

WIRELESS WEEKLY

Broadcast Programmes a Week in advance

VOLUME 9

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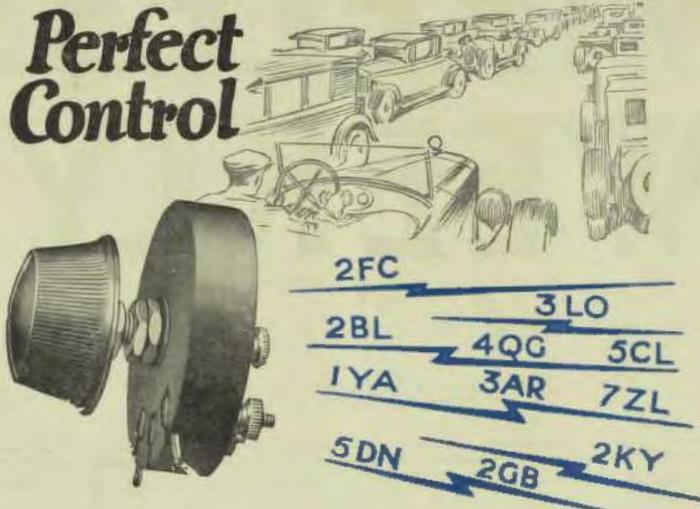
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WIRELESS WEEKLY

VOL. 9, No. 15.

FRIDAY, FEB. 26, 1927.

The Radio Exhibition

WHEN some day in the far future a duly qualified writer pens a History of Radio in Australia, he will, we think, have little difficulty in deciding that the 1927 Radio Exhibition marked the turning point in the progress of radio in N.S.W.

"Hitherto," we can imagine him saying, "radio had risen to popularity because of its novelty, and fallen when it ceased to attract on that account. The prevalent idea had been that the wireless industry would succeed by catering for those who insisted on building their own sets, and who, despite their complete failure to contribute to the sum of radio knowledge, persisted in looking on themselves as experimenters."

"But, thenceforward," the Historian will proceed, "the aspect of affairs began to change noticeably. The 1927 Exhibition was the first outward sign that this species of eccentric was in the minority, for the exhibitors, catering for public demand, showed receivers designed for those wishing for an entertainment service, rather than a novel plaything. This gradual trend was increased when the Royal Commission made its recommendation shortly afterwards, and culminated in a mild boom during the historic broadcasting of the Duke of York and Melba at the opening of Canberra."

The new business-like exhibits this year lead us to make this prophecy. The old receiver of much wire and many controls has disappeared and in its place there is a neat workmanlike set turned out at the factory under the supervision of specialists. The old

amateurist touch has given place to the professional grip.

It would seem to us also, that this change has gone further than appearance; it is the circuit itself. The old straight circuit seems to have gained a little of the super circuits famous qualities of selectivity and volume, while the super-circuit has achieved simplicity and tone, attributes once exclusive to the simple circuit. Much more may be said about the Exhibition generally, and many exhibits in particular, and will be said in "Wireless Weekly's" complete review of the Exhibition next week.

We think that the Wireless Industry of New South Wales is to be heartily congratulated upon the wholly admirable and representative Exhibition which it has so successfully organised at the Sydney Town Hall. The public response, we feel sure, will be worthy of the Exhibition, and when it is all over, there will be a general opinion, upon very excellent foundations, that both those who had purchased stands and those who paid to come in and see them had alike obtained excellent value for their money.

This, of course, is precisely as it should be. No matter how the accounts of the enterprise may be subsequently found to balance, the fact remains that an exhibition of this sort must "cut both ways"—it must be of benefit to all concerned, offering an exceptional opportunity to the public to review wireless progress as a whole, as well as a chance for the industry to bring forward its new ideas.

Between You And Me And The Microphone

Conducted by Jack Plugge



NEXT TO BRITAIN, Germany has the largest number of license holders in the world, the former having over two million licensees and the latter 1,258,192.

MISS F. V. WALLACE, Australia's only woman radio experimenter, and the only lady in N.S.W. to obtain a Diploma of Engineering, has joined the staff of Messrs. David Jones' radio department.

AN OFFICIAL return lately to hand shows that the exports of American wireless apparatus to Australia last year attained a value of £155,096, as compared with £210,540 in 1924, and £42,042 in 1923.

IN AMERICA, people think that men are more suitable for radio announcers than women; that is, according to 93 per cent. of the listeners who were recently asked for their opinion.

"WE HAVE HAD a 3LO Bride, Kiddies Competition, a 3LO Girl—now what about the greatest of all, a 3LO Mother," writes a correspondent to 3LO. "I would suggest two sections—one for mothers over 60 and unshingled, and one for mothers who take their daughters as chaperones."

THE CUSTOM in Great Britain of allowing the blind to listen to broadcast programmes without payment of a licence fee has been taken a step further in Danzig, where the fee is remitted, and the G.P.O. has organised a fund to provide sets for the blind.

THERE ARE NOW 543 radio transmitters in Canada. Of this number 67 are broadcasting stations, another 67 hold communication with points abroad or in the Dominion, and 356 are operated by amateurs or experimenters. The remaining stations are used for communication with ships, and to provide an "aid to navigation" service.

LOVING WIFE! "I know you'd like something for your wireless for your birthday, John. What do you say if I buy you a new earth?"

RADIO SHRINKS THE EARTH! (Huddinge Provincial Paper). The country amateur who had to walk six miles to get his battery charged said this was a fallacy.

A BULLOCK DRIVER is reported to have a vocabulary of only about 300 words. It has been suggested that he should take up golf, or perhaps install a wireless set.



Truth is crueler than caricature according to the wise men, but even at the risk of being deemed unwise we refuse to believe that this is true in the case of the above drawing, sent to 2FC by an admirer of Mr. F. C. Cochroone.

RADIO COMEDY will never be really popular until somebody invents a method of broadcasting a custard pie.

IT HAS BEEN SAID that broadcasting has a tendency to kill new songs before they are really born. Another factor in favour of broadcasting.

RADIO SETS are to be installed on a number of trains in Germany. This is a step forward in the history of radio.

IN BERLIN RECENTLY nearly two hundred listeners were fined for operating wireless sets without licences. If the listener could not pay he was sent to gaol for fourteen days.

Small Boy (Listening-in): Father, I've got Hong-kong!"
Father: "Oh, I expect it's only a motor-car in the street outside."

IN HOLLAND any telephone subscriber may listen to broadcasting without possessing a receiving set for the sum of 30/- a year. The Paris, Daventry or Hilversum programmes are picked up centrally, and then transmitted to all telephone users who subscribe to the service. If the phone is needed in the middle of a programme, the broadcasting is automatically cut off.

THE GOVERNMENT of Mysore State (India) is considering a scheme for educating the rural population by the installation at different places of broadcasting stations, and the distribution of receiving sets to the public for the purpose of listening to popular lectures.

WHEN TELLING the bedtime stories, Uncle George has informed the children that he is prepared to name anything—pet lambs, cats, dogs, ponies or goats—but he was rather surprised a few days ago when he was asked to name a baby. It transpired that an argument had broken out as to the baby's name. Grandfather wanted it "Benjamin," and Uncle George decided that Benjamin was a beautiful name. He pronounced it with gusto over the air several times by way of allowing listeners to hear what a nice name he had chosen. The baby's parents were delighted and expressed their pleasure by christening the infant Allan. Uncle George is now waiting for the next baby that is looking for a name.



Randwick, as seen by the 2FC Racing Commissioner, when describing a race.

ONE morning recently I was listening to the Morse message coming through from Rugby. I heard it quite solemnly notified that the BBC was, on the following day, to bring in a great innovation in broadcasting—the description of a Rugby football match between England and Wales at Twickenham.

I smiled to myself and wondered if I had heard rightly—"describing a football match an innovation in broadcasting." This led me to look back on what a great part sporting events have taken in wireless in Australia and how far advanced utility broadcasting is out here, compared with other parts of the world. I am not writing at random on that matter, for I have taken a direct interest in radio transmissions in no less than twenty-eight different countries, and I believe that not one of them caters so fully for descriptive sporting as Australia. Racing (both horses and ponies), football in four codes, polo, tennis, cricket, swimming, motor racing, sailing and rowing, are covered in the programmes as the particular sport is in season.

The "Sport of Kings" naturally takes pride of place, as it knows no "out of season." On sixty-two racing days in the year listeners to 2FC can hear the full programme of races described from such courses as Randwick, Rosehill, Moorefield, and Cun-

terbury Park. They are told of every detail in the racing as it takes place on the course. On other days, both the results from the horse and pony courses are broadcast as each event is finished. In this way some three hundred meetings are dealt with in the year by that station.

Then comes international and interstate cricket. A special staff is detailed to describe every ball bowled



*Mr. M. A. Ferry, 2FC
Racing Commissioner.*

in Test and Sheffield Shield matches, while a running commentary on the sidelights of the game is the order of the day from 11.30 a.m. until 6 p.m.

Football is popular on the air—so popular that not less than four codes are described while the play is in progress. Rugby Union, Rugby League, Soccer and Australian Rules present no difficulties in describing for the 2FC sporting staff, and the thrilling accounts of the interstate matches are a feature of broadcasting. Nearly two years have elapsed since 2FC first described an All Black versus N.S.W. match. On that occasion some of the New Zealand papers issued special editions with a full description of the match as received from the air. The "innovation" from 2LO London is, therefore, two years behind what is now a regular feature from 2FC.

Tennis, polo, motor racing, swimming, sailing and rowing are all described as the events are in progress, each by an expert who conveys to the listener such a word picture, that it is a small matter to visualise the actual scene taking place in the view of the announcer. The sporting side of broadcasting from 2FC has become such a feature that it needs a special staff of announcers and operators to cope with the continual daily descriptions from courses, and playing fields. There is nothing hap-



Hubert Opperman, the all round champion racing cyclist of Australia, broadcasting from 3LO during training hours.

bazar'd, all the clubs and bodies controlling the various sports having to be regularly approached for permission to take their events, and programmes arranged long in advance.

It is not difficult to understand that great demands are made upon the office staff in the way of correspondence and telephone calls, in coping with sporting enquiries. Letters and telegrams reach 2FC from all over Australia in commendation of its progress in utility broadcasting. The following sample of a telegram from the other side of Comabarwan is typical: "One hundred and six in the shade here sitting on front verandah listening to cricket descriptions, think am on Sydney Cricket Ground, many thanks." Here's another from Coonamble: "Shearing presented me getting Randwick, but am missing nothing, your descriptions wonderful." Just an extract from one letter written by a Sydney man, "My wife who was once a very keen follower of cricket has asked me to thank you for your wonderful description from the Cricket Ground. She is blind now and cannot go to matches with me. But her great consolation is to tune to 2FC and hear all the details of the game." Anything from eighty to one hundred hours a month are devoted to sporting by station 2FC who recognise that sporting events go to make up a very important part of the utility side of broadcasting.

3LO, Melbourne, has a large following of sporting enthusiasts and has given special attention to amateur athletics.

the right to be called "The Champion." Nowadays these champions give added publicity to their country, and in most cases these games are of more value in this direction than years of political propaganda could ever accomplish. To a young country such as Australia, this publicity is invaluable, and one has only to mention the case of "Boy" Charlton's efforts at the last Olympic Games to know how the world in general realised that Australia, after all, was worthy of a place in the front line of nations.

Naturally, there is keen competition for the honor of representing the country at these games and although the next meeting at Amsterdam does not take place until next year, many athletes have started training in earnest, hoping they may have the honor to represent Australia in the dual role of athletic representative and "publicity ambassador." At various athletic meetings to be held throughout this year, many of these respective representatives will be participating and competition will be keen. Since 3LO, Melbourne, has announced their offer to donate silver cups to the value of £5/5/-, competition will be keener and the offer has created great interest in sporting circles. These cups will be given to athletes registered with the Victorian Amateur Athletic Association, who, at any time or any place during 1927, break an Australian record, which in due course is officially recognised as such.



Billy Grimes, Feather, Light, and Welter weight Champion of Australia, broadcasting from 3LO. Behind him is Frank Brown, the well-known sporting writer.

Stunt Broadcasts are Big Feature of 4QG

Lack of variety in Brisbane entertainment causes 4QG officials to rely on their inventive powers for novel programmes. That is why some of our best stunt broadcasts have come from 4QG

THREE is no type of transmission which seems to appeal more to listeners generally than the form of broadcasting known to most radio stations as "stunts." A "stunt" broadcast consists of the transmission by radio of something novel, and perhaps, the fact that "stunt" transmissions themselves are novel, is the real reason for their popularity.

During the past two or three months, 4QG has devised and effected a series of "stunts" most of which have been attended by satisfactory results. In other parts of Australia other stations have also included stunt transmission in their programmes, but in Brisbane, where there is not so great a variety of entertainment from which broadcast programmes may be drawn, the officials of 4QG have been compelled to rely a good deal upon their inventive powers for the provision of novel and attractive items from the 4QG.

On several occasions descriptions of band route marches through the streets of Brisbane have been broadcast. A microphone has been mounted at some particular post and an announcer stationed at it. As the marchers have progressed, the announcer has described them and the music of bands has been heard, faintly at first then louder as the bands have approached, and then faintly, as the bands have died away.

Some little time ago, a full description of Queen-street, Brisbane, was given by night time, and the incidental street noises were broadcast. This was not much of a novelty for the city and suburban listeners, but was greatly appreciated by the country listeners.

One of the most successful of all "stunts" effected by 4QG has been the superimposing of speech and music from different points on the station's carrier wave at the same time. The idea for this is not claimed by 4QG, but the high state of perfection which has been reached in connection with it is certainly due in a great measure to the careful research work by the station's engineers. On numerous occasions the Hotel Carlton orchestra has played an accompaniment in the lounge of the Carlton, and vocalists have sung in the studio at 4QG. The



The Sandman, of bedtime story fame at 4QG, answering the birthday letter written to him by the little bird.

two sets of music have been superimposed, and it has been impossible for listeners to detect that singer and orchestra were at widely separated points.

The Radio Motor Hunt, which was recently conducted by the station, was one of the most novel transmissions yet effected in the Commonwealth, and was surprisingly successful. The whole of the details in connection with it were carefully invented and planned out at 4QG for some weeks before the actual stunt was "put on the air."

The station recently sent a party down Moreton Bay in the Government steamer "Champion" and an announcer made a descent in forty feet of water. The words spoken by him at the bottom of the Bay were broadcast. As a "stunt" the undertaking was quite successful, but the voice of the speaker was not very clear, owing to the long length of submarine cable over which the speech was conveyed. The transmission gave the listening public, however, some idea of the possibilities of radio.

