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Australian RADIO AND TELEVISION NEWS

CHRISTMAS ISSUE

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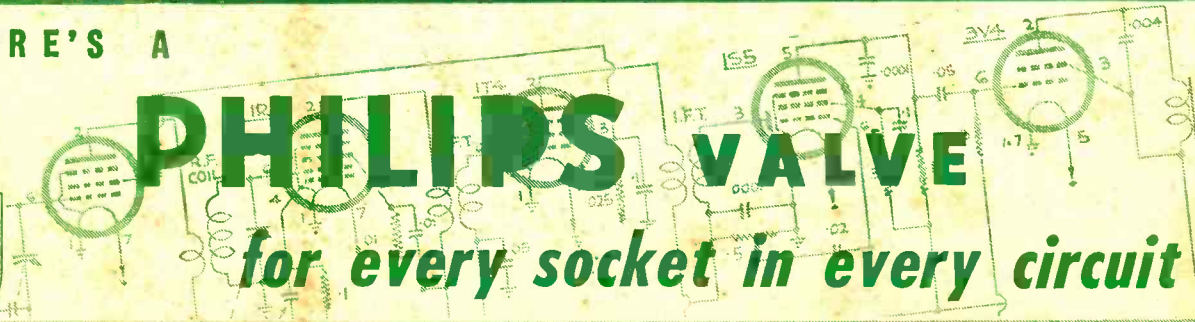
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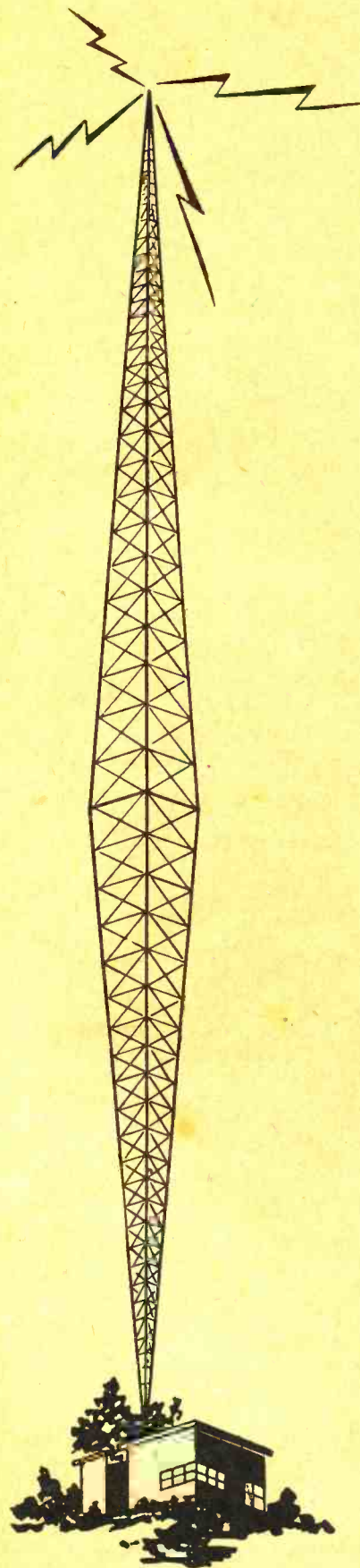


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AUSTRALIAN RADIO AND TELEVISION NEWS



THE PROGRESSIVE NATIONAL
JOURNAL FOR EVERYBODY



EDITED BY DON B. KNOCK

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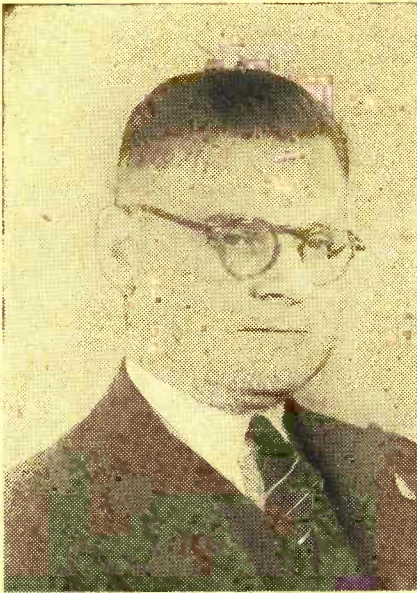
DECEMBER, 1949

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IT CAN
BE —



A HAPPY
CHRISTMAS



THE old words about Christmas have never before meant so much when they say, "What matters is the spirit of the occasion and not just the festivities and presents." After having brought to an end the most devastating war the world has known, mankind everywhere ought to be secure and more happy than is the case to-day.



Nature is bountiful enough and the means to prosperity is in the hands of man to make the most of—the future could be very bright indeed. The trouble lies there, in something that "could be," for all of us form a habit of thinking or fearing that maybe it will not be so. What is the reason for this way of thinking? It is simply that people throughout this planet are afraid of something; depressions—call them "recessions" if you will—wars, and each other. There is an idea, mostly submerged, but often coming into the open, that there is no such thing as "Peace on earth and good will toward men." It is a strange turn of human nature which in time of war brings out fierce bonds of comradeship between men under stress and threat of death, but which appears to do the opposite in ordinary walks of peaceful life. Wrong thinking and intolerance are mainly responsible, and words without thoughts of the sincere kind to back them up are futile. So let us refrain from using words without thoughts to express the spirit of Christmas this year. Let us put spirit and good will into our daily lives, and then we can be sure that there will be a real meaning to our greeting of "A Merry Christmas."

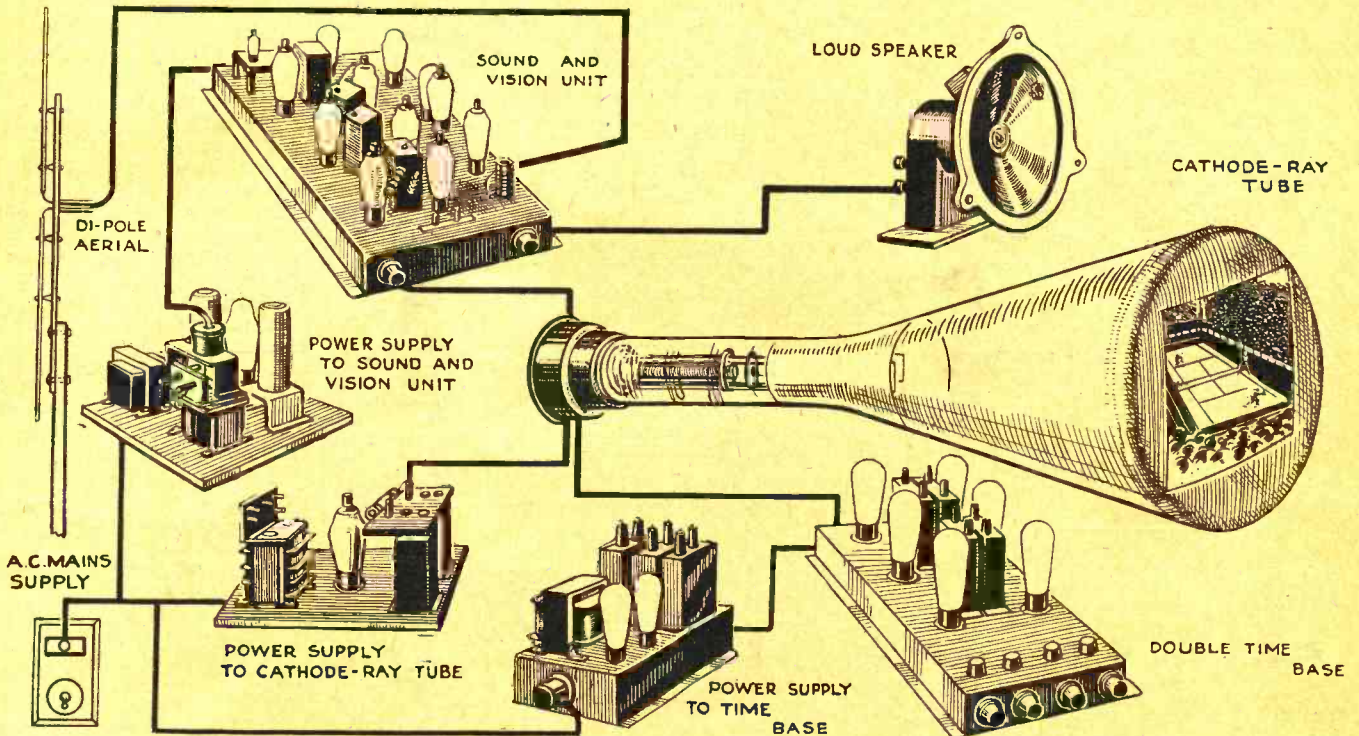
—DON B. KNOCK.



Television To-Day!

Below:—

Your television receiver will be something like this picturisation of the main units. This schematic shows the parts usually employed in a cathode ray television receiver. Sound and vision receivers are built on the same chassis.



