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# What Does the Public Want?

**IT is absurd, says St. John Ervine in this article, in "The Radio Times," to suppose that the public, as a whole, can ever be in agreement as to what it wants. Tastes differ profoundly. Those who are responsible for providing entertainment should see to it that they give only the best, for the best pays in that it always outlasts the worst. The motto of the listener should be, briefly, "I'll tolerate your tosh, if you'll tolerate mine !"**

WHAT does the public want ? That is the question which all entertainers have been asking ever since the original Morality piece was performed in the Garden of Eden, and was booed off the stage. Someone has answered it, but not satisfactorily, with the assertion that the public does not know what it wants until it gets it. If that be true—and it is largely true—then the business of entertainment is entirely a matter of luck; and a perfectly good entertainment may be a calamitous failure merely because it happens to be produced at the wrong time. How is one to account for the fact that a clever comedy, "The Road to Rome," should receive so little support from the play-going public that it was withdrawn after a run of a fortnight?

Some critics have ascribed its failure to its title, saying that the public regarded it as (a) a proselytising piece, or (b) a dull, historical piece; while others asserted that the theatre in which the play was produced was too large, or that the preliminary publicity was inadequate, or that the time of year was the wrong time. Any or all of these explanations may be right. I suppose there are idiots in the world who imagine that a play called "The Road to Rome" must be either an awful warning against the errors of the Roman Catholic Church or an attempt to persuade weak Protestants to desert the faith of their fathers. I suppose, too, that there are want-wits who think that any play which is not about cocktails must be dull. When Miss Heather Thatcher took a play called "Quest" to Sheffield, a member of her company talked about it to a young person in a hairdresser's shop in that city. The actress thought she might do some useful propaganda for her play by talking of it to the young person who, after she had listened for a few minutes, exclaimed, "Oh, it isn't a musical comedy, then!" "No," the actress replied, "it's a play !" The young person expressed her disappointment. What **she** liked was musical comedy. Anyhow, what sort of a play was "Quest"? The actress told her. A cry of pain burst from the young person's lips. "Aren't there any posh clothes in it?" she moaned. "No," the actress answered. "Then I shan't go," the young person said. "Fancy ! Not a musical comedy, and no posh clothes in it!" That is the sort of playgoer that grows in Sheffiield, and managers can easily make up their minds about the sort of entertainment they must offer that poor fool on whose education hundreds of pounds have obviously been wasted. The woman would have been as well if she had never been educated at all !

I take it that the public want good entertainment, but that it cannot tell what is good entertainment until it has enjoyed it. I know what a good meal it, but I cannot tell whether the meal I am about to eat is good until I have eaten it. The cook has to chance her luck with me, and she may be unfortunate enough to find that I am the single person in the world who cannot eat meals cooked by her. If she offers me a bowl of Scotch broth—the finest soup in the world—in the middle of July, I am unlikely to thank her for it as heartily as I should do if she offered it to me in the middle of December; and if I am invited to witness a performance of "Ghosts" by the best company in England on a fine afternoon in the merry month of June, I may reply, "Do you know, I think I'll go and gather me nuts and may instead!" There must, I think, be some regard shown for the season and the temper of the time, but not, I suggest, too much regard for them. It will not do to lower the standard when the mood is unexacting because there may be difficulty in raising it again; and on the whole it is better to offer the best you have, even if no one wants it, than to offer your worst, because you will find, when the public has become sated with imbecility, that you will not easily be able to improve upon it. When the taste has been ruined, people do not turn from bad stuff to good stuff; they turn to different stuff; and if managers of theatres persist in supplying "dud" entertainments, a time will inevitably come when the very people who demanded them will cease to ask for them. When it comes, they will not say, "Give us good stuff!" They will conclude that you have nothing but bad stuff to sell, and will seek for their entertainment in other places than yours. And what is true of the theatre-managers is true of all other entertainers.

Periodically I read letters in the newspapers from people, generally anonymous, complaining of the B.B.C. programmes. These complaints amount to this: I do not like classical music (or concert parties or talks, or dance music, or whatever it may be), so why should there be any classical music in the programmes?

—(Continued on page 4.)

# The Truth About Television

## By Edgar H. Felix

*(Consultant to the Radio Broadcasting Co. of New Zealand Ltd.)*

**IN this article, Mr. Edgar H. Felix, one of the leading authorities on radio and radio developments, gives a complete analysis of the present position of television. This article is extracted from the columns of "Radio Retailing," a leading radio publication in the U.S.A. Although long, it is worthy of reproduction, because of the complete treatment it gives the subject in which there is growing interest because of repeated claims of success as made by cablegram.**

THE eagerness with which anything pertaining to the visual transmission and reception of images was examined by the radio trade during the R.M.A. show in Chicago is but a reflection of public interest in this new field. The public has already purchased tens of thousands of dollars' worth of scanning discs and neon tubes without any assurance of practical results. The American urge to experiment and pioneer is readily capitalised, but there is enough shrewdness in the buyer to make him study the product before risking his dollar. The dealer must know what he is selling and what it will accomplish before he can face the customer successfully.

That there are pitfalls as well as profits in the new field is clearly apparent from a review of the progress of television in England. Selfridge's, a leading London department store, fired the opening gun by announcing a sale of "television" receivers at 32 dollars 50 cents. Buyers flocked, sought information, and awaited demonstrations. Information came to them in the form of a magazine, the first issue of which was eagerly purchased. Dealers, following the example of the London store, stocked scanning discs, selenium cells and neon lamps. Television made news and the Press supported it liberally at the start.

Within two months, however, a leading British trade paper reported "the television flurry is over." The public had examined and passed its judgment. Some dealers had lost friends by selling goods which did not give satisfaction. A trade publication, as a warning to dealers, had offered a 5,000-dollar prize for a satisfactory demonstration of the television devices, and the challenge had been unheeded. The progress of television has been set back seriously in England by the premature appearance of equipment unsupported by broadcasting and unable to sell itself by demonstration. Dealers had stocked on faith instead of upon actual results.

In Boston, they are having a television flurry and another may be expected any time now in Chicago. A careful survey in Boston reveals that no dealer has been able to show bona fide television images to prospective customers. Unless dealers can do so soon, the television flurry will be over in Boston too. The experimenter market knows its radio and it doesn't rent telescopes to look at the moon on cloudy nights.

ALL kinds of radio image equipment are now being offered to the radio trade. A host of manufacturers is jumping into the field, getting all set to be in on the mushroom market when anything pertaining to television sells. Many of them are making meritorious products which do what is claimed for them. While there is a seller's market and the public is clamouring for goods, no live dealer wants to overlook opportunities because that is when big profits are made. As long as one simple rule is followed—know your goods and represent them accurately—the television market is an opportunity. By observing that simple maxim, you may avoid the poisonous mushrooms, and profit from the sale of wholesome ones.

The principal radio vision products now being offered are scanning discs, neon lamps and still picture recorders. To sell a neon disc in any given territory, there must be available a television signal and a means of synchronising with it which can make a recognisable image with the particular disc being offered. It must be possible to

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set up a demonstration in your store or laboratory so that you can show the experimenter just what kind of an image he may expect to reecive. A 24-hole scanning disc is useless in a territory where only a signal intended for a 36-hole scanning disc is available.

IT must be remembered, also, that absolute synchronisation must be maintained between the transmitter and the receiver. This is accomplished by means, usually, of synchronous motors at each end, but unless both the transmitter motor and the receiver motor are on the same power line, absolute synchronisation is almost impossible to attain, due to the differences between frequencies of the various power companies. In the majority of cases, of course, the television receiver will be on power lines far removed from the broadcasting station. In these instances, synchronisation is maintained by hand manipulation of a variable rheostat connected with the receiving motor, keeping it in time with the impulses received.

Advances in the art will undoubtedly correct some of these details. At present, however, they must be taken into consideration.

The fundamental principles of all image transmission are simple, and, while the dealer is facing the technical buyer, he must be qualified by definite knowledge to answer the experimenter's questions.

The broadcasting of visual images is similar to tonal broadcasting in the means used for radiation and reception, but fundamentally different in the method by which the signals are collected at the transmitter and restored to their original form at the receiver. A device, consisting usually of a photoelectric system, responds to variations in intensity of light, converting them into electric currents. These variations are combined and radiated, received, and amplified, and then converted back into light impressions so that they may be seen by the eye.

THE transmission of visual images is somewhat more complex than sending tonal impressions. The eye responds to an infinitely greater number of impressions in a given time than does the ear. We cannot easily gather the impressions perceived by the eye into a single electrical current because of their vast number. Air wave impulses, sufficient to give us a complete musical reproduction, are a composite of many different frequencies, all of them compressible within a band of 0 to 5000 cycles. This relatively narrow band covers from the lowest to the highest of the fundamentals, and all the necessary overtones to enable a listener to distinguish any musical instrument. The total number of sound impulse impressions responded to by the ear in a second numbers only in the thousands.

The eye responds to millions of impressions every instant, and makes an impression of them upon the brain through the telegraphic nerve system. Examining a 4 x 5 photograph, you look over its entire surface in an instant. If it is of 133 screen, such as is used in high grade magazines, a 4 x 5 picture consists of 353,780 separate dots. A cheaper magazine uses a hundred screen, requiring 200,000 dots for a 4 x 5 picture, while even the poorest of newspaper reproductions have a screen of at least 45 and therefore consist of 40,500 dots in a 4 x 5 size.

For the transmission of such images by wire or radio, a separate electrical impression of the intensity of light and shade on each spot must be transmitted and reproduced at the receiving end. The eye comprehends these numerous impressions at one glance, but the eye of radio, the photoelectric cell, makes an impression of but one spot or area at a time. The transmission of the poorest kind of newspaper picture, 4 x 5 size, consists of sending 40,500 separate messages, each an electrical impression of the intensity of a single spot.

To secure the impression of motion, or television, the complete picture must be repeated at least sixteen times per second, so that the lagging effect of the eye gives the subject continuity. Therefore, to reproduce the crudest 4 x 5 picture, an electrical impression of 648,000 dots must be sent each second, as compared with the requirement of sending 5000 impressions, the maximum necessary for tonal transmission. Consequently, assuming a 4 x 5 picture of the crudest newspaper screen as the minimum standard of an image having entertainment value, 125 times as much ether space is required for its transmission as is used for sending a complete musical programme. This required ether space amounts to double the entire present broadcasting band! —Obviously, an impossible procedure at this time.

Any sacrifice from this standard, admittedly a low one, is attained by subtracting from the clarity or stability of the image. For practical purposes, it is difficult to conceive of any widespread system of radio visual transmission which can be accommodated on a conventional broadcast channel. Short waves are satisfactory for experimental purposes, but the public at large cannot be served on short waves because, first, they are not available, being required for much more important national and international communication; second, they require a new and separate receiving set for reception; and third, fading and skip distance effects make their reliable reception over large service areas impossible.

Assuming a maximum modulation of 5000 cycles and considering that sixteen complete pictures must be sent each second for television, 312 is the maximum number of image areas of which a television picture sent on a broadcast channel may consist. If we reduce the size of such a picture to one square inch, that is to 1 x 1 inches in size, it would be equivalent to 17 screen, or about one-third the clarity of the poorest kind of newspaper picture. Furthermore, this assumes that no means of radio synchronisation is employed which would require additional ether space. Obviously, such an image leaves much to be desired from the standpoint of entertainment value.

In spite of these difficulties, practical television is as certain as safe commercial aviation. But television must await the discovery of a simple, inexpensive means of sending more than one visual image impression at a time. So long as we must send impressions of the subject point by point in a series progression, television will remain only

an experimental art, conducted for the scientist and inventor rather than for the home user.

**How Television is Now Conducted.**

THE television signals, now being radiated, are obtained by setting a subject before a bank of flood lights. A scanning disc is used at the transmission point which reflects light from the subject point by point in a regular predetermined order to a photoelectric cell. The photoelectric cell may first "look" at the upper right hand corner of the subject as impression number one. Light is reflected on a photoelectric cell through a tiny aperture from that point in the image. As a result, an electric current, proportionate to the intensity of light reflected from that point, flows through the photoelectric cell. The disc scanning hole then moves slightly to the right, making a second impression, and so on, point by point, an electrical impression is made of the top line of the picture. Where the subject is black, little light is reflected, and little photoelectric current flows; where it is white, such as in a white background, much photoelectric current flows, producing maximum modulation.

Having swept across the upper line of the subject, the second hole of the scanning disc falls into line and makes a series of impressions immediately underneath the first. This is continued for as many "sweeps" of the subject as the scanning system contemplates. For example. WGY is radiating signals for a 36-hole disc so that there are 36 sweeps of the subject for one complete impression; the Jenkins system, using short waves, is making 48 lines.

**Fundamental Limitation to the Entertainment Vale of Television.**

Inasmuch as all of these systems (there are no exceptions to this rule) depend upon reflecting a beam of light from the subject to a photoelectric cell, the range of the "eye" of television is necessarily limited. The subject must be sufficiently close so that a beam of light reflected from it will cause a change of electric current through the photoelectric cell. For a standard potassium photo cell, this range is limited to about one foot, and this fact is the reason that so far only faces have been "televised" with its aid. The public imagines football games and prize fights coming before its eyes through television scanning discs, but the most we can hope for, at the present time, is profiles and full front views of single faces. If we attempt to crowd two faces before a television scanning disc, the number of images gathered is so few that the faces become unrecognisable.

A FEW weeks ago, the Bell Laboratories showed an improved photoelectric cell which permitted, for the first time, the scanning of a full-size human figure. This was used in connection with the same television transmitter and receiver which had been shown with such acclaim to the world nearly a year and a half previously. Among the elements of the reproducer are synchronising devices, a neon tube with 2500 pairs of elements and a room full of control instruments. At the recent demonstration, the statement of Walter S. Gifford, president of the American Telephone and Telegraph Company, which was originally made nearly two years before, was again given out stressing the fact that television is far from the point where it may be introduced into homes. "The elaborateness of the equipment required," says Mr. Gifford, "by the very nature of the undertaking, precludes any present possibility of television being available in homes and offices generally." All of the limitations of channel shortage and lack of detail, more fully described in subsequent paragraphs, apply to television transmission with the more sensitive cell.

One by one these problems may be overcome, but to the engineer who understands them it looks like a matter of many years.

At the receiving end, we obtain an electric current similar to that flowing through the photoelectric cell at the transmitting point, through the usual transmission and reception processes. When these currents are sufficiently amplified, they are applied to a neon tube. The intensity of the light of the neon tube then varies exactly as the light reflected on the photoelectric cell through the scanning system. Considerable amplification is required to cause the neon tube's light output to fluctuate visibly in this manner, and no system has yet been demonstrated which does not need at least a five-stage audio amplifier to make even a powerful television signal cause the neon tube to fluctuate sufficiently to make a visible image reproduction.

But this is not the most important problem. Experimenters can make five-stage audio amplifiers work. The image is reconstructed at the receiving point by watching the neon tube through a series of pinhole apertures in a revolving scanning disc. The receiving scanning disc must be precisely similar to that used at the transmitter to set up the image. If an attempt is being made to reproduce the face at the transmitting end in 1 x 1 size at the receiving end, the scanning disc consists of a spiral of holes an inch apart. The neon tube at the receiving end should have a plate of at least 1 x 1 size so that the image can be reproduced.

**". . . for the present, universal television consists merely of moving shadows, at best. However, backed up by sufficient broadcasting, even moving shadows can be merchandised . . . provided they are merchandised as such . . ."**

At the precise instant that the upper left-hand corner of the subject at the transmitter is being "examined" through the hole in the scanning disc by the photoelectric cell, the scanning disc at the receiving end must also be "looking at" the upper left-hand corner of the plate of the neon tube. Both discs must then sweep across the top line of the picture in exact synchrony, the receiving disc completing its one-inch trip across the plate of the neon tube at the same rate that the scanning disc at the transmitting end makes its sweep of the top subject. The neon tube at the receiving end fluctuates in intensity with the shading of the picture. This perfection of synchrony must obtain while 24, 36, or 48 apertures pass over the subject at the transmitting end and over the plate of the neon tube at the receiving end each sixteenth of a second.

THE importance of perfect synchronisation cannot be over-estimated. The most advanced public demonstration of television, so far given, was that made by the Bell System two years ago. This made a picture of 50 screen, one inch square, or a total of 2500 image points per picture. The impression was enlarged to motion-picture screen size by means of a neon tube consisting of 2500 pairs of elements. Each of these was mechanically switched in, one at a time, sixteen times per second, by a rotary contact switch. This amounted to a total of 40,000 contacts per second, and each contact had to be accurate within a forty-thousandth of a second so far as time is concerned. This remarkable result was obtained by using two separate synchronising signals sent on short wave channels.

The difficulties of manual synchronisation which is being attempted by television systems having no specific means of synchronisation, can best be appreciated by imagining what the result would be if the motor used at the Bell System demonstrations were slightly off speed. At correct cynchrony, let us suppose, the motor operating the 2500 contacts revolves at 2000 revolutions per minute. It makes 2,400,000 contacts per minute, each at the correct instant. Suppose the motor ran off speed five parts in ten thousand, which would make the motor turn 2001 r.p.m. instead of 2000. Every sixteenth of a second, then, 2512 contacts would be closed instead of 2500, and the second picture would already be 33 1-3 per cent. off synchrony, so that the image would not be recognisable for more than one sixteenth of a second. Those now experiencing difficulty in the hand operation of a d.c. motor by means of a rheostat, must appreciate they are attempting manually to stabilise the speed of a motor within ten thousandths of a per cent.

SOME systems contemplate the employment of sixty cycle alternating current with power lines as the means of synchronising. This may be satisfactory when the listener is on the same power line as the broadcasting station radiating the television signal. In that case, both the transmitter and receiver use synchronous motors, operating from the same power source. Where there are rural and d.c. districts involved, or non-interconnected and non-synchronised power lines, synchronisation by this method is uncertain. The claim is made by some, however, that current from independent power systems is sufficiently close to rated frequency to permit the synchronisation of television from any sixty-cycle line.

Electric clocks are simply small synchronous motors operating from sixty-cycle a.c. It is the practice of power houses to check the time with Western Union each hour and to speed up or slow down the alternators so as to make up for the loss or gain in cycles experienced. Since we require accuracy of one part in 10,000 to hold a reasonable image for a fraction of a second, it is obvious that there is considerable variation in "60" cycles. Only if special arrangements were made among alternating current power systems to maintain absolute synchrony, a condition not yet obtaining, can there be any widespread use of a.c. synchronization for television.

In the New York area, for example, there are, within twenty miles of the metropolitan district, at least six unsynchronized alternating power systems and two important direct current areas, each of which would require special broadcast transmission which would not be interchangeable with the other districts. Practical and widespread television is not attainable until synchronizing signals are radiated with the television transmissions or crystal oscillators of sufficient stability to be accurate to one part in a million are available at low cost.

THE next point to consider is the availability of channels for television reception. The ideal would be to transmit television occasionally through ordinary broadcasting stations so that the ordinary receiver could be used and so that the television programme could be associated with musical entertainment. Our broadcasting structure has been designed for a maximum modulation of 5,000 cycles, making possible the arrangement of a spectrum with ten kilocycle separation. Most of the television promised in the broadcast band does not fit within these channel limitations.

It is easy to calculate the frequency band required by a television transmission using the usual scanning disc having a single spiral of apertures. These discs usually rotate at 960 r.p.m., that is, one revolution each sixteenth of a second. The maximum number of impressions made by a single sweep of the subject is usually equal to the total number of holes in the disc. Thus, with a 24 hole scanning disc, which is the fewest number of sweeps of the subject to which even the simplest profile can be reduced, each sweep of the subject makes 24 image impressions on the photo-electric cell and the entire subject therefore consists of 24 x 24, or 576 impressions. With the meagre illumination afforded in the five hundredth of a second or less that the subject is illuminated at the receiving point, eighteen or twenty images per second should be used rather than the usual sixteen used in motion picture practice, where every detail of the reproduction remains illuminated on the screen for at least one thirtieth of a second. The total number of impressions per second is the product of the number of holes on the disc and the number of revolutions per second. In the case of a 24 hole disc making sixteen revolutions, 9216 images per second are sent. Since there are upper and lower side bands in transmission, a frequency space of twenty kilocycles is required for modulation, infringing upon at least three broadcast channels. With a 48 hole disc, revolving at 16 r.p.s., about seven broadcasting channels are used.

SEVERAL attempts to circumvent the carrier channel difficulties have been made by ingenious inventors. Senabria, co-operating with WCFL of Chicago, uses a scanning disc with three sets of spiral apertures so that his disc revolves at one-third the usual speed. He makes a fifteen line picture, each picture consisting of a scanning, of only one-third of the subject, but, by slightly displacing each image, covers the area of a 45 line picture. The same effect would be secured with a 45 hole disc operating as follows:—During the first rotation of the disc, the first, fourth, seventh, tenth, etc., holes would sweep the disc, the others being for the time closed; during the next revolution, the second, fifth, eighth, eleventh, etc., would sweep the disc; and in the third revolution, the third, sixth, ninth, and

twelfth. In that way, the received picture is made to appear like a forty-five line picture, although it uses the channel space of a fifteen-line picture. Whether this is a real gain is questionable because the flicker has been increased threefold, and, to secure a quality and freedom from flicker equal to that attained by a forty-five line disc would require the making of 48 reproductions per second with Senabria's disc. On the other hand, this ingenious expedient, has made it possible to experiment with television, transmission, and reception at a minimum use of frequency space, and, while clarity and fidelity of reproduction are not yet a consideration in the field, it affords the gateway to useful experimentation.

WRNY, New York, has announced that it will soon begin broadcasting television images consisting of ten images per second and 36 sweeps of the subject. Reducing the number of images to ten makes it doubtful whether this can be called television because any normal motion would result in a hopeless blur. The transmissions have not been started at this writing, hence no results can be reported.

WLEX has been broadcasting in Boston for some weeks with a 36-hole disc, but no public demonstration of radio reception after several weeks of transmission has been successful. WGY is sending images requiring a 24-hole disc and synchronisation is left to the experimented's ingenuity or luck.

The Alexanderson system is not yet in commercial form. A recent demonstration used 40,000 cycle modulation. The Jenkins system is also in the laboratory stage and is not yet commercialised.

IN England, the Baird system has been exploited. No regular radio transmissions have been reported, although they have been widely promised. An American company, to exploit the Baird system, has been formed with much preliminary announcement but no public demonstrations. The apparatus, marketed in England, consisted of a scanning disc and a selenium cell. With these, the experimenter was expected to build a transmitter. Later, by purchasing and assembling more parts, he would have the privilege of viewing the image transmitted on a scanning disc mounted on the same shaft as the transmitter. The range of the system is thus the length of a shaft on a motor.

The same plan has been used in various demonstrations on this side of the water, where the subject has been scanned on one side of the disc and the neon tube mounted on the other. This merely shows what kind of an image could be received if transmission and reception were synchronised. If this fact is not clearly explained at such demonstrations, they come mighty near to being misrepresentation.

A new system is coming forward in England, known as the Fuller system, which makes still pictures. It is rumoured that the apparatus will cost 150 dollars. The advantage of still picture transmission is that there is no limitation as to the time required in transmitting a complete picture. With the Fuller system, a gelatine etching is made from which photograph prints can be made. This is a rather complex process which probably offers serious sales resistance, but, on the other hand, it is possible to make a high grade picture, synchronising with a signal entirely within the broadcasting band.

In the United States, the Rayfoto system makes a 4 x 5 picture consisting of 110,000 image points. It produces positives and therefore no films or prints need be made. A finished picture is secured by a simple finishing process, requiring but a few seconds. 110,000 image points are equivalent to about 80 screen, nearly double the screen of a newspaper picture. Phonograph records of radio transmissions are available for test and demonstration purposes and broadcasting at this writing is actually going on in New York, St. Louis, Milwaukee, Winnipeg, and has been arranged for in Philadelphia, Detroit and Toronto. But this is not television.

