIZENS' BAND:
 "Memories of Weber."
 10.54 p.m.—OUR GREAT THOUGHT for to-day is:
 "It is not so much the being exempt from faults as the having overcome them that is an advantage to us."—Swift.
 10.55 p.m.—THE RADIO-ACES:
 11.40 p.m.—Close down.

3AR, MELBOURNE.

Associated Radio Co.
 Wave Length, 484 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MORNING NEWS SESSION.

10 a.m.—G.P.O. clock says "Ten."
 10.1 a.m.—"Age" Stock Exchange information. London Metal Market.
 10.10 a.m.—"Age" market reports—farm and station produce, fruit, fish, vegetables, etc.
 10.25 a.m.—"Age" shipping reports. Ocean forecast.
 10.30 a.m.—Mail notices. Express train information.
 10.35 a.m.—"Age" news service, exclusive to 3AR.

10.59 a.m.—Weather forecast.
MORNING MUSICAL SESSION.

11 a.m.—Radi-o-aces.
 "Dear, on a Night Like This" (Conrad).
 "Never Before, Never Again" (Chik).
 "Laugh, Clown Laugh" (Young).
 "There's Something About a Rose" (Kahal).
 11.15 a.m.—Ivy Price, soprano:
 "Serenade" (Gound).
 "Se Saran Rose" (Arditi).
 11.22 a.m.—Radi-o-aces:
 "Loved Me" (Wilson).
 "Fascinating Vamp" (Nassbaum).
 "That's my Weakness Now" (Stept).
 "Get out and Get Under the Moon" (Tobias).
 11.37 a.m.—Archie and Wattie:
 Humorous humor.
 11.44 a.m.—Radi-o-aces:
 "What a Baby" (Whiting).
 "The Whisper Song" (Friend).
 "Keep Sweeping the Cobwebs" (Trent).
 "Shanghai Dream Man" (Davis).
 12 noon.—Ivy Price, soprano:
 "Do You Know my Garden" (Haydn Wood).
 "Looking Back" (Cyril Scott).
 12.7 p.m.—Radi-o-aces:
 "Just a Memory" (Henderson).
 "Lonesome in the Moonlight" (Baer).
 "Hallelujah" (Youmans).
 12.22 p.m.—British Official Wireless: Announcements.
 12.32 p.m.—Radi-o-aces:
 "Varsity Drag" (Henderson).
 "Golden Gate" (Jolson).
 "Harvest Moon" (Baye).
 "Rain" (Ford).
 12.47 p.m.—Archie and Wattie:
 Hearty Hilarities.
 12.54 p.m.—Radi-o-aces:
 "Mine, All Mine" (Ruby).
 "The Wedding Waltz" (Gilbert).
 "Jackass Blues" (Karcell).
 "Down Where the Sun Goes Down" (Jones).
 1.10 p.m.—Lecture on Christian Science, transmitted from Melbourne Town Hall, by Mr. W. Stuart Booth, C.S.B., of Denver, Colorado Member of The Board of Lectureship of The Mother Church, The First Church of Christ, Scientist, in Boston, Massachusetts.
 1.50 p.m.—Close down.
EVENING SESSION.
 5 p.m.—The Scientific Reproduction of Absent Artists.
NIGHT SESSION.
 8 p.m.—Eric E. Aikens: "Tomorrow's events at the Motordrome."
 8.15 p.m.—A recital of the latest recordings.
 8.30 p.m.—Community singing transmitted from the City Hall, Ballarat.
FROM THE STUDIO.
 10.30 p.m.—Allan Adcock, entertainer:
 "Nothing over 2/6 in the Store" (Willcocks).
 "That's a Good Girl" (Berlin).
 "The Wax-Works Watchman" (Wilcox).
 10.45 p.m.—Imperial Russian Trio:
 Aved Norit, violin; John Berzinsky, cello; William Ibster, piano Trio: "Berceuse" (Schubert).
 "The Countess of Westmoreland's Delight" (Shild-Moffat).
 10.55 p.m.—"Age" News service, exclusive to 3AR.
 10.58 p.m.—Weather forecast.
 10.59 p.m.—Our Australian Good-night quote.
 11 p.m.—God save the king.

4QG, BRISBANE

Queensland Radio Service
 Wave Length, 385 Metres

FRIDAY, 16th NOVEMBER, 1928.

EARLY MORNING SESSION.

8 a.m.—From The Studio:
 This morning's news, supplied by courtesy of the Brisbane Metropolitan Daily News-papers.
 8.30 a.m.—Close down.

MORNING SESSION.

11 a.m. to 12 noon.

MIDDAY SESSION.

1 p.m.—Market reports and weather information.
 1.15 p.m.—Lunch-Hour music.
 1.58 p.m.—Time signals.
 2 p.m.—Close down.

AFTERNOON SESSION.

3 p.m.—A programme of electrically reproduced records.
 3.30 p.m.—Mail train running times.
 3.31 p.m.—A recital by Mr. Geo. Sampson F.R.C.O. (City Organist).
 4 p.m.—Afternoon news.
 4.30 p.m.—Close down.

EARLY EVENING SESSION.

6 p.m.—Mail train running times.
 Mail information.
 Shipping news.
 6.5 p.m.—Dinner music.
 6.25 p.m.—Commercial announcements.
 6.30 p.m.—Bedtime stories conducted by "The Sandman."
 7 p.m.—News in brief.
 7.5 p.m.—Stock Exchange news.
 7.6 p.m.—Metal quotations.
 7.7 p.m.—Market reports.
 7.25 p.m.—Fenwick's Stock report.
 7.30 p.m.—Weather information.
 7.40 p.m.—Announcements.
 7.45 p.m.—Standard time signals.
 7.45 p.m.—To-morrow's sporting fixtures reviewed.

NIGHT SESSION.

PART I.—ALHAMBRA THEATRE.

The entertainment arranged in connection with the official opening of the Alhambra Theatre (Stone's Corner) will be relayed.
 8 p.m.—From The Alhambra Theatre:
 Official opening programme.

PART II.—Cadenza Plectral Club and Banjo Band:

An entertainment by Mrs. Matthews' Cadenza Plectral Club and Banjo Band.
 9 p.m.—From the Studio:
 Metropolitan weather forecast.
 Mrs. Matthews' Cadenza Plectral Club:
 Selection, "Sullivan's Operatic Gems" (arr. Tocabin).
 Mrs. L. Hunter, soprano: "Garden of Happiness" (Daniel Wood)—accompanied by Cadenza Plectral Club.
 Jim Matthews, tenor banjoist:
 "Atta Boy" (Weidt). Popular numbers.
 Clare Matthews, violinist: Selected.
 Mrs. Matthews' Banjo Band: Selected.
 Edna Menzies, mandolinist:
 "Plaint d'Amour" (Tellier).
 Leo. Crump with Mrs. Matthews' Banjo Band: In popular numbers.
 Cadenza Plectral Club:
 "Romance—Remembrance" (Telma).
 Mrs. L. Hunter, soprano:
 "Silver Threads Among the Gold" (accompanied by the Cadenza Plectral Club).
 Eileen Doran and Party:
 Quartette: Ladder of Love" (Cobb)—1st and 2nd mandolins, tenor mandola, and tenor guitar.
 Clare Matthews, violinist: Selected.
 Leo. Crump with Mrs. Matthews' Banjo Band: In popular numbers.
 Mrs. Matthews' Cadenza Plectral Club and Banjo Band: "Magnificent" (Crosby).
 10 p.m.—Week-end road information supplied by the Royal Automobile Club of Queensland.

PART III.—Songs of the War Time.

10.15 p.m.—From the Studio:
 A programme comprising songs of 1914-1918.
 The Studio Orpheans (Conductor, Tom Muller): "The Long Long Trail" (soloist, J. P. Cornwell).
 Jean Jarrott, soprano:
 "God Send You Back to Me."
 "Laddies in Kahki."
 The Orpheans:
 "Tipperary" (Soloist, Mr. Ernest Harper).
 George Williamson, tenor:
 "Roses of Picardy" (accompanied by The Orpheans).
 The Orpheans:
 Hymns we sang at Church Parade.—
 "Onward Christian Soldiers."
 "The Church's One Foundation."
 Tom Muller, elocutionist:
 "Trenchers."
 J. P. Cornwell, bass:
 "When You Come Home" (accompanied by The Orpheans).
 George Williamson, tenor:
 "Somewhere a voice is calling" (Tate).
 The Orpheans:
 "End of a Perfect Day" (Carrie Jacobs-Bond).
 11 p.m.—Late news; weather news.
 Close down.

5CL, ADELAIDE.

Central Broadcasters, Ltd.

Wave Length, 395 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MORNING SESSION.

- 11 a.m.—G.P.O. Chimes.
 11.1 a.m.—Studio "Recreator":
 Recital of Parlophone Recordings.
 11.40 a.m.—"Economist":
 Kitchen Craft and Menu talk.
MIDDAY SESSION.
 12 noon.—G.P.O. Chimes.
 12.1 p.m.—"The Advertiser" general news service.
 12.20 p.m.—British Official Wireless news.
 12.25 p.m.—Syd Morrell, baritone:
 "Trade Winds" (Keel).
 "Oh how pleasant tis to love" (Purcell).
 12.32 p.m.—Studio "Recreator":
 Recital of Parlophone recordings.
 12.43 p.m.—Dorothy Back, soprano:
 "April Morn" (Batten).
 "Blackbirds Song" (Scott).
 12.50 p.m.—S.A. Railway Information.
 12.51 p.m.—S. C. Ward and Co.'s Stock Exchange information.
 12.57 p.m.—Meteorological information.
 1 p.m.—G.P.O. Chimes.
 1.1 p.m.—Syd Morrell, baritone:
 "I know of two bright eyes" (Clutsam).
 "Crown of the year" (Martin).
 1.7 p.m.—William Davey, xylophonist:
 "Ice-Cream."
 "Dainty Miss" (Greer).
 1.14 p.m.—Studio "Recreator":
 Recital of Columbia recordings.
 1.21 p.m.—Tom King, pianist:
 "Egyptian Poem" (T. King).
 1.28 p.m.—Dorothy Back, soprano:
 "My Message" (D'Hardelet).
 "The Promise of Life" (Cowen).
 1.35 p.m.—William Davey, xylophonist:
 "The Rag Doll" (Brown).
 "Under the Clover Moon."
 1.42 p.m.—Studio "Recreator":
 Recital of Columbia recordings.
 1.55 p.m.—International Cricket Scores:
 England v. Australian Eleven.
 1.57 p.m.—Meteorological information.
 2 p.m.—G.P.O. chimes and close down.

AFTERNOON SESSION.

- 3 p.m.—G.P.O. Chimes.
 3.1 p.m.—International Cricket Scores:
 England v. Australian Eleven.
 3.2 p.m.—Maple Leaf Cafe Orchestra:
 Selection, "Vanities" (Carroll).
 Suite, "Maid of Orleans" (Rawlinson).
 Harold Tidemann, baritone:
 "Glorious Devon."
 "Mintress Mine" (Sullivan).
 Maple Leaf Cafe Orchestra:
 Fox trot, "Adoree" (West).
 Signor Ulivi, bass-baritone:
 Selections from his repertoire.
 Maple Leaf Cafe Orchestra:
 "The Swaying Narcissus" (Hager).
 3.50 p.m.—Wattie and Grahame, entertainers:
 In comedy sketches.
 4 p.m.—G.P.O. Chimes.
 4.1 p.m.—International Cricket Scores:
 England v. Australian Eleven.
 4.2 p.m.—Arcadia Cafe Orchestra:
 Overture, "Stradella" (Flotow).
 4.8 p.m.—James Riley, tenor:
 "If thou were't blind" (Johnson).
 "Mifanwy" (Forster).
 4.15 p.m.—Arcadia Cafe Orchestra:
 Novelette, "Tiddling" (Rapee).
 Wattie and Grahame, entertainers:
 In comedy sketches.
 Tom King, pianist:
 "Marche Hongroise" (Kowalski).
 Arcadia Cafe Orchestra:
 Suite, "Three African Dances" (Lohr).
 Signor Ulivi, bass-baritone:
 Selections from his repertoire.
 Studio "Recreator":
 Recital of Columbia recordings.
 4.55 p.m.—International Cricket scores:
 England v. Australian Eleven.
 4.57 p.m.—S. C. Ward and Co.'s Stock Exchange information.
 5 p.m.—G.P.O. Chimes and close down.

EVENING SESSION.

- Birthday Greetings, Songs and Stories by
 "Miss Wireless."
 6 p.m.—G.P.O. Chimes.
 6.1 p.m.—International Cricket Scores:
 England v. Australian Eleven.
 6.4 p.m.—Children's Happy Moments:
 Birthday Greetings, Correspondence, Songs
 and stories by "Miss Wireless."
 6.30 p.m.—Dinner Music:
 Recital of Columbia Recordings on the studio
 "Recreator."
 6.55 p.m.—International Cricket Scores:
 England v. Australian Eleven.
 7 p.m.—G.P.O. Chimes.
 7.1 p.m.—S. C. Ward and Co.'s Stock Exchange information.
 7.5 p.m.—General Market reports.
 7.10 p.m.—Resume of the International Cricket.
 7.15 p.m.—5CL's Sporting service by "Silvius"
 Including a review of to-morrow's races at
 Port Adelaide.
 7.25 p.m.—Cricket talk by "Silvius."
 7.35 p.m.—Mr. P. H. Nicholls:
 Talk on Books "Tom Brown Schooling."

NIGHT SESSION.

- 7.45 p.m.—Malcolm Reid's Orchestra:
 Transmitted from showrooms.
 Overture and Orchestral selections.
 8 p.m.—G.P.O. Chimes.
 8.1 p.m.—James Riley, tenor:
 "Bird Songs at Eventide" (Coates).
 "My Dreams" (Tosti).
 8.7 p.m.—Malcolm Reid's Orchestra:
 Selections.
 8.17 p.m.—Signor Ulivi, bass-baritone:
 Selections from the repertoire.
 8.24 p.m.—Seth Smith, banjoist:
 "Are you thinking of me to-night."
 "Royal Trumpeters March."
 8.31 p.m.—Wattie and Grahame, entertainers:
 In comedy sketches.
 8.41 p.m.—Malcolm Reid's Orchestra:
 Selections.
 8.52 p.m.—James Riley, tenor:
 "Mother O' Mine" (Towis).
 "Nirvana" (Adams).
 9 p.m.—G.P.O. Chimes.
 9.1 p.m.—Meteorological information.
 9.2 p.m.—Overseas Grain Report.
 9.3 p.m.—Signor Grain report.
 9.3 p.m.—Signor Ulivi, bass-baritone:
 Selections from his repertoire.
 9.10 p.m.—Seth Smith, banjoist:
 "Prelude and Waltz" (Cammeyer).
 "Cheerio" (Stainer).
 9.17 p.m.—Howard Bauerochse, tenor, George
 Cowley, wbaritone, Vocal Duetists:
 "I heard you go by" (Wood).
 "Still as the night" (Goetze).
 9.24 p.m.—Helen Magary, violiniste:
 Selected Violin solos.
 9.31 p.m.—Wattie and Grahame, entertainers:
 In comedy sketches.
 9.41 p.m.—William Davey, xylophonist:
 "Merry Widow Selection."
 9.48 p.m.—Howard Bauerochse, tenor:
 "Eleanore" (Taylor).
 "Ah, Moon of my delight" (Lehmann).
 9.55 p.m.—Muriel Prince, Pianist:
 "The Dancing Doll" (Poldini).
 10 p.m.—G.P.O. Chimes.
 10.1 p.m.—"The Advertiser" general news service.
 10.10 p.m.—5CL's Sporting service by "Silvius"
 Including a review of to-morrow's races at
 Port Adelaide.
 10.18 p.m.—William Davey, xylophonist:
 "The Doll Dance" (Brown).
 "Chloe" (Moret).
 10.25 p.m.—Howard Bauerochse, tenor:
 "I wonder what the stars are" (Saxby).
 10.30 p.m.—On with the Dance:
 By courtesy of 3LO Melbourne. Modern
 dance music by the "Radi-o-aces."
 11.10 p.m.—God Save The King.

6WF, PERTHWestralian Farmer's.
Wave Length, 1250 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MIDDAY SESSION.

- 12.30 p.m.—Tune in.
 12.35 p.m.—Markets, news and cables.
 1 p.m.—Time signal.

- 1.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
 Station announcements.
 1.2 p.m.—Luncheon Music:
 The studio Quintette, conducted by Mr. Val
 Smith, will play the following selection,
 with vocal interludes.
 2 p.m.—Close down.

AFTERNOON SESSION.

- 3.30 p.m.—Tune in.
 3.35 p.m.—Music and song:
 Afternoon Tea Concert relayed from the
 Rosebud Cafe, Perth.
 Vocal and instrumental interludes from the
 studio.
 4.30 p.m.—Close down.

EVENING SESSION.

- 6.45 p.m.—Tune in.
 The evening transmission is broadcast on
 104.5 metres as well as the usual wave-
 length.
 6.48 p.m.—Musical session for the Kiddies by
 Uncles Henry Percy and Duffy and Aunties
 Amy and Audrey.
 7.5 p.m.—Items by the studio trio:
 7.30 p.m.—Stocks, Markets, news.
 7.45 p.m.—Racing talk by the Sporting editor
 of "Truth" newspaper Co.
 8 p.m.—Time signal.
 8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
 Station announcements such as alterations to
 programmes, etc.
 8.3 p.m.—Popular Night:
 Musical programme from the studio, includ-
 ing vocal and instrumental artists.
 Items by the Instrumental Duo, of the s.s.
 Katoomba.
 8.55 p.m.—Late news items by courtesy of
 "The Daily News" Newspaper Co.
 Ships within range announcement.
 Weather report and forecast.
 Station announcements.
 9.5 p.m.—Talk: "Various Phases of Vegetable
 and Herb Culture" by Mr. James Conarty.
 9.25 p.m.—Wrestling:
 A description of the wrestling match will
 be given by the Sporting editor of "Truth"
 newspaper Co. relayed from His Majesty's
 Theatre.
 10.30 p.m.—Close down.
104.5 METRE TRANSMISSION.
 Simultaneous broadcast on 104.5 metres of
 programme given on 1250 metres, commen-
 cing at 6.45 p.m.

7ZL, HOBART

Tasmanian Broadcasters, Ltd.

Wave Length, 516 Metres.

FRIDAY, 16th NOVEMBER, 1928.

MIDDAY SESSION.

- 11.30 a.m.—M'elle Columbia Broadcasts.
 11.34 a.m.—Special Midlands Weather Fore-
 cast.
 11.35 a.m.—M'elle Columbia Broadcasts.
 11.55 a.m.—Tasmanian Stations 9 a.m. Wea-
 ther Report.
 12 noon.—G.P.O. Clock chimes the hour.
 12.1 p.m.—Shipping information, Ships within
 wireless range. Mail notices. Housewives'
 Guide.
 12.8 p.m.—M'elle Columbia Broadcasts.
 12.11 p.m.—British Official Wireless News.
 12.20 p.m.—M'elle Columbia Broadcasts.
 12.29 p.m.—Announcements.
 12.33 p.m.—"Mercury" News Service.
 Produce Sales held at Railway.
 1.10 p.m.—M'elle Columbia Broadcasts.
 1.30 p.m.—Close down.

AFTERNOON SESSION.

- 3 p.m.—G.P.O. Clock chimes the hour.
 3.1 p.m.—M'elle Columbia Broadcasts.
 3.11 p.m.—Weather information.
 3.12 p.m.—M'elle Columbia Broadcasts.
 3.15 p.m.—A Happy Hour with the Monsieur
 Sonora and M'elle Columbia:
 Aldershot Command Searchlight Tatto,
 Marches by the Massed Bands:
 "The Wee Man at the Loom."
 "Hot Punch."
 "My Home."
 "The 79th's Farewell to Gibraltar."
 "Strathspey."
 "The De'il in the Kitchen."
 "Th De'il among the Tailors."

Columbia Light Opera Co.:

"Oh! Kay."

"The Desert Song."

Layton and Johnstone, American duettists, with piano;

"Plantation Medley."

Philadelphia Symphony Orchestra:

"Invitation to the Waltz."

English Nursery Rhymes:

"Together We Two."

"Baby Feet go Pitter Patter."

Medley:

"Steamboat Medley," with effects.

"Farmyard Medley," with effects.

Light Opera Co.:

"Gems from Robin Hood."

Paul Whiteman's Orchestra:

"My Hero."

"The Merry Widow."

4.15 p.m.—Reading from the "Weekly Courier": What energetic men are doing and saying.

4.30 p.m.—Close down.

During the afternoon progress scores of the English XI, v. an Australian XI, at Sydney.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

6.15 p.m.—Answers to Letters and Birthday Greetings by "Uncle David."

6.20 p.m.—M'elie Columbia Broadcasts.

6.30 p.m.—The "Storey Lady" will tell a story to the Children:

"Beauty and the Beast."

6.45 p.m.—M'elie Columbia Broadcasts.

7 p.m.—Answers to Letters and Birthday Greetings by "Uncle David."

EVENING SESSION.

7.15 p.m.—A. M. O'Leary will speak on:

"Cricket Activities."

A STUDIO CONCERT.

A Musical Programme by the Discus Ensemble and 7ZL Artists.

7.30 p.m.—Ena Twibell, violin solos:

"Paderewski's Minute" (Kreisler).

"Midnight Bells" (Kreisler).

7.40 p.m.—Princes Orchestra, Selection:

"La Paloma."

7.43 p.m.—Florence Sturgess, whispering contralto:

"Phumestones" (Harford-Worlock).

"Mighty Lak a Rose" (Nevin).

7.50 p.m.—Cherniavsky Trio:

"Caprice Viennoise."

7.53 p.m.—Ruby Wallace, soprano:

"E'legie" (Massenet).

"La Serenata" (Tosti).

8 p.m.—G.P.O. Clock chimes the hour.

8.1 p.m.—Acknowledgment of 7ZL and "Mercury" Appeal for Wireless Equipment of Hobart General Hospital. Senior Birthday Greetings.

FIFTY YEARS AGO TO-DAY.

"All our past proclaims our future."

8.3 p.m.—Gwen Davidson, soprano:

"Cuckoo Call" (May Brahe).

"The Bird with a Broken Wing" (Golson).

8.10 p.m.—Mandolin Band: "The Belfrey."

8.14 p.m.—Jack Broadbent, baritone:

"You are all that is Lovely" (Finden).

"An Emblem" (Thompson).

8.20 p.m.—M. Isaacs, pianist:

"Chant Blonais."

8.23 p.m.—Ena Twibell, violin solos:

"Rondino" (Kreisler).

"Svendsen" (Svendsen).

8.30 p.m.—Mandolin Band:

"Les Million D'Arlequin."

8.33 p.m.—Florence Sturgess, whispering contralto:

"Little Mary Fawcett" (James Witty).

"A Little Bit o' Honey" (Jacobs-Bond).

8.40 p.m.—Madame Butterfly, selection:

"Bridal March."

8.43 p.m.—Ruby Wallace, soprano:

"Love is meant to make us Glad" (German).

"Tell me, do the roses blow" (Green).

8.50 p.m.—Madame Butterfly, selection:

"Wedding March."

8.53 p.m.—Gwen Davidson, soprano:

"Invitation" (K. Barry).

"From the Land of Sky Blue Water"

(Wakefield-Cadman).

9 p.m.—Instrumental Trio:

"The Herd Girl's Dream."

9.3 p.m.—Jack Broadbent, baritone:

"Vale" (Russell).

"The Arrow and the Song" (Balfe).

9.10 p.m.—Les Ainsworth, Divisional Returning Officer for Denison, will speak on:

"Voting to-morrow is Compulsory."

Words of advice to electors in the Polling Booth."

9.20 p.m.—"A Musical Half-hour with the Old Masters":

"The History and Development of Music."

J. M. Counsel.

10.5 p.m.—British Official Wireless News.

Readings from the "Weekly Courier."

"Mercury" special Tasmanian News Service.

Railway Auction Produce Sales.

Weather information. Hobart Stock Exchange quotations.

Royal Autocar Club of Tasmania: Road Guide for the week-end.

Cycling notes by the Hobart Cycling Association.

Athletic news by the Amateur Athletic Association of Tasmania.

Market Reports from Messrs. Wise and Stirling.

Messrs. Roberts and Co., and Messrs. A. G. Webster and Sons.

"God Save the King."

Close down.

Saturday, November 17

New South Wales Broadcasting

Company, Limited.

2FC, SERVICE.

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.

7.5 a.m.—Studio Music.

7.20 a.m.—Country Session: Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services, river reports.

7.25 a.m.—Investment market, mining share market, metal quotations.

7.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.

7.45 a.m.—"Sydney Morning Herald" summary.

7.50 a.m.—Studio Music.

8 a.m.—"Big Ben." Close down.

MORNING SESSION.

10 a.m.—"Big Ben" and announcements.

10.2 a.m.—Studio Music.

10.10 a.m.—"Sydney Morning Herald" news service.

10.25 a.m.—Studio Music.

10.30 a.m.—Last minute racing information by the 2FC Racing Commissioner.

10.40 a.m.—Studio Music.

10.45 a.m.—Mr. G. J. Lockley ("Redgum"): Hints on Gardening.

11 a.m.—"Big Ben."

A.P.A. and Reuter's Cable Services.

11.5 a.m.—Close down.

MIDDAY AND AFTERNOON SESSIONS.

Note.—Between 11 a.m. and 12 noon the "Hello man" will conduct a Children's Party at the Studios, assisted by Uncle Ted and "Sandy."

11.55 a.m.—From the Sydney Cricket Ground. Details of the International Cricket Match, England versus "An Australian XI," to be played to-day.

12 noon—"Big Ben" and announcements.

12.2 p.m.—Stock Exchange.

12.4 p.m.—From the Sydney Cricket Ground: Description of the play and progress scores of the Cricket Match, England versus "An Australian XI."

1.30 p.m.—From the Studio:

Weather forecast.

1.32 p.m.—"Evening News" midday news service.

1.40 p.m.—Rugby wireless news.

1.45 p.m.—Studio Music.

Note.—Descriptions of the events at the A.J. Club's Meeting at Randwick will be given by the 2FC Racing Commissioner. During racing and sporting intervals, items from the Studio, including:

The "Tuneful Three," instrumentalists.

Fred Stevens, banjo solos:

(a) March, "National Emblem" (Bagley).

(b) "Gypsy Love Song" (Victor Herbert).

(c) "Marcheta" (Schertzing).

(d) "Medley of Waltzes."

(e) "Parade of the Wooden Soldiers" (Leon Jessel).

4.45 p.m.—Complete sporting resume.

5 p.m.—"Big Ben." Close down.

EARLY EVENING SESSION.

5.40 p.m.—The chimes of 2FC.

5.45 p.m.—Children's Session, conducted by the "Hello Man."

6.30 p.m.—Music and entertainment.

6.40 p.m.—Weather intelligence, shipping Stock Exchange.

6.50 p.m.—Sporting news, late news and studio music.

7.10 p.m.—Dinner Music by the 2FC Quartet, conducted by Horace Keats:

"Prelude in G Minor" (Rachmaninoff).

"Lotus Blossoms" (Ohlsen).

"The Mikado" (Sullivan).

"A little love story" (Lotter).

"Tales of the Vienna Woods" (Strauss).

"In a Bamboo Garden" (Donaldson).

NIGHT SESSION.

7.40 p.m.—Announcements.

7.45 p.m.—Studio music.

7.50 p.m.—Cricket resume for New Zealand enthusiasts.

7.52 p.m.—Pianoforte reproduction.

8 p.m.—"Big Ben." Saxophone Sextet, conducted by J. C. Little.

8.15 p.m.—John Mitchell, tenor:

(a) "Evening Song" (Blumenthal).

(b) "Only one word for her," (Loughborough).

8.23 p.m.—The Saxophone Sextet.

8.33 p.m.—Charles Lawrence, entertainer.

8.53 p.m.—Rae Foster, Popular songs.

9 p.m.—"Big Ben." Late weather forecast.

From the tally room at the G.P.O., Sydney. Progress reports of the Voting in connection with the Federal Election.

9.10 p.m.—The Saxophone Sextet.

9.20 p.m.—John Mitchell, tenor:

(a) "La Serenata" (Braga).

(b) "She is far from the Land" (Frank Lambert).

9.28 p.m.—The Ambassadors' Dance Orchestra.

9.38 p.m.—From the Studio:

Charles Lawrence and Rae Foster, duet.

9.42 p.m.—The Ambassadors' Dance Orchestra.

9.55 p.m.—Rae Foster, popular song.

10 p.m.—"Big Ben" from the tally room at the G.P.O. Sydney.

Progress reports of the voting in connection with the Federal Elections.

10.10 p.m.—The Ambassadors' Dance Orchestra.

10.20 p.m.—Charles Lawrence, entertainer.

10.25 p.m.—The Ambassadors' Dance Orchestra.

10.40 p.m.—From the Studio:

Charles Lawrence and Rae Foster: Duet.

10.45 p.m.—The Ambassadors' Dance Orchestra.

10.57 p.m.—From the Studio:

To-morrow's programme and late news.

11 p.m.—"Big Ben." From the Tally Room at the G.P.O., Sydney. Progress reports of the Voting in connection with the Federal Elections.

11.10 p.m.—The Ambassadors' Dance Orchestra.

Interspersed with Election results until 1 a.m.

1 a.m.—Progress results and full resume of the Elections in each State.

1.10 p.m.—Close down.

2BL, SERVICE.

SATURDAY, 17th NOV., 1928.

MORNING SESSION.

8 a.m.—G.P.O. Clock and chimes.

Metropolitan Weather report.

8.1 a.m.—State weather report.

8.2 a.m.—Studio music.

8.15 a.m.—G.P.O. Clock and chimes.

News from the "Daily Telegraph Pictorial."

8.25 a.m.—Studio music.

8.35 a.m.—Information, Mails, shipping, arrivals, departures and sailings.

8.38 a.m.—News from the "Daily Telegraph Pictorial."

- 8.45 a.m.—G.P.O. Clock and chimes.
Studio music.
9 a.m.—G.P.O. Clock and chimes.
Studio music.
9.30 a.m.—Half an hour with silent friends.
10 a.m.—G.P.O. Clock and chimes.
Close down.

MIDDAY SESSION.

- 11 a.m.—G.P.O. Clock and chimes.
Women's Session.
11.30 a.m.—Miss Pam—Recipes and other items of interest.
12 noon.—G.P.O. Clock and chimes.
Special Ocean forecast and weather report.
12.3 p.m.—Studio music.
12.30 p.m.—"Sun" news service.
12.40 p.m.—Whats on at the Pictures and Theatres.
12.45 p.m.—Pianoforte recital from the studio.
1 p.m.—G.P.O. Clock and chimes.
Studio music.
1.30 p.m.—"Sun" news service.
1.40 p.m.—Studio music.
2 p.m.—G.P.O. Clock and chimes.
Close down.

During the afternoon results from A.J.C. Meeting at Randwick will be given by courtesy of the "Sun" newspapers.

AFTERNOON SESSION.

- Accompanist. JEANNETTE PATTERSON.
2.15 p.m.—G.P.O. Clock and chimes.
From the Sydney Cricket Ground: Description of play in the International Match, England versus an Australian XI.
4 p.m.—From the studio:
Mr. Herbert Snelling, light baritone.
4.7 p.m.—Mr. Andrew Shill, 'cellist.
4.14 p.m.—From the Sydney Cricket Ground: Description of play in the International Match, England versus an Australian XI.
5 p.m.—From the studio:
Mr. Herbert Snelling, light baritone.
5.7 p.m.—Mr. Andrew Shill, cellist.
5.14 p.m.—"Sun" news service.
5.24 p.m.—Music from the Studio.
5.30 p.m.—Racing resume.
5.40 p.m.—From the Sydney Cricket Ground: Description of Play in the International Match, England versus an Australian XI.
Note: During the afternoon race results from the A.J.C. Meeting at Randwick will be given as received by courtesy of the "Sun" Newspapers.

EARLY EVENING SESSION.

- 6 p.m.—Children's letters and stories.
6.30 p.m.—"Sun" news and late sporting.
6.40 p.m.—2BL Dinner Quartette:
(a) "Mazurka" (Malling).
(b) "My Wild Irish Rose" (Olcott).
(c) Suite, "The Merchant of Venice" (Rosse).
(d) "Liebestraum" (Liszt).
(e) "Moonlight" (Finck).
(f) "Little Lady of the Moon" (Coates).
7.10 p.m.—Complete Sporting resume.
Complete racing resume.
7.30 p.m.—Mr. Pim and Miss Pam in advertising talks and nonsense.
7.55 p.m.—Programme and other announcements.

EVENING SESSION.

- 8 p.m.—G.P.O. Clock and chimes.
2BL Topical Chorus.
8.3 p.m.—Mr. Ernest Tree, tenor:
(a) "Gray Days" (Noel Johnson).
(b) "Come, Sing to Me" (Thompson).
8.10 p.m.—Mr. Harrison White and "Connie," in banjo and piano duets.
8.17 p.m.—Mr. Chas. Renton, comedian.
8.24 p.m.—Mr. Ernest Tree:
(a) "Love's Sorrow" (Old English ballad) (Shelley).
(b) "Just a'Wearyin' for You" (Jacobs-Bond).
8.30 p.m.—Description of racing event, broadcast from the Speedway Royal, R.A.S. Grounds.
8.50 p.m.—Mr. Harrison White and "Connie."
9 p.m.—From the Tally Room, at the G.P.O., Sydney, progress results of the voting in connection with the Federal elections.
9.10 p.m.—The New South Wales Broadcasting Company's Orchestra, under the direction of Mr. Willie Redstone.
9.20 p.m.—Miss Laurel Streeter, in popular items.

- 9.27 p.m.—The New South Wales Broadcasting Company's Orchestra.
9.37 p.m.—Mr. Chas. Renton.
9.44 p.m.—The New South Wales Broadcasting Company's Orchestra.
10 p.m.—From the Tally Room at the G.P.O., Sydney, progress results of the voting in connection with the Federal elections.
10.10 p.m.—From the Speedway Royal, R.A.S. Grounds, description of racing event.
10.16 p.m.—The New South Wales Broadcasting Company's Orchestra.
10.30 p.m.—Miss Laurel Streeter.
10.37 p.m.—Resume of following day's programme.
10.40 p.m.—The Wentworth Cafe Dance Orchestra, under the direction of Mr. Jimmy Elkins, broadcast from the Wentworth. During intervals between dances, progress results of the voting in connection with the Federal elections will be given.
11.30 p.m.—National Anthem.

2GB, SYDNEY.

SATURDAY, 17th NOV., 1928.

EVENING SESSION.

- 5.30 p.m.—Children's Session by Uncle George.
7 p.m.—Stock and Market reports by New Zealand Loan and Mercantile Agency Ltd.
7.15 p.m.—Music.
7.20 p.m.—Dance Programme.
8 p.m.—Request evening.
9 p.m.—Grown-up Children's Bedtime stories.
10 p.m.—Close down.

2 UW, SYDNEY

SATURDAY, 17th NOV., 1928.

EVENING SESSION.

- 5.30 p.m.—Bed time stories conducted by Uncle Jack.
6.30 p.m.—Close down.
7 to 9.59 p.m.—Musical programme.
10 p.m.—Close down.

3LO, MELBOURNE.

SATURDAY, 17th NOV., 1928.

EARLY MORNING SESSION.

- 7.15 a.m.—Morning Melodies.
7.20 a.m.—Morning Exercises to Music.
7.30 a.m.—Stock reports. Market reports.
General News.
Shipping. Sporting information.
8 a.m.—Melbourne Observatory Time Signal.
Express train information.
8.1 a.m.—Morning Melodies.
8.15 a.m.—Close down.

MORNING SESSION.

- 11 a.m.—ERIC WELCH will speak on to-day's Races at Caulfield.
11.10 a.m.—THE STATION ORCHESTRA: Overture, "Lurline" (Wallace).
11.20 a.m.—PETER BERNER and J. CERA, Accordion and Guitar:
"Pietro's Return" (Duro).
"The Gay Hunters" (Duro).
11.27 a.m.—FREDA NORTHCOTE, Contralto:
"Will He Come" (Sullivan).
"Good Morning Brother Sunshine" (Lehmann).
11.34 a.m.—THE STATION ORCHESTRA:
"A Fanciful Vision" (Rubinstein).
"Petite Muzurka" (Sapellonikoff).
11.44 a.m.—PETER BERNER and J. CERA, Accordion and Guitar:
"Margherita" (Glarozio).
"Addio Venezia" (Glarozio).
11.51 a.m.—FREDA NORTHCOTE, Contralto:
"I Love you Truly" (Jacobs-Bond).
"Still Unexpressed" (Jacobs-Bond).

MIDDAY SESSION.

- 12 noon.—Melbourne Observatory Time Signal.
Express train information.

- 12.1 p.m.—Metal prices received by the Australian Mines and Metals Association from the London Stock Exchange this day.
British Official Wireless news from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service.
12.20 p.m.—THE STATION ORCHESTRA:
"Largo" (Beethoven).
"Serenade Hongroise" (Jonciers).
12.30 p.m.—FRANK HARWOOD:
Character Vocalist.
12.37 p.m.—Stock Exchange information.
12.40 p.m.—THE IMPERIAL RUSSIAN TRIO:
"Trio B Flat" (Mozart).
Larghetto and Allegro.
12.55 p.m.—CONSTANCE FLAVEL, Soprano:
"Se Saran Rose" (Arditi).
"The Rose Enslaves the Nightingale" (Rimsky-Korsakov).
1 p.m.—THE STATION ORCHESTRA:
"Butterflies" (Seiler).
"It is Night" (Black).
1.10 p.m.—Meteorological information.
Weather forecast for Victoria, Tasmania, South Australia and New South Wales.
Ocean forecasts. River reports.
1.17 p.m.—FRANK HARWOOD:
Character Vocalist.
1.24 p.m.—THE STATION ORCHESTRA:
"After Twilight" (Steindell).

AFTERNOON SESSION.

- 1.28 p.m.—Description of the Kasouka Hurdle Race, 2 miles 65 yards, CAULFIELD RACES, by ERIC WELCH.
1.35 p.m.—Description of Pennant Cricket Match, Melbourne v. Collingwood, at M.C.G., by ROD MCGREGOR.
2.23 p.m.—Description of the Stansmore Two-year-old Race 5 furlongs at CAULFIELD.
2.30 p.m.—Description of the Pennant Cricket Match, Melbourne v. Collingwood, at M.C.G.
3.3 p.m.—Description of the Armadale Handicap, 1 mile 3 furlongs, at CAULFIELD.
3.10 p.m.—Description of the Pennant Cricket Match, Melbourne v. Collingwood, at M.C.G.
3.38 p.m.—Description of the Tara Steeplechase, about 2 miles, at CAULFIELD.
2.45 p.m.—Description of the Pennant Cricket Match, Melbourne v. Collingwood, at M.C.G.
4 p.m.—SONORA RECITAL.
4.13 p.m.—Description of the Ormond Stakes, 1 mile, at CAULFIELD RACES.
4.20 p.m.—Description of the Pennant Cricket Match, Melbourne v. Collingwood at M.C.G.
4.48 p.m.—Description of the Rosstown Plate, 6 furlongs, at CAULFIELD RACES.

NEWS SESSION.

- 4.55 p.m.—"Herald" News Service.
Stock Exchange information.
5.5 p.m.—Close down.
During the afternoon results of the Marong Races will be given as they come to hand. Also progress scores of Cricket—England v. an Australian Eleven at Sydney.

EVENING SESSION.

- 5.50 p.m.—Sporting results.
6 p.m.—Answers to Letters and Birthday Greetings by "LITTLE MISS KOOKABURRA."
6.25 p.m.—Musical interlude.
6.30 p.m.—"LITTLE MISS KOOKABURRA" will tell another old favorite.
"Little Red Riding Hood."
And for the older Ones the story of "Lochinvar."

NIGHT SESSION.

- 7.5 p.m.—Stock Exchange information.
7.15 p.m.—Official reports of the Newmarket Stock Sales by the Associated Stock and Station Agents, Bourke-street, Melbourne. Fish market reports by J. R. Borrett, Ltd. Rabbit prices. River reports. Market reports by the Victorian Producers' Co-operative Company, Ltd. Poultry, grain, hay, straw, jute, dairy produce, potatoes and onions. Market reports of fruit by the Victorian Fruitgrowers' Association. Wholesale prices of fruit by the Wholesale Fruit Merchants' Association. Citrus fruits.
7.30 p.m.—News Session. Results of pennant cricket match, Melbourne v. Collingwood, at M.C.G., and England v. an Australian XI, at Sydney.
7.43 p.m.—Birthday Greetings.
7.44 p.m.—OUT OF THE Past.

7.45 p.m.—DR. J. A. LEACH will speak on "Rei Robins."

8 a.m.—A MAKER OF HISTORY.
Programme Announcements.
TASMANIAN LETTER TO 3LO FROM THE "COURIER," LAUNCESTON.

8.5 p.m.—PRAHRAN CITY BAND (Conductor Percy Code):
March: "Entry of the Gladiators."
Intermezzo: "Rosebuds" (Hume).