Prominent American radio and TV publisher, Hugo Gernsback, made a prediction of a logical form of television eyeglass, especially for invalids. The idea, like most things in this super-scientific world, is by no means impossible, and is quite likely to be developed some day. This is what he said, and it was as long ago as 1936 that he said it:—

"In that year I wrote an article predicting television eyeglasses. This is an eyeglass frame on which are built two separate miniature televisions. The whole weighs but a few ounces. The images on the two tiny screens are about postage-stamp size, but as the screens are less than an inch from your eyeballs, the small size is no drawback. The dual images, though small, are sharp and clear, exactly as if viewed through binoculars. Now you can recline in your easy chair and really enjoy television. Or, in your office you can plug the Tele-Eyeglasses into your regulation tele-set; and if you wish to see an important event, you can stay right at your desk, without

moving about. If you are ill, in bed, the 'tele-glasses' will prove to be a great boon.

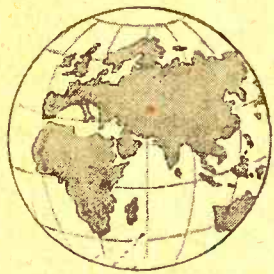
"Note well that the television eyeglasses are only an adjunct to a regulation television receiver—they are what an extra speaker, or headset is to a radio set. They will NOT be—at least for years to come—a complete self-contained television receiver.

"The tele-glasses are merely two tiny, lightweight cathode-ray tubes with two controls for sharpening and properly adjusting the images. We have the technical means to-day to make tele-glasses—it should not be many years before they are on the market."

SOME DAY?
Television Eyeglasses?



● Cathode ray tubes by the dozen. These Television "Emiscopes" are undergoing tests in the tube section of the vast E.M.I. Works at Hayes, England, where a large percentage of Britain's TV Receivers are made.



Telenews



I.R.E. TELEVISION DEMONSTRATION

Members of Sydney Division of the Institution of Radio Engineers Australia, attended, by courtesy of Amalgamated Wireless (Australasia) Ltd., a lecture and demonstration of television at the Radio-Electric Works, Ashfield, on 18th October last. The lecturer, Mr. J. E. Benson, M.E., B.Sc., M.I.E.E., dealt ably with the subject which covered "Television Picture Quality," and the demonstration at the conclusion left no doubt about the superlative picture definition obtainable with the 625 line R.C.A.-Marconi TV equipment. A live programme arranged by the laboratory staff provided the material for demonstration. Television is undoubtedly a fully accomplished technical achievement, and for Australia the main question now is not so much "what" as "when"?

BRITISH TELEVISION NEWS

From Our London Correspondent

WITH the exception of the war years, I have been a regular viewer since 1936, and my interest, far from waning, seems steadily to increase. In fact, if we now had to do without Television in my household, I shudder at the thought of how very flat it would be. It would take an awful lot to compensate for the loss of the very real entertainment value that Television provides daily.

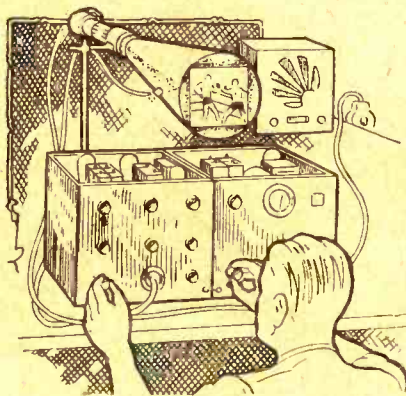
Plays, variety programmes, ballets, etc., are now put over with all the professionalism and polish of West End shows, and the "outside broadcast" units provide us with a very good sprinkling of topicalities.

Outstanding amongst recent events in this respect were the Olympic Games. The pictures really were remarkable both from the swimming pool and from the stadium, and throughout the Olympiad we were able to enjoy five or six hours of "Olympic" Television every day.

As you probably know, there are at present approximately 50,000 Television receivers in use in this country and an estimated audience of a quarter of a million. The rate

of progress in this respect has naturally been restricted by post-war raw-material and other manufacturing problems, but the real point is that the interest is there, and now that industry as a whole is really getting to grips with set production, we can, I think, look confidently to great things ahead. At the present time, we have only the one station at Alexandra Palace, but the Birmingham station is well in hand, and this new station will be opened in the autumn of 1949. That will serve an area of at least five million population.

The vexed question of line frequency appears to have been settled in this country for at least the next few years by a recent Government pronouncement that it is intended to continue with the present system (405 lines). There is plenty of evidence that the 405 line system provides picture definition at least as good as the American 525 line system, and many people competent to judge assert that it is better.



As a matter of interest, that view was advanced by the Captain of the American Olympic Games team, who said that he had never seen Television at home to compare with what he had seen here.

Naturally we like to think that our system is the better, but we do not make any stupid claims. Technically, 525 lines should give higher definition than 405, and if the reverse is the case in practice, it can only be due to greater design care at all the other vital links in the complicated chain, plus the recognised excellence of the Emitron

cameras. A 405 line picture 95 p.c. resolved is, I suppose, better than a 525 line picture only, say, 75 p.c. resolved. The figures are entirely hypothetical merely to stress the point! They should not be taken literally, but I can say that under ideal conditions it is even above the 95 p.c. I am not in any position to offer any opinion as to what may be happening on the other side of the Atlantic. Even so, we do know what can be achieved with higher definition, for although for economic and other reasons Britain is likely to use 405 lines for the next few years, 605 lines is an accomplished fact in our laboratories.

TELEVISED ART

THOUSANDS of Americans eventually may be able to see on television screens in their homes art treasures in the Metropolitan Museum of New York City. Tentative plans for television facilities in the Museum are being studied by the Museum's architects and by engineers from the Columbia Broadcasting System (C.B.S.). A number of technical difficulties must be overcome, experts say. The Museum's electrical system, for example, must be changed from direct to alternating current. The effect of prolonged heat from strong lights on valuable paintings and tapestries must also be determined.

Among the Museum's exhibits said to lend themselves particularly well to television are the Costume Institute, with its collection of arms and armour; the American Wing, and the Egyptian, Greco-Roman, and Near and Far Eastern Galleries.

C.B.S. started experimenting with televised art programmes in 1941, when art objects were brought to its studios and were discussed by experts. In 1947, a second programme was televised in the Museum. This combined music and dancing with art displays. Last Spring 148 paintings from the Berlin collection which toured the United States were televised from the Museum.

Speaking of television, a well-known earlier day movie star said, recently: "Television is still in the nickelodeon stage"—in other words, it is not yet ready for showing in M.G.M. or Rank circuits.

AUSTRALIAN

Television

NOW A VITAL FACTOR IN MEDICAL SCIENCE

Australian medical history was made on November 8th, 1949, at Melbourne (Vic.) Women's Hospital, when a rare surgical operation lasting one and a half hours was televised. Equipment used was A.W.A.'s 625 line R.C.A.-Marconi as demonstrated to the provincial press at Ashfield, N.S.W.—Editor.

Referring to the televising of an operation in the Women's Hospital, Melbourne, Mr. Hooke, Managing Director of Amalgamated Wireless, stated that the equipment used was a Marconi 625 line High Definition Camera and the associated Viewing Apparatus was designed and made in the laboratories of Amalgamated Wireless.

It is the first time an operation has been televised in Australia, and it is one of the many practical uses of television, enabling many people to watch and study the latest surgical technique without interfering or crowding the actual operating theatre.

The arrangements were in the hands of Dr. Refshauge who initiated this interesting demonstration.

The Radio Physicist and Biologist have in many cases combined research to obtain greater knowledge of the human body and its functions. The Radio Engineer has also devised many instruments suitable for biological investigation, such as the Electron Microscope, with its magnification of over 100,000 times, enabling the identification of bacteria and viruses and even the smallest body cells.

Dr. Refshauge said, at a press interview on November 11th last:

"After three months of planning and experimentation a week of televised surgical operations was able to be successfully performed at the Women's Hospital, Melbourne. These made medical history this week, as this is the first time in the Southern Hemisphere that television has been used to demonstrate surgical procedures.

"The clarity of detail of the operations as shown by the receiving units actually surpassed all we had hoped for, and the view afforded the audience was as good as, if not superior to, that of the surgeon himself.

"Once again radiophysics has been called upon to aid medicine. We already have radiotherapy and radio-diagnosis as most important aids to diagnosis and treatment in medicine, and now we have television to aid us in the teaching of the art of surgery.

"Demonstrating surgical procedures to a large number of post-graduate doctors is always a worry. Only a few out of the multitude, when crowded around the operating table or in a gallery, can see any detail of the operation.