Most people read newspapers, books and magazines every day of their lives, yet comparatively few know just how they are printed. Recently 4QG installed portable apparatus in the factory of the Read Press, in Brisbane, and gave a full description of the printing of a magazine. All the noises made by the machines were

faithfully reproduced.

Electric light and power now play an important part in man's life. Without power supplies there would be no broadcasting. Every listener is, therefore, interested in power, and 4QG gave a description some little time ago of the works of the Brisbane City Electric Light Company. This description was broadcast direct from the new power house at Douglas Creek.

On several occasions lately the arrival and departure of steamers has been relayed. The Commonwealth liner Moreton Bay—a vessel whose name made broadcasting from her decks specially suitable for transmission by a Queensland station—was described, microphones even being taken down into her engine room and stokehold.

During the next few weeks some very novel "stunt" transmissions will be effected by 4QG. One of these is worthy of special notice. It will necessitate some very careful work on the part of the engineers, and the scheme underlying it is quite novel, not having been attempted in the Commonwealth before. Station 4QG will give no details of this scheme, and does not even propose to include details of it in the published programmes. The "stunt" is to be kept secret until the night in question, and should, therefore, give listeners a very pleasant surprise.

The Safety Valve

A department in which readers are invited to relieve their feelings by commendation or condemnation of broadcasting stations and their programmes. All letters must be addressed to "The Safety Valve," Wireless Weekly, 51 Castlereagh St., Sydney.



NO MORE GOOD MUSIC

Dear Sir.—As radio becomes a really ubiquitous hobby, to give it a humble title, which it has indeed already outlived, inquiry is being more and more intensified into its likely effects on education and culture. Although the most diversified opinions have been expressed, to those who preface their statements with a little thought there is one outstanding trend of development which, if continued, will eventually have a most deleterious effect on our moral and educational standards.

At first almost imperceptible, the decline of good music has been accelerated during the last month until at the time of writing I can only find one item of really high-class music in the programmes for the week. By high-class music I mean the works of the world's greatest composers, and not the better-class ballad writers.

This dearth of good music is more serious than is at first realised, for the studio directors attribute it to the demands of the public. Most of the music at present broadcast is not of the type wanted by the public—it is the type demanded by those who write to the studio directors, and these people are not representative of the average citizen.

If the B.B.C. compiled its programmes according to the indiscriminate writings of a critically minded section of its listeners, under the misapprehension that these correspondents represented the average man, it would surely seem to them, from a glance at their own 2LO programme, that the average Londoner had been educated in the higher musical circles of Vienna, Rome, and Paris.

Our trouble is that our programme directors take their letters too literally, failing to recognise that the average correspondent does not know enough about music to know what he wants. There is a great body of people who are reticent when it comes to expressing their modest views on the programmes which, they realise, please others if they do not please themselves. These good people have no one else but themselves to blame for the cheapening of the programmes.

Since blatant voicing of their own

interests is the only way in which to attract the studio director's attention, I appeal to them now, if they wish for better class music, to come forward and say so with me.

Yours, etc.

PAUL JENNINGS,
Rockdale.

ARE YOU MUSICAL?

Dear Sir.—Realising that it is an impossibility to please everyone at the same time I would suggest that listeners be divided into three sections, the unmusical, the musical, and the super-musically educated, and programmes be arranged accordingly.

By the unmusical I mean those who can listen without squirming to the "Prisoner's Song" as sung by a "baritone," or sentimentally descriptive fash as put on the air by 2BL recently, in the pathetic ballads, "Give Me a Ticket to Heaven" and "Just Someone." God help this section—they were born musically colour blind. The musical section, I would say, are those who appreciate the better class of music, but do not thoroughly understand the classics. The third class consists of those who do understand the classics. I would put down the percentage as follows:—Unmusical, 20 per cent.; musically educated, 60 per cent.; super musically educated, 20 per cent.

Why spoil night's entertainment for the unmusical by making him listen to a comic song; or why not split the weeks up, say, three nights for the unmusical and four nights for the musical?

Yours, etc.

R.D.W.

Neutral Bay.

DIDN'T PLAYFARE.

Dear Sir.—I think it is most unfair of Playfare (W.W. 11/2/27) to criticise. It is one thing to listen-in and another to direct programmes, and if Playfare did not like to listen-in to the 2BL Motor Hunt, well, there are other stations he can tune in.

Yours, etc.

H.W.

Wollongong.

DAYLIGHT RECEPTION IMPOSSIBLE.

Dear Sir.—Replying to Mr. Sutton's letter (W.W. 4/2/27), regarding short wave reception and static. Experiments in this district have proved that daylight reception of 2FC on short waves is now practically impossible, in comparison with their previous long wave transmissions. Night reception, however, has improved 100 per cent. I would also like to substantiate A.W.P.'s remarks on 3LO. This station is unequalled in Australia. Ask any country listener which station he prefers, and it is certain that he will say 3LO. Our local stations might gain much by listening to 3LO for a few nights.

Yours, etc.

BLOOPER,

Ullmarra.

POOR NIGHT RECEPTION.

Dear Sir.—Here in Maitland we receive 2BL and 2FC excellently in the daytime, that is, from 10 o'clock in the morning till 7 o'clock in the night. But from 7 to 11 in the night they both blur and choke all the time, and you cannot get one clear item out of the whole night's programme. I have been to several listeners in different parts of the town, and they all experience the same trouble.

This is a coal mining district, and 70 per cent. of wireless receivers are owned by mine employees. A mine employee leaves home to go to his work between 5 a.m. and 7 a.m., and returns between 3 and 4 in the evening, because of this trouble he receives about one hour of decent programme during the week—4 to 5 o'clock from our local broadcasting stations, and Saturday evening and all day Sunday.

Only since 2BL increased its power to 5000 watts and 2FC lowered its wavelength to 442 metres that their night programmes have blurred.

Yours, etc.

"FED-UP."

Maitland.

I HAVE always loved music, and I have always lived with music, and, to me, it has seemed a necessity in life's routine, just as necessary as daily food. I can just remember my father and his violin; and I am told, by those who knew, that his playing was musically, with that rare and exquisite heart quality, that could never fail to move an audience.

In this connection, my mother used to tell a story of the good, old Australian days, when my father was just a youth; and how he once played to a remarkable audience. He was going across country, carrying his instrument, when he was captured by the Kelly Gang, the brothers notorious in their day as bushrangers. He was taken to their camp, and ordered to play. There, he so pleased his hearers that they quite forgot the passage of time, and their respective roles of captors and captive. When the moon rose high in the heavens he went on his way again, parting from his strange audience of rough outlaws with many expressions of goodwill. Truly may it be said, "music hath power to soothe the savage breast."

From an early age, I loved the music of the great masters, and I was always trying to play just that which seemed quite beyond me. When I commenced to study piano forte at the age of seven, I flatly refused to learn the "Blue Bells of Scotland," saying that I should much prefer to learn Schubert's "Erl King," an arrangement of which I had heard played.

It seemed natural that when the time came for me to go out into the world, I should gravitate to a music publishing house, and so it happened. So with work, as with recreation, music became my most serious pursuit. In 1924, after appearing as pianiste for the last Zucharewitsch recitals, in Sydney, an opportunity presented for a tour of the U.S.A., and I accordingly sailed for San Francisco in December of that year. After a stay of a few weeks in both Honolulu and California, I proceeded to New York City, where, save for a few trips to other parts of New York State, I remained for a period of fifteen months.

Among the artists I have appeared



Madame
Evelyn
Greig.

Impressions At Home and Abroad

By Madame EVELYN GREIG

Exponent of Better Class Music at 2FC

with are Zucharewitsch, the eminent violinist, Mlle. Delmas, a charming young singer who will, one day, astonish the world in opera, Mme. Bogacha-Beerman, a Polish soprano, late of the Chicago Opera Co., Godfrey Ludlow, Australian violinist (before the microphone), and Mme. Leon Caron, French-Australian, and the daughter of that fine musician so well known here, the late Leon Caron.

My experience and reminiscences of New York, musical and otherwise, would, no doubt, fill a large-sized volume; for I have seen, have heard, and have met some very interesting people, artists, composers, and musicians. My experience included coaching singers at the Metropolitan Opera House on Broadway, lecturing and playing for the Board of Education in the New York schools, and I played a great deal of broadcasting mostly for stations WOR, WJZ, and

and probably still are, the two leading stations. The studio of WEAF in the sumptuous building of The General Electric and Telephone Company, is most luxuriously fitted, and well managed. Everything possible seems to be provided for the comfort and convenience of artist or performer, or of the staff; and everything also, as far as I could judge, that would make for perfection of transmission; for instance, the studio grand piano is one of the best instruments obtainable (which is very comforting to the pianist). "Mike" seems to be the same sensitive little entity there as here. I must tell you that my Dulcetone proved quite a novelty, both in concert work and on the air, and I gave some dulcetone and violin recitals with Godfrey Ludlow. When Mr. Ludlow plays the violin for WJZ (where he is a permanent and very popular artist) he literally seems to hug the little thing (not "Dulcie," I mean "Mike"), and certainly his Stradivarius comes over the ether with a most gorgeous and rich tone.

The programme supplied by the two principal stations comprise some of the finest artists and music in the world. Particularly excellent is the Attwater Kent Hour on Sunday evenings, when

this great radio firm would engage, among other artists, the pianist, Josef Hoffmann, among violinists Szegedi, and Zimbalist, and singers such as our own Florence Austral, John McCormack, Lucrezia Bori, Frieda Hempel, Anna Case, Marion Talley, and that grand old artist Mme. Schumann Heink, to give their best to the great invisible audience. For the audience is a large one indeed. In most American homes, of both rich and poor, a set seems to be installed.

In conclusion, I would say that in common with so many who have left home for a time, I returned with the realisation that although there is much that we may learn from the older countries, Australia is a wonderful place, and I do hope that the day will come soon when Australians will awake to the possibilities, and the great and wonderful opportunities that await us in this sunny land of ours.

Victoria Has Half Licences in Australia

VICTORIA has more radio listeners-in than all other States of the Commonwealth combined. There are 193,542 registered listeners-in, and of these 101,635 are Victorians. These figures are contained in the monthly wireless report issued by the Postal Director (Mr. Brown). The report shows that Victoria has twice as many listeners-in as New South Wales, and that during January alone on three times as many new licences were issued in Victoria than in N.S.W.

Total licences in force in the various States are—Victoria, 101,635 (6.2 per cent. of population); New South Wales, 50,301 (2.2 per cent.); Queensland, 20,082 (1.3 per cent.); South Australia, 15,169 (2.7 per cent.); West Australia, 4,037 (1 per cent.); and Tasmania, 2,008 (0.9 per cent.). For the whole Commonwealth, 3.2 licences are in existence for every 100 of the population.

Reckoning that there are five listeners to each licence, SLO Melbourne is faced with the problem of pleasing half a million people with half a million different tastes. The work of adjustment must be done in the light, not of a sudden dash of revelation, but by gradual experiment, or rather a never-ending series of experiments. Each new idea, radiated into the ether, awakens answering flashes of appreciation here and there as it meets with people to whom it makes appeal. On the other hand each of such experiments provokes to annoy those thoughtless folk who think that for their license fee of 1d. a day the entire programme should be addressed to their listening souls.

One melancholy discovery SLO has made—that is the number of people who resent any attempt being made to educate them. In future all talk, or all except a very exceptional few, will be before eight o'clock. The enthusiasts who are really interested in "finding how the wheels go round" in this branch of knowledge or that, will get through the washing up early. Certain changes of policy have been tried of late which should give widespread satisfaction.

A programme of 500 items a week makes a heavy demand on the available talent of the city. On the other hand, broadcasting is an excellent means whereby young struggling artists of ability may make themselves known. To listeners of artistic discernment, the task of making their own discoveries is full of interest. To most people, however, the enjoyment of an item is enhanced by its being the work of a person with a well-known name. They know then how much they ought to enjoy it. And, of course, there is an evenness

Latest licence figures show an amazing increase in the number of broadcast listeners in Victoria. There are twice as many licences in that State as there are in N.S.W.

about the work of a tried professional than the inexperienced performer, however brilliant, cannot achieve.

SLO, therefore, has adopted the policy of engaging well-known artists from the Tivoli and other theatres. Such performers have been very shy of broadcasting since its inception, and require the inducements of high fees and contracts. The theatrical fear of the wireless is beginning to decline, as it is becoming realised that if the people like an artist's performance when they hear it in the drawing-room through the wireless, they will be the more apt to turn out and get the full flavor of the performer's skill and personality in the theatre. For country people the new development is particularly important, for they they can hear much of the best talent that is passing through the metropolis. This, at present, is very great, for, since the war, the Australian public has become one of the best theatrical markets. Australia's prosperity is regarded with envy and longing by the lands more hardly hit, whose people, more experienced artistically, and many of them, no longer afford the money that the stars of the concert hall and theatre desire.

With a good set, the farmer or the country doctor may feel that his family may grow up to know good music, and that a perpetual flow of it is available for their training in appreciation. Such talk as Dr. Floyd's that helps people to appreciate music who have never had the time nor inclination for the drudgery of learning to perform, open up whole new worlds of pleasure and inspiration.

SLO HELPED FIRE FIGHTERS.

Once again wireless has demonstrated its tremendous value as an agent of safety. The world first thrilled to its possibilities when a ship in distress called for help in the Atlantic and the call was answered by other boats, with the result that all lives were saved.

Since that early episode, salvation at sea has become almost a commonplace. Last Friday, I happened to be making holiday in the country, when the announcement of the disastrous fire at Warrandyte and the surrounding districts was made

by SLO, and a call for volunteers was made. Once again the people listening thrived to the enormous possibilities of the invention that can send its warning call over the whole countryside, and concentrate at threatened spots the men and material necessary for fighting the flames.

Throughout that whole day and the next the police and SLO worked in co-operation. Without the help of the station, it would have been a matter of great difficulty and time lost to have gathered the fire-fighters together at the required places.

The rule of Paul Revere to rouse the minute men of Lexington has been sung in story and rhyme. His name has come down to posterity. Wireless has rendered all such deeds unnecessary and out-of-date. The centuries have been bridged by this most remarkable invention, and now the country-side is crossed by a voice speaking from a distant city. It is necessary that we should think, from time to time, of the sheer wonder of this thing, so easy is it, in this marvellous age, for us to grow used to miracles.

RACING AND FIRE.