8.15 p.m.—JOHN HOBBS, Baritone:
"Bachelors of Devon" (Day).
"Beware of the Maidens" (Day).

8.22 p.m.—PRAHRAN CITY BAND:
Overture: "Don Giovanni."

8.29 p.m.—ANNE MIDDLETON, Soprano:
"September" (Jewell).
"Didn't You Know" (Lehmann).

8.36 p.m.—PRAHRAN CITY BAND:
Selection, "The Talisman" (Balfe).

8.45 p.m.—JOHN HOBBS, Baritone:
"Gipsy Dan" (Russell).
"At Grendon Fair" (Marie).

8.53 p.m.—PRAHRAN CITY BAND:
"Humoreske" (Dvorak).
March, "The Vedette" (Alford).

9 p.m.—ERIC WELCH will describe to-night's events at the Stadium.

9.15 p.m.—Song Feature of the Week.

9.19 p.m.—Progress report Federal Elections—First count.

9.21 p.m.—PRAHRAN CITY BAND:
Selected.

9.31 p.m.—PAT McLEAN:
"Child Studies."

9.38 p.m.—PRAHRAN CITY BAND:
Selected.

9.50 p.m.—ERIC WELCH, will describe events at the Stadium.

10.15 p.m.—Progress results, of Federal Elections.

10.20 p.m.—PRAHRAN CITY BAND:
"Indian Love Lyrics" (Findon).

10.30 p.m.—ANNE MIDDLETON, Soprano:
"Snowflakes" (Mallinson).
"The Robin's Song" (White).

10.37 p.m.—Late Sporting Results.

10.45 p.m.—THE RADIO-ACES:
"Saluta" (Kahn).
"Ramona" (Wayne).
"Rain" (Ruby).
"Mother of Mine" (Jolson).
"Rolling Round in Roses."

11 p.m.—OUR GREAT THOUGHT:
"Envy, to which the ignoble mind's a slave, is emulation in the learned or brave."
—Pope.

11.1 p.m.—Progress results—Federal Elections

11.4 p.m.—RADIO-ACES.

11.40 p.m.—In connection with Federal Elections—the Station will continue to broadcast until latest results are available.

GOD SAVE THE KING.

3AR, MELBOURNE

SATURDAY, 17th NOV., 1928.

MORNING NEWS SESSION.

10 a.m.—G.P.O. Clock says "Ten."

10.1 a.m.—"Age" Stock Exchange report.
London Metal Market.

10.10 a.m.—"Age" market reports—farm and station produce, fruit, fish, vegetables, etc.

10.25 a.m.—"Age" shipping reports. Ocean forecast.

10.30 a.m.—Mail notices. Express train information.

10.35 a.m.—"Age" news service, exclusive to 3AR.

10.59 a.m.—Weather forecast.

MORNING MUSICAL SESSION.

11 a.m.—Radi-o-aces:
"Don't Keep Me in the Dark" (Bryan).
"Brown" (Darbney).
"Lo Nah" (Stept).
"Happy Go Lucky Lane" (Lewis).

11.15 a.m.—Archie and Wattie:
Witty Whimsicalities.

11.22 a.m.—Radi-o-aces:
"Starlight and Tulips" (Nausbaum).
"Stampede" (Henderson).
"Can't You Hear Me Say I Love You" (Brown).
"I Told Them All About You" (Yellen).

11.37 a.m.—Archie and Wattie:
Go Wild and Wide.

11.44 a.m.—Radi-o-aces:
"Without You, Sweetheart" (De Silva).
"Lolita" (Stoneham).
"After My Laughter Came Tears" (Tobias).
"Beautiful" (Sharp).

12 noon.—Close down.

AFTERNOON SESSION.

3 p.m.—Station Orchestra:
Suite, "Crown of India" (Elgar).

3.15 p.m.—Ralph Thompson, baritone:
"There was a jolly miller."
"Star of Eve" (Wagner).

3.22 p.m.—Station Orchestra:
"Prelude" (Jarnefeldt).
"Elegie" (Arensky).

3.32 p.m.—Ivy Price, soprano:
"I love you truly" (C. Jacobs-Bond).
"The Market" (Molly Carew).

3.39 p.m.—Bertha Jorgensen, violin:
"Minuet" (Popora-Kreisler).

3.44 p.m.—Tom Foster, tenor:
"Mother Machree" (E. Bell).
"I love the moon" (Rubens).

3.51 p.m.—Station Orchestra:
"Scherzo, Op. 16" (Mendelssohn).
"Serenata" (Reiser).

4 p.m.—Ralph Thompson, baritone:
"What a wonderful world it would be" (Lohr).
"Time was I roved" (Lohr).

4.15 p.m.—Station Orchestra:
Overture, "Tannhauser" (Wagner).

4.25 p.m.—Ivy Price, soprano:
"The Jewel Song" from "Faust."
"O lovely night" (Landon Donald).

4.32 p.m.—Station Orchestra:
"Largo," from "Sonata Tragica" (Powell).

4.40 p.m.—Tom Foster, tenor:
"Forget me not" (Florence Hull).
"Megan" (Novello).

4.47 p.m.—Station Orchestra:
Suite, "Woodland Sketches" (MacDowell).

EVENING SESSION.

5 p.m.—A recital of all the best and latest recordings.

NIGHT SESSION.

8 p.m.—Sporting results.

8.30 p.m.—Studio Band:
March, "Uncle Sam."
Overture, "King Edward."

8.40 p.m.—Donian Quartette:
"My Ohio Home" (Donaldson).
"Romona" (Mabel Wayne).

8.47 p.m.—Studio Band:
Minstrel Song, "Keep Dem Golden Gates Wide Open."
"La Paloma," "Song of the Dove."

8.55 p.m.—Millie McCormack, Mezzo soprano:
"By the Waters of Minnetonka" (Lieurance).
"The Owl" (Wells).

9.2 p.m.—One-Act Play, "The Proposal," a comedy by Tchchev, presented by J. Beresford Fowler.
Characters:
Natalya Stapanovna, Sylvia Archer.
Stephen Stepanovitch Tchubukov, (her father), H. N. Gregory.
Ivan Vassilyevitch Lomov (a laborer of Tchubukov), J. Beresford Fowler.

9.27 p.m.—Imperial Russian Trio:
Arved Norit, violin; John Berzinsky, 'cello; William Ibster, piano:
"Trio B Flat" (Mozart).
"Larghetto and Allegro."

9.42 p.m.—Frank Harwood, Character vocalist, by permission Tivoli Theatres Ltd.
Selections from his repertoire.

9.49 p.m.—Norman Farmer, flute:
"Ave Maria" (Schubert).
"Barcarolle" (Offenback).
"Polonaise" (Buse).

9.56 p.m.—Donian Quartette:
"Deep Diver" (Ar. Burleigh).
"Piccanninny Lullaby."

10.3 p.m.—C. E. Monteath, F.R.C.O., Organ recital transmitted from St. Peter's Church. Programme from the works of Franz Schubert, died November 19, 1828.
"Gloria from Mass No. 2 in G."
"Ballet Music in G" from "Rosamunde."
"Cradle Song."
"Minuetto and Trio" from The Pianoforte Sonata in G. Op. 78.
"Military March in D Minor."

10.18 p.m.—Frank Harwood, Character vocalist

10.25 p.m.—Studio Band:
Selections "Lilac Time."

10.35 p.m.—Millie McCormack, mezzo soprano:
"The Nightingales of Lincoln's Inn" (Oliver).
"The Valley of Laughter" (Sanderson).

10.42 p.m.—Studio Band:
Selection, "Songs of England."

10.52 p.m.—Sporting results.

10.58 p.m.—Weather forecast.

10.59 p.m.—Our Australian Good-night quote.

11 p.m.—God Save The King.

4QG, BRISBANE

SATURDAY, 17th NOV., 1928.

EARLY MORNING SESSION.

8 a.m.—This morning's news, supplied by courtesy of the Brisbane Metropolitan Daily Newspapers.

8.30 a.m.—Close down.

NO MORNING SESSION.

NO MIDDAY TRANSMISSION.

AFTERNOON SESSION.

Transmission will commence with the start of the first race.

From Albion Park:

B.A.T.C. race meeting.

Gramophone records form the studio between races.

5 p.m.—Close down.

EARLY EVENING SESSION.

6 p.m.—Mail train running times.

Special "Queenslander" bi-weekly news service for distant listeners.

6.30 p.m.—Bedtime stories conducted by "Uncle Ben."

7.15 p.m.—To-day's race results in brief.

7.20 p.m.—General sporting notes.

7.30 p.m.—Sailing notes by Mr. Fred Smith.

NIGHT SESSION.

During the evening the results of the Federal Elections will be announced from the studio. Between the announcing of various batches of figures, orchestral music will be relayed from the Savoy Theatre, Clayfield. The station will remain open until midnight in order to broadcast the election figures.

8 p.m.—From The Studio:
Election figures.

12 midnight.—Close down.

5CL, ADELAIDE

SATURDAY, 17th NOV., 1928.

MORNING SESSION.

11 a.m.—G.P.O. Chimes.

11.1 a.m.—Special late selections for Caulfield races, supplied by Eric Welch, 3LO's Special Sporting Commissioner.

11.3 a.m.—"The Advertiser" (General News Service).

11.20 a.m.—British Official Wireless news.

11.25 p.m.—Studio "Recreator."
Recital of Parlophone recordings.

11.45 a.m.—Special late selections for Caulfield races supplied by Eric Welch, 3LO's Special Sporting Commissioner.

11.55 a.m.—5CL's Sporting Calendar.

12 noon.—G.P.O. Chimes and close down.

AFTERNOON SESSION.

Sport is the bloom and glow of perfect health.

12.30 p.m.—A running description of the Port Adelaide Racing Club's Meeting by Mr. Arnold Treloar, interspersed with Parlophone recordings on the studio "Recreator," and Caulfield Race results.

5 p.m. (Approx.)—Close down.

EVENING SESSION.

6 p.m.—G.P.O. Chimes.

6.1 p.m.—Resume of sporting.

6.10 p.m.—Children's Happy Moments:
Birthday Greetings, Correspondence, Songs and Stories by "The Wattle Lady."

6.40 p.m.—Dinner Music:
Recital of Parlophone Recordings on the Studio "Recreator."

7 p.m.—G.P.O. Chimes.

7.1 p.m.—S. C. Ward and Co.'s Stock information.

7.10 p.m.—Rev. G. E. Hale, B.A.:
Will speak on "Philosophy for the People."

7.25 p.m.—Talk on the afternoon's sporting events.

7.35 p.m.—C. G. Riley:
Will speak on "Items of Interest."

7.45 p.m.—5CL's Sporting service by "Silvius"

NIGHT SESSION.

- 8 p.m.—G.P.O. Chimes.
 8.1 p.m.—Hindmarsh Municipal Band:
 March, "Independia" (Hall).
 Overture, "Zampa" (Herojd).
 8.12 p.m.—Signor Ulivi, bass-baritone:
 Selections from his repertoire.
 8.19 p.m.—James Glennon, violinist:
 "Air on G String" (Bach).
 "Sonata Finale" (Handel).
 8.26 p.m.—Wattie and Grahame, entertainers.
 In comedy sketches.
 8.36 p.m.—Hindmarsh Municipal Band:
 Cornet solo, "The Rosary" (Nevin).
 (Soloist, A. Ellis).
 American Sketch, "Down South" (Hawkes).
 8.43 p.m.—Meta Riedel, contralto:
 "I did not know" (Trotter).
 "The Little old Garden" (Hewitt).
 8.50 p.m.—A. V. Noske, Flautist:
 "Polka Caprice" (Terschak).
 "Till's Serenade."
 8.55 p.m.—A short resume of the early count
 of the Federal Elections.
 9 p.m.—G.P.O. Chimes.
 9.1 p.m.—Hindmarsh Municipal Band:
 Spanish Serenade, "La Paloma" (Yradier).
 Waltz, "Sunset on the St. Lawrence" (Haw-
 kes).
 9.10 p.m.—Signor Ulivi, bass-baritone:
 Selections from his repertoire.
 9.17 p.m.—Meta Riedel, contralto:
 "Danny Boy" (Weatherly).
 "The Star" (Rogers).
 9.22 p.m.—James Glennon, violinist:
 "Berceuse" (Jarfelt).
 "Serenade" Op. 7. (Pierne).
 9.28 p.m.—Federal Election Figures.
 9.31 p.m.—Hindmarsh Municipal Band:
 Selection, "Stradella" (Flotow).
 "Veni Vidi Vici" (Hall).
 9.41 p.m.—Wattie and Grahame, entertainers:
 Comedy Sketches.
 9.51 p.m.—Hindmarsh Municipal Band:
 Selection, "Patience" (Sullivan).
 10 p.m.—G.P.O. Chimes.
 10.1 p.m.—5CL's Sporting Service.
 10.10 p.m.—Federal Election Figures.
 10.15 p.m.—A. V. Noske, flautist:
 "Andalouse" (Possard).
 "Rose Way."
 10.22 p.m.—Hindmarsh Municipal Band:
 Fantasia, "Rustic Festival" (Calvert).
 10.30 p.m.—On with the Dance:
 By courtesy of 3LO Melbourne. Dance
 numbers by the famous Radio-aces.

6WF, PERTH

SATURDAY, 17th NOV., 1928.

MIDDAY SESSION.

- 12 noon.—Tune in.
 12.5 p.m.—Musical programme from the
 Studio, including pianoforte selections by
 Miss Audrey Dean.
 12.47 p.m.—Markets, News and cables.
 1 p.m.—Time signal.
 1.1 p.m.—Weather notes supplied by the Me-
 teorological Bureau of Western Australia.
 Station announcements.
 1.2 p.m.—Close down.

AFTERNOON SESSION.

- 3.15 p.m.—Tune in.
 3.20 p.m.—Sporting Session:
 Racing results and general sporting news.
 At intervals during the afternoon results
 will be given of the cricket match between
 the English Eleven v. the Australian
 Eleven, played at Sydney.
 Musical programme from the studio, includ-
 ing vocal and instrumental numbers.
 3.15 p.m.—Close down.

EVENING SESSION.

- 6.45 p.m.—Tune in.
 The evening transmission is broadcast on
 104.5 metres as well as the usual wavelength.
 6.48 p.m.—Stories for the Kiddies by Uncle
 Duffy and the Radio Bird.
 Fairy stories for the Tiny Tots by Auntie
 Amy.
 7.5 p.m.—Sports results.
 7.30 p.m.—Markets, News and cables.
 7.45 p.m.—Talk.
 8 p.m.—Time signal.
 8.1 p.m.—Weather notes supplied by the Me-
 teorological Bureau of Western Australia.
 Station announcements such as alterations to
 programmes, etc.

8.3 p.m.—Music and Song:

- Musical programme from the studio, includ-
 ing vocal and instrumental artists.
 Items by Mr. W. L. Menkens Concert Party.
 Dance music by Patman's orchestra, relayed
 from the Unity Theatre.
 9 p.m.—Late news items by courtesy of "The
 Daily News" Newspaper Co.
 Ships within range announcement.
 Weather report and forecast.
 Station announcements.
 Sports results.
 10.30 p.m.—Close down.
 104.5 METRE TRANSMISSION.
 Simultaneous broadcast on 104.5 metres of
 programme given on 1250 metres, commen-
 cing at 6.45 p.m.

7ZL, HOBART

SATURDAY, 17th NOV., 1928.

MIDDAY SESSION.

- 11.15 a.m.—Description of Secondary School
 Cricket Match, Friends High School v.
 Hutchins School, at North Hobart Oval.
 11.30 a.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 11.40 a.m.—Description of Secondary School
 Cricket Match, Friends High v. Hutchins
 at North Hobart Oval.
 11.55 a.m.—Tasmanian Stations 9 a.m. Weather
 report.
 12 noon.—G.P.O. Clock chimes the hour.
 12.1 p.m.—Shipping information.
 Ships within wireless range.
 Mail Notices.
 Commercial news.
 12.8 p.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 12.10 p.m.—British Official Wireless news.
 12.15 p.m.—Description of Secondary Schools
 Cricket Match, Friends High v. Hutchins, at
 North Hobart Oval.
 12.30 p.m.—Anticipations, 3LO Sporting Com-
 missioner's last minute selections for Mel-
 bourne races.
 12.35 p.m.—Results of Secondary School Cricket
 Match, Friends High v. Hutchins, and St.
 Virgils v. Clemes.
 12.38 p.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 12.55 p.m.—"Mercury" news service.
 Produce sales at railway.
 1.10 p.m.—Messrs. Autotone and Zonophone
 in Aerial Undertones.
 1.30 p.m.—Running description of Kasouka
 Hurdle Race, 2 miles, 65 yards, run at
 Caulfield Race Course, Caulfield.
 1.35 p.m.—Close down.
 2.35 p.m.—Running description of Stanmore
 Two Year Old, 5 furlongs, run at Caulfield
 Race Course, Caulfield.

AFTERNOON SESSION.

- 2.50 p.m.—Transmission from T.C.A. Ground,
 Cricket Match, Sandy Bay v. New Town.
 Described by A. M. O'Leary.
 3.5 p.m.—Running description of Armadale
 Handicap, 1 mile 3 furlongs, run at Caulfield
 Racecourse, Caulfield.
 3.10 p.m.—Transmission from T.C.A. Ground,
 Cricket Match, Sandy Bay v. New Town.
 Described by A. M. O'Leary.
 3.31 p.m.—Messrs. Autotone and Zonophone
 in Aerial Undertones.
 3.40 p.m.—Running description of Tara
 Steeplechase, about 2 miles, run at Caulfield
 Racecourse, Caulfield.
 3.45 p.m.—Transmission from T.C.A. Ground,
 Cricket Match, Sandy Bay v. New Town.
 Described by A. M. O'Leary.
 4 p.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 4.15 p.m.—Running description of Ormond
 Stakes, 1 mile, run at Caulfield Racecourse,
 Caulfield.
 4.20 p.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 4.50 p.m.—Running description of Rosstown
 Plate, 6 furlongs, run at Caulfield Race-
 course, Caulfield.
 4.55 p.m.—All Sporting results to hand.
 5 p.m.—Transmission from T.C.A. Ground,
 Cricket Match, Sandy Bay v. New Town.
 Described by A. M. O'Leary.
 5.15 p.m.—Close down.
 During the afternoon results will be given
 of the Tas. Turf Club and Interstate results.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

- 6 p.m.—All Sporting results to hand.
 6.15 p.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 6.45 p.m.—"Uncle David" will entertain the
 wee folk.
 7 p.m.—Answers to letters and Birthday
 Greetings by "Uncle David."
 7.5 p.m.—Messrs Autotone and Zonophone in
 Aerial Undertones.
 7.15 p.m.—"Mercury" special information.
 Hobart Stock Exchange quotations.
 To-day's Golf, Athletics, Racing, Cricket.
 "Mercury" late sporting.
 Results of New Town Egg Laying Competi-
 tion, Homing, Bowling.

EVENING SESSION.

- 7.30 p.m.—Roy Johnston will give a talk on
 Manual Training.
 7.45 p.m.—The Discus ensemble.
 Australian Commonwealth Band, conducted
 Albert Baile:
 Marches, "Entente Cordiale" (Shipley).
 "Australia Forever" (Betteridge).
 John Brownlee, baritone:
 "Invictus" (Huhn).
 "Trees" (Rasbach).
 The Romany Trio, Zimbalom, 'Cello and
 Harp:
 "Drink to me only" (Boccherine).
 "Minuet" (Boccherine).
 8 p.m.—G.P.O. Clock chimes the hour.
 8.1 p.m.—Acknowledgement of 7ZL and "Mer-
 cury" Appeal for Wireless Equipment of
 Hobart General Hospital. Senior Birthday
 Greetings.
 John Brownlee, baritone:
 "Elegie" (Massenet).
 "I'll not complain" (Schumann).
 Australian Commonwealth Band, conductor,
 Albert Baile:
 "Pagliacci". On with the Motley (Leonco-
 valo).
 "The Switchback" (Sutton).
 Charles W. Hamp, tenor:
 "Masquerade" (Hamp).
 "Dream House" (Cowan).
 National Military Band:
 "National Emblem March" (Bagley).
 "The Stars and Stripes" (Sousa).
 Sheffield Orpheus Male Voice Choir:
 "There is a Tavern in the Town" (Trad-
 itional).
 8.30 p.m.—Transmission from Continental,
 Macquarie Street, Hobart.
 Theo. Pipkin and his Continental Orchestra.
 10.20 p.m.—To-day's Sporting results.
 "Mercury" special Interstate news service.
 Ships within wireless range.
 Tasmanian District Weather reports.
 During the evening Progress results will
 be given of the Federal Elections.
 10.24 p.m.—Close down.
 God Save The King.

Sunday, November 18

New South Wales Broadcasting
Company, Limited.

2FC, SERVICE.

MORNING SESSION.

- 10.0 a.m.—"Big Ben" and Announcements.
 10.2 a.m.—Studio Music.
 10.15 a.m.—News Service.
 10.30 a.m.—Studio Music.
 11.0 a.m.—"Big Ben." From St. Stephen's
 Church, Phillip Street: The Morning Ser-
 vice, conducted by Rev. Hugh Paton.
 Approx.
 12.15 p.m.—Close Down.

AFTERNOON SESSION.

- 2.30 p.m.—Programme Announcements.
 2.32 p.m.—Children's Session, conducted by
 Frank Grose.
 3.0 p.m.—Pianoforte Reproduction.
 3.15 p.m.—Studio Music.
 3.30 p.m.—From the Band Rotunda, Manly:
 The Manly Municipal Band, conducted by
 James Pheloung.
 5.0 p.m.—"Big Ben." Close Down.

EVENING SESSION.

- 6.0 p.m.—"Big Ben." and Announcements.
 6.2 p.m.—Foster and Finlay, Musical Memories.
 6.12 p.m.—Russell Callow, Tenor:
 6.18 p.m.—Ernest Frank, Pianoforte, Lecture, Recital.
 6.33 p.m.—Russell Callow, Tenor:
 6.41 p.m.—Foster and Finlay, Musical Memories.
 6.52 p.m.—Pianoforte Reproduction.
 7.0 p.m.—"Big Ben." From the Lyceum Hall, Pitt Street: The Evening Service, conducted by Rev. H. C. Foreman.
 8.30 p.m.—From the Studio:
 The Austral Quartette:
 (a) "The Arcadians" Selection (Monckton).
 (b) "Marcheta" (Schertzing).
 (c) "Minuet in F" (Sinclair Logan).
 8.50 p.m.—The Life of Schubert, and a short resume of his Works, told by Madame Emily Marks, illustrated with songs and pianoforte:
 (a) Pianoforte solo, "Impromptu A Flat."
 (b) Contralto solo, "The Wanderer" (Peggy Dunbar).
 (c) Soprano Solo, "Who is Sylvia" (Madame Emily Marks).
 (d) Pianoforte Solo, "Serenade" (Enid Hynes).
 (e) Contralto Solos, "The Secret."
 "The Fisher Maiden" (Peggy Dunbar).
 (f) Soprano Solo, "Ave Maria" (Madame Emily Marks).
 (g) Pianoforte Solo, "Hark, Hark, the Lark" (Enid Hynes).
 9.40 p.m.—The Austral Quartette:
 (a) "Cradle Song" (Brahms).
 "Gavotte" (Gluck).
 (b) "Elegie" (Massenet).
 "My Soul" (Jacobs Bond).
 "The String of Pearls" (Phillips).
 "Before the Dawn" (Lang).
 "Salaam" (Elkin).
 (c) "Thais" (Massenet).
 10.0 p.m.—"Big Ben."
 Pianoforte Recital of the Lighter Classics.
 10.30 p.m.—National Anthem.
 Close Down.

2BL, SERVICE.

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

- 11.0 a.m.—Service Broadcast from St. Jude's Church of England, Randwick. Minister, Canon Cakebread.
 12.15 p.m.—"Sun" News Service.
 12.30 p.m.—Musical Programme from the Studio.
 2.0 p.m.—G.P.O. Clock and Chimes; Close Down.

AFTERNOON SESSION.

- 3.0 p.m.—G.P.O. Clock and Chimes.
 Anniversary Service Broadcast from St. David's Presbyterian Sunday School, Haberfield.
 Hymn 26.
 Invocation.
 Hymn 25.
 Bible Reading.
 Solo.
 Prayer.
 Hymn 20.
 Intimations and Offering: Organ Solo, Miss Alberta Reeve.
 Hymn 9.
 Address, Dr. E. L. Watson, the celebrated London Evangelist.
 Solo.
 Benediction.
 Hymn 1.
 4.0 p.m.—Organ Recital by Mr. Nicholas Robins, broadcast from the Arcadia Theatre, Chatswood.
 5.0 p.m.—G.P.O. Clock and Chimes.
 Close Down.

EVENING SESSION.

- 5.40 p.m.—Children's Session: Uncle Bas and the Kiddies.
 6.30 p.m.—Service Broadcast from Newtown Congregational Church. Minister: Rev. Mearns Massie, Organist, Mr. Penn Hughes, Leader of Orchestra, Miss Maud Howsen.

Organ and Orchestral Recital:

- Orchestra, "Sacred Wreath No. 6" (Volti).
 Organ solo, "Love's Dream" (Bennett).
 Orchestra, "Sacred Wreath No. 31" (Volti).
 Organ solo, "Evensong" (Martin).
 7 p.m.—Call to Worship. Doxology, Short Prayer, Gloria (Chanted).
 Hymn 2, "All Hail the Power."
 Scripture Lesson.
 Healing Prayer.
 Quartette, "Watchman, What of the Night" (Sargeant).
 Hymn 5, "Praise My Soul."
 Messages to Sick Friends.
 Quartette, "Remember Me, O Mighty One" (Alexander).
 Announcements: Questions for November.
 Offertory Anthem, "At even ere the Sun was Set" (Turner).
 Hymn 9, "Lead, Kindly Light."
 Sermon, "Questions that are never answered"—The Pastor.
 Hymn 12, "I Heard the Voice of Jesus."
 Benediction.
 Retiring, "Onward, Christian Soldiers."
 8.30 p.m.—The Manly Municipal Military Band (Conductor, Mr. J. Pheloung), broadcast from Ocean Beach, Manly.
 9.30 p.m.—From the Studio:
 Mr. Norman Janson (Baritone):
 (a) "Pleading" (Elgar).
 (b) "Go, Lovely Rose" (Quilter).
 9.37 p.m.—Mr. Gerald Walenn (Violinist).
 9.44 p.m.—Mr. Norman Janson:
 (a) "Sylvia" (Speakers).
 (b) "The Volga Boatman" (Koeneman).
 9.51 p.m.—Resume of Following Day's Programme.
 Weather Report and Forecast by courtesy of Government Meteorologist.
 9.53 p.m.—Mr. Gerald Walenn.
 10.0 p.m.—G.P.O. Clock and Chimes.
 National Anthem.

2GB, SYDNEY

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

- 10.15 p.m.—Organ Music from St. Alban's Church, Redfern.
 10.30 a.m.—Morning Service.
 12 noon.—Close down.

EVENING SESSION.

- 7.30 p.m.—Children's Session.
 7 p.m.—Lecture from Adyar Hall.
 8 p.m.—Songs by Miss Edith Allen Taylor.
 8.22 p.m.—Songs by Mr. Cecil Houghton.
 8.29 p.m.—Violin Sonata by Mr. Cecil Berry.
 8.40 p.m.—Songs by Miss Dorothy Toppin.
 8.47 p.m.—Pianoforte solos by Miss Ada Brook.
 8.55 p.m.—Songs by Miss Edith Allen Taylor.
 9.2 p.m.—Songs by Mr. Cecil Houghton.
 9.9 p.m.—Violin by Mr. Cecil Berry.
 9.17 p.m.—Songs by Miss Dorothy Toppin.
 9.24 p.m.—Pianoforte solos by Miss Ada Brook.
 10 p.m.—Close down.

2 UW, SYDNEY

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

- 10.30 a.m.—Music.
 1 p.m.—Close down.
 EVENING SESSION.
 5.30 p.m.—Bedtime stories by Uncle Jack.
 6.30 p.m.—Musical programme.
 10 p.m.—Close down.

3LO, MELBOURNE.

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

- 10.30 a.m.—Bells from St. Paul's Cathedral, Melbourne.
 10.45 a.m.—Express train information. British official wireless news from Rugby. News from yesterday's papers.
 11 a.m.—MORNING SERVICE from the INDEPENDENT CHURCH, Collins Street, Melbourne:
 Hymn.
 Prayer and Lord's Prayer (chanted).

Scripture Lesson.

Hymn.

Prayer.

Anthem.

Notices.

Offerings.

Hymn.

SERMON: REV. J. D. NORTHEY, B.A., of Adelaide.

Hymn.

Benediction.

12.15 p.m.—Close down.

AFTERNOON SESSION.

2 p.m.—SONORA RECITAL of the WORLD'S MOST FAMOUS RECORDS:

1. PIANOFORTE SOLOS:

"Twelve Studies, Op. 10" (Chopin). William Backhaus.

Part 1. (a) No. 1. in C Major, (b) No. 7 C Major, (c) No. 2 A Minor.

Part 2. No. 3 E Major.

Part 3. (a) No. 8 F Major, (b) No. 4 C Sharp Minor.

Part 4. (a) No. 5 G Flat Major, (b) No. 6 E Flat Major.

Part 5. (a) No. 10 A Flat Major, (b) No. 9 F Minor.

Part 6. (a) No. 11 E Flat Major, (b) No. 12 C Minor.

2. ORCHESTRA:

"Overture," Parts 1 and 2 (Berlioz).

Carnaval Romain.

3. QUARTET:

"Rigoletto" — Bella figlia dell'Amore (Verdi).

Galli-Curei, Homer, Gigli and De Luca (vocal quartet).

4. ARIA:

"Carmen"—La fleur que tu m'avais jetée (Bizet).

5. SONG:

"Elegie Melodie" (Massenet).

Enrico Caruso, tenor, with violin obligate by Mischa Elman.

6. SONG:

"Liebestraume" (Liszt).

Tito Schipa, tenor.

3 p.m.—PLEASANT SUNDAY AFTERNOON, CENTRAL MISSION, WESLEY CHURCH, Lonsdale Street, Melbourne:

Hymn No. 113. "All people that on earth do dwell."

Prayer—C. Irving Benson.

Orchestral Selection—Mr. G. M. Williams, conductor.

Hymn No. 68, "Sing we the King Who is coming to reign."

Solo—Sydney Stubbs.

Orchestra.

Solo—Sydney Stubbs.

Notices.

Offering.

Orchestra.

ADDRESS.

National Anthem.

Benediction.

Orchestra.

4.30 p.m.—MISS F. L. ULRKE will speak on "The Korean Girls of To-day."

4.45 p.m.—Close down.

EVENING SESSION.

5.45 p.m.—Shipping information.

5.47 p.m.—Answers to letters and birthday greetings by "Bobby Bluegum."

6.25 p.m.—"BROTHER BILL":

"Look Before You Leap."

6.45 p.m.—Birthday Greetings and Programme announcements.

6.47 p.m.—Bells from St. Paul's Cathedral, Melbourne.

NIGHT SESSION.

7 p.m.—EVENING SERVICE from SCOTS CHURCH, Collins Street, Melbourne:

Psalm (Metrical Version), 43, verses 3-5; tune 222.

Prose Psalms—120 and 121.

Chants.

Old Testament Lesson—Numbers 11, 23-29.

Hymn 18.

Prayer of Intercession.

New Testament Lesson—Romans 12, 3-16.

Anthem—"Blessed Jesu, Fount of Mercy" (Dvorak).

The Lord's Prayer. (The congregation, standing, will unite.)

SERMON—REV. DR. W. BORLAND.

"A Good Conceit of Ourselves."

Prayer.
Hymn 172.
Intimations.
Offering.
Offertory—"The Great Day of the Lord is near."—Sir George Martin.
Hymn 191.
Benediction.
8.30 p.m.—C. H. ADOLPH MANN—AN APPRECIATION OF THE GREAT MASTER—SCHUBERT.
With Vocal and Instrumental Illustrations.
C. H. ADOLPH MANN, piano:
"Sonata in A Major—Op. 42" (Schubert).
INSTRUMENTAL TRIO (C. H. Adolph Mann, piano; Bertha Jorgenson, violin; and Tasma Tiernan, 'cello):
"Two Movements of Trio in B Flat."
JOHN HOBBS, baritone:
"The Wanderer" (Schubert).
"To Music" (Schubert).
9.50 p.m.—"Argus" news service. Announcements. Meteorological information.
OUR GREAT THOUGHT.
10 p.m.—"GOD SAVE THE KING."

3AR, MELBOURNE

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

10.45 a.m.—Announcements.
11 a.m.—Service from St. Paul's Cathedral, Melbourne:
Sentence.
Exhortation.
General Confession.
Absolution.
The Lord's Prayer.
Versicles and Responses (Festal).
The Venite.
Psalms 121 and 122.
Lesson.
The Benedictus or Jubilate.
Communion Office "Stanford in A."
The Lord's Prayer.
The Collect for Purity.
The Ten Commandments, with Kyrie Steison.
The Epistle.
The Gospel.
The Nicene Creed.
Sermon: The Bishop of Goulburn—"The Canberra Cathedral."
Hymn 396 (Part 2), "Christ is Made the Sure Foundation."
The Offertory.
The Prayer for the Church Militant.
MIDDAY MUSICAL SESSION.
12.5 p.m.—A Recital of the Recordings of Old Masters.

AFTERNOON SESSION.

3 p.m.—Life-like reproductions of the world's most famous masters.
5 p.m.—"Brer Rabbit," in a Special Children's Session.

EVENING SESSION.

7 p.m.—Cairns Memorial Church, East Melbourne:
Schubert Centenary.
Organ Voluntary: "Andante from Symphony in B Flat" (Schubert).
Doxology.
Invocation.
Hymn No. 91: "All Hail the Power of Jesus' Name."
Lesson.
Prayer.
Intimations and Offering. Duet for violin and organ.
Hymn No. 341: "Ten Thousand Times Ten Thousand."
Sermon: Rev. F. A. Hagenauer, M.A.
"The Song of Miriam" (Franz Schubert).
For soprano soloist and chorus (under the direction of Mr. J. H. Oehr).
Hymn 81: "Praise the Lord, sing Hallelujah."
Benediction and Amen.
Concluding Voluntary, "Marche Militaire in B Major" (Schubert). Soloist, Miss Louise Thornton; violin, Miss Winifred Oehr; organ, Miss F. F. Thurman.

NIGHT SESSION.

8.30 p.m.—Coburg City Band:
Chorus: "Hymn to Music" (Buck).
March: "Great Little Army" (Alford).
8.40 p.m.—Miss Ida Walker, mezzo:
"Waiata Poi," Maori song (Alfred Hill).
"The Rainbow Child" (Coleridge Taylor).
8.47 p.m.—Auburn Methodist Choir, transmitted from Auburn Methodist Church:
"Gallia" (Gounod).
"Hear My Prayer" (Mendelssohn).
Solist: Stella Dredge. Organist and Choirmaster: J. Sutton Crow.
9.17 p.m.—J. Howlett Ross:
"Great Australians."
9.37 p.m.—Ida Walker, mezzo:
"Thou art risen, my beloved" (Coleridge Taylor).
"Hearts that With Yearning Ache" (Tchaikowsky).
9.44 p.m.—Coburg City Band:
March: "Steadfast and True" (Teike).
March: "Nawarh Castle" (Hume).
9.54 p.m.—"Age" news service, exclusive to 3AR.
9.58 p.m.—Weather forecast.
10 p.m.—God Save the King.

4QG, BRISBANE

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

11 a.m.—From St. Stephen's Cathedral:
Morning service.
12.15 p.m.—Close down.

AFTERNOON SESSION.

3.15 p.m.—From the Botanic Gardens:
Band concert.
4.30 p.m.—Close down.

EARLY EVENING SESSION.

6.30 p.m.—From the Studio:
A session for little listeners.
Greetings and replies to letters.

NIGHT SESSION.

7.30 p.m.—From St. Stephen's Cathedral:
Evening service.
Municipal Band Concert, from Wickham Park.

5CL, ADELAIDE.

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

10.45 a.m.—Carillon of Bells from St. Andrew's Church, Walkerville.
10.55 a.m.—Station announcements.
11 a.m.—G.P.O. Chimes.
11.1 a.m.—Morning Service from Flinders Street Baptist Church:
Hymn No. 12 (March on):
Church Hymnal 425.
Prayer.
Hymn No. 5 (Unannounced).
Scripture.
Hymn No. 3.
Prayer and Lord's Prayer.
Announcements and Offering. (For Sunday School).
Hymn No. 8. (During Offering).
Hymn No. 2.
Solo, Mrs. A. C. Hill.
Hymn No. 11 (Congregation join).
Sermon, Rev. W. D. Jackson, B.A.
Hymn No. 6.
Benediction.
Hymn No. 13 (March Out).
12.15 p.m.—British Official Wireless news.
12.20 p.m.—Close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. Chimes.
3.1 p.m.—Pleasant Sunday Afternoon Concert from the Flinders Street Baptist Church:
Hymn No. 12 (March on):
Church Hymnal 425.
Mr. F. L. Gratton's Male Choir:
(a) "Sanctus."
(b) "Integen Vitae."
Mr. F. L. Gratton's Choir:
"The Song of the Soldier."
Hymn No. 7 (Children).
Solo: Miss Phyllis Webb.

Hymn No. 8 (During Offering).
Item. Kindergarten.
Mr. F. L. Gratton's Choir:
"Sweet the Theme of Jesu's Love."
Hymn No. 6.
Mr. F. L. Gratton's Choir:
"Calm is the Sea."
Benediction.
Hymn No. 1.

4 p.m.—G.P.O. Chimes and close down.

EVENING SESSION.

6 p.m.—G.P.O. Chimes.
6.1 p.m.—Children's Happy Moments:
Birthday Greetings, Correspondence, songs and stories by "Aunt Peggy."
6.30 p.m.—"The Bird Lady":
Will tell Biblical and Moral Stories for young people, assisted by the Junior Songsters in Choral selections and hymns.
6.55 p.m.—S. A. Railway Information and station announcements.

NIGHT SESSION.

7 p.m.—G.P.O. Chimes.
7.1 p.m.—Evening service from St. Bartholomew's Church, Norwood.
Evening Prayer.
Psalms, 141 and 142.
Canticles, Magnificat.
Lessons, Proverbs 9, and St. John 10.
Hymns, 284, 193. (A. and M.)
Manuscript Hymn, "May I come in."
Anthem Selected.
Preacher, Ven. Archdeacon Moyes.

FROM THE STUDIO.

8.25 p.m.—Station Orchestra:
Medley Overture, "Musical Jigsaw" (Jalowitz).
8.35 p.m.—Linda Wald, and Jean Sinclair, Vocal duetists:
"A May Morning."
"Cyring Water."
8.42 p.m.—Station Orchestra:
March, "Trumpet Call" (Arrgd Leopold).
8.47 p.m.—Norman Morphet and Gordon Hele, Vocal Duetists:
"The Battle Eve."
"Excelsior" (Balfe).
8.53 p.m.—Geoff Goldsworthy, 'Cellist:
"Air" (Matheson).
8.56 p.m.—Jean Sinclair, contralto:
"Homing" (Del Riego).
"O Lovely night" (Ronald).
9.2 p.m.—Tom King, Pianist:
"Star of Eve" (Wagner-Liszt).
9.6 p.m.—Linda Wald and Jean Sinclair, Vocal duetists:
"Eileen Allannah."
"Ye Banks and Braes."
9.14 p.m.—Vern Rogers, cornetist:
"Still as the night" (Bohm).
9.17 p.m.—Norman Morphet and Gordon Hele, Vocal duetists:
"Poet and Peasant."
"The Two Beggars."
9.24 p.m.—Station Orchestra:
Suite, "In a Fairy Realm" (Ketelby).
9.32 p.m.—Linda Wald, soprano:
"Poor Butterfly" (Hubbell).
"When shadows fall to-night" (Lehmann).
9.36 p.m.—Station Orchestra:
Oriental, "Song D'Autumn" (Joyce).
Novelty, "Jumping Jack" (Bloom).
9.45 p.m.—P. H. Nicholls:
Talk on "The New President of the United States of America."
10 p.m.—G.P.O. Chimes.
10.1 p.m.—Federal Election Results.
10.3 p.m.—God Save The King.

6WF, PERTH.

SUNDAY, 18th NOVEMBER, 1928.

MORNING SESSION.

10.25 a.m.—Tune in.
10.30 a.m.—Special half hour for the enthusiastic listener.
11 a.m.—Morning service relayed from St Mary's Roman Catholic Cathedral, Perth.
12.15 p.m.—Close down.
2.55 p.m.—Tune in.
3 p.m.—A relay:
Afternoon service relayed from Queen's Hall Perth.
Items by the West Guildford Orchestral Society, conducted by Miss Winifred Wright, L.R.A.M.
Choral items by the Church Choir.

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AWPL

4.30 p.m.—Close down.

EVENING SESSION.

7 p.m.—Tune in.

The evening transmission is broadcast on 104.5 metres as well as the usual wavelength.

7.5 p.m.—Children's bedtime stories.

7.30 p.m.—Evening service relayed from St. George's Cathedral, Perth.