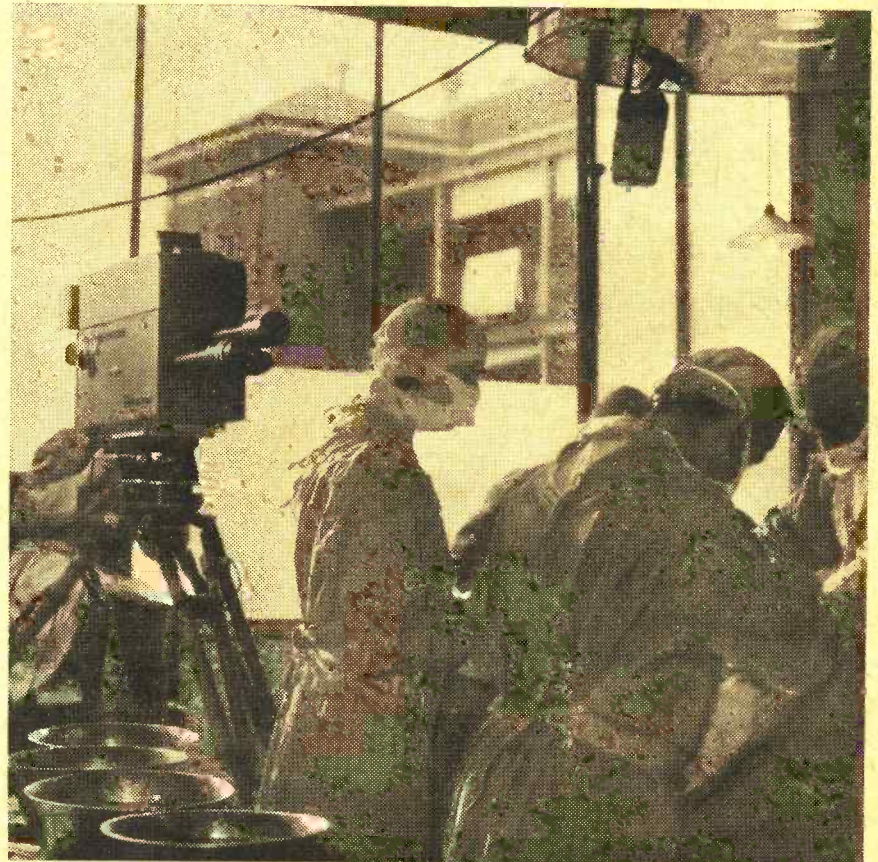
"The Royal College of Obstetricians and Gynaecologists at their bi-annula meetings like to demonstrate a surgical operation and, as the next meeting of the College was to be held at the Women's Hospital, Melbourne, this hospital decided, three months ago, to investigate television as ap-

plied to surgical demonstrations in order to overcome the disappointing results to the onlookers.

"Amalgamated Wireless Australia were contacted, and by their highly co-operative and untiring efforts this was made possible this week.

"Having seen the televised operations each day I am satisfied that the scope of this method of demonstrating surgery is very wide indeed. Not only will post-graduates in the future benefit but also the undergraduates and the nursing staff.

● Below—The operation in progress at the Melbourne Women's Hospital.



(Continued overleaf)

(Continued from page 9)

"The demonstrations during the week were attended by nurses, medical students, post-graduate doctors, the President of the British Medical Association (Mr. Victor Hurley), the Dean of the Faculty of Medicine in the University of Melbourne (Professor MacCallum), the Chairman of the Hospitals and Charities Commission (Mr. McVilly), the Director of Post-Graduate Medicine in Sydney (Dr. Coppleson), the Professor of Medicine in the University of Brisbane (Professor Murphy) and representatives of many other interested bodies.

"At the Royal College of Obstetricians and Gynaecologists meeting on 11th November, which was attended by members from many parts of Australia, clinical cases were also televised. I believe this is the first time in the world that this has been performed to such type of medical congress.

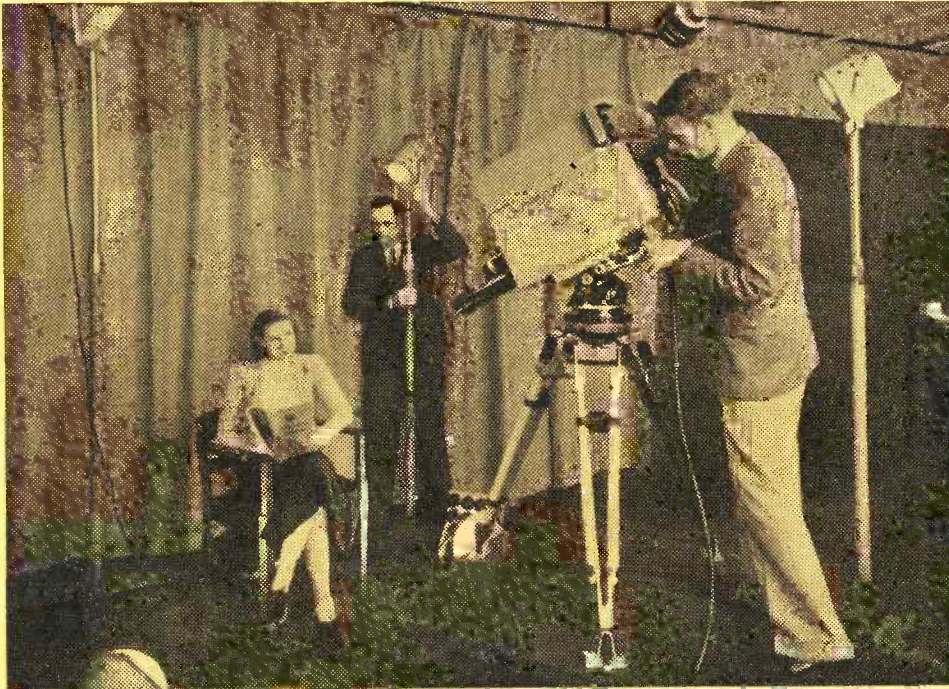
"An amazing success, a wonderful future."

dorf-Astoria Hotel in New York at a meeting of the American College of Surgeons when televising of operations was first done. There the operations were done at the New York City Hospital and were transmitted on a special wave-length to the Waldorf-Astoria where the College of Surgeons was meeting. There were about fifteen hundred members present. The rooms were very crowded, and we saw on large screens the televising. Later, I had an opportunity, by courtesy of the Board of Regions of sitting on a private demonstration very similar to the one that you are looking at at the present moment.

"The demonstration that we have seen to-day is a hundred per cent better in every way than those original demonstrations. The picture to-day is clear, vivid, and to the smallest detail, accurate. The presentation is smooth, there is no interruption, there is practically no flicker. In that, which was two years ago, there was a very great deal of flicker and

the future of teaching in surgery would be largely in the hands of television. How much has that been borne out to-day when, by Australian workmanship, genius we have seen the demonstration which, in my opinion, is magnificent. But this is only the beginning, the next thing will be colour photography in television and then the practitioner, the post-graduate and the student will be able to see the operating field actually as it is. At the present moment obviously there are limitations to the teaching that can be done. The student must have his basic training in the operating theatre, but to the trained surgeon and senior students this opportunity of sitting quietly and in comfort, an august feat which is a considerable factor these days must make his study of surgery not only more interesting, more intelligent but more pleasant and more satisfying.

"I wish to pay a very high tribute to Amalgamated Wireless (Aust.) and I would like Mr. Longstaffe to



★ This shows the identical 625 line A.W.A. television equipment in use at the Ashfield (N.S.W.) laboratory during a press demonstration.

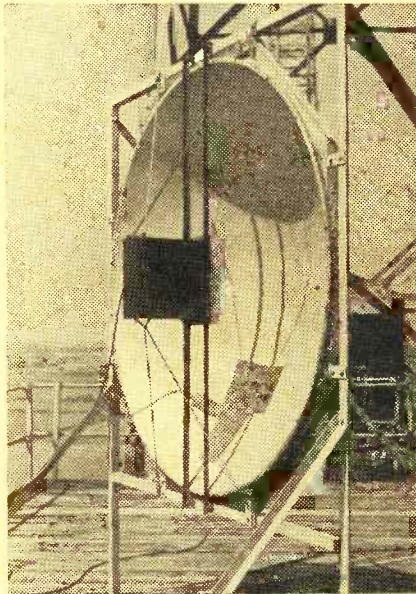
Mr. Maguire, Chairman of the Australian Regional Council said, in his address:—

"Mr. Longstaffe, fellows and members of the Royal College of Obstetricians, ladies and gentlemen. On behalf of the Australian Regional Council and the Victorian State Committee of the Royal College of Obstetricians and Gynaecologists I would express our very deepest appreciation of the wonderful scientific demonstration that we have had to-day. It was my privilege in September, 1947, to be present at the Wal-

there were a considerable number of interruptions. The operations that I saw, were, for instance: an excision of the stomach for cancer; a very large extension from the 9th to the 4th lumbar ganglia, the reconstruction of the outer surface of the right knee-joint. They were very good and I was deeply impressed, and you may remember that in March last year, at the centenary of your Royal Melbourne Hospital, speaking after the late Dr. John Green, whose tragic and early death we lament and which we so deeply deplore, I mentioned, together with him, that we felt that

convey to Mr. Hooke, on behalf of our college and our Committee our very warm appreciation of the work that has been done, and our recognition of the advances that have been made, and our belief that we are standing on the threshold of very much bigger things. You will remember that it is written in Holy Writ 'That our old men shall see visions and our young men will dream dreams.' We older ones can indeed see visions on what the possibilities of the future may be and our younger men, the men who really matter to-day, the men who have been de-

monstrating to us to-day, dream their dreams and see their dreams come to ripe fruition in the years to come. Science is linking with medicine in very many ways. The future of the human race is not to be considered by the atom bomb on the destructive side, but by the constructive side of the linking of Physics, Chemistry and Biology. This is a great historic moment. The first television of surgery in Australia, and I am proud that this should be done under the auspices of our Royal College of Obstetricians and Gynaecologists. Obstetrics is the oldest profession in the world, and gynaecology its hand-maiden, is the combination of medicine and surgery in the study of diseases peculiar to women. This is a great moment in our lives. It would have been a great moment had we been present when Ephraim McDowell operated on the first ovarian cyst. It would have been a great moment to have been present at Lister's first operation, or to have seen chloroform administered for the first time. But we have seen something new and in days to come our sons and our sons' sons will look back and see how lucky were they who sat in the Melbourne Women's hospital on this day of November, 1949, and saw the first projection of surgery in Australia—the beginning of very great things.