On Saturday afternoon 'Musket' of the Sporting Globe had an emergency to meet. Instead of waiting to describe the progress of the races, he had a noble theme to his hand in the conflagration that destroyed the Fairways Stand at Caulfield. It was an unexpected treat for listeners thus to get the first-hand information of such an exciting episode. The 'double' of fire and racing went through the air to the four corners of Australia, and were so graphically described, that it must have seemed to the out-hacker a couple of thousand miles away as if he were gazing on the scene of ruin, before which the horses flashed in their tasks. It is this catching drama as it flies that makes the radio such an inexhaustible source of interest. The world and its whirling events are thus brought momentarily before the eyes of listeners. No longer need they wait tedious hours for newspaper and mailbag.

The surprising thing about the Caulfield episode was the nonchalance of the people. It was only with difficulty they could be got to move from the burning stand. Nothing could better illustrate the hold racing has on men. This nonchalance could be read from 'Musket's' story, for it must have surprised listeners to learn that the fierce fire on the stand had no effect in stopping the racing. What a pity SLO was not operating while Rome was burning. They would have broadcast Nero's fiddling, as well as the shrieks and cries of blasted Rome.



Francis Halls,
2FC basso.

THE GREAT WELSH DAY of St. David, on Tuesday, March 1, will be celebrated at 2BL by a special concert broadcast from King's Hall.

MRS. ERNEST WOOD recently returned from New Zealand after an extensive lecture tour, and is giving a series of talks from 2GB. Her talks will deal with the customs and manners of women in the various countries she has visited.

OLIVER KING BACK: Oliver King left for England last year, and has had many broadcasting engagements, both in America and England. He returns to Australia this month, and will be heard, no doubt, through 2FC, with whom he broadcast before he left.

RADIO EXHIBITION: Programmes presented by the broadcasting stations at the Radio Exhibition, Sydney Town Hall, have given a great deal of pleasure to the crowds of people who have visited the display. 2FC have spent no time or expense in getting together a wonderful array of radio talent, and the seven programmes they have supplied at the exhibition come to an end on Wednesday, 2nd, and Thursday, 3rd March. On the evening programme for Wednesday, 33 artists will be before the microphone, in the space of one hour, including a brass band, a dance band, a steel guitar orchestra, and solo artists.

IT'S ALL IN THE AIR

*Coming Features in the
Broadcasting Programs*

FOR THE CHILDREN: Bedtime Stories from 2BL comprise one of the most entertaining of the Station's programme. Uncle George, who has long been a favourite with the children, will entertain them as usual on Mondays, Tuesdays and Saturdays. On Wednesdays, Fridays and Saturdays "Daddy Long Legs" and "Little Willie" will take their listeners on imaginary world-tours in their famous "Hello Lizzie."

MISS ANNIE HUGHES LEAVES FOR LONDON: This well-known English comedy actress has been associated with listeners to 2FC for the last two years. She has written between forty and fifty sketches specially for the Station, and in her time has played many parts. Owing to a sudden family bereavement her plans have been altered, and she will say "Farewell" to listeners from the 2FC Studio on Monday, 28th February (the night before she sails).

COMMONWEALTH SILVER BAND: This combination of professional musicians, which is now in New Zealand, is being brought specially to Sydney for a starring engagement with Haymarket Theatre, and it is hoped that they will be heard on the air from this Theatre on Monday, 28th February. After their Sydney season, they proceed to Canada, for heavy bookings in connection with the exhibition organised by the Canadian Pacific Railway.

CARTOONS ON THE AIR: Air drawings are becoming not only feasible, but popular. Listeners to 2FC will remember the series given by Nevin Tousseau, the Poster King, followed by the series of Kerwin Maegraith, cartoonist, and now one of Australia's premier Knights of the Pen, will commence a new series on March 3rd, when Harry Julius will come before the listening public. These will be run for three Thursdays, and space will be allotted in the "Evening News" on those nights, so that listeners can record their efforts, and send them in to the Studio, thus competing for the prizes to be offered. Mr. Julius has a ready sense of humor, and keen enjoyment from these competitions is anticipated.

FRENCH TALKS: Even the most enthusiastic advocate for talks on the air would admit that any continuity of talks, in the French tongue, would not make popular appeal. But if these are judiciously employed, quite a lot of interest can be aroused. Take, for instance, the French Talks arranged over six or eight weeks, given by M. Maurice Byrn from 2FC. Here is the type of speaker, who although essentially French, meets the requirements of the listening public. On March 3, instead of a rapid fire of French conversation, he will approach the subject from a totally different angle. He will write a little story of the sojourn of a Frenchman through Paris with an Australian as his companion, and these two at the Studio will add much to the amusement of listeners, showing how French is "spoken." The Aussie, with all the cheerfulness and mispronunciation of his race, will tackle in French the names of some of the well-known streets and places which we all can read easily, but cannot pronounce, and his French friend will put him on the right track, at the same time letting listeners enjoy the instructive conversation.

JACKASS VERSUS IMITO: The competition between Corporal Phillips (Imito) and a laughing Jackass held at 2FC was only a partial success. The Jackass had been trained to do his stunt at the call of his owner, a young lady, and one of the difficulties of the competition was that several times when she gave him the signal, her voice was heard by listeners, who could therefore be in no doubt that it was the bird who was chirping up. Corporal Phillips, moreover, was not a bit nervous, but Jacky was markedly so. Brought to the studio in a box, he became very frightened when taken out into the glare of the electric light, and the unfamiliar surroundings of the studio made the bird anything but at his ease. Some of his laughs were first class, but others were quite disappointing. Great interest was taken in the competition, and Farmer's have sent to correspondents several hundreds of postcards bearing the picture of the laughing jackass. Jacky is to have another trial at the broadcasting station, but he will be schooled up a bit before his next appearance.

JOE ARONSON: Every artist has a reasonable amount of "mad" at 3LO, but it would appear that Mr. Joe Aronson gets more than his share. Budgets of letters continue to pour in at the Studio testifying to the enormous success of the cleverly artistic musical combination the "Syncopating Symphonists," and, although their jazz is, as every one knows, "par excellence," their skillful rendering of Classical Melodies leaves us still wondering.

LILIAN FROST, WELL-KNOWN ORGANIST, DEPARTS FOR LONDON: Another—shall we say "old"—identity in the musical life of Sydney, in the person of Miss Lilian Frost, leaves Sydney for a well-earned holiday, early in April. Miss Frost has completed the Herculean task of providing her 52th midday organ recital to the people of Sydney from the Pitt Street Congregational Church. She has been heard on the air more than any other organist in the State, and her selections on the grand organs at the various concerts held at the Sydney Town Hall run into thousands. How many friends are getting together to decide which is the most effective way to give Miss Frost a send-off, and as many opportunities as possible will be given by 2FC, to the listening public, to hear Miss Frost on the air before she leaves. Her midday recitals will be broadcast on 2nd and 9th March, as will her final recital on March 30th.

MALE CHOIRS: Very few items broadcast better than a body of well-trained male voices, as witness the Royal Sydney Apollo Club, which has been broadcast by 2FC for the past eighteen months. Arrangements are being made, whereby the Illawarra Choir, composed entirely of miners, will be heard in Sydney on March 6th, and it is hoped 2FC will be able to put this performance on the air, for the benefit of many thousands of appreciative listeners.

MORE COMIC OPERAS TO BE HEARD: Listeners, are you tired of hearing comic operas on the air? Some time ago, the Stations were told they were not giving enough, but this charge can hardly be laid against 2FC, who have consistently arranged for these transmissions. "High Jinks," arranged by the Kuring-gai Operatic Society, will be heard by listeners from the Chatswood Town Hall—portions of the 1st Act and last Act on Tuesday, 8th March, and the 2nd Act on Saturday, 12th March. Then that screaming farce of "The Boy," written from Pinero's play "The Magistrate," with Lance Lister in the part of "The Boy," will be given by the Railway and Tramway Institute, from the Institute, on Saturday, 12th March, when the 1st Act will be taken. Roseville Operatic Society are hard at work on "Gipsy Love," and this is promised early in April. Monman Musical Society has "Lilac Domino" well in train, and this is expected towards the end of March, so here are four of the most popular comic operas awaiting an eager audience.

"UNCLE GEORGE RETURNS!" How great an interest the children—and in some cases the adults too—take in a person they have never seen, was demonstrated during the recent holiday of "Uncle George," who nightly entertained listeners-in to 2BL. Having announced his route, "Uncle George" continually had to pull up his car during a tour of the South Coast to meet the wishes of the many children who wanted to see him and talk to him personally. Incidentally while visiting the Wulagaa Lakes (Aborigines Reserve near Tiba Tiba), "Uncle George" was able to obtain, by means of a collection among the party of tourists, a sum sufficient to enable a large listening-in set to be given to the aborigines. There are about 60 adults and 30 children in the settlement and, as time hangs heavily on their hands, the gift was greatly appreciated.

OSBORNE AND PERRYER: Three welcome back to 3LO are Ben Osborne and Nellie Perryer, who have returned for a short broadcasting season after having had a successful tour in the west. The contributions of this clever duo, comprising as they do, some delightful "cockney" studies in which pathos and humor are cleverly mingled, are too well known to need much comment. Suffice it to say that listeners will be glad to renew acquaintance with their old numbers, and look forward with keen anticipation to hear some of the new ones they have in active rehearsal.



"It's the best Show we've ever organised" said the Radio Exhibition in one voice as this photograph was taken.
Back row (left to right) A. Robinson, C. C. Faulkner, manager, R. C. Marsden, P. H. Phillips, G. L. Owain,
P. H. Pettyfor (chairman), C. Ives, R. Burgin, H. E. Buckingham-Lucas.

Front row: W. J. Wing, A. A. Gallup, A. O'Brien (assistant secretary), H. W. Botter, F. Ainsworth, C. A. Wilks,
N. S. Gilmore, A. E. Pepper, J. H. Greenwood.

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Magnavox One Dial Five Valve Receiver

THE other day we visited the showrooms of Messrs. Mick Simmons, Ltd., of Haymarket, Sydney, and were shown several models of the Magnavox Five Valve Receiver. The receiver itself takes up a very, very small space indeed, actually being built in a small drawer in order that it may be fitted into different cabinets to meet the taste of the prospective owner. Many and different were the designs of cabinet work, and we feel certain that a person would be fastidious indeed if he could not decide on one to suit his requirements. One model in particular which took our fancy is known as the "Berkeley" Model. This model is very pleasing indeed to the eye, the cabinet being of the highboy type of two-toned mahogany finish. The receiver itself is situated centrally in this cabinet and the speaker is built in above the receiver. Beneath the set is a spacious compartment for all the batteries and accessories. Two nicely polished doors on the front can be used to close in the top portion of the cabinet which is resting on a neat little table with nicely-turned legs.

We were invited into a well-designed Audition Room, in which this excellent receiver was demonstrated. The results were very gratifying indeed, the tone quality surpassing any other radio receiver to which we listened. Different models were exhibited and prior to taking our departure we expressed a wish that one should be sent us for test purposes. This was gladly acquiesced to and it is concerning the test of this receiver that we wish to tell you something.

The receiver was delivered to Marickville splendidly packed, indeed, complete with five Magnavox valves, one of which being a power valve, the required Winchester B. batteries, Clyde Accumulator and Magnavox Loud Speaker. Opening the carton displayed the receiver drawer in which is built the receiver. The actual dimensions of this drawer proved to be eleven and three-quarter inches wide, seven and a half inches high by twelve and a half inches deep, thus making it eminently suitable for sliding into a gramophone cabinet.

Looking down inside the drawer all that can be seen is a three gang condenser arranged around which are the five valve sockets. Everything else is sub-panelled and, therefore, out of sight. On the front of the drawer there is centrally situated a large tuning dial above which is the window showing the wave lengths from two hundred metres to five fifty



Details of another commercially built receiver tested by the Technical Editor. The illustration above shows the drawer in the cabinet containing the set.

metres. This wave length scale is operated by the dial immediately below, and the fact of the calibration in wave lengths is very, very interesting indeed, as most enthusiasts know the wave lengths they desire to receive, rendering tuning absolutely simplicity itself. Two other small knobs attract attention. One on the right actuates a volume control, whereas that one on the left is used as a switch to switch off all the valves when the set is not in use. Nothing else is seen in the front of the drawer, neither jacks nor terminals of any description.

Certainly the first impression indicated that the receiver was one of a very high order and to prove this for ourselves we set about connecting it up to the batteries, etc. Provided with the Magnavox receiver is a battery card with tags branded with the battery position in each instance. Following out the instructions in the booklet these batteries were connected up to the cable and a multiple spring socket at the other end of this cord fitted snugly into the acceptor in the set. This socket and acceptor is so designed that it is absolutely impossible to get the batteries connected mixed up, thereby eliminating any chance of burnt out valves. This is a very good feature, as the average man in the street does not know an A battery from a B battery, and the consequences which result when these batteries are wrongly connected.

The aerial and earth were connected and the valves inserted in the respective sockets, the speaker being provided for at the back of the

drawer. On turning the battery switch to the "on" position and rotating the main tuning dial until 350 metres were showing, in came Broadcasters (Sydney), Ltd., with remarkable volume and a glorious quality of tone. The tone control proved its value, but at no setting of this control did raucous result. Melbourne, the 3LO station, was easily found on its wave length setting on the dial, and there was absolutely no sign of 2BL during the whole of the reception. I called other interstate stations and the volume was truly splendid, and the little Magnavox speaker showed itself to be a most wonderfully mellow tone reproducer.

Although only a small fraction of the dial separated 4QG from 5CL both these stations were very pleasantly received on the speaker at full strength without any sign of each other. 2FC, Sydney, and 1YA, Auckland, were separated nicely and 3AR could be heard as loudly as 3LO. Not once on any station was there any sign of a whistle or a squeal, only the beat of quality reproduction being heard on the speaker.

At two fifteen one morning three Victorian amateurs were tuned between two hundred and two fifty metres, tuned in on the speaker, mind you, not the ear 'phones, and the party who listened to it expressed wonderment of the tone qualities from even these low-powered stations.

As a first-class broadcasting receiver the "Magnavox" would be very hard to beat. It conforms to all the specifications of a high-grade receiver and Messrs. Mick Simmons, Ltd., have a wonderful product in this receiver. We understand it is on view at the Radio Exhibition.

JACK DUNNE: The deep rich baritone voice of Mr. Jack Dunne, so admirably suited for work at 3LO, still continues to charm listeners, and judging from his mail, his star of popularity shows no sign of being on the wane. Mr. Dunne is one of those versatile and exceedingly fortunate artists who is able to sing with equal ease vocal compositions with widely different appeals.