8.45 p.m.—A Relay:

After-church service relayed from Queen's Hall, Perth.

10.5 p.m.—Close down.

104.5 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 7 p.m.

7ZL, HOBART

SUNDAY, 18th NOVEMBER, 1928.

MIDDAY SESSION.

10.45 a.m.—Bells from Trinity Church, Hobart.

11 a.m.—Transmission from Davey Street Methodist Church, Hobart.

12.25 p.m.—Close down.

AFTERNOON SESSION.

3.30 p.m.—G.P.O. Clock chimes the hour.

3.31 p.m.—Transmission from the Beaumaris Zoo: A Band Concert by the Municipal Band (L. M. Barnett, Conductor).

4.30 p.m.—Close down.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

6.45 p.m.—M'Elle Columbia Broadcasts.

EVENING SESSION.

7 p.m.—Transmission from Memorial Congregational Church, Hobart.
Preacher, Arthur C. Nelson.

Hymns: No. 703, "Day is dying in the West."

No. 107, "We saw Thee Not."

No. 166, "Immortal Love."

No. 499, "O Jesu, I have promised."

Scripture, Ecclesiastes, Chapter 7.

Sermon, by Rev. Arthur C. Nelson:

"Making Both Ends Meet."

8.25 p.m.—Transmission from St. David's Park, Hobart: A Band Concert.

NEWS SESSION.

9.40 p.m.—"Mercury" Special News Service.
Ships within wireless range. Weather information. British Official Wireless News. English Affairs and News.
"God Save the King."
Close down.

Monday, November 19

New South Wales Broadcasting
Company, Limited.

2FC, SERVICE.

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.

7.5 a.m.—Studio Music.

7.20 a.m.—Country Session: Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail notices, river reports.

7.25 a.m.—Investment market, mining share market, metal quotations.

7.35 a.m.—Wool sales, breadstuffs markets, interstate markets.

7.45 a.m.—"Sydney Morning Herald" summary.

7.50 a.m.—Studio Music.

8 a.m.—"Big Ben." Close down.

MORNING SESSION.

10 a.m.—"Big Ben" and announcements.

10.2 a.m.—Pianoforte selection.

10.10 a.m.—"Sydney Morning Herald" news service.

10.25 a.m.—Studio Music.

10.30 a.m.—A Talk by the 2FC Racing Commissioner.

10.45 a.m.—A Talk on Home Cooking and Recipes by Miss Ruth Furst.

11 a.m.—"Big Ben."

A.P.A. and Reuter's Cable Services.

MIDDAY SESSION.

11.55 a.m.—From the Sydney Cricket Ground: Details of the International Cricket Match, England versus "An Australian XI," to be played to-day.

12.1 p.m.—From the Studio:

Stock Exchange, first call.

12.3 p.m.—Official weather forecast, rainfall.

12.5 p.m.—From the Sydney Cricket Ground: Description of the play and progress scores of the match, England versus "An Australian XI."

1.30 p.m.—From the Studio:

Stock Exchange, second call.

1.32 p.m.—Weather forecast.

1.34 p.m.—"Evening News" midday news service.

Producers' Distributing Society's Report.

1.42 p.m.—Rugby wireless news.

1.45 p.m.—Studio Music.

2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

2.30 p.m.—Programme Announcements.

2.32 p.m.—Educational Session for the Schools.

3.0 p.m.—"Big Ben." Pianoforte Reproduction.

3.15 p.m.—Radio Eisteddfod:

Semi-finalists in the Radio Eisteddfod will be heard, drawn from the various sections, including Vocal, Instrumental and Humorous.

3.45 p.m.—"Teacups Chatter," by Pandora.

4.0 p.m.—"Big Ben." Minnie Turner, Soprano:

(a) "Don't Hurry" (Ada Harris).

(b) "At Dawning" (Eberhart).

4.5 p.m.—Studio Music.

4.10 p.m.—Master Reg Smith, Boy Soprano:

(a) "Tom O'Devon" (Russell).

(b) "Duna" (McGill).

4.15 p.m.—From the Sydney Cricket Ground: Description of Play and Scores of the Match, England versus "An Australian XI."

5.0 p.m.—"Big Ben." Close Down.

EARLY EVENING SESSION.

5.40 p.m.—The Chimes of 2FC.

5.45 p.m.—The Children's Session, conducted by the "Hello Man."
Letters and Stories.
Music and Entertainment.

6.30 p.m.—Dalgety's Market Reports (Wool, Wheat and Stock).

6.40 p.m.—Fruit and Vegetable Markets.

6.43 p.m.—Stock Exchange Information.

6.45 p.m.—Weather and Shipping News.

6.48 p.m.—Rugby Wireless News.

6.50 p.m.—Late Sporting News.

7.0 p.m.—"Big Ben." Late News Service.

7.10 p.m.—The 2FC Dinner Quartette, conducted by Horace Keats:
"Demoiselle Chic" (Fletcher).

"Camesante" (Lambert).

"A Dream Garden" (Phillips).

"The Grand Duchess" (Offenbach), (by request).

"Dreams" (Wagner).

NIGHT SESSION.

7.40 p.m.—Order of Programme and Announcements.

7.47 p.m.—Studio Music.

7.50 p.m.—Cricket Resume for New Zealand Enthusiasts.

7.52 p.m.—Carlton Fay, Pianoforte Solo.

8.0 p.m.—"Big Ben." From the Mosman Town Hall: The Mosman Municipal Band:

(a) March, "The British Phalanx" (Stanley)

(b) Humorous Fantasia, "Pop Goes the Weasel" (Hawkins).

(c) "Les Contes D'Hoffman" (Offenbach).

8.17 p.m.—From the Studio:

Barbara Briscoe, Contralto:

(a) "Oh That We Two Were Maying" (Nevin).

(b) "Sunday" (Carew).

8.23 p.m.—Carlton Fay, Pianoforte Solos:

8.33 p.m.—Charles Lawrence and Rae Foster: Vocal Duets.

8.43 p.m.—Light Music Quintette:

"The Daughter of the Regiment" (Donizetti).

8.53 p.m.—Graham Kent, Bridge Talk.

9.8 p.m.—Late Weather Forecast.

From the Mosman Town Hall: The Mosman Municipal Band:

(a) Selection, "Minstrel Melodies" (Bourne)

(b) Waltz, "Nights of Gladness" (Ancliffe).

(c) Summer Idyll, "The Cuckoos" (Lithgow)

9.30 p.m.—From the Studio:

Barbara Briscoe, Contralto:

(a) "Pale Moon" (Logan).

(b) "The Bitterness of Love" (Dunn).

9.36 p.m.—Light Music Quintette:

(a) "L'Africaine" (Meyerbeer).

(b) "Two Arabesques" (Debussy).

9.47 p.m.—C. H. Bertie will continue his Series:

"Tales Retold."

10.0 p.m.—"Big Ben."

Light Music Quintette:

(a) "Two Songs of the Norseland" (Lohr).

(b) "Serenata" (Tarenghi).

10.10 p.m.—Charles Lawrence and Rae Foster: Vocal Duets.

10.18 p.m.—Light Music Quintette:

(a) "Romance" (Nevin).

(b) "Amour Coquet" (Friml).

10.28 p.m.—To-morrow's Programme and Late Announcements.

10.30 p.m.—National Anthem. Close Down.

2BL, SERVICE.

MONDAY, 19th NOVEMBER, 1928.

MORNING SESSION.

8 a.m.—G.P.O. Clock and Chimes.

Metropolitan weather report.

8.1 a.m.—State Weather Report.

8.2 a.m.—Studio Music.

8.15 a.m.—G.P.O. Clock and Chimes.

News from the "Daily Telegraph Pictorial."

8.25 a.m.—Studio Music.

8.30 a.m.—G.P.O. and Chimes.

Studio Music.

8.35 a.m.—Information, Mails, Shipping, arrivals, departures and sailings.

8.38 p.m.—News from the "Daily Telegraph Pictorial."

8.45 p.m.—G.P.O. Clock and Chimes.

Studio Music.

9 a.m.—G.P.O. Clock and Chimes.

Studio Music.

9.30 p.m.—Half-an-hour with silent friends.

10 a.m.—G.P.O. Clock and Chimes.

Close down.

MIDDAY SESSION.

11 a.m.—G.P.O. Clock and Chimes.

Women's Session.

Sporting Talk by Miss Gwen Varley, Women's Sports Authority.

11.15 a.m.—Musical programme from the Studio.

11.30 a.m.—Miss Pam: Recipes and other items of interest.

11.45 a.m.—Musical programme from the Studio.

12 noon.—G.P.O. Clock and Chimes.

Special Ocean Forecast and Wather Report.

12.3 p.m.—Studio Music.

12.30 p.m.—Shipping and Mails.

12.35 p.m.—Market Reports.

12.48 p.m.—"Sun" midday news service.

1 p.m.—Studio Music.

1.30 p.m.—Talk to Children: Special entertainment for Children in Hospital.

2 p.m.—G.P.O. Clock and Chimes.

Close down.

AFTERNOON SESSION.

2.15 p.m.—G.P.O. clock and chimes.

From the Sydney Cricket Ground: Description of play in the International Cricket Match, England versus An Australian Eleven.

4 p.m.—Bennie Abrahams and his Romano's Restaurant Dance Band broadcast from Romano's.

4.10 p.m.—Mr. David Grahame, baritone:

(a) "Maire My Girl" (Aitken).

(b) "When a Maiden takes your Fancy" (Mozart).

4.17 p.m.—"Sun" news service.

4.22 p.m.—Bennie Abrahams and his Romano's Restaurant Dance Band.

4.30 p.m.—Mr. Gordon Terry, entertainer.

4.37 p.m.—Bennie Abrahams and his Romano's Restaurant Dance Band.

4.45 p.m.—Mr. David Grahame:

(a) "The Midnight Review" (M. Glinka).

(b) "In Sheltered Vale" (D'Alequen).

4.52 p.m.—Mr. Gordon Terry, entertainer.



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5 p.m.—From the Sydney Cricket Ground: Description of play in the International Cricket Match, England versus An Australian Eleven.

EARLY EVENING SESSION.

6 p.m.—Children's letters and stories.
6.30 p.m.—"Sun" news and late sporting.
6.40 p.m.—Gulbransen Dinner Music.
7.10 p.m.—Australian Mercantile, Land and Finance Co.'s report.
Weather report and forecast by courtesy of Government Meteorologist.
Producers' Distributing Society's fruit and vegetable market report.
Grain and fodder report ("Sun").
Dairy produce report ("Sun").
7.25 p.m.—Mr. Pim and Miss Pam in advertising talks and nonsense.
7.55 p.m.—Programme and other announcements.

EVENING SESSION.

8.0 p.m.—G.P.O. Clock and Chimes.
An Hour's Music from the Works of Franz Schubert, in celebration of the centenary of the Composer's death.
The British Music Society's String Quartette.
8.10 p.m.—Mr. Raymond Beatty (Baritone):
(a) "Death and the Maiden" (Schubert).
(b) "A Group in Tartarus" (Schubert).
8.17 p.m.—Mr. G. Vern Barnett (Piano Solos)
8.27 p.m.—Miss Leonore Gotsch (Soprano):
(a) "Geheimes" (Schubert).
(b) "Der Leidende" (Schubert).
(c) "Die Vogel" (Schubert).
8.34 p.m.—The British Music Society's String Quartette.
8.44 p.m.—Mr. Raymond Beatty:
(a) "Calm at Sea" (Schubert).
(b) "Erl King" (Schubert).
8.51 p.m.—Miss Leonore Gotsch:
"Der Hirt auf dem Felsen" (Schubert).
8.58 p.m.—Weather Report and Forecast by courtesy of Government Meteorologist.
9.0 p.m.—G.P.O. Clock and Chimes.
The Savoyans Dance Band.
9.10 p.m.—Mr. Jack Canpot:
(a) "Mefistofele's Serenata" from "Faust" (Gounod).
(b) "Song of the Bow" (Aylward).
9.20 p.m.—Radio Eisteddfod: A number of semi-finalists will be heard, drawn from the various sections as follows:—
Choral Section: Choirs drawn from those entering under Section 1, Church Choirs; Section 2, Mixed Choirs; Section 3, Male Choir; Section 4, Female Choir; Section 5, Mixed Quartette; Section 6, Male Quartette.
Instrumental Section: Semi-finalists from the instrumental section include Section 14, Championship Pianoforte Solo; Section 15, Pianoforte Solo, under 16 years of age.
Popular Section: Semi-finalists from the Popular Section, include Section 27, Popular Vocalists; Section 28, Comedians; Section 29, Radio Revue, and Section 30, Entertainers.
9.50 p.m.—Mr. Jack Canpot (Comedian):
(a) "I'm Shy, Mary Ellen, I'm Shy" (Stevens and Ridgewell).
(b) "Shirts" (Lipton).
10.0 p.m.—The Savoyans Dance Band.
10.10 p.m.—Radio Eisteddfod (as above).
10.40 p.m.—Resume of Following Day's Programme.
10.43 p.m.—The Savoyans Dance Band.
11.30 p.m.—National Anthem.

2GB, SYDNEY.

MONDAY, 19th NOVEMBER, 1928.

MORNING SESSION.

10 a.m.—Music.
10.10 a.m.—Happiness Talk by A. E. Bennett.
10.20 a.m.—Music.
10.13 a.m.—Women's Session by Miss Helen J. Beegling.
11.30 a.m.—Close down.

AFTERNOON SESSION.

2 p.m.—Music.
2.5 p.m.—Women's Radio Service by Mrs. Jordan.
2.30 p.m.—Music.
2.45 p.m.—Talk.
3 p.m.—Music.

EVENING SESSION.

5.30 p.m.—Children's Session by Uncle George, Radio Movie Club.
7 p.m.—Stock and Market reports by New Zealand Loan and Mercantile Agency Ltd.
7.15 p.m.—Music.
8 p.m.—Songs by Miss Gwladys Edwards.
8.9 p.m.—Violin solos by Miss Phyllis Campbell.
8.17 p.m.—Announcements.
8.22 p.m.—Items by the Newtown Band.
8.42 p.m.—Resume of Programme.
9 p.m.—Weather report.
9.2 p.m.—Violin solos by Miss Phyllis Campbell.
9.10 p.m.—Songs by Miss Gwladys Edwards.
9.17 p.m.—Talk from the Radio Service Department, by Mr. Stan Crittendon.
9.27 p.m.—Items by the Newtown Band.

2UW, SYDNEY

MONDAY, 19th NOVEMBER, 1928.

MIDDAY SESSION.

12.0 p.m.—To-day's anniversary.
12.32 p.m.—Music.
1 p.m.—Clock and chimes.
1.1 p.m.—Music.
2 p.m.—"What's On" Social notes and talks to Women.
2.22 p.m.—"Cheerio Talk."
2.30 p.m.—Close down.

AFTERNOON SESSION.

4.30 p.m.—Music.
5.30 p.m.—Bedtime stories by "Uncle Jack."
6.30 p.m.—Close down.

EVENING SESSION.

7 p.m.—Clock and chimes.
7.1 p.m.—News items, etc.
7.10 p.m.—Talk by Mr. J. M. Prentice.
7.30 p.m.—Musical Interlude.
7.35 p.m.—Political address.
7.55 p.m.—Items of interest.
8 p.m.—Clock and chimes.
8.1 p.m.—Music.
8 p.m.—Clock and chimes.
9.1 p.m.—Comments on Foreign affairs by Mr. J. M. Prentice.
9.10 p.m.—Music and request numbers.

3LO, MELBOURNE.

MONDAY, 19th NOVEMBER, 1928.

EARLY MORNING SESSION.

7.15 a.m.—Express train information.
7.16 p.m.—Morning Melodies.
7.20 a.m.—Morning Exercises to Music.
7.30 a.m.—Stock report, market reports, general news, shipping, sporting information.
8 a.m.—Melbourne Observatory time signal.
8.1 a.m.—Morning Melodies.
8.15 a.m.—Close down.

MORNING SESSION.

11 a.m.—3LO DIFFERENT DAINTIES FOR THE DAILY DINNER.

RECIPE.

MAYONNAISE OF SALMON.

Some cold salmon.
A lettuce.
Hard boiled eggs.
1 small cupful of mayonnaise.
Some chopped aspic.
Endive.

Break the salmon into flakes, removing the bones. Break or cut up lettuce, and mix with the salmon. Heat lightly in a salad bowl, pour mayonnaise over, and garnish with hard boiled eggs cut in quarters, and, if liked, a border of aspic jelly.

THE HELPING HAND.

Use a different cork for the different liquids you put in the thermos flask, and they will not have that peculiar flavor which thermos-kept liquids sometimes have. If you cannot have the extra corks, fresh waxed paper wrapped round the cork each time will be found just as good.

11.5 a.m.—MISS OLGA PARKER, Stories to tell the children:
"Some Nature Stories."
11.20 a.m.—Musical interlude.
11.25 a.m.—Under the auspices of the Travellers' Aid Society, Miss NEST MALCOLM will speak on:
"Gleanings from a Year's Work."

11.40 a.m.—Musical interlude.

11.45 a.m.—Under the auspices of the St. John Ambulance Association, Miss EDITH WELLS will speak on:
"Home Nursing."

MIDDAY SESSION.

12 noon.—Melbourne Observatory time signal.
Express train information.
12.1 p.m.—British official wireless news from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service.
12.15 p.m.—Newmarket stock sales. Special report by John McNamara and Co.
12.20 p.m.—COMMUNITY SINGING, transmitted from the Assembly Hall, Collins Street, Melbourne. Conductor, G. J. MACKAY, assisted by—
THE GYPSY PLAYERS,
GRACE JACKSON, contralto, and
SYDNEY HOLLISTER,
In selections from their repertoires.

1.45 p.m.—Stock Exchange information.
Meteorological information. Weather forecast for Victoria, New South Wales, Tasmania and South Australia. Ocean forecasts. River reports.
1.55 p.m.—Close down.

AFTERNOON SESSION.

2.15 p.m.—STATION ORCHESTRA:
Overture, "Rosamunde" (Schubert).
2.25 p.m.—MONA NUGENT, soprano:
"Moonlight" (Schumann).
"It Cannot Be" (Schumann).
2.32 p.m.—THE STATION ORCHESTRA:
"Unfinished Symphony, 1st Movement" (Schubert).
2.42 p.m.—J. HOWARD KING, bass-baritone:
"The Two Grenadiers" (Schumann).
"Tears and Sighs" (Schumann).
2.49 p.m.—THE IMPERIAL RUSSIAN TRIO:
The Trio:
"Adagio" (Schubert).
Arved Norit, violin:
"Rosamund" (Schubert).
The Trio:
"Moment Musicale" (Schubert).
3.5 p.m.—MONA NUGENT, soprano:
"Thou Art Like a Lovely Flower" (Schumann).
"The Green Hat" (Schumann).

3.12 p.m.—THE STATION ORCHESTRA:
"Suite," Part 1 and 2 (Schumann).
3.26 p.m.—JAMES HAY, tenor of the Gilbert and Sullivan Opera Company (by permission J. C. Williamson Ltd.), will give a recital of Schubert's Songs in the original language.

3.45 p.m.—THE STATION ORCHESTRA:
"Unfinished Symphony," Second Movement (Schubert).

3.55 p.m.—J. HOWARD KING, bass-baritone:
Selected.

"My Last Abode" (Schubert).

4.2 p.m.—THE STATION ORCHESTRA:

Selection, "Sunny" (Kern).

4.7 p.m.—FRAN KHARWOOD (by permission Tivoli Theatres Ltd.):
Character Vocalist.

4.17 p.m.—THE STATION ORCHESTRA:

"Maytime" (Romberg).

4.23 p.m.—SYD. HOLLISTER, comedian, will indulge in a little nonsense.

4.30 p.m.—PERCY CODE, trumpet:

"Serenade" (Tosti).

4.35 p.m.—Sydney Hollister, comedian:

Selected.

4.42 p.m.—THE STATION ORCHESTRA:

Selection, "The Desert Song" (Romberg).

Selection, "Yvonne" (Jean Gilbert).

5 p.m.—"Herald" News Service. Stock Exchange information.

5.10 p.m.—Acceptances for the Woodend Races to be held on Wednesday.

5.15 p.m.—Close down.

During the afternoon progress scores will be broadcast of the cricket match England versus An Australian Eleven, in Sydney.

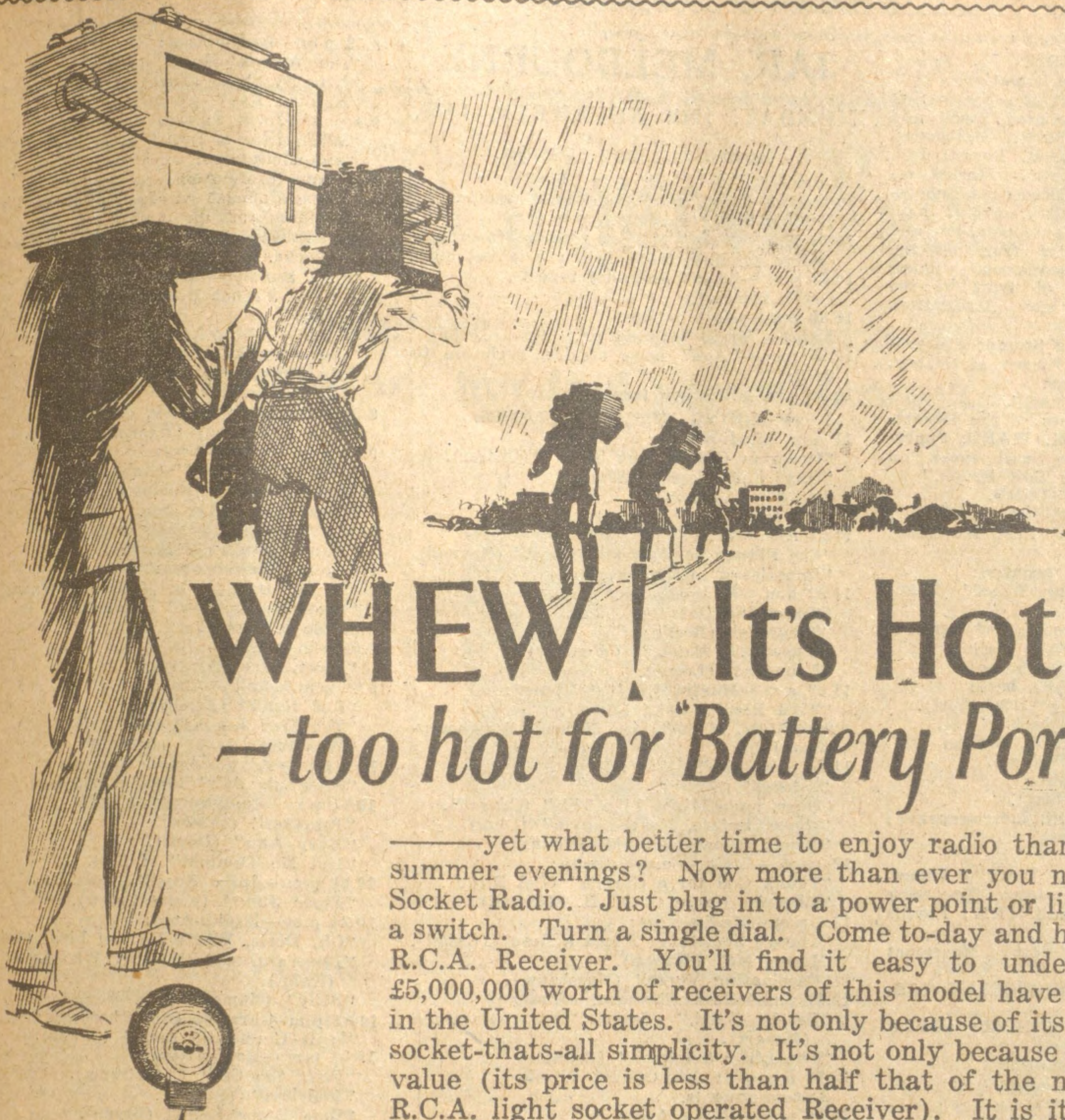
EVENING SESSION.

6 p.m.—Answers to Letters and Birthday Greetings by "Billy Bunny."

6.25 p.m.—Musical interlude.

6.30 p.m.—CAPTAIN DONALD MACLEAN will tell another of his thrilling pirate yarns.

6.50 p.m.—"BILLY BUNNY" has also a story in his own familiar fashion.



WHEW! It's Hot, —too hot for "Battery Porting"

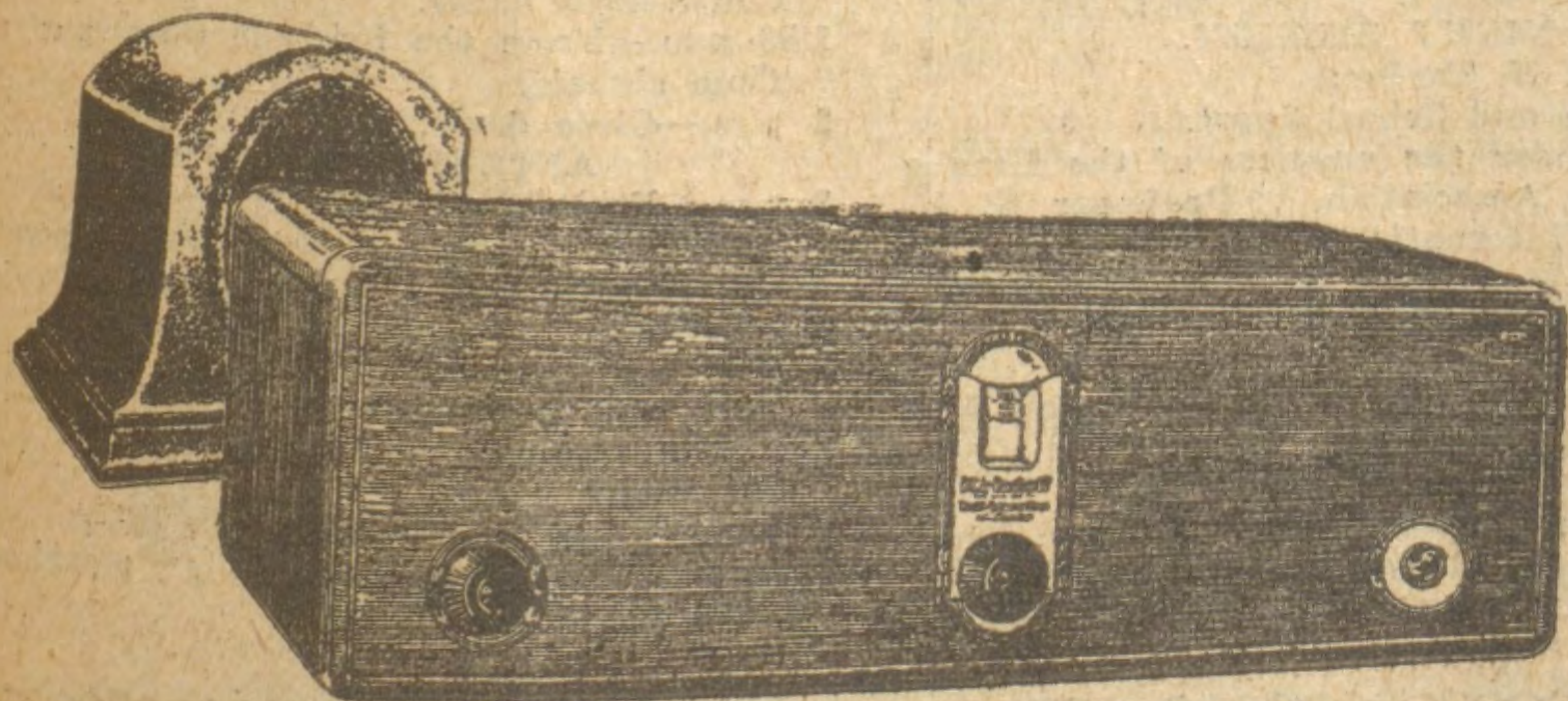
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NIGHT SESSION.

- 7.5 p.m.—Stock Exchange information.
 7.15 p.m.—Official Report of the Newmarket Stock Sales by the Associated Stock and Station Agents, Bourke Street, Melbourne. Fish market reports by J. R. Borrett Ltd. Rabbit prices. River reports. Market reports by the Victorian Producers' Co-operative Company Ltd. Poultry, grain, hay, straw, jute, dairy produce, potatoes and onions. Market report of fruit by the Victorian Fruiterehs Association. Retail prices. Wholesale prices of fruit by the Wholesale Fruit Merchants' Association. Citrus fruits.
 7.30 p.m.—News Service and Stumps Scores—England v An Australian Eleven, at Sydney.
 7.43 p.m.—Birthday Greetings.
 7.45 p.m.—OUT OF THE PAST.
 7.46 p.m.—Under the auspices of the Department of Agriculture, J. M. WARD, Superintendent of Horticulture, will speak on "Handling and Marketing Soft Fruits."
 8 p.m.—A MAKER OF HISTORY.
 8.1 p.m.—LEONARD FERGUSON, violin: "Sonatino in D"—1st and Last Movement (Schubert).
 8.8 p.m.—MONA NUGENT, soprano: "Margaret at the Spinning Wheel" (Schubert).
 "To be Sung on the Waters" (Schubert).
 8.15 p.m.—EDWIN CHAPMAN, violin: "Am Mer"—By the Sea (Schuber).
 8.19 p.m.—VICTOR HARDING, bass: "Litany for All Souls' Day" (Schubert).
 "The Linden Tree" (Schubert).
 8.26 p.m.—DICKSON BROWN, violin: "L'Abeille"—The Bee (Schubert).
 HAWELL SWANTON, violin: "Moment Musical" (Schubert).
 8.34 p.m.—DAWN HARDING, mezzo-soprano: "The Wanderer" (Schubert).
 "The Post" (Schubert).
 8.41 p.m.—QUINTETTE — Percy James, Leonard Ferguson, violinists; Frederick Earp, double bass; Ivy Ball, viola; Phyllis Blott, pianist: "The Trout Quintette"—1st Movement (Schubert).
 8.51 p.m.—THE ROYAL VICTORIAN LIE-DERTAFEL.
 (Conductor, MANSLEY GREER; pianist, WILLIAM BURRELL):
 "Great is Jehovah, the Lord."
 ANNIE CADDELL, soprano:
 "The Nightingale" (Schubert).
 "Gondolier's Serenade" (Schubert).
 "Night in the Forest" (Schubert).
 9.21 p.m.—THE MALVERN STRING ORCHESTRA:
 "Cradle Song" (Schubert, arr. William Mallinson).
 "Entr'acte from Rosamunde."
 9.33 p.m.—MONA NUGENT, soprano:
 "Hark, Hark, the Lark" (Schubert).
 "The Inquirer" (Schubert).
 9.40 p.m.—LEONARD FERGUSON, violin:
 "Ave Maria" (Schubert, arr. Wilhelmie).
 SHEILA HUNT, violin:
 "Ballet Music from Rosamunde" (Schubert, arr. Kreisler).
 9.48 p.m.—VICTOR HARDING, bass:
 "The Erl King" (Schubert).
 9.54 p.m.—EDWIN CHAPMAN, violin:
 "Serenade" (Schubert, arr. Remene).
 "Rondo" (Schubert, arr. Kreisler).
 10.2 p.m.—DAWN HARDING, mezzo-soprano:
 "Death and the Maiden" (Schubert).
 "Patience" (Schubert).
 10.9 p.m.—THE STRING ORCHESTRA:
 "Marche Militaire" (Schubert).
 10.15 p.m.—"Argus" news service. Meteorological information. British official wireless news from Rugby. Announcements.
 10.30 p.m.—FRANK HARWOOD:
 Character Vocalist.
 10.37 p.m.—THE IMPERIAL RUSSIAN TRIO:
 "Intermezzo" (Mascagni).
 "Good Bye" (Tosti).
 "Serenade" (Drigo).
 10.52 p.m.—GRACE JACKSON, contralto:
 "Just a Cottage Small" (Hanley).
 "Dawn of Hope" (Murdoch).
 10.59 p.m.—OUR GREAT THOUGHT.
 11 p.m.—THE RADIO-ACES.
 11.40 p.m.—"GOD SAVE THE KING."

3AR, MELBOURNE

MONDAY, 19th NOVEMBER, 1928.

MORNING NEWS SESSION.

- 10 p.m.—G.P.O. Clock says "Ten."
 10.1 p.m.—"Age" Stock Exchange reports. London Metal markets.
 10.10 p.m.—"Age" Market reports—farm and station produce, fruit, fish, vegetables, etc.
 10.25 p.m.—"Age" Shipping reports. Ocean forecast.
 10.30 p.m.—Mail notices. Express Train information.
 10.35 p.m.—"Age" news service, exclusive to 3AR.
 10.39 a.m.—Weather forecast.

MORNING MUSICAL SESSION.

- 11 a.m.—Radi-o-Aces:
 "Down in Old Havana Town" (Cadser).
 "Hugs and Kisses" (Alter).
 "Egypt" (Seamon).
 "All Day Long" (Cross).
 11.15 a.m.—Vera Thomson, soprano:
 "The Flower Song" from "Faust" (Gounod).
 "Impatience" (Schubert).
 11.22 a.m.—Radi-o-Aces:
 "Got a Big Date" (Tobias).
 "Sunshine" (Berlin).
 "Guatemala Melody" (Wenrich).
 "Lauretta" (Lewis).
 11.37 a.m.—Martin La Matt, tenor:
 "Villa Rosa" (Luigi Denza).
 "O, Night of Stars and Splendor" (Thompson).
 11.44 a.m.—Radi-o-Aces:
 "Adoree" (Silver).
 "Dear, on a Night Like This" (Conrad).
 "Never Before, Never Again" (Chik).
 "Laugh, Clown, Laugh" (Young).
 12 noon.—Ettie Coe, contralto:
 "Thank God for a Garden" (Del Riego).
 "Keep on Hopin'" (K. H. Maxwell).
 12.7 p.m.—Radi-o-Aces:
 "There's Something About a Rose" (Kahal).
 "Loved Me" (Wilson).
 "Fascinating Vamp" (Nussbaum).
 12.17 p.m.—Vera Thomson, soprano:
 "Batti, Batti," from "Don Giovanni" (Mozart).
 "The Little Sandman" (Brahms).
 12.24 p.m.—British Official Wireless. Announcements.
 12.34 p.m.—Radi-o-Aces:
 "That's my Weakness now" (Stept).
 "Get Out and Get Under the Moon" (Tobias).
 "Somebody's Crazy About You."
 12.44 p.m.—Martin La Matt, tenor:
 "Two Irish Eyes" (Rawlings).
 "I Love You Truly" (C. Jacobs-Bond).
 12.51 p.m.—Radi-o-Aces:
 "What Do I Care What Somebody Said" (Woods).
 "Just a Memory" (Henderson).
 "Lonesome in the Moonlight" (Baer).
 "Hallelujah" (Youmans).
 1.6 p.m.—Ettie Coe, contralto:
 "My Ain Wee House" (Munro).
 "That's All" (May Brahe).
 1.13 p.m.—Radi-o-Aces:
 "Sometimes I'm Happy" (Youmans).
 "Parting with You" (Conly).
 "Chloe" (Kahn).
 "Lonely in a Crowd" (Greer).
 1.30 p.m.—Close down.

EVENING SESSION.

- 5 p.m.—A Recital of the Latest Recordings.
 NIGHT SESSION.
 8 p.m.—E. C. H. Taylor:
 School Life and School Sport.
 8.15 p.m.—Under the auspices of the League of Nations Association. Professor K. H. Bailey: "International Events of the Month."
 8.30 p.m.—R. Rawson: "Esperanto."
 8.40 p.m.—Radi-O-Aces:
 "Last Night I Dreamed You Kissed Me" (Kahn).
 "That's My Mammy" (Donaldson).
 "Honeymoon Cottage" (Lumsdaine).
 8.50 p.m.—Alan Adcock, entertainer:
 "Ain't That a Grand and Glorious Feeling."

- 8.53 p.m.—Radi-o-Aces:
 "I'm Wingin' Home" (Russell).
 "Evening Star" (Turk).
 "Russian Rag" (Stutzel).
 9.3 p.m.—Julia Russell, soprano:
 "When Life is Love," from "The Maid of the Mountains."
 9.6 p.m.—Radi-o-Aces:
 "Henry's Made a Lady Out of Lizzie" (O'Keefe).
 "We'll Have a New Home in the Morning" (Buck).
 "In a Bamboo Garden" (Donaldson).
 9.16 p.m.—French Bros., banjoists:
 "Paree"
 9.19 p.m.—Radi-o-Aces:
 "Anything You Say" (Donaldson).
 "My Melancholy Baby" (Norton).
 "Ice Cream."
 9.29 p.m.—Alan Adcock, entertainer:
 "Four and Nine" (Weston and Lee).
 9.32 p.m.—Radi-o-Aces:
 "Don't Cry, Baby" (Kahn).
 "Love Affairs" (Robinson).
 Piano Solo, "Rag Doll" (Brown).
 9.42 p.m.—Julia Russell, soprano:
 "Danny Boy" (Weatherby).
 9.45 p.m.—Radi-o-Aces:
 "In My Bouquet of Memories" (Lewis).
 "Sentimental Baby" (Davis).
 "Rose of Monterey" (Guy).
 9.55 p.m.—French Bros., banjoists:
 "Down Kentucky Way."
 9.58 p.m.—Radi-o-Aces:
 "Red Head" (Ermbey).
 "The Man I Love" (Gershwin).
 "Was It a Dream" (Brett).
 10.8 p.m.—Alan Adcock, entertainer:
 "Finigan's Ball" (Weston and Lee).
 10.11 p.m.—Radi-o-Aces:
 "Together" (Brown).
 "Mary Ann" (Davis).
 "Tell Me To-night" (Little).
 10.21 p.m.—Julia Russell, soprano:
 "Piper June" (Molly Carew).
 10.24 p.m.—Radi-o-Aces:
 "Oh, Doris, Where Do You Live" (Kahn).
 "There's One Little Girl Who Loves Me" (Kahn).
 "Polly" (Zamecnik).
 10.34 p.m.—French Bros., banjoists:
 "Is It Gonna Be Long" (Cowan).
 10.37 p.m.—Radi-o-Aces:
 "Felix the Cat" (Naustraum).
 "Delirium" (Schutt).
 "Blue Berry Land" (Bryan).
 10.50 p.m.—"Age" news service, exclusive to 3AR.
 10.58 p.m.—Acceptances for Wednesday's Races.
 10.58 p.m.—Weather forecast.
 11 p.m.—God Save the King.

4QG, BRISBANE.

MONDAY, 19th NOVEMBER, 1928.

EARLY MORNING SESSION.

- 8 a.m.—From the Studio: This morning's news, supplied by courtesy of the Brisbane metropolitan daily newspapers.

8.30 a.m.—Close down.

MORNING SESSION.

11 a.m. to 12 noon.

MIDDAY SESSION.

- 1 p.m.—Market reports and weather information.

1.15 p.m.—From the Paris Cafe:
Lunch-hour music.1.58 p.m.—From the Brisbane Observatory:
Time signals.

2 p.m.—Close down.

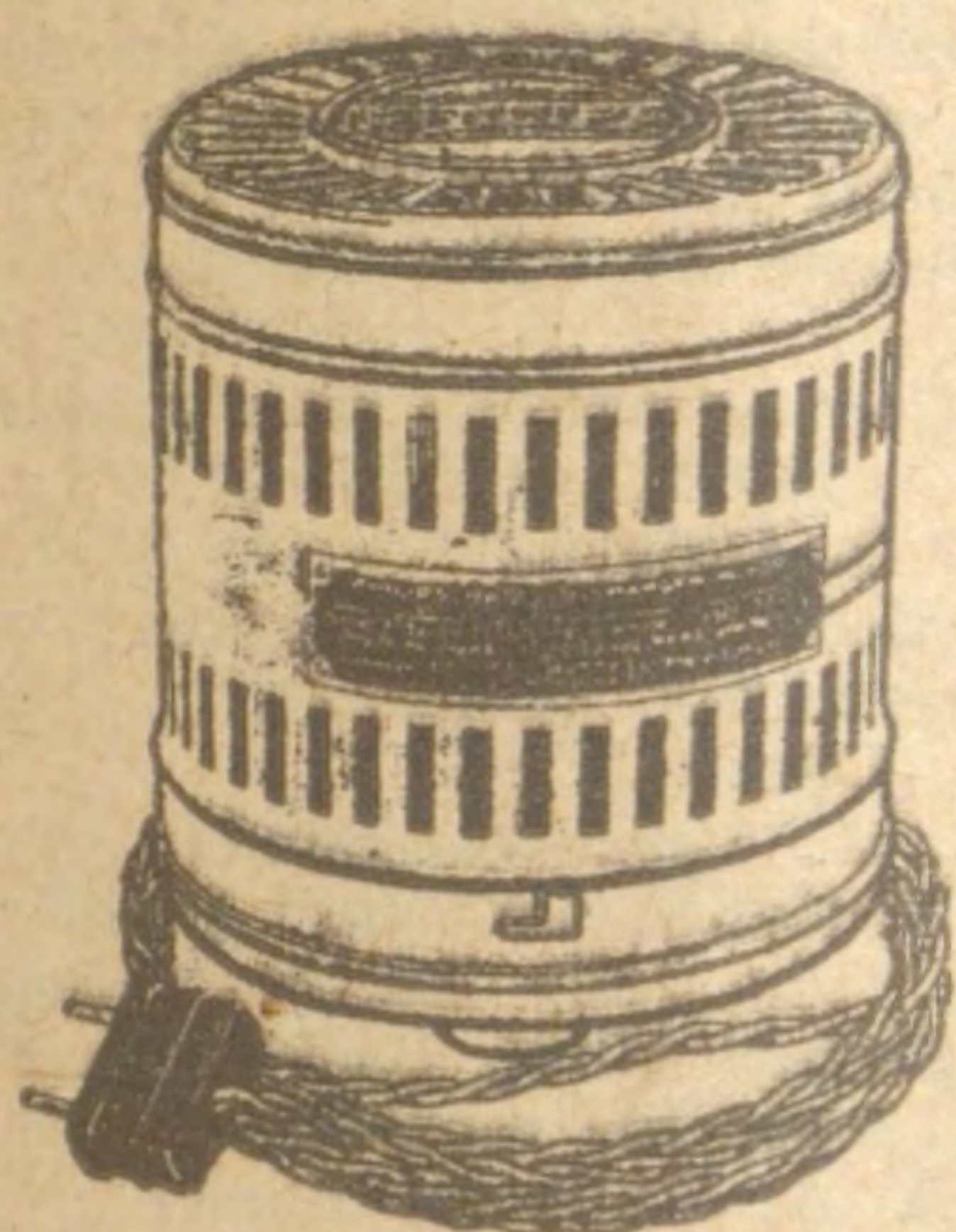
AFTERNOON SESSION.