● One of the giant bowl-shaped paraboloids being installed on six 80-foot towers in Britain between London and Birmingham for the "Relay" of television programmes. The London transmission will be beamed from one to another of these paraboloids on a 33 centimetre wave-length. The operation will be fully automatic; any failure will cause an alarm to be sounded at the London or Birmingham terminal control point, and there will be an automatic change-over to a duplicate apparatus. The intermediate stations will be entirely unmanned and need only be visited once a month for routine checks.

WHERE STATIONS WILL GIVE NATION-WIDE COVERAGE

By L. MARSLAND GANDER,
Radio and Television Correspondent
of the "Daily Telegraph," London.

TELEVISION in Britain began as a public service on high definition in 1936—thirteen years ago—and Britain's world leadership remained unchallenged up to the outbreak of war, in 1939, when the service closed.

When it was resumed ten years later re-establishment was hampered by postwar difficulties, but now British television has not merely recovered but has made great strides in popularity: plans for country-wide coverage are progressing as fast as economic circumstances will permit.

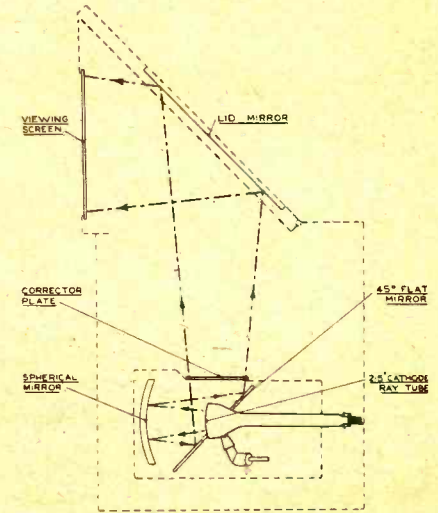
In 1939 there were, at most, 10,000 set-owners in the London area. Today, the number of licensed sets increases by almost that figure every month, and, by the end of the year should reach 250,000. The first provincial station, supplementing the transmissions from Alexandra Palace, has been built at Sutton Coldfield, near Birmingham, England, with alternative connections to London by a radio link or a Post Office cable. This will serve another 6,650,000 people. A third station is projected for the North country, situated on the 1800 feet peak Holme Moss, near Huddersfield, in Yorkshire, from where transmissions will reach another 12,000,000 people. There will be a fourth in Scotland, and there are also plans for extending television to South Wales, South-West and North-East England, Southampton, Belfast, Aberdeen and Plymouth.

Most Powerful in the World

These new stations will all work on the London definition of 405 lines and—according to present proposals—will relay London studio programmes.

The Sutton Coldfield relay transmitter has unique features. It is the most powerful in the world, with double the peak power of Alexandra Palace in its vision transmitter, and four times the carrier power for sound. Its 750 foot aerial mast is built on ground 550 feet above sea level, and is the loftiest in Britain. The great height of the aerial and the increased power mean that the station will have a much wider range than Alexandra Palace. Most experts consider that the British Broadcasting Corporation's estimate of 50 miles is far too conservative, and that its reliable range will be considerably wider.

Emitron Television of Hayes, Middlesex, England, which built the vision transmitter, have used a system known as a symmetric or vestigial sideband (V.S.B.). The object is to reduce the channel width to be occupied on its 4.8 metre wavelength, thus making room for more stations. This system, for which a special filter has to be made, occupies only two-thirds of the frequency band that would be required by the older method used at Alexandra Palace.



Projection of a large image from a small tube.

The radio link, designed and constructed by the General Electric Company, Kingsway, London, England, for Britain's General Post Office, is something completely new. Six 80-foot towers are being built along the 100-mile route between London and Birmingham, and the London transmissions will be beamed from one to another on a wavelength of 33 centimetres. Signals will be directed by means of bowl shaped paraboloids which catch and reflect radio waves. Operation will be automatic throughout and any failure will cause an alarm to be sounded at the London or Birmingham terminal control point. The cause of the failure and automatic change-over to duplicate apparatus will be shown on an illuminated indicator board. All the intermediate stations will be unmanned and need only be visited once a month for routine checks. Eventually this system will permit two-way television between London and Birmingham. But, in order to get it working as soon as possible, a single reversible channel, using temporary masts, has first been built.

World's Best Value

Assurance that the 405-line system will continue indefinitely has made it possible for Britain's 24 television manufacturers to concentrate on mass production of a cheap, reliable and

(Continued Overleaf)

simple receiver. America is the only other country producing receivers in any numbers, but comparison of prices is difficult, because the U.S. receiver has to be designed to receive more than one station, while Britain has a 33 1/3d per cent. purchase tax added to the cost. If value be the criterion, the British receiver is the cheapest in the world, especially since the change in the dollar-sterling exchange rate. At least four models are selling, with tax, for less than £50, and one has been reduced as low as £36/15/-.

Proportionately, there are more 12-inch tubes in British sets than in American. Flat-ended tubes are also helping to produce slightly bigger pictures. Though direct or mirror viewing off the end of the cathode ray tube is still the most general method, progress is being made with projection models, providing a large picture from a tiny tube. Receivers are more compact and more ornamental, as furniture. Some, for instance, have folding doors to hide the tube; some are shaped to fit the corner of a room.

(Courtesy U.K. Information Office)

Latest: Relayed TV

Relayed television programmes will soon be available for London homes. E.M.I. Relays Ltd., have now perfected a system capable of supplying houses direct by wire with high quality vision and sound at a weekly cost that will be within the range of every pocket.

A special receiver is supplied which is of the size and appearance of a normal table television set. Televiewers will merely have to plug the set into the mains and connect to the special lead-in provided and leading from the master unit.

The unit incorporates a switch which gives a choice of five radio relay programmes as well as the television programme.

A special cathode ray tube will enable viewers to receive clear programmes in daylight or normal room lighting.

Visitors to the recently held Radiolympia were able to see the unit which will be installed in the home and the master receiver-retransmitter equipment installed at the relay station of E.M.I. Relays Ltd.

At a recent meeting an American theatre manager said: "There is a danger that television shows for children might educate them away from the cinema."

Danger, did you say!

"Oolala": Trust the French to do it differently. The Parisian television station doesn't radiate a geometrical design for pre-programme tuning purposes, Non M'sieu—instead—a picture of a beautiful Folies Bergeres girl. What's more, they change the lady every day of the week.

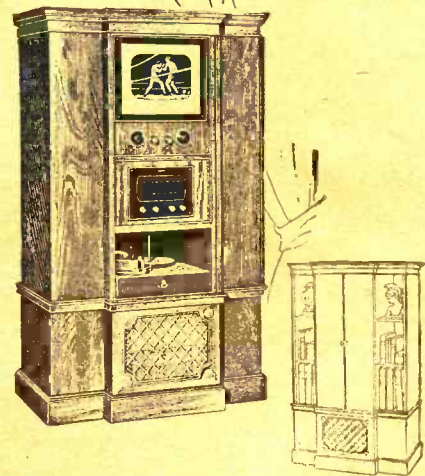
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SAFETY

If only one person can look at a television frame at a time, there will be less jealousy in the household when husband eyes up the television girl.

* * *

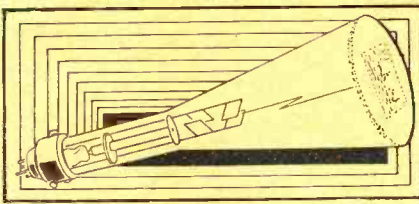
"E.H.W.": Small Class B output transformers of the type designed to match 6N7, etc., to a Class C load of from 3500 to 7000 ohms make excellent Class AB driver transformers when used "backward." They can be used to match a 45, 2A3, or triode connected 807 to Class AB 807's, etc.



● ABOVE—A striking design. This is an American combined television and all-wave radio receiver, plus record player-amplifier and bookcase to complete the ensemble.

● LEFT—A scene during the televising of a children's party in the London TV studios. Such programmes are very popular with British viewers.