JONES AND RAINES: newcomers to the 3LO are Sydney Jones and Gladys Raines, a talented duo who entertain with voice and piano. Both artists enjoy a world-wide reputation, and have just returned to Australian shores from a long tour abroad, where they added to their already extensive musical honours.

A final adjustment can be made later on by sliding your aerial coil closer to or further away from the secondary coil, watching the effect of selectivity in doing so. This sliding is known as coupling, and the closer the coupling the greater will be the volume on local stations, and the looser the coupling the greater will be the degree of selectivity. When this is thoroughly understood a position for this aerial coupling coil will be found which will strike the happy medium and suit all purposes. When this has been determined this coil need not be touched at any time in the future.

The constructor if desired can build the cabinet in which to enclose this receiver. The complete equipment of accessories are as follows:

- 100 feet of aerial wire.
- 6-Small Egg Insulators.
- 1-Earth clip.
- Suitable supports for aerial.
- 2-Valves.
- 1-A battery to suit valves, either accumulator type or dry cell type.
- 2-4½ or 45 volt B batteries (larger capacity preferable).
- 1-Pair of Phones.
- 1-Loud Speaker.

All these necessities may be obtained from any of our advertisers.

In conclusion, we would refer those readers who are doubtful of their aerials and others who wish to erect a splendid aerial to "WIRELESS WEEKLY" of the 28th of January, 1927.

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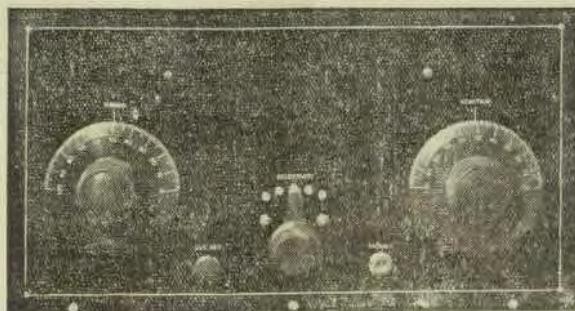
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No startling departure in circuit design, no claims of super selectivity, range or volume, but just an ordinary two-valve receiver of modern construction, simple, neat and compact, to please the heart of a housewife

TWO-VALVE receivers are popular with most people. In these pages there have been described, from time to time, many excellent two valves, all of which have produced splendid results. Still, we have had numerous requests for another simple two valve receiver, hence this article.

Now, a two-valve receiver can be of two types. If the constructor desires distant stations, it is then advisable to precede the detector valve with a stage of radio frequency, which builds up the signal strength before it is detected. It, therefore, follows that the resultant volume is rarely suitable for a loud speaker. If greater volume is desired, it is incumbent on the constructor to add a stage of audio frequency amplification, which differs from radio frequency, inasmuch as it magnifies the signal strength after it is detected by the detector valve. The Britisher calls it a note magnifier, which is indeed a very good name for it. Using the popular transformer method of coupling the valves, as many as two stages of transformer coupled audio frequency is possible; more is not advisable at any time.

At some future date we will tell you just what is inside a transformer and just how it works. For the present, suffice it to say that the audio frequency transformer steps up the

strength of signal and passes it on to the valve and from thence to the phones or loud speaker.

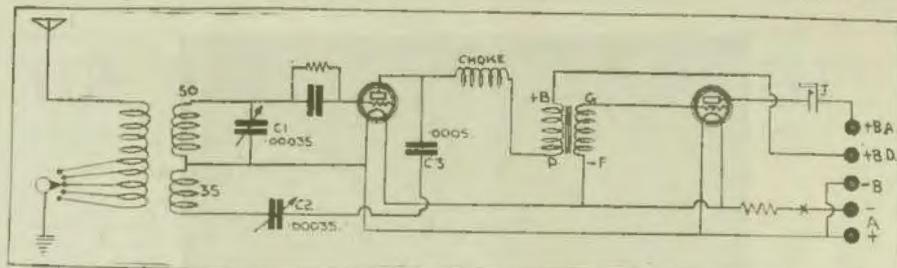
It will thus be understood that this receiver is more suitable for receiving at reasonably good loud speaker strength, the local broadcasting station, or that station within, say, 50 miles of the constructor's home.

The circuit in this receiver is not in any way new. It is the good old Reimann which is noted for the smooth control of reaction. Now, if properly handled, there is no reason why the long distance station should not be heard at good phone strength, but, of course, careful tuning is required, and this knowledge is easily acquired by practice. For a beginner it is, of course, essential that the tuning should be easily carried out, and, therefore, the set should be one with as few controls as possible.

In the receiver being described there are really only two controls. These can be seen in the photograph of the front panel view, the two controls being those two dials situated at opposite ends of the panel. Between these dials there is a selector switch, which operates over tappings taken from the aerial coupling coil. This is virtually not a control, but at the same time becomes very, very useful from the point of view of selectivity. All aerials are not of the same length, nor are they even of similar characteristics. Some are longer, some

higher, some with greater resistance, and so on, so that in order that the constructors of this receiver all have an equal chance irrespective of length, etc., of aerial, this selector switch has been incorporated. Later on, in practice, its full value will be displayed. A master switch and a jack are placed in suitable positions. The aerial and earth terminals are not on the panel, but are at the back of the set on the terminal board provided for the purpose.

While on the subject of the panel it will again be seen in our photograph that this panel is engraved, the left hand dial of condenser C1 being marked tuning and the dial of the reaction condenser on the right hand side of the panel being branded reaction. Right above the contact studs of the selector switch is the word selectivity, while cut out designates the switch and phones the jack. To enhance the appearance of the panel a white line is drawn around all edges at a distance of half an inch. All this work can be carried out by any of the advertisers in "Wireless Weekly," and the price is indeed nominal. On the other hand if only the white border is desired this can be done at home very easily. Procure a carpenter's gauge similar to the one illustrated in the article entitled, "Tools for the Home Constructor," in last week's "Wireless Weekly," and set it at the required distance, say,

*The circuit diagram.*

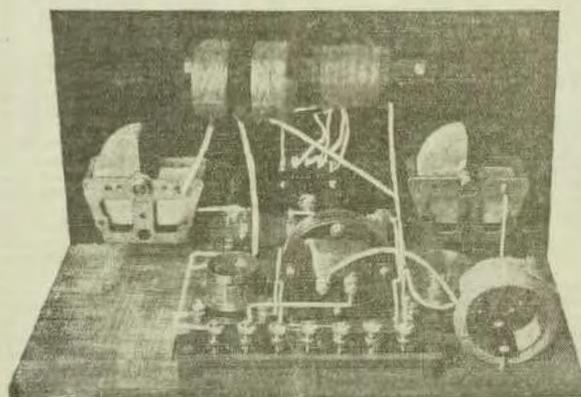
half an inch. Assuring yourself that the edges of the panel are perfectly straight, run this gauge along carefully and slowly so that the pin plows its way into the panel. Repeat this operation on all four edges, thus making a groove all the way round. Do not, of course, cut this groove right at the very end in each instance, but stop at a distance of half an inch, so that all the grooves will meet. Neaten off the corners where the grooves join by using a drill one-eighth of an inch in diameter, and making a small indentation right at the corner. Don't drill right through, of course, just raise the surface of the panel, no more.

This groove can now be filled in with some white material, such as Chinese ink used by most artists. This should be rubbed into the groove, and just before it sets properly, the residue adhering to the panel itself should

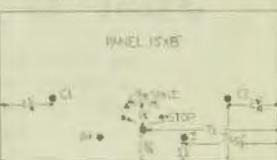
be removed with a damp rag; this operation is very simple.

However, we must give you the list of parts used in the construction of this receiver. For those who desire to duplicate this receiver in its entirety the brands of apparatus actually used are given, and while it is not strictly speaking necessary to adhere to these brands, at the same time be sure that the quality of apparatus is of a standard worthy of the receiver. But be absolutely careful to adhere to the values given, as naturally in the design of any receiver which we publish much thought is given to the values, therefore take our advice and stick to them. Here is a shopping list:

- 1-Radion or Dilecto Panel, 15in. x 8in. x 1in.
- 2-.00035 S.L.B. Condensers.
- 2-Tin. Dials.
- 1-Rotary switch with 7-in. arm.
- 5-Contact studs, complete with nuts.

*A back-of-panel view of the sets.*

- 2-Switch stops.
- 1-S.C. Jack.
- 1-Battery Switch.
- 2-Standard valve sockets.

*The panel drilling template.*

- 1-Emerson 5 to 1 A.F. transformer.
 - 1-.0005 Mica Dielectric Fixed Condenser.
 - 1-.00025 Wetless Grid Condenser.
 - 1-2 meg. Grid Leak.
 - 1-Terminal Board with 7 terminals.
 - 1-35 Turn Honeycomb Coll. (Unmted.)
 - 1-50 Turn Honeycomb Coll. (Unmted.)
 - 1-200 Turn Honeycomb Coll. (Unmted.)
 - 1-Length of Cardboard or Dilecto Tubing, 11in. External Diameter.
 - 2 ozs. of No. 24 O.C.C. Wire.
 - 1-Strip of Radion or Dilecto, 7in. long by .10. wide by .01in. thick.
 - 2-Strips of Radion or Dilecto, 11in. long by .10in. wide by .01in. thick.
 - 6-Roundhead Nickel-plated Metal Screws with nuts, .1in. long by .01in. thick.
 - (Contact studs may be substituted for these.)
 - 1-Brachstat, suitable for two valves.
 - 1-Busbarboard, 14in. x 8in. x .1in.
 - 6-Busbars.
 - 1-Length of Varnished Cambric Spaghetti.
 - Sundry screws, etc.
- All the above material is familiar to most readers with the exception of perhaps the brachstat. This is an automatic filament ballast, which takes the place of the rheostat in this receiver. They are obtainable for the

purposes of controlling one, two or three valves. For our purpose here a Brachstat suitable for passing half an amp at six volts is required. This Brachstat will supply the correct filament current to such valves as U.X.201A's, Philips C500's, De Forest D.V.5's and other valves of similar filament consumption of voltage. If, of course, it is desired to use the valves of the .06 of an amp variety, valves such as D.V.3's, A.W.A.99, and other valves of the Philips and Ediswan variety which consume .08 of an amp, in conjunction with the usual 4 or 4½ volt A battery, a Brachstat will be found suitable for this purpose. Understand clearly that this Brachstat controls both valves, thus dispensing entirely with the necessity for a rheostat.

The panel is the first consideration. Already you have been told how to groove the panel, and the marking and drilling can be gathered from the diagram produced herewith, showing the dimensions and the relative positions of the various components. This diagram, besides showing the dimensions, is also drawn to scale, and will prove of valuable assistance to all constructors. The panel should be laid on a perfectly flat surface and marked out in accordance with this diagram. Once again the entrepreneur's gauge will prove of considerable value, as explained in last week's article already referred to. Before assembling all parts after having drilled the panel satisfactorily a polish can be brought

to the surface by applying some ordinary household brasso and polishing vigorously. By the way, it may be well to add that this brasso will leave a deposit in the groove around the edge of the panel and will serve instead of Chincote White.

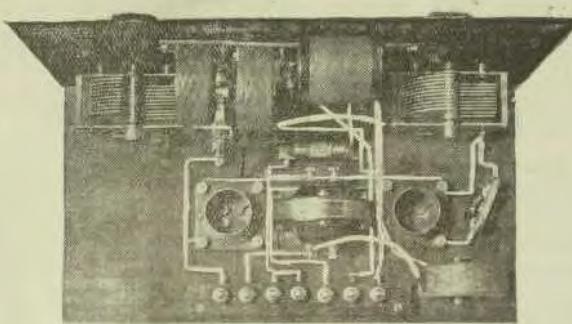
Now assemble all the parts, making sure that an even tension is applied to all the fixing screws of the variable condensers. If an uneven pressure is present in these screws there is a tendency for the condenser to be pulled out of shape, thereby causing the moving plates to come into contact with the fixed plates. This

applies to most condensers, therefore watch out for it.

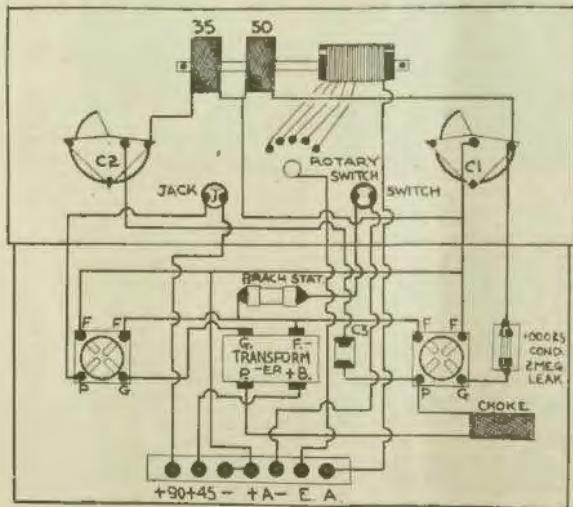
As is shown in the panel layout the contact studs are placed three-eighths of an inch apart from centres. This allows the rotary switch arm to play on the surface of these studs evenly and not jerkily. As each stud is pushed through the hole provided for it a nut is attached to the back to fix it tightly in position. Also treat the steps likewise.

Leave the panel carefully on the one side while the baseboard layout is attended to. A coat of shellac should be applied to the baseboard, this shellac drying very quickly. Then place the baseboard components in their respective positions. A good indication of just where they should go can be gathered from the photographs, as well as the back of panel wiring diagram. It will be noticed that the secondary of the transformer is facing the panel, and that the Brachstat is mounted on the baseboard just in front of this. The .0005 fixed condenser is suspended in mid air by means of the bushing. The 200 turn honeycomb coil choke is allowed to rest on the baseboard, one of the smaller strips of panel material being used to hold it securely. This is done by drilling two holes at the edge of this small strip and allowing screws to protrude right through these holes into the baseboard, the thickness of the coil itself regulating the length of screws required.

The aerial coil should now be wound. Here is where the small length of tubing is required. Three-eighths of an inch from one edge of this tubing drill two small holes, through which fix a wire securely, and wind 45 turns of the No. 24 D.C.C. Wire, taking taps at the 25th, 30th, 35th and 40th turns. These tappings should be



The baseboard lay-out.