- 3 p.m.—From the Tivoli Theatre:
Orchestral music by the Tivoli Operatic Orchestra, under the baton of Mr. C. Groves.

3.30 p.m.—From the Studio:
Mail train running times.3.31 p.m.—From the Tivoli Theatre:
Orchestral music.4 p.m.—From the Studio:
A programme of electrically reproduced records.

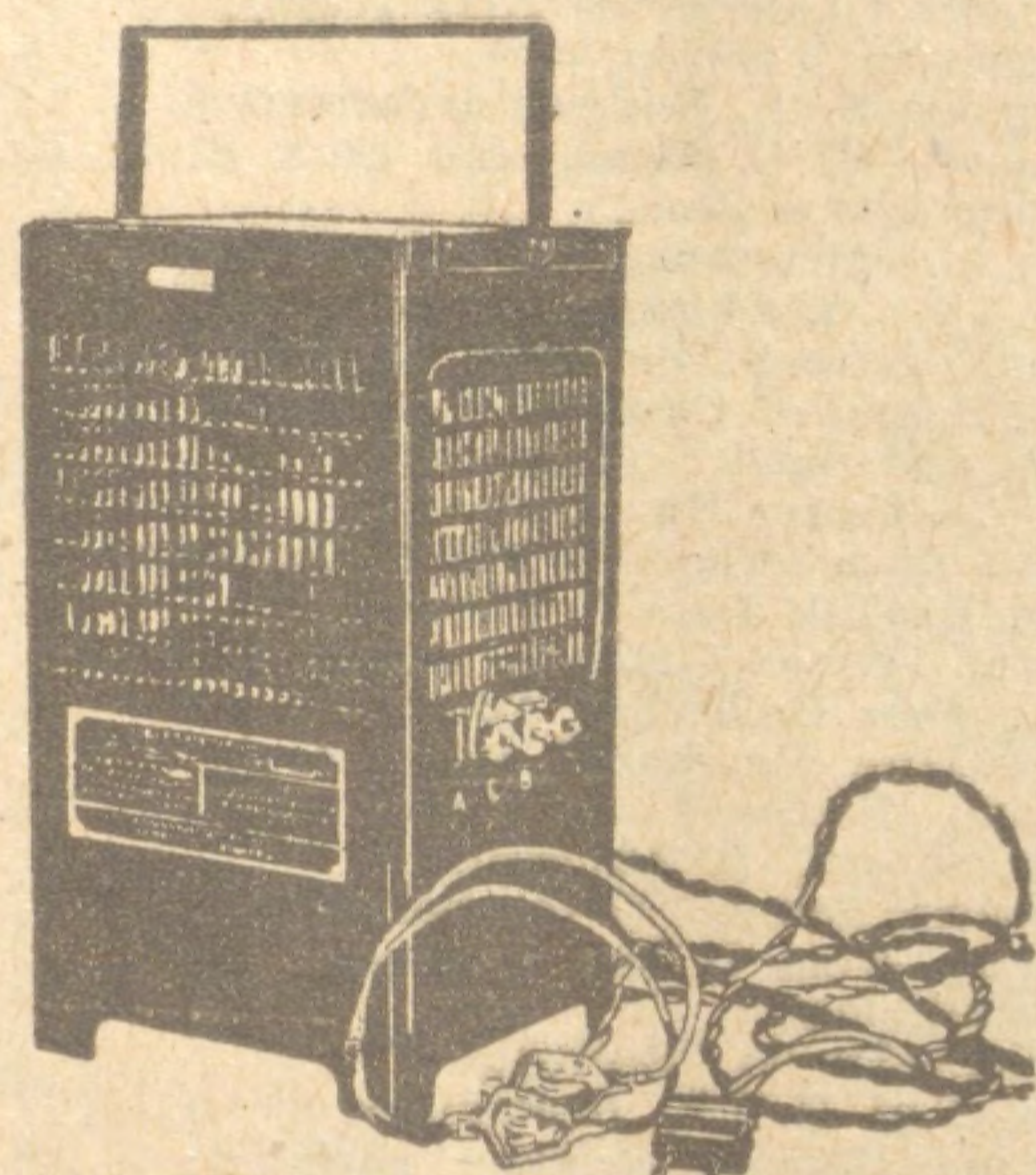
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Here are accessories which will insure hundred per cent. results



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This charger is very similar in appearance to the "Four Fifty," but is distinguished from it by its black enamel finish. It will handle up to 60 cells at a charging rate of from 60 to 100 m.a., an ideal rate for small, low capacity cells as used in accumulator "B" Batteries.



PHILIPS HEAVY DUTY "A" BATTERY CHARGER.

This efficient looking Charger is produced to supply the needs of those who require to charge more than 2 or 3 cells, and at a higher rate. With this unit 1 to 4 cells may be charged at either 3 or 6 amps., and 5 to 7 cells at 3 amps.



PHILIPS TRICKLE CHARGER.

Many unquestionably new and clever features are incorporated in this latest Philips Charger. Once connected to a Radio in the manner indicated, each time the Set is switched off, charging of the "A" Battery commences automatically, at just the correct rate to ensure replacement during idle hours of the current consumed while the set is in use.



PHILIPS "A" CHARGER.

The famous Philips "Four Fifty" (as it is better known) has achieved its popularity mainly for its dependability and efficiency. Two charging rates are available, i.e., 1.3 amps. or .65 amps. for 2, 4 or 6 volt accumulators, so that it may be used as a Trickle Charger for Sets drawing an ampere or over from the accumulator.

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4.15 p.m.—Afternoon news.

4.30 p.m.—Close down.

EARLY EVENING SESSION.

6 p.m.—From the Studio:

Mail train running times; mail information; shipping news.

6.5 p.m.—From the Paris Cafe:

Dinner music.

6.25 p.m.—From the Studio:

Commercial announcements.

The children's hour.

6.30 p.m.—Bedtime stories conducted by "The Sandman."

Late commercial news.

7 p.m.—News in brief.

7.5 p.m.—Stock Exchange news.

7.6 p.m.—Metal quotations.

7.7 p.m.—Market reports.

7.25 p.m.—Fenwick's stock report.

7.30 p.m.—Weather information.

7.40 p.m.—Announcements.

7.43 p.m.—Standard time signals.

7.45 p.m.—Lecturette: "Children's Music Corner," conducted by the "Music Man."

NIGHT SESSION.

8 p.m.—From the Studio: The Fedearl Band (conductor, W. H. Davis), March, "Dreadnought" (Rimmer). W. H. Davis (cornetist), "Coming Through the Cornfields" (Nicholls). Annie Adams (soprano), "The Dawn" (Teschemacher). The Federal Band, selection, "Echoes of Scotland" (Rimmer), valse, "Cinderella" (Raymond). S. P. Bacon (tenor), "When Song is Sweet" (San Souci). The Federal Band, fox trot, "Way Down Home" (Williams). Annie Adams (soprano), "Love's a Merchant" (Carew). The Federal Band, hymn, "Fierce Raged the Tempest," hymn, "Peace, Perfect Peace."

8.30 p.m.—S. P. Bacon, tenor:

"Parted" (Tosti).

8.35 p.m.—Will H. Lister:

A Thought for To-night—"Cultivation."

8.40 p.m.—The Merrymakers—Nat Gould (banjo, ukelele and guitar), Grace Gould (pianist), and R. Ireland (baritone).

8.55 p.m.—Metropolitan weather forecast.

9 p.m.—Elsa Vincent, soprano:

"Starry Woods" (Phillips).

"Nightingale of June" (Sanderson).

9.8 p.m.—Lilian Corrigan, harpiste:

"La Danse des Sylphes" (Godefroid).

9.13 p.m.—Vincent Connolly, baritone:

"The Red Star of Romy" (Sanderson).

"The Island of Dreams" (Adams).

9.22 p.m.—Lilian Corrigan, harpiste:

"The Rosary" (Nevin).

9.25 p.m.—Mrs. F. North, pianiste:

"Marche Mignonne" (Poldinni).

9.30 p.m.—From the Tivoli Theatre: Orchestral music. Tivoli Operatic Orchestra, under the baton of Mr. C. Groves.

10 p.m.—From the Studio: Late news, weather news. Close down.

5CL, ADELAIDE

MONDAY, 19th NOVEMBER, 1928.

MORNING SESSION.

11 a.m.—G.P.O. Chimes.

11.1 a.m.—Studio "Recreator:"

Franz Peter Schubert, was born on 31st January, 1797, and died 19th November, 1828 at Vienna. To commemorate the Centenary of his death the following well known and popular works of the Composer will be broadcast:

"Unfinished Symphony, Parts 1 and 2."

Berlin State Orchestra.

"Spring Dreams" and "The Pest" Richard Tauber.

"Goodnight" and "The Linden Tree." Richard Tauber.

"Lilac Time Selection, Parts 1 and 2."

Frank Westfield's Orchestra.

"Serenade" Lottie Lehmann.

"The Water Course" Richard Tauber.

"Looking Back" Richard Tauber.

"Unfinished Symphony" Parts 3 and 4.

Berlin State Orchestra.

"Ave Maria" Lotte Lehmann.

"The Raven" Richard Tauber.

"The Stormy Morning" Richard Tauber.

"Courage" Richard Tauber.

"The Organ Player" Richard Tauber.

"Unfinished Symphony" Parts 5 and 6.

Berlin State Orchestra.

MIDDAY SESSION.

12 noon.—G.P.O. Chimes.

12.1 p.m.—"The Advertiser" general news service.

12.20 p.m.—British Official Wireless news.

12.25 p.m.—Grace Cussions, soprano:

"The Moorish Maid" (Parker).

"The Birthday" (Cowen).

12.32 p.m.—Walter Hurst, pianist:

"Londonderry Air."

"Selections from "La Boheme" (Puccini).

12.36 p.m.—Tom O'Dea, humorist:

"The Bush Christening."

12.43 p.m.—Bertha Jones, violiniste:

"Gavotte" (Air Louis XII) (Glys).

"Elfantanz" (Jenkinson).

12.50 p.m.—S. A. Railway Information.

12.51 p.m.—S. C. Ward and Co.'s Stock Exchange information.

12.57 p.m.—Meteorological information.

1 p.m.—G.P.O. Chimes.

1.1 p.m.—Harold Tibemann, baritone:

"The Island of Gardens" (Taylor).

"Sun and Shade" (Taylor).

1.7 p.m.—Walter Hurst, pianist:

Waltz from "The Red Mill" (Herbert).

"Old English Dance" (German).

1.14 p.m.—Grace Cussions, soprano:

"The New Umbrella" (Besly).

"The Love Merchant" (Carew).

1.21 p.m.—Bertha Jones, violiniste:

"Canzonetta" (D'Ambrosie).

"Slavonic Dance" (Dvorak-Kreisler).

1.28 p.m.—Tom O'Dea, humorist:

"Meanderings."

1.35 p.m.—Studio "Recreator:"

Recital of H.M.V. Recordings.

1.42 p.m.—Harold Tidemann, baritone:

"Wonderful Garden I love" (Russell).

"The Adjacent" (Fisher).

1.49 p.m.—Studio "Recreator:"

Recital of H.M.V. Recordings.

1.56 p.m.—International Cricket scores:

England v. Australian Eleven.

1.58 p.m.—Meteorological information.

2 p.m.—G.P.O. Chimes and close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. Chimes.

3.1 p.m.—Dorothy Back, soprano:

"I hid my love" (D'Hardelot).

"White Sentinels" (Finden).

3.7 p.m.—O. Summerton, cornetist:

"Midnight Rose" (Pollack).

"Are you from heaven" (Gilbert).

3.14 p.m.—Signor Ulivi, bass-baritone:

Selections from his repertoire.

3.21 p.m.—William Davey, xylophonist:

"Just a memory" (Menderson).

"Pambour Avant" (Durand).

3.28 p.m.—Wattie and Grahame, entertainers:

In comedy sketches.

3.35 p.m.—Muriel Prince, pianist:

"Etude Hereique" (Lochitzky).

"The Rain Drop Prelude" (Chopin).

3.40 p.m.—Jack Burgess, Songs at the piano:

"I used to call her baby" (Donaldson).

"That's my weakness now" (Green).

3.47 p.m.—Lawrence Haggitt, organist:

A recital transmitted from Flinders Street Baptist Church.

"Ave Maria" (Schubert).

"Epilogue" (Willan).

4 p.m.—G.P.O. Chimes.

4.1 p.m.—Dorothy Back, soprano:

"The Garden of Sleep" (De Lard).

"The Flight of Ages" (Bevan).

4.7 p.m.—William Davey, xylophonist:

"Goodnight" (Wood).

"Constantinople" (Carlton).

4.14 p.m.—Wattie and Grahame, entertainers:

"In Droll Humor."

4.23 p.m.—Lawrence Haggitt, Organist:

"Prelude and Fugue in A Minor" (Bach).

4.30 p.m.—Jack Burgess, Songs at the piano:

"Why shouldn't I say I'm sorry" (Conley).

"I tell them all about you" (Friend).

4.37 p.m.—O. Summerton, cornetist:

"Love sends a little gift of roses" (Openshaw).

"When Irish eyes are smiling" (Ball).

4.44 p.m.—Signor Ulivi, bass-baritone:

Selections from his repertoire.

4.50 p.m.—Progressive Count Figures of Commonwealth Elections.

4.56 p.m.—International Cricket Scores:

Eng and v. Australian Eleven at Sydney.

4.57 p.m.—S. C. Ward and Co.'s Stock Exchange intelligence.

5 p.m.—G.P.O. Chimes and close down

EVENING SESSION.

6.1 p.m.—International Cricket Scores:

England v. Australian Eleven.

6.3 p.m.—Children's Happy Moments:

Birthday Greetings, Correspondence, songs and stories by "Miss Wireless."

6.30 p.m.—Dinner Music.

Recital of H.M.V. Recordings on the Studio

"Recreator."

6.55 p.m.—International Cricket Scores:

England v. Australian Eleven.

7 p.m.—G.P.O. Chimes.

7.1 p.m.—S. C. Ward and Co.'s Stock Exchange information.

7.4 p.m.—General Market reports.

7.8 p.m.—Resume of International Cricket.

England v. Australian Eleven.

7.10 p.m.—Mr. A. H. Robin (Government Veterinary Surgeon), will speak under the auspices of the Government Agricultural Department on "Stomach worms in Sheep."

7.25 p.m.—5CL Twinkler Boys Club: Entertainment by "The Twinkler" (Mr. F. J. Mills).

7.55 p.m.—Commonwealth Election Figures.

NIGHT SESSION.

8 p.m.—G.P.O. Chimes.

8.1 p.m.—Aileen Newlyn, soprano:

"I love the moon" (Rubens).

"Tiptoe" (Carew).

8.7 p.m.—S. A. Railways Band:

March, "National Emblem" (Bagley).

Overture, "The Jolly Robbers" (Smyke).

8.20 p.m.—Signor Ulivi, Bass-baritone:

Selections from his repertoire.

8.27 p.m.—S. A. Railways Band:

Waltz, "Die Hydropaten" (Gugl).

8.35 p.m.—Wattie and Grahame, entertainers:

In a humorous interlude.

8.43 p.m.—Williams and Smith, banjoists:

"Whistling Rufus" (Mills).

"Bonnie Scotland" (Kennedy).

8.50 p.m.—Aileen Newlyn, soprano:

"Rose Softly Blooming" (Spohr).

"The Living God" (O'Hara).

8.57 p.m.—International Cricket Scores:

England v. Australian Eleven.

9 p.m.—G.P.O. Chimes.

9.2 p.m.—Overseas Grain report

9.3 p.m.—S.A. Railways Band.

Selection, "Iolanthe" (Sullivan).

9.15 p.m.—Signor Ulivi, bass-baritone:

Selections from his repertoire.

9.22 p.m.—Williams and Smith, banjoists:

"White Coons" (Payne).

"Lullaby" (Stavordale).

9.29 p.m.—Wattie and Grahame, entertainers:

In Droll Humor.

9.39 p.m.—S.A. Railways Band:

Selection, "Classic Gems" (Rimmer).

9.49 p.m.—Syd Morrell, baritone:

"Golden Bird" (Wood).

"Because" (D'Hardelot).

9.56 p.m.—Tom King, pianist:

"A Night in May" (Palmgren).

10 p.m.—G.P.O. Chimes.

10.1 p.m.—Commonwealth Election Figures.

10.7 p.m.—"The Advertiser" general news service.

10.12 p.m.—Meteorological information and Station announcements.

10.15 p.m.—Syd Morrell, baritone:

"Cloze Props" (Charles).

"To-morrow" (Keel).

10.22 p.m.—S.A. Railway Band:

Intermezzo, "Hearts Ease" (McBeath).

March, "B.B. and C. F." (Hume).

10.31 p.m.—On with the Dance:

By courtesy of 3LO Melbourne:

Modern Dance numbers by the Radi-o-aces.

6WF, PERTH

MONDAY, 19th NOVEMBER, 1928.

MIDDAY SESSION.

12.30 p.m.—Tune in.

12.35 p.m.—Markets, News and cables.

1 p.m.—Time signal.

1.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia. Station announcements.

1.2 p.m.—Lunch Hour Music.
Brunswick Panatrophe hour relayed from Messrs. Musgrove's Limited Concert Hall, Perth.

2 p.m.—Close down.
At intervals during the afternoon results will be given of the cricket match played between the English Eleven v. the Australian Eleven played at Sydney.

AFTERNOON SESSION.

3.30 p.m.—Tune in.
3.35 p.m.—Music and Song:
Afternoon Tea Concert relayed from the Carlton Cafe, Perth.
Vocal and instrumental numbers from the Studio.

4.30 p.m.—Close down.
EVENING SESSION.

6.45 p.m.—Tune in.
The evening transmission is broadcast on 104.5 metres as well as the usual wavelength.
6.48 p.m.—Stories for the Kiddies by Uncle Henry and Duffy.

Uncle Henry will talk to the Kiddies.
7.5 p.m.—Items by the Studio Trio.
7.30 p.m.—Stocks, Markets, News.
7.45 p.m.—Talk by Lieut. Col. Le Souef, Director of the Zoological Gardens, South Perth.

8 p.m.—Time signal.
8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
Station announcements such as alterations to programmes, etc.

8.3 p.m.—Special Schubert Concert:
(1797-1828).

A grand combined Centenary concert will be given by the Metropolitan Orchestral Society, and the Metropolitan Gleemen (Male Voice Party) conducted by Mr. H. Vowles, F.R.C.O., relayed from Perth Town Hall.

9 p.m.—Late news items by courtesy of "The Daily News" Newspaper Co.
Ships within range announcement.
Weather report and forecast.
Station announcements.

10.30 p.m.—Close down.
104.5 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

7ZL, HOBART

MONDAY, 19th NOVEMBER, 1928.

MIDDAY SESSION.

11.30 a.m.—His Master's Voice in Moments Merry and Musical.

11.34 a.m.—Special Midlands Weather Forecast.

11.35 a.m.—Tasmanian Stations 9 a.m. Weather Report.

12 noon.—G.P.O. Clock chimes the hour.

12.1 p.m.—Shipping information, ships within wireless range. Mail notices. Commercial News.

12.3 p.m.—His Master's Voice in Moments Merry and Musical.

12.11 p.m.—British Official Wireless News.

12.20 p.m.—His Master's Voice in Moments Merry and Musical.

12.29 p.m.—Announcements.

12.33 p.m.—His Master's Voice in Moments Merry and Musical.

12.55 p.m.—"Mercury" News Service.

Produce Sales held at Railway.

1.10 p.m.—His Master's Voice in Moments Merry and Musical.

1.30 p.m.—Close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. Clock chimes the hour.

3.1 p.m.—His Master's Voice in Moments Merry and Musical.

3.5 p.m.—Weather information.

3.6 p.m.—His Master's Voice in Moments Merry and Musical.

3.15 p.m.—A Studio Performance by Patti Pianola, with interludes by M'elie Columbia: Patti Pianola:

Fox Trot, "Kissing Time," Selection (Wodehouse).

Cherniavsky Trio:

"Scherzo at the Brook."

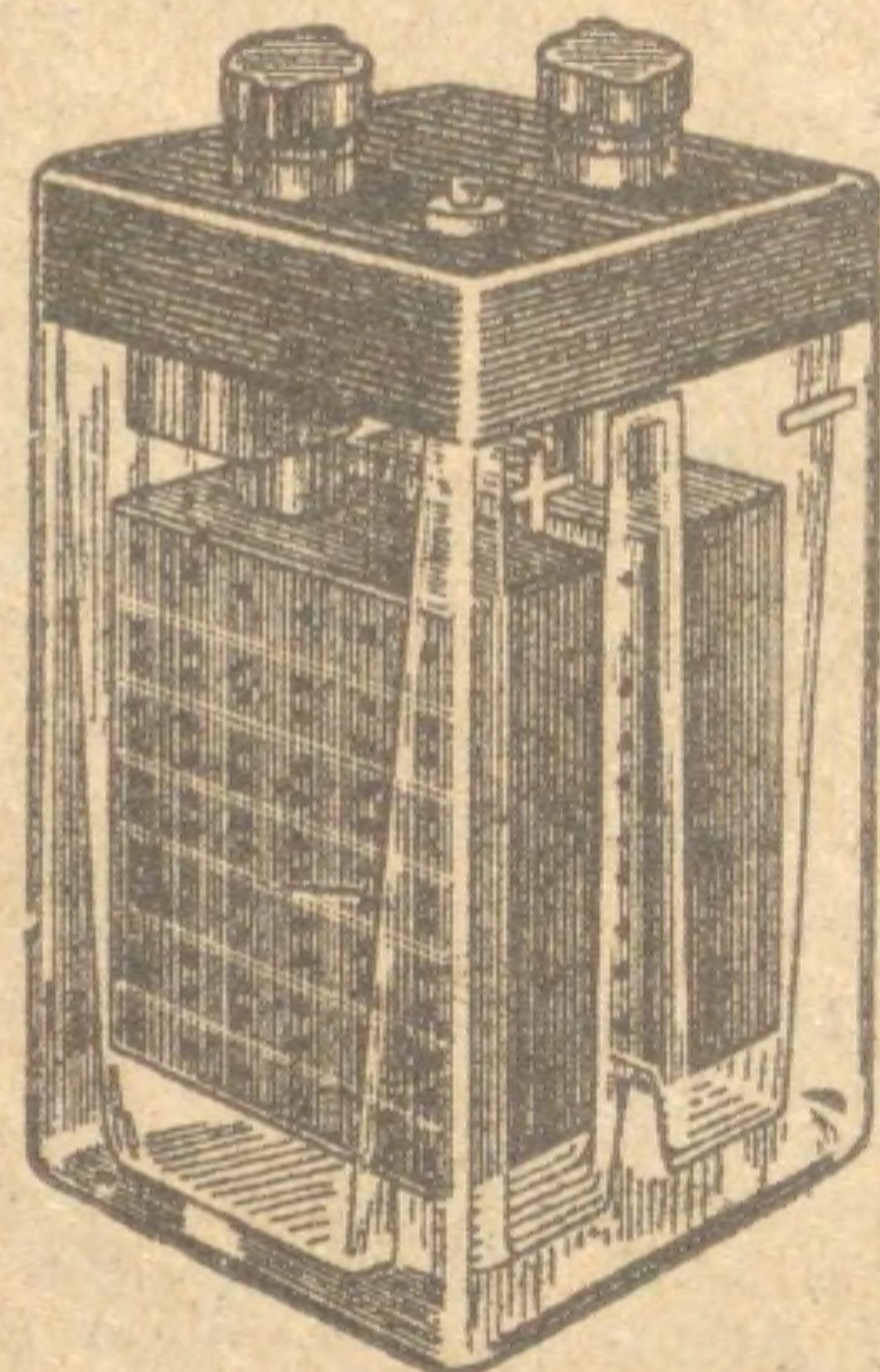
Patti Pianola:

March, "Pierette" (Chaminade).

Grenadier Guards Band: "Tom Jones."

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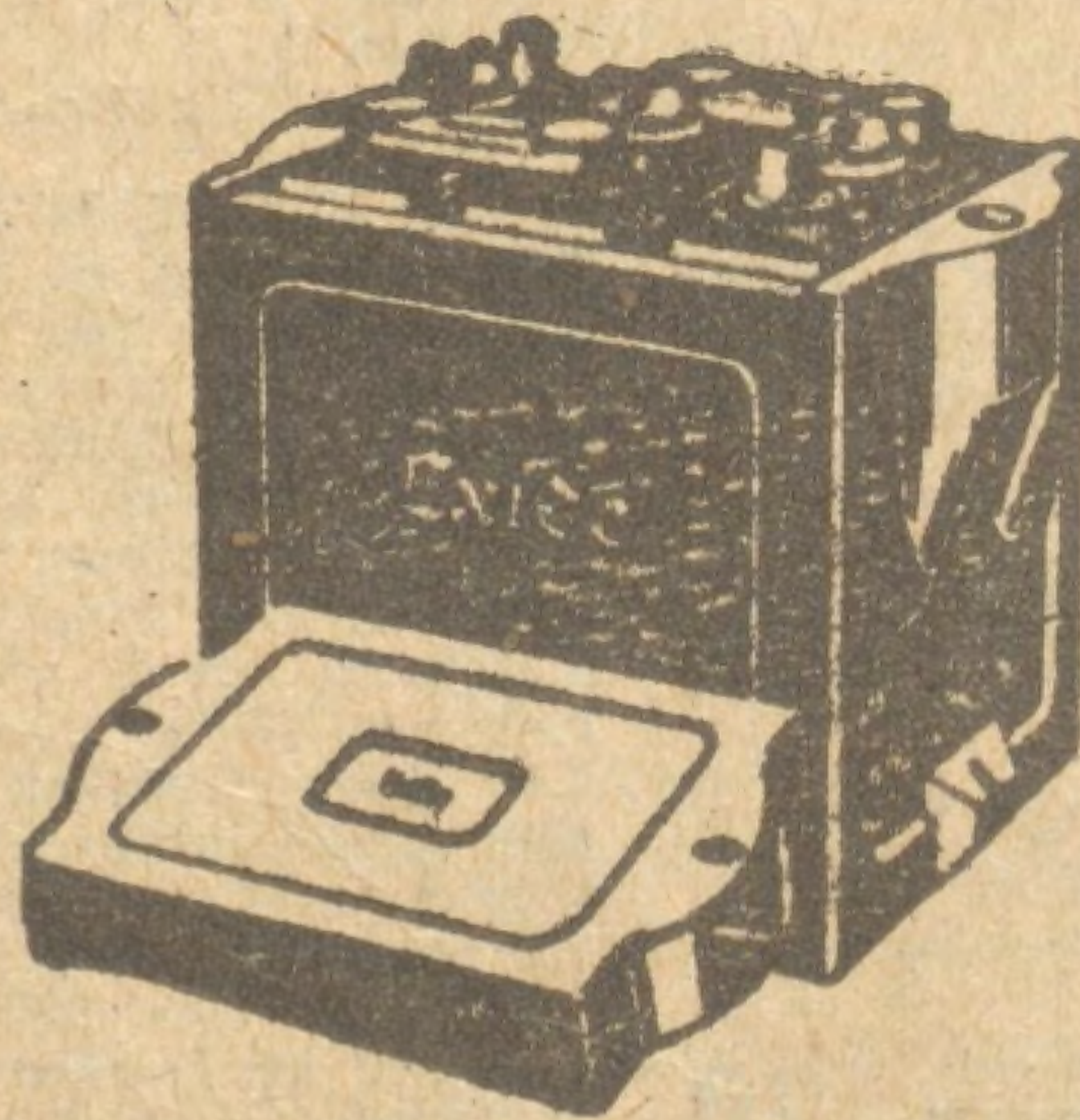


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Patti Pianola:
Fox Trot, "Spanish Dance" (Mozzkowski).
Royal Philharmonic Orchestra:
Tone Poem, "Don Juan," Parts 1 and 2 (Strauss).
Patti Pianola:
Fox Trot, "Remembrance" (Mozzkowski).
Johan Strauss and Symphony Orchestra:
Selection, "The Gipsy Baron," Parts 1 and 2.
Patti Pianola:
Waltz, "A Waltz Dream" (Strauss).
4.15 p.m.—Fashion Talk: "Aunt Edna" will speak on: "Christmas Goods."
4.30 p.m.—Close down.
During the afternoon progress results will be given of Cricket Match, English XI. v. An Australian XI., at Sydney.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

6.15 p.m.—His Master's Voice in Moments Merry and Musical.
6.45 p.m.—Ena Jolley (14 years of age), pupil of Madame Viola Pearce—Piano Recital:
"The Rosary."
"Waltz" (Chopin).
7 p.m.—Answers to Letters and Birthday Greetings by "Uncle David."
7.5 p.m.—His Master's Voice in Moments Merry and Musical.
7.15 p.m.—"Mercury" Special Tasmanian News Service. Railway Auction Produce Sales held at Railway. Weather information. Hobart Stock Exchange. Announcements.

EVENING SESSION.

7.30 p.m.—George Collis, Tasmania's Champion Wrestler, will speak on:
"Nerve Power."
7.45 p.m.—Reg. Wheeler will give a talk on the Stanley Show.
8 p.m.—G.P.O. Clock chimes the hour.
8.1 p.m.—Acknowledgement of donations to 7ZL and "Mercury" Appeal for Wireless Equipment for the Hobart General Hospital. Senior Birthday Greetings.
8.3 p.m.—Fifty Years Ago.
"A Glimpse into the Forgotten."
8.6 p.m.—"... a poet hidden
In the light of thought,
Singing hymns unbidden
Till the world is wrought
To sympathy with hopes and fear,
It heeded not."
From the Studio:
THE SCHUBERT CENTENARY.
Schubert, His Life and Music.
Talk by J. M. Counsel, LL.B. Illustrated by Gramophone Records.
The following works will be heard (in their entirety or in part):
Symphony No. 7 in C Major.
Unfinished Symphony.
Quartet setz in C.
Sonata for piano in A Major.
Octet in F Major.
One of the Quartets.
And Elena Gerhardt will be heard in several of the Master's most famous Lieder.

NEWS SESSION.

9.50 p.m.—British Official Wireless News Service. Ships within wireless range. Tasmanian District Weather Reports. "Examiner" News Service. Cricket Results: England v. Australia.
10 p.m.—G.P.O. Clock chimes the hour.
10.3 p.m.—"God Save the King."
10.4 p.m.—Close down.

Tuesday, November 20

New South Wales Broadcasting Company, Limited.

2FC, SERVICE.

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
7.5 a.m.—Studio Music.
7.20 a.m.—Country Session: Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services, river reports.

7.25 a.m.—Investment market, mining share market, metal quotations.
7.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.
7.45 a.m.—"Sydney Morning Herald" summary.
7.50 a.m.—Studio Music.
8 a.m.—"Big Ben." Close down.

MORNING SESSION.

10 a.m.—"Big Ben" and announcements.
10.2 a.m.—Pianoforte reproduction.
10.10 a.m.—"Sydney Morning Herald" news service.
10.25 a.m.—Studio Music.
10.30 a.m.—Last minute sporting information by the 2FC Racing Commissioner.
10.40 a.m.—Studio Music.
10.50 a.m.—Pianoforte reproduction.
11 a.m.—"Big Ben."
A.P.A. and Reuter's Cable Services.
11.5 a.m.—Close down.

MIDDAY SESSION.

11.55 a.m.—From the Sydney Cricket Ground: Details of the International Cricket Match: England versus "An Australian XI," to be played to-day.
12.1 p.m.—From the Studio:
Stock Exchange, first call.
12.3 p.m.—Official weather forecast, rainfall.
12.5 p.m.—From the Sydney Cricket Ground: Description of the play and progress scores of the match, England versus "An Australian XI."
1.30 p.m.—From the Studio:
Stock Exchange, second call.
1.32 p.m.—Weather forecast.
1.34 p.m.—"Evening News" midday news service.
Producers' Distributing Society's Report.
1.42 p.m.—Rugby wireless news.
1.45 p.m.—Studio Music.
2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

2.30 p.m.—Programme Announcements.
2.52 p.m.—Educational Session.
3.0 p.m.—"Big Ben." Pianoforte Reproduction.
3.15 p.m.—Radio Eisteddfod:
Semi-finalists in the Radio Eisteddfod will be heard drawn from the various sections, including Vocal, Instrumental and Humorous Items.
3.45 p.m.—A Reading.
4.0 p.m.—Gwen Gillard, Soprano.
4.7 p.m.—Pianoforte Reproduction.
4.15 p.m.—From the Sydney Cricket Ground: Description of the Play and Progress Scores of the Match, England versus "An Australian XI."
5.0 p.m.—"Big Ben." Close Down.

EARLY EVENING SESSION.

5.40 p.m.—The Chimes of 2FC.
5.45 p.m.—The "Hello Man," assisted by "Aunt Elly," will conduct the Children's Session. Stories and Letters.
6.15 p.m.—Music and Entertainment.
6.30 p.m.—Dalgety's Market Reports (Wool, Wheat and Stock).
6.40 p.m.—Fruit and Vegetable Markets.
6.43 p.m.—Stock Exchange Information.
6.45 p.m.—Weather and Shipping News.
6.48 p.m.—Rugby Wireless News.
6.50 p.m.—Late Sporting News.
7.0 p.m.—"Big Ben." Late Sporting Service.
7.10 p.m.—The 2FC Dinner Quartette, conducted by Horace Keats:
"Pierrot and Pierrette" (Hadley).
"Ninna-Nanna" (Michele).
"Only the River Running By" (Hopkins).
"The Pink Lady" (Caryle).
"The Old Refrain" (Kremer).
"Polonaise in A Flat" (Chopin).

NIGHT SESSION.

7.40 p.m.—Order of Programme and Announcements.
7.47 p.m.—Studio Music.
7.50 p.m.—Cricket Resume for New Zealand Enthusiasts.
7.52 p.m.—Pianoforte Reproduction.
8.0 p.m.—The N.S.W. Tramway Band.
8.15 p.m.—R. A. Bartleman, Baritone.
8.22 p.m.—The N.S.W. Tramway Band.
8.33 p.m.—R. A. Bartleman, Baritone.

8.46 p.m.—The N.S.W. Tramway Band.
9.0 p.m.—"Big Ben." Late Weather Forecast, Freda Sternberg, Talk:
"What Keeps Women Young?"
9.15 p.m.—From the Conservatorium:
The Second Half of the Concert (final of the 1928 series), arranged by The Sydney Madrigal Society, conducted by Arnold Mote.
The Sydney Madrigal Society's Choir. Conductor, Arnold Mote.
9.24 p.m.—Beatrice Tange, Pianoforte Solos.
9.34 p.m.—Madame Emily Marks, Soprano.
9.44 p.m.—The Conservatorium String Quartette:
Gerald Walenn, Leader.
Lionel Lawson, Violin.
Alfred Hill, Viola.
Gladstone Bell, Cello.
10.0 p.m.—The Sydney Madrigal Society's Choir.
10.10 p.m.—From the Studio:
The Studio Dance Band, conducted by Cec. Morrison.
10.22 p.m.—Len Maurice, Popular Songs.
10.30 p.m.—Late Weather Forecast.
The Studio Dance Band, conducted by Cec. Morrison.
10.42 p.m.—Len Maurice, Popular Songs.
10.50 p.m.—The Studio Dance Band.
10.57 p.m.—To-morrow's Programme and Late News.
11.0 p.m.—The Studio Dance Band, conducted by Cec. Morrison.
11.30 p.m.—National Anthem.
Close Down.

2BL, SERVICE.

TUESDAY, 20th NOVEMBER, 1928.

MORNING SESSION.

8 a.m.—G.P.O. Clock and Chimes.
Metropolitan Weather Report.
8.1 a.m.—State Weather Report.
8.2 a.m.—Studio Music.
8.15 a.m.—G.P.O. Clock and Chimes.
News Service from the "Daily Telegraph Pictorial."
8.25 a.m.—Studio Music.
8.30 a.m.—G.P.O. Clock and Chimes.
Studio Music.
8.35 a.m.—Information, Mails, Shipping, arrivals, departures and sailings.
8.38 a.m.—News from the "Daily Telegraph Pictorial."
8.45 a.m.—G.P.O. Clock and Chimes.
Studio Music.
9 a.m.—G.P.O. Clock and Chimes.
Studio Music.
9.30 a.m.—Half-an-hour with silent friends.
10 a.m.—G.P.O. Clock and Chimes.
Close down.

MIDDAY SESSION.

11 a.m.—G.P.O. Clock and Chimes.
Women's Session:
Talk on "Kindergartens."
Talk by Dr. Sandford Morgan on "The Work of the Tressilian Mothercraft."
11.30 a.m.—Miss Pam: Recipes and other items of interest.
12 noon.—G.P.O. Clock and Chimes.
Special Ocean Forecast and Weather Report.
12.3 p.m.—Studio Music.
12.30 p.m.—Shipping and mails.
12.35 p.m.—Market reports.
12.48 p.m.—"Sun" midday news service.
1 p.m.—Studio Music.
1.30 p.m.—Talk to Children and Special Entertainment for Children in Hospital.
2 p.m.—G.P.O. Clock and Chimes.
Close down.

AFTERNOON SESSION.

2.15 p.m.—G.P.O. clock and chimes.
From the Sydney Cricket Ground: Description of play in the International Cricket Match, England versus An Australian Eleven.
4 p.m.—Musical programme from the studio.
4.10 p.m.—"Sun" news service.
4.20 p.m.—Mr. Roger Jones, baritone:
(a) "A Song Remembered" (Coates).
(b) "Do you know my Garden" (Wood).

- 4.27 p.m.—Mr. James Walker, pianist:
 (a) "Sonata C Major" (Scarlatti).
 (b) "Rondo from Sonata Pathétique" (Beethoven).
 4.37 p.m.—Miss Ruth Vincent, mezzo soprano:
 (a) "I wonder if love is a Dream" (Forster).
 (b) "Requiem" (Homer).
 4.44 p.m.—Mr. James Walker:
 "Ballade in G Minor" (Chopin).
 4.51 p.m.—Mr. Roger Jones:
 (a) "Beyond the Night" (Meade).
 (b) "Evening" (O'Connor).
 5 p.m.—From the Sydney Cricket Ground: Description of play in the International Cricket Match, England versus An Australian Eleven.

EARLY EVENING SESSION.

- 6 p.m.—Children's letters and stories.
 6.30 p.m.—"Sun" news and late sporting.
 6.40 p.m.—2BL Dinner Quartette:
 (a) "Forest Fancies" (Haines).
 (b) "Glittering Moonbeams" (Fetras).
 (c) "A Hillside Melody" (Phillips).
 (d) "The Fortune Teller" (Herbert).
 (e) "Intermezzo" (Arensky).
 (f) "Farewell my Love" (Lehar).
 7.10 p.m.—Australian Mercantile, Land and Finance Co.'s report.
 Weather report and forecast by courtesy of Government Meteorologist.
 Producers' Distributing Society's fruit and vegetable market report.
 Grain and fodder report ("Sun").
 Dairy produce report ("Sun").
 7.25 p.m.—Mr. Pim and Miss Pam in advertising talks and nonsense.
 7.55 p.m.—Programme and other announcements.

EVENING SESSION.