THE proponents of still-picture transmission hold that they will soon be able to send high grade pictures, properly synchronised, in the form of motion picture film, which can then be projected on a home projector. This makes it possible to avoid that stringent limitation imposed by direct television that the complete subject must be reproduced each sixteenth of a second. Telephoto reproduction, furthermore, makes a permanent record which can be examined as often as desired, instead of a fleeting image which can be held only a fraction of a second. Radio transmission of still photographs is the furthest present commercial development of radio vision. "Television" itself, or the reception of satisfactory moving images by radio in American homes, is still something to be looked forward to in the very indefinite future.

For the present, universal television consists of merely moving shadows, at best. However, backed up by enough stations broadcasting moving images, and the public informed of just how little they will receive and how crude the images are, even moving shadows can be merchandised, provided they are sold as such.

It is, undoubtedly, a market for experimenters only, and must continue to be for several years to come.

## *When the Barker Barks*

THIS is how the big broadcast station KGO, Oakland, California, announces on its programme a visit to a big circus (a "barker" is a man who calls out in front of the entrance to entice the public in):—The barker will do his stuff before the KGO microphones on Tuesday night, September 25, when the Pilgrims will visit the circus, telling listeners what they see through word and music pictures. Besides spieling about the snake charmer and the other usual array of side show freaks, with the aid of the Pilgrim musicians the barker will tell of the donkey and the clown, the big brown bear, the trained seals, and other events taking place in the big three rings. A recitation by the barker entitled "How the Elephant Got His Trunk" is one of the many scheduled novelties.

A RUSSIAN inventor has perfected an instrument which arranges atmospheric noises in their notation, causing them to reproduce themselves in various classical pieces.

# *What Does the Public Want*

(Continued from front cover.)

The man who loves jazz seems to imagine the B.B.C. exists solely for his entertainment. He pays his twopence-halfpenny per week, and he thinks that he ought to receive twenty-five shillings' worth of his particular sort of pleasure in return for it. The severe gentleman who cannot listen to anything more frivolous than Beethoven's Fifth Symphony frowns heavily when he hears that his twopence-halfpenny per week is being spent, in part, on enabling Low Brow Bill or No Brow Bessie to hear the Savoy Orpheans, while the person who loves concert parties can scarcely contain himself when he reflects that other people are being treated—at his expense, mind you!—to accounts of native life in New Guinea.

I do not know how many millions of people listen to wireless programmes. Nobody knows. But it is obvious that the millions are many, and that no human being can possibly devise a programme that will please the lot. So we all have to compromise. I will tolerate your tosh if you will tolerate mine. There is, in brief, no means whereby any person in authority can discover what it is that the public wants, because there is no such thing as THE public, if by that expression we mean a collection of persons all with the same tastes; and the most that any man can do is to give what seems to him to be the best kind of entertainment in its own line. If he finds that there are people who like jazz b.. .s and people who hate them, but like chamber music; and people who enjoy talks and debates, and people who detest them, but enjoy concert parties; and people who love broadcast plays, and people who cannot listen to them, but like to be given instruction in French or Italian—then, surely, the best thing that he can do is to satisfy all these tastes to the best of his ability and hope that he will please all of them to some extent. The public wants the best that it can get, but it does not always want the same best, even when it appears to be unanimous about its need. I often say, in connection with the theatre, that no man can tell what sort of play will be popular—he would soon become a millionaire if he could—but that any intelligent man can tell what is a good play and what is a bad play; and in the long r the man who persists in offering what seems to him to be the best stuff will do better than the man who runs about looking for what is likely to be popular or cynically offers bad stuff in the belief that the bad is generally the most profitable. For good stuff will outlast bad stuff. It may not be demanded to-day but it will certainly be demanded to-morrow; and it will continue to be in demand long after the bad stuff is dead and damned.

# Radio Round the World

REGARDING television in the home an American editor says, "As a source of amusement in the home it (television equipment) is a complete flop, unless the family finds a joy in the exasperation of the would-be demonstrator."

THE transmission of picture "stills" has reached a fine art. As a specimen of a commercial telephotograph transmission an American journal depicts a police identification card showing a fingerprint.

TWO American stations regularly broadcast "still" pictures while four are experimenting with television.

FROM October 1 the American amateur and private stations changed their call signs in accordance with the International Radiotelegraph Convention, 1927. American calls are now to be preceded by "W," and those in Alaska, Hawaii, Polo Piro and the Virgin Islands with the letter "K." Australian stations are to use the letters VH.

IN Los Angeles the traffic casualties mounted so high that pedestrians had to be educated in road sense by the police. The problem was helped towards solution by a police quartet singing before the microphone. This was followed up by hints on "the rules of the road."

THE whale and seal-fishers who go in large fleets to the polar regions, north or south, expose themselves to certain peril. Radio has meant for them more than it can mean to any other class of men in the world. Pursuing their occupation, they naturally become separated. When by some sudden movement of the massive floes their boat lies crashed and helpless, they have now the chance to summon help from others instead of facing certain death. It is not only as a means of rescue that wireless is of such inestimable benefit to thousands of fishermen. News of the day comes to them by this means only, and they look upon it as their one link with the homeland.

"RADIOLAND has already advanced the standard of musical appreciation in America," says the editor of 'Radio' (America). "It can perform the same service as regards art and literature. Many stations are beginning to find a greater public response to programmes which combine instruction with entertainment."

THE same writer makes the following comment: "Radio is the first of the modern inventions to keep the family at home. Most of the others take the family from the home. That is one reason why the home influence has waned. Radio's combination with the improved phonograph made the home still more attractive. Then came the home movies, all combined in one instrument for home entertainment."

A VERY interesting test was recently carried out by some members of a transmitters' union of North Ireland in order to ascertain whether radio waves could penetrate to the workings of a deep salt mine. In the process of blasting out the salt a kind of balcony near the ceiling had been formed, and by means of a hanging rope a couple of members of the expedition climbed up the vertical surface of the salt and slung an aerial from one side of the cavern to the other. This aerial was about 60 feet long and 40 feet high, and to this was connected a receiver capable of tuning from 10 to 6000 meters and employing two valves. An earth was made by connecting to the steel rails used for running small trucks to the working face. An eerie silence, seeming in accordance with the death-like silence of the mine ensued. Atmospherics and backround were strangely absent. Sometime later the faint carrier wave of the Belfast broadcast station was faintly discernible, but this faded out. About ten minutes later it came in again, to fade out once more. On looking for the cause it was discovered that whenever the bucket was at the bottom of the lift the signals were heard. It was decided that the steel rope attached to the bucket was acting as a conductor for the waves. From this it was deduced that waves do not travel deeply into the ground.

MORE and more lonely places in Australia are being linked up with civilisation by wireless. In order to overcome the trouble and cost of maintaining many hundreds of miles of telegraph lines in lonely and difficult country, Government short-wave stations are to be installed for communication between Thursday Island and Cooktown, North Queensland. The Commonwealth Post Office states that such a service can now be considered absolutely reliable.

AN unusual use for wireless is advanced by a correspondent of "Radio Times," who writes: "I am a Southerner, now living in an industrial village among the Yorkshire hills. One member of our family is left behind in London, and we see her but seldom. Every day, at noon, I turn on the wireless for the mere pleasure of hearing the boom of Big Ben, feeling that she, too, is most probably hearing the same sound."

RECEIVING sets and components valued at £250,000 were on view at the fourth annual convention of the Radio Manufacturers' Association of America, recently held in Chicago. The design of sets showed a tendency to concentrate on good reproduction of the whole musical scale, less attention being paid to selectivity, which has become of secondary importance in view of the careful reallocation of broadcast wave-lengths by the Federal Radio Commission.

UP to the present broadcasting in France has been disappointing. A system of co-ordination has not existed but dealers and manufacturers have been relied on to fill the bill. A registration fee of one franc (now worth 2d.) is payable, but listeners rarely take the trouble to pay it. Musical programmes are consequently patchy. A new scheme is now on foot embodying State control. By a properly ordered tax it is hoped to raise £80,000 annually. With this it is proposed to maintain eighteen high-power stations. It is intended that the quality of the broadcasts will be raised to a level worthy of France.

THE dramatised version of "The Mayor of Casterbridge"—one of the better known works of the greatest of the English writers of the 20th century, the late Mr. Thomas Hardy, was broadcast from Daventry about a month ago. This is not the only work from this master's pen capable of dramatisation. "Tess of the d'Urbervilles" has been filmed, while others, including the famous "Far From the Madding Crowd," have been adapted to the stage. John Drinkwater, the well-known English poet-playwright, is responsible for the dramatisation of the play recently broadcast.

THIS month it is probable that the B.B.C. will recommence periodical relays from America by a system that promises better results than any yet obtained. On five separate receivers the Keston listening-post will pick up the same programme transmitted on as many different short-wave lengths. By uniting the results it is hoped that the difficulty of fading will be overcome. Experiments on similar lines will continue throughout the winter, the wave-lengths used varying between 16 and 50 metres. Already, as a matter of fact, Keston can produce some fairly good rebroadcasts from America at most periods of the twenty-four hours by the use of a seven-valve super-heterodyne receiver.

A PROFESSOR of the University of Vienna claims to have discovered a method by which milk, treated by radio waves of short length can be kept sweet for from three to four weeks. Health authorities in Germany are now testing the process. The new radio milk is produced by passing an intense beam of short-waves through the liquid. This, it is said, instantly kills all the germs which cause the milk to spoil. The milk itself is not heated by this treatment, nor does it acquire a "cooked" taste.

TRANSMITTERS for keeping aviators in touch with the ground are becoming common in Europe. In fact, more so there than in America. The control officer at the Croydon airport, outside of London, for example, keeps in constant touch with every air liner flying from or to his port. He talks with each pilot every ten minutes, gets his exact location, knows when he reached his destination, and in the event of a forced landing gets the exact position and immediately dispatches a relief 'plane to the spot. In pre-aviation days Croydon, now one of the finest air ports in Europe, was just a cow pasture.

IT is reported that of the 79,500 licenses in New South Wales, one-third are in the country. It has been observed that when wireless became popularised among the farmers, its general popularity was assured. This is no new thing, says the editor of "Wireless Weekly." Tradesmen have observed that not until a new product has been approved of by the country folk do the townspeople buy. This is one reason advanced for this fact. Another is that when sets can satisfactorily be operated in the country they are of sufficient quality to permit of trustworthy reproduction anywhere.

SOME idea of the tremendous cost of special "stunt" advertising programmes in the United States of America may be gained from the fact that Dodge Motors, Ltd., insured their radio programme against interruption of Morse signals at a premium of £600. The programme cost £200 per minute, lasted one hour (£12,000), was available to 30,000,000 listeners, and was served up by means of chain broadcasting in places as far apart as New York and Hollywood.

CHARITABLE appeals on the air: In addition to the anonymous donation of £50 to the Home of Incurables, as the result of an appeal made over the air, the Kindergarten Union of New South Wales has benefited to the extent of the same amount, in response to their broadcast appeal. The New South Wales Broadcasting Company has arranged for ten appeals to be given each month—five through the service of 2BL, and five through 2FC.

AIRCRAFT radio, during the last few weeks, has performed with such spectacular effectiveness that any aviator who now attempts a long distance flight without its aid is flaunting providence. Aircraft radio is commanding the attention of radio engineers the world over. New and startling developments are foreshadowed. Among the most evolutionary is the interlocking type of directive beacon which automatically gives visual indication to the pilot as he flies along any well-equipped airway. No bearings need be taken either by stations on the ground or by the aviator in the flight, a dial in the plane's instrument board serving to show whether the plane is on its course or to the right or left of its course.

The New Zealand
# Radio Record

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## EDITORIAL NOTES.

IN another column, we publish in full a comprehensive and informative article on television from the pen of Edgar H. Felix. Mr. Felix is the technical consultant to the Radio Broadcasting Co. of New Zealand, Ltd., and is a recognised authority on radio. Of late, so much has been appearing in the cablegrams of developments and experimental transmissions in connection with television that we have thought it worth while to devote the extensive space we do give to this full treatment of the subject from the pen of Mr. Felix. It is clear that already a high standard of efficiency has been attained in connection with transmission of still photographs. In fact, the standard is so good that it is now on a commercial basis, and dress fashions conceived in Paris are radioed to America. In addition, photographs for newspaper reproduction are regularly transmitted across the Atlantic and reproduced daily by sections of the Press in both countries.

THE transmission of "stills" is, however, different from the transmission of moving subjects. In that field much progress is still to be made, but it is quite plain that success will ultimately be attained, just as each year of late has seen improvements effected in the standard of radio broadcasting. The subject is so attractive that a great deal of publicity has been given to it in all countries, and the public have been led to expect more in performance than is at present possible. As a consequence of this undue emphasis of attainment, there has been a degree of disappointment. It is plain that the demand for television is strong, but any attempt to meet that demand by premature exploitation will do more harm than good. Before television apparatus will be bought by the public, there must be something to receive. Transmitting stations must be established and operating on a highly successful basis. This is not yet possible. The whole subject is in the experimental stage, and as will be seen from the perusal of the technical article which we give, much ground has yet to be covered before success will be fully attained.

WITH the impending departure of the aviators, headed by Captain Kingsford Smith, in the "Southern Cross," on their return flight to Australia, full appreciation can be extended to the important change wrought in the mental outlook of New Zealand so far as aviation is concerned by their visit. The people of New Zealand, by virtue of avid devotion to newspapers, magazines, and books, keep abreast as far as they can of world developments and world attainments, but it is plain that the isolation to which we are geographically subject has prevented us from appreciating, as a people, the full scope of the progress that has been made in other parts of the world in aviation. In this respect, therefore, Captain Kingsford Smith in essence came to virgin soil, and forced upon the consciousness of the people appreciation that aviation in the commercial sense is here, and that it has a bearing upon our national life. In that development radio has played its part, and in the further development of aviation upon a commercial basis radio will prove to be an essential handmaiden to progress. Without detracting in the slightest from the personal capacity and bravery of the aviators concerned, the real tribute of their achievement must be credited, we think, to the scientific attainment embodied in the instruments of which they are making so capable a use. Without technical efficiency in the mechanical means of propulsion, without infinite exactitude in the scientific instruments upon which navigational accuracy depends, and without the intimacy of touch provided by radio communication, their outstanding feat would have been impossible. In their return flight to Australia the very best wishes of New Zealanders will follow them.

## Sporting

### Next Weeks Events

**October 6.—Sports meeting, and finish of Timaru-Christchurch road race.—3YA.**

**October 6 and 8.—Auckland R.C. Meeting.—1YA.**

## Does Broadcasting Affect Totalisator Receipts?

A CORRESPONDENT WRITES:—Yes, undoubtedly it does. If such is not the case, how can one account for the drop in totalisator receipts at the recent Avondale meeting, as compared with the same meeting last year?

In 1927, the totalisator receipts were £105,428; in 1928, the totalisator receipts were, £55,391 10s.; deficiency this year, £50,036 10s.

As everyone knows, there was no microphone at Avondale last Saturday and Monday, consequently there was nothing to stimulate interest in the meeting save the newspapers, with their "hours-old information." Now. Johnny on the spot, in the person of, say, Mr. Allardyce, can create more interest and more desire to see a race meeting than all the Press news in the world, and if this fact is not patent from the above figures to the racing authorities, then their reasoning power is of the kindergarten order.

## Boxing Relay.

BOXING enthusiasts will be glad to know that on the evening of October 8, at 9 o'clock, 2YA will relay a description of the Leckie-Radford boxing contest from the Town Hall. This will be a very exciting encounter, and should provide a particularly thrilling feature when broadcast.

The usual programme for the evening has been arranged, and in the event of the fight being of short duration, a return will be made to the studio.

## Amateur Radio Society.

THE next meeting of the Wellington Amateur Radio Society will be held in the Cambridge Terrace Congregational Church Hall at 7.45 p.m. on the evening of Tuesday, October 9. Members and listeners are asked to note the change made from the former meeting place; also that the time is earlier.

The feature of the evening will be a lecture by Mr. C. C. K. Fear, of F. J. W. Fear, Ltd., on the subject of "Browning-Drake Sets: Their Construction and Operation." Mr. Fear has specialised in the Browning-Drake circuit, and with his extensive experience, can be relied upon to give listeners a very interesting discourse indeed upon the possibilities of this popular circuit. Many practical hints as to the most effective method of operation of the circuit will also be given.

## 1YA Children's Committee

The third meeting of the 1YA Children's Advisory Committee was held at the Auckland studio of the Radio Broadcasting Company of New Zealand, Ltd., on Tuesday, September 25, 1928. Present: Rev. L. B. Fletcher (in chair), "Uncle Leo," of 1YA; Miss Flatt, National Council of Women; Mrs. Brunce MacKenzie, Girl Guides; Miss Jean Begg, Y.W.C.A.; Mr. E. V. Hudson, Headmasters' Association; Mr. J. Meade, Boy Scouts' Association; Mr. L. S. Abbott, "Peter Pan" at 1YA; Miss R. Palmer, children's organiser at 1YA; Mr. S. J. Hayden, station director at 1YA. Apologies for absence were received from the Rev. George Coats and the Rev. Busfield.

The chairman welcomed Mr. J. Meade, acting representative of the Boy Scouts' Association, and also Mr. E. V. Hudson, representative of the Headmasters' Association, Mr. Meade assuring the committee that his association was very interested in the work of the committee. The Radio Broadcasting Company forwarded copy of a letter received from an official listener bearing on matters in connection with the conducting of the children's session, which occasioned a good deal of discussion, but it was finally decided that the majority of points mentioned had already been dealt with by the committee and it was felt that nothing further could be done. Miss Jean Begg outlined a number of suggestions on items in the session, and commented that from reports she had received, the "Trips to various interesting parts of New Zealand" proved as interesting as any other feature of the session with the children. It was decided to introduce once weekly a very short gramophone-lecture-recital at the end of the children's session with the idea of stimulating musical appreciation in the younger mind.

Considerable discussion centred on the question of the children's programmes at Christmas, and it was decided to conduct the children's session on Christmas Day at 9 o'clock in the morning instead of at 6 o'clock in the evening, and a number of interesting novelties for the kiddies were decided upon to take place at this session. The chairman reported that the unsolicited donations which had been coming to hand from various persons now totalled £8 17s. 11d., and in accordance with the committee's previous resolution it was decided to allocate the amount to the purchase of crystal sets for some deserving children. A case of this nature was brought before the committee and it was decided to donate a set to the child in question, together with amount covering the first license fee. The committee decided to meet again on Decem' r 4.

# *From One Broadcasting Company to Another.*

## *"Southern Cross" conveys Greetings.*

BY THE "Southern Cross" the Radio Broadcasting Company of New Zealand Limited, received a letter from the Broadcasting Company of New South Wales, conveying greetings to commemorate the trans-Tasman flight. The "Southern Cross" carries the following letter from Mr. A. R. Harris on its return journey:—

"We take the opportunity of the return flight of the 'Southern Cross' to Sydney, and of the courtesy of Squadron-Leader Kingsford Smith and Flight-Lieutenant Ulm, to acknowledge with the greatest pleasure the greetings conveyed to us in your letter of September 8, which was conveyed across the Tasman in the first airplane to reach New Zealand's shores from an overseas land.

"The occasion has been an historic one for our two countries, and to us who are engaged in broadcasting it has had a special appeal on account of the part that radio has played in the enterprise. We are also interested in this other means of annihilating distance and time. Your stations and ours, which speak nightly to the people across the Tasman, have been the means of drawing our two countries closer and closer together, and this rapprochement has been cemented by the rapid flight of a heavier than air machine from your land to ours. The ethereal and the material connection between the two countries cannot but be for good.

"The 'Southern Cross' will leave Christchurch this afternoon for Blenheim, where she will leave New Zealand soil on her flight back to Australia. Her departure is timed for Sunday morning, and we trust that the airmen will be safe at Richmond aerodrome by the evening, when we will take the liberty of re-broadcasting your description of the landing.

"Hearty greeting by the first airplane to leave New Zealand for Australia."

THE chief engineer of the New South Wales Company, Mr. Ray Allsop, also sent his greetings to the chief engineer of the New Zealand Company, Mr. J. M. Bingham, to which Mr. Bingham has replied in like manner.

## *Enthusiastic Farewell from Christchurch.*

AT CHRISTCHURCH on Friday many thousands of people saw the "Southern Cross" leave the Wigram Aerodrome and then, hurrying home, they were able to listen to its journey up the coast and its arrival at Blenheim one and a-half hours later.

Many thousands of people in Christchurch city itself did not go to the aerodrome, but chose rather to hear it all by wireless, and they had no reason to be disappointed. The sports announcer was at the microphone describing all that took place at Sockburn. After the 'plane left the ground it was not long before it was over the city. It headed straight for the towers of 3YA, and when directly above the station, it banked gracefully, its blue body and silver wings shining in the bright afternoon sun, and sped into the nor-nor'-east. A cheering crowd on the roof of 3YA—and on every high building in Christchurch—sped the aviators on their way.

A MICROPHONE was installed on the roof of 3YA and from this coign of vantage the "Southern Cross" was watched and cheered until it became a mere speck and was finally lost in the blue sky to the north. This was at three minutes to three.

From Sockburn, six miles from the city, crowds were streaming along the roads; on bicycles, on foot, by cars, trains, trams, 'buses, and every other conveyance. When they reached home they took up their receivers and listened-in to the "Southern Cross" as she sped up the coast.

3YA was rebroadcasting 2YA, and listeners heard an excellent account from the editor-announcer as he described the scene at the Blenheim aerodrome.

THOUGH 3YA has handled splendidly all functions in connection with the visit of the trans-Tasman flyers, one of the most successful was the broadcast of the proceedings at the citizens' ball, when presentations were made to the airmen. Included in that presentation was the amount which listeners throughout New Zealand had donated through the Broadcasting Company, and there was also a gift from an old Maori woman, a centenarian, on behalf of the radio listeners of the North Island.

REFERRING to this relay, the radio writer of the Christchurch "Sun" said:—Last evening was certainly a red-letter one for radio listeners in New Zealand, for quite the best broadcast ever heard here was put across by 3YA. The occasion was the broadcast of the Citizens' Ball to the Tasman flyers. Not only the speeches came through exceptionally well, but the whole spirit of the ballroom seemed to come through the loud-speaker. The jokes, laughter, and even the conversation between the groups of dancers came through with perfect clarity. Some of the dancers were evidently not aware of the fact that there was a microphone in the room, or were not aware of the sensitiveness of these little machines, for the conversation of some of the dancers at times was very amusing. Certainly last evening's performance was easily the best yet put over by 3YA, and the operators are to be congratulated on the perfectness of the broadcast.

# *Departure Awaits Favourable Weather.*

## *Splendid Trip to Blenheim.*

ON FRIDAY last the "Southern Cross" flew from Christchurch to Blenheim to wait favourable weather for the return flight to Australia. The early indications were that conditions might permit of this being commenced on Sunday morning, and preliminary organisation was undertaken to that end. Weather reports coming to hand Saturday evening, however, prevented departure, and it may be that some time will elapse before the flight does take place. Everything possible will be done by the R.B.C. for listeners when the flight is on.

GOOD work was done on the occasion of the flight to Blenheim. Not only did 3YA describe the departure, but 2YA, by means of a special line to Blenheim, broadcast the arrival. The success of this work is in itself a tribute to the high efficiency of the special submarine telephone cable across Cook Strait. From a technical point of view, while Friday's transmission was good, effort will be made to even improve upon it for the actual departure.

On the flight of the "Southern Cross" up the coast her radio apparatus was under test, and 2YA picked up the generator hum and broadcasted that for listeners.

## *Historic Maori Mat as Radio Present.*

AMONG the presents given to Group Commander Kingsford Smith at the Citizens' Ball in Christchurch were a Maori mat and costume, the gift of a Maori woman 101 years old.

Interesting circumstances surround the gift of this mat. The donor wishes to be anonymous, and it can only be stated that her father was one of the leading chiefs in the Maori war in the North Island, and that she is now resident in the Hawke's Bay district.