Wiring diagram.

taken staggered, that is to say the 25th tap and the 35th tap should be immediately below one another, whereas half an inch away round the circumference of the tubing there should be the 30th and 40th turns below one another. This allows easy access for the soldering iron when the connections are taken from these tappings to the contact stud.

Now gather together that long strip of Radion or Diliceto seven inches long and place this flatly on the table. At a quarter of an inch from each end drill two small holes sufficiently big enough to allow the half inch roundhead nickel-plated screws or contact studs free clearance when finally they are inserted. At a distance of a quarter of an inch further from this hole on the right hand end drill another similarly sized hole. Another hole again an inch and a quarter further on, another one half an inch further on, and a final hole a further inch and a quarter on. Remember that all these measurements are taken from the right hand end. The two remaining small strips should now have a hole drilled in each end, a hole of the same size, mind you, and one and a quarter inches apart.

Now lay the long flat strip on the table again and between the second and third hole that is in the position in which these two holes are an inch and a quarter apart place the 35 turn Honeycomb coil with the connections upwards and then through the coil slip one of the smaller pieces of Radion over, slip two of the screws through this smaller strip of Radion right through to the long strip, and fasten on the underside with the nuts. Repeat this operation with the 50 turn coil just to the left again. This secures these coils to the long strip.

When these coils are mounted in the manner described there is a space of approximately 3½in. long left. This space is occupied by the aerial coupling coil which you have just wound. Pick up your panel again and, using the long strip on which these coils were mounted, as a template mark off the positions for the two extreme end holes 1 and three-quarter inches below the top of the panel. Make this coil unit central, that is to say, there will be left approximately four inches on each side of the panel. Having drilled these holes procure another contact stud or screw and pushing this screw through from the front of the panel right through the right hand end hole, that is the end on which the Honeycomb coils are mounted on this long strip, fasten it to the panel by means of the nut.

Now between the other end of this strip and the panel slip the small aerial coupling coil, that is the coil wound on the tube, and clamp the whole to the panel by fastening with a screw right through the panel and through the strip, securing as before with the nut. The small aerial coil should be held just tightly enough to allow it to slide along the intervening space towards the 50 turn coil. This 50 turn coil is the secondary coil and the 35 turn Honeycomb coil is the reaction coil.

To start with the wiring, it is very easy right through, solder a short wire connection from each tapping in the aerial coil to a respective contact stud in the group around the selector switch. If desired these connections may be run through varnished cambrì spaghetti. Now join the outside turn, that is the end of the 35 turn reaction coil to the moving plates of the reaction condenser C2. Join together the inside turn of this reaction coil to the inside turn of the secondary coil, that is the No. 50 turn Honeycomb coil, the outside turn of which is connected to the fixed plates of the tuning condenser, C1.

Now screw the panel permanently to the baseboard, and proceed with the wiring as is outlined in the back of the panel wiring diagram. The two outside or furthest apart filament terminals of the valve sockets are joined together. The moving plates of tuning condenser C1 is connected to this common filament wire, and another lead is taken from it to one side of the battery switch, the other side of this battery switch being connected to the nearest terminal of the Brachstat. Those two wires of the Honeycomb coils that were joined together should have a lead taken from the join to this common filament wire, that is, the wire to which is connected the battery switch. The two remaining filament terminals are next joined together. The fixed plates of tuning condenser C1 should now be joined through the grid condenser and grid leak to the G terminal of the first valve socket. The P terminal of this valve socket should now have a wire run from it to one side of the fixed condenser 0005, the other side of this condenser being joined to the fixed plates of reaction condenser C2. To the P terminal of this first valve should be connected one side of the 200 turn Honeycomb coil choke, the other side of which should be joined to the P terminal of the audio frequency transformer.

Continuing with the wiring the G terminal of this transformer should have a lead taken to the G terminal of the second valve socket. The P terminal of the second valve socket

should be connected to one side of the jack. At this stage screw down the terminal board right at the back of the baseboard, and now run in the battery wires. Firstly, from the aerial terminal of this terminal board join to the beginning of the aerial coil, flexible spaghetti covered wiring being used for this purpose. Next connect the spindle of the rotary switch to the terminal marked EARTH on the terminal board. Now connect the F minus of the audio transformer to that wire which runs between the two nearer filament terminals of the valve sockets and then join this wire to the A minus terminal. The A positive terminal should now be joined to the B minus terminal, and a wire run from there to the remaining side of the Brachstat. The B positive detector terminal should be connected to the B positive terminal of the A.F. transformer, whereas the R amplifier terminal should be run to the remaining side of the jack. This completes the wiring, and the constructor should check over carefully to locate omissions or errors.

TESTING.

Remembering our remarks earlier in this article regarding the relation between the Brachstat and the valves to be used, insert suitable valves in the sockets. Connect up the aerial and earth to their respective terminals and also the A battery and B battery to their respective terminals. Remember to use only the suitable A battery for the valves to be used, the B battery minus should be connected to the B minus terminal, while between 223 and 45 volts should be applied to the B positive detector terminal. Up to 90 volts can be connected to the B positive amplifier terminal.

Now plug the earphones into the jack and turn the dial of tuning condenser C1. Presently the local station should be tuned in; while seeking this local station see that the reaction condenser C2 is set in such a position that the moving plates are all out. Having got the local station to the best advantage with tuning condenser C1, gradually bring the moving plates of reaction condenser C2 into mesh with the fixed plates, an action which will cause the signal strength to be increased. If this reaction dial is turned too far the set will burst into oscillation. Avoid this by bringing the signal strength up to the loudest pitch clear of oscillation. Now turn your selector switch on to another stud and retune with both dials. Try the next stud and so on until you get to know the value of the selector switch. Manipulate your controls for half an hour or so until you feel that you are familiar with the handling of this receiver.

(Continued on Page 15).

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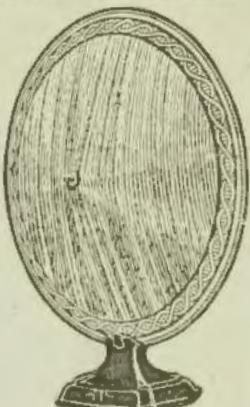
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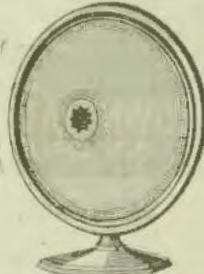
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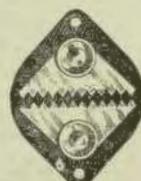
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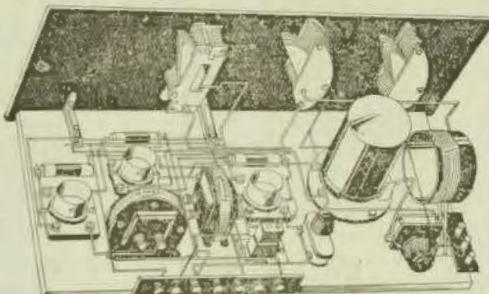
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C.T.P. 25.

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2-0005 Emmco S.L.F. Condensers, 15/- each	30/-		3-Valve Sockets, 3/- each	9/-
1-.0003 Pilot Condenser	10/-		3-Emmco Vernier Dials, 9/6 each, 28/-	6
1-D.C. Filament Control Jack	3/-		1-.00025 Grid Condenser	2/-
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3-Amperites, to suit Valves, 7/6 each,	22/-	6	1-Battery Clip	6d.
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2-inch length of 3-inch diameter Radion or Dilecto Tubing,	2/-		1-Screened Coil, of split primary type	14/-
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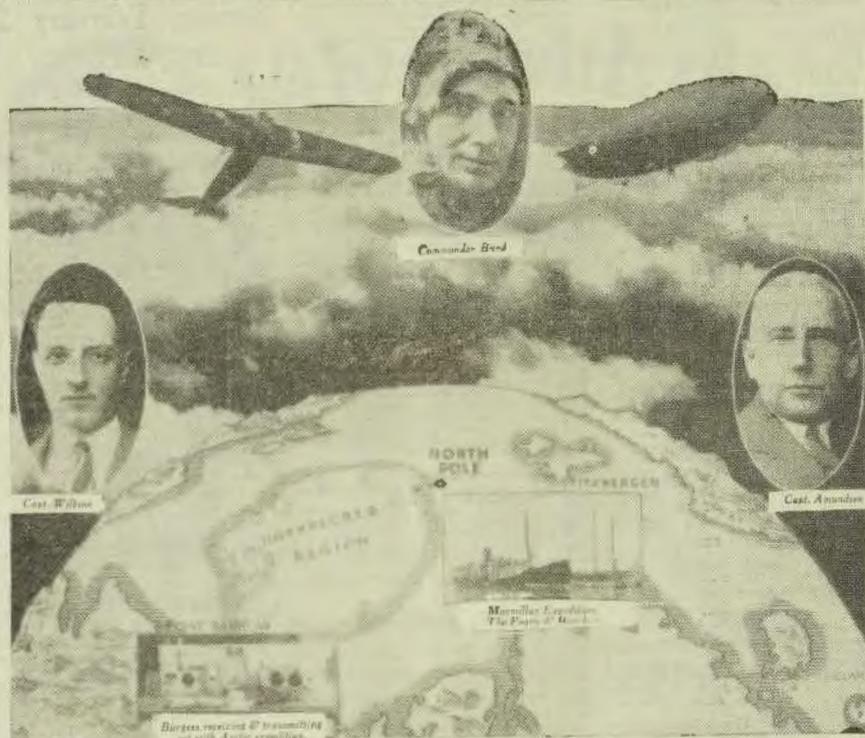
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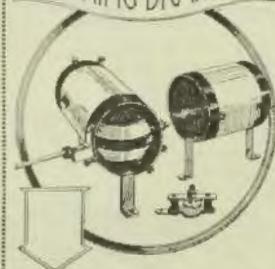
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Our mount obviates the use of rigid
connections and stops.

Easy to mount and build by following
directions.

Price, £2/2/- each

All Dealers, or from

GROSE & DANIELL,
HOLDEN STREET READING

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this paper.

Radio's Latest Development

... III ...

Broadcast Receivers

... AT ...

Stall No. 13

**Radio and Electrical
Exhibition**

Feb. 23rd to March 5th

TOWN HALL

—

Colville Moore
Wireless Supplies Ltd.

10 Rowe St., SYDNEY

FARMER'S

*Reliable Accessories for the
RADIO FAN*

A HANDY NEW PANEL FITMENT

Engraved "Bakelite" Terminals, with special screw tops; the engraved names are continually in a readable position. All necessary circuit names and symbols are obtainable. Price, each 10d.



"MARS" AERIAL WIRE

"Mars" Aerial Wire, 84 strand, will not kink, and has the lowest ohmic resistance yet obtained; 100 feet reels. Price 12/6

"SENSORY" BASE SOCKETS

"Sensory" Standard American Base Sockets, of genuine "Bakelite"; reliable and inexpensive; to screw or to solder. Price ... 3/-



"BEEDE" VOLTMETER
"Beede" Voltmeters, for ascertaining the condition and voltage of "B" batteries; invaluable ... 4/9

"COMODORE" CONDENSERS

"Comodore" Condensers, accurate and strong, built by experts; capacity, .0005. Price 15/9

A NEW BOOK OF CIRCUITS

"Henley's 222 circuit designs." A most acceptable present for the amateur or experimenter; diagrams and wiring directions, from simple crystal to 10-valve sets.

FARMER'S, SYDNEY

BOX 497 AA, G.P.O.

Purest Radio Music at Lowest Hourly Cost

New 83x
Rechargeable
Philco "B"



World's
Finest
Battery

MULTIPLY hours of purest radio music by years of vigorous life, and the result is the superb Philco Rechargeable "B" Battery. Users of the 83X Philco laugh at the old days of crackling and uncertain dry batteries. Philco owners now save pounds a year.

INSTEAD of wasting money on dry batteries which quickly run down and must be thrown away, Philco buyers can use this perfect battery two hours a night for three to four months and then recharge it at home for a few pence. Philcos banish hum, roar, buzz and crackle.

Philco Points of Excellence:

Capacity: Double that of an ordinary "B" Battery.

Recharging: Can be recharged at home for few pence.

Voltage: Replaces 90-volt dry battery.

Life: Years of perfect service.

Beauty: In exquisite mahogany-finished cabinet.

Charge Indicators: The Philco exclusive visible charge-indicators show exact condition of battery. No hydrometer needed.

Safety: Glass cells and acid-tight sealed covers give complete safety.

Cost: Now within reach of everyone on easy terms.

DYNAMIC: Life starts only when electrolyte poured in. Always fresh and new.

Silent: No buzz and no distortion.

Our Special Radio Show offer enables you to buy the Superb Philco 83x on the easiest terms. We will send you free our fine 2-colour pamphlet "Nights of Gladness," and full details, immediately your coupon reaches us.

No Obligation Whatever

New System Telephones
Pty. Ltd.

SB. 280 CASTLEREAGH ST., SYDNEY

Special Offer Coupon

To New System Telephones Pty., Ltd.
280 Castlereagh Street, Sydney.

Please send me without cost and without obligation your Philco pamphlet "Nights of Gladness" and full details of your EASY PAYMENT PLAN.

NAME _____

ADDRESS _____

Which would you prefer?

Hand Pump— or Reservoir?

COMPARING an Ordinary Dry Battery, with its short life and irritating crackling, to the superb rechargeable Philco, with its years of life and pure strong volume of power, is like contrasting the creaking old hand pump with the smooth flow of a great reservoir!

Cut your costs in half!

A Chicago canner once estimated that the old meat tins would reach as high as Mount Everest, if piled up.

Until the 83x Philco began a new wireless era, the discarded dry batteries were threatening to out-top the meat tins. Now the wise buyer insists on the rechargeable Philco and spends only a few pence every three or four months on a new charge.

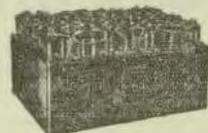
Buy an 83x Philco from any high-class radio dealer or write direct to the wholesale distributors:

New System Telephones 280 Castlereagh Street, Sydney
Pty. Ltd. 27 Queen's Bridge St., Melbourne
Charles Street, Adelaide

PHILCO
DRYNAMIC RADIO
BATTERIES

N.E. 19 S. 21

Guard against Radio Trouble. Use Only Guaranteed Radio Equipment.



One of the easiest ways of getting into trouble with your radio set is to use accessories that are faulty or not good quality. Turn to your guarantee. All radio fans buy second-hand sets of known quality—products of world renowned manufacturers. We stock only the latter kind, and for this reason we guarantee them.

Easy Terms

A small deposit secures immediate possession of the following goods and the comfortable weekly payments will suit your pocket. Call or write for full details.