- 8.0 p.m.—G.P.O. Clock and Chimes.
 From the Conservatorium Hall, the Final of the 1928 Series of the Concerts arranged by the Sydney Madrigal Society.
 Items by the Sydney Madrigal Society's Choir (Conductor, Mr. Arnold Mote):
 8.10 p.m.—The N.S.W. Conservatorium String Quartette:
 Gerald Walenn (Leader).
 Lionel Lawson (Violin).
 Alfred Hill (Viola).
 Gladstone Bell (Cello).
 8.25 p.m.—Madame Emily Marks (Soprano).
 8.34 p.m.—Concerto for 2 Pianos:
 1st Movement of the A Minor Concerto (Grieg).
 2nd Movement of the A Minor Concerto (Grieg).
 1st Piano, Beatrice Tange.
 2nd Piano: Arnold Mote.
 8.50 p.m.—Items by the Sydney Madrigal Society's Choir.
 9.0 p.m.—From the Studio: Resume of Following Day's Programme. Weather Report and Forecast by courtesy of Government Meteorologist.
 9.5 p.m.—Talk on "Cricket," by Mr. Hyam Marks.
 9.15 p.m.—Radio Eisteddfod: Semi-finalists drawn from the Vocal Section which includes Section 7, Soprano Solo; Section 8, Mezzo Soprano; Section 9, Contralto; Section 10, Tenor; Section 11, Baritone; Section 12, Bass, and Section 13, Duets.
 Instrumental Section: Semi-finalists from the instrumental section includes: Section 16, Champion Violin Solo; Section 17, Violin Solo, under 16 years; Section 18, 'Celol Solo; Section 19, Brass or Military Bands; Section 20, B Flat Cornet Solo; Section 21, Saxophone Solo; Section 22, Dance Bands.
 Grand Vocal Championship: Semi-finalists in the Grand Vocal Championship, Section 34.
 Elocutionary Sections: Semi-finalists in the elocutionary sections: Section 23, Radio Sketches; Section 24, Radio Plays; Section 25, Debates; Section 26, Impromptu Announcer.
 Australian Compositions: Include entrants under Section 31, Best Original Song; Section 32, Best Original Pianoforte Composition and Section 33, Best Original Violin Composition.
 10.15 p.m.—Studio Dance Music.
 10.30 p.m.—National Anthem.

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2GB, SYDNEY

TUESDAY, 20th NOVEMBER, 1928.

MORNING SESSION.

- 10 a.m.—Music.
 10 a.m.—Happiness Talk by A. E. Bennett.
 10.20 a.m.—Music.
 10.30 a.m.—Women's Session by Miss Helen J. Beegling.
 11.30 a.m.—Close down.

AFTERNOON SESSION.

- 2 p.m.—Music.
 2.5 p.m.—Women's Radio Service by Mrs. Dorothy Jordan.
 2.30 p.m.—Music.
 2.45 p.m.—Talk.
 3 p.m.—Music.
 3.15 p.m.—Close down.

EVENING SESSION.

- 5.30 p.m.—Children's Session by Uncle George.
 7 p.m.—Stock and Market reports by New Zealand Loan and Mercantile Agency Ltd.
 7.15 p.m.—Music.
 8 p.m.—2GB Instrumental Trio.
 Miss Ada Brook, Mr. Cecil Berry, Mr. Cedric Ashton.
 8.15 p.m.—Announcements.
 8.20 p.m.—Songs by Miss Merle Miller.
 8.27 p.m.—Cello solos by Mr. Cedric Ashton.
 8.35 p.m.—Mr. Stuart Peters, Scottish entertainer.
 8.42 p.m.—Pianoforte Solo by Miss Ada Brook.
 8.45 p.m.—Address by Professor Ernest Wood.
 9 p.m.—Weather report.
 9.2 p.m.—Songs by Mr. Breffni Rorke.
 9.9 p.m.—Violin Solos by Mr. Cecil Berry.
 9.17 p.m.—Songs by Miss Merle Miller.
 9.24 p.m.—Resume of programme.
 9.29 p.m.—Mr. Stuart Peters, Scottish entertainer.
 9.35 p.m.—2GB Instrumental Trio.
 9.50 p.m.—Songs by Mr. Breffni Rorke.
 10 p.m.—Close down.

2 UW, SYDNEY

TUESDAY, 20th NOVEMBER, 1928.

MIDDAY SESSION.

- 12.30 p.m.—To-day's anniversary.
 12.32 p.m.—Music.
 1 p.m.—Clock and chimes.
 1.1 p.m.—Music.
 2 p.m.—"What's On" Social Notes and talks to Women.
 2.22 p.m.—"Cheerio Talk."
 2.30 p.m.—Close down.

EARLY EVENING SESSION.

- 4.30 p.m.—Music.
 5.30 p.m.—Bedtime stories by "Uncle Jack."
 6.30 p.m.—Close down.

EVENING SESSION.

- 7 p.m.—Clock and chimes.
 7.1 p.m.—News items etc.
 7.10 p.m.—Talk by Mr. J. M. Prentice.
 7.30 p.m.—Musical interlude.
 7.35 p.m.—Political address.
 7.55 p.m.—Items of interest.
 8 p.m.—Clock and chimes.
 8.1 p.m.—Music.
 9 p.m.—Clock and chimes.
 9.1 p.m.—Comments on Foreign affairs by Mr. J. M. Prentice.
 9.10 p.m.—Music and request numbers.
 10 p.m.—Close down.

3LO, MELBOURNE

TUESDAY, 20th NOVEMBER, 1928.

EARLY MORNING SESSION.

- 7.15 a.m.—Morning Melodies.
 7.20 a.m.—Morning Exercises to Music.
 7.30 a.m.—Stock reports, market reports, general news, shipping, sporting information, express train information.
 8 a.m.—Melbourne Observatory time signal.
 8.1 a.m.—Morning Melodies.
 8.15 a.m.—Close down.

MORNING SESSION.

- 11 a.m.—3LO'S CULINARY COUNSELS, or How to Create Creature Comforts with a Minimum of Cash.
 DIFFERENT DAINTIES FOR THE DAILY DINNER:

RADIO RECIPE.
PUMPKIN PIE.

Choose nice yellow pumpkin. Cut or break in pieces and bake in moderate oven until quite tender. Scrape pulp from skin and mash through a sieve.

- 1 cup mashed pumpkin.
 1 cup milk.
 1 cup cream.
 Cinnamon, spice, nutmeg, salt.
 1/2 lb. short crust.
 3/4 cup sugar.
 2 eggs.
 2 tablespoons melted butter.
 Rind and juice of 1/2 lemon.

Mix cinnamon, spice, nutmeg, salt with pumpkin. Add sugar, milk, cream, butter and the yolks of eggs. Mix all well together. Beat the whites to a stiff froth and add them. Beat all well together until light and spongy. Line a pie plate with pastry, pour mixture in and bake slowly until filling is firm and crust crisp and brown. Dust with powdered cinnamon.

THE HELPING HAND.—Magnesia made into a paste with water and applied thickly will remove grease spots from wall-papers, etc. Allow it to dry, then remove with soft brush. A second application is sometimes necessary.

- 11.5 a.m.—MISS E. NOBLE will speak on: "Gas Cookery."

- 11.20 a.m.—Musical interlude.

- 11.25 a.m.—MRS. DOROTHY SILK will speak on: "Home crafts."

- 11.40 a.m.—Musical interlude.

- 11.45 a.m.—Under the auspices of the Purple Cross Society of Victoria, MISS I. J. H. ANDERSON, acting secretary, will speak on: "The Work of the Purple Cross."

MIDDAY SESSION.

- 12 noon.—Melbourne Observatory time signal. Express train information.

- 12.1 p.m.—Metal prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. British Official Wireless News from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service.

- 12.15 p.m.—Newmarket stock sales. Special report by John McNamara and Co.

- 12.20 p.m.—THE STATION ORCHESTRA:

- Suite, "A Summer Night" (Carl Doud).

- 12.30 p.m.—GRACE JACKSON, contralto:

- "Christina's Lament" (Dvorak).

- "Little Miss Melody" (Monckton).

- 12.37 p.m.—Stock Exchange information.

- 12.40 p.m.—THE STATION ORCHESTRA:

- "Three Characteristic Numbers" (Hadley).

- 12.50 p.m.—FRANK HARWOOD (by permission Tivoli Theatres Ltd.):

- Character vocalist.

- 1 p.m.—JOSEPH BARRILLE, flute:

- "Valse Gracieuse" (German).

- 1.5 p.m.—GRACE JACKSON, contralto:

- "The Little Hills" (Gleeson).

- "Salaam" (Agnes Lang).

- 1.12 p.m.—THE IMPERIAL RUSSIAN TRIO:

- Arved Norit, violin:

- "Fantasie Slave" (Dvorak-Kreisler).

- John Berzinsky, cello:

- "Scherzo" (Dittersdorf-Kreisler).

- The Trio:

- "Trio B Major" (Mozart).

- Allegretto.

- 1.27 p.m.—Meteorological information. Weather forecast for Victoria, Tasmania, South Australia and New South Wales. Ocean forecast. River reports. Rainfall.

- 1.33 p.m.—THE STATION ORCHESTRA:

- Suite, "From the Countryside."

- 1.40 p.m.—Close down.

AFTERNOON SESSION.

- 2.15 p.m.—THE RADIO-ACES:

- "Blue Berry Lane" (Bryan).

- "Delirium" (Schutt).

- "Felix the Cat" (Naustraum).

- 2.24 p.m.—MORAN HILFORD, bass (by permission J. C. Williamson, Ltd.):

- "Sergeant of the Line" (Squire).

- "Micky's Advice" (Lohr).

- 2.31 p.m.—THE RADIO-ACES:

- "Polly" (Zameenik).

- "There's One Little Girl who Loves Me" (Kahn).

- "Oh, Doris, Where do you Live?" (Kahn).

- 2.40 p.m.—ICISIS BROWN, Soprano:

- "If There Were Dreams to Sell" (Ireland).

- "Cuckoo" (Martin Shaw).

- 2.47 p.m.—THE RADIO-ACES:

- "Tell Me To-night" (Little).

- "May Ann" (Davis).

- "Together" (Brown).

- 2.56 p.m.—SYDNEY HOLLISTER, Comedian (by permission J. C. Williamson, Ltd.):

- "Whimsicalities."

- 3.3 p.m.—THE RADIO-ACES:

- "Was it a Dream" (Britt).

- "The Man I Love" (Gerswhin).

- "Red Head" (Embury).

- 3.12 p.m.—MAY JONES, Contralto:

- "Down by the Sally Gardens" (Martin Shaw).

- "The Early Morning" (Graham Peel).

- 3.19 p.m.—THE RADIO-ACES:

- "Rose of Monterey" (Guy).

- "Sentimental Baby" (Palmer).

- "In My Bouquet of Memories" (Lewis).

- 3.28 p.m.—MORAN HILFORD, Bass:

- "The Vagabond's Song" (Cundell).

- "The Little Irish Girl" (Lohr).

- 3.35 p.m.—THE RADIO-ACES:

- "Jazz Master" (Mayeral).

- "Sunshine" (Berlin).

- "Love Affairs" (Robinson).

- 3.44 p.m.—ICISIS BROWN, Soprano:

- "I'm a Longin' for You."

- "Dan Cupid" (Zucca).

- 3.51 p.m.—THE RADIO-ACES:

- "Don't Cry, Baby" (Kahn).

- "Ice Cream" (Jones).

- "My Melancholy Baby" (Noston).

- 4 p.m.—SYDNEY HOLLISTER, Comedian:

- "A Little of This and That."

- 4.7 p.m.—THE RADIO-ACES:

- "Anything You Say" (Donaldson).

- "In a Bamboo Garden" (Donaldson).

- "We'll Have a New Home in the Morning" (Buck).

- 4.16 p.m.—MAY JONES, Contralto:

- "Where Corais Lie" (Elgar).

- "In Haven" (Elgar).

- 4.23 p.m.—THE RADIO-ACES:

- "Henry's Made a Lady Out of Lizzie" (O'Keefe).

- "Lolita" (Stoneham).

- "Russian Rag" (Stitzel).

- 4.30 p.m.—Sonora Recital.

- 5 p.m.—"Herald" News Service.

- Stock Exchange information.

- 5.10 p.m.—Close down.

During the afternoon, progress scores will be broadcast of the Cricket Match, England versus an Australian Eleven at Sydney.

EVENING SESSION.

- 6 p.m.—Answers to Letters and Birthday Greetings by "BILLY BUNNY."

- 6.25 p.m.—Musical interlude.

- 6.30 p.m.—"LITTLE MISS KOOKABURRA"

- will tell some more old favorites:

- "Three Little Pigs," and

- "Dick Whittington and His Cat."

- 6.50 p.m.—"BILLY BUNNY" also has a story to tell.

NIGHT SESSION.

- 7.5 p.m.—Stock Exchange information.

- 7.15 p.m.—Special report of John McNamara and Co. Official report of the Newmarket

- Stock sales by the Associated Stock and Station Agents, Bourke-street, Melbourne.

- Fish market reports by J. R. Borrett, Ltd. Market reports by the Victorian Producers'

- Co-operative Co., Ltd. Poultry, grain, hay, straw, jute, dairy produce, potatoes and

- onions. Market reports of fruit by the Victorian Fruiterers' Association. Retail

- prices. Wholesale prices of fruit by the Wholesale Fruit Merchants' Association.

- Citrus fruits.

- 7.30 p.m.—News session. Final scores of the Cricket Match, England versus an Australian Eleven in Sydney.

- 7.43 p.m.—Birthday greetings.

- 7.45 p.m.—OUT OF THE PAST.

7.46 p.m.—Under the auspices of the University Extension Board, PROFESSOR W. A. OSBORNE, M.B., B.Ch., D.Sc., Professor in Physiology, will speak on:
"Magic and Medicine."

8 p.m.—A MAKER OF HISTORY.
"That Lass o' Lowries," which was shortly followed by her outstanding and by far her most popular story,
"Little Lord Fauntleroy."

PROGRAMME ANNOUNCEMENTS.

8.1 p.m.—HOFFMAN'S DANCE BAND:
Waltz, "Wagner Aire."
8.8 p.m.—SYDNEY HOLLISTER, Comedian:
"A Chestnut or Two."
8.11 p.m.—HOFFMAN'S DANCE BAND:
Polka, "Paragraph."
8.18 p.m.—MARY MACK, Contralto:
"The Arrow and the Song" (Balfie).
8.21 p.m.—HOFFMAN'S DANCE BAND:
Quadrilles "Top of the World."
8.40 p.m.—FRANK HARWOOD:
Character Vocalist.
8.43 p.m.—HOFFMAN'S DANCE BAND:
Barn dance, "Memories."
8.50 p.m.—JOHN HOBBS, Baritone:
"My Old Shako" (Trotter).
8.53 p.m.—HOFFMAN'S DANCE BAND:
Valetta, "Mellow Cello."
9 p.m.—OLD-TIME CHORUSES—GRAHAM BURGIN and the Boys of the Village, introduced by Maurice Dudley; Mrs. Campbell at the piano:
"Our Threepenny Hop."
"The Old Log Cabin in the Dell."
"Sons of the Sea."
"Love's Serenade."
"Just Like the Ivy."
9.6 p.m.—HOFFMAN'S DANCE BAND:
Alberts: Selected.
9.22 p.m.—SYDNEY HOLLISTER, Comedian:
"Out of the Past."
9.25 p.m.—HOFFMAN'S DANCE BAND:
Schottische, "Cupid's Garden."
9.30 p.m.—MARY MACK will whistle:
"A Medley of Scotch Airs."
9.33 p.m.—HOFFMAN'S DANCE BAND:
Waltz, "Blue Danube."
9.41 p.m.—JOHN HOBBS, Baritone:
"Down the Vale."
9.44 p.m.—HOFFMAN'S DANCE BAND:
Lancers, "The Gondoliers."
10.2 p.m.—OLD-TIME CHORUSES:
GRAHAM BURGIN and the Boys of the Village, introduced by MAURICE DUDLEY, and MRS. CAMPBELL at the Piano—
"Hear the Pipers Calling."
"The Shade of the Palm."
"Carry Me Back to Ole Virginnie."
"The Old Bull and Bush."
10.8 p.m.—HOFFMAN'S DANCE BAND:
Polka Mazurka "Buds of Love."
10.15 p.m.—JOHN HOBBS, Baritone:
"Asleep in the Deep."
10.18 p.m.—HOFFMAN'S DANCE BAND:
Barn Dance, "Cuckoo."
10.24 p.m.—OLD-TIME CHORUSES:
GRAHAM BURGIN and the Boys of the Village, introduced by MAURICE DUDLEY, with MRS. CAMPBELL at the Piano—
"Only a Leaf."
"Maid of the Mill."
"The Luggage Van Ahead."
"Back to Baltimore."
"Walking Home with Angelina."
"A Wee Deoch and Doris."
10.31 p.m.—HOFFMAN'S DANCE BAND:
"Varsoviana."
10.37 p.m.—MARY MACK, Contralto:
"I've Been Roaming" (Horne).
10.40 p.m.—HOFFMAN'S DANCE BAND:
"Royal Irish."
10.58 p.m.—"Argus" News Service. Meteorological information. British Official Wireless Announcements. Sporting Notes by "Olympus."
11 p.m.—"Our Great Thought for To-day."
11 p.m.—THE RADIO-ACES.
11.40 p.m.—GOD SAVE THE KING.

3AR, MELBOURNE.

TUESDAY, 20th NOVEMBER, 1928.

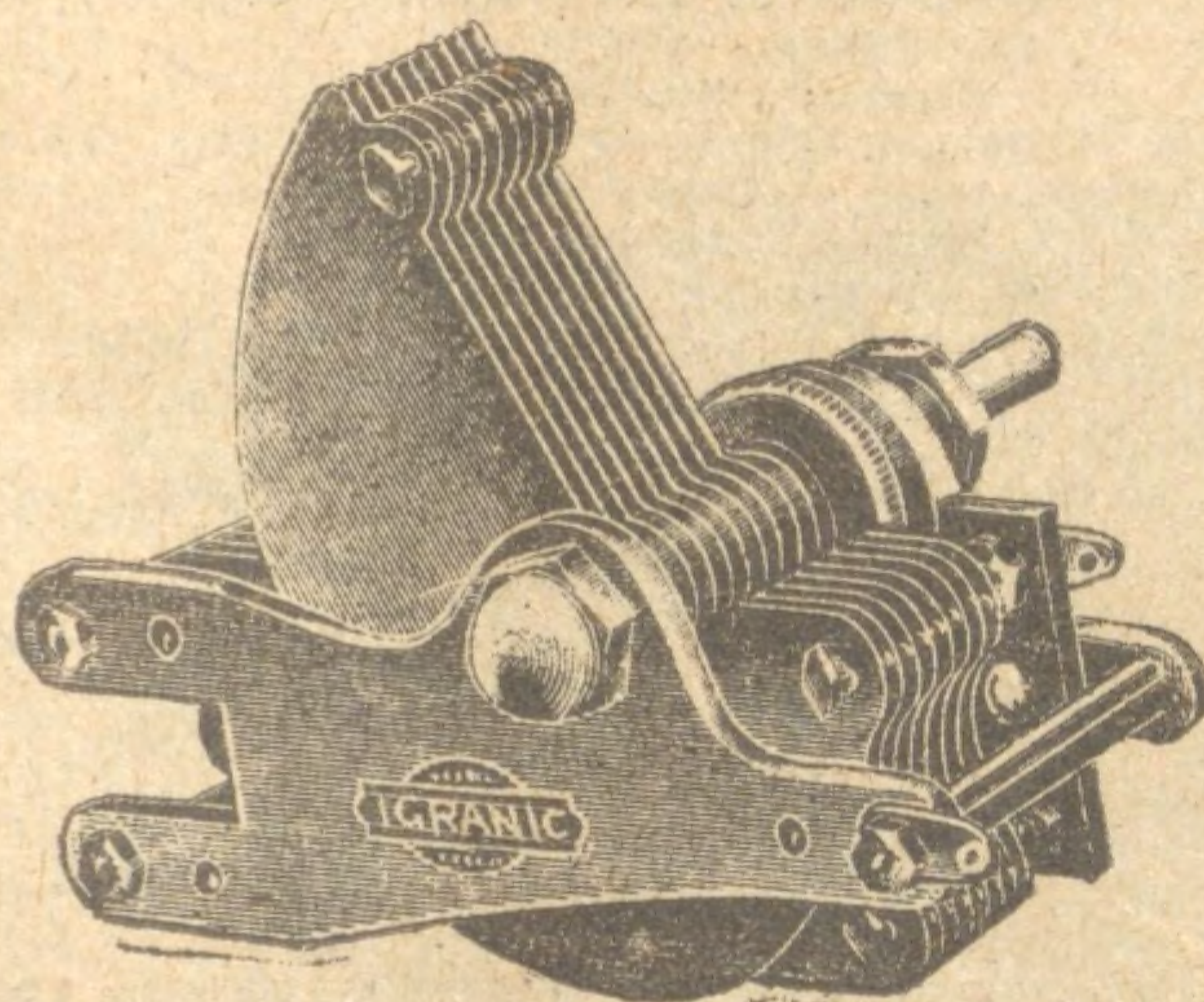
MORNING SESSION.

10 a.m.—G.P.O. Clock says "Ten."
10.1 a.m.—"Age" Stock Exchange reports.
London Metal Market.

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H. F. Choke

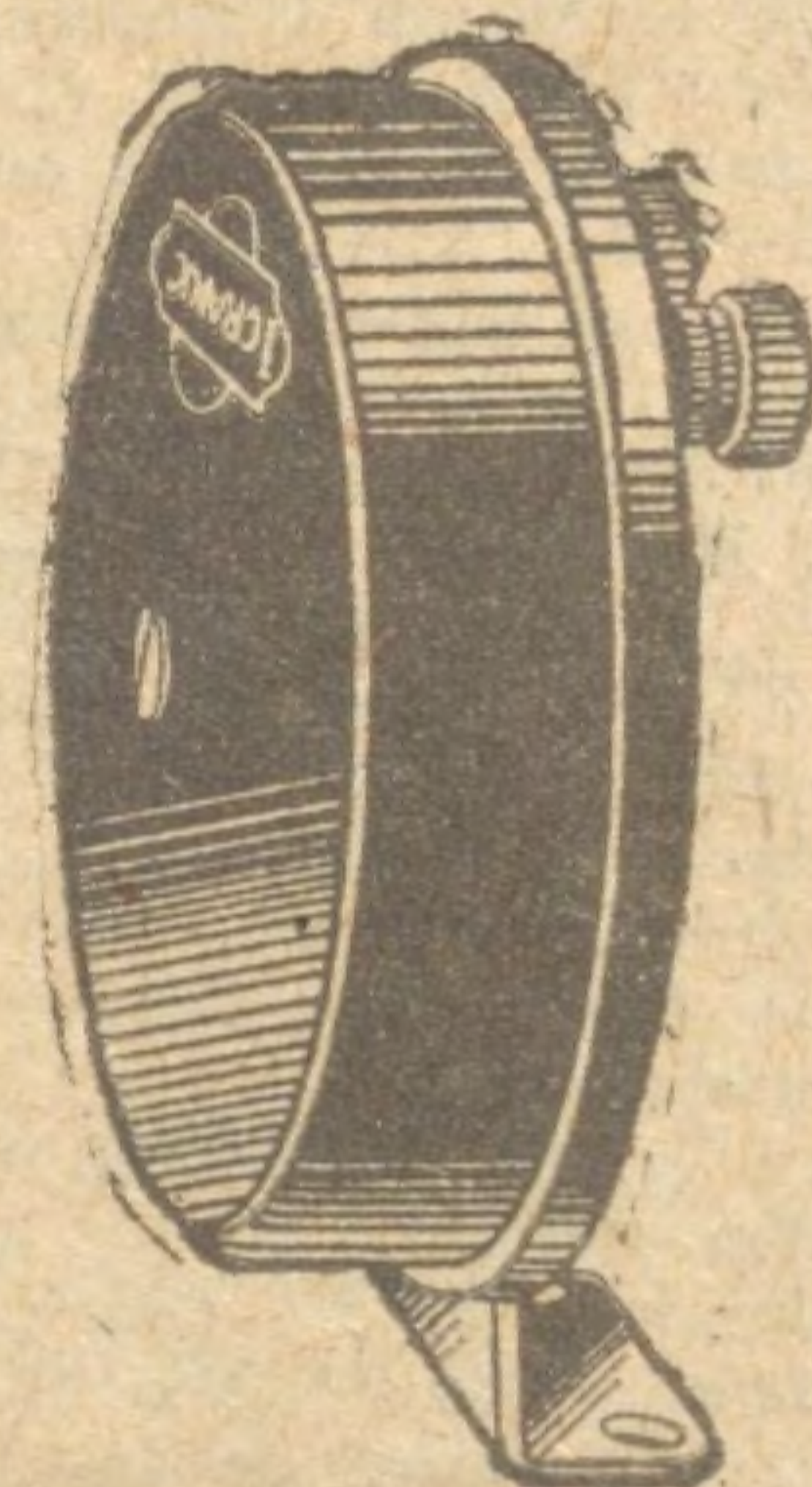


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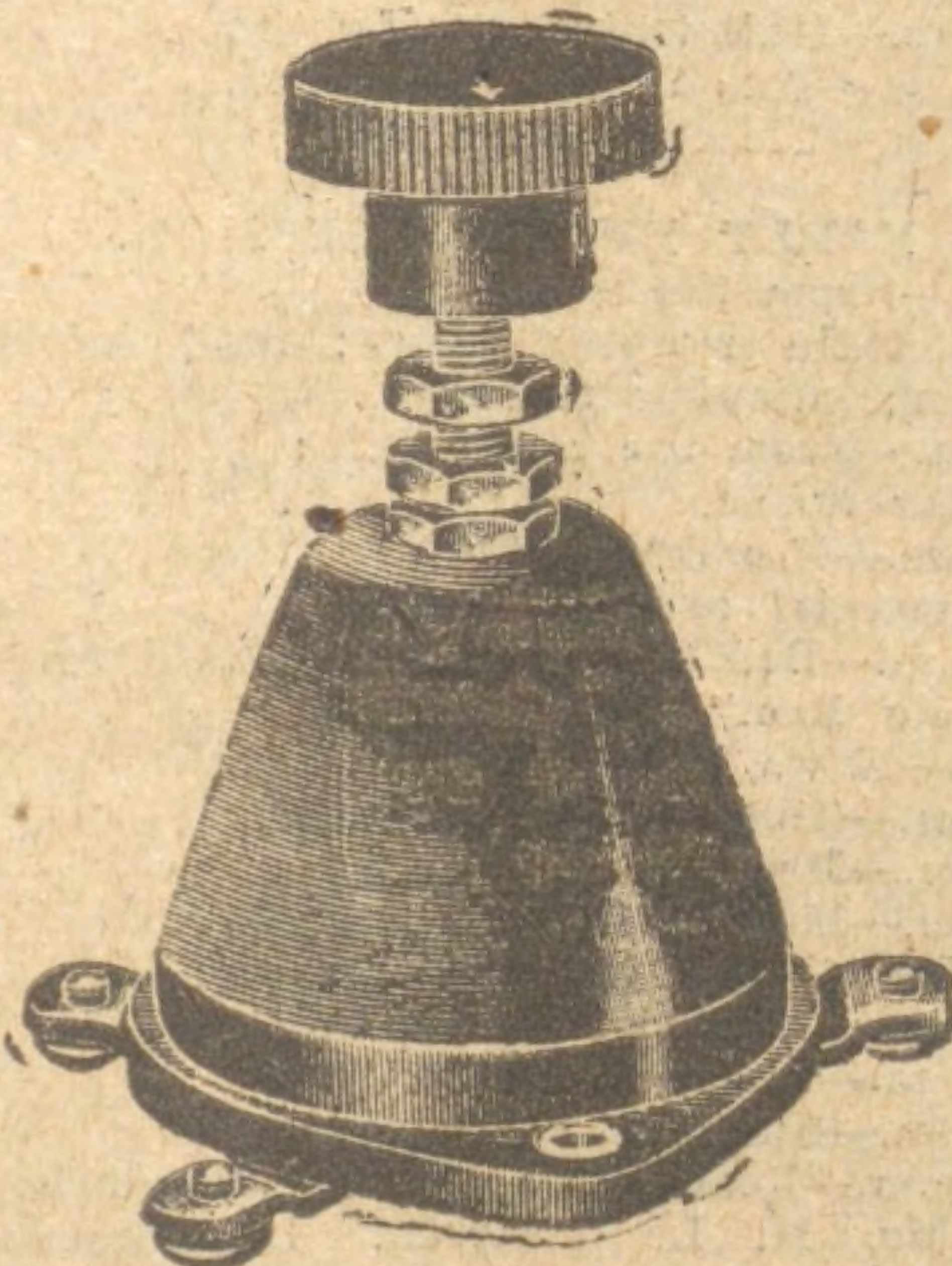
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PERTH: J. R. W. Gardam & Co.

"W.W."

10.10 a.m.—"Age" market reports—farm and station produce, fruit, fish, vegetables, etc.
 10.25 a.m.—"Age" Shipping reports.
 Ocean forecast.
 10.30 a.m.—Mail notices.
 Express train information.
 10.35 a.m.—"Age" news service, exclusive to 3AR.
 10.59 a.m.—Weather forecast.
MORNING MUSICAL SESSION.
 11 a.m.—Scientific reproduction of Absent Artists.
 12.30 p.m.—British Official Wireless.
 12.40 p.m.—Continuation of recital.

EVENING SESSION.

5 p.m.—A Recital of the World's Masters, both past and present.

NIGHT SESSION.

8 p.m.—Under the auspices of the Numismatic Society. A. S. Kenyon: "The Token Issues, Australasia and New Zealand."
 8.15 p.m.—A. G. Kelson, President of the 3AR Stamp Club: "Stamps."
 8.30 p.m.—Station Orchestra:
 "Unfinished Symphony" (Schubert).
 8.40 p.m.—Grace Jackson, contralto:
 "Just a Wearying for You" (Thompson).
 "Who Knows" (Ernest Ball).
 8.47 p.m.—Station Orchestra:
 Suite: "From the Country Side" (Coates).
 8.57 p.m.—Professor R. J. A. Berry: "The Prickly Problem of Prohibition; its dry or historical side."
 9.12 p.m.—Grace Jackson, contralto:
 "Just Because the Violets" (Kennedy Russell).
 "Jeunesse" (Barry).
 9.19 p.m.—Station Orchestra:
 Suite: "Three Fours" (Coleridge Taylor).
 9.30 p.m.—By permission of J. C. Williamson, Limited: "The Desert Song," Act 2.
 Music by Sigmund Romberg. Book by Otto Harbach, Oscar Hammerstein 2nd, and Frank Mandrell. Produced by George A. Highland.

Cast of Characters:—

Sid El Kar (The Red Shadow's Lieutenant)—Herbert Browne.
 Mindar—Cecil Dawley.
 Hassi—Lou Vernon.
 Neri (first appearance in Australia)—Maud Pomeroy.
 Hadji (first appearance in Australia)—John Ronald.
 Benjamin Kidd (Society Correspondent, Paris "Daily Mail")—Herbert Mundin (first appearance in Australia).
 Pierre Birabeau (The Red Shadow)—Lance Fairfax.
 Capt. Paul Fontaine—Reginald Dandy.
 Azuri—Stephanie Deste.
 Lieutenant La Vergne (first appearance in Australia)—Ronald Pomeroy.
 Lieutenant Du Bassac—Owen Trappes.
 Margot Bonvalet (first appearance in Australia)—Virginia Perry.
 General Birabeau (Governor of a French Moroccan Province)—Peter Gawthorne.
 Susan (his Ward)—Lorna Helms.
 Ethel—Aileen Barton.
 Ali Ben Ali (Caid of a Riff tribe)—Douglas Herald.
 Clementina (a Spanish lady)—first appearance in Australia—Maud Zimbla.
 Act 2.

Scene 1.—The Harem of Ali Ben Ali. Afternoon the following day.
 Scene 2.—A Corridor; a few minutes later.
 Scene 3.—The Room of the Silken Couch.
 Scene 4.—The Edge of the Desert; the following morning, half an hour before sunrise.

Scene 5.—Courtyard of General Birabeau's House; two days later.

Musical Numbers.

Orchestra under the direction of Will Quintrell.

1.—Song of the Brass Key: Maud Zimbla and Chorus of Ladies and Ballet.
 2.—"One Good Boy Gone Wrong": Herbert Mundin and Maud Zimbla.
 3.—"Eastern and Western Love" (a) "Let Love Go": Douglas Herald and Chorus Gentlemen.

(b) "One Flower in Your Garden": Herbert Browne and Chorus Gentlemen.
 (c) "One Alone": Lance Fairfax and Chorus Gentlemen.
 4.—"The Sabre Song": Virginia Perry.
 5.—Dramatic Finaletto.
 6.—"Farewell": Lance Fairfax and Chorus Gentlemen.
 7.—Introduction. Scene 5: Virginia Perry and Chorus Ladies.
 8.—Reprise of "It": Lorna Helms, Herbert Mandin, and Ladies of the Ballet.
 9.—Dance of Triumph: Stephanie Deste.
 10.—Finale.
 From the Studio—
 10.30 p.m.—Imperial Russian Trio (Arved Norit, violin; John Berzinsky, 'cello; William Ibster, piano):
 "Souvenir" (Nichols).
 "Are You Lonesome To-night" (Turk).
 "Just Another Day Wasted Away" (Turk).
 "Russian Romances."
 10.45 p.m.—"Age" news service, exclusive to 3AR.
 10.58 p.m.—Weather forecast.
 10.59 p.m.—Our Australian Good-night quote.
 11 p.m.—God Save the King.

4QG, BRISBANE.**TUESDAY, 20th NOVEMBER, 1928.****EARLY MORNING SESSION.**

8 p.m.—From the Studio:
 This morning's news, supplied by courtesy of the Brisbane metropolitan daily newspapers.
 8.30 a.m.—Close down.

MORNING SESSION.

11 a.m. to 12 noon.

MIDDAY SESSION.

1 p.m.—Market reports and weather information.
 1.15 p.m.—From the Paris Cafe:
 Lunch-hour music.
 1.58 p.m.—From the Brisbane Observatory:
 Time signals.
 2 p.m.—Close down.
AFTERNOON SESSION.
 3 p.m.—From the Studio:
 A programme of electrically reproduced records.
 3.30 p.m.—Mail train running times.
 4.15 p.m.—This afternoon's news.
 4.30 p.m.—Close down.

EARLY EVENING SESSION.

6 p.m.—From the Studio:
 Mail train running times; mail information; shipping news.
 6.5 p.m.—From the Paris Cafe:
 Dinner music.
 6.25 p.m.—From the Studio:
 Commercial announcements.
 6.30 p.m.—Bedtime stories conducted by "Uncle Ben."
 7 p.m.—News in brief.
 7.5 p.m.—Stock Exchange news.
 7.6 p.m.—Metal quotations.
 7.7 p.m.—Market reports.
 7.25 p.m.—Fenwick's stock report.
 7.30 p.m.—Weather information.
 7.40 p.m.—Announcements.
 7.43 p.m.—Standard time signals.
 7.45 p.m.—Lecturette: "Dairy Inspection"—by Mr. M. L. Cameron, Department of Agriculture and Stock.

NIGHT SESSION.

8 p.m.—From the Studio:
 A classical hour arranged by Mr. Archie Day.
 Will H. Lister:
 A Thought for To-night—"Religion and Morals."
 Morris Cran (violinist) and Archie Day (piano):
 Duets for violin and piano—"Sonata in D Minor"—1st movement (Coleridge Taylor).

Mrs. S. B. Harris, soprano:
 "The Blackbird and the Rose" (Coningsby-Clarke).
 "The Robin's Song" (Howard White).
 Fred Homer, baritone:
 "The Old Black Mare" (Squire).
 Archie Day, pianist, selected.
 Mrs. S. B. Harris (soprano), and Fred Homer (baritone)—Vocal duet, "Qual Voce" (Verdi).
 Morris Cran, violinist:
 "Meditation"—Thais (Massenet).
 Mrs. S. B. Harris, soprano:
 "Roberta tu che adoro" (Meyerbeer).
 Morris Cran, violinist:
 "Hymn to the Sun" (Ramsky-Korsakoff—arr. Franks).
 Fred Homer, baritone:
 "Twas in the Glorious Month of May" (G. W. Cox).
 "Since My Love Now Loves Me Not" (G. W. Cox).
 "The Buttery and the Rose" (G. W. Cox).

Part II.—Brisbane Apollo Club.

9 p.m.—A programme by the Brisbane Apollo Club, relayed from the School of Arts:—
 Chorus:

"All Through the Night" (Northcote).
 "Northman's Song" (Kucken).
 "O Peaceful Night" (Ed. German).
 "Buccaneers" (Candish).

Between choral items, Phyllis Verner (soprano) will sing from the studio:—
 "Night of Stars" (Thompson).

"Ma Little Banjo" (Dichmont).
Part III.—Anglo Male Quartette.

9.30 p.m.—A programme by the Anglo Male Quartette:—
 Anglo Male Quartette:

"Whispering Pines of Nevada" (Bloom).
 C. R. Kolb, tenor:

"Shy Mignonette" (Brahe).
 Dick Pike, bass:

"King of the Deep" (Jude).
 Anglo Male Quartette:

"The Bowl of Roses" (Coningsby-Clarke).

R. N. Watts, baritone:
 "Passing By."

C. R. Kolb, tenor, and D. Pike, bass:
 Vocal Duet: "The Ballad Singers" (Lane Wilson).

Anglo Male Quartette:
 "When It's Love Time in Hawaii" (Scott).

10 p.m.—Late news; weather news.
 10.15 p.m.—"Queensland" news, for distant listeners.

10.30 p.m.—Close down.

5CL, ADELAIDE.**TUESDAY, 20th NOVEMBER, 1928.****MORNING SESSION.**

11.0 a.m.—G.P.O. Chimes.
 11.1 a.m.—Studio Recreator.
 Recital of Columbia Recordings.
 11.40 a.m.—"Economist."
 "Kitchen Craft and Menu Talk."

MIDDAY SESSION.

12.0 noon.—G.P.O. Chimes.
 12.1 p.m.—"The Advertiser" General News Service.
 12.20 p.m.—British Official Wireless News.
 12.25 p.m.—Beatrice Kingston, Soubrette:
 "Apple Blossom Time" (Stoneham).
 "Little Mother" (Rapee).
 12.32 p.m.—Seth Smith, Banjoist:
 "Poppies and Wheat" (Hucke).
 "Sympathy Waltz" (Bibo).
 12.39 p.m.—Signor Ulivi, Bass-Baritone:
 Selections from his Repertoire.
 12.46 p.m.—Tom King, Pianist:
 "Spring Bells" (Moszkowski).
 12.50 p.m.—S.A. Railways Information.
 12.51 p.m.—S. C. Ward and Co.'s Stock Exchange Information.
 12.57 p.m.—Meteorological Information.

- 1.0 p.m.—G.P.O. Chimes.
 1.1 p.m.—Wattie and Grahame, Entertainers.
 In Comedy Sketches.
 1.11 p.m.—Seth Smith, Banjoist:
 "Andante and Waltz" (Cammoyer)
 "That Banjo Rag" (Weidt).
 1.18 p.m.—Beatrice Kingston, Soubrette:
 "In the Sing Song Sycamore Tree" (Dixon).
 "Sleep Little Coon" (Brandon).
 1.25 p.m.—Tom King, Pianist:
 "Marche Hongroise" (Kewalski).
 1.30 p.m.—Signor Ulivi, Bass-Baritone:
 Selections from his Repertoire.
 1.37 p.m.—Seth Smith, Banjoist:
 "Jasmine" (Oakley).
 "Winning Fight" (Holzman).
 1.40 p.m.—Wattie and Grahame, Entertainers.
 In a Comedy Sketch.
 1.50 p.m.—Seth Smith, Banjoist:
 "Diane Waltz" (Pollack).
 "When I Sang the Rosary" (Gilbert).
 1.57 p.m.—International Cricket Scores: Eng-
 land v. Australian Eleven.
 1.58 p.m.—Meteorological Information.
 2.0 p.m.—G.P.O. Chimes and Close Down.