THE mat came to Christchurch through the appeal which was recently broadcast from 3YA. It seems that the old lady has a receiving set from which she gets endless enjoyment, but her technical knowledge is very limited, as is only to be expected. However, a good Samaritan has made a practice of regularly calling at the old lady's place and keeping her set in good working order. The aged listener's gratitude has been deep, and she recently decided that the best way to express it was to make a present to her radio friend.

The radio enthusiast had performed his acts of kindness without any thought of reward, and was loath to accept any present. He therefore suggested that the old lady should give the mat and costume to Kingsford Smith on behalf of radio listeners throughout the North Island as a token of their appreciation of the Tasman flight and of the part that broadcasting had played. This the old lady agreed to do, but stipulated that her gift should be anonymous. Her pakeha friend also wishes to remain anonymous.

All speeches in connection with the presentation were broadcast from 3YA.

## *Christchurch Cathedral.*

**The Christchurch Diocesan Choral Festival afternoon service will be broadcast by 3YA on Thursday afternoon, October 4, at 4 p.m. The service will take place in the Cathedral, and will be carried out by the combined choirs of the Anglican church of the city and suburbs. There will be nearly 300 voices. No sermon will be preached at the service.**

## *Gramophone Records*

### *Part of British Programme*

**First-class gramophone records are now regularly featured on all programmes, and are meeting with widespread approval.**

**It is worthy of note that recent British programmes just to hand contain gramophone recitals.**



## *1YA Mystery Night Programme.*

FOR the benefit of those who were interested in the recent IYA mystery night programme competition, in which award was recently made, we publish herewith the correct programme of items and performers:—

| | | | | |
|---|---|---|---|---|
| Record | .. | | | "Light Cavalry Overture." |
| Baritone | .. | Mr. F. Sutherland | | "Toreador Song." |
| Vocal Duet | .. | Messrs. Brough and Snell | | "The Moon Has Raised." |
| Cornet | .. | Mr. Fred Bowes | | "The Farewell." |
| Soprano | .. | Miss C. Ormiston | (a) | "Scenes that are Brightest." |
| | | | (b) | "April Morn." |
| Record | .. | | | "Serenade." |
| Tenor | .. | Mr. A. Ripley | | "Soft Beams the Light." |
| Piano | .. | Mr. C. Towsey | | Selected. |
| Record | .. | | | "Villanelle." |
| Vocal Quartet | .. | Messrs. Sutherland, Coney, Snell and Ripley | | "The Forester." |
| Guitar | .. | Mr. H. Josephs | (a) | "Wailana." |
| | | | (b) | "Kailima." |
| Contralto | .. | Miss B. Smith | | "O Del Mio Dolce Ardor." |
| Baritone | .. | Mr, B. Coney | | "What Shall I Do" |
| Vocal Trio | .. | Snappy Three | | "Dream Kisses." |
| Record | .. | | | "Softly Awakes My Heart." |
| Vocal Trio | .. | Snappy Three | | "Ramona." |
| Weather forecast | | | | |
| Organ | .. | Town Hall | | "Selected." |
| Vocal Duet | .. | Messrs Coney and Ripley | | "False Fickle-hearted Mimi" |
| One-act Play | .. | Miss M. Gaudin and Mr. J. Gordon | | "Which is Which?" |
| Soprano | .. | Miss A. McGruer | | "Ma Curly Head Babby." |
| Record | .. | | | "Southern Skies." |
| Baritone | .. | Mr. W. Brough | | "Brian of Glenaar." |
| Vocal Duet | .. | Miss Smith and Mr. Sutherland | | "Look Down Dear Eyes." |
| Record | .. | | | "Hawaiian Airs." |
| Organ | .. | Baptist Tabernacle (A. E. Wilson) | | Selected Solos. |
| Record | .. | | | "La Paloma." |
| Guitar Solo | .. | Mr. H. Josephs | | "Hanalei Bay." |
| Vocal Trio | .. | Snappy Three | | "Diane." |
| Record | .. | | | "Itching Fingers." |
| Vocal Trio | .. | Snappy Three | | "Can You Imagine It?" |
| Vocal Duet | .. | Miss Ormiston and Mr. Coney | | "Parted From Thee." |
| Baritone | .. | Mr. E. Snell | | "On With the Motley." |
| Vocal Quartet | .. | Misses McGruer and Smith, Messrs. Brough and Ripley | | "Hush Thee, My Baby." |
| Record | .. | | | "Funiculi-Funicula." |

## *Eucharistic Congress.*

ALL the important functions held in connection with the Eucharistic Congress were transmitted through 2ME, the 20k.w. short-wave overseas experimental station of Amalgamated Wireless (Australasia), Ltd.

Excellent reports have been received in respect of both the reception and relaying of these transmissions.

In the United States, successful relays were made by broadcasting station WMAK, Buffalo, and 2XAD, Schenectady. The following has been received from Mr. Muir, broadcasting engineer, Buffalo:—"Eucharistic programme received here excellently and rebroadcast by station WMAK, Buffalo."

In New Zealand the programmes were rebroadcast by station 2YA. In addition, the transmissions were received at maximum strength throughout the south-western Pacific Islands. The following has been received from the officer-in-chrge, Rabaul:—"Eucharistic programme all received here at loud-speaker strength, excellent modulation." Mr. Dunwoodie, Apia, cabled: "Eucharistic Benediction Service received here full strength and all listeners joined in Benediction service." The officer-in-charge, Noumea, cabled: "Received strong at Noumea. I will send other results of amateurs when I get them."

This series of short-wave broadcast programmes was one of the most important ever carried out in this part of the world, and to Australia stands the credit of being the first country in the Southern Hemisphere to instal a radiophone transmitter of such high power as 20k.w. The transmitter of this station is capable of being used at any time for the purpose of telephone communication with any part of the world, and marks an important step in the matter of overseas communication from Australia.

## *A Father's Praise.*

A FATHER of three lusty boys said to me the other day, "I've got a good word to say for broadcasting. It's been a wonderful boon to us. It keeps my boys off the streets at night, introduces a new interest in music, brings useful information under their notice by the addresses from 2YA, and has drawn the whole family into a closer bond. 2YA is proceeding along the right lines both in the variety of music and subjects of addresses."

# Auckland Notes

(By Listener.)

THE Minster Quartet party made an initial appearance at 1YA on Thursday evening. and proved themselves a fine addition to the number of groups of entertainers who are now catering so well for the public in the Auckland district.

MRS. T. BASHAM and Mr. A. Briggs delighted everyone with their renderings from such old favourites as in comic opera as were all the rage in prewar days. The tuneful melodies were splendidly rendered, a noticeable feature being the distinctness of the enunciation of both artists.

THE University debate relay broke new ground last week. All with a sense of humour must have enjoyed the delightful fooling in which some of the speakers indulged, and even the appropriate interjections which were occasionally picked up by the microphone. The talent at our university colleges is a source which may well be further exploited, for students are an enthusiastic body, and would assist radio with the same heartiness that they put into their annual capping revels and concerts.

MEMBERS of the local radio trade as a whole, are well satisfied with the present outlook for business, which is much brighter than it has been for some time. While there is no recurrence of a boom, there is a steady demand for sets, and what is more, for sets of a good type. The "all-wave" receiver is in popular favour, and several most creditable kinds are being assembled and turned out by local firms. Auckland, with licenses over the thirteen thousand mark, is pulling up on its rival district, which secured a lead when the big station came into operation, and the struggle for "figures" supremacy between the two postal areas is always followed keenly. Here, as in the south, the Tasman flight broadcasts gave a fillip to licenses, but the steadily improving programmes, and the work of our new and much enjoyed orchestra are greater contributors to progress. Just wait until we reach the 20,000 mark in our district! It will not be as long as many think.

IN some things Aucklanders do envy Wellingtonians. One is in the evening concerts with which citizens are supplied on a Sunday evening. Here we have, on alternative weeks, our organ recital, and our splendid municipal band, the finest of its kind regularly broadcast in the southern hemisphere would be no idle claim to make for it. But we do not have those popular Sunday evening concerts to which, as we judge from listening in, such big and enthusiastic audiences regularly roll up. Few local possessors of valve sets miss the chance of hearing Wellington for at least part of the time on Sunday evenings, and they do thoroughly appreciate the programmes.

RADIO served football patrons well last Saturday, when Taranaki defeated Auckland in the last interprovincial game of the season. The rain simply teemed for about an hour before the match commenced, and many followers of Rugby, rather than face the elements, enjoyed "football in the home," through Mr. Meredith's able description of the struggle.

THE racing season has started again, and there will be few Saturdays during the coming months in which there is not a meeting in or near Auckland. Last summer we were privileged to follow these meetings by listening-in. Radio folk fully appreciated the privilege, and were duly grateful to both the Broadcasting Company and the racing authorities. They are still aware of the willingness of the former to continue the service, but are wondering how long the ridiculous ban will continue. The weight of public opinion here is so strong against it that a general feeling of optimism regarding its waiving prevails.

# Hawke's Bay Notes

AS the main "news" topic in this quarter at present, the success of the H.B. Radio Society's concert on September 25 is holding sway. This was presented by the Hastings Orphans' Club, and the students of Te Aute College and Hukarere School, and was undoubtedly one of the best concerts ever staged in Hastings. What an ideal programme it would have made for 2YA to put through the "mike!"

THE concert was staged in aid of funds for the local hospital receiving set, and resulted in a profit of about £60, which at the popular charges of 3s., 2s., and 1s. is quite a healthy return. With the amount in hand it is now hoped to get on with the work at an early date.

IT is fairly certain that the Hastings radio people are a pretty live crowd, for in addition to this concert the club's committee members are organising an annual ball which is to take place on October 10. There is every indication of it being a great success.

THE club has also instituted a Morse class which, judging by the first meeting, promises to be very successful.

WITH almost 120 members, the H.B. Society is now a power to be reckoned with, and the keenness which is shown augers well for its future.

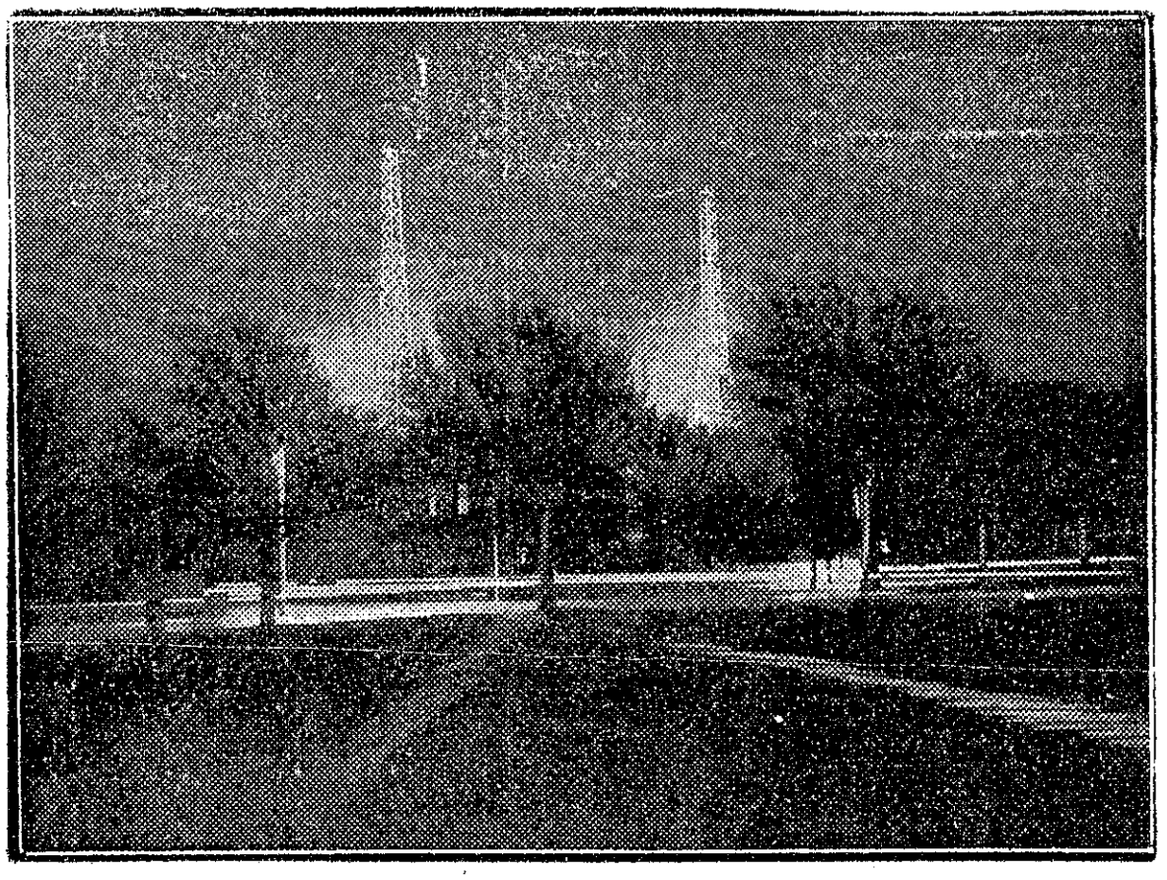
THERE has been no great improvement in reception conditions of laet, but they have certainly not been as bad as a few weeks back. All the New Zealand stations continue to come through with good volume, but the "Aussies" have been somewhat patchy.

GENERAL satisfaction is expressed at the R.B.C. announcement that the Dominion stations will follow through the return flight of the Tasman flyers. The doing of this will complete a great record of fine broadcasting feats by the company.

AT the last meeting of the Radio Society a resolution was passed supporting the North Taranaki Society in a request for a test transmission of 2YA on 1YA's wavelength. In fairness to listeners in Hawke's Bay, as well as Taranaki, it is up to the company to make this test. The company knows full well the poor reception conditions which rule at Taranaki, and a new member of the local Radio Society, who recently arrived from New Plymouth, states that reception of 2YA in Hawke's Bay is the same as in Taranaki.

ANOTHER matter which was brought up was the delay in commencing dance programmes on Saturday nights, and it was decided to place the complaint before the committee, with a recommendation also that at least one of the three main stations should present dance music from 9.30 p.m. till 10 p.m. each night the stations to take alternately.

IT was further decided to seek information as to when the proposed dinner music session was likely to commence.



One of the most striking sights in Christchurch. Illuminated by floodlights, the tall, graceful, Eiffel-like towers of 3YA stand conspicuously against the evening sky.

THE semi-Government control of broadcasting in Britain (by the British Broadcasting Corporation) is causing much dissatisfaction among listeners as well as the corporation's staff. A London journal says: "Well-informed opinion in broadcasting circles is doubtful whether Captain Eckersley (the corporation's chief engineer) will tolerate the corporation much longer. The ever-popular chief engineer at Savoy Hill is being subject to increasing restrictions in several directions and pressure is not far from bursting-point. If Captain P.P. does chuck in his hand, there will be real fireworks. The Press and public will get some first-hand news of what goes on in the inner councils of Savoy Hill (the headquarters of the corporation). From all accounts, Commander Daniels' revelations would be surpassed. There is, indeed, a rumour that a well-known London daily recently approached Captain Eckersley. He would not, of course, accept an offer of this kind, at least not yet."

# The Effect of Direction and Distance on Reception

## A Full Analysis of Factors in Reception

MANY and varied are the puzzles of radio, but each year reduces their number and places them in the category of facts that broadcaster and listener-in have to contend with.

Variation in signal strength has caused many and varied "comments." The phenomenon has attracted the attention of radio engineers ever since radio was—explanations and theories have been brought forward but cures—none. It is interesting to note in this respect one of the aims of the Antarctic expedition is the investigation of "fading."

### Effect of Direction.

IT is reasonable to expect that as the receiver moves from the transmitter, signals will become weaker, but reference to "Our Mailbag" will show that signal strength does not weaken uniformly. One district close to 2YA will complain of poor reception, while another at a greater distance will "receive" perfectly. It is also noticeable that a receiver near to 2YA will receive 1YA better than the stronger station. Naturally thoughts fly to the station as the cause, but this is far from the case. It lies in the peculiarities of the atmosphere and the surface of the ground over which the waves are to travel.

UNLESS the transmitting aerial is modified to produce a directional effect waves are emitted and travel in all directions. Those received come from two directions, from along the ground (the ground wave) and the reflected wave. For variation in signal strength reference has to be made to the causes lying along these routes.

### Ground Ray.

INVESTIGATION shows that up to somewhere about 150 miles the waves travel along in association with the ground. These are little affected by fading, but their relative strengths in different directions vary considerably. The nature of the ground greatly affects the ray, especially with respect to the presence of trees, hills, metallic-ore deposits, rivers, lakes, and so on.

Interesting research has been carried out by a well-known engineer, and his results described before the Institution of Electrical Engineers. By taking accurate readings in several directions from 2LO (London) he was able to produce a contour map showing that in certain directions signal strength decreased more rapidly than in others.

It was shown that 2LO was received best in a north-westerly direction, and least satisfactorily in a south-westerly direction. A receiver situated seventy miles away in this latter direction would receive no better than a place 150 miles distant in the former direction.

AN explanation was sought. It was noticed that the districts in which reception was weakest were heavily wooded. Experiments were conducted, and an hypothesis arrived at. It was discovered that trees acted as aerials and conducted some of the power to the ground.

EXPERIMENTS along these lines have not been conducted in New Zealand, but it would be interesting to hear from some of our listeners-in in bush districts within this "ground ray" area.

### Reflected Rays.

APART from this direct ray, there is also the reflected ray which enables listeners-in at great distances to receive signals.

Up to a certain point the air is, as has been explained in a previous article, an insulator. This region is terminated by a "ceiling" as far as radio waves are concerned, which has been named after its discoverer—the Heaviside layer. This atmospheric shield acts as a reflector, and directs waves back to the earth.

A well-known scientific law states that when a body or ray of light (or electricity) strikes a reflector it is reflected back in such a way that the angle made by the ray to the reflector and that between the reflector and the reflected ray is the same. This explains the throwing of a beam of light by a looking-glass. The points, or rather pencil, of reflected light can be moved by merely moving the mirror on an axis.

Imagine the surface of the heaviside layer moving in relation to the transmitter and some idea of the cause of fading, or rather what is considered the cause of fading, will be arrived at.

SKIP distances, or dead areas, occurring about 150 miles from the station are believed to be the result of this reflected ray interfering with the ground ray. At this distance the ground ray should arrive at the receiver just before the reflected ray, with the result that the positive alternation of the one is neutralised by the negative alternation of the other.

At a point closer to the transmitter the time element seldom gives trouble, the two types of waves being received simultaneously. More distant stations rely solely upon the reflected waves.

It has been observed that during the day, due to sunlight, the waves that go up are absorbed, and the only signals received are thus travelling direct along the ground.

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THE Sydney "Radio" says: "The news that the Japanese stations (JOAK and JOBK are shortly to increase their power to 10,000 watts each) will be received with mixed feelings by listeners-in. To many it will present a further opportunity for excellent DX and a new selection of programme items. But to others, particularly those in districts where difficulty is experienced in receiving 2BL, there will be much wailing and gnashing of teeth. Already the beat note set up between one of the Jap. stations and 2BL has been responsible for much blurred reception of the latter station. However, there will also be alterations in the wave-lengths of some of the Jap. stations which might improve matters. We can only wait and listen."

—Photo., Andrew.

**MR. LAMBERT HARVEY.**

Mr. Harvey is a recent arrival at Auckland, and is a regular performer at 1YA. He sang for the British Broadcasting Corporation, at 5NO. Mr. Harvey has an excellent tenor voice, and is a very popular singer at 1YA.

# A Corner for Beginners

*By Observer*

### Dial Reading Variation.

A CORRESPONDENT from Dennis-ton, who has omitted to sign his name, writes: "I am using a two-valve short-wave set, and am getting good results, but the dial readings have altered about 10 degrees on the 25 to 50 metres and on 50 to 100 metre coils. The 15 to 25 and the 100 to 200 metre coils are all right. Could you tell me what has happened? How can I stop dead spots?"

This question no doubt worries many beginners. Not only on short-wave but on the ordinary broadcast receiver readings for the same station changes and no explanation can be advanced.

There are several likely causes, but reference will be made only to the more obvious.

(1) The most likely cause is that the dial has slipped in relation to the condenser vanes. The screw holding the dial to the rod of th. moving plates may have loosened and allowed the dial to shift its position. To rectify such an error, tune in to a station of which the wavelength is known. If the dial does not read directly into metres, ascertain from the log the correct reading and make the adjustment by loosening the screw and moving the dial until the reading is corrected.

(2) If the detector valve has been changed the chance is that the characteristics are not the same as before. This will give a different reading. To correct, tune into a known station and make the alteration as above suggested.

These are two general causes which may effect any receiver. In addition to these there are peculiarities particular to the sets or locality which must be considered.

### Dead Spots.

THESE are quite common occurrences, and are the result of many and varied causes, but the following are the most common and easiest to rectify:—(1) H.F. choke: A choke coil is a coil of great reactance or resistance whose purpose is to limit the flow of alternating or pulsating currents of certain frequencies through part of a circuit in which the choke is placed. By means of various combinations of chokes and condensers current may be divided to finally pass to the speaker or phones.

Before signals can be received the set must oscillate. Chokes and condensers cause the set to oscillate at the same frequency as incoming signals. Tuning is the action of causing the receiver to oscillate the same as the carrier wave desired.

From this it may be seen that a defect in any part of the tuning condenser or high frequency (undetected) choke will cause the set to go out of oscillation at that particular point, and a dead spot results. Dead spots are not likely to occur when once the set is in going order, but when the constructor encounters this phenomenon the chokes should be carefully examined for defects.

(2) The condenser vanes may have had a slight knock and be touching the fixed plates in one particular position.

(3) The antenna coupling may be wrongly connected, or may be at fault in some way. It may pay to try a different coupling. Placing a midget condenser in series with coupling is worth trying.

The foregoing remarks, although of a rather technical nature for the average listener who does not worry about his set so long as it works, should be worth noting by amateur constructors who are liable to come across dead spots.

### Reception of High Frequencies.

AN amateur shortwave constructor has presented a difficulty that may cause a little trouble. It concerns the position of the grid leak and the small fixed condenser usually connected in the grid circuit. This particular amateur could receive nothing lower than twenty-five meters, no matter what care he took in adjusting his set.

On investigation it proved that the grid-leak and its condenser were screwed to the baseboard instead of being attached to the grid terminal of the valve socket. On tuning the set to the high frequencies the resistance of the wooden base broke down. Consequently signals were lost. A lug is provided—screw it to the grid terminal.

### Testing Valves.

VALVES do not cause much trouble if properly treated, but endless trouble if the set is carelessly operated. It is difficult to estimate the life of a valve—that depends on its use, but about eighteen months seems to be a "fair thing." Of course, this is not to say that valves are "dud" because they refuse to function after nine months or that because they have been used for two years they need replacing. Modern valves do not buru out, they become dull, and signal strength gradually fades off till imperceptible.

If with a carefully cared-for receiver the signal strength appears to be growing weaker the valves should be tested. This can only be done by a dealer. Dealers express their willingness to test valves, and country owners would do well to carefully pack and mail their valves to the city agent. To do this is far better than running the battery down by the indiscriminate turning of the "volume" dial.

### Defective Valves.

OCCASIONALLY a valve becomes damaged or perhaps burnt-out by the indiscriminate use of high voltage or by accidentally connecting the "B" battery to the "A" terminals.

A rough-and-ready test may be made to ascertain the condition of the valves.

A slight knock on each valve should produce a clear ring in the speaker or 'phones. Dullness or absence of this ring would indicate that the valve was imperfect and should be replaced.

by placing the finger on the grid leak a healthy squall should be heard in the speaker. (Don't try it with 'phones, the sensation may be unpleasant.) This indicates that the audio side is O.K.

The grid leak is a small cylindrical piece of apparatus, close to or attached to the socket of the detector valve.

### Batteries.

NOTHING causes more trouble than batteries—in fact, the sum of all other causes together are outweighed by this factor. Yet with care there is nothing easier to keep in good order. One might almost say "Batteries are good slaves but bad masters." In nine cases out of ten, dealers say, on being called to attend to a set refusing to function, they find the batteries are at fault.