“PHILCO” 90 milli-watt	£5 15 0
“AMPLION” Loud Speakers,	
all sizes from	7 0 0
“C.A.V.” 6 volt, 18 amp.	4 18 0
Accumulator	4 15 0
“Tungar” Battery Charger	4 15 0
“PHILLIPS” “B” BATTERY	
ELIMINATOR Eliminator	
alt “B” Battery charger	£5 15 0



— And we invite you to call and hear the new “KROGIE” 75-WATT “SUPER” the most efficient 75-watt transmitter ever made. This Super Set was designed by our Technical Advisor, Mr. C. W. Stale, Australia’s Leading Radio Engineer. It is simple to operate, runs in all Australian Stations with natural tone and volume, requires no aerial or earth wires, completely eliminates interference and reduces static 50 per cent.

COUNTRY CUSTOMERS ARE ASKED TO WRITE FOR FULL DETAILS.

Keogh Radio Supplies

104 PARK STREET, SYDNEY.
Phone City 870.



**Look at the plates in the Oldham
—you tell a good Car by its engine
and a good Accumulator by its plates**

OLDHAM Accumulators are fitted with plates made under the Oldham Special Activation Process—an exclusive method of obtaining surprising vitality and long life. The Special Activation Process costs more than the ordinary method of plate manufacture, but then—since it means such a greater increase in efficiency—obviously it is a worth-while investment. Remember the difference in cost between an Oldham and an ordinary Accumulator cannot be more than a shilling or two, yet whereas the latter may last only a twelve-month, the Oldham

will last two or three times as long. And whereas the ordinary Accumulator may require to be charged every ten days, the Oldham will probably operate for a fortnight on a charge.

These are the points you should consider when choosing your Accumulator. Get your Dealer to show you an Oldham, compare its stout, well-impregnated plates with those in any other make of Accumulator. Compare them area for area and thickness for thickness. You'll then see why an Oldham lasts longer and gives more hours to the charge.

NOYES BROS. (SYDNEY) LTD.

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Special Activation Process
OLDHAM
ACCUMULATORS

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Elec. Meter Mfg. Co., "Emmons"
Reounds Condensers, Leaks and
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Neutron Crystals, Brunel Phones,
Prompt Shipment from Sydney
We represent all Foreign Radio
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**Radioikes acknowledged
as the World's Best**



£2/2/- at all Dealers.

The Browning-Drake is holding most of the world's records—Radioikes is the only genuine Browning-Drake coil kit on the market.

Metropolitan Electric Co. Ltd
27-29 King Street, SYDNEY.

3.35 p.m.—Musical programme.
 4 p.m.—STUDIO TRIO.
 4.20 p.m.—Close down.
 7 p.m.—Tune in.
 7.55 p.m.—A playlet for the Kiddies by Uncle Duffy, with Aunties Kate and Evelyn, and Uncles Henry, Leslie, Percy and Duffy.
 7.55 p.m.—Sport and share intelligence.
 Meteor reports.
 Callers' News supplied by courtesy of "The West Australian" Newspaper Co.
 8 p.m.—Time signal from the Perth Observatory.
 8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
 8.2 p.m.—MUSIC AND SONG.
 Selections by The Studio String Trio:
 Miss Evelyn Willis, A.R.C.M., piano.
 Mr. R. G. Bushell, cello.
 Mr. H. T. Newton, violin.
 Miss Gertrude Thomson, soprano.
 10 p.m.—Second local news bulletin supplied by courtesy of "The Daily News" Newspaper Co.
 10.30 p.m.—Close down.

Thursday, March 3 2FC, SYDNEY

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
 7.30 a.m.—Sport.
 7.45 a.m.—Official weather forecast, rainfall, temperature, astronomical memoranda, shipping intelligence, mail services.
 7.55 a.m.—Investment market, mining share market, metal quotations.
 7.55 a.m.—Wool sales, broadcast markets, Interstate markets, produce markets.
 7.45 a.m.—"Sydney Morning Herald" news service.
 8.00 a.m.—"Big Ben," Studio music.
 8.15 a.m.—Close down.

MORNING SESSION.

8.30 a.m.—Marching music for school children.
 9.45 a.m.—A popular record.
 9.45 a.m.—Last minute sporting information by the 2FC Racing Commission.
 10 a.m.—"Big Ben" and announcements.
 10.30 a.m.—Late "Sydney Morning Herald" news service.
 10.35 a.m.—Studio music.
 10.45 a.m.—A serial story.
 11 a.m.—"Big Ben," Australian Press Association and Reuter's Cable Services.
 11.10 a.m.—Studio music.
 11.15 a.m.—Talk on home cooking and recipes by Miss Ruth Furt.
 11.30 a.m.—Marching music for school children.
 11.35 a.m.—Close down.

MIDDAY SESSION.

12 noon—"Big Ben" and announcements.
 12.15 p.m.—Stock Exchange, first call.
 12.16 p.m.—Studio music.
 12.15 p.m.—Rugby wireless news.
 12.55 p.m.—Miss Chris Hawkford, Soprano ("The Auto News" (Loesensiefen)).
 1 p.m.—"Big Ben," Weather intelligence.
 1.15 p.m.—Evening News, midday news service. Producers' Distributing Society's Report.
 1.20 p.m.—Studio music.
 1.24 p.m.—Miss Chris Hawkford, Soprano ("Two Eyes of Grey" (Metzger)).
 1.28 p.m.—Stock Exchange, second call.
 1.30 p.m.—Marching music for school children.
 1.40 p.m.—Sport.
 1.45 p.m.—Last minute sporting information by the 2FC Racing Commission.
 1.50 p.m.—Close down.

AFTERNOON SESSION.

2.30 p.m.—Programmes announcements.
 2.35 p.m.—Music from the Studio.
 3 p.m.—A reading.
 3.30 p.m.—Some popular records.

2.45 p.m.—FROM THE PLATFORM OF THE STUNTY TOWN HALL.
 A programme by 2FC Artists on the occasion of the Radio and Electrical Exhibition. "Big Ben" Chimes.
 3.45 p.m.—The 2FC Studio Dance Band. Director Mr. Eric Pearce:
 Fox Trot: "Just a Bird's-eye View" (Dobald).
 3.50 p.m.—Miss Susanne Ennia, Contractor: "Sun" (del Riego).
 3.54 p.m.—"Hello Man."
 3.57 p.m.—Mr. Wally Baynes, Popular Comedian.
 4.30 p.m.—The 2FC Studio Dance Band:
 (a) Fox Trot: "Hi Ho the Merry" (Davis).
 (b) Waltz: "Minuetto" (Sinhoff).
 4.10 p.m.—Mr. Bus Garling and Jerry.
 4.10 p.m.—Miss Susanne Ennia, Contractor: "Sun" (del Riego).
 4.15 p.m.—2FC Studio Dance Band: "Tempta."
 Announcer Mr. A. R. COCHRANE
 Accompanist Mr. Ewart CHAPPLER
 4.30 p.m.—FROM THE STUDIO:
 Musical items.
 4.45 p.m.—Stock Exchange, third call.
 NOTE: During the break between Farmer's and Rector's the following artists will sing:
 Miss Glyn Brice, Soprano
 (a) "The Scarecrow" (Davis).
 (b) "Chanson de Florian" (Godard).
 Mr. Fred Harman, Baritone
 (a) "Remember" (Sanderson).
 (b) "Trees" (Barbard).
 4.46 p.m.—Close down.

EARLY EVENING SESSION.

5.15 p.m.—The Chimes of 2FC.
 5.20 p.m.—The "Hello Man" talks to the children.
 5.30 p.m.—A serial story for the older ones.
 5.40 p.m.—Dinner menu.
 1 p.m.—"Big Ben," Late sporting news.
 1.15 p.m.—Ogilvy's Market reports; wool, wheat, stocks.
 1.16 p.m.—Fruit and vegetable markets.
 1.20 p.m.—Weather and shipping intelligence. Stock Exchange.
 1.25 p.m.—Late "Evening News" news service.

NIGHT SESSION.

7.40 p.m.—Programme announcements.
 7.50 p.m.—Hints to listeners by the Technical Editor of "Wireless Weekly."
 8 p.m.—"Big Ben," From the Studios
 (a) Rambert, Musical Director
 March: "Irreversible" (Ramsay).
 8.10 p.m.—Mr. Maurice Byng in a Playlet, specially written by him for 2FC!
 "Alfonso and Jimina at the Opera in Paris."
 8.25 p.m.—The Randwick Municipal Band: "In a Chinese Temple Garden" (Kotekley).
 8.40 p.m.—Mr. Harry Julius, the well-known cartoonist, in a series of Radio Cartoons and comic drawings.
 8.55 p.m.—Miss Joyce Hadley, Soprano ("Nightingale and Faun" (Bernard)).
 9.10 p.m.—The Randwick Municipal Band: "Te Deum" (Verdi).
 9.15 p.m.—Mr. Gratton-Smith will commence a series of Thursday evening Book Reviews.
 9.25 p.m.—Mr. Charles Stephens Tenor: "The English Rose" (German).
 9.30 p.m.—The Randwick Municipal Band: "Serenade" (Sibelius).
 9.35 p.m.—Mr. Robert Turner, Entertainer: "Skills of Bebop on Langdon."
 9.42 p.m.—The Randwick Municipal Band: "The Tribe" (Home).
 9.50 p.m.—Miss Irene Hadley, Soprano, and Mr. Charles Stephens, Tenor: "Venetian Song" (Tosti).
 10 p.m.—Mr. Arthur Prince, banjo solo.
 10.15 p.m.—Miss Joyce Hadley, Soprano.
 10.20 p.m.—Mr. Robert Turner, Entertainer: (a) "Whales" (Astorino).
 (b) "If You had a Cottage like Mine" (Valent).
 10.34 p.m.—Mr. Charles Stephens, Tenor: "Lolita" (Peculiar).
 10.48 p.m.—Mr. Arthur Prince, Banjo Solo.
 10.55 p.m.—Miss Joyce Hadley, Soprano, and Mr. Charles Stephens, Tenor.)

For Purest Music Use Only Philco.

Dot. "Say That You Love Me" (Campaña).
 10.59 p.m.—FROM THE WENTWORTH CAFE, SYDNEY: The New Wentworth Symphonic Dance Orchestra, conducted by Mr. Sydney Simpson.
 11.52 p.m.—Celebrity records from the Studio.
 11.55 p.m.—"Big Ben" and announcements.
 12.55 p.m.—The New Wentworth Symphonic Dance Orchestra in popular numbers until midnight. Conductor, Mr. Sydney Simpson.
 12 midnight—"Sten Ben," National Anthem.
 Close down.

2BL, SYDNEY

Thursday.

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. Clock and Chimes.
 7.30 a.m.—Musical programme from Studio.
 7.35 a.m.—Physical training and health exercises.
 7.40 a.m.—Hints on health.
 7.45 a.m.—Physical training and health exercises.
 7.45 a.m.—G.P.O. Clock and Chimes.
 7.48 a.m.—Weather report.
 7.49 a.m.—Sporting information.
 7.50 a.m.—Broadcasters' special news service.
 7.55 a.m.—G.P.O. Clock and Chimes.
 Close down.

MORNING SESSION.

10 a.m.—G.P.O. Clock and Chimes.
 10.15 a.m.—Weather report.
 10.20 a.m.—Musical programme from the Studio.
 10.25 a.m.—News service from the "Daily Telegraph."
 10.35 a.m.—Musical programme from the Studio.
 10.50 a.m.—Ten minutes' talk supplied by the N.R.A.
 11 a.m.—G.P.O. Clock and Chimes.
 11.15 a.m.—News from the "Daily Telegraph."
 11.15 a.m.—Retail market report.
 11.16 a.m.—Fish market report.
 11.16 a.m.—Vegetable market report.
 11.20 a.m.—General news report.
 11.20 a.m.—London dairy, farm, egg, and poultry market report.
 11.25 a.m.—London metal quotations.
 11.29 a.m.—Ships in call by wireless.
 11.31 a.m.—Information re interstate and overseas traffic.
 11.33 a.m.—Shipping information—arrivals and departures.
 11.45 a.m.—WOMEN'S SESSION—Social Notes by Mrs. Jordan.
 11.45 a.m.—Mrs. Jordan replies to correspondence by Mrs. Jordan.
 11.50 a.m.—Talk on "Decorating Furniture" by Mrs. Jordan.
 12.30 p.m.—Musical programme from the Studio.
 12.30 p.m.—G.P.O. Clock and Chimes.
 12.31 p.m.—Weather report.
 12.35 p.m.—Sydney Stock Exchange calls.
 12.39 p.m.—"Sun" Newspapers news service.
 12.40 p.m.—Hillier's Instrumental Quartet. Direction Caryl Carding.
 1.30 p.m.—G.P.O. Clock and Chimes.
 1.31 p.m.—Weather report.
 1.35 p.m.—Sydney Stock Exchange calls.
 1.40 p.m.—News from the "Sun."
 1.45 p.m.—Musical programme from the Studio.
 2 p.m.—G.P.O. Clock and Chimes.
 Close down.

AFTERNOON SESSION.

Racing information broadcast by courtesy of the "Sun."
 3 p.m.—G.P.O. Clock and Chimes.
 3.1 p.m.—Weather report and forecast.
 3.3 p.m.—Social Notes from the "Sun."
 3.10 p.m.—News from the "Sun."
 3.15 p.m.—Musical programme from the Studio.
 3.20 p.m.—G.P.O. Clock and Chimes.
 3.21 p.m.—Country Women's Session.

A Radio Bargain

3 Valve Set in handsome cabinet, complete in every detail, including —

- Loud Speaker
- Exide Accumulator
- 84 Volt B Battery
- 4½ Volt C Battery
- Large Valves (the best)
- Aerial Gear

A guarantee with every Set

Two Prices :

Price - £16 17 6	Price - £19 17 6
Deposit - 1 14 6	Deposit - 1 18 6
Weekly - 5 9	Weekly - 6 9

We charge no interest for these easy terms.

The easy terms also apply to country customers.

Take one home to-night!

Radio-W'Less Mfg. Co. Ltd.

317 George Street :: SYDNEY

Telephone: B 5747



They cost
more—
Yet cost less

Every radio receiving set should be equipped with Columbia Heavy Duty "B" Batteries because these big, powerful batteries last twice as long, under the same conditions, as light duty batteries.