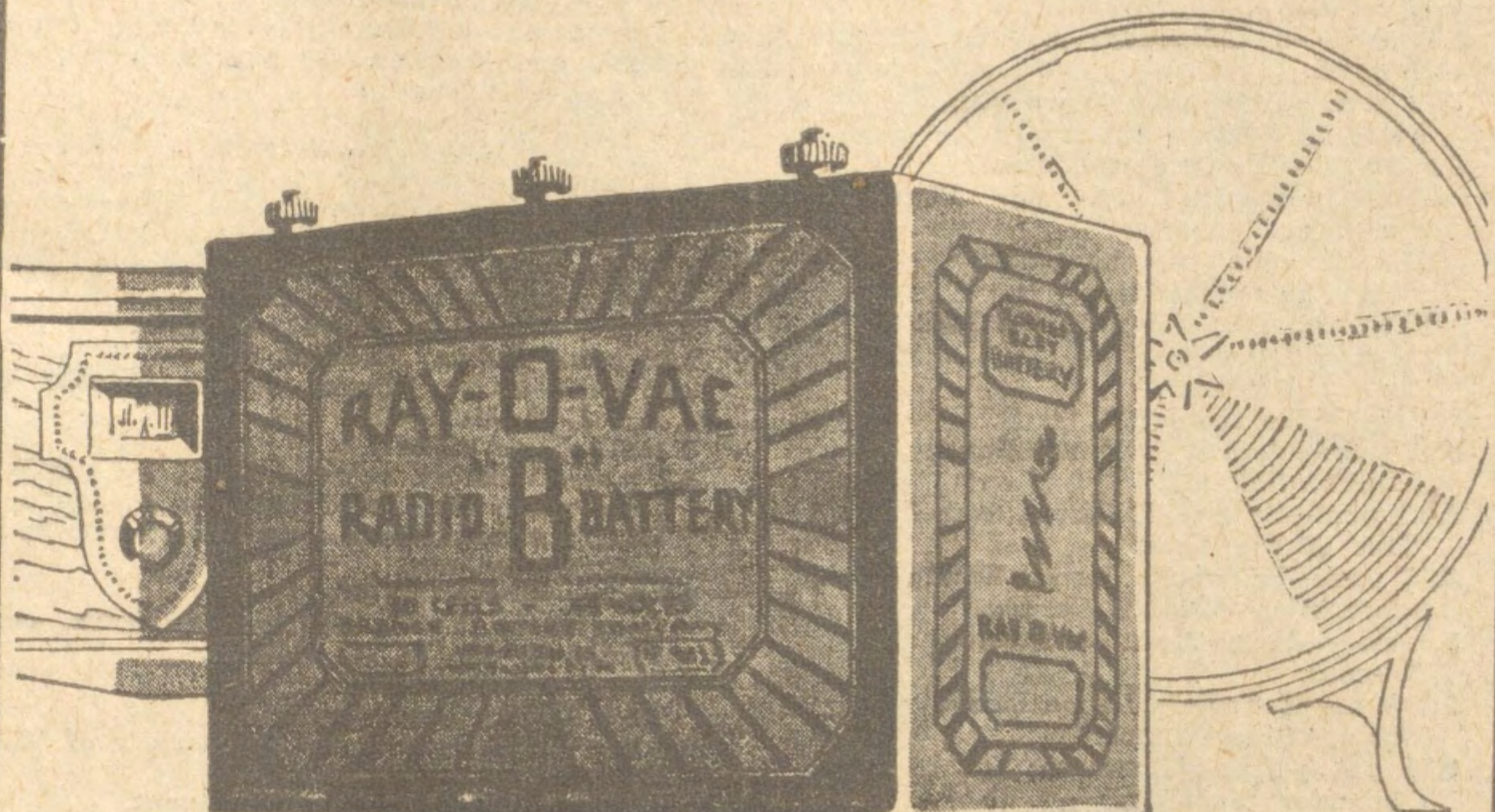
AFTERNOON SESSION.

- 3.0 p.m.—G.P.O. Chimes.
 3.1 p.m.—International Cricket Scores: Eng-
 land v. Australian Eleven.
 3.2 p.m.—Bertha Davies, Soprano:
 "The Winds in the South" (Scott).
 "Down in the Forest" (Ronald).
 3.9 p.m.—Regent Theatre Musical Attractions:
 Symphonic and Incidental Music.
 3.19 p.m.—Signor Ulivi, Bass-Baritone:
 Selections from his Repertoire.
 3.26 p.m.—F. G. Brown, Cornetist:
 "I Love a Little Cottage" (O'Hara).
 "Until the Dawn" (Clay Smith).
 3.33 p.m.—Regent Theatre Musical Attractions.
 Music for All.
 3.40 p.m.—Wattie and Grahame, Entertainers:
 In a Humorous Interlude.
 3.58 p.m.—Rev. G. E. Hale, B.A.:
 Talk on "A Thinker Let Loose."
 4.0 p.m.—G.P.O. Chimes.
 4.1 p.m.—F. G. Brown, Cornetist:
 "Just Like Your Eyes" (Grunn).
 "One Fleeting Hour" (Lee).
 4.6 p.m.—Bertha Davies, Soprano:
 "A Heart That's Free" (Robyn).
 "The Wood Pigeon" (Lehmann).
 4.13 p.m.—Regent Theatre Musical Attrac-
 tions: Incidental Music.
 4.20 p.m.—Wattie and Grahame, Entertainers.
 In a Humorous Interlude.
 4.30 p.m.—Regent Theatre Musical Attrac-
 tions: Harmony for all.
 4.37 p.m.—Signor Ulivi, Bass-Baritone:
 Selected Items.
 4.44 p.m.—Regent Theatre Musical Attrac-
 tions: Selected Orchestral Items.
 4.55 p.m.—International Cricket Scores: Eng-
 land v. Australian Eleven.
 4.57 p.m.—S. C. Ward and Co.'s Stock Ex-
 change Information.
 5.0 p.m.—G.P.O. Chimes and Close Down.

EVENING SESSION.

- 6 p.m.—G.P.O. chimes.
 6.1 p.m.—International cricket scores. Eng-
 land v. Australian Eleven, at Sydney.
 6.3 p.m.—Children's Happy Moments.
 Birthday greetings, correspondence, songs
 and stories, by "The Wattle Lady."
 6.30 p.m.—Dinner music:
 Recital of Columbia recordings on the studio
 "Recreator."
 6.50 p.m.—Federal election figures.
 6.55 p.m.—International cricket scores.
 England v. Australian Eleven.
 7 p.m.—G.P.O. chimes.
 7.1 p.m.—S. C. Ward and Co.'s Stock Ex-
 change information.
 7.5 p.m.—General market reports.
 7.10 p.m.—5CL's sporting service, by "Silvius."
 Including International cricket scores at
 Sydney.
 7.15 p.m.—Miss Laurie McLeod:
 A talk on "The Art of Dancing."
 7.30 p.m.—"Spinifex" will talk on birds and
 their habits.
 7.40 p.m.—Dr. Herbert Basedown, M.A., M.P.:
 "An Australian Talk."
 8.57 p.m.—International cricket scores.
 England v. Australian Eleven.

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More than this, while it does last—even then—all other similar units are eclipsed because the "Ray-O-Vac" has such a low internal resistance; preserving this, even when nearly worn out; the result is that distortion never ensues.

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Wireless Department, First Floor

FARMER'S

PITT, MARKET & GEORGE STS., SYDNEY

NIGHT SESSION.

An Old-time Dance Night.

Transmitted from Melbourne, by courtesy of 3L.O.

8 p.m.—G.P.O. chimes.

8.1 p.m.—Hoffman's Dance Band: Quadrilles, "Top of the World."

8.10 p.m.—Frank Harwood: Character Vocalist.

8.13 p.m.—Hoffman's Dance Band: Barn dance, "Memories."

8.20 p.m.—J. Alexander Browne, baritone: Selected.

8.23 p.m.—Hoffman's Dance Band: Valetta, "Mellow 'Cello."

8.30 p.m.—Old-time choruses. Graham Burgin and the Boys of the Village.

Mrs. Campbell at the piano.

"Our Threepenny Hop."

"The Old Log Cabin in the Dell."

"Sons of the Sea."

"Love's Serenade."

"Just Like the Ivy."

8.36 p.m.—Hoffman's Dance Band: Alberts, Selected.

8.42 p.m.—Sydney Hollister, comedian: "Out of the Past."

8.55 p.m.—Hoffman's Dance Band: Schottische, "Cupid's Garden."

9 p.m.—Mary Mack, contralto: Selected.

9.3 p.m.—Hoffman's Dance Band: Waltz, "Blue Danube."

9.11 p.m.—Frank Harwood: Character Vocalist.

9.14 p.m.—Hoffman's Dance Band: Lancers, "The Gondoliers."

9.32 p.m.—Old-time choruses. Graham Burgin and the Boys of the Village.

Mrs. Campbell at the piano.

"Hear the Pipers Calling."

"The Shade of the Palm."

"Carry me Back to Ole Virginie."

"The Old Bull and Bush."

9.38 p.m.—Hoffman's Dance Band: Polka Mazurka, "Buds of Love."

9.45 p.m.—J. Alexander Browne, baritone: Selected.

9.48 p.m.—Hoffman's Dance Band: Barn dance, "Cuckoo."

9.54 p.m.—Old-time choruses. Graham Burgin and the Boys of the Village.

Mrs. Campbell at the piano.

"Only a Leaf."

"Maid of the Mill."

"The Luggage Van Ahead."

"Back to Baltimore."

"Walking Home with Angeline."

"A Wee Doeck and Doris."

10.1 p.m.—Hoffman's Dance Band: "Varsoviana."

10.7 p.m.—Mary Mack, contralto: Selected.

10.10 p.m.—Hoffman's Dance Band: "Royal Irish."

10.28 p.m.—"The Advertiser" general news service.

Overseas grain report.

Meteorological information.

10.38 p.m.—THE RADIO-3ACES:

"Borneo."

"Linger Longer Lane" (Lawrence).

"Is it Gonna Be Long" (Whiting).

"It Goes Like This."

"My Melancholy Baby" (Norton).

"That's My Weakness Now" (Stept).

"Get out and get under the Moon" (Tobias).

11.10 p.m.—God Save the King.

6WF, PERTH.

TUESDAY, 20th NOVEMBER, 1928.

MIDDAY SESSION.

12.30 p.m.—Tune in.

12.35 p.m.—Markets, News and cables.

1 p.m.—Time signal.

1.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.

1.2 p.m.—Luncheon Music:

The studio Instrumental Trio, conducted by Mr. Val Smith, will play selections from their repertoire.

1.30 p.m.—Close down.

At intervals during the afternoon results will be given of the cricket match between the Australian Eleven v. the English Eleven played at Sydney.

AFTERNOON SESSION.

2.35 p.m.—Music and Song:

Pianoforte selections by Miss Audrey Dean. Vocal and instrumental interludes.

4.30 p.m.—Close down.

EVENING SESSION.

6.45 p.m.—Tune in.

The evening transmission is broadcast on 104.5 metres as well as the usual wavelength.

6.48 p.m.—Stories of the Kiddies and Birthday greetings by Uncle Percy.

7.5 p.m.—Items by the Studio Trio.

7.30 p.m.—Stocks, Markets, News.

7.45 p.m.—Talk: "Books of the Month" by Mr. J. P. Bathgate.

8 p.m.—Time signal.

8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia. Station announcements such as alterations to programmes, etc.

8.3 p.m.—Orchestral Night:

Concert by 6WF's Station Orchestra, conducted by Mr. W. A. Wilkins.

Vocal assisting artist.

Miss Audrey Dean, pianist:

9 p.m.—Late News items by courtesy of "The Daily News" Newspaper Co.

Ships within range announcement.

Weather report and forecast.

Station Announcements.

10.30 p.m.—Close down.

104.5 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

7ZL, HOBART

TUESDAY, 20th NOVEMBER, 1928.

MIDDAY SESSION.

11.30 a.m.—Monsieur Sonora: Musical Selections.

11.34 a.m.—Special Midlands Weather Forecast.

11.35 a.m.—Monsieur Sonora: Musical Selections.

11.55 a.m.—Tasmanian Stations 9 a.m. Weather Report.

12 noon.—G.P.O. Clock chimes the hour.

1.1 p.m.—Shipping Information. Ships within wireless range. Mail notices. Housewives' guide.

12.8 p.m.—Monsieur Sonora: Musical Selections.

12.11 p.m.—British Official Wireless News.

12.20 p.m.—Monsieur Sonora: Musical Selections.

12.29 p.m.—Announcements.

12.33 p.m.—Monsieur Sonora: Musical Selections.

12.35 p.m.—"Mercury" News Service. Produce Sales held at Railway.

1.10 p.m.—Monsieur Sonora: Musical Selections.

1.30 p.m.—Close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. Clock chimes the hour.

3.1 p.m.—Weather information.

3.5 p.m.—Patti Pianola:

"Nigger Minstrels," No. 5 (Vocalstyle).

Jack Courtney, Organ Solo on the Compton Theatre Organ:

"Shalimar" (Nicholls).

"Where, oh where do I live" (Fox Trot) (Carlton).

Patti Pianola:

"Nigger Minstrels," No. 6 (Vocalstyle).

Jeanette Gerrard, Piano Accordion Solos:

"That Saxophone Waltz" (Sisk).

"I Love a Little Cottage" (Stott).

Patti Pianola:

March, "American Patrol" (Mastertouch).

Sir Harry Lauder:

"I Like My Old Home Town" (Lauder).

"The Boss" (Lauder).

Patti Pianola:

Fox Trot, "The Varsity Drag" (Master-touch).

4.15 p.m.—Mrs. E. Miller will speak on:

"Physical Training for Girls."

4.30 p.m.—Close down.

During the afternoon progress results will be given of Cricket: English XI. v. An Australian XI., at Sydney.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

6.15 p.m.—Dulcet Melodies from the Musical Box.

6.45 p.m.—The Storey Lady: A Story, for the children.

7 p.m.—Answers to Letters and Birthday Greetings by "Uncle David."

7.5 p.m.—Monsieur Sonora: Nursery Rhyme Time.

7.15 p.m.—"Mercury" Special Tasmanian News Service. Railway Auction Produce Sales. Weather information. Hobart Stock Exchange Quotations. Cricket Scores.

EVENING SESSION.

7.30 p.m.—Under the auspices of the Agricultural and Stock Department of Tasmania, C. A. Holland will speak on:

"The Feeding of Pigs."

7.45 p.m.—W. E. Fuller will speak on:

"Literary Lapses and Library Lists."

8 p.m.—G.P.O. Clock chimes the hour.

8.1 p.m.—Acknowledgment of 7ZL and "Mercury" Appeal for Wireless Equipment for Hobart General Hospital. Senior Birthday Greetings.

The Pavilion Dance Band: Fox Trots and Waltzes:

8.5 p.m.—Pavilion Band:

Fox Trot, "Get out and get under the moon" (Jerome).

The Discus Ensemble:

Paul Whiteman's Orchestra: "Felix, the Cat" (Wendling).

Pavilion Band:

Fox Trot, "Barbara" (Silver).

The Discus Ensemble:

Guitar Novelty Trio—A Slow Hula, "Sweet Lei Lehua."

Pavilion Band:

Waltz, "When you played the Organ" (Gilbert).

Mollie Dalton, with Band:

"Oh! Doris, where do you live."

Pavilion Band:

Fox Trot, "That's my Weakness Now" (Green).

The Discus Ensemble:

Guitar Novelty Trio "Meleanae" (Awai).

Pavilion Band: "Rain" (Ford).

The Discus Ensemble:

Guitar Duet, "Ghost Dance" (Meinken).

Pavilion Band:

Fox Trot, "Mountain Greenery" (Rodgers).

The Discus Ensemble:

Paul Whiteman's Orchestra: "Chiquita" (Gilbert).

Pavilion Band:

"After my Laughter came Tears" (Tobias).

The Discus Ensemble:

Paul Whiteman's Orchestra: "Blue Nights" (arr. Robins).

Pavilion Band:

Waltz, "Together."

The Discus Ensemble:

Guitar Duet, "Wasbash Blues" (Meinken).

Mollie Dalton, with Band:

"The Girl Friend."

9 p.m.—Rebroadcast of Concert and Talk on the flight of Sir George Wilkins—transmission on short wave from S.S.N.T. Nielson Alonso, the whaler stationed amongst the ice packs in the Ross Sea, near the South Pole.

From the Studio:

9.15 p.m.—Pavilion Dance Band:

Fox Trot, "There's one little girl who loves me" (Kahn).

The Discus Ensemble:

Charles W. Hamp, tenor:

"Masquerade" (Hamp).

Pavilion Dance Band:

Fox Trot, "Beautiful" (Shay).

Mollie Dalton, with Band: "Ramona."

Pavilion Dance Band:

Blues, "Shine on Harvest Moon"

Fox Trot, "Ice Cream" (Johnson).
Mollie Dalton, with Band: "The Blue Room."
The Discus Ensemble:
Denza Dance Band: "Chloe"—Song of the Swamp (Moret).
Pavilion Danse Band:
Fox Trot, "Side by Side."
Waltz, "Can't you hear me say I love you" (Brown).
"Cock a Doodle, I'm off my noodle" (Johnson).

NEWS SESSION.

9.50 p.m.—British Official Wireless News.
"Mercury" special Tasmanian News Service. Tasmanian District Weather Report, Cricket scores.
10 p.m.—G.P.O. Clock strikes the hour.
"God Save the King."

Wednesday, November 21

New South Wales Broadcasting Company, Limited.

2FC, SERVICE.

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
7.5 a.m.—Studio Music.
7.20 a.m.—Country Session: Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services, river reports.
7.25 a.m.—Investment market, mining share market, metal quotations.
7.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.
7.45 a.m.—"Sydney Morning Herald" news service.
7.50 a.m.—Studio Music.
8 a.m.—"Big Ben." Close down.

MORNING SESSION.

10 a.m.—"Big Ben" and announcements.
10.2 a.m.—Studio Music.
10.10 a.m.—"Sydney Morning Herald" news service.
10.25 a.m.—Studio Music.
10.45 a.m.—A Talk on Home Cooking and Recipes by Miss Ruth Furst.
11 a.m.—"Big Ben."
A.P.A. and Reuter's Cable Services.
11.5 a.m.—Close down.

MIDDAY SESSION.

12 noon.—"Big Ben" and announcements.
12.1 p.m.—Stock Exchange, first call.
12.3 p.m.—Official weather forecast, rainfall.
12.5 p.m.—Musical items.
12.10 p.m.—Summary of news: "Sydney Morning Herald."
12.15 p.m.—Rugby wireless news.
12.18 p.m.—A Reading by A. S. Cochrane.
12.30 p.m.—Studio Music.
1 p.m.—"Big Ben." Weather intelligence.
1.3 p.m.—"Evening News" midday news service.
Producers' Distributing Society's Report.
1.20 p.m.—Studio Music.
1.28 p.m.—Stock Exchange, second call.
1.30 p.m.—Studio Music.
2 p.m.—"Big Ben." Close down.
Note.—Race results from Victoria Park will be broadcast during the afternoon.

AFTERNOON SESSION.

2.30 p.m.—Programme announcements.
2.32 p.m.—Educational Session for the Schools.
3 p.m.—"Big Ben." Pianoforte reproduction.
3.15 p.m.—Radio Eisteddfod:
Semi-finalists in the Radio Eisteddfod will be heard, drawn from the various sections, including Vocal, Instrumental and Humorous items.
3.45 p.m.—A Reading.
4 p.m.—"Big Ben." The Ambassadors' Dance Orchestra, conducted by Manuel Hyman.
4.10 p.m.—From the Studio:
Marjorie Mayne, Mezzo:
(a) "The Lotus Flower" (Schumann).
(b) "I Will Await Thee" (Clark).

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WE2

- 4.15 p.m.—The Ambassadors' Dance Orchestra
 4.25 p.m.—Alex Snell, Baritone:
 (a) "Friend" (Novello Davis).
 (b) "The Still Lagoon" (Melville Hope).
 4.30 p.m.—The Ambassadors' Dance Orchestra
 4.40 p.m.—Marjorie Mayne, Mezzo:
 (a) "My Heart's Desire" (Clark).
 (b) "Pale Moon" (Logan).
 4.45 p.m.—Stock Exchange third call:
 4.47 p.m.—Alex. Snell, Baritone:
 (a) "Song of the Rover" (Alexandre Georges).
 (b) "To You" (Oley Speaks).
 4.55 p.m.—Studio music.
 5 p.m.—"Big Ben." Close down.
 NOTE.—During the afternoon race results from Victoria Park will be transmitted as received.

EARLY EVENING SESSION.

- 5.40 p.m.—The Chimes of 2FC.
 5.45 p.m.—The "Hello Man" Talks to the Children, assisted by Uncle Ted and "Sandy" Letters and Stories.
 Music and Entertainment.
 6.30 p.m.—Dalgety's Market reports (Wool, Wheat and Stock).
 6.40 p.m.—Fruit and Vegetable Markets.
 6.43 p.m.—Stock Exchange information.
 6.45 p.m.—Weather and Shipping news.
 6.48 p.m.—Rugby Wireless News.
 6.50 p.m.—Late Sporting news.
 7 p.m.—"Big Ben." Late news service.
 7.10 p.m.—The 2FC Dinner Quartet, conducted by Horace Keats:
 "Nuages Roses" (Berger).
 "Serenade Espagnole" (Bizet).
 "The Country Girl" (Monckton).
 "Serenade Coquette" (Barthelemy).
 "Prelude in A Flat" (Chopin).
 "Tambourine Dance" (Dunhill).

NIGHT SESSION.

- 7.40 p.m.—Order of programme and announcements.
 7.47 p.m.—Pianoforte reproduction.
 8 p.m.—"Big Ben." The Light Music Quintet.
 8.10 p.m.—John Mitchell, tenor.
 Job (piano):
 Musical Act.
 8.28 p.m.—H. W. Varna and Company will present (in response to numerous requests) a repeat performance of the play, "If Winter Comes."
 Cast in order of appearance:
 "Lady Tybar" (Nora) Muriel Conner
 Mabel Salve Joyce Smith
 High Jinks Jean Morice
 Mark Sabre H. W. Varna
 Effie Bright Felix Clark
 Major Millet D. A. Sharp
 Coroner H. J. Salier
 Crown Solicitor E. H. Brewer
 A Chemist Henry de Witte
 Mr. Bright (foreman of works) Foster Dean
 Mr. Twynning (senior) William Hume
 The Rev. Fortune D. Foster
 Act 1.
 Scene 1.—Room in Sabre's Home, Dec., 1916.
 Scene 2.—Room in Sabre's Home, Feb., 1918.
 8.48 p.m.—Incidental music to Act 2 of the play, "If Winter Comes."
 8.50 p.m.—Act 2.—Scene, Sabre's House, May, 1918.
 9.10 p.m.—Late weather forecast. Incidental music to Act 3 of the play, "If Winter Comes."
 9.13 p.m.—Act 3:
 Scene 1.—A Coroner's Court.
 Scene 2.—Office at Fortune East and Sabre's
 9.35 p.m.—From Studio:
 The Light Music Quintet.
 9.50 p.m.—John Mitchell, tenor.
 9.58 p.m.—Hilda Sutton (violinist) and Leila Job (piano):
 Musical Act.
 10.8 p.m.—The Light Music Quintet.
 10.28 p.m.—To-morrow's programme and late news.
 10.30 p.m.—National Anthem.
 Close down.

2BL, SERVICE.

WEDNESDAY, 21st NOV., 1928.

MORNING SESSION.

- 8 a.m.—G.P.O. Clock and Chimes.
 Metropolitan weather report.
 8.1 a.m.—State weather report.
 8.2 a.m.—Studio music.
 8.15 a.m.—G.P.O. Clock and Chimes.
 News from the "Daily Telegraph Pictorial."
 8.25 a.m.—Studio Music.
 8.30 a.m.—G.P.O. Clock and Chimes.
 Studio Music.
 8.35 a.m.—Information, Mails, Shipping, arrivals, departures and sailings.
 8.38 a.m.—News from the "Daily Telegraph Pictorial."
 8.45 a.m.—G.P.O. Clock and Chimes.
 Studio Music.
 9.30 p.m.—Half-an-hour with silent friends.
 10 p.m.—G.P.O. Clock and Chimes.
 Close down.

MIDDAY SESSION.

- 11 a.m.—G.P.O. Clock and Chimes.
 Women's Session:
 Sporting Talk by Miss Gwen Varley,
 Women's Sports Authority.
 11.15 a.m.—Musical programme from the Studio.
 11.30 a.m.—Miss Pam: Recipes and other items of interest.
 12 noon.—G.P.O. Clock and Chimes.
 Special Ocean Forecast and Weather Report.
 12.3 p.m.—Studio Music.
 12.30 p.m.—Shipping and mails.
 12.35 p.m.—Market reports.
 12.48 p.m.—"Sun" midday news service.
 1 p.m.—Studio Music.
 1.30 p.m.—Talk to Children and Special Entertainment for Children in Hospital.
 2 p.m.—G.P.O. Clock and Chimes.
 Close down.

AFTERNOON SESSION.

- 3.45 p.m.—G.P.O. Clock and Chimes.
 Note.—Race results from Victoria Park will be broadcast as received by courtesy of the "Sun" Newspapers.
 Musical programme from the Studio.
 4 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band broadcast from Romano's.
 4.10 p.m.—Talk on "Radio in the Home," by Mr. Frank E. Buchell.
 4.20 p.m.—Mr. H. C. Gilson (Tenor).
 (a) "Mountain Lovers" (Squires), by request
 (b) "You in a Gondola" (Roberts).
 4.27 p.m.—Mr. Maynard Wilkinson (pianist):
 "Three Songs without Words" (Mendelssohn).
 4.34 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band.
 4.45 p.m.—Miss May Matthews (Mezzo-soprano):
 (a) "Nightfall at Sea" (Montague Phillips)
 (b) "Love I Have Won You" (Landon Ronald).
 4.52 p.m.—"Sun" news service.
 4.55 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band.
 5.5 p.m.—Mr. H. C. Gilson:
 (a) "Bloom is on the Rye."
 (b) "Fair House of Joy" (Roger Quilter).
 5.12 p.m.—"Sun" News Service.
 5.22 p.m.—Mr. Maynard Wilkinson:
 (a) "Melodie" (Stojowski).
 (b) "Shepherd's Hey" (Grainger).
 5.29 p.m.—Musical programme from the Studio.
 5.35 p.m.—Features of evening's programme.
 5.37 p.m.—Racing resume.

EARLY EVENING SESSION.

- 5.40 p.m.—Children's Music and Entertainment
 6 p.m.—Children's Letters and Stories.
 6.30 p.m.—"Sun" news and late sporting.
 6.40 p.m.—Gulbransen Dinner Music.
 7.10 p.m.—Australian Mercantile, Land and Finance Co.'s report. Weather report and forecast by courtesy of Govt. Meteorologist. Producers' Distributing Society's Fruit and Vegetable Market report. Grain and Fodder report ("Sun").
 Dairy Produce report ("Sun").

- 7.25 p.m.—Mr. Pim and Miss Pam in advertising talks and nonsense.
 7.55 p.m.—Programme and other announcements.

EVENING SESSION.

- 8 p.m.—G.P.O. clock and chimes.
 Harry Graham's Snapshots Revue Company.
 1. A Musical Snapshot, "The Overture."
 2. An Introductory Snapshot, "We Introduce Ourselves."
 3. A Talkative Snapshot, "Ditto."
 4. A Humorous Snapshot, "Two perfectly priceless old Things."
 5. A Sketchy Snapshot, "Time's Change."
 6. A Vocal Snapshot, "The Message of the Bells."
 7. A Concerted Snapshot, "Apartments Wanted."
 8. A Sketchy Snapshot, "The Past, the Present, and the Future."
 9. A Concerted Snapshot, "Animals."
 10. A Sketchy Snapshot, "Waiting."
 11. A Vocal Duet, "Selected."
 12. A Concerted Snapshot, "Penny Plain, Twopence Colored."
 13. A Finale Snapshot, "Our Entertainment's Ending."
 9 p.m.—Weather report and forecast by courtesy of Government Meteorologist.
 9.1 p.m.—Talk by Mr. Claude Corbett, on "General Sporting."
 9.10 p.m.—Radio Eisteddfod. A number of semi-finalists will be heard, drawn from the various sections as follows:—
 Choral Section.—Choirs drawn from those entering under Section 1, church choirs; Section 2, mixed choirs; Section 3, male choir; Section 4, female choir; section 5, mixed quartette; Section 6, male quartette.
 Instrumental Section.—Semi-finalists from the instrumental section include Section 14, championship pianoforte solo; Section 15, pianoforte solo, under 16 years of age.
 Popular Section.—Semi-finalists from the popular section include Section 27, popular vocalists; Section 28, comedians; Section 29, radio revue; and Section 30, entertainers.
 10.10 p.m.—The Savoyans Dance Band.
 10.20 p.m.—Mr. Phil Mountain, comedian.
 10.27 p.m.—The Savoyans Dance Band.
 10.40 p.m.—Mr. Phil Mountain.
 10.47 p.m.—Resume of following day's programme.
 10.50 p.m.—The Savoyans Dance Band.
 11.30 p.m.—National Anthem.

2GB, SYDNEY.

WEDNESDAY, 21st NOV., 1928.

MORNING SESSION.

- 10 a.m.—Music.
 10.10 a.m.—Happiness Talk by A. E. Bennett.
 10.20 p.m.—Music.
 10.30 a.m.—Women's Session by Miss Helen J. Beegling.
 11.30 a.m.—Close down.

AFTERNOON SESSION.

- 2.5 p.m.—Music.
 Women's Radio Service by Mrs. Dorothy Jordan.
 2.30 p.m.—Music.
 3 p.m.—Talk.
 3.15 p.m.—Close down.

EVENING SESSION.

- 5.30 p.m.—Children's Session by Uncle George.
 7 p.m.—Stock and Market reports by New Zealand Loan and Mercantile Agency Ltd.
 7.15 p.m.—Music.
 8 p.m.—2GB Instrumental Trio.
 Miss Ada Brook, Mr. Cecil Berry, Mr. Cedric Ashton.
 8.10 p.m.—Songs by Miss Nance Marley.
 8.17 Announcements.
 8.22 p.m.—The Mayo Hunter Duo.
 8.30 p.m.—Songs by Signor Mario Gustino.
 8.37 p.m.—Japanese Violin solos.
 8.45 p.m.—Address.
 9 p.m.—Weather report.
 9.2 p.m.—Pianoforte Solos by Miss Ruth Pearce Jones.
 9.10 p.m.—Songs by Miss Nance Marley.

9.17 p.m.—The Mayo Hunter Duo.
9.25 p.m.—Resume of Programme.
9.30 p.m.—Japanese Violin Solos.
9.37 p.m.—A humorous Recital by Mr. Heath Burdock.
9.50 p.m.—Songs by Signor Mario Gustino.
10 p.m.—Close down.

2 UW, SYDNEY

WEDNESDAY, 21st NOV., 1928.

MIDDAY SESCOIN.

12.30 p.m.—To-day's anniversary.
12.32 p.m.—Music.
1 p.m.—Clock and chimes.
1.1 p.m.—Music.
2 p.m.—"What's On" Social Notes and talks to Women.
2.22 p.m.—"Cheerio Talk."
2.30 p.m.—Close down.

EARLY EVENING SESSION.

4.30 p.m.—Music.
5.50 p.m.—Bedtime stories by "Uncle Jack."
6.30 p.m.—Close down.

EVENING SESSION.

7 p.m.—Clock and chimes.
7.1 p.m.—News items etc.
7.10 p.m.—Talk by Mr. J. M. Prentice.
7.30 p.m.—Musical interlude.
7.35 p.m.—Political address.
7.55 p.m.—Items of interest.
8 p.m.—Clock and chimes.
8.1 p.m.—Music.
9 p.m.—Clock and chimes.
9.1 p.m.—Comments on Foreign affairs by Mr. J. M. Prentice.
9.10 p.m.—Music and request numbers.
10 p.m.—Close down.

3LO, MELBOURNE

WEDNESDAY, 21st NOV., 1928.

EARLY MORNING SESSION.

7.15 a.m.—Morning Melodies.
7.20 a.m.—Morning Exercises to Music.
7.30 a.m.—Stock Reports, Market Reports, General News, Shipping, Sporting Information.
8.0 a.m.—Melbourne Observatory Time Signal; Express Train Information.
8.1 a.m.—Morning Melodies.
8.15 a.m.—Close Down.

MORNING SESSION.

10.50 a.m.—ERIC WELCH'S selections for the Woodend Races.
11.0 a.m.—3LO'S CULINARY COUNSELS, or How to Create Creature Comforts with a Minimum of Cash.

TO-DAY'S RADIO RECIPE. APPLE AMBER PUDDING.

9 apples.
½ lemon.
3 eggs.
¼ lb. sugar.
1 oz. butter.
½ oz. citron peel.
Cook apples with sugar, lemon rind and juice and a little water. Rub through a sieve. Beat yolks of eggs and add them to the apples. Pour into buttered pie dish and bake ¾ hour. Whip whites, add 1 tablespoon sugar, and pile on top. Decorate with citron peel.

THE HELPING HAND.

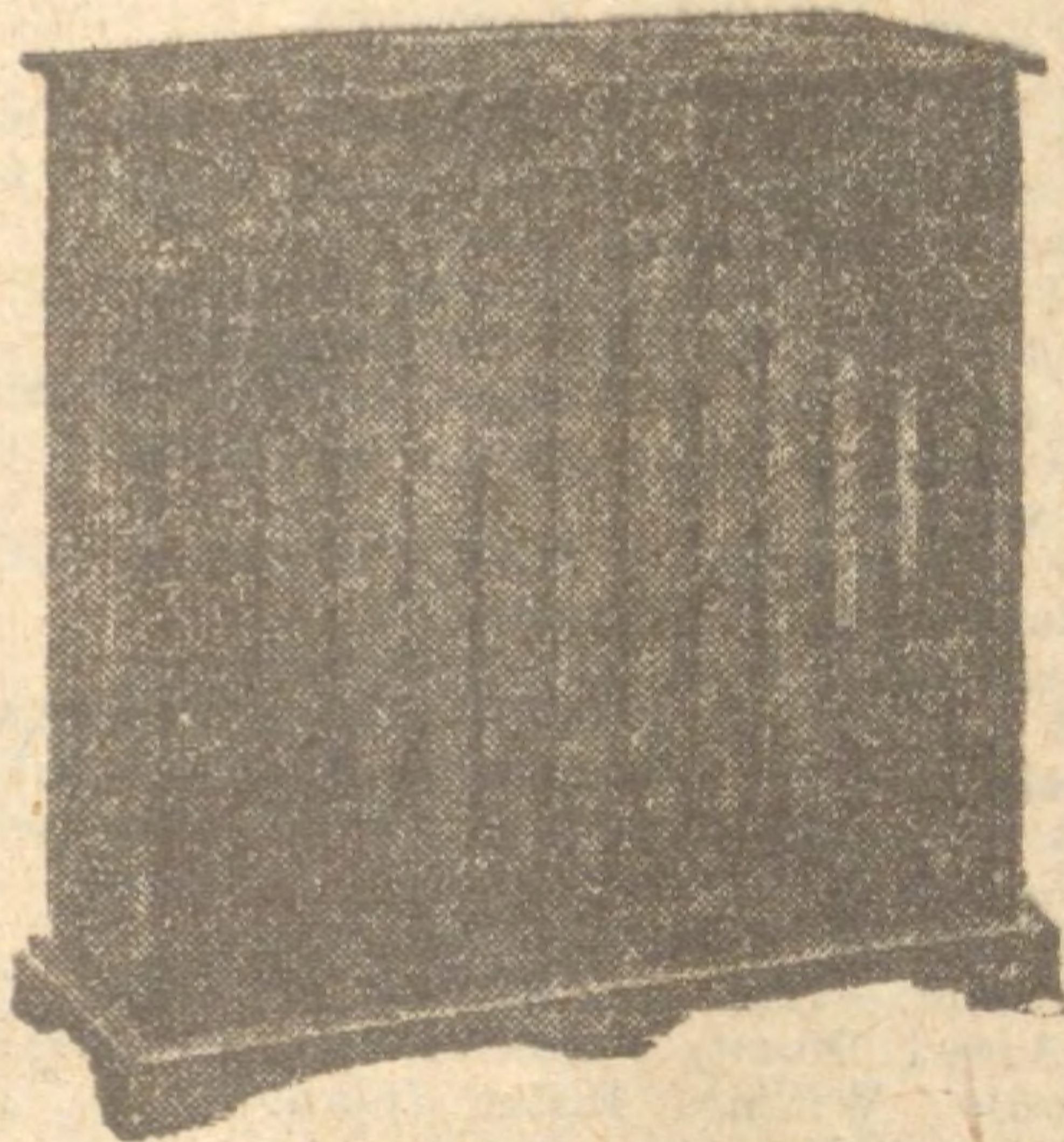
A strip of heavy asbestos tacked on to the ironing board makes an excellent iron stand.

11.5 a.m.—MISS I. D. BEAVAN: "Home-made Confectionery."
11.20 a.m.—Musical Interlude.
11.25 a.m.—MRS. M. CALLAWAY MAHOOD: "The Art of Decoration."
11.40 a.m.—Musical Interlude.
11.45 a.m.—MRS. CLARENCE WEBER, the Physical Culture Expert: "Physical Culture for Women."

MIDDAY SESSION.

12.0 noon.—Melbourne Observatory Time Signal; Express Train Information.

Six-Sixty SUPREME Cone Speakers



Cabinet Type £4/4/-



Pedestal Type £2/5/-

Six-Sixty Speakers are supreme because they embody an achievement which until now has been merely a dream.

That is the combination of the clear-cut notes of the Horn type of Speaker with the mellow richness of the cone. Until Six-Sixty experts tackled the job this had been reckoned an utter impossibility.

Go to your nearest dealer and ask for a demonstration. You will be amazed! Your own Speaker, when compared with Six-Sixty, will prove but a shadow of what a Speaker should be.

This acme of Loud Speakers can be obtained at a very reasonable figure. The Pedestal type, of unusual and outstanding beauty, costs only £2/5/.

The Six-Sixty Cabinet type, finished in Mahogany or Oak, is £4/4/.

Don't forget — ask your dealer for that demonstration.

Sole Australasian Agents:

S. SEGAL & CO. LTD.

Letch House, 127 York St., SYDNEY

Distributors for Victoria & Tasmania

MORRIS & CO. RADIO, 293 Little Collins St., Melbourne, Vic. F5291.

Distributors for South Australia:

J. N. TAYLOR & CO. LTD., 131 Grandell St., Adelaide, S.A.

Distributor for Western Australia:

W. H. J. HARDIE, 17 Newman St., Fremantle, and 34 King St., Perth, W.A.

- 12.1 p.m.—British Official Wireless News from Rugby; Reuters' and the Australian Press Association Cables; "Argus" News Service.
 12.15 p.m.—Newmarket Stock Sales; Special Report by John McNamara and Co.
 12.20 p.m.—JOHNSTON'S STUDIO BOYS:
 March, "Constellation."
 Overture, "Barber of Seville."
 12.30 p.m.—GRACE JACKSON, Contralto:
 "Danny Boy" (Weatherley).
 "Morning" (Speaks).
 12.37 p.m.—Stock Exchange Information.
 12.40 p.m.—JOHNSTON'S STUDIO BOYS:
 Selection, "Pirates of Penzance."
 12.50 p.m.—SYDNEY HOLLISTER, Comedian:
 "Have You Heard This?"
 12.57 p.m.—JOHNSTON'S STUDIO BOYS:
 "Polka Brillante" (Roy Osborne).
 Soloist, J. Robinson.
 1.4 p.m.—GRACE JACKSON, Contralto:
 "The Land Across the Sea" (Bernard).
 "Punchinello" (Molloy).
 1.11 p.m.—Meteorological Information:
 Weather Forecast for Victoria, Tasmania, South Australia and New South Wales;
 Ocean Forecast; Rainfall; River Reports.
 1.17 p.m.—SYDNEY HOLLISTER, Comedian:
 "Grins."
 1.24 p.m.—JOHNSTON'S STUDIO BOYS:
 "Prelude and Mazurka from Coppelia" (Delibes).
 ROTARY CLUB.
 1.30 p.m.—Transmission from the Freemasons' Hall, Collins Street, Melbourne. Speeches from the ROTARY CLUB LUNCHEON.
 2.0 p.m.—Close Down.

AFTERNOON SESSION.

- 2.13 p.m.—Description of the Maiden Plate, 5 furlongs, WOODSEND RACES, by Eric Welch.
 2.20 p.m.—THE STATION ORCHESTRA:
 Suite, "Woodland Pictures."
 2.30 p.m.—ICISIS BROWN, Soprano:
 "We'll Know, We'll Understand" (Henry).
 "When the Birds Go North Again" (Willeby).
 2.37 p.m.—THE STATION ORCHESTRA:
 "Spring Song" (Mirovitch).
 2.43 p.m.—Description of the Mayfield Handicap, five furlongs, WOODEND RACES.
 2.50 p.m.—E. MASON WOOD, Baritone:
 "The Kerry Dance" (Molloy).
 "Fat 'il Fellow" (Gore).
 2.57 p.m.—THE IMPERIAL RUSSIAN TRIO:
 Request Items.
 3.12 p.m.—MYRTLE WALSGOTT, Contralto:
 "Homage" (del Riego).
 "Swing Low, Sweet Chariot" (Burleigh).
 3.19 p.m.—Description of the Spring Handicap, one mile, WOODEND RACES.
 3.26 p.m.—THE STATION ORCHESTRA:
 "Liebesfreud" (Kreisler).
 "The Poet's Dream" (McDowell).
 3.34 p.m.—FRANK HARWOOD (by permission Tivoli Theatres, Ltd.):
 Character Vocalist.
 3.44 p.m.—MYRTLE ROBERTSON, Violin:
 "Berceuse" (Paul Jones).
 "Govotte" (Gossec).
 3.49 p.m.—THE STATION ORCHESTRA:
 Suite, "The Willow Plate" (Herbert).
 3.58 p.m.—Description of the Novice Handicap, five furlongs, WOODEND RACES.
 4.5 p.m.—ICISIS BROWN, Soprano:
 "Melisande in the Wood" (Goetz).
 "Keep on Hopin'" (Maxwell).
 4.12 p.m.—THE STATION ORCHESTRA:
 "Romance d'Amour" (Arensky).
 "The Lake of Geneva" (Bendel).
 4.22 p.m.—E. MASON WOOD, Baritone:
 "Glorious Devon" (German).
 "Heatherland" (Clarke).
 4.28 p.m.—Description of the Macedon Three-year-old Handicap, 6¼ furlongs, at WOODEND RACES.
 4.35 p.m.—THE STATION ORCHESTRA:
 "Suite L'Arlesienne No. 2" (Bizet).
 4.45 p.m.—MYRTLE WALSGOTT, Contralto:
 "When the Swallows Homeward Fly" (White).
 "Lament of Isis" (Bantock).
 4.52 p.m.—THE STATION ORCHESTRA:
 "Serenata" (Mascagni).
 "Novellette" (Arncliffe).
 4.58 p.m.—Description of the Hillside High Weight Handicap, "WOODEND RACES."
 5.5 p.m.—"Herald" News Service; Stock Exchange Information.
 5.20 p.m.—Close Down.