Misapprehension seems to exist with respect to their life. A battery may last six weeks or twelve months. To say that batteries are in order because they have been in use only a short time is a big mistake. To say that because a 50-volt block registers 33 volts the set is defective because reception is poor, is equally fallacious.

Modern power valves, the last valve in the circuit, consume a great amount of current. This is necessary to reproduce faithfully, especially when bass notes are concerned. For multivalve sets using these valves there is no better investment than the eliminator that will register up to about 200 volts.

### Replacing Valves.

A LITTLE while back, it was possible to replace a valve without stopping to consider its characteristics. All valves were "general purpose" valves, which would fit anywhere in the set and give equally good results.

Now it is necessary to consider the lay out of the set before putting in any valve. Whether high frequency, detector or low frequency, each stage has its correct valve and the best results can be obtained only by having the proper valve in the assigned place.

Distortion will surely result in a valve wrongly placed. If the voice of the person before the microphone is unnatural, then the set is distorting and the chances are it is in the valve; or through the valve and the transfermer being out of step. If a valve becomes dull and useless, then before replacing it consult the agents or an expert as to what valve to replace it by.

For the amateur who is keen to obtain the maximum from his set no better advice can be given than that he acquire a working knowledge of the valves and having such he can choose his valves from the various catalogues now obtainable.

In this respect, Mr. Dawson, of Phillips' Lamps Company, is giving excellent lectures from 2YA on alternate Saturdays. The next will be on October 13.

In these days a knowledge of the set is essential to anyone who wants to do his own maintenance. Many sets are ruined through interference by the inexperienced.

### Charging Accumulators.

TO keep an accumulator in use until it refuses to function is simply asking for trouble. According to the type, it may have an amp capacity of from 20 to 80 amp hours. That is to say, that if there were six valves in the set each using .25 amps the total consumption would be 1.5 amps per hour. At this rate a 60 amp-hour accumulator should supply current for 40 hours. To allow an accumulator to do this would cause sulphation and the consequent ruination of the set. Actually not more than two-thirds should be used before recharging. In this specific case 26 hours should be the limit.

Under these circumstances it is imperative that the battery be charged regularly. If, from information supplied with valves, that on the accumulator, and what has been said, difficulty is experienced, it is advisable to find out from an expert how long the set will run without having the accumulator recharged.

The best proposition, especially in the case of large sets, is the trickle charger. These are not expensive, and give faithful service for the merest fraction of cost. A charger using a 30-watt lamp can be used for 33 hours for the price of a unit of electricity. As under some conditions a unit costs as little as 1½d., this is surely a paying proposition.

To obtain the optimum service an accumulator should be recharged after each time it is used. If used for three hours it should be charged for four hours. An hydrometer should be used for testing, but if one is not at hand it is safe to assume that it is fully charged when the liquid gasses.

It is particularly inflammable at this time, and under no circumstances should a naked light be brought near to it.

# The Woman's Point of View

By "Verity"

## Annotations of Annabel

DEAREST:

Dunedin, ever to the fore in matters musical, with enthusiasm and pleasant camaraderie welcomed home Miss Vera Moore. This delightful artist is touring her native land, and it is hoped the different centres of the Dominion will have opportunity of appreciating her fascinating interpretation and technique.

SIXTY women musicians of the Scottish City entertained the accomplished pianiste at the Somerset Lounge in an uncommonly successful party, where gay cinerarias bloomed against panelled walls and leaping log fires added cheer. A happy speech of welcome was spoken by the president, and Miss Yorston added graceful tribute, attired in gold that gleamed and much befringed shawl. Delightfully gowned in pale-toned georgette, Miss Moore spoke in beautifully-modulated tones of study in London with the late Leonard Borwick; and of later days in Leipzig, she being accepted in that great centre of art in happiest fashion by inner circle of musicians, and her talent acclaimed by invitation to play at the Schubert Centenary Festival.

SONGS were charmingly sung by Miss Meda Paine, who contributed also reminiscences of Competitions in past years, when two glad girls, the guest of the evening and herself, took part in those educative and exciting jousts.

CHACUN a son gout. Why not? Some like apples, some like onions, and again there are a few to whom bread and cheese and kisses come not amiss. If only people would let us alone to follow the moon of our delight that knows no wane.

BUT it appears that condemnation is the chief recreation of the mediocre mind. Even in the minor matter of meals. This very day, as I struggled with luncheon pielet, a heavy-faced damsel at my table thus, with vain repetition, addressed her friend "If there's one thing I can't stand it's breakfast. I simply can't stand it. Now, there's Bill at our place. He makes me sick, Bill does. Every morning buttered toast and eggs and bacon. Quite sick, he makes me. Can't stand people who eat breakfast. Never could." Poor Bill! One could not avoid the reflection that those Olympians who dine at seven might feel equally repulsed by the sight of this plump and pasty young female "wiring in" at twelve noon upon hefty conglomerate of sodden cabbage and underdone mutton. To those who love to condemn, find fault, point out the flaw in the pattern, the fly in the amber, I commend the following from "Epigrams": The human species you condemn?

Go see the creatures at the Zoo.
At least, if you are bored by them.
They may be entertained by you.

BESHAWLED to the eyebrows was the gay crowd of femininity that flocked, with its attendant swain, to the Opening Night of the Wellington Art Society. Delightful gowns were worn, and wraps were noticeably lovely. Gold and silver of subtle weave were utilised in the latter; brocaded georgette embossed in rose and purple and scarlet burgeoning around the slender gracefulness of the moment's mode. From the walls, Eyes of Youth, as portrayed by Elizabeth Wallwork, dispassionately surveyed the shifting and colourful kaleidoscope; while some portraits of well-known people were so indistinct with life that they seemed part of the human throng. Quite lovely is Mrs. M. E. R. Tripe's "1928," which displays in fullest measure the artist's remarkable flair for imprisoning personality, allied to graceful composition and admirable draughtsmanship. A brilliant study is the painting of Wm. Hamilton, Esq., while others of Mr. A. F. Nicoll's portraits would add distinction to any art exhibition in the world.

THE work of women artists is arresting. No. 140, by Miss Lynch, in truth of portraiture of a beautiful, dark-eyed girl, held always a knot of admirers; Elizabeth Kelly's nude study, in suave gradations of flesh tints, shows brilliant technique; while the work of a youthful painter, Miss Cecil Macgregor, in "The White House," attracted interest and admiration.

THE Private View at Wellington was more than usually crowded this year. It would seem as though, at this long last, New Zealand awakes to the paramount importance of things strictly non-utilitarian, and with repertory societies, play-reading coteries, art galleries, actual or in the air, seeks the hyacinths to feed its soul that the poet commends.

Your

ANNABEL LEE.

## Books

### THREE WIVES.

**(Beatrice Kean Seymour.)**

MRS. SEYMOUR, an accomplished analyst of the subtleties and complexities of attraction and repulsion between the sexes, is also an adept in presenting that semi-Bohemian society which is the paradise of the mediocre dabbler in the arts. With all her customary skill she deals, in her latest book, with aspects of contemporary society; her principal theme the reactions of matrimony in the lives of two sisters and their friend Val Hardie, the latter a very youthful maiden with plaited hair and transcendant charm, so we are told, although we see no great indication of it. Unversed in the rough ways of life, married at seventeen to a roue, this child goes to live in India with her dashing husband, and there drees a woeful weird.

Also wrecked upon the shoals of the matrimonial sea is another of the trio, the modern, independent Tory; in spite of her slangy common-sense, clarity of view, and straight-out, frustrated determination to live a life uncomplicated by the emotions. Her experiment with her prosperous, efficient, odious lord comes to untimely finish in the divorce court, whither she is hurried, Mrs. Seymour would have us believe, by the rank selfishness and obtuseness of the male creature.

Third and last is lovely, sweet-natured Stella, whom we leave ranged in comparative peace in the ether of domesticity, linked somewhat precariously with her attractive will-o'-the-wisp of a husband, who possesses in marked degree the inability of the artistic temperament to see any point of view except that prompted by personal impulse. Wistfully Stella hopes her baby will prove a solvent for those problems that recur, in spite or because of fleeting moments of rapture with the charming and unstable Micky, who certainly has a way with women, like many another disarming dissembler hailing from the Emerald Isle.

The novel would be vastly improved by condensation, the fleeting and physical aspect of love being insisted upon to the point of ennui; but there is much interesting writing on facts and phases of modern life, and able presentation of the older generation. True to type is the tolerant and comprehending Carlotta; so is Richard, her husband, with his companionable qualities and engaging weakness; while Laura, vicious, vain and wanton, is drawn with subtlety and intuition.

In the war that wages, obviously the author rates her own sex infinitely higher than mere man in the virtues of selflessness and forbearance. Not alone is she upon her doubtful peak of Darien. Long, long ago, for the eternal humbling of Eve's shallow daughters, noble precedent in this direction was created by the Bard of Avon himself.—R.U.R.

## Can You Rest?

HOW many of us workers know the real value of five minutes' relaxation? Many of us never relax even in bed at night. How do you sleep? Do you sleep with all your muscles taut; are your knees bent and your hands tightly clenched, have you a frown of concentration on your face?

Just before you go off to sleep tonight make a mental observation of the position and condition of all the superficial muscles of your body. You will be alarmed to find how little real rest you have been giving yourself. Your toes are curled tightly downwards—you may be one of those people who sleep with their knees almost touching their chin.

It is remarkable how many people complain: "I seem to sleep quite well, yet I wake up feeling tired in the morning"—and no wonder!

Why must we wait until our annual vacation to relax when we can do it at any time during the day? Can you relax? Try it now.

Lie flat on your back, arms lying by your sides, and try—you cannot do it. You have been rigid for so long. It will take you a little while to learn.

Try again. Begin at the top of your head and relax your scalp—you did not know you were holding it taut; next, relax your forehead until your frown has disappeared. The head and face muscles are perhaps the most difficult to relax.

Let your face fall; you will not look your best, but never mind. Now drop your shoulders. Relax your arms inch by inch, relax your legs from hips downwards inch by inch, the muscles of your feet, your toes.

Now what about your brain? Can you make your mind a blank at will? Try it.

It will need an effort to relax completely at first, but in a week you can do it quite easily at any time of the day. When you are working at high pressure spare five minutes in your office and let go.

You will start afresh with renewed vigour. Your nerves will benefit. You will never again find yourself at the end of a busy season suffering from such nervous exhaustion as to feel that if you cannot get right away from your business surroundings you will surely go mad.—*A Woman Doctor.*

# Children's Sessions

### 1YA NOTES.

TUESDAY, OCTOBER 9.—Uncle George will give you a happy hour with stories and greetings, and Kathleen, one of our successful competition cousins, will sing.

WEDNESDAY.—Wednesday brings Uncle Tom with his many humorous talks and songs. Cousins will sing, and Postie will go his rounds.

THURSDAY.—We're sure of a cheery hour to-night, for Peter Pan has the Bayfield Choir with him. As well as singing, they will play games, and the fun will be fast and furious.

FRIDAY.—Here's some news that will make all radioland listen hard from 6 o'clock until 7—the Queen Victoria Maori Girls will be in the studio with Nod and Aunt Jean, and will sing their delightful poi songs, give their cry of welcome and end with "God Save the King," sung in Maori.

SATURDAY.—Cinderella and the Sunshine Girls will entertain you with stories and choruses. Cousin Jack will give his winning piece at the competitions, , and there will be greetings for the little birthday people.

SUNDAY.—Children's Song Service conducted by Uncle Leo assisted by the children from the Mount Eden Methodist Sunday School.

### 2YA NOTES.

MONDAY, OCTOBER 8.—Uncle Jeff and Aunt Gwen will read stories and Miss Marie Peterson's pupils will sing all kinds of happy songs and jolly choruses. These clever girls were prize winners in the recent Wellington Competitions.

TUESDAY—Big Brother Jack and Cousins have a jolly programme arranged for to-night. They have given many happy hours before so look forward to a bright hour to-night.

THURSDAY.—Aunt Gwen and four little radio cousins and Uncle Pepper will give you a happy time. Uncle Pepper will tell you more about the South Pole. Cousin Ailsa will sing "Fairy Tales" (by request) and little Pamelia and Marjorie, pupils of Miss Jo Halliday, have some nice poems to recite.

FRIDAY.—The children's hour to-night will be from St. Mary's Home, Karori. Uncle Ernest will be there and the happy girls at the home are going to sing for you. They have been trained by Mrs. Ginn, and are looking forward to this evening.

SATURDAY.—Uncle Toby and Aunt Gwen will entertain all by themselves to-night. Wonder what they will say? Just wait and—listen. Cheerio.

SUNDAY.—Uncle Ernest will conduct the song service to-night, assisted by the Vivian Street Baptist Sunday School Choir under Mr. John Pirie.

### AT 3YA.

MONDAY, OCTOBER 8.—"A night with the birds and their songs." Scatterjoy will tell you all the most interesting tit-bits about the birds, and you will hear, too, the selection, "In a bird store." Cousins Dorothy and Shirley will sing and recite about our little feathered friends.

WEDNESDAY—Mother Hubbard and Uncle Peter in new songs and stories, and heaps of jokes and fun out of Uncle Peter's own little book.

THURSDAY.—This is "Chuckle's" night and besides his entertaining birthday verses, you will hear cousins Ngaire, Amuri, and Joyce in violin, piano and recitation items.

FRIDAY.—Here is Big Brother and, hoo-rah! another visit from the Optimists—in choruses and songs, rollicking and jolly. Sing-ho for a lot of jollity.

SATURDAY.—To-night we are having a real feast of fun. The Newson cousins are going to charm us all with their funny songs and snappy music. Cousin Molly and her sister, all fresh from the competitions, will give us their winning items.

SUNDAY.—Uncle David conducting the Song Service and the children from the Shirley Methodist Sunday School singing the hymns.

### 4YA NOTES.

TUESDAY, OCTOBER 9—The McAndrew Road School Choir, with Mr. Anderson leading them, are on the air to-night. We've heard them before, so, we know they can sing excellently. And Big Brother Bill will tell stories of how they kept Springtime festivals in the long ago days.

FRIDAY—Aunt Shiela teaches children to sing and recite very nicely indeed; if you don't know about it, you'd better listen to to-night's programme. There will be stories for the listless members of the family; and something good for the bigger ones.



## The Flight.

### Continued Appreciation.

IN last week's issue reference was made to the many appreciative letters which the Broadcasting Company had received in connection with its service to listeners during the trans-Tasman flight. Since then many more tributes have been paid. These have come in covering cheques, postal notes, bank notes and stamps in response to an announcement, giving listeners the opportunity of contributing to the fund being raised in Christchurch for a presentation to the airmen.

In another column appears the list of donations received by the Broadcasting Company, and others no doubt helped to swell the general fund in Christchurch. What has been specially gratifying to the Broadcasting Company is not so much the response which the appeal called forth but who the listeners were who contributed and what they said.

In one case a blind man, a regular listener, forwarded his contribution with a worthy tribute neatly typed.

Dwellers in the back-blocks and in out of the way places would seem to be most appreciative. One lady writes from "53 miles in the bush from Stratford."

A farmer in the hinterland of Canterbury said: "My wireless gives me great pleasure out here in the tussocks, and I much appreciate your efforts to let us have all that is interesting."

This letter speaks for itself:—"If such a small sum is allowed will you put the enclosure to your radio collection for the Tasman flight men's presentation? I of all people feel anxious to give what I can, for being bedridden my wireless let me hear everything on the wonderful journey across and all the arrival, reception, etc."

MRS. ZOE BARTLEY BAXTER.
—Photo Andrews.

Mrs. Zoe Bartley Baxter, the well-known and popular Auckland amateur actress and elocutionist, who, with her associated company, is giving from 1YA on Thursday, October 4, the one act fantasy "Hearts to Mend" by Overstreet. Listeners are likely to find this performance of special interest as providing a feature out of the ordinary. The calibre of the principal and personnel will ensure a capable presentation of an interesting feature.

LOUD-SPEAKERS have recently been installed at the London railway termini for the control of crowded platforms.

**SENTENCE-BUILDING COMPETITION.**

**Box 1304, WELLINGTON. This was won by Mrs. Roy C. Palmer, Spring Grove, Nelson, with a story containing 943 words, all beginning with "C," and Post Office Order No. 15065 for £5 has been sent to the winner.**

# Features of Next Week's Programmes

## "Oliver Cromwell" at 1YA.

**JOHN DRINKWATER'S great historical play, "Oliver Cromwell" (in 8 scenes) will be presented at 1YA on Wednesday, October 10, by Mr. J. F. Montague and his company of players. "Cromwell" is undoubtedly John Drinkwater's masterpiece and many of the great characters of the period, besides Cromwell himself, live again in this truly great play—John Hampden, Henry Ireton, General Fairfax, Charles I, Cromwell's mother, and many others are drawn with marked fidelity by this master hand. This is undoubtedly the most ambitious play presentation yet made on the air in New Zealand, and under the capable direction of such an experienced producer as Mr. Montague it cannot fail to be a pronounced success. The cast will be a very strong one, and will include Rev. George Coats, Mr. Culford Bell (Charles I), Mr. Arthur Gladfield, Mr. Montagu Steele, Mr. Montague (Cromwell), Mr. Cyril Seaward, Mr. Jack Gordon, Miss Una Norwood, Miss Ena Avenell, and a host of others. The play is in prose, not in blank verse, and the scenes are set in Cromwell's home at Ely, the Chamber of the House of Commons, with the Commons in session, the field of Naseby, Hampton Court, and Whitehall, where Charles was publicly executed in January, 1649. Every scene has a thrill as the great actors in this moving drama of English history come and go and "in their habit as they lived." Every listener-in should note the date of this stupendous production—Wednesday, October 10.**

## 1YA Features.

ON Tuesday evening, excerpts from the popular musical comedy Katja the Dancer," will be presented by Madame Ainsley and her operatic party. The excerpts will include all the principal solos and choruses, including among others, "Dancing Together," "Those Eyes So Tender," and "The Humming Chorus." The cast will include a new artist, in the person of Mr. Len Keven, baritone, who is well-known in musical circles in Auckland, having played leading roles in the Auckland Amateur Production, and who has also appeared with the Little Theatre Society. The soloists of the party will also contribute a number of ballads and popular songs, while Mr. A. B. Chappell's talks on old New Zealand will be in connection with the "Settlement of Canterbury." The studio orchestra will also be heard in classical and popular selections.

THE Lyric Quartet will be appearing on Thursday next week. A variety of concerted numbers will be on their programme—"Lovely Night," "My Banjo," "O Miss Hannah," "Deep River," and "Honolulu Eyes." Tenor solos will be sung by Mr. H. Richards and Mr. A. Ripley. Mr. E. Thomas (bass) will sing "A Sergeant of the Line." The humorist of the party, Mr. A. McElwain, will add his contribution. Also on Thursday's programme will be the Asquiths, who will give one of their popular thirty minutes' entertainments. The Auckland Trio, Miss Ina Bosworth, and some other instrumental items per medium of electrically reproduced records are also scheduled.

ITEMS to be played by the 1YA Orchestra on Friday evening are headed by the overture "Der Freischutz," by Weber. Other contributors are from the works of Sarasate, Tschaikowsky, and Liugini. The vocalists for the evening will be Mrs. D. Youd, Miss M. Williamson, Mr. L. Harvey, and Mr. Barry Coney. Elocutionary items will be given by Miss D. Carte Lloyd and Mr. N. Ungemuth will contribute zither solos. Some specially selected gramophone records will be introduced, these being both vocal and instrumental.

AN excellent Saturday evening programme has been arranged for next week-end. Concerted numbers to be sung by the Madame Mary Towsey Quartet will include "By the Waters of Minnetonka," "The Old Folks at Home," and "Genevieve." Solos of the popular type, but of wide variety, will be sung by the members of the quartet. Selections by the Auckland Trio and by Miss Molly Wright ('cellist) will be played. The gramophone records to be introduced will include humorous contributions by John Henry and Blossom, Wurlitzer organ, Hawaiian music, and military band selections. The evening's dance music will be provided by the Collegians under Mr. Bendall.

## 2YA Items.

THAT the studio concert on Sunday, October 7, will be of a standard appropriate to the occasion, is evidenced by the personnel of the contributors —Mr. Assheton Harbord (baritone), Miss Veronica McKenzie (soprano), Mr. Seon-Brown (tenor), Miss Effie Brice (elocutionist), and Miss Agnes McDavitt (contralto).

THE programme to be presented by the Ariel Singers at 2YA next Monday, October 8, will be of the usual high standard maintained by these performers. Of special interest should be a new vocal quartet, "Sweet Day," by the gifted modern English composer, Dr. Ralph Vaughan Williams; also two more charming Hebridean folk songs arranged by Mrs. Kennedy Fraser. Further popular composers whose work will be heard on Monday, include Montague Phillips, Wilfred Sanderson, William James (the Australian pianist who toured New Zealand with Toti dal Monte last year), and Eric Coates. Miss Vivienne Probert will be heard in selected pianoforte solos; Mr. John Prouse, the well-known baritone, will supplement the vocal programme, and Mr. Stanley Warwick will present selected recitations. At 7.40 p.m., Mr. H. C. South will deliver his customary talks on "Books Grave and Gay."

LOEWE is perhaps the greatest writer of dramatic ballads, and on Tuesday, October 9, three of his greatest numbers will be sung by Mr. Len Barnes: "Edward" (by request), "Archibald Douglas," and "The Erl King." Lovers of this class of song will welcome the opportunity of hearing these unfamiliar but nevertheless fine compositions, Mrs. Alice Harris is singing "The Blacksmith" and "Rose Softly Blooming"; Mr. Arthur Coe will give "Dolorosa," Miss Lily Mackie "Rain," a delightful song by Curran. Other numbers are a duet, "As I saw fair Clara walk alone," and also "Mopsa," and "A Little Cotton Dolly," a Negro lullaby. Mr. Billy Hart will entertain with songs at the piano, and Mr. J. S. Webb will add a dash of humour to an attractive programme, which will conclude with a zonophone, gramophone recital, presenting the latest releases.

THE vocal portion of 2YA's programme for Thursday, October 11, will be given by The Warblers' Male Quartet. They have chosen as concerted numbers—"Mother o' Mine," and "When You Played the Organ and I Sang the Rosary" (Gilbert), arranged by Mr. T. C. Woods. Mr. W. E. Elliot is the soloist in the latter number. Mr. Stewart Nelson's clear tenor will be heard in "Pale Moon" (Logan) and "A Memory" (Park). Mr. W. E. Elliot, whose items are always well received, will sing Irving Berlin's new song "Sunshine." Mr. Harry Matthew (baritone) will delight with "Home Along" and "Achal by the Sea." Mr. T. C. Wood will sing the evergreen "Bandolero" and Sanderson's beautiful "The Carpet." Mrs. A. Innes Murray (elocutionist) will contribute items grave and gay. The instrumental portion of the programme will be provided by the Wellington Municipal Tramways Band.

**At 7.40 p.m. on Thursday Mr. A. H. Nicholls, representing the Hutt Valley Horticultural Society, will broadcast an instructive talk on "Gardening."**

ON Friday, October 12, the popular Etude Quartet will render a programme of more than ordinary interest. "The Anvil Chorus," from "Il Trovatore," will be sung and also "The Breeze of the Morn," a delightful number from Hubert Bath's "The Legend of Nerbudda." This is the number which is sung as the slave Johila goes to seek Sone, the lover of her mistress, Nerbudda. Miss Gretta Stark and Mr. Ray Kemp will sing "The Rose of Love," from the "Rose Maiden." The former will sing as a solo the popular "Serenade," by Gounod, while Mr. Kemp will sing the well-known aria from "The Barber of Seville," "Largo al Factotum," and also "The Heart Bowed Down," from "The Bohemian Girl." Mr. Frank Skinner's numbers are "Your Tiny Hand is Frozen," from "La Boheme," and "The Fortune Hunter," by Willeby. From "Maritana" Miss Rita Arnold has chosen "Alas, Those Chimes." Mr. Doug. Stark, Wellington's Harry Lauder, will present some more of his humorous work, and Miss Lilian Beere, a player of marked talent, will be heard at the piano.