Columbia Heavy Duty "B" Batteries cost a trifle more in the beginning but with twice the life, they cost much less in the end. Thus, it is always money saved to insist upon either the Columbia "B" Battery No. 4770 or the even longer-lived Columbia Layerbill No. 4486.

Columbia
Radio Batteries

—they last longer
Factory Representatives:
ELLIS & COMPANY, Auct., Ltd.
204-6 Kent Street, Sydney, N.S.W. 387

Now—a new wonder flux has simplified Soldering!

Says Tinker Tim—
loud-speaker for
this little packet of
soldering simplicity:



MANY are the men who have paused fiercely over a mass of valves and wire and ebonite, and, looking aerial-wards, said hard and bitter things about the process of soldering. . . . That was before Wunderflux came.

"Wunderflux quickly paves the way to quicker and better soldering. Primarily, you don't need to clean the wire—weather-blackened aerial wires can be joined as easily as if they were shining new. Just heat the connection. If you do this with a soldering iron, melt a little flux on to the point, but Wunderflux is so effective that you can often make a splendid connection heating with just a candle flame, rubbing on the flux, and melting on the strip of good solder that accompanies the flux itself!"

"It is as easy to make a neat join with Wunderflux as it is to make a "blobby" one with other fluxes!"

"You know how weakened signals are often traced to corroded connections. Wunderflux is absolutely Non-Corrosive. Safer to use, too, because it is also Non-Poisonous."

"Meet your next soldering job with the little Wunderflux Outfit—any radio dealer can supply this means to quick, no-bother soldering."

Among all the improvements and advances showing at the Electrical Exhibition, Wonderflux has a place at
STAND No. 1.

1/6



WUNDERFLUX NON-POISONOUS NON-CORROSIVE Home Soldering Outfit

NOTE : Should you happen on a dealer who hasn't stocks of Wunderflux yet, write to the Sole Distributors: Byrne & Ross, Broughton House, Clarence Street, Sydney.

Warneford & Son

RADIO ENGINEERS

Bring Your Radio Troubles to us.

Is your receiver selective? If it isn't, let us know. We will remodel your receiver along modern lines to produce maximum efficiency.

Local conditions play a big part in good reception.

We will design and build a receiver to suit.

Rewiring faithfully carried out at reasonable rates.

Browning-Drakes, and Neutralynes, are not fully efficient unless they are correctly neutralised. We have been years in the Radio line, and have had experience with these sets, and can neutralise either.

The Mowflex we have built, and we know its capabilities. We will build you one.

Let us convert your present receiver. We will do it efficiently and cheaply.

Country clients consign sets to us at Petersham Railway Station and advise us of despatch.

Best Workmanship

Best Service

Best Material

By Experts.

Write or Ring.

Warneford & Son

Box 967, G.G., G.P.O., Sydney.

Phone: Pet. 1045 & X 3149.

4.15 p.m.—PRESSY PRESTON:
"Just a Bird's Eye View of My Old Kentucky Home."
"Bye, Bye, Blackbird."
4.20 p.m.—Description of Governor's Plate, Flemington Races, by "Musket," of the "Sporting Globe."
4.25 p.m.—ADELE INMAN, soprano:
"When Jack and I Were Children."
4.32 p.m.—"Herald" news service. Stock Exchange information.
4.45 p.m.—EVENSONG, from ST. PAUL'S CATHEDRAL.
5.00 p.m.—Close down.

EVENING SESSION.
5.49 p.m.—CHILDREN'S HOUR:
Stories, letters and Birthday greetings.
5.55 p.m.—MARY GUMBLEAF, Poems:
"The Sanctity Chicken."
"Pussy's Lesson."
Story for the littlest ones:
"What happened to sharp ears?"
6.15 p.m.—HUXHAM'S SERENADES:
Quartet. "Kiss Me, Baby."
EDITH HUXHAM, DOLLY TURDETT,
RENN MILLAR and H. HUXHAM.
Song, "Folly Kent on Walking."
HUGIE HUXHAM.
NGAIRE AND TOINTON:
Xylophone, "Ukulele Lady."
I Want to be Happy.
HUXHAM'S SERENADES:
Introduction by THE SERENADES
QUARTET.
6.25 p.m.—MARY GUMBLEAF, Story for Boys and Girls:
"Story of Romeo and Juliet."
6.35 p.m.—"Argus" and "Herald" news service. Weather synopsis. Sporting movements.
6.44 p.m.—Stock Exchange information.
6.51 p.m.—Fish Market reports by J. R. Bassett, Ltd.
6.58 p.m.—River reports.
6.55 p.m.—Market reports by the Victorian Central Citrus Association, Ltd., of Orange, Victoria. Lemon and Citrus reports by the Victorian Producers' Cooperative Co., Ltd. Haymarket Sheep sales. Poultry, Grain, Straw, Hay, Jute, Dairy Products, Potatoes and Onions. Fruit Market reports by the Victorian Wholesalers' Association, compiled by the "Fruit World," exclusive to SLO.

NIGHT SESSION.
DANCE AND BE MERRY.
Speakers:
MR. C. R. LONG, MISS M. HEAGNEY,
MR. A. W. JACKSON, MR. RODY LEHMANN,
JOE ARONSON AND HIS SYNCOPATING
SYNCOPIATING SYMPHONISTS.
OSBORNE AND PERRYER.
SIDNEY BURCHALL.
BETTY BEVAN, soprano;
NGAIRE AND TOINTON:
Art critic, ALFRED ANDREW
Accompanist, AGNES FORTUNE
7.15 p.m.—MR. C. R. LONG:
"With Musician, the Discoverer of Happiness."
7.20 p.m.—Under the auspices of the Institute of Pacific Relations, MISS M. HEAGNEY: "Women's Problems in Pacific Countries."
7.45 p.m.—MR. A. W. JACKSON:
"Golf."
8 p.m.—JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS:
"Dream of Love and You" (Taylor).
"Say Your Sorrow" (de Sylva).
"Say It Again" (Richman).
8.10 p.m.—OSBORNE AND PERRYER:
"In Dreams of a Domestic Drudge."
8.15 p.m.—JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS:
"Paradise Alley" (Archibald).
"While the Years Go Drifting By" (Kahn).
"Rose Colored Glasses" (Steiner).
8.25 p.m.—SIDNEY BURCHALL, baritone:
"Star and the Flower" (Hardenbergh).
8.30 p.m.—JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS:
"As I Was Living My Time" (Bilbie).
"It's a Wonderful World after all" (Davis).
"Red, Red Robin" (Woods).

New Price - - 45/- Each



**The Table-Talker
makes a friend of the electrical impulse**

Acoustics is the science of sound. Radio acoustics is the science of transforming the electrical impulse into an audible sound. The electrical impulse is a jolly little fellow who needs to be consulted if you are to get the best out of him. We've been making friends with him for seventeen years and the *Table-Talker* is but one result of our efforts. The goose-neck horn means clearer and more rounded tones, and the patent material of which it is constructed eliminates any suggestion of harshness or metallic resonance. Fitted with an adjustable diaphragm, it is finished in a pleasant shade of neutral brown. Height 18", bell 10".

Ash your Dealer for Brandles.

Now 45/- Each

FACTORY REPRESENTATIVES:

International Radio Company Ltd.

200 CASTLEREAGH STREET, SYDNEY, N.S.W.

Also at 91-93 COURtenay PLACE, WELLINGTON, N.Z.

Exide

WIRELESS BATTERIES

STANDARD EQUIPPED IN ALL THE MARCONI'S SYSTEMS THROUGHOUT THE WORLD.

Made by the oldest and largest Battery Makers in the World.
The Chloride Electrical Storage Co. Ltd., England.

Exide "A" BATTERIES IN 2 VOLT UNITS.

Type.	Capacity.	Price each Cell fully charged.
C.Z.2.	40 amp. Hours intermittent	1 1 0
C.Z.3.	60 amp. Hours intermittent	1 6 0
C.Z.4.	80 amp. Hours intermittent	1 9 0
C.Z.5.	100 amp. Hours intermittent	1 14 0
C.Z.6.	120 amp. Hours intermittent	1 19 0

Exide "A" BATTERIES IN 2 VOLT UNITS.

Type.	Capacity.	Price each Cell fully charged.
B.T.G.	20 amp. Hours intermittent	0 8 0
D.F.G.	45 amp. Hours intermittent	0 16 0

Exide "B" BATTERIES.

Type.	Capacity.	Price for bat. fully charged.
W.J.	20 volts, 2,500 millamp. Hours	1 10 0
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SYDNEY

- 8.39 p.m.—**BETTY BEVAN**, soprano: "The Elf Man."
- 9.10 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "How Could Red Riding Hood?" (Randolph); "My Pal Jerry" (Hause); "My Cutie's due at Two to Two, To-day" (Robbin).
- 9.35 p.m.—**MICE NGAIRE** will give some child impersonations.
- 9.45 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Just a Cottage Smell" (Handley); "A Little Spanish Town" (Young); "I Love My Baby" (Warren).
- 9.55 p.m.—**OSMONDE AND PERRYER** will radiate banter on the Radio.
- 9.15 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Picador" (Nichols); "Alabam' Stomp" (Crammer); "Somebody's Lonely" (Davis).
- 2.33 p.m.—**SIDNEY BURCHALL**, baritone: "Star of the East" (Loeb).
- 3.27 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Picador" (Nichols); "Alabam' Stomp" (Crammer); "Somebody's Lonely" (Davis).
- 3.30 p.m.—**SIDNEY BURCHALL**, baritone: "Star of the East" (Loeb).
- 3.47 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Picador" (Nichols); "Alabam' Stomp" (Crammer); "Somebody's Lonely" (Davis).
- 3.51 p.m.—**BETTY BEVAN**, soprano: "The Little Tramp" (Gartlan).
- 3.41 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Adorable" (Ford); "Just a Bird's Eye View" (Kahn); "Give Me To-day" (Tisworth).
- 4.51 p.m.—**NGAIRE AND TINTON**: "Savoy American Medley."
- 5.00 p.m.—**RODY LEHMAN**, World's Motor Cycle Champion. The world's speed king will speak on his experiences on various tracks throughout foreign countries.
- 5.04 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "I'd Climb the Highest Mountain" (Brown); "She's Everybody's Sweetheart" (Rose); "Say that you love me" (Nichols).
- 5.16 p.m.—**SIDNEY BURCHALL**, baritone: "Carousels" (Sanderson).
- 5.29 p.m.—"Argus" news service, British official wireless news. Meteorological information. Sporting notes by "Olympus."
- 6.35 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "I've got the Girl" (Donaldson); "Blue Bonnets" (Fry); "No Foolin'" (Bush).
- 10.47 p.m.—**BETTY BEVAN**, soprano: "I Prayed for Your Window."
- 10.50 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Whisper-She" (Bryce); "After I Say I'm Sorry" (Donaldson); "Cheer Up, Little Tom" (Goodwin).
- 11.00 p.m.—**OUR GREAT THOUGHT**: "Every man who strikes blows for power for influence, for institutions, for the right, must be just as good an scoundrel as he is a hammed."—J. G. Holland.
- 11.11 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Lonesome and Sorry" (Davis); "Tonight's My Night With Babe" (Meyer); "Honey Bunch" (Friend).
- 11.10 p.m.—**SIDNEY BURCHALL**, baritone: "Walkin' Round in Circles."
- MO. THURSDAY, 1st MARCH, 1927.**
- 11.15 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Bar—Where the Daffodils Grow" (Donaldson); "Dreamy Hawaii" (Conley); "Where Did You Get Those Eyes" (Donaldson).
- 11.28 p.m.—**BETTY BEVAN**, soprano: "I'm a King By Birth" (Parent).
- 11.28 p.m.—**JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS**: "Bundahlers" (Walker); "I Canoe Foray" (Corrick); "Blackbird" (Dixie); "Loving You Is Lovin' Me" (Wendahl); "We Don't Want to Get Married" (Innes); "Perfume of the Past" (Marshall).
- 11.40 p.m.—**GOD SAYE THE KING**.

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The Ever-Ready "Standard" "A" Battery, 12 x 4 x 1½ volt, specially designed for economical operation of 1½ or 2 valves, taking .86 amperes at 1½ volt. For sets with four or more valves, the most economical service is obtained by using two "Standard" "A" batteries connected in parallel.

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With any smaller battery (4 volt or small 6 volt) this charger may be used as an intermittent charger of the usual type. Whatever a low-priced charger is wanted it has no superior. When used in connection with the low-capacity batteries offered by leading manufacturers it makes possible a most

economical installation for sets now using dry cells.

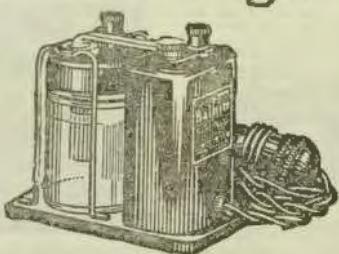
With small batteries this charger can also be used as a trickle charger if a resistance is added to cut down the charging rate to the needs of the set.

When used as a trickle charger, as an added convenience, some owners add a switch, which cuts out the charger during operation. Switches of this type also turn on Balkite "B" when the set is turned on, thus providing an entirely automatic current supply for both circuits.

The Balkite Trickle Charger is 5½ inches long, 2½ inches wide, 5 inches high. It may be put in the usual dry cell compartment. Charging rate, 4 to 5 amperes. Current consumption, 1/10c per hour. Operates from 220-240 AC 50 cycle current.

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4QG, BRISBANE

Thursday.

MIDDAY SESSION.

- 12.55 p.m.—Time in.
1 p.m.—Market reports, weather information supplied by the Commonwealth Weather Bureau; news service supplied by "The Daily Mail" and "The Standard".
1.20 p.m.—From Hotel Carlton: Lunch music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
1.55 p.m.—From the Observatory: Standard time signal.
2 p.m.—Close down.

AFTERNOON SESSION.

- 3.10 p.m.—A programme of music from the Studio—Duo Art selection, "Spring" (Moszkowski); Aeolian Vocalion selections—(a) quartette, "Ching-a-linga Bazaar" (Rudiger), Shanty Four, basso contralto solo, "The Rose Girl"; Miss Mary Field; Duo Art selection, "Drops of Water" (Ackerley); Aeolian Vocalion selections—(a) xylophone solo, "Pand Fantast" (Gognotti), Mr. M. E. Flynn, (b) selection "Wildflower" (Younman); Berries Orchestra; Duo Art selection, "Berceuse" (Clementine); Aeolian Vocalion selections—(a) fox-trot, "That's Why I Love You" (Obermann); Duo Art and his Band, (b) tenor solo, "I'll Sing These Songs of Araby" (Clay), Mr. Frank Titterton; Duo Art selection, "Chiffonette" (Allerton).
4.20 p.m.—"The Telegraph," news service.
4.30 p.m.—Close down.