EVENING SESSION.

- 6.0 p.m.—Answers to Letters and Birthday Greetings by "MARY MARY."
 6.25 p.m.—Musical Interlude.
 6.30 p.m.—"MARY MARY" will tell you a story about "The Jackal and the Camel."

NIGHT SESSION.

- 7.5 p.m.—Stock Exchange Information.
 7.15 p.m.—Market Reports of John McNamara and Co.; Official Report of the Newmarket Stock Sales by the Associated Stock and Station Agents, Bourke Street, Melbourne.
 Fish Market Reports by J. R. Borrett Ltd.
 Market Reports by the Victorian Producers' Co-operative Co., Ltd.; Poultry, Grain, Hay, Straw, Jute, Dairy Produce, Potatoes and Onions; Market Reports of Fruit by the Victorian Fruiterers' Association; Retail Prices; Wholesale Prices of Fruit by the Wholesale Fruit Merchants' Association; Citrus Fruits.
 7.30 p.m.—News Service.
 7.43 p.m.—Birthday Greetings.
 7.45 p.m.—OUT OF THE PAST.
 7.46 p.m.—Under the auspices of the Department of Agriculture, J. T. RAMSAY, potato expert, will speak on:
 "Potato Growing—Intercultivation."
 8.0 p.m.—A MAKER OF HISTORY.
 8.1 p.m.—THE STATION ORCHESTRA:
 Selection: "Cavalleria Rusticana" (Mascagni).
 8.15 p.m.—JAMES HAY, Tenor, by permission J. C. Williamson, Ltd.):
 Selections from his Repertoire.
 8.22 p.m.—THE STATION ORCHESTRA:
 Selection, "I Pagliacci" (Leoncavallo).
 8.32 p.m.—JAMES HAY, Tenor (by permission of J. C. Williamson, Ltd.):
 Selections from his Repertoire.
 8.39 p.m.—THE IMPERIAL RUSSIAN TRIO
 (Arwed Norit, violin; John Berzinsky, cello; William Ibster (piano):
 Request Items.
 8.54 p.m.—CAPTAIN DONALD McLEAN will give another of his famous stories.
 MEMORIES OF SCHUBERT.
 STUDIO PRESENTATION OF "LILAC TIME."
 Music from FRANZ SCHUBERT, under the direction of W. G. JAMES.

CAST:

- Lili Mdle. SAFFO ARNAV
 Tili MERLE GRIFFEN
 Willi IVY CARLILE
 Ferdinand Binder (a postmaster).
 ERNEST INCH
 Andreas Braun (a saddler).
 SYDNEY STUBBS
 Johann Michael Vogl (a painter). A. NASH
 Kappel (a draughtsman) .. A. BOSSENCE
 Franz Schubert ... JOHN D. SULLIVAN
 Baron Franz von Schober (a poet).
 WILLIAM A. BOSSENCE
 Christian Veit (Court glass maker).
 EDWARD GREEN
 Mrs. Veit FLORENCE MEREDITH
 Assisted by the STATION ORCHESTRA.

- 10.30 p.m.—"Argus" News Service; British Official Wireless News from Rugby; Meteorological Information.
 10.40 p.m.—SYDNEY HOLLISTER, Comedian:
 "Mixed Musings."
 10.47 p.m.—THE RADIO-ACES:
 "Googily Goo" (Davis).
 "Adoree" (West).
 "That Stolen Melody" (Fisher).
 10.57 p.m.—SYDNEY HOLLISTER, Comedian:
 A Bedtime Story.
 11.0 p.m.—OUR GREAT THOUGHT:
 "Adversity borrows its sharpest sting from our impatience."
 —BISHOP HORNE.
 11.1 p.m.—RADIO-ACES:
 11.40 p.m.—GOD SAVE THE KING.

3AR, MELBOURNE.

WEDNESDAY, 21st NOV. 1928.

MORNING NEWS SESSION.

- 10 a.m.—G.P.O. Clock says "Ten."
 10.1 a.m.—"Age" Stock Exchange reports.
 London Metal Market.
 10.10 a.m.—"Age" market reports—farm and station produce, fruit, fish, vegetables, etc.

- 10.25 a.m.—"Age" Shipping reports.
 Ocean forecast.
 10.30 a.m.—Mail notices.
 Express train information.
 10.35 a.m.—"Age" news service, exclusive to 3AR.
 10.59 a.m.—Weather forecast.

MORNING MUSICAL SESSION.

- 11 a.m.—Radi-o-Aces:
 "Louisiana" (Schafer).
 "Nesting Time" (Nausbaum).
 "Just a Year Ago To-night" (Rose).
 "Golden Gate" (Jolson).
 11.15 a.m.—Ida Wright, contralto:
 "To a Miniature" (May Brahe).
 "Morning" (Speaks).
 11.22 a.m.—Radi-o-Aces:
 "Harvest Moon" (Baye).
 "Rain" (Ford).
 "Mine, All Mine" (Ruby).
 11.32 a.m.—Stanley J. Allan, tenor:
 "La donna e Mobile."
 "In the Silence of the Night."
 11.39 a.m.—Radi-o-Aces:
 "Dolores" (Kassell).
 "Down Where the Sun Goes Down." (Jones).
 "Don't Keep Me in the Dark" (Bryan).
 "Lo Nah" (Steept).
 11.54 a.m.—Ida and Lorraine Wright:
 Duets, "Farewell to Summer" (Johnson).
 "In the Garden of My Heart" (Ball).
 12.1 p.m.—Radi-o-Aces:
 "Happy Go Lucky Lane" (Lewis).
 "Starlight and Tulips" (Nausbaum).
 "Stampede" (Henderson).
 "Can't You Hear Me Say I Love You." (Brown).
 12.16 p.m.—Stanley J. Allan, tenor:
 "Spirito Gentil."
 "Passing By."
 12.23 p.m.—British Official Wireless, and announcements.
 12.33 p.m.—Radi-o-Aces:
 "Without You, Sweetheart" (De Silva).
 "Lolita" (Stoneham).
 "After My Laughter Came Tears" (Tobias).
 "Beautiful" (Sharp).
 12.48 p.m.—Lorraine Wright, soprano:
 "Your Eyes Have Told Me" (Hardy).
 "Hawaiian Moonlight" (Klickman).
 12.55 p.m.—Radi-o-Aces:
 "That's My Mammy" (Donaldson).
 "Honeymoon Cottage" (Lumsdaine).
 "Together" (Brown).
 "Mary Ann" (Davis).
 1.10 p.m.—Ida and Lorraine Wright:
 Duets: "Night of Stars and Night of Love" (Offenbach).
 "Sweet Hawaiian Moonlight" (Klickman).
 1.17 p.m.—Radi-o-Aces:
 "The Riff Song" (Romberg).
 "Chinatown" (Yvain).
 "What Was I to Do?" (Reid).
 1.30 p.m.—Close down.

EVENING SESSION.

- 5 p.m.—A Recital of Absent Artists.

NIGHT SESSION.

- 7.30 p.m.—Miss Kathleen Lascelles:
 "The Art of Dancing."
 7.45 p.m.—Captain C. H. Peters:
 "ooks, Wise and Otherwise."
 8 p.m.—Transmission from the Playhouse:
 Mozart's "Cosi Fan Tutti," by the Melba Conservatorium Opera Company, under the direction of Mr. Fritz Hart.
 Cast:—
 Isodora Mary Kingston
 Dorabella Dawn Harding
 Despina Meryl Holliday
 Ferrando Lennox Brewer
 Gratiano Clifford Creighton
 Alfonso Alban Whitehead
 The scene of the opera is laid in Naples.
 10.50 p.m.—"Age" news service exclusive to 3AR.
 10.55 p.m.—Acceptances for Saturday's races.
 10.58 p.m.—Weather forecast.
 11 p.m.—God Save the King.

4QG, BRISBANE

WEDNESDAY, 21st NOV., 1928.

EARLY MORNING SESSION.

8 a.m.—From the studio.
This morning's news, supplied by courtesy of the Brisbane Metropolitan Daily Newspapers.
8.30 a.m.—Close down.

MORNING SESSION.

11 a.m. to 12 noon.

MIDDAY SESSION.

1.15 p.m.—From the G.P.O.:
The Postal Institute Orchestra.
1.58 p.m.—From The Brisbane Observatory:
Time signals.
2 p.m.—Close down.

AFTERNOON SESSION.

3 p.m.—From the Tivoli Theatre:
Orchestral music by the Tivoli Operatic Orchestra, under the baton of Mr. C. Groves.
3.30 p.m.—From the studio:
Mail train running times.
3.31 p.m.—From the Tivoli Theatre:
Orchestral music.
4 p.m.—From the Studio:
A programme of electrically reproduced records.
4.15 p.m.—This afternoon's news.
4.30 p.m.—Close down.

EARLY EVENING SESSION.

6 p.m.—From the Studio:
Mail train running times; mail information.
Shipping news.
6.5 p.m.—From the Paris Cafe:
Dinner music.
6.25 p.m.—From the Studio:
Commercial announcements.
6.30 p.m.—Bedtime stories conducted by "Little Miss Brisbane."

LATE COMMERCIAL NEWS.

7 p.m.—News in brief.
7.5 p.m.—Stock Exchange news.
7.6 p.m.—Metal quotations.
7.7 p.m.—Market reports.
7.25 p.m.—Fenwick's Stock report.
7.30 p.m.—Weather information.
7.40 p.m.—Announcements.
7.43 p.m.—Standard time signals.
7.45 p.m.—Lecturette: "Live Stock Subject"—
Mr. McKenzie, Queensland Agricultural High School and College.

NIGHT SESSION.

8 p.m.—From the studio.
Alf. Featherstone and his Orchestra:
Fox-trot, "Egyptian Rose" (Snyder).
Fox-trot, "Songs of India" (Whiteman).
8.10 p.m.—Ethel Wilmer, contralto:
"To Music" (Schubert).
"Open Thy Blue Eyes" (Massenet).
8.18 p.m.—Alf. Featherstone and his Orchestra:
Fox-trot, "Roses" (Britt).
Fox-trot, "All I Want is You" (Davies).
8.28 p.m.—Lilian Corrigan, harpiste:
"Nocturne" (Hasselmans).
8.35 p.m.—Alf. Featherstone and his Orchestra:
Jazz-waltz, "Together" (Berlin).
8.45 p.m.—"Tecoma" will deliver another gardening talk in connection with 4QG's flower scheme. His subject will be "Some Hints on Watering."
8.55 p.m.—Mabel Malouf, soprano:
"One Fine Day" (from "Made Butterfly" (Puccini).
"Spring" (Henschel).
9 p.m.—Metropolitan weather forecast.
Movements of lighthouse steamers.
9.5 p.m.—Alf. Featherstone and his Orchestra:
Fox-trot, "Blue Days" (Holt).
Fox-trot, "Nobody Loves Me" (Brown).
9.15 p.m.—Lilian Corrigan, harpiste:
"Kate O'Shane" (Linley).
9.20 p.m.—Alf. Featherstone and his Orchestra:
Rhythmic paraphrase, "Russian Phantasy" (arr. Lange).
Fox-trot, "Romany Love" (Zamecnik).

9.30 p.m.—Kao Maole Duo:

"Wailana."
"Fijian Farewell."
"Waiu Lululu."

9.38 p.m.—Alf. Featherstone and his Orchestra:
Fox-trot, "When you're with somebody else" (Baer).

Fox-trot, "Sunshine" (Berlin).
Jazz-waltz, "Shalimar" (Nicholls).

10 p.m.—Late news, weather news.

10.15 p.m.—Alf. Featherstone and his Orchestra:

Three-quarters of an hour's dance music.
11 p.m.—Close down.

6WF, PERTH.

WEDNESDAY, 21st NOV., 1928.

MIDDAY SESSION.

12.30 p.m.—Tune in.
12.35 p.m.—Markets, News and cables.
1 p.m.—Time Signal.
1.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
Station announcements.
Luncheon Music.
1.2 p.m.—Studio Quintette, conducted by Mr. Val Smith will play the following selections with vocal interludes.
2 p.m.—Close down.

AFTERNOON SESSION.

3.30 p.m.—Tune in.
3.35 p.m.—Music and song:
Afternoon Tea concert relayed from the Rosebud Cafe, Perth.
Vocal and instrumental numbers from the studio.
4.30 p.m.—Close down.

EVENING SESSION.

6.45 p.m.—Tune in.
The evening transmission is broadcast on 104.5 metres as well at the usual wavelength.
6.48 p.m.—Uncle Duffy's evening with Kiddies.
7.5 p.m.—Musical programme.
7.15 p.m.—Talk: "First Aid" by Dr. Winifred Holloway, of London.
7.30 p.m.—Stocks, Markets, News.
7.15 p.m.—Talk: "First Aid" by Dr. Winifred Holloway, of London.
8 p.m.—Time signal.
8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
Station announcements such as alterations to programmes, etc.
8.3 p.m.—A relayed Concert:
Vocal and instrumental concert relayed from Messrs. Morris Bros. Music Warehouse, Perth
9 p.m.—Late news items by courtesy of "The Daily News" newspaper Co.
Ships within range announcement.
Weather report and forecast.
Station announcements.
10.30 p.m.—Close down.

7ZL, HOBART

WEDNESDAY, 21st NOV., 1928.

MIDDAY SESSION

11.30 a.m.—Messrs. Autotone and Zonophone in Aerial Undertones.
11.34 a.m.—Special Midlands Weather Forecast.
11.35 a.m.—Messrs Autotone and Zonophone in Aerial Undertones.
11.55 a.m.—Tasmanian Stations 9 a.m. Weather report.
12 noon.—G.P.O. Clock chimes the hour.
12.1 p.m.—Shipping information. Ships within wireless range. Mail notices. Housewives' Guide.
12.8 p.m.—Messrs. Autotone and Zonophone in Aerial Undertones.
12.11 p.m.—British Official Wireless News.
12.20 p.m.—Announcements.
12.29 p.m.—Messrs. Autotone and Zonophone in Aerial Undertones.

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'Phone: M3903.

- 12.55 p.m.—"Mercury" News Service. Produce Sales held at Railway.
 1.10 p.m.—Messrs. Autotone and Zonophone in Aerial Undertones.
 1.30 p.m.—Transmission from the Imperial Hotel, Collins Street, Hobart: Speeches at the Rotary Luncheon.
 2 p.m.—Close down.

AFTERNOON SESSION.

- 3 p.m.—G.P.O. Clock chimes the hour.
 3.1 p.m.—Messrs. Autotone and Zonophone in Aerial Undertones.
 3.4 p.m.—Weather information.
 3.5 p.m.—Messrs. Autotone and Zonophone in Aerial Undertones.
 4.15 p.m.—Eileen May Rowlands, Directress of Hobart Free Kindergarten School, will speak on: "Child Training."
 4.30 p.m.—Readings from the "Illustrated Mail."
 4.45 p.m.—Close down.
 During the afternoon progress scores will be given of Ladies' Golf held at Rosny. Results will be given of the Scottsdale Show.

EARLY EVENING SESSION.

- 6.15 p.m.—Autotone and Zonophone in Aerial Undertones.
 6.45 p.m.—Answers to Letters and Birthday Greetings by "Uncle David."
 6.50 p.m.—Request numbers by the Messrs. Zonophone and Autotone in Aerial Undertones.
 7.15 p.m.—"Mercury" special Tasmanian News Service. Railway Auction Produce Sales. Weather information. Hobart Stock Exchange quotations. Results of prizes awarded at Scottsdale Show. Results of Ladies' Golf.

EVENING SESSION.

- 7.30 p.m.—Geo. Nation will speak on: "Garden Plantings and Sowings."
 7.45 p.m.—Major H. Trousselot, Superintendent of the Hobart Fire Brigade, will speak on: "Fire Prevention."
 8 p.m.—G.P.O. Clock chimes the hour.
 8.1 p.m.—Acknowledgment of 7ZL and "Mercury" Appeal for Wireless Equipment of Hobart General Hospital. Senior Birthday Greetings.
 8.3 p.m.—Fifty Years Ago To-day. "All our past proclaims our future."
 8.6 p.m.—From the Studio:
 A Concert by the Municipal Band (L. M. Barnett, Conductor), and Discus Ensemble:
 Municipal Band:
 Overture, "Furabrass" (Schubert).
 The Discus Ensemble:
 Selection, "Lilac Time" (Schubert).
 Municipal Band:
 Cornet solo, "Serenade" (Schubert).
 The Discus Ensemble:
 "Ave Maria" (Schubert).
 Municipal Band:
 Symphony, "The Unfinished" (Schubert).
 The Discus Ensemble:
 "The Earl King" (Schubert).
 Municipal Band:
 March, "Militaire" (Schubert).
 The Discus Ensemble:
 "Ballet Music from Rosamunde" (Schubert).
 Municipal Band:
 Waltz, "The Choristers."
 The Discus Ensemble:
 "The Blue Danube" (Strauss).
 Municipal Band:
 Fantasia, "The Golden Valley."
 The Discus Ensemble:
 "Just like a Melody out of the Sky" (Donaldson).
 Municipal Band:
 Fox Trot, "Breeze."
 The Discus Ensemble: "La Paloma."
 Municipal Band:
 March, "The Cossack."
 9.45 p.m.—British Official Wireless News. "Mercury" News Service. Ships within wireless range. Tasmanian District Weather Report. Results of prizes awarded at Scottsdale Show.
 10 p.m.—G.P.O. Clock chimes the hour.
 10.3 p.m.—"God Save the King."
 Close down.

Thursday, November 22

New South Wales Broadcasting Company, Limited.

2FC, SERVICE.

EARLY MORNING SESSION.

- 7 a.m.—"Big Ben" and announcements.
 7.5 a.m.—Studio Music.
 7.20 a.m.—Country Session: Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services, river reports.
 7.25 a.m.—Investment market, mining share market, metal quotations.
 7.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.
 7.45 a.m.—"Sydney Morning Herald" summary.
 7.50 a.m.—Studio Music.
 8 a.m.—"Big Ben." Close down.

MORNING SESSION.

- 10 a.m.—"Big Ben" and announcements.
 10.2 a.m.—Pianoforte reproduction.
 10.10 a.m.—"Sydney Morning Herald" news service.
 10.25 a.m.—Studio Music.
 10.30 a.m.—Last minute sporting information by the 2FC Racing Commissioner.
 10.40 a.m.—Studio Music.
 10.45 a.m.—Talk by "Pandora."
 11 a.m.—"Big Ben."
 A.P.A. and Reuter's Cable Services.
 11.5 a.m.—Close down.

MIDDAY SESSION.

- 12 noon—"Big Ben" and announcements.
 12.1 p.m.—Stock Exchange, first call.
 12.3 p.m.—Official weather forecast, rainfall.
 12.5 p.m.—Studio Music.
 12.10 p.m.—Summary of news: "Sydney Morning Herald."
 12.15 p.m.—Rugby Wireless News.
 12.18 p.m.—A reading by A. S. Cochrane: "Dickens."
 12.30 p.m.—Studio Music.
 1 p.m.—"Big Ben." Weather intelligence.
 1.3 p.m.—"Evening News" midday news service.
 Producers' Distributing Society's Report.
 1.20 p.m.—Studio Music.
 1.28 p.m.—Stock Exchange, second call.
 1.30 p.m.—Studio Music.
 1.50 p.m.—Last minute sporting information by the 2FC Racing Commissioner.
 2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

- 2.30 p.m.—Programme announcements.
 2.32 p.m.—Educational Session for the schools.
 3 p.m.—"Big Ben." Pianoforte reproduction.
 3.15 p.m.—Popular studio music.
 3.30 p.m.—Pianoforte reproduction.
 3.45 p.m.—A reading.
 4 p.m.—"Big Ben." The Ambassadors' Dance Orchestra conducted by Manuel Hyman.
 4.15 p.m.—Hilda Nelson, mezzo.
 4.20 p.m.—The Ambassadors' Dance Orchestra.
 4.30 p.m.—Leslie Beardsal, tenor:
 (a) "I Hear a Thrush at Eve" (Cadman).
 (b) "Trees" (Oscar Rasbach).
 4.35 p.m.—The Ambassadors' Dance Orchestra.
 4.45 p.m.—Stock Exchange, third call.
 4.47 p.m.—Hilda Nelson, mezzo.
 4.55 p.m.—Studio music.
 5 p.m.—"Big Ben."
 Close down.

EARLY EVENING SESSION.

- 5.40 p.m.—The chimes of 2FC.
 5.45 p.m.—The "Hello Man" conducts the Children's Session.
 Letters and stories.
 Music and entertainment.
 6.30 p.m.—Dalgety's market reports (wool, wheat and stock).
 6.40 p.m.—Fruit and vegetable markets.
 6.43 p.m.—Stock Exchange information.

- 6.45 p.m.—Weather and shipping news.
 6.48 p.m.—Rugby wireless news.
 6.50 p.m.—Late sporting news.
 7 p.m.—"Big Ben." Late news service.
 7.10 p.m.—The 2FC Dinner Quartet, conducted by Horace Keats:
 "The Crystal Gazer" (Howard Carr).
 "Laillah" (Schetter).
 "Mon Paradis" (Clarke).
 "Mary" (Hirsch).
 "Moonlight on the Lake" (Von Blon).
 "Serenade" (Heykins).

NIGHT SESSION.

- 7.40 p.m.—Order of programme and announcements.
 7.45 p.m.—Ad Cree and Jennie Cree. Scottish character sketch:
 "The Convalescent" (Bell).
 7.59 p.m.—Foreword to the next item.
 8 p.m.—From the Capitol Theatre: Ted Henkel's Stage Band, with Fred Scholl at the Wurlitzer Organ.
 8.20 p.m.—From the Studio: Dr. Henry will continue his series of talks, "Vignettes of the Pacific Islands."
 8.35 p.m.—Radio Eisteddfod:

A number of semi-finalists will be heard, drawn from the various sections as follows:

Vocal Section: Semi-finalists drawn from this section, include Section 7, soprano solo; Section 8, mezzo soprano; Section 9, contralto; Section 10, tenor; Section 11, baritone; Section 12, Bass; and Section 13, duets.

Instrumental Section: Semi-finalists from the instrumental section, include: Section 16, champion violin solo; Section 17, violin solo, under 16 years; Section 18, cello solo; Section 19, brass or military bands; Section 20, B flat cornet solo; Section 21, saxophone solo; Section 22, dance bands.

Grand Vocal Championship: Semi-finalists in the grand vocal championship, section 34.

Elocutionary Sections: Semi-finalists in the elocutionary sections: Section 23, radio sketches; Section 24, radio plays; Section 25, debates; Section 26, impromptu announcer.

Australian Compositions: Include entrants under Section 31, best original song; Section 32, best original pianoforte composition; and Section 33, best original violin composition.

- 9 p.m.—"Big Ben." Late weather forecast. Ad Cree and Jennie Cree, humorous song and story.

- 9.10 p.m.—From the Capitol Theatre: The Stage Presentation.

- 9.25 p.m.—From the Studio: Captain Fred Aarons, talk: "The Baths—Ancient and Modern."

- 9.40 p.m.—Radio Eisteddfod: Further items from the various sections.

- 10.30 p.m.—Late weather forecast.

- 10.31 p.m.—From the ballroom of the Hotel Australia: Cec Morrison and his "Gloomchasers."

- 10.57 p.m.—From the Studio: To-morrow's programme and announcement.

- 11 p.m.—"Big Ben." From the ballroom of the Hotel Australia: Cec Morrison and his "Gloomchasers."

- 11.30 p.m.—National Anthem.

2BL, SERVICE.

THURSDAY, 22nd NOV., 1928.

MORNING SESSION.

- 8 a.m.—G.P.O. Clock and Chimes. Metropolitan Weather Report.
 8.1 a.m.—State Weather Report.
 8.2 a.m.—Studio Music.
 8.15 a.m.—G.P.O. Clock and Chimes. News from the "Daily Telegraph Pictorial."
 8.25 a.m.—Studio Music.
 8.30 a.m.—G.P.O. Clock and Chimes. Studio Music.
 8.35 a.m.—Information, Mails, Shipping, arrivals, departures and sailings.

8.38 a.m.—News from the "Daily Telegraph Pictorial."
 8.45 a.m.—G.P.O. Clock and Chimes.
 Studio Music.
 9.30 a.m.—Half-an-hour with silent friends.
 10 a.m.—G.P.O. Clock and Chimes.
 Close down.

MIDDAY SESSION.

11 a.m.—G.P.O. Clock and Chimes.
 Women's Session.
 Musical programme from the Studio.
 11.30 a.m.—Miss Pam: Recipes and other items of interest.
 12 noon.—G.P.O. Clock and Chimes.
 Special Ocean forecast and weather report.
 12.3 p.m.—Studio Music.
 12.30 p.m.—Shipping and mails.
 12.35 p.m.—Market reports.
 12.48 p.m.—"Sun" midday news service.
 1 p.m.—Studio Music.
 1.30 p.m.—Talk to Children and Special Entertainment for Children in Hospital.
 2 p.m.—G.P.O. Clock and Chimes.
 Close down.

AFTERNOON SESSION.

3.45 p.m.—G.P.O. Clock and Chimes.
 Musical Programme from the Studio.
 4.0 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band broadcast from Romano's.
 4.10 p.m.—"Sun" News Service.
 4.20 p.m.—Miss Hazel McGilvray (Mezzo Soprano):
 "Songs My Mother Taught Me" (Dvorak).
 4.23 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band.
 4.30 p.m.—Mr. Charles O'Mara (Irish Entertainer):
 "Ireland, I Love You" (Ball and Alcott).
 4.37 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band.
 4.45 p.m.—Miss Hazel McGilvray:
 "Could My Songs Their Way be Winging"
 (Hahn).
 4.47 p.m.—"Sun" News Service.
 4.55 p.m.—Bennie Abrahams and His Romano's Restaurant Dance Band.
 5.5 p.m.—Mr. Charles O'Mara:
 "The Wedding of Molly Magee" (Weston and Lee).
 5.12 p.m.—Radio Eisteddfod: Semi-finalists in the Radio Eisteddfod will be heard, drawn from the various sections, including Vocal, Instrumental and Humorous Items.
 5.32 p.m.—"Sun" News Service.
 5.37 p.m.—Features of Evening's Programme.

EARLY EVENING SESSION.

5.40 p.m.—Children's Music and Entertainment.
 6.0 p.m.—Children's Letters and Stories.
 6.30 p.m.—"Sun" News and Late Sporting.
 6.40 p.m.—2BL Dinner Quartette:
 (a) "Moon Madrigal" (Willeby).
 (b) "Love's Last Day" (Banatsky).
 (c) "Serenade l'Enfante" (Flamant).
 (d) "The Mousme" (Monckton).
 (e) "Melody in F" (Rubenstein).
 (f) "Syncopation" (Kreisler).
 7.10 p.m.—Australian Mercantile Land and Finance Co.'s Report; Weather Report and Forecast by courtesy of Government Meteorologist; Producers' Distributing Society's Fruit and Vegetable Market Report; Grain and Fodder Report ("Sun"); Dairy Produce Report ("Sun"); Weekly Traffic Bulletin.
 7.25 p.m.—Mr. Pim and Miss Pam in advertising talks and nonsense.
 7.55 p.m.—Programme and Other Announcements.

EVENING SESSION.

8 p.m.—G.P.O. clock and chimes.
 Miss Bertha Waters, soprano.
 8.7 p.m.—Miss Iris De Cairos Rego, pianist.
 8.17 p.m.—Mr. Jack CANNOT, comedian:
 (a) "Calling me Back to You" (Seaver).
 (b) "Outward Bound" (Stanford).
 8.27 p.m.—Reminiscent talk by Miss Vinia de Lottie, followed by items from Gilbert and Sullivan operas, played on the piano, for musical competitions.
 8.42 p.m.—Mr. Clifford Lathlean, bass:
 (a) "Leave me Loathsome Night" (from "Semele," Handel).

(b) "More Sweet is that Name" (from "Semele," Handel).
 (c) "An Easter Hymn" (Bridge).
 (d) "The Two Grenadiers" (Schumann).
 8.57 p.m.—Resume of following day's programme. Weather report and forecast by courtesy of Government Meteorologist.
 9.2 p.m.—From St. James' Hall, second and third acts of A. A. Milne's play, "To have the Honor," produced by Miss Eleanor Ross.

List of Characters.

Angela Battersby Miss Claire Curlewis
 Simon Battersby Mr. Ala Foote
 Jennifer Miss Ailsa Cullen
 Emily Miss Jean Ramsay
 Mrs. Holt Miss Pinkie Holship
 Captain Holt Mr. Ron McNicoll
 Mrs. Faithful,
 Miss Clarice Faithful Anderson
 Miss Imogin Faithful,
 Miss Bertha Anderson
 Dr. Ainslie Mr. S. R. Mason Allard
 Prince Michael Mr. Charles Throsby
 Mr. Oliver Mr. Ryder Swynson
 Scene.—The living room of the Battersby's cottage at Wych Trencham.
 10.2 p.m.—Miss Bertha Waters, soprano.
 10.9 p.m.—Miss Iris de Cairos Rego, pianist.
 10.19 p.m.—Mr. Jack CANNOT, comedian:
 "Breakfast in my bed on Sunday Morning" (Lauder).
 10.30 p.m.—G.P.O. clock and chimes.
 National Anthem.

2GB, SYDNEY

THURSDAY, 22nd NOV., 1928.

MORNING SESSION.

10 a.m.—Music.
 10.10 a.m.—Happiness talk by A. E. Bennett.
 10.20 a.m.—Music.
 10.30 a.m.—Women's Session by Miss Helen J. Beegling.
 11.30 a.m.—Close down.

AFTERNOON SESSION.

2 p.m.—Music.
 2.5 p.m.—Women's Radio Service by Mrs. Dorothy Gordan.
 3 p.m.—Talk.
 3.15 p.m.—Close down.

EVENING SESSION.

5.30 p.m.—Children's Session by Uncle George.
 7 p.m.—Stock and Market reports by New Zealand Loan and Mercantile Agency Ltd.
 7.15 p.m.—Music.
 8 p.m.—Cornet solos by Mr. Phil Couchman.
 8.10 p.m.—Songs by Mr. Leslie Herford.
 8.17 p.m.—Announcements.
 8.22 p.m.—Violin solos by Mr. Cecil Berry.
 8.30 p.m.—Songs by Miss Florence Gordon.
 8.37 p.m.—Pianoforte solos by Miss Thetie Hooper.
 8.45 p.m.—Address.
 9 p.m.—Weather report.
 9.2 p.m.—Cornet solos by Mr. Phil Couchman.
 9.10 p.m.—Songs by Mr. Leslie Herford.
 9.17 p.m.—Violin solos by Mr. Cecil Berry.
 9.25 p.m.—Resume of Programme.
 9.30 p.m.—Songs by Miss Florence Gordon.
 9.37 p.m.—A One-act Play arranged by Miss Mollie Kirwan.
 9.52 p.m.—Pianoforte solos by Miss Thetie Hooper.
 10 p.m.—Close down.

3LO, MELBOURNE.

THURSDAY, 22nd NOV., 1928.

EARLY MORNING SESSION.

7.15 a.m.—Morning melodies.
 7.20 a.m.—Morning exercises to music.
 7.30 p.m.—Stock reports. Market reports.
 General news. Shipping. Sporting information.
 8 a.m.—Time signal. Express train information.
 8.1 a.m.—Morning melodies.



Cricket Mania

"Do you think Bruce will get in?"
 I asked my son.

"Nope, Dad," he replied, pitying me. "He may be a good trundler in West Australia, but these Englishmen would belt the leather off him!"

Live and learn! Possibly I do not know any more of cricket than he does about the Prime Minister.

For instance, in my early days, I always understood that a "googlie" was another name for the "glad eye." Now, I am informed that "it's a wrong 'un, which breaks the way you don't expect."

On the whole, that is a very fair definition also of the "glad eye," which skittles more stumps than even this person Larwood.

When I read of the "battle for the Ashes," I supposed that it had something to do with the new-fangled fancy for cremation. It reminded me of Horatius, keeping the bridge "for the ashes of his fathers and the temples of his gods."

Nowadays, the "temples of the gods" seem to be cricket pavilions or saddling paddocks—or "picking-up" places on the wharves.

I am just as puzzled by the difference between a "professional" and an "amateur." So far as I can learn, a professional is a man who is saving his money, so that he can become an amateur. Meanwhile, you must not eat, or sleep, or walk in with him, but it doesn't matter from which end he bowls.

Not that I object to new ideas. For instance, I should be glad to see an Operadio Loud Speaker installed on every cricket field. Its exponential air column would let everyone within a mile know how the game was going.

The only drawback would be that no one would want to watch cricket when they hear an Operadio Speaker. An ardent cricketer might describe the sounds of bats cracking cricket balls to the boundary as the "music of the spheres," but give me an Operadio every time.

It is a "speaking likeness" to the original, and worth a visit to-day to the New System Warehouse, 280 Castlereagh Street.

MORNING NEWS SESSION.

11 a.m.—3LO's DIFFERENT DAINTIES FOR THE DAILY DINNER. TO-DAY'S RADIO RECIPE, COCOANUT CAKE.

4oz. butter.
4oz. sugar.
2 eggs.
1 gill milk.
2 cups self-raising flour.
Vienna icing.
Icing sugar and butter.
Dessicated cocoanut.

Cream, butter and sugar, break in eggs and beat lightly with the hand, add milk, then sifted self-raising flour. Grease two sandwich tins and place half in each. Bake in hot oven about 20 minutes. Turn out of tins, and when cold make Vienna icing by beating some butter and icing sugar to a cream; add two tablespoons dessicated cocoanut. Spread evenly on top of cakes. Dust over with a little dessicated cocoanut. (A little cocoanut could be added to the cake mixture before baking if desired.)

THE HELPING HAND.—The metal "Mitts" which are sold for cleaning saucepans are excellent for scrubbing new potatoes. Keep one specially for this purpose.

11.5 a.m.—MRS. J. R. BELL, wife of Squadron-Leader, Bell, R.A.A.F., will speak on:

"Women in Aviation."

11.20 a.m.—Musical interlude.

11.25 a.m.—SISTER PURCELL will speak on:

"Infant Welfare."

11.40 a.m.—Musical interlude.

11.45 a.m.—MRS. HENRIETTA C. WALKER: "The Art of Being a Settler—How to make a Little Garden Pay."

MIDAY SESSION.

12 noon.—Melbourne Observatory time signal. Express train information. Prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. British official wireless news from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service.

12.15 p.m.—Newmarket stock sales. Special reports by John McNamara and Co.

12.20 p.m.—COMMUNITY SINGING—Old-Time Choruses—transmitted from the Assembly Hall, Collins Street, Melbourne. Conductor, Frank Hatherley.

DOLLY BURDETT, contralto:

"The Minstrel Boy" (Moore).

"My Ain Folk" (Lemon).

MORAN HILFORD, basso (by permission J. C. Williamson, Ltd.):

"Mary" (Richardson).

"The Deathless Army" (Trottere).

1.45 p.m.—Stock Exchange information. Meteorological information. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales. Ocean forecast. River reports.

1.55 p.m.—Close down.

AFTERNOON SESSION.

2.15 p.m.—THE STATION ORCHESTRA: "Andante from Fifth Symphony" (Beethoven).

"Character Dance" (Tchaikowsky).

2.25 p.m.—MOLLIE WARDEN, soprano:

"Armida's Garden" (Parry).

"The Second Minuet" (Besley).

2.32 p.m.—THE IMPERIAL RUSSIAN TRIO (Arved Norit, violin; John Berzinsky, cello; William Ibster, piano):

THE TRIO: "Adagio" (Schubert).

ARVED NORIT, violin: "Rosamund" (Schubert).

THE TRIO: "Moment Musicale" (Schubert).

2.47 p.m.—MOLLIE WARDEN, soprano:

"By the Waters of Minnetonka" (Lieurance).

"The Leaves and the Wind" (Leoni).

2.54 p.m.—THE STATION ORCHESTRA:

"Romance" (Karganoff).

"Intermezzo" (Schumann).

3 p.m.—DR. LOFTUS HILLS:

"Topics of the Week."

3.15 p.m.—REV. WM. BOTTOMLEY will speak on:

"The Tale of Two Cities," by Charles Dickens.

3.30 p.m.—J. HOWLETT ROSS will speak on:

"Louis Pasteur."

3.45 p.m.—THE STATION ORCHESTRA:

Suite, "Three Fours" (Coleridge Taylor).

3.55 p.m.—FRANK HARWOOD (by permission Tivoli Theatres, Ltd.)—Character Vocalist.

4.2 p.m.—THE STATION ORCHESTRA:

Suite, "A Summer Night" (Dowd).

"Meditation" (Tchaikowsky).

4.12 p.m.—SYDNEY HOLLISTER:

"Airy Trifles."

4.19 p.m.—THE STATION ORCHESTRA:

"Moussorgskyard" (Moussorgsky).

4.30 p.m.—"Herald" news service. Stock Exchange information.

4.45 p.m.—EVENSONG, transmitted from St. Paul's Cathedral, Melbourne.

5.30 p.m.—Acceptances and barrier positions for Epsom Races.

5.35 p.m.—Close down.

During the afternoon results of Cranbourne races will be given as they come to hand.

EVENING SESSION.

6 p.m.—Answers to letters and birthday greetings by "Bobby Bluegum."

6.25 p.m.—Musical interlude.

6.30 p.m.—"BOBBY BLUEGUM" will now take you by air to "The Land where Trees Grow Whiskers."

6.45 p.m.—"BOBBY BLUEGUM" will sing you some songs that never grow old.

NIGHT SESSION.

7.5 p.m.—Stock Exchange information.

7.15 p.m.—Special reports by John McNamara and Co. Pig market reports by McPhail, Anderson and Co. Official report of the Newmarket stock sales by the Associated Stock and Station Agents, Bourke Street, Melbourne. Weather synopsis. Fish market reports by J. R. Borrett, Ltd. Rabbit prices. River reports. Market reports by the Victorian Producers' Co-operative Company, Ltd. Poultry, grain, hay, straw, dairy produce, potatoes and onions. Market reports of fruit by the Victorian Fruiterers' Association. Retail prices. Wholesale prices of fruit by the Wholesale Fruit Merchants' Association. Citrus fruits.

7.30 p.m.—News session.

7.43 p.m.—Birthday Greetings.

7.45 p.m.—OUT OF THE PAST.

7.46 p.m.—Herbert Brown, of the "Desert Song" Co., will speak to you from his dressing-room, by permission of J. C. Williamson, Ltd.

8 p.m.—A MAKER OF HISTORY.

8.1 p.m.—ROD MCGREGOR will speak on: "Cricket."

DANCE PROGRAMME.

8.15 p.m.—THE RADI-O-ACES:

"On the Air" (Goldman).

"Harvest Moon" (Bayes).

"That's My Mammy" (Donaldson).

8.24 p.m.—SYD. HOLLISTER, comedian: Radio Rambles.

8.27 p.m.—THE RADI-O-ACES:

"In a Honeymoon Cottage" (Lumsdaine).

"Do You" (Piantodosi).

"Dear on a Night Like This" (Conrad).

8.36 p.m.—GRACE JACKSON, contralto: "Carissima."

8.39 p.m.—THE RADI-O-ACES:

"Why Can't You Care?" (Gilbert).

"How Long has this been going On?" (Welding).

"It don't do nothin' but Rain" ("Cook").

8.48 p.m.—FRANK HARWOOD: Character Vocalist.

8.51 p.m.—THE RADI-O-ACES:

"You're a Real Sweetheart" (Friend).

"Dusky Stevedore" (Razalf).

"Beside a Lazy Stream" (Stept).

9 p.m.—ANNE MIDDLETON, Soprano: "Love Has Eyes."

9.3 p.m.—THE RADI-O-ACES:

"Mary Ann" (Davis).

"Someone is Losin' Susan" (Myer).

"Afraid" (Barnie).

9.12 p.m.—SYDNEY HOLLISTER:

"Just for Fun."

9.15 p.m.—THE RADI-O-ACES:

"Evening Star" (Turk).

"Hallelujah" (Youmans).

"Just like a melody out of the Sky" (Donaldson).

9.24 p.m.—GRACE JACKSON, contralto:

"Just a Cottage Small."

9.27 p.m.—THE RADI-O-ACES:

"Hot Ivories" (Sinastra).

"There ought to be a law against That" (Friend).

"Sunshine" (Berlin).

9.36 p.m.—FRANK HARWOOD: Character Vocalist.