THERE'S



VISION



IN MUSIC

These observations, given here by courtesy of the editor of "Television and the Viewer," England, are of interest to our musically gifted readers. Some day in the narrowing space of time, the vision aspect of music will apply equally to Australia; it will be important that we see the right kind of scene to synchronise with the accompanying sound.—Editor.

WE at Alexandra Palace look forward to making many new friends as television reception spreads through the country. Amongst those friends there must be music-lovers who are wondering what sort of a deal they will get. As one primarily concerned with the effective presentation of music in television—I think it would be interesting to carry out a poll just to see how things stand at the audience end of the screen.

Are you, I might ask, one of those who say, "Of course, I always close my eyes when listening to music"? Or, do you switch on your radio to help you when you fill up your pool forms? Or, when you go to a concert, do you follow the music with a score, do you keep your eyes glued on the conductor, or do you spend most of the time in the bar anyway? Do you care to have a close-up of the bassoon-players's bald head at the beginning of Stravinsky's "Sacre," or couldn't you care less? Do you like ballet, and if so do you go to hear the music, to watch the dancing, or both, or neither, or because you feel you have an affinity with a certain dancer, or for none of these reasons? Or, do you like opera, and if so do you mind if Violetta is portrayed by an elephantine female who could put a diminutive Alfred in her side pocket and not notice it?

These are just some of the questions we are continually asking ourselves, and they apply only to the receiving end—your end—of television. There are many far more complex and difficult ones to consider in relation to the transmitting end—our end. To take one example — a problem which does not arise either in the theatre, in film production or in sound broadcasting—the question of the "sound balance" for a studio production of an opera.

ENGINEERS' PROBLEM

The acoustical set-up which gives a nice balance between singers and orchestra in Act I, played on the main stage, must be adjusted for Act II, played on a side-set; while Act III, back on the main stage, with appropriate scenic changes, will probably upset everything because those changes of scenery have had a

By

JAMES HARTLEY

Head of the Music Section,
B.B.C. Television.

marked effect on the acoustical properties of the studio. And yet the opera must take its course smoothly and agreeably without a break from beginning to end. Our engineers are, of course, used to handling this sort of problem, but each new case presents its own peculiar difficulties.

I do not mention points like these in order to "soften-up" in advance viewer-reaction to possible shoddy efforts on our part, but rather to show that we whose job it is to present an aural art through an essentially visual medium are very much alive to *all* aspects—technical as well as aesthetic.

It is not enough simply to engage an orchestra and a famous conductor, put them in a studio, switch on a few extra lights, stick a camera up in front of them and ask them to start playing. That is not television at all. Certainly, television broadcasts of notable public concerts, such as the one of Furtwangler and the Vienna Philharmonic, from the Royal Albert Hall, have a very distinct place in our programmes; but those are occasions when we try to convey the view-

er to the concert, rather than the concert to the viewer. It is the sense of an important musical "occasion" at which viewers can participate, although they may be hundreds of miles from the actual scene of the event, that has helped to make those broadcasts successful.

On the other hand, broadcasts of opera and ballet, direct from the theatre, have shown pretty clearly, I think, that these forms of art must be produced in the studio to make their full effect in television. In opera, for instance, many things which will "get by," when viewed from a seat in a large theatre, simply will not do when translated into the intimacy of a screen in your home. As an American music critic despairingly and bluntly puts it: "Won't television take some of the dust off present standards of operatic staging, and especially acting?"

The television camera roams far and wide and in opera it must roam right on to the stage, so to speak, and in amongst the characters. Crude acting, and a grotesque appearance, brought in close-up to our eyes by the all-revealing camera, will kill stone-dead the finest singing on earth, and anything which gets between the viewer and the music must be ruthlessly eliminated.

THE VISUAL ASPECT

The visual aspect must always be made to serve the aural, in musical presentation, and unless it makes a very definite contribution in that direction the result will be poor television.

It follows, therefore, that a very great deal of music must always be left to sound broadcasting, and television does not attempt to do what sound broadcasting can obviously do better. It is in the realm of theatre-music, opera, ballet, film, puppets—that television must seek its musical subjects, adapting and moulding them to its own requirements and, it is to be hoped, creating new works especially for the medium.

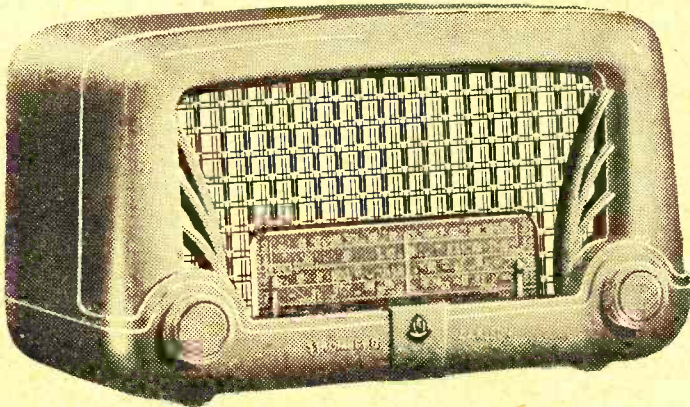
(Continued on page 15)

OUTDATES EVERY OTHER RADIO ON THE MARKET

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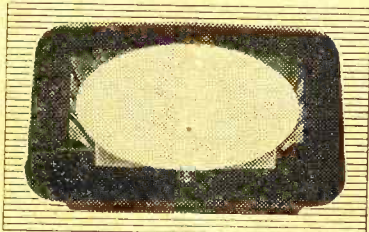
OVALTONE

SETS THE FASHION FOR ALL FUTURE RADIO

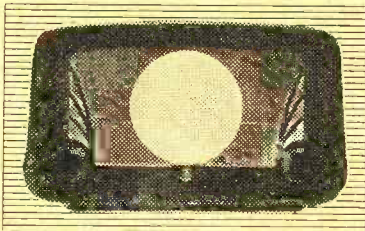


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1. X-Ray photo shows special Ovaltone speaker giving concert-hall pitch and full colour tone.



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BECAUSE NO OTHER RADIO IN AUSTRALIA CAN EQUAL THE PERFORMANCE OF OVALTONE. ITS INTRODUCTION CAUSED PUBLIC RESPONSE UNPARALLELED IN AUSTRALIAN RADIO SALES HISTORY.

The magnificent set illustrated above is the Stromberg-Carlson Modernaire fitted with exclusive Ovaltone. This model is a 5-valve, broadcast (or dual wave) receiver possessing the tone, performance and appearance usually found only in the larger and more expensive console models.

Don't be satisfied with an ordinary old-type set when luxurious Ovaltone is no dearer. Your nearest Stromberg-Carlson retailer will gladly give you a "live" demonstration without obligation. **HEAR IT TO-DAY!**

Beautifully designed throughout, Ovaltone Modernaire is available in four new shades — New Ivory, Havana Brown, Sorrento Blue and Nile Green.

Broadcast—**£24/13/6** in walnut (other colours 10/- extra) or just a few shillings a week.

HEARING IS BELIEVING!

Millions listen to **STROMBERG-CARLSON**

(Continued from page 13)

There is among English music-lovers a strange ignorance of music of the theatre, owing to the habit in this country of associating the art almost exclusively with the concert hall. That there is a lot of "visual" music which is well worth anyone's money and attention will, I hope, be amply shown through the medium of television.

ACOUSTICAL CHANGES

To give anything like a comprehensive account of what television has already done in the way of musical presentation would require not one but many articles a good deal longer than this one. But I recall notable productions of such operas as "Hansel and Gretel," "Gianni Schicchi," Act 2 of "Tristan," "Aida," "Master Peter's Puppet Show," "Pagliacci," and in lighter vein "Derby Day," "Pepito," and "Jolly Roger."

Ballets ranging from the great classics like "The Sleeping Princess" to specially created works like Spike Hughes' "High Yellow," Eric Coates' "The Three Bears," Prokofiev's "Peter and the Wolf," and the ever-memorable "Fugue for Four Cameras" in which the superimposition of four cameras in turn, all "shooting" the same dancer from different angles, gave a perfect visual interpretation of the principles of fugue.

What they say about

TELEVISION

Sir William Haley, Director General of the B.B.C., thinks sound broadcasting will go on its way unperturbed, making whatever improvements the years can bring. "The talk that sound broadcasting has already received its death blow but does not know it is nonsense. Even in the United States of America, where this talk is most prevalent (and where something of the kind is far more likely to come about), one of the four main networks is so sure there will always be a future for sound radio that it has decided not to embark on the hazards of television.

"Other networks envisage the future as we do, an eventual marriage between television and sound; each being used to its best purpose in an integrated broadcasting system. But that marriage is over a decade away."

On the other hand, the B.B.C. Controller of Television, Mr. Norman Collins, says: "The first casualty of television, possibly the only casualty, is not the local cinema or the county theatre—it is sound radio."

Charles Hull Wolfe, Director of Radio and Testing Bureau of Batten,



● Popular American comedian Danny Kaye in typical mood before the B.B.C. microphone during an "In Town Tonight" session.