THE "Melodie Four" will on Saturday, October 13, render more items from their extensive repertoire. On this occasion the chief concerted number will be "The Soldiers' Chorus" from "Faust," which is considered one of the first compositions for male

## Cable from the Author, John Drinkwater.

**IN connection with the presentation of "Oliver Cromwell" at 1YA on October 10, Mr. J. F. Montague, the producer, has received a cable from Mr. John Drinkwater wishing him all success in his undertaking. The message reads:**

**"Much gratified, and wish 'Cromwell' production all success. Wish I could hear it."—John Drinkwater.**

**This is in reply to a letter written by Mr. Montague to Mr. Drinkwater informing him of the coming production.**

voices ever written. At the request of a gentleman hailing from the Isle of Man two Manx songs will be rendered, namely, "Ramsey Town," by Mr. R. S. Allwright, and "The Sheep Under the Snow." "Ramona," which is always a favourite, will also be broadcast. As is well known to listeners, humour is Mr. Geo. Titchener's distinctive forte, and his contributions to this evening's programme will doubtless be as welcome as ever.

## 3YA Features

WOOLSTON Band night again on Monday, when this talented combination, under Mr. R. J. Estall, will present one of their very choice programmes, which will include several instrumental solos by bandsmen. A very strong vocal party will support the Woolston Band, the singers comprising two ladies and four men.

A NEW male quartet will appear on Monday, the vocalists being Messrs. L. Martin (first tenor), M. Blinkinsop (second tenor), T. Borthwick (baritone), and W. E. Richards (bass). They will present a very diversified programme. The quartets will include "The Viking's Song," "The Soldiers' Chorus" (from "Faust"), "Every Rustling Tree," and "Ye Banks and Braes." A duet will also be sung. The lady vocalists will be Miss Nina Partridge, a soprano singer, who will make a reappearance at 3YA, and the always popular Mrs. D. W. Stallard.

ANOTHER new contributor to Monday's programme will be Mr. Harold Shaw, who will make his first appearance in radio, though he has appeared frequently in public. His numbers will include "Lonesome," a work by Mr. Farquhar Young, the well-known Christchurch elocutionist, and "Wedding Day Speeches."

WEDNESDAY'S concert will, as usual, be of the miscellaneous type. The Studio Orchestra, under the baton of Mr. Harold Beck, will be appearing, and the vocalists will be the members of the Dulcet Quartet and Miss Alice Chapman. There will also be some special records introduced, including a humorous one.

MISS ALICE CHAPMAN is a young singer with a very bright future. She is a pupil of Madame Audibert, and has lately been very successful in competitions at Christchurch and elsewhere, having won ten first prizes and six seconds, in singing and reciting. Her items on Wednesday evening will be recitations to piano accompaniment.

FROM the works of Russian composers has been obtained the major portion of Thursday evening's programme. Tschaikowski, Arensky, Rimsky-Korsakof are among the names which appear. Reinforced as it will be by numerous miscellaneous items, this programme will be a very enjoyable one. The vocalists will be the Madame Gower Burns Quartet, and the items to be presented will consist of solo and concerted pieces. During the evening recitations will be given by Mr. Hiram Dunford—"My Lady's Leap" (a dramatic piece), and "The Stoush O' Day," from "The Sentimental Bloke." Some specially fine gramophone records will also be introduced.

**"Our Miss Gibbs," one of the most brilliant of the Caryll-Monckton musical comedies, will be presented by the Radiolians on Friday evening. This play is full of exceptionally bright songs and choruses. A miscellaneous programme will support "Our Miss Gibbs." To this will be contributing Mr. W. C. Mills (elocutionist), the Studio Trio, Mr. Jock Gillespie (banjo medleys), and some gramophone records.**

A CONSIDERABLE portion of Saturday evening's vaudeville programme will be contributed by the Tu Tehuarewa to Wheke Maori entertainers, the majority of whom will appear for the first time for radio. Miss Eileen Grennell will be one of the party. This very gifted artist has previously sung for 3YA as a soloist. On this occasion her items will be two of Alfred Hill's songs, one of which will be "Home, Little Maori, Home." Miss Grennell will be the only lady soloist. Tenor songs will be sung by Mr. Hiwi Couch (who has previously sung for 3YA)—"Waiata Maori" and "Kamate"—and baritone solos will be sung by Mr. Tono Barrett. There will be pianoforte solos by Mrs. Tainui. But the great feature of the evening will be the choruses to be sung by the party. These will comprise "Morehu," "Ihipa," "The Old Folks at Home" (in Maori), "Matangi," and "Aroha Kia Koe" (an Hawaiian chorus).

MR. SYDNEY COMFORT is appearing at 3YA on Saturday evening in two humorous pieces, one of them his own arrangement. John Henry and Blossom will be heard in two other humorous dialogues. These are, of course, electrically reproduced records. Records will play a prominent part in Saturday's programme.

## "1812 Overture" from 1YA and 3YA.

**TSCHAIKOWSKY'S famous "1812 Overture," which describes musically the bombardment of Moscow, will be broadcast from IYA on Thursday and from 3YA on Friday evening. The overture, written for patriotic festivities at the time of the consecration of the Cathedral of Christ, at Moscow, is considered one of the most spectacular in musical history. It presents a vivid and startling tone-picture of the French bombardment of Moscow, the firing of the town at night by the Russians, and Napoleon's retreat. The Russian National Hymn is heard triumphant above the din of the battle.**

## Another Digger Entertainment for November 10.

DIGGERS and others who heard 2YA'S concert on August 4, the anniversary of Britain's entry into the war, will be pleased to learn that a similar entertainment is to be put on on the evening of Saturday, November 10.

MR. ROGER WALPOLE, who was principally responsible for the sketches of army life enacted before the microphone on that occasion, is again busy preparing more for November 10. The success which attended Mr. Walpole's efforts on the last occasion are largely explained by the fact that he was a war-time sergeant-major and infused the real spirit into what took place in the studio.

THE Broadcasting Company received letters from listeners in all parts of New Zealand concerning the last Diggers' concert, all praising the entertainment and asking that there should be a repetition, some suggesting Armistice Day and some Anzac Day.

## 4YA Features

**The Rev. W. Bramwell Scott, who is an authority on New Zealand history, will deliver a series of addresses bearing on the pioneers and early times in New Zealand, commencing on Tuesday evening, and following on each alternate Tuesday, during the concert session. The first group of talks will be under the heading of "Men Who Have Made New Zealand," and Tuesday's address will be introductory to this.**

AMONG the items of the splendid programme to be played by the St. Kilda Band on Tuesday evening will be Rimmer's charming waltz, "Golden Dreamland," and Greenwood's fantasia, "Claredon." Another interesting item will be a cornet solo, with the St. Kilda Band in accompaniment, playing "The Garden of Happiness." Several well-known artists will contribute solo items to the band concert. Miss Wyn McPeak will sing a group of ballads by the modern composer, Chuter. Miss Anita Winkel and Mr. Lester Moller will each contribute elocutionary items.

ANOTHER happy programme at 4YA on Wednesday. The Dunedin Banjo Trio will feature some popular song hits, both old and new. Miss Betty Roberts and Miss Thelma Blackman will sing some of the latest song hits. Mr. Chris. Harlie, the Lancashire comedian, among other humorous songs with patter, will sing the "Bull Fighter." Mr. Buster Brown, the Scotch comedian, will sing three of Harry Lauder's songs, including "Piper McFarlane." Instrumental music will be rendered by Mr. J. McCaw (saxophonist), and Mr. E. Heaney on his piano-accordion. Some delightful sketches will be presented by Miss Sheila Neilson, and Mr. J. B. McConnell.

ON Friday night, Miss Molly Vickers (mezzo-soprano) will sing "Fierce Flames are Soaring," from "Il Trovatore." Mr. George Christie (cornetist), will play Hoch's "Edilweiss." Other artists on this programme will be Mr. L. M. Cachemaille (baritone), and Miss Madge Yates (elocutionist). Dance music from the Savoy will be relayed during the second half of the programme, between 9 o'clock and 10.

ON Saturday evening a high-class and varied programme will be presented by the 4YA Harmonists, assisted by some instrumentalists. The 4YA Harmonists Quartet will present "There Were Three Ravens," "Sea Sorrow" (from "Songs of the Hebrides," by K. Fraser), and "Alice Where Art Thou?" Miss Roma Buss (soprano) will sing Willeby's "Coming Home," and Miss Mollie Andrews (mezzo-soprano), "I'm Longing for the Spring." Mr. C. C. Scott will be heard in "There is a Flower that Bloometh" (from "Maritana"). Baritone solos will be sung by Mr. F. M. Tuohy. Instrumental trios for violin, flute, and piano will be played, and Mrs. Ernest Drake, studio pianiste, will render a Beethoven Sonata. Miss Roberta Williams, elocutionist, will recite Kipling's "Glory of the Garden."

# Full Programmes for Next



## Sunday, October 7

### 1YA, AUCKLAND (333 METRES)—SUNDAY, OCTOBER 7.

3 p.m.: Afternoon session—Selected studio items.
4.0: Literary selection by the Announcer.
4.8: Selected studio items.
4.30: Close down.
6.0: Children's session conducted by Uncle Leo.
6.55: Relay of evening service from St. Matthew's Church (Divine Service). Preacher, Canon C. H. Grant Cowan; organist, Mr. J. L. Phillpot.
8.30: Gramophone lecture-recital by Mr. L. E. Lambert.
9.30: God Save the King.

### 2YA, WELLINGTON (420 METRES), SUNDAY, OCTOBER 7.

3 p.m. to 4.30 p.m.: Afternoon concert.
6.0: Children's song service, conducted by Uncle Ernest.
7.0: Relay of evening service from Vivian Street Church of Christ. Preacher, Pastor W. G. Carpenter. Choirmaster, Mr. Will Mason. Organist, Miss Iris Mason.
8.15 (approx.): Studio concert.
Orchestral selection—"Toccata and Fugue in D Minor" (Bach), Columbia record.
Soprano solo—Miss Veronica McKenzie, "With My Guitar" (Wright).
'Cello solo—"Chant Sans Paroles (Tschaikowsky), Columbia record 9058.
Baritone solo—Mr. L. M. Assheton Harbord, "The Tempest of the Heart," from "Il Trovatore" (Verdi).
Elocution—Miss Effie Brice, "The Necklace of Tears."
Orchestral selection—"Bridal Procession" (Grieg), Columbia record, 02622.
Contralto solo—Miss Agnes McDavitt, "Beautiful Beatrice" (Mallinson).
Instrumental trio—"Spring Song" (Mendelssohn), Columbia record 0837.
Tenor solos—Mr. E. Seon-Brown. (a) "Elegie" (Massenet); (b) "Jennesse" (Barry).
Band selection—"Reminiscences of Tosti," Columbia record 9041.
Soprano solo—Miss Veronica McKenzie, "April is a Lady" (Phillips).
Baritone solos—Mr. L. M. Assheton Harbord, (a) "Chorus, Gentlemen" (Lohr); (b) "Dreams of Long Ago" (Caruso).
Violin solo—"Chanson Hindoue" (Song of India), (Rimsky-Korsakoff), Columbia 01090.
Elocution—Miss Effie Brice, "A Gentleman of France" (Walsh).
Cornet duet—"Two Little Finches," Columbia record, 02539.
Contralto solo—Miss Agnes McDavitt, "As Yet No Light in the Eastern Sky" (Rubenstein).
Pianoforte solo—"Hungarian Rhapsody," No. 6 (Liszt), H.M.V. record, D1383.
Tenor solo—Mr. E. Seon-Brown, "Serenata" (Toselli).
Band selection—"Tom Jones" (German), Columbia record, 02626

### 3YA, CHRISTCHURCH (306 METRES)—SUNDAY, OCTOBER 7.

3 p.m.: Studio gramophone recital.
4.30: Close down.
5.30: Children's song service conducted by Uncle David.
6.30: Relay of evening service from Knox Presbyterian Church, Bealey Avenue. Preacher, Rev. T. W. Armour: organist and choirmaster, Mr. W. Billington.
7.45: A recital of music from 3YA studio.
8.15: Gramophone recital.
9.30: God Save the King.

### 4YA, DUNEDIN (463 METRES)—SUNDAY, OCTOBER 7.

5.30 p.m.: Children's song service conducted by Big Brother Bill.
6.30: Relay of evening service from Knox Church. Preacher, Rev. Tulloch Yuille, M.A., B.D.
8.0: Relay from His Majesty's Theatre—Concert by the St. Kilda Band under the baton of Mr. James Dixon.
9.15: God Save the King.

## Monday, October 8

### 1YA, AUCKLAND (333 METRES)—MONDAY, OCTOBER 8.

SILENT DAY.

### 2YA, WELLINGTON (420 METRES)—MONDAY, OCTOBER 8.

3 p.m.: Chimes of the G.P.O. clock.
3.1: Selected gramophone items.
4.30 and 4.55: Sports results to hand.
5.0: Close down.
6.0: Children's session, conducted by Uncle Jeff and Aunt Gwen.
7.0: News session, market reports and sports results.
7.40: Lecturette—"Books, Grave and Gay," Mr. H. C. South.
8.0: Chimes of the G.P.O. clock.
8.1: Overture—Orchestra, "The Magic Flute" (Mozart).
8.11: Soprano solo—Miss Jeanette Briggs, "Fiddler, Come and Play for Me" (Phillips).
8.15: Instrumental trio (violin, 'cello and piano)—"Trio No. 1 in B Flat, Op. 99," 4th Movement (Schubert), (H.M.V. Record DB950).
8.23: Bass solo—Mr. J. M. Caldwell, "The Stockrider's Song" (James).
8.26: Symphony—Orchestra, "Symphony No. 5 in C Minor" (last movement), (Beethoven).
8.34: Vocal quartet—Ariel Singers, "Sweet Day" (Vaughan Williams).
8.39: Pianoforte solo—Miss Vivienne Probert, "Rondo Capriccioso" (Mendelssohn).
8.34: Baritone solo with orchestral accompaniment—Mr. John Prouse—Recitative, "I Rage, I Melt, I Burn" (Handel); Aria, "O Ruddier than the Cherry" (Bizet).
8.53: Violin and orchestra (soloist, Miss Ava Symons)—(a) "Meditation—Ave Maria" (Gounod-Bach); (b) "Swing Song" (Barnes).
9.1: Recital—Mr. A. Stanley Warwick, "Eden, U.S.A." (Thomas).
9.6: Weather forecast.
9.7: Tenor solo—Mr. Roy Hill, "Her Voice" (Schumann).
9.12: Instrumental—the orchestra, Repeat Number.
9.20: Bass solos—Mr. J. M. Caldwell, (a) "Mendin' Roadways)" (Coates); (b) "You Along o' Me" (Sanderson).
9.26: Grand organ solo—"Chant de Bonheur" (Lemare), (Zono. Record EE93)
9.30: Soprano solos—Miss Jeanette Briggs, L.A.B., (a) "Heart o' Fire Love" (Hebridean Folk Song); (b) "An Erisky Love Lilt" (Arr. Kennedy-Fraser).
9.38: Recital—Mr. A. Stanley Warwick, "Mandalay" (Kipling).
9.44: Grand organ solo—"Gondoliera" (Widor), (Zono. Record EE93).
9.48: Vocal quartet—Ariel Singers, "Maiden of the Fleur de Lys" (Sydenham)
9.51: Waltz—Orchestra, "Dornroschin" (Tschaikowsky).
9.56: God Save the King.

### 3YA, CHRISTCHURCH (306 METRES)—MONDAY, OCTOBER 8.

3 p.m.: Afternoon session—Selected studio items.
4.30: Close down.
6.0: Children's session, conducted by Scatterjoy.
7.15: News session.
8.0: Chimes.
Studio concert by Woolston Brass Band, conducted by Mr. R. J. Estall, and items by assisting artists.
8.1: March—Band, "Honest Toil" (Rimmer).
Overture—Band, "Mirella" (Gounod).
8.13: Male voice quartet—Christchurch Premier Four, "The Viking's Song" (McKee Wright).
8.17: Vocal duet—Premier Male Duo, "Nocturne" (Denza).
8.21: Contralto solos—Mrs. D. W. Stallard, (a) "Wind in the Trees" (Thomas); (b) "The Happy Song" (Del Reigo).
8.27: Wurlitzer organ solo—"Schon Rosmarin" (Kreisler), (H.M.V. Record B2664).
8.31: Male quartet—Christchurch Premier Four, "Mosquitoes" (Hathaway).
8.35: Soprano solo—Miss Nina Partridge, "Slave Song" (Del Reigo).
8.39: Euphonium solo—Bandmaster T. H. Hughes (with band accompaniment), "The Village Blacksmith" (Weiss).
8.44: Bass solo—Mr. W. E. Richards, "Captain Mac" (Sanderson).
8.48: Recital—Mr. Harold Shaw, "Lonesome" (Farquhar Young).
8.53: Selection—Band, "Mignon" (Thomas).
9.4: Weather forecast.
9.6: Overture.
9.16: Male voice quartet—Christchurch Premier Four, "Soldiers' Chorus" (from "Faust"), (Gounod).
9.20: Contralto solo—Mrs. D. W. Stallard, "The Old Rustic Bridge by the Mill" (Allan).
9.24: Waltz—The Troubadours, "Cielto Lindo" (Beautiful Heaven), (H.M.V. Record EA349).

# Week-all Stations-to Oct. 14



9.28: Baritone solo—Mr. C. Borthwick. "When the Sergeant Major's on Parade" (Longstaffe).
9.32: Foxtrot—Band, "Utah" (Smith).
Cornet solo—Bandsman R. Barber, "Come, Sing to Me" (Thompson).
9.41: Male voice quartet—Christchurch Premier Four, "Ye Banks and Braes" Old Scottish).
9.45: Soprano solos—Miss Nina Partridge, (a) "Mignonette" (Harris); (b) "Somewhere a Voice is Calling" (Tate).
9.51: Humour—Mr. Harold Shaw, "Wedding Day Speeches" (MS.).
9.56: Foxtrot—Skilkret's Orchestro, "Dainty Miss" (Barnes), (H.M.V. Record EA276).
Hawaiian Orchestra—Hilo Hawaiian Orchestra, "Song of Hawaii" (Waltz), (Bories, Corbell), (H.M.V. Record EA276).
10.4: Tenor solo—Mr. L. Martin, "For You Alone" (Geehl).
10.8: Male voice quartet—Christchurch Premier Four, "Every Rustling Tree" Kuluah).
10.12: Humorous variations—Band, "Keel Row" (Rimmer).
March—Band, "Flying Squadron" (Bosworth).
God Save the King.

**4YA, DUNEDIN (463 METRES)—MONDAY, OCTOBER 8.**

SILENT DAY.

# Tuesday, October 9

**1YA, AUCKLAND (333 METRES)—TUESDAY, OCTOBER 9.**

3 p.m.: Afternoon session—Selected studio items.
4.0: Literary selection by the Announcer.
4.8: Selected studio items.
4.25: Sports results.
4.30: Close down.
6.0: Children's session.
7.15: News and market reports, book review.
8.0: Chimes.
8.1: Overture—Orchestra, "Masaniello" (Auber).
8.11: Baritone solo—Mr. L. Keven, "The Two Grenadiers" (Schumann).
8.15: Wurlitzer organ solo—Jesse Crawford, "Serenade" (Schubert) (H.M.V. Record EA 325).
8.19: Soprano solo—Miss V. Harrison, "Serenata" (Toselli).
8.23: Orchestral—Orchestra, (a) "Coronach" (MS.); (b) "Celebrated Minuet" (Boccherini).
8.31: Tenor solo—Mr. J. Maddox, "A Castilian Lament" (Del Riego).
8.35: Chorus with orchestra—Zonophone Light Opera Company, "Gems from 'H.M.S. Pinafore'" (Sullivan) (Zonophone Record A317).
8.39: Orchestral novelty—Orchestra, "In a Monastery Garden" (Ketelbey).
8.45: Mezzo-soprano solo—Miss N. Macklow, "Hindoo Song" (Rimsky Korsakov).
8.49: Orchestral with organ—International Concert Orchestra, "Tesoro Mio" (My Treasure) (Becucci) (Zonophone Record EF15).
8.53: Talk—Mr. A. B. Chappell, M.A., "Talks on Old New Zealand: Settlement of Canterbury."
9.8: Weather forecast.
9.9: Ballet suite—Orchestra, "Ascanio Ballet Music," Pt. 2 (Saint-Saens)—(1) Love appears to Psyche; (2) Ensemble of Phœbus, Diane, Erigone, Nicœa, and Bacchus, with the Muses, Nymphs, and Bacchantes; (3) Variation—Love theme: Entrance of the Dragon of Hesperides carrying the Golden Apple; (4) Goddesses, Bacchantes, Nyads and Dryads.
9.19: Humour—Norman Long, "Under the Bazunka Tree" (Lee) (H.M.V. Record B2454).
9.22: Presentation of excerpts from "Katja the Dancer" (Joan Gilbert), produced under the direction of Madame Irene Ainsley.

**Cast:**

Patricia ..... Miss Nance Macklow
Katja ..... Miss Violet Harrison
Leander ..... Mr. Len Keven
Carl ..... Mr. Jack Maddox

"When Love's in the Air"—Patricia.
"Cruel Chief"—Trio.
"Dancing Together"—Katja.
"Politics"—Carl.
"Just for a Night"—Katja and Karl.
"When We are Married"—Patricia and Leander.
"Humming Chorus"—Chorus.
"I've Planned a Rendezvous"—Carl and Chorus.
"If You Cared"—Carl and Patricia.
"Those Eyes so Tender"—Katja and Carl.
"Pails Up!"—Patricia.
**Finale—Finale and Chorus.**

9.58: Orchestral—Victor Salon Orchestra: (a) "Indian Love Call" (from "Rose Marie"—Friml); (b) "The World is Waiting for the Sunrise" (Seitz' (H.M.V. Record EA186).
10.6: God Save the King.

**2YA, WELLINGTON (420 METRES)—TUESDAY, OCTOBER 9.**

3 p.m. Chimes of the G.P.O. clock.
3.1: Selected gramophone items.
4.30 and 4.55: Sports results to hand.
5.0: Close down.
6.0: Children's session conducted by Big Brother Jack.
7.0: News session, market reports and sports results.
7.40: Lecturette, "For the Man on the Land," by a representative of the Agricultural Department.
8.0: Chimes of the G.P.O. clock.
8.1: Overture—Orchestra, (a) March, "Stars and Stripes" (Sousa); (b) Waltz, "Ball Scene" (Nicodi).
8.9: Vocal quartet—Orpheus Quartet. "Mopsa" (Williams).
8.13: Choral with orchestra, gems from "The Student Prince" (Romberg) (H.M.V. Record EB7).
8.17: Tenor solo—Mr. Arthur Coe. "Dolorosa" (Phillips).
8.21: Humour—Mr. J. S. Webb, "Peter O'Mulligan's Wallaby Drive" (Spencer).
8.26: Suite—Orchestra, "The Pagoda of Flowers" (Woodforde-Finden): (1) Passing of Priests. (2) Midst the Petals. (3) The Star-flower Tree. (4) Blue Lotus Dance, (5) Return of Oomala.
8.36: Contralto solo—Miss Lily Mackie, "Rain" (Spross).
8.40: Orchestral—(a) "Bird Songs at Eventide" (Coates); (b) "Charmaine" (Rapee, Pollock) (H.M.V. Record B2528).
8.47: Baritone solos—Mr. Len Barnes: (a) "Edward" (Loewe) (by request); (b) "The Erl King" (Loewe); (c) "Archibald Douglas" (Loewe).
9.0: Instrumental—The Orchestra (repeat number).
9.8: Weather forecast.
9.9: Soprano solos—Mrs. Alice Harris: (a) "Rose Softly Blooming" (Spohr); (b) "The Forge" (Brahms).
9.14: Instrumental—The Orchestra: (a) "Stanchin" (Czibulka); (b) "Waiata Poi" (Hill).
9.21: Vocal duet—Messrs. Arthur Coe and Len Barnes, "As I Saw Fair Clara" (Hayden).
9.24: Humour—Mr. J. S. Webb, "The Sailorman" (Brady).
9.29: Songs at the piano—Mr. Billy Hart: (a) "My Angel" (Pollack); (b) "Rain" (Ford); (c) "Sunshine" (Berlin).
9.39: Vocal quartet—Orpheus Quartet, "Little Cotton Dolly" (Giebel).
9.42: "Zonophone" Record Recital—
Overture, National Symphony Orchestra, "Light Cavalry" (Suppe) (EE102).
Tenor solo, Mr. Henry Burr, "Because I Love You" (Berlin) (EE38).
Violin with kinema organ, Mr. L. C. Southgate, "Simple Aveu" (Thome) (5040).
Orchestral, Victor Symphony Orchestra, "Dance of the Hours," Part 2 (Ponchielli) (EF12).
Bass solo, Mr. Foster Richardson, "The Gay Cavalier" (Smith) (5073).
Organ and cornet, Arnold Grier, "Softly Awakes My Heart" (Saint-Saens) (A309).
Novelty, Green Bros.' Marimba Band, "Sweet Blue Bird" Waltz (Land and Oleman) (EE8).
Chorus, Zonophone Light Opera Company, "Gems from the Gondoliers" (Sullivan) (A325).
God Save the King.