EARLY EVENING SESSION.

- 6 p.m.—"Daily Standard" news, announcements.
6.10 p.m.—The Children's Session—Stories by "The Sandman".
7 p.m.—Market reports, Lecturette—"A Talk about Sheep Raising," by Mr. W. G. Brown (Instructor in Sheep and Wool).
7.30 p.m.—Stock reports; weather news, announcements.
7.45 p.m.—Standard time signal.

NIGHT SESSION.

- 7.45 p.m.—Lecture Session—A Talk on Books, by Mr. W. A. Braiden (McLeod's Bookstore).
RADION NOVELTY.

A VISIT TO THE FORD MOTOR FACTORY. The first portion of today's programme will comprise a visit to the factory of the Ford Motor Company at Eagle Farm. Microphones will be installed at various points in the factory, and a representative of 4QG will pay a visit to the plant. Special arrangements have been made to have the factory manager present and the whole of the operations in connection with the construction of cars will be described.

Commencing from one end of the factory, the representatives of 4QG will be escorted through the works, and as each individual operation in connection with the construction of a car is performed, a description of it will be broadcast.

PROGRAMME.

- 8 p.m.—A Visit to the Ford Factory.
8.30 p.m.—From the Studio, Metropolitan weather forecast.
9.30 p.m.—From the Centennial Hall, Dance music.
10 p.m.—From the Studio, the "Daily Mail" news; weather news. Close down.

**Friday, March 4
2FC, SYDNEY**

- EARLY MORNING SESSION.**
7 a.m.—"Big Bell" and announcements.
7.5 a.m.—Studio music.
7.30 a.m.—Official weather forecast, rainfall, temperature, pressure, memorandum, shipping intelligence, mail service.
7.35 a.m.—Investment market, mining share market, metal quotations.
7.35 a.m.—Wool sales, headstuffs markets, Interstate markets, produce markets.
7.45 a.m.—"Sydney Morning Herald" news service.



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RADION

PANELS-DIALS-SOCKETS-KNOBS

8 a.m.—"Big Ben," Studio music.
8.15 a.m.—Close down.
MORNING SESSION.
9.30 a.m.—Marching music for school children.
8.40 a.m.—Popular records.
10 a.m.—"Big Ben" and announcements.
10.5 a.m.—Late "Sydney Morning Herald" news service.
10.55 a.m.—Studio music.
10.45 a.m.—A serial story.
11 a.m.—"Big Ben," Australian Free Association and Post Office Cable Services.
11.15 a.m.—Studio music.
11.15 a.m.—A talk on home cooking and recipes by Miss Ruth Foyt.
11.30 a.m.—Marching music for school children.
11.35 a.m.—Close down.

SUNDAY SESSION.

12 noon—"Big Ben" and announcements.
12.30 p.m.—Stock Exchange, first call.
12.35 p.m.—Studio music.
12.50 p.m.—Sunday wireless news.
1 p.m.—"Big Ben," Florence Grand, Soprano.
1 p.m.—"Big Ben," Weston, Violinist.
1.15 p.m.—"Evening News" midday news service. Producers' Distributing Society's Report.
1.20 p.m.—Studio music.
1.21 p.m.—Miss Florence Grand, Soprano.
1.25 p.m.—Stock Exchange, second call.
1.30 p.m.—Marching music for school children.
1.45 p.m.—"Big Ben," Studio music.
2 p.m.—"Big Ben," Close down.
AFTERNOON SESSION.
2.30 p.m.—Programme and announcements.
2.35 p.m.—Musical items from the Radio.
2.40 p.m.—Miss A. Jennings, Mexico Contractor; "Yester" (Guitar).
2.45 p.m.—"Big Ben," A reading.
2.50 p.m.—Popular records.
2.55 p.m.—Marching music for school children.
2.55 p.m.—**FROM FARMER'S TEA ROOMS:** Miss Sybil Atherton, Mexico.
2.55 p.m.—"The Moon upon the Chimney" (Rubber).
3 p.m.—"Big Ben." **FROM FARMER'S TEA ROOMS:** Miss Alice Kent, Mezzo.
3 p.m.—"Do You Know My Garden" (Wood).
3.30 p.m.—Mr. Ewart Chappell A music talk.

4.30 p.m.—**FROM FARMER'S TEA ROOMS:** Miss Sybil Atherton, Mexico.
4.35 p.m.—"My Heart Is Sad for Somebody" (Barlays).
4.40 p.m.—Some popular records from the Studio.

4.45 p.m.—Miss A. Jennings, Mexico Contractor; "A Request" (Fisher).

4.55 p.m.—Photofoto solo.
FROM FARMER'S TEA ROOMS: Miss Alice Kent, Mezzo.

With George Green (Phillips).
4.45 p.m.—Stock Exchange, third call.

4.45 p.m.—Close down.
EARLY EVENING SESSION.

5.15 p.m.—The Chinese of P.T.U.

5.30 p.m.—The "Hello Man" talks to the children.

5.35 p.m.—A story for the older ones.

5.40 p.m.—Dinner music from Farmer's Oak Dining Hall. Instrumental and vocal items.

5.45 p.m.—"Big Ben," Late sporting news. A talk on Australia's prospects in the IPC Flying Competition.

5.50 p.m.—"Big Ben," Market reports; wool, wheat and stock.

5.55 p.m.—Fruit and vegetable market.
Stock Exchange.

5.55 p.m.—Late "Evening News" news service.

NIGHT SESSION.

7.40 p.m.—Programme announcements.

7.45 p.m.—Miss Goulden Rees interviews Mr. John Baldwin of the Gilbert & Sullivan Company.

7.50 p.m.—"Big Ben." **FROM THE CRYSTAL PALACE THEATRE, GEORGE STREET, SYDNEY:** Items by the Orchestra, conducted by Mr. Harry Stott.

8.15 p.m.—**FROM THE STUDIO:** Mr. Victor Evans, Baritone.

8.19 p.m.—"Minn" (Sulman).

8.19 p.m.—The final of a series of Natural History talks by the Rev. P. H. Rawdon.

8.31 p.m.—Miss Lucy Lessou, Soprano.

8.35 p.m.—"Hours May Yield" (Marshall).

8.35 p.m.—Mr. W. G. McGrath, Banjo solo.

8.45 p.m.—"The Home Town Band" (Weld).

(1) "Bye Bye, Blackbird" (Henderson).
(2) "St. Pal Jerry" (Kosci).

8.45 p.m.—Miss Margaret Grimeshaw, in popular numbers.

8.45 p.m.—A few more moments with Herbert Walton (by permission of J. C. Williamson, Ltd.).

8.45 p.m.—**FROM THE CRYSTAL PALACE THEATRE, GEORGE STREET, SYDNEY:** The Crystal Palace Orchestra in the Prologue to "The Beggar's Opera" with vocal numbers by "The Big Four".

8.45 p.m.—**FROM THE STUDIO:** Miss Vera Spauli, with her choice in popular numbers.

8.45 p.m.—Mr. Fred Heath, Piccolo solo; (1) Scherzo "Sylvia" (Tibbs).
(2) "Dance De Satyr" (Tibbs).

8.45 p.m.—Miss Lucy Lessou, Soprano, and Ms. Vicent Evans, Baritone; Duet, "April Morn" (Hartley).

8.45 p.m.—A few more moments with Mr. Herbert Walton.

8.45 p.m.—Miss Vera Spauli in popular numbers.

9.45 p.m.—**FROM THE CRYSTAL PALACE THEATRE, GEORGE STREET, SYDNEY:** Orchestral items.

10 p.m.—**FROM THE STUDIO:** Mr. Fred Heath, Flute solo.

10 p.m.—Mr. Fred Heath, Flute solo; and Mr. Victor Evans, Baritone; Duet, "Rose of My Heart" (Lohé).

10.15 p.m.—**FROM THE WESTWORTH CAFF, SYDNEY:** The New Westworth Symphonic Dance Orchestra, conducted by Mr. Sydney Simpson.

10.15 p.m.—**FROM THE STUDIO:** Miss Lucy Lessou, Soprano, (Tibbs).

10.45 p.m.—Late news and announcements.

10.45 p.m.—Close down.

11 p.m.—"Big Ben." The New Westworth Symphonic Dance Orchestra, conducted by Mr. Sydney Simpson, in popular numbers until midnight.

12 midnight—"Big Ben." National Anthem. Close down.

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		P.V.2 P.V.6 (1-Watt)
Resistance Coupling		
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*The anode resistance used should not be less than 1.5 megohms.

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Saturday, March 5

2FC, SYDNEY

EARLY MORNING SESSION

7 a.m.—"Big Ben" and announcements.
7.30 a.m.—Studio music.
7.30 a.m.—Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, local services.
7.35 a.m.—Australian market, mining share market, metal quotations.
7.40 a.m.—Wool sales, lamb-purchase exchange, Interstate market, produce markets.
7.45 a.m.—"Sydney Morning Herald" news service.
8 a.m.—"Big Ben," Studio music.
8.15 a.m.—Close down.

MORNING SESSION.

9.00 a.m.—Music from the Studio.
9.05 a.m.—Late morning sporting information by the 2FC Racing Committee.
10 a.m.—"Big Ben" and announcements.
10.5 a.m.—"Late Sydney Morning Herald" news service.

10.15 a.m.—Studio music.

10.20 a.m.—A serial story.

10.25 a.m.—Studio music.

10.45 a.m.—A talk on Gardening by Mr. G. J. Lockley, Redfern.

11 a.m.—"Big Ben," Australian Press Association and Reuters' Cable Services.

11.5 a.m.—FROM FARMER'S EXHIBITION HALL: An address to the members of the Children's Radio Broadcast Club by Mr. F. J. Van de Velde, taking as his subject "Zones of the World," with cinema and lantern illustrations.

12.30 a.m.—Close down.

MIDDAY AND AFTERNOON SESSION.

12.30 p.m.—Programme announcements.
1 p.m.—"Big Ben," Weather intelligence.
1.30 p.m.—"Evening News," midday news service, Stock Exchange.

NOTE.—During the afternoon a full description of races in the running will be given direct from Canterbury Park Race Course.

During the intervals between racing and other sporting events, news will be given by the New Westmarch Symphonette Dance Orchestra, conducted by Mr. Sydney Thompson.

6.30 p.m.—A complete resume of the afternoon's events.

8 p.m.—"Big Ben," Close down.

EARLY EVENING SESSION.

8.15 p.m.—The Chinese of S.F.C.
8.30 p.m.—The "Hello Men" talk to the children.

8.45 p.m.—A serial story for the older ones.
8.45 p.m.—Dinner music.

7 p.m.—Late sporting news. Complete resume of the day's events.
7.15 p.m.—"Evening News," news service, Weather intelligence.

NIGHT SESSION.

7.40 p.m.—Programme announcements.
7.45 p.m.—Some details of the forthcoming Royal Tour to Sydney.

NOTE.—The latest touring results will be transmitted direct from the Speedway Royal 8 a.m.—"Big Ben," FROM THE DECK OF THE CUNARD LINER, *SS FRANCONIA*, now on her world tour and at present berthed at Woolloomooloo Wharf; Tunes from the Ship's Orchestra of 30 players, interspersed with vocal numbers from 220 artists.

A few words from the Director of the Tour.

8.5 p.m.—The "Francisco" Orchestra.

8.75 p.m.—Mr. Alfred Cunningham, Bassinet:

(a) "The Devout Lover" (White).
(b) "Down Vauxhall Way" (Oliver).

8.25 p.m.—The Ship's Orchestra.

8.30 p.m.—Miss Leslie Elliott, Entertainer:

(a) "More like Us Than Every Day" (Barwick).

(b) "I Might Learn to Love Him" (Winton-Lee).

8.45 p.m.—The s.s. "FRANCONIA" Orchestra.

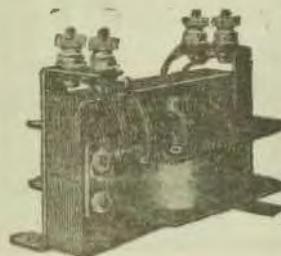
8.50 p.m.—Madame Emily Marks, Soprano:

(a) "Danube" (Clarke).

(b) "The Morning Call" (Perry).

- 8.55 p.m.—Mr. Van der Kiel, Cello solo.
- (a) "Amazzone" (Curtis).
- (b) "Guitette" (Pepper).
- 8.30 p.m.—Mr. Jack Lamondine, Songs of the piano.
- (a) "Holy Face" (Davy).
- (b) "Lullaby" (Lindström).
- 8.40 p.m.—Mr. Alfred Cunningham, Bassinet:
- (a) "Reuben, Ranz" (Coates).
- (b) "Gypsies and Minstrels" (Old Trish).
- 8.45 p.m.—The s.s. "FRANCONIA" Orchestra.
- 8.50 p.m.—Miss Leslie Elliott, Entertainer:
- (a) "In the Cool of the Evening" (Elliott).
- (b) "The Old Folks I Shall Have to Call" (the Gouges' Melody).
- 8.55 p.m.—The s.s. "FRANCONIA" Orchestra.
- 9.45 p.m.—Madame Emily Marks, Soprano:
- (a) "When Eyes are Sad" (L'Entr'acte).
- (b) "The Singer" (Maxwell).
- 8.30 p.m.—Mr. Van der Kiel, Cello solo:
- "Variations Symphoniques" (Brahms).
- 10 p.m.—Mr. Jack Lamondine, Entertainer:
- (a) "Dinah" (Abbie).
- (b) "Say it Again" (Silver).
- 10.5 p.m.—The s.s. "FRANCONIA" Orchestra.
- 10.15 p.m.—THE 2FC CHORUS:
- Miss Leslie Elliott, Soprano:
- (a) "The Clocks" (Lehmann).
- (b) "A Song of Sleep" (Sousa).
- 10.30 p.m.—Results from the Speedway Royal.
- 10.35 p.m.—Mr. Harry Randle, Trombone solo.
- 10.45 p.m.—Annenstein.
- 11 p.m.—"Big Ben," Late sporting results.
- 11.15 p.m.—The 2FC Studio Dance Band will play until midnight. Popular choruses by Mr. Len Maurice, with band accompaniment.
- 12 midnight—"Big Ben," National Anthem.
- Close down.

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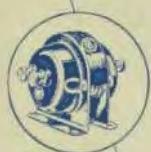
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