Barton, Durstine and Osborn, in U.S.A., says: "Television will glitter brilliantly, but radio will also continue to shine. Even the most ardent television fan will find himself often in a position where he is unable to look at the television set. The person may be shaving, or sewing, or driving a car, or off on a picnic, or at the beach. And while his TV set is left behind in his living room, he can still be enjoying a portable radio."

Merlin H. Aylesworth, former President of N.B.C., says that radio is doomed. "Within three years the broadcast of sound, or ear radio, over giant networks will be wiped out. Powerful network television will take its place, completely overshadowing the few weather reports and recorded programmes left to the remaining single, independent radio stations." Mr. Aylesworth adds that not only

the radio, but also the newsreel, is doomed in U.S.A. by television.

Mark Woods, President of American Broadcasting Company, is adamant that television will never knock out radio. "For the simple reason," he says, "that it has never been found that any one medium wholly displaces the other. In other words, sound movies were merely an evolution of silent films. The horseless carriage was merely putting rubber tyres on the old surrey and equipping it with self-propulsion of some sort. Television is just adding another factor to radio."

* * *

COMIC CUT

"Drink," said a prohibitionist friend of a well known radio comedian, "is the greatest curse of the country. It makes you shoot at your wife." "Perhaps," replied the funny-man, "but it also makes you miss her."

UNCLE SAM'S NAVY MAKES TELEVISION USEFUL IN TRAINING.

Says the American Magazine "Radio Electronics":—

THE U.S. Navy and the booming art of television were introduced to each other and the acquaintance promises to be a long and profitable one for both parties. The nation's tars-in-training can be expected in future to see a great deal of the video screen. The programmes they watch may not be as entertaining as the puppet shows and Broadway plays we view in our living rooms of an evening, but the high quality of the instruction the Navy presents to its men by TV and the large number of students who can participate in it may some day help to determine whether or not we'll be in the vicinity of our living rooms and whether the living rooms will still be there.

The Navy believes television has two special values. First and most obviously, it is a means of instructing tremendous numbers of men at one time. Naval training, like that of the other armed forces, is—or attempts to be—standardised, so that trainees of any particular course will graduate with the same quality and

quantity of knowledge. In actual practice, not all instructors have the same facility for teaching. With students all over the country watching and hearing the same instructor, standardisation would be a fact.

In the event of a national emergency, the results of the Navy's television experiments may prove a vital factor in protecting the U.S. With country-wide armed-forces centres linked by video, millions of men in places separated by thousands of miles can be shown and taught procedures and techniques evolved only the day before. Dependence on printed training directives alone, or sending men to centrally located schools may be a thing of the past.

The Managing Director of Electronic Industries Limited, Mr. A. G. Warner, announced that, subject to the approval of the British Government, Pye Limited, of Cambridge, England, had signed a cross-licensing agreement with Radio Corporation of America covering, among other things, patents, etc., for broadcast receivers, television equipment and television receivers.

BACK COPIES

Requests are received from our many new readers for copies of preceding issues. A few of Volume 1, No's 1 and 2 (May and June, 1949), are available and will be mailed to applicants on receipt of stamps to the value of one shilling and threepence.

Our Broadcast Critic says of "Take It From Here," heard on A.B.C.'s Interstate programme Tuesdays, 7.15 p.m. Eastern time: "This series of B.B.C. transcriptions does little justice to the talents of Joy Nicholls and Dick Bentley. Hardly a sentence passes without an undercurrent of quips of dubious nature which, although on the funny side at first, begin to pall after a few minutes. The gag men must have worked overtime on the theme. One laughed louder and longer at the late Tommy Handley's sallies, which, although salty enough at times—were never really blatant, never jarring."

—N.C.



A PARKER-KNOLL CHAIR

The Best Gift of all

WITH ENGLAND'S BEST FABRIC-COVERED SPRINGS

Choose your gift this year from Beard Watson's. A Parker-Knoll Chair is a gift of lasting comfort styled to suit any furnishing scheme. There are many designs available in a selection of beautiful coverings. Call and see the special Tension-Suspension Springing system that has made Parker-Knoll Chairs so famous. Parker-Knoll Chairs are made by and obtainable only from Beard Watson's.

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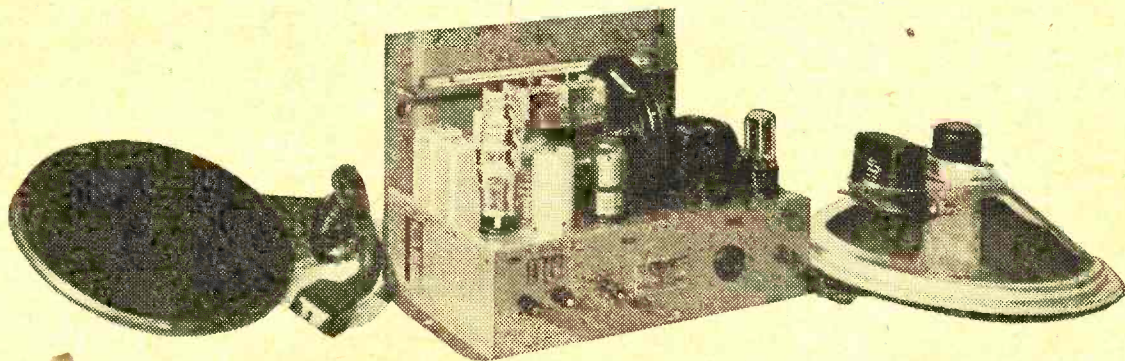
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CLASSIC

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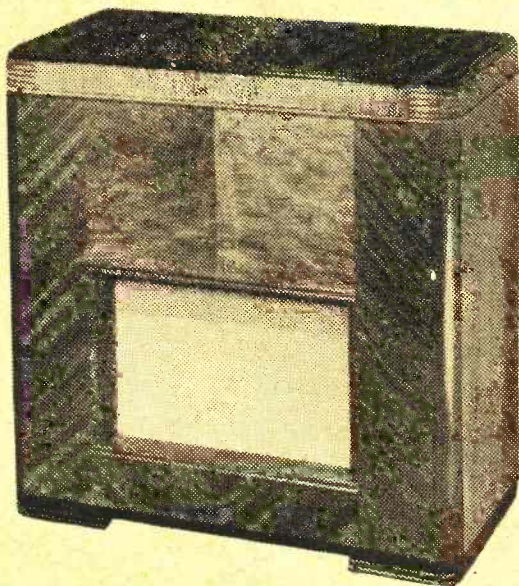


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20 GNS.
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COMPARE THESE FEATURES:—

6 valve world range chassis.—Uses new Radiotron X6IM converter valve giving better long distance reception.—High gain audio with inverse feedback and tone control giving you the best reproduction from your favourite recordings.—Radio-gramo switch combined with short wave switch.—A.C. switch incorporated with tone control.—Provision for F.M. or television tuner.—Large calibrated edge lit dial with main stations in each State in prominent type, with counter-weight drive.



LARGE VARIETIES OF COMBINATION CABINETS AVAILABLE FROM £13-10-0

Model illustrated is in piano finish, with beautiful maple veneer and removable Dial and Motor Panels. (Motor compartment recessed to take any STANDARD RECORD CHANGER.) £19/10/-

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245 PARRAMATTA RD., HABERFIELD
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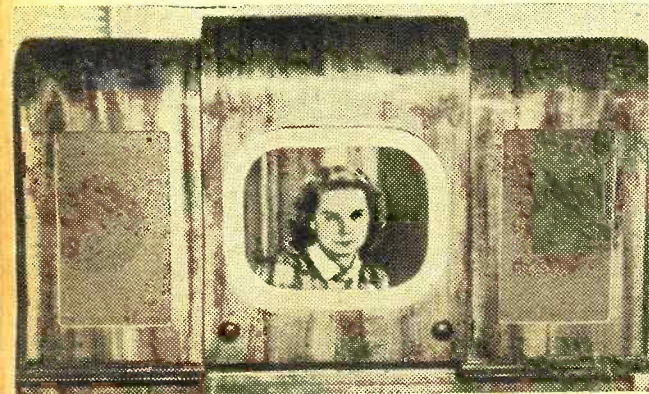
Radio and Television