NOTE: The above programme is subject to alteration, as during the evening after 9 o'clock, there will be broadcast a description of the featherweight boxing contest between J. Leckie (New Zealand) and Radford (England).

### 3YA, CHRISTCHURCH (306 METRES)—TUESDAY, OCTOBER 9.

SILENT DAY.

### 4YA, DUNEDIN (463 METRES)—TUESDAY, OCTOBER 9.

3 p.m.: Town Hall chimes.
3.1: Selected gramophone items.
4.0: An Art Needlework Talk by Miss Marguerite Puechegud, under the auspices of the King Edward Technical College.
4.15: Selected gramophone items.
4.25: Sporting results to hand.
4.30: Close down.
6.0: Town Hall chimes.
6.1: Children's hour conducted by Big Brother Bill.
7.15: News and reports session.
8.0: Town Hall chimes.
Concert by the St. Kilda Band under the baton of Mr. James Dixon, and items by assisting artists.
8.1: March—The Band, "The Adventurer" (Seddon).
8.4: Tenor solos—Mr. L. E. Dalley: (a) "The White Dawn is Stealing" (Cadman); (b) "Far Off I Hear a Lover's Flute" (Cadman).
8.10: Hawaiian Guitars—(a) F. Ferera and J. K. Paaluhi, "Hawaiian Waltz Medley" (traditional) (H.M.V. Record B2369); (b) Kane's Hawaiians, "Hilo Hawaiian March" (traditional) (Zonophone Record 2992).
8.16: Recital—Miss Anita Winkel, "Penarby Mine" (Doyle).
8.19: Waltz—The Band, "Golden Dreamland."
8.26: Contralto solos—Miss Wyn McPeak: (a) "Little Red Dawn" (Chuter); (b) "Big Brother Day" (Chuter).
8.31: Chorus with Band, "Comrades in Arms" (Adam).
8.39: Recitals—Mr. Lester Moller: (a) "Christmas at Sea" (Stevenson); (b) "Prizes in the Pudding" (Roberts).
8.46: Orchestral novelty—New Light Symphony Orchestra, "In a Clock Store" (Orth) (H.M.V. Record C1308).
8.50: Tenor solo—Mr. L. E. Dalley, "Thou Shalt Break Them" (Handel).
8.53: Overture—The Band, "La Fete du Hamean" (Bidgood).
9.3: Weather forecast and announcements.
9.5: Address—Rev. W. B. Scott, "The Men Who Have Made New Zealand: Introductory Talk."
9.20: Cornet solo with band accompaniment—"The Garden of Happiness" (Wood).
9.24: Bass solos—Mr. E. G. Bond: (a) "Up from Somerset" (Sanderson); (b) "Son of Mine" (Wallace).
9.29: Orchestral overture—Royal Opera Orchestra, "1812 Overture" (Tschaikowsky) in three parts (H.M.V. Records C1280, C1281).
9.39: Recitals—Miss Anita Winkel: (a) "The Bridal Morn" (Anon); (b) "Comfort" (Anon).
9.45: Fantasia—The Band, "Clarendon" (Greenwood).
9.51: Orchestral selection—Victor Concert Orchestra, "In a Monastery Garden" (Ketelby) (Zonophone Record EF7).
9.55: Contralto solo—Miss Wyn McPeak, "Twilight is a Maiden Fair" (Chuter).
9.58: Selection of Hymns—The Band.
10.3: Bass Solo—Mr. E. G. Bond, "Long Ago in Alcala" (Messenger).
10.6: Recital—Mr. Lester Moller, "Hunting a Mouse" (Adeler).
10.12: March—The Band. "New Era" (Finney).
10.15: God Save the King.

# Wednesday, October 10

### 1YA, AUCKLAND (333 METRES)—WEDNESDAY, OCTOBER 10.

3 p.m.: Selected studio items.
4.0: Literary selection by the Announcer.
4.8: Studio items.
4.25: Sports results.
4.30: Close down.
6.0: Children's session conducted by Uncle Tom.
7.15: News and market reports.
7.45: Talk on "Physical Culture" by Mr. Norman Kerr.
8.0: Chimes.
8.1: Special dramatic performance of "Oliver Cromwell" (John Drinkwater), presented by the Auckland Comedy Players under the direction of Mr. J. F. Montague.



Orchestral overture—Royal Opera Orchestra, "Præludium" (Jarnefeldt) (H.M.V. Record B2618).
"Oliver Cromwell"—Act 1.
Orchestral selection—Royal Opera Orchestra, "The Sleeping Beauty" (Tschaikowsky) (H.M.V. Record C1469).
"Oliver Cromwell"—Act 2.
Orchestral selection—"Berceuse" (Jarnefeldt) (H.M.V. Record B2618).
"Oliver Cromwell"—Act. 3.
Orchestral selection—Royal Opera Orchestra, "Shepherds' Fennel Dance" (Balfour-Gardiner) (H.M.V. Record C1469).
"Oliver Cromwell"—Act 4.
God Save the King

### 2YA, WELLINGTON (420 METRES)—WEDNESDAY, OCTOBER 10.

SILENT DAY.

### 3YA, CHRISTCHURCH (306 METRES)—WEDNESDAY, OCTOBER 10.

3.0 p.m.: Afternoon session—selected studio items.
4.30: Close down.
6.0: Children's session, conducted by Uncle Peter and Mother Hubbard.
7.15: Addington stock market reports.
7.30: News session.
8.0: Chimes.
8.1: Relay from Strand Theatre of music by the string quartet, under the conductorship of Mr. Harry Elwood.
8.10: Mixed vocal quartet—Dulcet Quartet, "Drink to Me Only With Thine Eyes" (Button).
Baritone solo—Mr. A. G. Thompson, "The Wild Ride" (Hickey).
8.17: Orchestral suite—Studio Orchestra, "Peer Gynt Suite, Pt. 1" (Grieg); (1) Morning; (2) Death of Ase; (3) Anita's Dance; (4) In the Hall of the Mountain King.
8.27: Contralto solo—Miss Nellie Lowe, "A Last Year's Rose" (Quilter).
8.30: Pianoforte solos—Miss Aileen Warren, (a) "Sonata, Op. 2, No. 3" (Beethoven); (b) "Alt Wien" (Old Vienna), (Godowsky).
8.39: Tenor solo—Mr. T. G. Rogers, "The Barefoot Trail" (Wiggens).
8.42: Ballet music—Orchestra, "Egyptien Ballet" (Luigini).
8.50: Recital (piano accompaniment)—Miss Alice Chapman, "Singers and Talkers" (Kent).
8.55: Soprano solo, followed by contralto and baritone duet—Miss Hilda Hutt and the Dulcet Duo, (a) "Charming Chloe" (German); (b) "The Enchanted Hour" (Leoni).
9.3: Weather forecast.
9.5: Wurlitzer organ solo—Jesse Crawford, "Serenade" (Schubert), (H.M.V. Record EA325).
9.9: Humour—Norman Long, "Under the Bazunka Tree" (Lee), (H.M.V. Record B2454).
9.13: Chorus with orchestra—"Gems from H.M.S. Pinafore" (Sullivan), (Zonophone Record A317), Part 1.
9.17: Mixed vocal quartet—Dulcet Quartet, "April" (Salaman).
9.21: Cornet solo—Mr. R. Ohlson, "The String of Pearls" (Phillips).
9.26: Baritone solo—Mr. A. G. Thompson, "Serenade in Summer" (Denza).
9.30: Contralto solo—Miss Nellie Lowe, "Break, Break, Break" (Carey).
9.34: Chorus with orchestra—"Gems from H.M.S. Pinafore" (Sullivan), (Zonophone Record A317), Part 2.
9.38: Soprano solos—Miss Hilda Hutt, (a) "Drift Down, Drift Down" (Ronald); (b) "Were I a Bird" (Knight).
9.44: Cornet solo—Mr. R. Ohlson, "Lay My Head Beneath a Rose" (Falkenstein).
9.46: Recitals—Miss Alice Chapman, (a) "Bric a Brac" (piano accompaniment), (Best-Wrighton); (b) "How to Get a Maid" (humorous), (MS.).
9.50: Mandolin quartet—"Aloha Land" (Ferera), (H.M.V. Record EA24).
9.54: Tenor solo—Mr. T. G. Rogers, "Would You Gain the Tender Creature" (Handel).
9.58: Musical Comedy Selection—Orchestra, "Sally" (Kern).
God Save the King.

### 4YA, DUNEDIN (463 METRES)—WEDNESDAY, OCTOBER 10.

7 p.m.: Town Hall chimes.
7.1: Request gramophone concert.
7.40: News session—Burnside stock sales report.
8.0: Town Hall chimes.
8.1: Orchestral music, under the conductorship of Mons. Henri De Rose (Mus. Bach.), relayed from the Octagon Theatre.
8.11: Humorous Scotch songs—Mr. Buster Brown, (a) "Roaming in the Gloaming" (Lauder); (b) "Piper McFarlane" (Lauder).
8.17: Saxophone solo—Mr. J. McCaw, "Sax Serene" (Wiedoeft).
8.21: Humorous sketch—Miss Sheila Neilson and Mr. J. B. McConnell, selected.
8.27: Band selection—Band of H.M. Coldstream Guards, "Der Freischultz" (Weber), (H.M.V. Record C1335).
8.31: Popular song—Miss Betty Roberts, "Side by Side" (Woods).
8.34: Popular song hits—Dunedin Banjo Trio, (a) "Oh! Doris, Where do You Live?" (Ratter); (b) "Ice Cream" (King); (c) "Let it Rain" (Dyson).
8.40: Humorous songs with patter—Mr. Chris. Harlie, (a) "I 'No Use" (Foley); (b) "Dick Turpin's Brother" (Foley).
8.45: Orchestral overture, relayed from the Octagon Theatre.
8.55: Humorous sketch—John Henry and Blossom, "A Curtain Lecture" (H.M.V. Record B2120).

8.59: Piano Accordean solos—Mr. E. Heaney, (a) "Selection of Irish Melodies" (arr. Heaney); (b) "Keep in Step" (Rolfe).
9.5: Weather forecast and announcements.
9.7: Popular song hits—Miss Thelma Blackman, (a) "Dear Child" (Murray); (b) "My Lady Hottentot" (Von Tilzer).
9.13: Wurlitzer organ solo—Jesse Crawford, "My Blue Heaven" (Donaldson), (H.M.V. Record EA284).
9.17: Humorous Scotch song—Mr. Buster Brown, "I've Loved Her Ever Since" (Lauder).
9.20: Saxophone solos—Mr. J. McCaw, (a) "Harvest Moon" (Norworth); (b) "Serenade D'Amour" (Von Blon).
9.26: Humorous sketch—Miss Sheila Neilson and Mr. J. B. McConnell, selected.
9.36: Hawaiian guitars—F. Ferera and J. K. Paaluhi, "Kalima Waltz" (traditional), (H.M.V. Record B2369).
9.40: Popular song hits—Miss Betty Roberts, (a) "Persian Rosebud" (Nicholls); (b) "Take a Little One-step" (Youmans).
9.45: Popular numbers—Dunedin Banjo Trio, (a) "Yoo, Noo Loo" (Stouchan); (b) "A Shady Tree" (Donaldson); (c) "Mellow Moon" (Hall); (d) "I Wish I Knew" (Bryant).
9.53: Humorous song—Mr. Chris. Harlie, "The Bull Fighter" (Castling).
9.56: Humorous sketch—John Henry and Blossom, "Joe Murgatroyd" (H.M.V. Record B2120).
10.0: Piano Accordion solo—Selected.
10.3: Popular song hit—Miss Thelma Blackman, "Under the Weeping Willow" (Pellisier).
10.5: Hawaiian guitars—F. Ferera and J. K. Paaluhi, "Hawaiian Waltz Medley" (traditional), (H.M.V. Record B2369).
10.10: God Save the King.

# Thursday, October 11

## 1YA, AUCKLAND (333 METRES)—THURSDAY, OCTOBER 11.

3 p.m.: Afternoon session—Selected studio items.
3.30: Talk on "Gas Cooking" by a representative of the Auckland Gas Company.
3.45: Further selected studio items.
4.0: Literary selection by the Announcer.
4.8: Selected studio items.
4.25: Sports results.
4.30: Close down.
6.0: Children's session, conducted by Peter Pan.
7.15: News and market reports.
8.0: Chimes.
8.1: Overture—Royal Opera Orchestra, ("1812 Overture" (Tschaikowsky) (H.M.V. Record C1280 and C1281).
8.11: Vocal quartete—Lyric Quartet: (a) "Lovely Night" (Chanotal); (b) "My Banjo" (Parkes).
8.18: Instrumental trio—Auckland Trio, "Trio, First Movement" (Dvorak).
8.27: Humour—Mr. A. McElwain, "Some Humour."
8.32: Tenor solo—Mr. A. Ripley, "Bird of Love Divine" (Chadwick).
8.37: Hawaiian selection—F. Ferera and J. K. Paaluki, "Hawaiian Waltz-Medley" (traditional) (H.M.V. Record B2369).
8.41: Novelty—"The Asquiths": "A Thirty Minutes' Drawing-room Entertainment."
9.11: Weather forecast.
9.13: Orchestral selection—Victor Symphony Orchestra, "In a Monastery Garden" (Ketelbey) (Zonophone Record EF7).
9.17: Vocal quartets—Lyric Quartet: (a) "O, Miss Hannah" (Adams); (b) "Deep River" (Parkes).
9.24: Violin solo—Miss Ina Bosworth, "Slavonic Dance in E Minor" (Dvorak).
9.29: Bass solo—Mr. E. Thomas, "A Sergeant of the Line" (Squire).
9.33: Orchestral novelty—New Light Symphony Orchestra, "In a Clock Store" (Orth) (H.M.V. Record C1308).
9.37: Tenor solo—Mr. H. Richards, "My Love" (Lewis).
9.41: Instrumental trio—Auckland Trio, Woodland Sketches" (MacDowell).
9.50: Humour—Mr. A. McElwain, "More Humour."
9.55: Hawaiian selection—Kane's Hawaiians, "Hilo Hawaiian March" (traditional) (Zonophone Record 2992).
9.59: Vocal quartet—Lyric Quartet, "Honolulu Eyes" (Fennell).
God Save the King.



## 2YA, WELLINGTON (420 METRES)—THURSDAY, OCTOBER 11.

3 p.m.: Chimes of the G.P.O. clock.
3.1: Selected gramophone items.
4.30 and 4.55: Sports results to hand.
5.0: Close down.
6.0: Children's session conducted by Aunt Gwen and Uncle Pepper.
7.0: News session, market reports and sports results.
7.40: Lecturette on "Gardening" by Mr. A. H. Nicholls (representative of the Hutt Valley Horticultural Society).
8.0: Chimes of the G.P.O. clock.
Studio concert by the Wellington Municipal Tramways Band, under the conductorship of Mr. T. Goodall, and items by assisting artists.
8.1: March—Band, "Sons of the Wild" (Rimmer).
Overture—Band, "Zampa" (Herold).
8.13: Vocal quartet—The Warblers, "Mother o' Mine" (Tours).
8.17: Tenor solo—Mr. W. E. Elliott, "Sunshine" (Berlin).
8.21: Choral with orchestra—Light Opera Company, "Gems from 'Princess Flaria'" (Smith, Romberg) (H.M.V. Record EB22).
8.25: Selection—Band, "Tannhauser" (Wagner).
Waltz—Band, "Sweet Idleness" (Ord Hume).
8.37: Baritone solos—Mr. Harry Matthew: (a) "All Through the Night" (traditional); (b) "Achal by the Sea" (Lawrence).
8.43: Tenor solo—Mr. Stewart Nelson, "A Memory" (Park).
8.47: Recital—Mrs. A. Innes Murray, "The Erl King" (Goethe).
8.52: Patrol—Band, "Turkish Patrol" (Michaelis).
Overture—Band, "Semiramide" (Rossini).
9.3: Weather forecast.
9.4: Hawaiian guitars, Ferera and Paaluji, "Kilima Waltz" (traditional) (H.M.V. Record B2369).
9.8: Bass solo—Mr. T. C. Wood, "The Bandolero" (Stuart).
9.12: Tenor with quartet—Mr. W. E. Elliott and The Warblers, "When You Played the Organ and I Sang 'The Rosary'" (Gilbert).
9.16: Selection—Band, "Monsieur Beaucaire" (Rosse).
9.23: Humour—Mrs. A. Innes Murray, "Behind the Curtain" (Anon).
9.29: Vocal and Band—Devonshire Restaurant Dance Band, "At the End of an Irish Moonbeam" (Golden' (Zonophone Record EE84).
9.33: Baritone solos—Mr. Harry Matthew: (a) "Can't Remember" (Goatley); (b) "Home Along" (Sanderson).
9.41: Tenor solo—Mr. Stewart Nelson, "Pale Moon" (Logan).
9.44: Bass solo—Mr. T. C. Wood, "The Carpet" (Sanderson).
9.48: Contralto with organ—Essie Ackland: (a) "Poor Man's Garden" (Russell); (b) "Love's Old Sweet Song" (Molloy) (H.M.V. Record C1410).
9.52: Descriptive fantasia—Band, "A Drum-Head Church Service" (Ord Hume).
March—Band, "Gladiator's Farewell" (Blankenburg).
10.3: God Save the King.

## 3YA, CHRISTCHURCH (306 METRES)—THURSDAY, OCTOBER 11.

3.0 p.m.: Afternoon session—selected studio items.
4.30: Close down.
6.0: Children's session, conducted by Chuckle and Aunt Pat.
7.15: News session.
8.0: Chimes.
8.1: Overture (relay of 2YA, Wellington, conditions permitting). Classical and Russian composers in vocal and miscellaneous programme.
8.6: Baritone solos—Mr. Clive Hindle, (a) "Tell Her" (Katschubay), (b) "Sledge Song" (Volkslied Folk Song).
8.13: Orchestral—(a) Chicago Symphony Orchestra, "Valse Triste" (Sibelius), (b) San Francisco Symphony Orchestra, "Funeral March of a Marionette" (Gounod) (H.M.V. Record Ed. 5).
8.21: Soprano solo—Madame Gower-Burns, "The Legend" (Tschaikowsky).
8.25: Violin solos—Miss Irene Morris, (a) "Air—Chanson Louis XIIII" (Pergolese), (b) "Pavane" (Couperin-Kreisler).
8.33: Vocal duet (contralto and baritone), Grand Opera Duo, selected.
8.37: Instrumental trio—Christchurch Broadcasting Trio, "Allegro Moderato" (Arensky).
8.47: Recital—Mr. Hiram Dunford, "My Lady's Leap" (Rea-Brown).
8.52: Chorus with orchestra—Chorus and London Symphony Orchestra, "For We Are Far in the Dim Ages Lying" (Elgar). (H.M.V. Record D 1347).
8.56: Contralto solos, followed by soprano and tenor duet—Mrs. Ann Harper and Grand Opera Dua, (a) "Only For Thee" (Tschaikowsky), (b) "'Twas April" (Tschaikowsky), (c) "In a Gondola."
9.5: Weather forecast.
9.7: Overture—National Symphony Orchestra, "William Tell" (Rossini). (Zonophone Records 2969 and 2970). (This brilliant overture to Rossini's opera is a popular piece of the concert room, although the opera itself is but rarely heard. Four sections comprise the overture: (a) "Andante Religioso," which may be taken to typify the piety and earnestness of the Swiss mountaineers in revolt against the Austrian tyranny. From this point the composer has drawn a picture of nature in the Swiss mountains. The succeeding "Allegro" (b), is said to represent a storm. Then follows an "Andante" (c) of pastoral character, in which we hear a fine duet for cor anglais and flute. The music suggests a peaceful scene in Alpine meadows. The spirited final section (d), introduced by a trumpet call, is based upon a stirring martial theme with a wonderful rhythmical structure—this brings the overture to a grandoise conclusion).

9.23: Soprano solos—Madame Gower-Burns, (a) "Song of India" (Rimsky-Korsakov), (b) "Cradle Song" (Jarnefeldt).
9.29: Instrumental trios—Christchurch Broadcasting Trio, (a) "June" (Tschaikowsky), (b) "Waltz" from "The Sleeping Beauty" (Tschaikowsky).
9.38: Tenor solos—Mr. Harold Prescott, (a) "Serenade" (Tschaikowsky), (b) "But Lately in Dance I Embraced Her" (Arensky).
9.45: Orchestral—New Light Symphony Orchestra, "La Poupee Valsante" (Poldini), (H.M.V. Record B 2629).
9.49: Recital—Mr. Hiram Dunford, "The Stouch O' Day" (from "The Sentimental Bloke"), (Dennis).
9.54: Vocal mixed quartette—Grand Opera Quartet, "Lullaby" (Brahms).
9.58: Orchestral—San Francisco Symphony Orchestra, "Coppelia Ballet" (Delibes), (H.M.V. Record D 1272). God Save the King.

### 4YA DUNEDIN (463 METRES)—THURSDAY, OCTOBER 11.

SILENT DAY.

# Friday, October 12

### 1YA, AUCKLAND (333 METRES)—FRIDAY, OCTOBER 12.

3 p.m.: Afternoon session—selected studio items.
4.0: Literary selection by the Announcer.
4.8: Further selected items.
4.25: Sports results.
4.30: Close down.
6.0: Children's session, conducted by Nod and Aunt Jean.
7.15: News and market reports.
8.0: Chimes.
8.1: Overture—Orchestra, "Der Freischultz" (Weber), (Liber).
8.10: Concerted with orchestra—Light Opera Coy., (a) "Gems from the Student Prince" (Romberg); (b) "Gems from the Desert Song" (Harbach), (H.M.V. Record EB7).
8.18: Vocal quartet—Mr. Barry Coney's Quartet, "The Sea Hath its Pearls" (Pinsuti).
8.23: Zither solo—Mr. W. Ungemuth, "Dreams on the Potomac" (Waldecker).
8.28: Tenor solo—Mr. L. Harvey, "For You Alone" (Geehl).
8.32: 'Cello with piano—Pablo Casals, "Melody in F" (Rubenstein), (H.M.V. Record DA833).
8.36: Soprano solo—Miss D. Youd, "It is not Because Your Heart is Mine" (Lohr).
8.40: Recital—Miss Carte-Lloyd, "Lionel."
8.45: Orchestral selections—Orchestra, (a) "Romanzo Andaluza" (Sarasate), (soloist, Miss Ina Bosworth); (b) "Sleeping Beauty" (Tschaikowsky).
8.53: Baritone solo—Mr. Barry Coney, "The Gentle Maiden" (Somerville).
8.57: Zither solos—Mr. W. Ungemuth, (a) "The Shepherd's Sunday Song" (Kreutzer); (b) "Military March" (Liebert).
9.5: Weather forecast.
9.7: Contralto solo—Miss M. Williamson, "Sweet Lady Moll" (Phillips).
9.11: Waltz—The Troubadours, "Cielto Lindo" (Beautiful Heaven), (H.M.V. Record EA349).
9.15: Tenor solo—Mr. L. Harvey, "O Flower of all the World" (Finden).
9.19: Chorus with orchestra—Chorus and London Symphony Orchestra, "For We are Afar in the Dim Ages Lying" (Elgar), (H.M.V. Record D1347).
9.23: Soprano solo—Miss D. Youd, "Hindoo Song" (Bemberg).
9.27: Ballet Suite—Orchestra, "Ballet Egyptienne" (Luigini).
9.35: Baritone solo—Mr. Barry Coney, "Roll Along Home" (Martin).
9.39: Orchestral selection—New Light Symphony Orchestra, "La Poupee Valsante" (Dancing Doll), (Poldini), (H.M.V. Record B2629).
9.43: Contralto solo—Miss M. Williamson, "Just A'Wearying for You" (Jacobs Bond).
9.47: Vocal quartet—Mr. Barry Coney's Quartet, "Will o' the Wisp" (Cherry).
9.51: Musical comedy selection—Orchestra, "Maid of the East" (Morgan).
10.1: God Save the King.