9.39 p.m.—THE RADI-O-ACES:

"Rain" (Ruby).

"Mine, All Mine" (Ruby).

"Lonesome in the Moonlight" (Russell).

9.48 p.m.—ANNE MIDDLETON, soprano:

"A Persian Song of Spring" (Hatz).

9.51 p.m.—THE RADI-O-ACES:

"Was it a Dream" (Boutt).

"Gotta Big Date with a Little Girl" (Tobias).

"Pardon the Glove" (Quicksell).

10 p.m.—"Argus" news service. British official wireless news from Rugby. Meteorological information. Road notes supplied by the Royal Automobile Club of Victoria. Announcements.

10.15 p.m.—THE RADI-O-ACES:

"Constantinople" (Carlton).

"Beautiful" (Gillespie).

"After my laughter came Tears" (Shay).

10.24 p.m.—SYDNEY HOLLISTER will Shoo Those Blues Away..

10.27 p.m.—THE RADI-O-ACES:

"The Dance of the Blue Danube" (Disher).

"Linger Longer Lane" (Laurence).

"Is it Gonna be Long" (Whiting).

10.36 p.m.—GRACE JACKSON, contralto:

"When the Dream is There" (d'Hardelot).

10.39 p.m.—THE RADI-O-ACES:

"It Goes Like This" (Ceasar).

"My Melancholy Baby" (Norton).

"Lolita" (Stonham).

10.48 p.m.—ANNE MIDDLETON, soprano:

"Chanson de Florian" (Godard).

10.51 p.m.—THE RADI-O-ACES:

"That's my weakness Now" (Stept).

"Get out and get under the Moon" (Tobias).

"In a Bamboo Garden" (Donaldson).

11 p.m.—OUR GREAT THOUGHT.

11.1 p.m.—THE RADI-O-ACES.

11.40 p.m.—God Save the King.

3AR, MELBOURNE

THURSDAY, 22nd NOV., 1928.

MORNING SESSION.

10 a.m.—G.P.O. Clock says "Ten."

10.1 a.m.—"Age" Stock Exchange reports. London Metal Market.

10.10 a.m.—"Age" market reports—farm and station produce, fruit, fish, vegetables etc.

10.25 a.m.—"Age" Shipping reports.

Ocean forecast.

10.30 a.m.—Mail notices.

Express train information.

10.35 a.m.—"Age" news service, exclusive to 3AR.

10.59 a.m.—Weather forecast.

MORNING MUSICAL SESSION.

11 a.m.—Radi-o-Aces:

"Next to You, I Like Me Next to You" (Bito).

- "Shake It Down" (Williams).
 "Lonely Acre" (Robinson).
 "Anything You Say" (Donaldson).
 11.15 a.m.—Grace Jackson, contralto:
 "The Enchantress" (Hatton).
 "Thank God for a Garden" (del Riego).
 11.22 a.m.—Radi-o-Aces:
 "In a Bamboo Garden" (Donaldson).
 "Sweet Sue, Just Sue" (Tobias).
 "Too Busy" (Miller).
 11.32 a.m.—Iris Turner, soprano:
 "Se Saran Rose" (Arditi).
 "I Love You Truly" (C. Jacobs-Bond).
 11.39 a.m.—Radi-o-Aces:
 "Tired Hands" (Woods).
 "Once Again" (Lumsdaine).
 "Meet Me To-day" (Dean).
 11.54 a.m.—Will Davis baritone:
 "Three for Jack" (Squire).
 "Tommy Lad" (Margetson).
 12.1 p.m.—Radi-o-Aces:
 "Last Nighth I Dreamed You Kissed Me."
 (Kahn).
 "That's My Mammy" (Donaldson).
 "Honeymoon Cottage."
 12.16 p.m.—Grace Jackson, contralto:
 "Arise, O Sun" (Craske Day).
 "The Lisp of a Baby's Prayer" (Nicholas).
 12.23 p.m.—British Official Wireless.
 Announcements.
 12.33 p.m.—Radi-o-Aces:
 "I'm Wingin' Home" (Russell).
 "Evening Star" (Turk).
 "Russian Rag" (Stutzel).
 12.43 p.m.—Will Davies, baritone:
 "Betty's Way" (Con. Clarke).
 "The Wanderer" (Schubert).
 1 p.m.—Radi-o-Aces:
 "Henry's Made a Lady Out of Lizzie"
 (O'Keefe).
 "We'll Have a New Home in the Morning"
 (Buck).
 "All Day Long" (Cross).
 1.10 p.m.—Iris Turner, soprano:
 "Just a'Wearyin' for You" (C. Jacobs-Bond).
 "Second Minuet" (M. Besly).
 1.17 p.m.—Radi-o-Aces:
 "Anything You Say" (Donaldson).
 "My Melancholy Baby" (Norton).
 "Ice Cream."
 1.30 p.m.—Close down.

EVENING SESSION.

- 5 p.m.—A Recital of World-Famed Artists.

NIGHT SESSION.

- 8 p.m.—H. A. Brown: "Gardening Chat."
 8.15 p.m.—Under the auspices of the Royal Life-Saving Society. R. P. Rogers:
 "Learning to Swim."
 9.30 p.m.—The Austral Quartette (Vida Lugg, piano and mezzo; Dorothy Taylor, violin; Jean Buchanan, 'cello):
 Violin, 'Cello, Piano:
 "Trio in E Flat Major, 1st Movement" (Beethoven).
 "Trio in D Major, No. 51st Movement" (Beethoven).
 Soprano, Violin, Piano:
 "Ave Maria" (Mascheroni).
 "Summer Night" (Goring Thomas).
 "Homing" (Speaks).
 Violin, 'Cello, Piano:
 "Trio in G Major, 1st Movement" (Haydn).
 "Spring Song" (Mendelssohn).
 Mezzo, Violin, Piano:
 "Voi che Sapete" (Mozart).
 "Who is Sylvia?" (Schubert).
 Piano:
 "Hungarian" (MacDowell).
 "Water Wagtail" (Cyril Scott).
 9 p.m.—Presentation of "Orpheus" (Gluck). Part II. Produced by Mr. J. Sutton Crow, and transmitted from Auburn Hall.

Characters:

- Orpheus Sybil Shaw
 Eurydice Marjorie Robison
 Amor Stella Dredge

Pianist, Mabel Nelson.

From the Studio—

- 10 p.m.—Under the auspices of the Advance Bendigo and the North League: "Nyah, Nyah West, and District."
 10.10 p.m.—French Bros., banjoists:
 "There Must Be a Silver Lining."
 "Give Me Just a Little Bit of Your Love."
 10.17 p.m.—Millie McCormack, soprano:
 "Here's to Love and Laughter" (Rubens).
 "O, Mistress Mine" (Quilter).
 10.24 p.m.—Imperial Russian Trio (Arved Norit, violin; John Berzinsky, 'cello; William Ibster, piano):
 "Chanson Triste" (Tchaikowsky).
 "Poeme" (Fibich).
 "Dear, on a Night Like This" (Conrad).
 "Hungarian Dance, No. 6" (Brahms).
 10.39 p.m.—Millie McCormack, soprano:
 "When Love is Kind" (Moore).
 "Sweet Kate" (Jones).
 10.46 p.m.—French Bros., banjoists:
 "Moonlit Waters" (Brown).
 "Just Once Again" (Donaldson).
 10.53 p.m.—"Age" news service, exclusive to 3AR.
 10.58 p.m.—Weather forecast.
 11 p.m.—God Save the King.

4QG, BRISBANE.

THURSDAY, 22nd NOV., 1928.

EARLY MORNING SESSION.

- 8 a.m.—From the studio:
 This morning's news, supplied by courtesy of the Brisbane Metropolitan Daily Newspapers.
 8.30 a.m.—Close down.

MORNING SESSION.

11 a.m. to 12 noon.

MIDDAY SESSION.

- 1 p.m.—Market reports and weather information.
 1.15 p.m.—From the Constitutional Club:
 A lunch hour address.
 1.58 p.m.—From the Brisbane Observatory:
 Time signals.
 2 p.m.—Close down.

AFTERNOON SESSION.

- 3 p.m.—From the Studio:
 A programme of electrically-reproduced records.
 3.30 p.m.—Mail train running times.
 4.15 p.m.—This afternoon's news.
 4.30 p.m.—Close down.

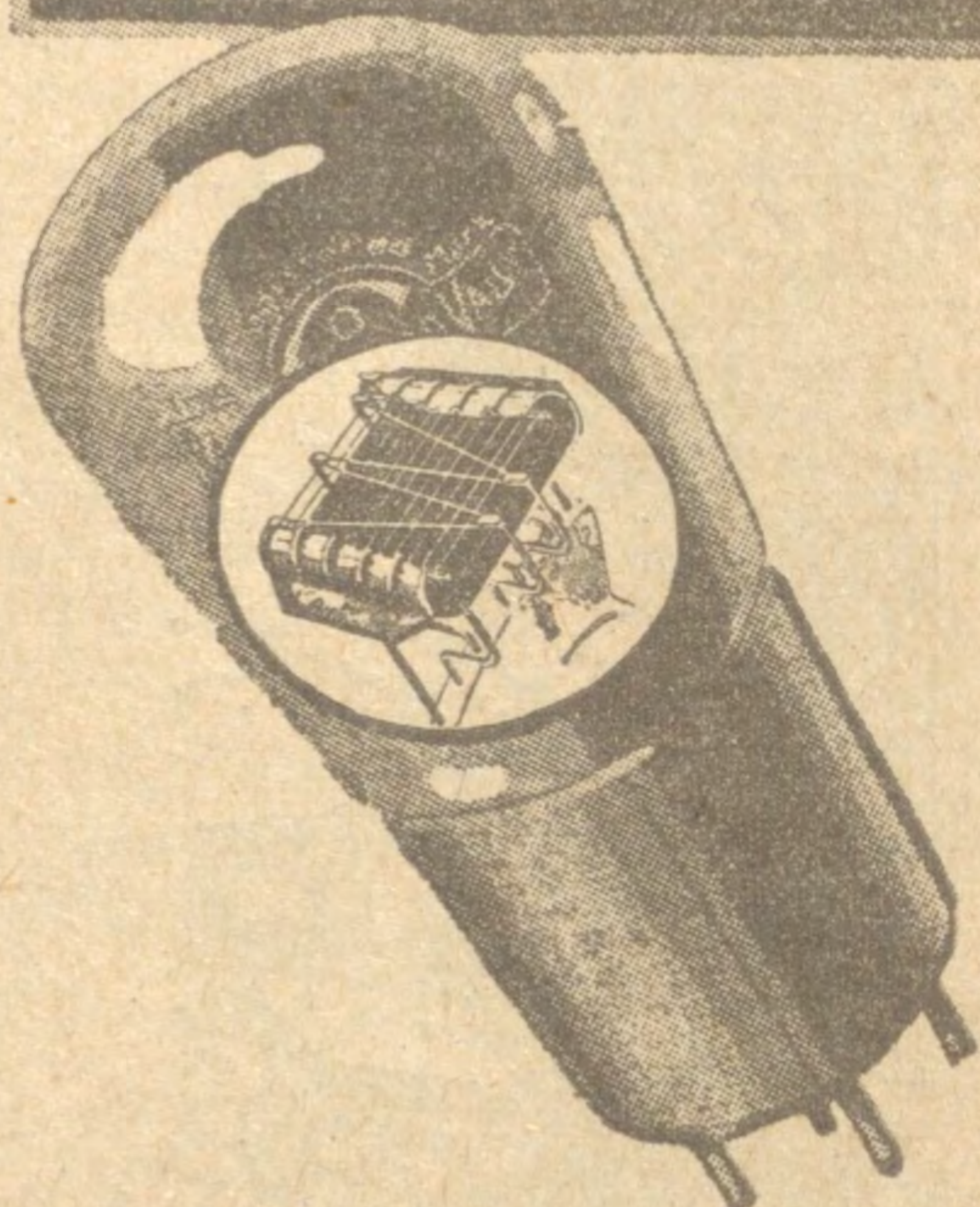
EARLY EVENING SESSION.

- 6 p.m.—From the Studio:
 Mail train running times; mail information. Shipping news.
 6.5 p.m.—From the Paris Cafe:
 Dinner music.
 6.25 p.m.—From the Studio:
 Commercial announcements.
 6.30 p.m.—Bedtime stories conducted by "The Sandman."
 7 p.m.—News in brief.
 7.5 p.m.—Stock Exchange news.
 7.6 p.m.—Metal quotations.
 7.7 p.m.—Market reports.
 7.25 p.m.—Fenwick's Stock report.
 7.30 p.m.—Weather information.
 7.40 p.m.—Announcements.
 7.43 p.m.—Standard time signals.
 7.45 p.m.—Lecturette: A talk on dairying by Mr. C. F. McGrath, Chief Dairy Supervisor.

NIGHT SESSION.

To-night's programme will comprise wholly request items. During the past two or three weeks announcements have been made from the station to the effect that to-night's session is to be set apart for requests, and

GREATER EMISSION



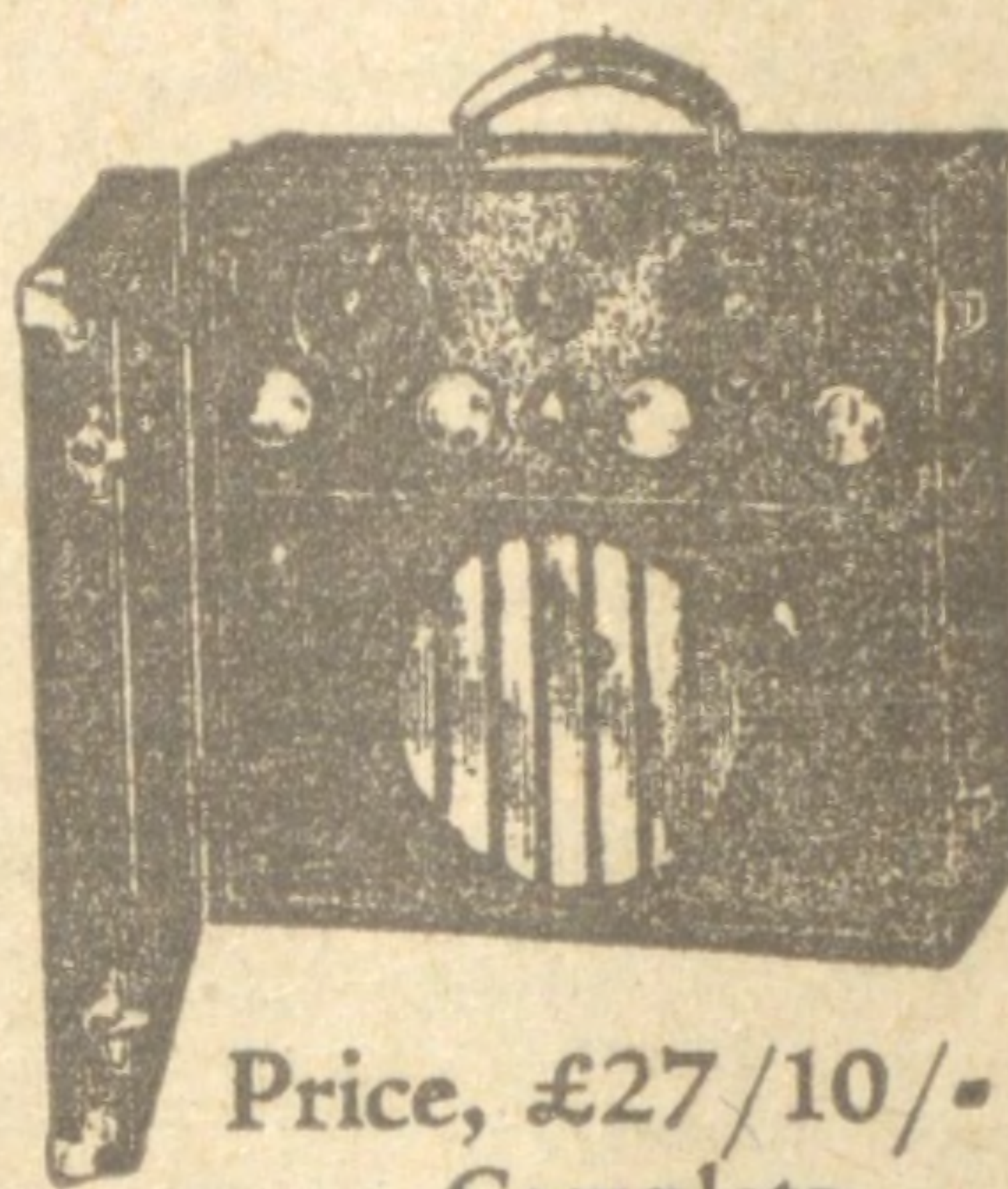
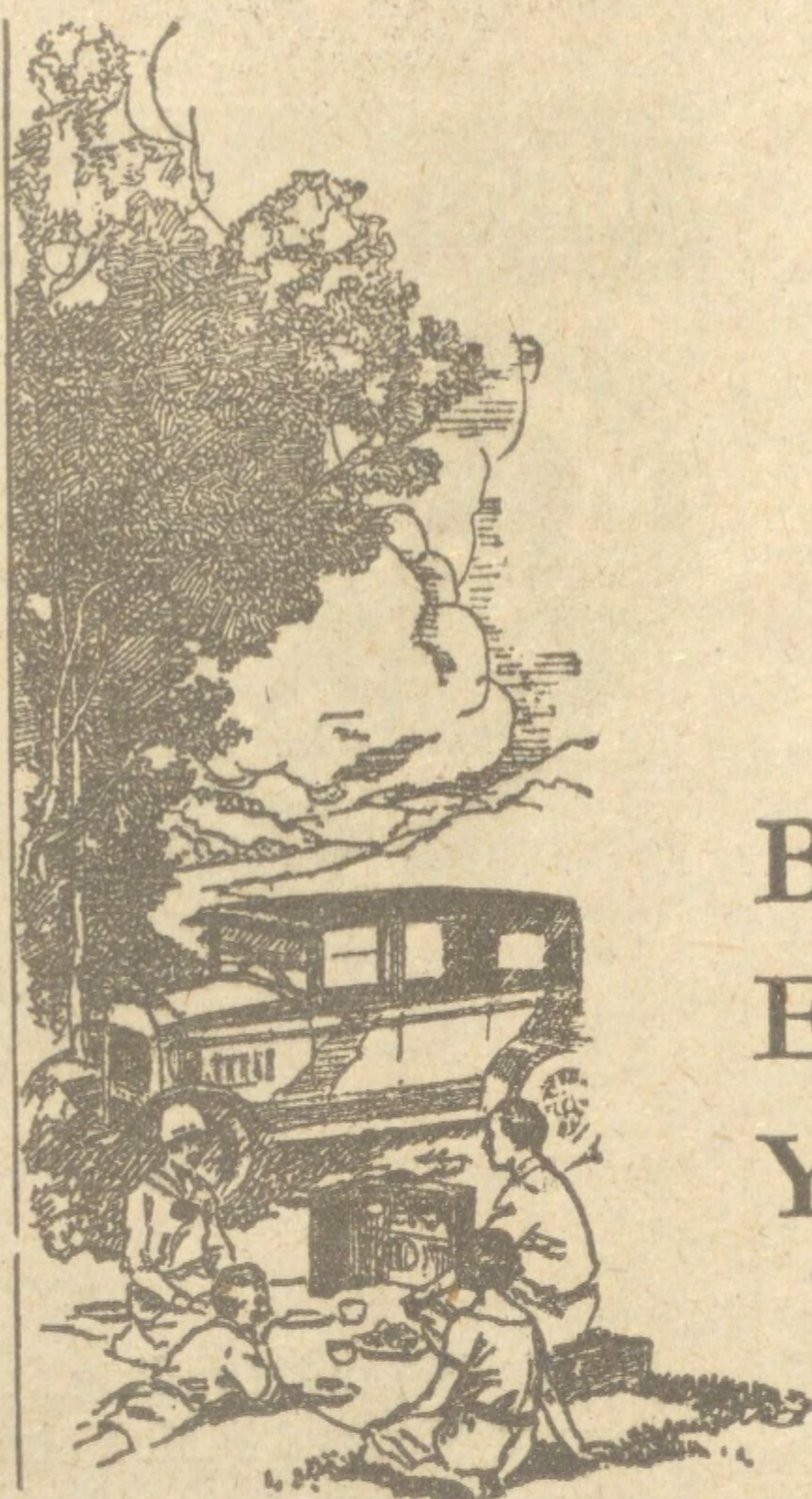
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Airzone is simplicity itself. Snap open the lid and it is automatically switched on, tune-in, listen-in. Close the lid and the programme is instantly cut off.

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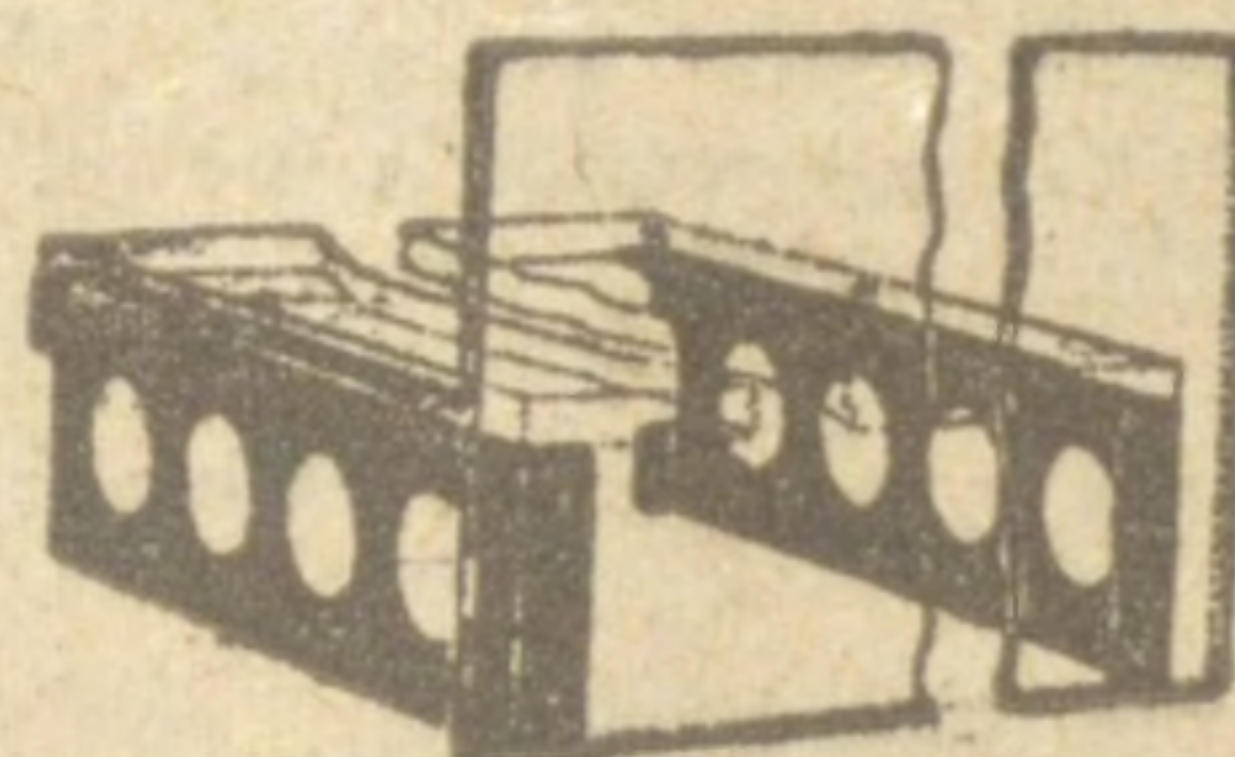
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Split-bush locking
device ensures per-
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Pressed from stout
brass; heavy nickel-
plate finish.



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Airzone R.F. Choke
of new design, speci-
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for use on short
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MELBOURNE

listeners have forwarded their requirements to the station.

It is obviously impossible to set out the programme in full detail, but the various items which are to be given will be announced from the studio at the commencement of the session.

8 p.m.—A request Night.

10 p.m.—Late news, weather news.
Close down.

7ZL, HOBART

THURSDAY, 22nd NOV., 1928.

MIDDAY SESSION.

- 11.30 a.m.—M'ell Columbia Broadcasts.
11.34 a.m.—Special Midlands Weather Forecast.
11.35 a.m.—M'elle Columbia Broadcasts.
11.55 a.m.—Tasmanian Stations 9 a.m. Weather Report.
12 noon.—G.P.O. Clock chimes the hour.
12.1 p.m.—Shipping information. Ships within wireless range. Mail notices. Commercial news. Housewives' guide.
12.3 p.m.—M'elle Columbia Broadcasts.
12.11 p.m.—British Official Wireless News.
12.20 p.m.—M'elle Columbia Broadcasts.
12.29 p.m.—Announcements.
12.33 p.m.—M'elle Columbia Broadcasts.
12.55 p.m.—"Mercury" News Service.
Produce Auction Sales held at Railway.
1.10 p.m.—M'elle Columbia Broadcasts.
1.30 p.m.—Close down.

AFTERNOON SESSION.

- 3 p.m.—G.P.O. Clock chimes the hour.
3.1 p.m.—M'elle Columbia Broadcasts.
3.4 p.m.—Weather information.
3.5 p.m.—M'elle Columbia Broadcasts.
3.15 p.m.—A Studio Concert by the Discus Ensemble:
Trio: Violin, Flute and Harp:
"To my Mother" (Volgt).
Serenade, "The Herd Girl's Dream" (Labitsky).
Alfred O'Shea, tenor:
"The Low-backed Car" (Lover).
"Molly Branningan" (Stanford).
The London Flute Quartette:
Variations, "Scotch and Irish Airs" (Stainer).
Alfred O'Shea, tenor:
"Mother Machree" (Young).
The Silver Stars Band:
"Unfinished Symphony," Parts 1 and 2 (Schubert).
Rena Male Quartette:
"Church Scenes from the Old Homestead."
"The Old Folks at Home."
Kenneth Walters, baritone:
"The Village Blacksmith" (Long).
"The Floral Dance" (Moss).
William Thomas and Quartette:
"Eileen Alannah."
"Love's Old Sweet Song."
Eddie Thomas' Collegians:
Waltz, "Till we meet again" (Whiting).
Waltz, "Missouri" (Logan).
Muriel Brunsell, contralto:
"Kathleen Mavourneen" (Crawford).
"O Lovely Night" (Teschemacher).
Handbells, played by the famous Barnardo Musical Boys:
"Chiming Bells of Long Ago."
"The Legend of the Bells from Les Cloches de Cornville."
The Taylor Trio, Violin, 'Cello and Piano:
"Silver Threads among the Gold."
Columbia Artists' Ensemble:
"Tis the last Rose of Summer" (Moore).
4.15 p.m.—Child Welfare:
A Talk by a representative of the Child Welfare Association:
"Some further need."
4.30 p.m.—Close down.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

- 6.15 p.m.—M'elle Columbia Broadcasts.

- 6.45 p.m.—A Story told by the "Storey Lady":
"Beauty and the Beast."
7 p.m.—Answers to Letters and Birthday Greetings by "Uncle David."
7.5 p.m.—M'elle Columbia Broadcasts.
7.15 p.m.—"Mercury" Special Tasmanian Service. Railway Auction Produce Sales held at Railway. Weather information. Hobart Stock Exchange quotations.

EVENING SESSION.

- 7.30 p.m.—Come to Tasmania: A Talk will be given by J. B. Read, President of the "Come to Tasmania" Organization:
"The Tourist's Paradise."
7.45 p.m.—J. Scott, Professional Coach of the Royal Hobart Golf Club, will speak on:
"Golf."
8 p.m.—G.P.O. Clock chimes the hour.
8.1 p.m.—Acknowledgement of 7ZL and "Mercury" Appeal for Wireless Equipment of Hobart General Hospital. Senior Birthday Greetings.
8.5 p.m.—Fifty Years Ago To-day.
"The Span of Time."
8.7 p.m.—M'elle Columbia Broadcasts.
8.15 p.m.—From the Studio: Community Singing:
All: "John Brown's Body" (Allan's Community Song Book).
Ruby Wallace, soprano:
"Call of the Maytime" (Brahe).
Leila Read and Orchestra: Selected.
All: "John Peel" (Allan's Community Song Book).
Cheerios to Friends and Listeners who have sent us letters and telegrams of appreciation. Sing up, Friends at Swansea, Brun Island, Longford, Cleveland, Steppes, Amphitheatre, Swan Island, Interlaken, Bay of Fires, Anson's Bay Boat Harbor, Bicheno, Pontypool, Catamaran, Railton, Leith, Somerset and Smithton.
Gertrude Sneddon, Soprano:
"Castles in the Air" (Scotch Air).
All: "Loch Lomond" (Allan's Community Song Book).
Jean Allen, contralto:
"The Sunshine of Your Smile" (Squire).
All: "Salli Horner" (Allan's Community Song Book).
Pearl Barron, soprano:
"Spring" (Henschel).
All: "Silver Treads among the Gold" (Allan's Community Song Book).
Ruby Wallace, soprano:
"La Serenata" (Tosti).
Cheerios to Friends on the Mainland, Moonee Ponds, Newcastle, Brunswick, Ballarat and Maryborough.
All: "Ramona" (Mendelssohn).
Gertrude Sneddon, soprano:
"Turn Ye to Me" (J. K. Lees).

.... FROM THE FROZEN SOUTH.

- 9 p.m.—Re-broadcast of Concert and Talk on the flight of Sir George Wilkins—transmission on short wave from S.S.N.T. Nielson Alonso, the whaler stationed amongst the ice packs in the Ros Sea near the South Pole.
From the Studio:
9.15 p.m.—Jean Allen, contralto:
"When Song is Sweet" (Sans Souci).
All: "Moonlight and Roses" (Allan's Community Song Book).
Pearl Barron, soprano:
"The Woodpigeon" (Lehmann).
All: "Good-night, Ladies" (Allan's Community Song Book).
Ruby Wallace, soprano:
"Break o' Day" (Sanderson).
All: "Auld Lang Syne" (Allan's Community Song Book).

NEWS SESSION.

- 9.30 p.m.—British Official Wireless News.
"Mercury" special Tasmanian News Service.
Tasmanian District Weather Report.
10 p.m.—G.P.O. Clock chimes the hour.
10.3 p.m.—"God Save the King."
10.4 p.m.—Close down.



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Readers' Queries Answered

E.M. (QUEENSLAND).—Glad to hear of such excellent results with the "Selectrex Four." A little praise is always encouraging. Try the Screen Grid Five.

G.R. (FIVE DOCK).—You can make a simple wavetrap as follows:—Connect your aerial to the first turn of a 50 turn coil, which has been wound on a three inch former using 24 gauge wire. To the same turn, connect the moving plates of a .0005 variable condenser, and to the last turn, connect the fixed plates of the condenser, and also the aerial terminal of your receiver.

N.C. (NORTH SYDNEY).—The correct secondary voltage for use with a six volt accumulator would be twelve volts. Chemically pure aluminium can be obtained from Selby's.

R.B. (NORTHBRIDGE).—The substitution of Rheostats for Amperites is in order. This will have no detrimental effect on the working of the receiver. It seems that you have too many turns on the reaction coil, or the reaction condenser may be too large. What capacity did you use? The choke may be replaced by the honeycomb coil of 250 turns. Test your transformers for continuity. A broken winding would cause this whistle. Also test for an open grid circuit, and experiment with detector plate voltages.

W.E.H. (MAYFIELD).—Obviously the aluminium plates were not pure—or the filling substance was not pure. You say you have been cleaning the plates each day. This should not be done, as it only helps to dislodge the substance. Try mixing some new paste, taking particular care that it is free from impurities or dust, etc.

(2) You could minimise interference in two ways, and still retain good volume. First, you could use an underground aerial, sheathed in lead, with the end sealed up. Secondly, you could use a counterpoise instead of an earth. In both cases, volume will be reduced only very slightly. If you desire further information on either of these methods, please write again.

C.E. (BOTANY).—Try adding a few turns to the primary, and also to the reaction coil in the detector stage. Special Radiotrons would give slightly better results than 201A's throughout. If you want more volume, try removing the .0001 fixed condenser, which you have in the aerial lead. The circuit you are using is better than the other mentioned. Did you neutralise your receiver with the aerial condenser in circuit? If so, neutralising is probably incorrect. Further, you should not use a long aerial when neutralising. You should carry out your neutralising tests on an Interstate station, not a local. The screws in your radio cabinet will make no difference to reception. Try using a .00035 variable condenser in the third position, i.e., controlling the reaction, which should be increased to about 35 turns.

R.N. (HURSTVILLE).—The Economist "B" Eliminator is not suitable for the Tetrode Three. It can be used on any straight three using valves that take a good plate voltage, such as 201A's, Philips, etc., etc.

S.C. (REDFERN).—Probably the valve has been added as a stage of audio by means of resistance coupling. In this case, a resistance unit simply takes the place of a transformer. The connections are as follows: From one side of the telephones to the P terminal of the resistance unit. From B of the unit to the other 'phone terminal. From G of the unit to the grid terminal of a valve socket, and from F terminal of the unit to one of the filament terminals on the valve socket, and thence to the contact arm of a 30 ohm rheostat. From the other terminal of the rheostat, connect to the negative terminal of a 4½ volt "C" battery. From the positive terminal of this battery, connect to the remaining filament terminal on the valve socket. From the plate terminal of the socket, take a lead to one side of the telephones, and from the other side of the 'phones to the positive terminal of a 45 volt "B" battery, the negative terminal of which is connected

to A plus, i.e., the positive terminal of the "C" battery. A 199 valve or one of the Philips 4 volt series could be used. Test transformers for a breakdown. This would cause the scratching noise complained of.

E.L. (CLARENCE RIVER).—For the R.F. coils wind 20 turns of 18 D.C.C. on 3 inch formers. The receiver cannot be controlled by a single tuner, as the filament returns are not common. The advantage of using S.G. valve lies in self neutralisation, and extremely high R.F. amplification at all frequencies. The Philips' S.G. would be better. It is not advisable to carry out your plan of shielding the valves. It would affect reception.

C.V.H. (GUNDAGAI).—Evidently your receiver is unsuitable for the S.W. adapter owing to some R.F. circuit.

G.E.W. (CONDOBOLIN).—Evidently owing to dead spots. Try loose coupling, and also try tuning the aerial with a .0005 variable condenser connected in series.

E. C. (BRONTE).—(1) The make of dials used in that three valve short wave set were "National," and are not obtainable in Australia.

(2) An Emmcostad may be used in place of resistances if the resistance of the former is that required. The Emmcostad is a variable resistance.

(3) No, the only quick method of calculating the self capacity of a choke is by mathematics.

(4) The function of the "step up" transformer is as follows:—A current is passed through the primary winding, and as is the case with any inductance, a field of current is set up around this winding. This field is picked up by the secondary, which has more turns than the primary and the current picked up is multiplied according to the ratio of the transformer. Thus if 2 volts A.C. is passed through the primary, the output of the secondary of a 10-1 transformer would be about 20 volts A.C., but losses due to core saturation will vary this.

A.B. (LAKEMBA).—The "Home Constructor's Wireless Guide" will explain to you the principles of the Neutrodyne. This book is obtainable from Angus and Robertson, price 4/6.

C.E.C. (BRONTE).—(1) The circuit submitted for charging a six-volt accumulator is correct.

(2) The inclusion of voltmeters and ammeters in your receiver would cause a slight drainage on the batteries. This might be a serious drainage if the meters were of a cheap type though it would not impair the working of the receiver. If using a cheap type, you could shunt the meters by a switch.

(3) You should be able to get a ½ meg leak almost anywhere. If you have any difficulty, Economic Radio Stores can supply.

(4) Suggest you look up some of the recent issues of "W.W." and follow out the circuits of S.G. valves. You will notice the principle is the same throughout. Space does not per-

mit our giving detailed wiring instructions for a S.W. receiver using the S.G. Several have been published quite recently.

"ALUMINIUM" (NORTH SYDNEY).—(1) Rheostats are quite suitable, and the two twelve ohm rheostats are also quite O.K.

(2) It is immaterial which way the R.F. coil is placed.

(3) Yes, remove 20 per cent. of windings. In the case of the three turn coil, use two turns. Three turns should be used for the R.F. coil.

(4) The motor-boating is in the audio amplifier. Try the inclusion of R.F. chokes in the battery leads in order to keep back R.F. impulses from the audio side of the receiver.

(5) The accumulator voltages as published are correct.

E.D.L. (LITHGOW).—Reverse the leads to the tickler coil. If this does not improve volume, change the fixed condenser across the primary of the first transformer for one of .001 mfd. Presume you have tested batteries, valves, and transformers? A broken winding in the primary of the first audio transformer would cause this. Also see that valves are making proper contact in their sockets, and that the grid-bias battery is not reversed.

C.T. (VICTORIA).—The cause of the trouble is evidently in the capacity of your wiring. Did you use the gauge wire specified? Midget condensers vary slightly in capacity, try one using a few less plates.

H.C.W. (PYMBLE).—Your suggestion is quite applicable to this receiver, but if the proposal is adopted, variable shields will then be unnecessary. The Peridyne will push its way through local interference.

A.S. (KEIRAVILLE).—2NO working on 220 metres may probably send out some Morse lessons for the benefit of those interested in the A.O.P.C. He is at present carrying out experiments on 220 metres—telephony. You could join the N.S.W. Division of the A.R.T.L. as an Associate Member. The address is Y.M.C.A., Pitt Street.



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W. FURNESS

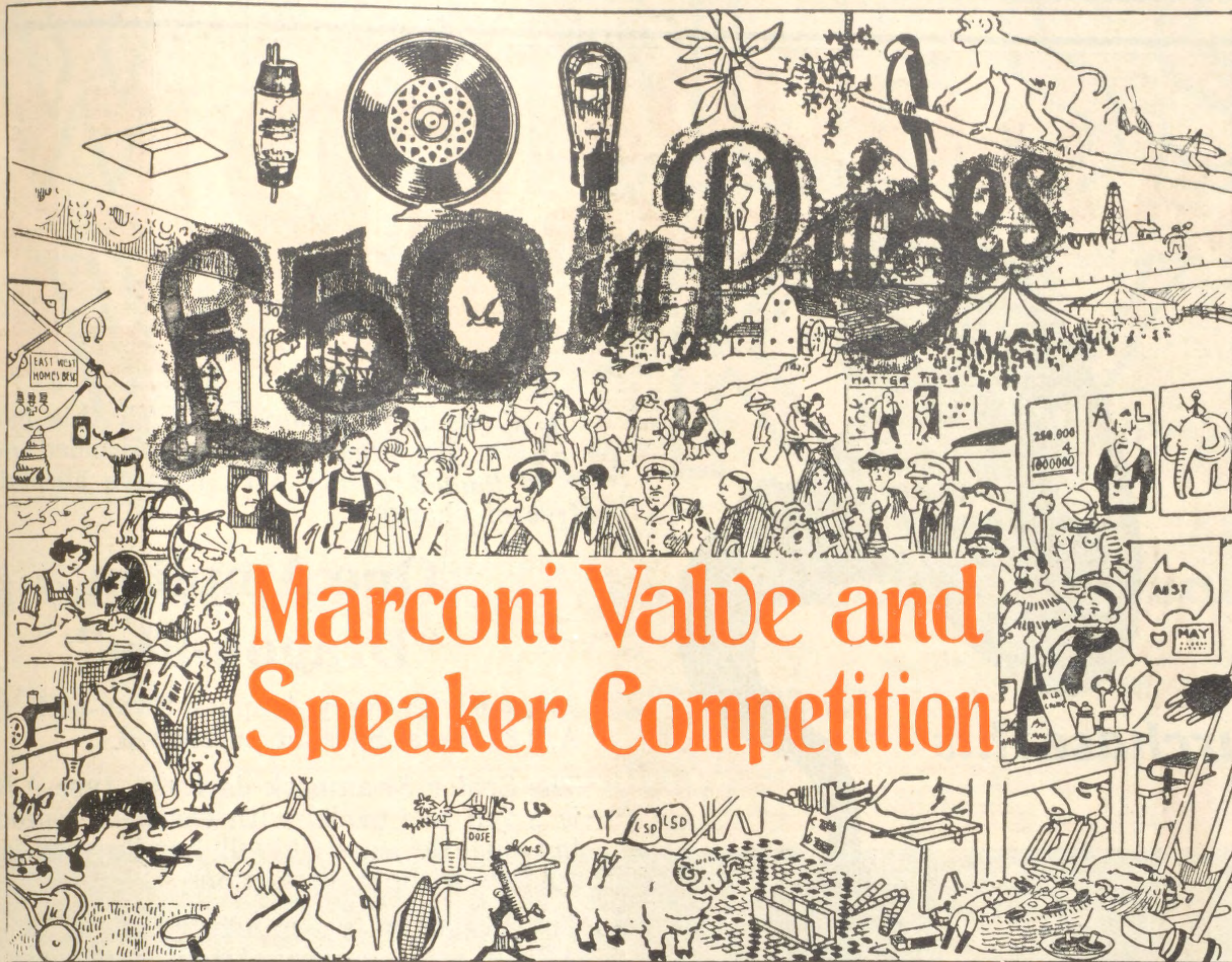
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