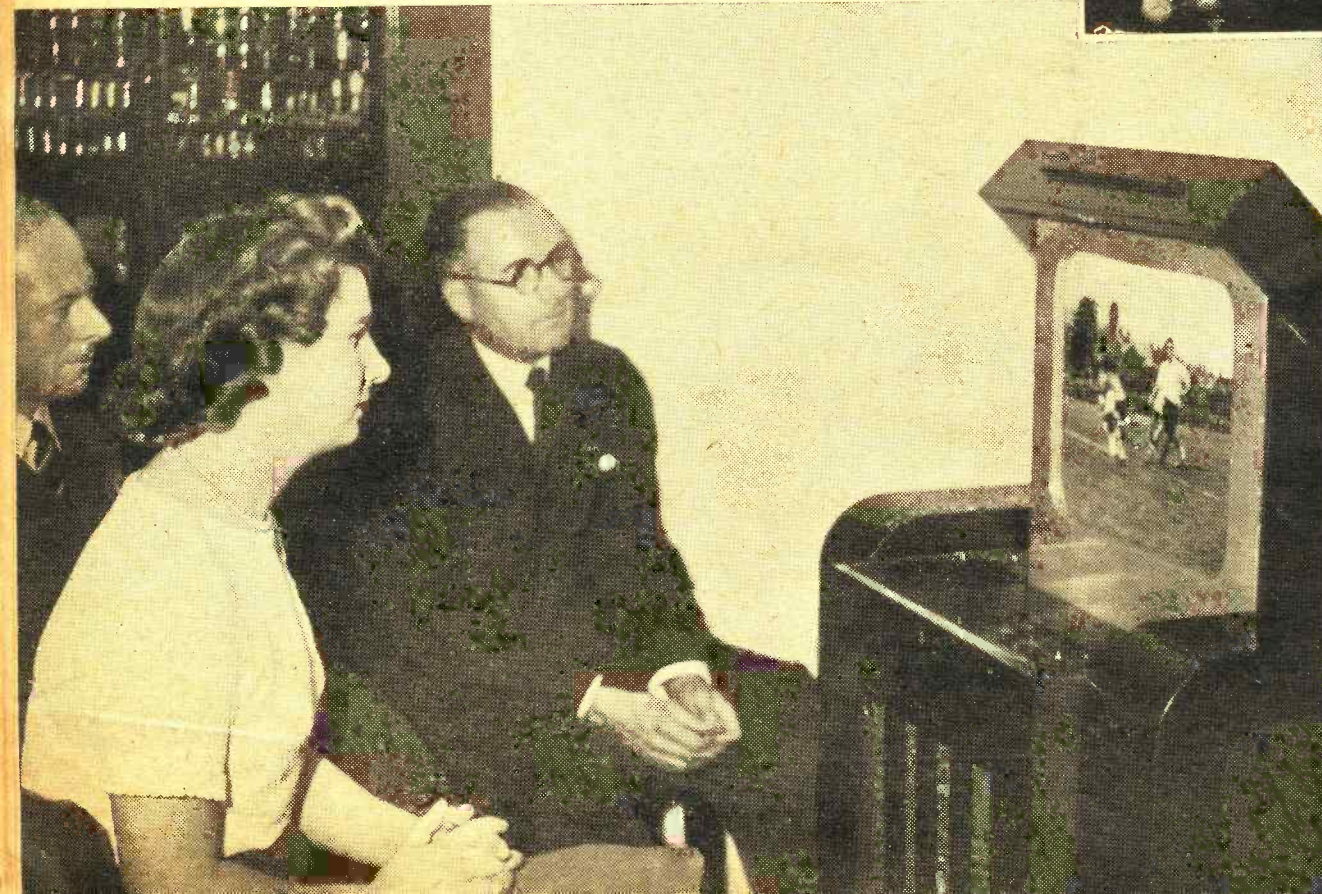
● LEFT — This is an untouched photograph taken direct from the screen of a Marconi-R.C.A. television receiver during a press demonstration at A.W.A. laboratory, Ashfield, N.S.W. Definition is 625 lines in conformity with the decided Australian standard.



● Maj Britt, Swedish skating star, in the London television interview studio before going on to the ice to give a skating display.



● Showing the 625 line receiver used in television demonstrations by Amalgamated Wireless. The picture on the screen is a true reproduction of the televised subject. The remarkable clarity is evident.



● The new process of projecting television images on to a large flat-surfaced screen. The system has been perfected by the Mullard Wireless Service Company, Shaftesbury Avenue, London, England. The ample size and clarity of the picture is evident from this striking photograph.

NEWS VIEWS

● BELOW—A B.B.C. "shot" of Marie Burke and her daughter Patricia Burke taking part as guest artists in a programme, "To Town With Terry."



● ABOVE—Salim Halali, Arab entertainer, before the B.B.C. television cameras at Alexandra Palace, London. He is a Tunisian Arab who runs his own cabaret and was brought to Britain specially to appear in a programme "Magic Carpet."

● BELOW—Remember Cicely Courtneidge in "Under the Counter" in Australian theatres recently? Here she is with husband Jack Hulbert in the version adapted by him for television in London.





READER'S FLOODLIGHT

LETTERS to the Editor, on any aspect of radio or television, are always welcome. Where space permits, selections will be published. A pen name may be used but it is essential that the writer's correct name and address be supplied. The Editor holds the right to abbreviate letters where necessary. The publishers do not necessarily agree with the opinions expressed in letters.

C/o Post Office
Palgarup, W.A.

To the Editor,
Australian Radio & Television News

Dear Sir,

It may be of interest to yourself and other hams to know that KNBA and KNBI, Columbia Broadcasting Stations on 30 and 31 metre bands broadcast a session to the "Amateurs of the World" every Sunday night at 9 p.m., W.A. time. Have heard the last two programmes which have included a rebroadcast of part of a field-day conducted by the Bloomfield (New Jersey) Radio Club, a talk by the commissioner of the Federal Communications Commission on ham activities and regular predictions regarding DX possibilities on the various bands, with other interesting items. The session is conducted by Bill Leonard, W2SKE, and is organised in conjunction with the A.R.A.L. So it may be of some interest to the followers of amateur radio in Australia. A part of interest is the commencement in California of amateur activity in the television field, three W6's being away to a start already. Another item of interest was the 1000 mile contact on 144 m/c between two hams in Eastern U.S.A. recently.

I am a subscriber to your very fine publication and wish you all the success in the world. The approach to Australia of the television era makes the task of acquainting both the radio enthusiast and the tyro with the development in this field obviously important and I congratulate you on your efforts to bridge the gap for the Australian public and radio world.

Yours truly,
Douglas L. Proctor.

36 Yaldwin Street,
Kyneton, Victoria.
12/9/49

The Editor,
Radio and Television,
Box 5177, G.P.O., Sydney.

Dear Sir,

Your picture on page 31 of the current issue of "Radio and Television" certainly revives "old" incidents in radio. The photograph was taken at Manly, N.S.W., on 19th March, 1932, and represents the "Roving Mike" and the two members of the crew ready to start with their interesting and successful experiment. Messrs. Knock (VK2NO) and Mr. F. E. Buckell of the Osram Valve Department, British Gen. Electric Co. Ltd., are the principals concerned and gave the "Roving Mike" a try-out prior to being used at the opening of "Our Bridge" at which they provided the link between the ceremony and station 2UW.

Sincerely yours,

M. Ireson, VK3AIR (Prev. VK3ZY).

Sydney, Australia,
SS De Pauw Victory,
October 7, 1949.

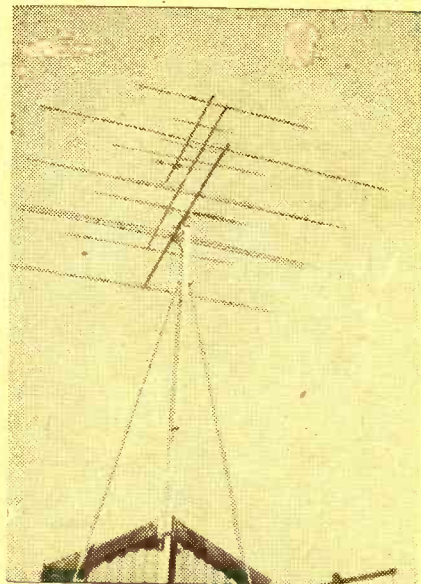
The Editor,
"Australian R & TV News".

Dear Don,

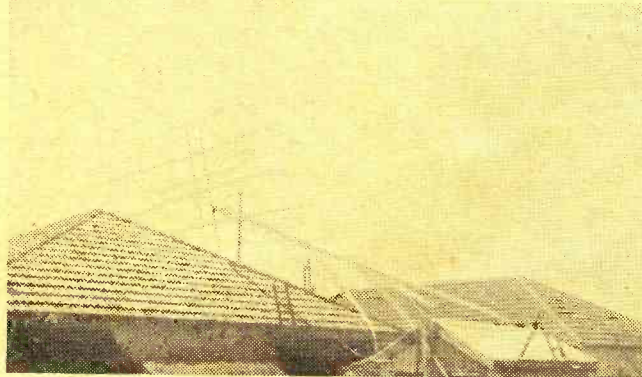
I would like to thank you and all the other radio amateurs I met whilst here in Australia for the wonderful hospitality you have shown me. It was certainly a thrill being able to see the conditions that amateurs of this country operate under in comparison with the United States. I can assure you that my opinion of your operation is very favourable, and you can be justly proud of your achievements. The welcome extended to me makes me feel very glad that I too belong to this great family of radio amateurs. I believe that the various world radio organisations are right in their contention that better international co-operation can be had through amateur radio. We would all profit considerably by support of such programmes. Thanks again fellas, and I will be looking forward to working you when I get back home.

73's

William E. Bryant/W9BUL,
Radio Officer,
SS De Pauw Victory/KFZN.



● One of our enthusiastic SWL readers is Mr. J. G. Challoner of Granville, N.S.W. He made up a multiple rotary beam for HF and VHF bands as in the upper photograph. The lower shows a sad finale for the array, when one of Sydney's devastating gales swept through.