### 2YA, WELLINGTON (420 METRES)—FRIDAY, OCTOBER 12.

3 p.m.: Chimes of the G.P.O. clock.
3.1: Selected gramophone items.
4.30 and 4.55: Sports results to hand.
5.0: Close down.
6.0: Children's session, conducted by Uncle Ernest.
7.0: News session, market reports and sports results.
8.0: Chimes of the G.P.O. clock.
8.1: Overture—Orchestra, "Bohemian Girl" (Balfe).
8.11: Vocal duet—Miss Greta Stark and Mr. Ray Kemp, "The Rose of Love" (from "Rose Maiden"), (Cowen).
8.15: Violin with piano, (a) "Indian Love Call" (from "Rose Marie"), (Friml, Stolhart); (b) "Deep in My Heart, Dear" (from "The Student Prince"), (Romberg), (H.M.V. Record DA785).
8.23: Tenor solo—Mr. Frank Skinner, "Rudolf's Song" (from "La Boheme"), (Puccini).
8.27: Pianoforte solos—Miss Lilian Beere, (a) "Staccato Caprice" (Vogrich); (b) selected.
8.35: Humour—Mr. Doug. Stark, "Bonnie Jean" (Lauder).
8.41: Soprano solo—Miss Gretta Stark, "Serenade" (Gounod).
8.45: Grand organ solos—(a) "The Question" (Wolstenholme); (b) "The Answer" (Wolstenholme), (H.M.V. Record E415).
8.53: Baritone solo—Mr. Ray Kemp, "Largo al Factotum" (from "The Barber of Seville"), (Rossini).
8.58: Instrumental—the orchestra, "Haiwatha Ballet Music" (Coleridge-Taylor).
9.12: Vocal quartette—Etude Quartet, "Breezze of the Morn" (from "Legend of Nerbudda"), (Bath).
9.16: Orchestral—Repeat number.
9.24: Tenor solo—Mr. Frank Skinner, "The Fortune Hunter" (Willeby).
9.28: Humour—Mr. Doug. Stark, "The Rich Man" (Weston).
9.35: Contralto solo—Miss Rita Arnold, "Alas, Those Chimes" (from "Maritana"), (Wallace).
9.39: Flute solos—Signor Truda, (a) "Le Fee Taraputapoum" (Foulds); (b) "Liebestraum" (Liszt).
9.47: Baritone solo—Mr. Ray Kemp, "The Heart Bowed Down" (from "The Bohemian Girl" (Balfe).
9.51: Vocal quartet—Etude Quartet, "Anvil Chorus" from "Il Trovatore" (Verdi).
9.54: Selection—the orchestra, "Firefly" (Friml).
10.4: God Save the King.

### 3YA CHRISTCHURCH (306 METRES)—FRIDAY, OCTOBER 12.

3.0 p.m.: Afternoon session—selected studio items.
4.30: Close down.
6.0: Children's session, conducted by Big Brother.
7.15: News session
8.0: Chimes.
8.1: Overture—Rebroadcast of 2YA, Wellington.
8.7: Opening chorus and bass solo ("Our Miss Gibbs"—Caryll-Monckton), The Radiolians, (a) "We Will Be Quick," (b) "My Yorkshire Lassie."
8.14: Novelty—New Light Symphony Orchestra, "In a Clock Store" (Orth), (H.M.V. Record C1308).
8.18: Soprano and contralto duet—Mrs. Claris Shaw and Miss M. Russell, "Bridesmaids" (Caryll-Monckton).
8.22: 'Cello solo—Mr. Harold Beck, (a) "Largo From Cello Sonata" (Chopin), (b) "Mazurka" (Wilhelm Popper).
8.26: Soprano solo, followed by tenor and bass duet, Mrs. Claris Shaw and Messrs. Gregory Russell and W. J. Richards, (a) "Hats"; (b) "Correct" (Carylll-Monckton).
8.33: Instrumental trios—Christchurch Broadcasting Trio, (a) "Minuet" (Bridge), (b) "Gavotte"; (c) "Allegretto."
8.42: Vocal mixed quartette, followed by contralto solo—Radiolian Quartet and Miss Mildred Russell—(a) "Saturday Afternoon" (Caryll-Monckton), (b) "Mary" (Caryll-Monckton).
8.48: Orchestral selection—Victor Symphony Orchestra, "In a Monastery Garden" (Ketelbey). (Zonophone Record EF7).
8.52: Tenor solo, followed by soprano and bass duet—Mr. Gregory Russell and Radiolian Duo, (a) "Hughie," (b) "Not That Sort of Person" (Caryll-Monckton).
8.58: Recital—Mr. W. C. Wills, "Uncle Joss in the Picture Gallery" (Edison-Reed).
9.3: Weather forecast.
9.5: Overture—Royal Opera Orchestra, "1812 Overture" (Tschaikowsky). (H.M.V. Records C1280 and C1281).
9.15: Vocal quartette, followed by soprano solo—Radiolian Quartet and Mrs. Claris Shaw, (a) "Palaces Oriental"; (b) "In Yorkshire" (Monckton).
9.20: Banjo medley—Mr. Jock Gillespie, "Medley of Old Time Songs" (with vocal refrain). (Own arrangement).

9.25: Contralto solo—Miss Mildred Russell, "Moonstruck" (Monckton).
9.29: Hawaiian selection—Ferera and Paaluhi. "Hawaiian Waltz Medley" (Traditional). (H.M.V. Record B2369).
9.33: Tenor and bass duet—Radiolian Male Duo, "English Gentlemen" (Monckton).
9.37: Instrumental trio—Christchurch Instrumental Trio, (a) "Old Irish Air" ((Traditional), (b) "Spanish Dance No. 1" (Moszowski).
9.50: Soprano solo—Mrs. Claris Shaw, "Arms and the Man" (Monckton).
9.50: Recital—Mr. W. C. Mills, "I'm Excited" (MS).
9.55: Hawaiian selection—"Hilo Hawaiian March." (Zonophone Record 2992).
9.59: Contralto and bass duet—Radiolian Mixed Duo, "Our Farm." (Monckton).
10.3: Banjo medley—Mr. Jock Gillespie, "Medley of Mixed Tunes."
10.8: Mixed vocal quartette—Radiolian Quartet, "City of White." (Monckton) God Save the King.

### 4YA DUNEDIN (463 METRES)—FRIDAY, OCTOBER 12, 1928.

3.0 p.m.: Town Hall Chimes.
3.1: Selected gramophone items.
3.15: Fashion Talk, by Miss Buccleuch, of the D.S.A. Limited
3.30: Afternoon tea music, from the Savoy
3.45: Selected gramophone items.
4.0: Music from the Savoy.
4.15: Selected gramophone items.
4.25: Sporting results to hand.
4.30: Close down.
6.0: Town Hall chimes. Children's hour, conducted by Auntie Sheila and Big Brother Bill.
7.15: News and reports session.
8.0: Town Hall chimes.
8.1: Orchestral selection—Royal Albert Hall Orchestra, "Prelude to Act 1, Carmen" (Bizet). (H.M.V Record E461).
8.5: Baritone solos—Mr. L. M. Cachemaille, (a) "Down the Shallow River" (Clarke); (b) "The Water Lily" (Clarke).
8.12: Cornet solo—Mr. George Christie, "Edilweiss" (Hoch).
8.21: Humorous vocal item—Mr Norman Long, "Under the Bazunka Tree" (Lee). (H M V Record B2454)
9.25 Recital—Miss Madge Yates, selected.
8.30: Mezzo-soprano solo—Miss Molly Vickers, "Fierce Flames Are Soaring" from "Il Trovatore" (Verdi).
8.33: Orchestral selection—Victor Salon Orchestra, "The World is Waiting for the Sunrise" (Lockhart Seitz). (H.M.V. Record EA186).
8.37: Baritone solo—Mr. L. M. Cachemaille, "Come and Find the Quiet Places" (Clarke).
8.40: Cornet solos—Mr George Christie, (a) "Minuet" (Beethoven); (b) "When Song is Sweet" (Sans Souci)
8.46: Chorus with Orchestra—Zonophone Light Opera Company, "Gems from H.M.S. Pinaforte" (Sullivan). (Zonophone Record A317).
8.50: Recitals—Miss Madge Yates, selected.
8.55: Wurlitzer Organ Solo—Jesse Crawford, "Serenade" (Schubert). (H.M.V Record EA325)
8.59: Mezzo-soprano—Miss Molly Vickers, (a) "Sigh No More Ladies" (Keel), (b) "Song of Thanksgiving."
9.5: Weather forecast and announcements.
9.7: Orchestral Selection—International Concert Orchestra, "Tesoro Mio" (My Treasure), (Beccuci). (Zonophone Record EF15).
9.11: Relay from the Savoy—Dance music by Alf. Carey and his orchestra.
10.0: God Save the King.



# Saturday, October 13

### 1YA, AUCKLAND (333 METRES)—SATURDAY, OCTOBER 13.

3 p.m.: Afternoon session—Selected studio items.
4.0: Literary selection by the Announcer.
4.8: Studio items.
4.25: Sports results to hand.
4.30: Close down.
6.0: Children's session conducted by Cinderella.
7.15: News and market reports, sports results.
8.0: Chimes.
8.1: Relay of orchestral overture fro mthe Majestic Theatre Orchestra under the conductorship of Mr. J. Whiteford—Waugh.
8.10: Vocal quartet—Madame Mary Towsey's Quartet, "By the Waters of Minnetonka" (Lieurance).
8.14: Instrumental trio—Auckland Trio, "Scherzo from Trio in C Minor" (Mendelssohn).
8.23: Humorous—John Henry and Blossom, "A Curtain Lecture" (H.M.V. Record B2120).
8.27: Baritone solo—Mr. J. Bree, "To Mary" (White).
8.30: Band selection—Band of H.M. Coldstream Guards, "Der Freischutz" (Weber) (H.M.V. Record C1335).
8.34: Contralto solo—Miss Edna Peace, "Life is a Caravan" (Del Riego).
8.38: Relay of orchestral entr'acte from the Majestic Theatre.
8.46: Tenor solo—Mr J. McDougall, "I Love a Little Cottage" (O'Hara).
8.50: Hawaiian selection—F. Ferera and J. K. Paaluhi, "Kilima Waltz" (traditional) (H.M.V. Record B2369).
8.54: Soprano solo—Madame Mary Towsey (violin obbligato by Miss Ina Bosworth", "Ave Maria" (Mascheroni).
8.58: Weather forecast.
9.0: Wurlitzer organ solo—Jesses Crawford, "My Blue Heaven" (Donaldson) (H.M.V. Record EA284).
9.4: Vocal quartet—Madame Mary Towsey's Quartet, "The Old Folks at Home" (arr. Cornwall).
9.8: "Cello solo—Miss Molly Wright, "Arioso" (Bach).
9.13: Contralto solo—Miss E. Pearce, "The Glory of the Sea" (Sanderson).
9.17: Hawaiian selection—F. Ferera and J. K. Paaluhi, "Hawaiian Waltz Medley" (traditional) (H.M.V. Record B2369).
9.21: Baritone solo—Mr. J. Bree, "How Deep the Slumber of the Floods."
9.25: Instrumental trio—Auckland Trio, "Peer Gynt Suite" (Grieg).
9.33: Humorous—John Henry and Blossom, "Joe Murgatroyd Says" (H.M.V. Record B2120).
9.37: Soprano solo—Madame Mary Towsey, "Se Saran Rose" (Arditi).
9.41: Vocal quartet—Madame Mary Towsey's Quartet, "Genevieve" (Tucker).
9.45: Relay of dance music from the Masonic Hall (The Collegians, under Mr. E. Bendall).
11.0: God Save the King.

### 2YA, WELLINGTON (420 METRES)—SATURDAY, OCTOBER 13.

3 p.m.: Chimes of the G.P.O. clock.
3.1: Selected gramophone items.
4.30 and 4.55: Sports results to hand.
5.0: Close down.
6.0: Children's session conducted by Uncle Toby and Aunt Gwen.
7.0: News session, market reports and sports results.
7.40: Lecturette—"Radio Valves," by Mr. W. M. Dawson (under the auspices of the Wellington Radio Society).
8.0: Chimes of the G.P.O. clock.
8.1: March—Orchestra, "Jack Tar March."
Waltz—"Orchestra, "Summer Evening" (Waldteufel).
8.9: Vocal with piano—"Gems fror Tip Toes" (Gershwin) (H.M.V. Record C1293).
8.13: Baritone solo—Mr. R. S. Allwright, "Three for Jack" (Squire).
8.17: Vocal quartet—Melodie Four, "Soldiers' Chorus" ("Faust"—Gounod).
8.21: Instrumental—The Orchestra: (a) "Weeping Willow Lane" (Johnson); (b) "Polonaise Militaire" (Chopin).
8.29: Humour—Mr. Geo. Titchener, "The Christening" (Grey).
8.36: Tenor solo—Mr. F Bryant, "The Road that Leads to You" (Squire).
8.40: Instrumental—The Orchestra (repeat number).
8.48: Concerted with orchestra, "Gems from Sunny" (Kern' (H.M.V. Record C1293, part 2).
8.52: Baritone solo and chorus—Mr. R. S. Allwright and Melodie Four, "Ramsey Town" (from "Manx National Songs") (Gill).
8.56: Humour—Mr. Geo. Titchener, "The Postman" (Gibson).
9.3: Weather forecast.
9.4: Hawaiian orchestra, (a) "Sweet Hawaiian Dream" (Coleman); (b) "Hawaiian Sunset" (Vandersloot) (H.M.V. Record B2328).
9.11: Bass solo—Mr. W. W. Marshall, "Down Withycombe Way" (Ewing).
9.16: Orchestral novelty—Orchestra, "Musical Switch" (Alford).
9.24: Tenor solo—Mr. Sam Duncan, "The Sheep Under the Snow" (from "Manx National Songs") (Gill).
9.28: Humorous—"Story of Lady Godiva" (Jno. Henry) (H.M.V. Record B2485)
9.35: Vocal quartet—Melodie Four, "Ramona" (Wayne) (by request).

9.39: Selection—Orchestra, "Sinbad Selection" (Romberg).
9.49: Instrumental—Orchestra, Latest Novelties.
10.0: Dance programme.
11.0: Close down.

### 3YA, CHRISTCHURCH (306 METRES)—SATURDAY, OCTOBER 13.

6 p.m.: Children's session conducted by Aunt Pat.
7.15: News session.
7.30: Sports results.
8.0: Chimes.
Programme by Tu Tehuarewa Ye Wheke Company of Maori Entertainers.
8.1: Overture—Rebroadcast of 2YA Wellington.
8.7: Maori chorus—Maori Company, "Morehu."
Soprano solos—Miss Eileen Grennell, (a) "Mere" (Hill); (b) "Home, Little Maori, Home" (Hill).
8.18: Pianoforte solo—Mrs. Tainui, "The Battle of Waterloo" (MS.).
8.22: Maori chorus—Maori Company, "Ihipa" (Maori melody) (MS.).
8.26: Hawaiian—Ferera and Paaluhi, "Kilima Waltz" (traditional) (H.M.V. Record B2369).
8.30: Baritone solo—Tono Barrett, "If I Only Had a Home, Sweet Home" (MS.).
8.34: Instrumental trios—Christchurch Broadcasting Trio. (a) "Heine e Heine" (Maori slumber song) (Princess Te Rangi Pai); (b) "Pokarekare" (Hill).
8.42: Tenor solo—Hiwi Couch, "Waiata Maori" (Hill).
8.46: Hawaiian selections—Hawaiian orchestra, (a) "Hawaiian Sunset" (Vandersloot); (b) "Sweet Hawaiian Dream" (Coleman) (H.M.V. Record B2328).
8.54: Weather forecast.
8.56: Talk— Mr. N. M. Bell, M.A., B.D., "Maori Legends."
9.8: Chorus in Maori—Maori Company, "The Old Folks at Home" (MS.).
Orchestral selection—"Indian Love Call" (from "Rose Marie"—Friml) (H.M.V. Record EA186).
Baritone solo—Tono Barrett, "Maori Song" (MS.).
9.20: Pianoforte solo—Mrs. Tainui (selected).
9.24: Maori chorus—Maori Company, "Matangi" (MS.).
9.27: Instrumental trios—Christchurch Broadcasting Trio, (a) "Kamate" (Te Rangi Hikiroa); (b) "Tangi" (Hill).
9.35: Chorus—Maori Company, "Josephine" (MS.).
9.40: Hawaiian selection—Ferera and Paaluhi, "Hawaiian Waltz" (Medley) (traditional) (H.M.V. Record B2369).
9.44: Tenor solo—Hiwi Couch, "Kamate" (Te Rangi Hikiroa).
9.48: Hawaiian chorus—Maori company, "Aroha Kia Koe" (Love to You) (MS.).
9.51: Dance music till 11 p.m.
God Save the King.

### 4YA, DUNEDIN (463 METRES)—SATURDAY, OCTOBER 13.

7.15: News and reports session.
7.30: Lecturette under the auspices of the Workers' Educational Association.
8.0: Town Hall chimes.
8.1: Orchestral music, under the direction of Mr. L. D. Austen, relayed from the Strand Theatre.
8.11: Baritone solo—Mr. F. M. Tuohy, "Oh, Night, Oh, Life."
8.14: Violin solo—Mr. A. R. Watson, "Adagio and Scherzo, Op. 8" (Beethoven)
8.18: Vocal quartet—4YA Harmonists, "There Were Three Ravens" (Gardiner).
8.21: Orchestral selection—San Francisco Symphony Orchestra, "Coppelia Ballet" (Delibes), (H.M.V. Record D1272).
8.25: Soprano solo—Miss Roma Buss, "Half of Spring" (Phillips).
8.30: Instrumental trio (violin, flute and piano), "Longing for Home" (Jungman).
8.33: Tenor solo—Mr. Chas. C. Scott, "Passing By" (Purcell).
8.36: Orchestral selection—National Symphony Orchestra, "William Tell" (Rossini), (Zono. Records 2969, 2970).
8.48: Recitals—Miss Roberta Williams, (a) "Foolish Questions" (Anon); (b) "Three Crosses" (Anon).
8.54: Mezzo-soprano solo—Miss Mollie Andrews, "All Through the Night" (Somerville).
8.57: Pianoforte solo—Mrs. Ernest Drake, "A Beethoven Sonata" (Beethoven)
9.5: Weather forecast and announcements.
9.7: Orchestral music, relayed from the Strand Theatre.
9.17: Vocal quartet—4YA Harmonists, "Sea Sorrow" from "Songs of the Hebrides" (Kennedy-Fraser).
9.20: Violin solo—Mr. A. R. Watson, "Andante Religioso" (Papini).
9.24: Baritone solo—Mr. F. M. Tuohy, "In Sheltered Vale" (Clarke).
9.28: Orchestral selection—New Light Symphony Orchestra, "La Poupee Valsante" (Dancing Doll), (Poldini), (H.M.V. Record B2629).
9.31: Soprano solo—Miss Roma Buss, "Coming Home" (Willeby).
9.34: Instrumental trio, "Stepanie Gavotte" (Czibul).
9.37: Tenor solo—Mr. Chas. C. Scott, "There is a Flower That Bloometh" (Wallace).
9.40: Flute solos—Mr. J. W. Stewart, (a) "Auf Dem Lande" (Buchner); (b) "Saltarello" (German).
9.48: Vocal quartet—4YA Harmonists, "Alice Where Art Thou" (Guernsey).
9.51: Elocutionary—Miss Roberta Williams, "Glory of the Garden" (Kipling).
9.55: Mezzo-soprano solo—Miss Mollie Andrews, "I'm Longing for the Spring" (Morris).
9.58: Chorus with orchestra—Chorus and London Symphony Orchestra, "For we are Afar in the Dim Ages Lying" from the "Music Makers" (Elgar), (H.M.V. Record D1347).
10.2: Close down.

# Sunday, October 14

### 1YA, AUCKLAND (333 METRES)—SUNDAY, OCTOBER 14.

2.45 p.m.: Relay from Auckland Town Hall of Beresford Street Congregational Sunday School Anniversary Service.
6.0: Children's session conducted by Uncle Leo.
6.55: Relay of service from St. James's Church. Preacher, Rev. E. R. Harries; organist, Mr. Walter Impett.
8.30: Relay of concert by the Auckland Municipal Band under Mr. Christopher Smith—Military Band selections.
9.30: God Save the King.

### 2YA, WELLINGTON (420 METRES)—SUNDAY, OCTOBER 14.

3 p.m.: Afternoon session.
4.30: Close down.
6.0: Children's Sunday service conducted by Uncle Ernest.
7.0: Relay of evening service from the Terrace Congregational Church. Preacher, Rev. Ernest R. Weeks. Organist and choirmaster, Mr. H. Brusey.
8.15 (approx.): Studio concert by the Island Bay Methodist Church Choir (Conductor, Mr. Roy Dellow)—Champion Choir of the recent Wellington Competitions Festival.
Overture—"Poet and Peasant" (Suppe) (Columbia Record 9087).
Baritone solo—Mr. Wilbur Davies, "The Wheel Tapper's Song" (Charles).
Organ solo—"Finlandia" (Sibelius) (Columbia Record 9163).
Contest Hymn—Island Bay Methodist Church Choir, "Hark, Hark, My Soul" (Smart).
Solo and chorus—Mr. Roy Dellow and choir, "A New Heaven and a New Earth" (Gaul).
'Cello solo—"Le Cygne" (Saint-Saens) (H.M.V. Record DA776).
Vocal quartet—Misses Butters and Crisp and Messrs. Vivian and Hall—"When Evening's Twilight" (Hatton).
Pianoforte solos—Miss Mary Lennie, (a) "Ausschwung" (Schumann); (b) "Soaring" (Schumann).
Contest Hymn—Island Bay Methodist Church Choir, "The Everlasting Strength" (Harris).
Orchestral selections—(a) "Kamenoi Ostraw" (Rubenstein); (b) "Liebestraum" (Liszt) (H.M.V. Record EB 10).
Soprano solo—Miss Elsie Kay, "Selected."
Band selection—"La Fille de Madame Angot" (Lecocq) (H.M.V. Record C1370).
Anthem—Island Bay Methodist Church Choir—"Across the Bar" (Sampson).
Violin solo—"Zapateado" (Spanish dance) (Sarasate).
Part song—Island Bay Methodist Church Choir, "The Viking's Song" (Coleridge-Taylor).
Band selection—"Iolanthe" selection (Sullivan) (H.M.V. Record C1368).
God Save the King.