Old-timer Bill Sievers, VK3CB, 2 Darling Street, South Yarra, Victoria, writes:—"If I didn't know you I would think that pencil drawing in the current issue (No. 4, Vol. 1) does not do you justice. Congratulations on the magazine. . . . I find the amateur news very interesting . . . reminds me of the time when you were radio editor of 'The Bulletin' . . . nice to see Notes from VK3 although not enough of them. . . ."

(That caricature was done in 1938, at which time we perhaps tipped the scales a bit more than ordinarily . . . but the intervening war years and arduous service have made quite a difference. The question of amateur Notes and News is up to the fraternity as a whole . . . if they don't send 'em in we can't print 'em . . . the amateur pages of 'R & TV News' are entirely at the service of readers in that respect. Thanks for the nice remarks Bill.—Ed.)

"J.B.": Made an important discovery by accident recently, and thought I had solved the outback A-battery problem. While overhauling a battery super. near Cairns (N.Q.) I happened to flick my test prods between the chassis, which was earthed, and an odd-wire dangling inside the cabinet. A reading of five volts was obtained. Inspection showed that the chassis earth was connected to a 3 inch galvanised-iron drainpipe, and the spare wire, I was informed, to a large sheet of copper. Hence the potential between the two "earths." The electrolyte was the caustic-soda which drained through the pipe from the washup basin in the kitchen, and was discharged around the copper sheet.

AMATEUR



Chatter



FIRST AUSTRALIAN VHF DX. WHEN WAS IT?

Although we haven't too much of a nostalgic feeling for those "good old days," it is interesting at times to take a look back through old records in amateur radio affairs. One realises that the steady movement through the passage of years to the 1950 era of acceptance of VHF's as a vitally important commercial communication region really started with the old "Five Metre" band. Many people think that it was only in the 1930's that amateurs began to do things seriously on 56 Mc/s, and that it wasn't in this country, but overseas where anything of note happened. Looking through some old magazines we came across a copy of the old "Radio" (Australia) dated August, 1927, and therein is quite a story written by Leighton Gibson, then A4AN; headed "Success on Five Metres." He, by the way, is Philips N.S.W. Manager in these times, and of the participants in the occasion, 2DY, who no longer holds the call, is a senior A.W.A. engineer. 2IJ, 2JY and 2GW are still active amateurs, and can be seen at N.S.W. Division W.I.A. meetings. Here is the story—a piece of VHF history in Australia, as told in those days by 4AN:—

"I suppose nearly everyone knows that a good many Australian amateurs have been working more or less continuously on the five metre problem; but perhaps everyone does not know that already quite a fair meed of success has been attained in this field by some of our experimenters.

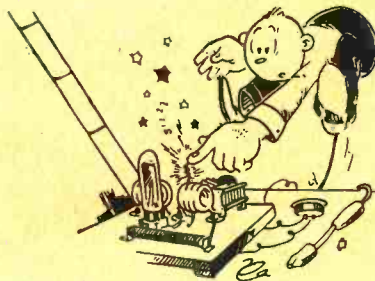
"Well, this story should have been written some time ago—four months ago, to be exact. Also, I must explain that I'm writing it because no one else would—one, 2IJ, was so excessively modest that nothing could be gotten out of him. I think the facts should be known—better late than never, so here they are.

"Last March, while the 'Uni' boys had holidays, 2IJ, 2DY, 2JY, and 2GW got busy and built five metre sets of various types. A wavemeter was sent by mail to Sydney from 4AN, and the Sydney sets were lined up with the Brisbane end by this means. (2IJ says '4AN's calibration

is up the pole', which is quite likely, but we needn't argue that here). Two of us were active in Brisbane (4AW and myself), and the Sydney fellows arranged with us for a week-end test on five metres. They arranged things well, too, by the way.

"There is no necessity for me to go into full details of the arrangements, suffice to say that 2IJ and 2GW took a five metre receiver and a complete thirty-five metre outfit to Bowral, where, I am informed on good authority, is a fair-sized mountain. At 2IJ, in Killara, a five metre set was operated by 2JY, while 2DY operated another set at his place at Gordon, and worked a thirty-five metre set in addition. The five metre transmitter at 2IJ was the best of the whole bunch, as it used a 210 with plenty of power behind it—about seventy watts, I believe.

"THE test commenced at 9 o'clock in the morning, the various New South Wales and Queensland stations adhering to a schedule, taking it in



"Yes OM, I'm radiating a half inch blister."

turns to transmit and listen on five metres, while they kept in touch with one another via the thirty-five metre channel. The business continued right throughout the day, and on to 8 o'clock at night; and in the afternoon, our old friend 7DX, who had been advised by radio, got his receiver on the job as well.

"Well, as far as we up here were concerned, results were disappointing, as neither 4AW nor I heard a squeak. However, this was more than compensated for by the success which attended the efforts of the southern fellows.

"The five metre signals from 2IJ's transmitter at Killara (one of the northern suburbs of Sydney) were received strongly and consistently all through the day and evening by the party at Bowral.

"More than this, the five metre signals came through with splendid intensity when the signals from the Sydney thirty-five metre set had dropped to total inaudibility; that was after sundown.

"So there you are: low-power five metre signals covered an airline distance of sixty miles!

Long Aerial Best

"DAVE GRAY, of 2IJ, tells me that they tried various types and sizes of aerials in connection with the five metre receiver on the mountain. They eventually came to the conclusion that the longest single wire available, rigged like an ordinary untuned aerial system, but MINUS the earth connection, gave the best signal strength. He says also that he is inclined to think they were receiving the ground wave from the Sydney transmitter, the reason for this assumption being that the signals did not alter appreciably with the oncoming of darkness.

"Every one of the Sydney fellows mentioned worked hard to make a success of the test, and I know they went to an awful lot of trouble, so their success was well deserved. Although the set which did the good work was the property of 2IJ, it is needless to add that the success was a COLLECTIVE one—not merely a personal one, and the credit must be equally apportioned.

"As I don't know very much about his set, I will leave it to Dave Gray or one of the others to let us have a description of it, and the other apparatus used. And if, at this late date, he should happen to read this scramble, let us hope he will take the hint and do his duty—as I have done mine! Amen."

Some further points of interest are quite important—they are not mentioned in the story. This was NOT telephony communication — it was CW telegraphy. The receiver was a straight simple "Bloopster"—201A detector and audio—not even a "squegger." In fact, the super-regenerator had not in 1927 seen the light of day in amateur Five Metre application.

* * *

"FAREGO." "Getting close to the broadcast" say some VK2 Sunday morn gossipers on forty; referring to VK2WI and the 1100 hours schedule. Trouble is that so often the broadcast has been running for at least 5 minutes and others have to put up with the QRM situation caused thus by people who don't think to check timepieces before going on the air.

READER'S EXCHANGE AND MART

Classified Small Trade Advertisements.

5d. per word. Minimum charge 12/6d. No series discounts. Charges payable with order. This section is available to members of the radio (and other) industry for the insertion of advertisements not normally comprehensive enough for display in the advertising pages of this journal. Only bona fide trade advertisements accepted.

Classified Small Private Advertisements.

Charge 2½d. per word. Single numerals, groups, and combinations of figures and letters count as one word. Replies to advertisements can be addressed to a Box number c/o. this office. In this case allow four words for Box address and remit 6d. extra to cover cost of handling and postage of replies. Please use block letters only.

NOTE. Where a direct reply is requested to a Box Number advertisement, it is advisable for the enquirer to include a stamped and addressed envelope. This will be passed on to the advertiser concerned and will ensure

HARD to get valve types. Have quantity of 4 volt AC and battery valves, all in good condition. Replacement types for old receivers. Drop me a line; I probably have the type you want. Box 415, c/o "R & TV News."

USE up these old 201A's as rectifiers for small power supplies. Quantity available at 2/- each from "J.B.M.," c/o "R & TV News," Box 5177, G.P.O., Sydney.

HUMLESS HT supply units for small receivers are Philips B units. These are in perfect order with 506 type rectifiers. Price £2 each. "AR10," c/o "R & TV News."

FILAMENT transformer, 26 volts at 4 amperes, suitable for heater operation of Command series transmitters used as VFO's or otherwise. 240 volt primary. 30/-. "AR11," c/o "R & TV News," Box 5177, G.P.O., Sydney.

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SELL—Four pre-war Tasma 1500 Kc/s I.F. transformers. Ideal for inclusion in dual I.F. receiver as first channel. 15/- each, unused. Write NX149642, Box 5177, G.P.O., Sydney.

NUMBER of copies of "Radio (U.S.A.), 1933-1937, for sale. Excellent constructional articles for beginner-amateurs. Price 2/6 per copy. "B.N.C.," c/o Box 5177, G.P.O., Sydney.

FOR SALE—English H.T. Transformer 2000-1500-0-1500-2000 volts at 500 milliamperes (never been used). Can be inspected by appointment. Perfect. £10/10/- (less than cost). Box 407, "R & TV News," P.O. Box 5177, Sydney.

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