### 3YA, CHRISTCHURCH (306 METRES)—SUNDAY, OCTOBER 14.

3.0 p.m.: Studio concert—gramophone recital of electrically reproduced records.
4.30: Close down.
5.30: Children's song service conducted by Uncle David.
6.30: Relay of evening service from Cambridge Terrace Methodist Church. Preacher, Rev. A. N. Scotter, B.A.
7.45: Recital of music from studio.
9.30: Close down.

### 4YA, DUNEDIN (463 METRES)—SUNDAY, OCTOBER 14.

5.30 p.m.: Children's song service conducted by Big Brother Bill.
6.30: Relay of service from the St. Andrew's Street Church of Christ. Preacher, Pastor W. D. More; choirmaster, Mr. W. Hickey.
8.0: Relay of Band Concert.
9.15: God Save the King.

# Notes and Comments

*By "Switch"*

THE thousands of New Zealand licensees who listen nightly to the Australian broadcast stations will be interested in the news that the first meeting of the new Commonwealth Advisory Board has lately been held in Sydney. The purpose of the board is to exercise supervision over the provision of broadcast programmes, and to advise on the reconstruction of wireless broadcasting in Australia. A general policy was agreed upon which has been submitted to the Ministry before further steps are taken.

AN interesting use for the microphone is in connection with the testing of gear wheels for motor-cars. A special development of this application has been made by Professor Porter, head of the Physics Department of Syracuse University, U.S.A. The tester sits in a double-walled soundproof box and listens to the whirr of softly engaging gears picked up by the microphone and stepped-up through three stages of power amplification, whilst at the same time he watches the vibrating finger of a gigantic dial that measures the current consumed in reproducing the sound. A description states that small currents that whisper through the loudspeaker in hoarse static-like murmur reveal, by pitch and intensity, the most minute roughness on the surface of the gears as they glide over each other at a speed representing a car velocity of 40 miles per hour. Adjustment of the transmitting apparatus is very delicate, and care has to be taken that it does not pick up and reamplify its own sound or the very small vibrations that penetrate the test-house from the factory.

A WELLINGTON listener who has just returned from a tour of the North Island reports that reception of the Australian stations at places outside the capital is twice or even three times better than in Wellington. Wanganui, Patea, and New Plymouth, give extraordinary volume from Australian stations. On the East Coast several of the Yankee stations are heard nightly as soon as darkness sets in.

A FRIEND who is in the novice stage remarked recently: "I can't imagine how I would put in the evenings if my radio set were taken away from me. Nearly every evening I can get three of the New Zealand stations, and it is very seldom that I am unable to bring in six or seven of the Australian stations on the loudspeaker. What an extraordinary fund of entertainment is obtainable from a £50 set and an annual license fee of 30s. And there are still thousands of people in Wellington who have not listened in with a first-class radio set."

THE Commonwealth Government is considering a proposal to establish a wireless telephone public service between Tasmania and the mainland. It is regarded as a much cheaper method than the cost of a submarine cable for telephone purposes, even if certain difficulties in connection with such a lengthy cable could be overcome.

HERE is the dictum of one of America's leading studio directors: "The rise and fall of the voice as in ordinary conversation must be avoided by the radio dramatic reader," says Howard Milholland, studio manager of KGO. "Tones over the air must be kept at an even volume, colour being brought to the readings by tempo and through the reader's own personality."

OLD SOL, who is held to be responsible for the static which interferes so frequently with long-distance radio reception, is to come under the scrutiny of a huge telescopic lens. This is the largest telescopic lens ever made in the United States, and, has been turned out by the Bureau of Standards, where glass makers have completed the delicate task of cutting a fifty-pound piece of glass from the two-ton disc recently cast in one of the bureau's laboratories for a telescope at Ohio Weslevan University. Polishing the huge glass and giving it the proper parabolic surface will be the next stage of the development.

THE greatest radio chain ever linked for the broadcast of any event was assembled for the Republican notification ceremonies to Herbert C. Hoover on the night of August 11 at the Leland Stanford Junior University Stadium at Palo Alto, California. Reports from the American Telephone and Telegraph Company long lines department, the National Broadcasting Company, the Columbia System, and companies which own and operate short-wave stations indicate that 107 or more broadcasters throughout the country were working in unison. Short-wave transmitters heard consistently at the Antipodes and intervening points were expected to carry the ceremonies to the entire civilised world, providing weather conditions were favourable.

DURING the nation-wide broadcast of Mr. Hoover's speech more than 88,000 miles of programme and telephone co-ordinating wires and standby circuits for emergency use were in use. There were 46,000 miles of wire to carry the actual words of the speakers and the music; 22,200 miles more of telegraph lines to co-ordinate the network at the last minute and supervise its operation during the broadcast period of one and one-half hours, and about 20,000 miles of programme wires, balanced and prepared for emergency use in case an interruption in the main lines occurred. There were 600 men in charge of the lines all over the country, who were prepared to shift the circuit around any trouble point and save the programme. The voices of the speakers and the music were kept at a suitable "level" in the wire lines by 264 repeaters—valve amplifiers—placed along the lines.

THE cost of the record greatest radio broadcast network ever assembled, that which was linked together recently in the United States for Judge Joseph F. Rutherford, president of the International Bible Students' Association, was announced by his representative as "approximately 50,000 dollars (£10,000), paid by a multitude of Christians scattered throughout America." Ninety-six broadcasters carried the address from the Coliseum on the Michigan State Fair Grounds near Detroit.

REFERRING to the effect on radio by the arrival of the annual shower of meteors each September, Robert H. Marriott, Past President of the U.S.A. Institute of Radio Engineers, said: "The arrival of the meteors in the earth's upper atmosphere at great speed might result in what engineers call 'ionisation by friction or impact,' thus causing the Heaviside layer to be elevated or lowered. This condition naturally should be noticed on the short-wave lengths but not to any extent on the broadcast or longer radio waves. The phenomena is altogether likely to pass entirely unnoticed by millions of radio listeners."

AT Southampton recently a man was fined one hundred pounds for smuggling wireless valves into the United Kingdom.

THE Norwegian railways have been experimenting with short-wave wireless transmitters, with a view to providing reliable emergency communication in case of a telegraphic breakdown.

ROUMANIA'S first broadcasting station is to be erected at Bucharest before the end of the year.

AN "electric set," according to the Radio Manufacturers' Association of U.S.A. standard nomenclature, is a radio receiver operating from the electric light line, without using batteries. If it employs tubes which obtain filament or heater current from an a.c. line without the use of rectifying devices, but with built-in tube rectifier for plate and grid voltages, it is an "a.c. tube electric set." If it uses current supplied by a d.c. line it is a "d.c. tube electric set." If it is designed to be operated from batteries it is a "battery-operated set." If the latter is connected from a power unit operating from the electric light line and supplying filament and plate potentials to the tubes, it is a "socket-powered set."

PERMITS for the construction of two radio transmitting stations of 10,000 watts each, one in New York and the other in Chicago, and licenses for experimental operation on three short-wave channels, have been granted to the Universal Wireless Communication Company by the Radio Commission as the first step in a plan to set up a national radio communication network as a public utility. The call letters of the New York station will be 2XQ, and of the Chicago station 9XC. The short-wave channels assigned for experimental operation are 2140, 4280, and 8650 kilocycles.

THERE is a rift in the lute of new-found accord between Sir Thomas Beecham and broadcasting. The bringing together of the British Broadcasting Corporation and the Imperial Opera League went well up to a point. Where difficulty is being experienced is in connection with the claim of the British Broadcasting Company to control Sir Thomas. Savoy Hill takes its stand on the ground that where its money goes, or rather where listeners' money goes, there should be corresponding and predominant control. It is understood that in artistic work Sir Thomas Beecham will not tolerate any interference from Savoy Hill. He must have a free hand. The resultant situation is piquant in the extreme. Without the British Broadcasting Corporation bang goes the imperial opera scheme. With the British Broadcasting Corporation Sir Thomas is cramped. It is rumoured that Lord Beaverbrook is among the little group trying to patch up a "via media."

REGULAR wireless time signals were first transmitted by America in January, 1906, from the Navy Department station at Arlington.

# Broadcasting in Japan

## Sidelights on Stations Heard in N.Z.

TO New Zealanders broadcasting conditions in Japan, the home of stations which are becoming increasingly popular, are of more than passing interest.

For centuries Japan remained dormant, the sleeping monster of the East—the mysterious East. As one by one intrepid foreigners dared to enter this unknown, the veil of mystery rose. Finally foreigners were invited to mould the activities of the Japanese citizen; feudalism was replaced by democracy, modern means of transport replaced the crude methods of the primitive man, an army and a navy modelled on German and English lines replaced the former disorganised forces, and now, last but by no means least in importance, communication has been brought up to date. With startling rapidity Japan has aroused herself from the lethargy which for so long retarded her progress.

### Broadcasting.

BROADCASTING began regularly in the middle of 1925. Shortly after this, the stations were amalgamated, and the controlling authority received the title of the "Broadcasting Corporation of Japan." It was, in fact, an amalgamation of the three broadcasting bureaux which were in existence. To-day there are eight broadcasting stations in the country—Tokio (JOAK), Osaka (JOBK), Nagoya (JOCK), Keigo (JODK), Hiroshima (JOFK), Kumaroto (JOGK), Sendai (JOHK), Sapporo (JOIK).

The first-named one, and the one most often heard in this country, has been incorporated in the Kanto division. This station commenced operations three years ago, after a temporary location a mile south of its present position.

### General Organisation.

IN order to keep pace with the rest of the world, an organisation, the Central Broadcasting Bureau, was, in 1924, floated in Tokio. Since then considerable progress has been made. The broadcasting service was inaugurated primarily for the public service, and the new system has been strongly supported by the principal newspapers, banks, and the leading business houses, while Government supervision is exercised with regard to programmes and the financial side of the venture. Eighteen months later the broadcasting service was reorganised.

### JOAK.

SOME particulars regarding the activities of the Tokio station, which, incidentally, can be heard on a crystal set at a distance of 75 miles, may be of interest.

Broadly speaking, the transmission falls under three general heads, viz., news bulletins, educational programmes, and entertainments. The news service comprises the latest reports regarding recent happenings, items of general news, special announcements, and varied information concerning the stock exchange market conditions and prices of important commodities, including rice, raw silk, and cotton.

The educational side has received careful consideration, and includes children's hours, foreign language courses, French, English, and German, special literary and artistic programmes, and popular science and domestic subjects. Japanese classical literature and the history of foreign music are also included. Men announcers are engaged as a rule, but one woman officiates during the children's and the women's hours.

### Japanese Instruments.

THE other side of broadcasting is represented by excellent concerts. In the early stages of broadcasting in Japan, the sound effect of the Japanese musical instruments was a source of grave difficulty. These instruments, such as the "shamisin," which resembles a banjo, the "hue," a kind of bamboo flute, the "tsuzima," a drum beaten by the hand, and the "koto," a harp with thirteen strings, possess on the whole a small volume of tone, for which reason they must be balanced very accurately before the microphone. The unusual effect of one of these instruments was demonstrated to listeners-in to 2YA when one was put on the air during the visit of the Japanese fleet.

In addition to concerts of Japanese music, however, European concerts are a feature of the programme, and the names of the great masters are familiar to listeners. Japanese bands have reached a high standard, and very many can look back on the enjoyment received from the band music recently broadcast by 2YA. Plays written especially for broadcasting are highly appreciated.

### Allocation of Time.

APPROXIMATELY seven hours a day are devoted to the programmes, while during the week-end and public holidays this is increased to ten hours. According to the most recent statistics the number of licensed listeners within a radius of 100 miles of Tokio constitute 60 per cent. of the total listeners through Japan.

Translated into English, the introductory announcement is "JOAK, JOAK, this is Tokio Broadcasting Station. Good morning everybody." The closing announcement is the same, except "evening" instead of "morning."

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ON the night of September 19 listeners in the Mount Victoria area were startled by someone transmitting "V's" (three dots and a dash) on top of the broadcast wave-length band. The transmitter was using a valve and was tuned very broadly, for it could be heard over a wide sector of the dials of receiving sets. He emitted a long wailing note before he got on to the "V's". This gentleman, who ever he is, is canvassing for trouble, and if he can be located at least half a dozen listeners are determined to report him to the authorities.

# Donors to Kingsford Smith Fund.

Donors to the radio presentation to the Southern Cross aviators, were as follows:—

Mrs. J. Toup-Nicolas, Marlborough.
Mr. C. H. Ensor, Taihape.
Mrs. Arthur Cook, Christchurch.
Mr. H. A. Fairweather, Kaikoura.
Anonymous, Wellington.
Mr. R. J. Conner, Wellington.
Mrs. M. V. Smith, Taugarakau (via Stratford).
Mrs. Pattison, Woodville.
Mr. E. L. Rutherford, Culverden.
Mr. H. B. Cooper, Lower Hutt.
Mr. C. Sing, Tatuanui (Thames Line).
Mr. N. C. Winstanley, Picton.
Mr. D. Murray, Rangataua.
Mrs. J. H. Preston, Goodwood (Otago).
Mr. C. H. Page, Kingsland (Auckland).
Mrs. A. O'Donnell, Hawera.
Anonymous, Christchurch.
Miss G. Colborne-Veel, Sumner.
Mr. D. L. Rutherford (Culverden).
Anonymous, Auckland.
Mr. G. S. Owens, Ashburton.
Mr. C. A. Stopford, Te Poi (North Auckland).
Mr. A. R. Gardiner, Purau (Lyttelton).
Misses A. and R. Hutchinson, Mt. Albert (Auckland).
Anonymous.
A. G. Liddell Lyall Bay (Wellington).

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THE standard mean time clock at Greenwich, which gives the world its time, is kept in a heat insulated room to which access can only be obtained by means of entry through a series of double doors.

# Facts about "A" Battery Eliminators

## Several Systems Outlined

### By "Megohm"

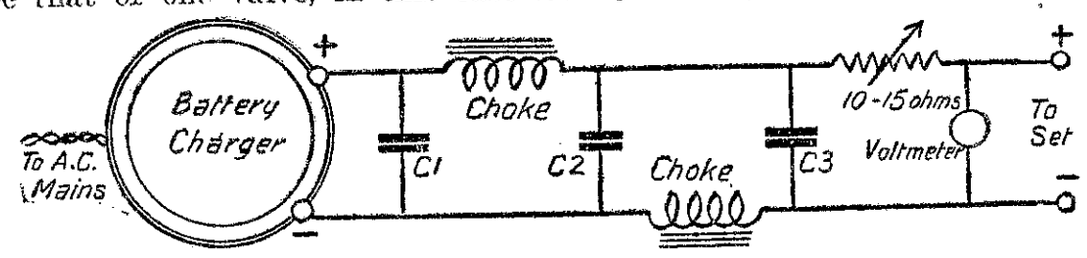
THIS is a brief review of several systems of A battery elimination that may be successfully adopted provided that essentials are supplied in a suitable way.

At the outset it as well to explain why the problem of eliminating the A battery is a greater obstacle to overcome than is the elimination of the B battery. In the case of the latter, the current to be supplied to the average set is about 30 milliamperes or .03 ampere (three hundredths of an ampere). A comparatively small current such as this, though of a voltage near 200, is easily smoothed by suitable chokes and condensers of comparatively small capacity. The consumption of plate current in a receiver cannot be great, owing to the high internal resistance of the valves caused by the space between plate and filament which has to be traversed by the current.

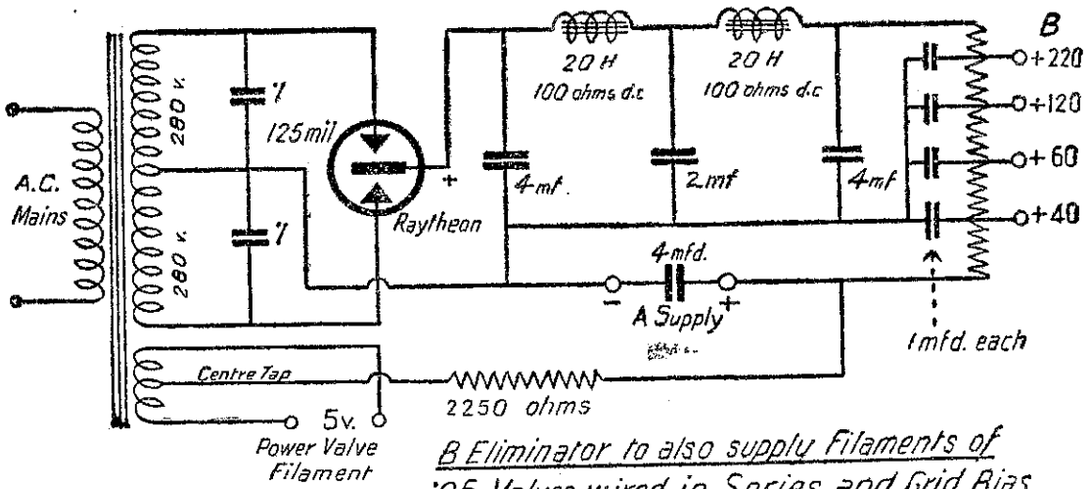
WHEN we come to filament supply the question is very different, as the amount of current to be smoothed is many times that required in the plate circuit. The 201A valve requires a quarter-ampere for its filament, so that a receiver with five such valves requires 1¼ amp. at 6 volts to operate its filament. The minimum amount of current available, allowing a margin, should therefore be 1½ amperes. Many valves are now in use that require only .1 amp. or .06 amp. for the filament. Five of the former would only require a total of half an ampere, whilst five of the .06 type would only consume one-third ampere. The foregoing figures are for the usual method of connecting up the filaments in parallel.

**Filaments Run from B Eliminator.**

A SYSTEM of running both A and B supply (and sometimes C also) from a B eliminator containing a 125 milliampere Raytheon tube has been successfully developed by employing only .06 valves and connecting all the filaments in series. In such a case the amperage of every valve must be the same, and the amperes consumed will be that of one valve, in this case .06 amp., whilst the voltage will be that of all the valves added together. The UX199 is a suitable valve, and there are also a number of Philips' .06 valves requiring 4 volts at .06 amperes. The voltage of several valves placed in series need not be the same for all, so long as a voltage equal to the total is applied. There is some disadvantage in this system owing to the restriction placed upon all but the last valve. A power valve of any filament rating may be used in the last stage by heating its filament with raw A.C. current from a filament winding on the eliminator transformer. Arrangements are made in the eliminator whereby the 15 volts or so required for the filaments is drawn off separately through suitable resistances. Suitable resistances are placed across each filament to pass the added plate current when this is sufficient to take into account.




Filament Current from Battery Charger
(Electrolytic Condensers)




B Eliminator to also supply Filaments of .06 Valves wired in Series, and Grid Bias for Power Tube

**Smoothing Arrangements.**

AS mentioned above, a current of at least one ampere, and probably more, has to be filtered and smoothed for use with parallel connected filaments, this arrangement obviating any alteration of the wiring in the receiver. Condensers of two and four microfarads capacity are totally inadequate to handle the required current, and the advent of the improved electrolytic condenser makes A elimination a much easier problem, and allows of even a small balancing accumulator being dispensed with. There are now on sale ... the United States, "filter blocks" specially made for A elimination, and these contain two electrolytic condensers and suitable choke coils (Tobe Co.).

Abox, Aerovox, Dubilir, Elkon and Tobe Companies also make suitable electrolytic condensers, some being practically dry.

Some of the most recent type of condenser make use of the oxide film which forms on aluminium, as the sole dielectric and means being taken to prevent the formation of the gas dielectric film, a large increase in capacity for given area is the result. Such a condenser, in two sections, may have a capacity of 1800 microfarads in one section and 3800 in the other, or a total of 5600 microfarads in a space of 5 x 5 ¾ x 1½ inches! The breakdown value of such a condenser is 50 volts, so it is well suited to smooth out filament current.

Whilst a total of about 16 microfarads may form the condenser outfit of a B eliminator, a capacity of some thousands of microfarads is necessary to smooth an A supply.

In early attempts to make high-capacity condensers, lead sheets were separated by wood-pulp paper kept moist with acid solution, but as the capacity of a condenser varies inversely as the thickness of the dielectric and directly as the area of the plates, efforts were made to reduce the separation to a minimum, because enlarging the size of plates meant great bulk and extra cost.

Thus the ultimate form of condenser was the electrolytic type, in which a very thin film of gas on the condenser plates acts as the dielectric to separate them from the liquid which acts as the opposite set of plates. Condensers of this type are now manufactured, varying in detail, but having a capacity of thousands of microfarads.

Either one or two chokes must be utilised in addition to the smoothing condensers in order to suppress any ripple that may be present in the current. Great care must be taken in designing such chokes, as no great voltage drop is permissible across them. The d.c. resistance must therefore be kept low, and this is effected by employing a heavy gauge of wire. As the inductance of such a choke need only be a quarter henry or less, the number of turns of wire need not be very great, and will not exceed a few hundred. By not unduly reducing the cross-section of the core, the number of turns, and thus the d.c. resistance, can be kept low. In addition to low d.c. resistance, the wire must be capable of carrying two amperes, but this does not present any difficulty.

**Filament Current From Battery Charger.**

PERHAPS the simplest way of producing an A eliminator is to employ a valve rectifying charges of suitable capacity, say 2 amperes, connecting this to electrolytic condensers, and one or two low inductance chokes. Nothing more is required except a 10 or 15-ohm power-type rheostat and a voltmeter reading to 8 or 10 volts. Two condensers are sufficient for the average receiver, but a good home-constructed set with low-note amplification will probably require three. The circuit is shown in a diagram.

Another method, obviating the use of electrolytic condensers, is to place two wet batteries across in place of C1 and C2. Small dry-cells have even been used for this purpose, but are not so satisfactory as accumulators. The operation of this system depends on the fact that, at voltages equal to the cell voltages, the resistance across the cell banks is very high, so that practically none of the current flows through them, but continues to flow out through the filter circuit to the receiver. But for all current whose

voltage is higher or lower than the operating voltages, the resistance of the cell banks is very low, and these currents are by-passed. For this reason the voltage remains constant, and a smooth current is delivered from the charger. For sets of more than five valves dry batteries are not satisfactory. The accumulators used need be of only very small capacity, and for a 4-volt supply they would of course be of that voltage.

### Low Inductance Chokes.

FILTER chokes for A supply must be specially designed for the current they have to carry, and as this current is many times that carried by a B eliminator choke, the wire must necessarily be of much heavier gauge. Such a choke cannot be of high inductance value if of convenient size, because of the heavy current which tends to cause saturation of the core, even when its cross-section is liberal, and turns of wire are kept to a minimum. By increasing the cross-section of the core, the inductance is proportionally increased, and this allows of a small (inversely as the square) reduction in the number of turns, still obtaining the same inductance. Not only on account of saturation, but to keep down the d.c. resistance of the choke, must the turns be limited, because when working from a battery charger the available volts will not give much surplus over the six volts required for working the receiver. On this account the d.c. resistance must on no account be more than three or four ohms, and may very well be less. One commercial choke is advertised as having an inductance of .1 henry and a d.c. resistance of .3 ohm. No smaller gauge than 20's s.w.g. enamelled wire should be used to carry 1½ to 2 amperes continuously. Of this wire, one pound has a resistance of only 2 ohms, and less than a pound would be required on a stalloy core 1¼ inches square. If the core is nearing saturation its inductance value is automatically lowered, and in such a case the gaps may be slightly increased by trial, and although this lowers the inductance, is preferable to saturation.

### A Matter for Consideration.

THERE is one point that must receive careful consideration by anyone adopting an A eliminator. Such a piece of apparatus usually has "bad regulation," which means that when the supply to one stage or stages of the receiver is reduced, there is an increase in supply by that amount available, and this at once divides itself between the filaments of the other valves. This points to a different method of volume control being adopted in receivers where the R.F. filaments are used for control. Otherwise there would be a tendency for the detector and audio valves to receive too great a filament voltage on the R.F. filaments being dimmed.

### Dry Rectifiers.

THE Kuprox dry rectifier arranged for full-wave rectification forms a very suitable means of producing direct current from A.C. mains, but a transformer and smoothing arrangement are required just as when a valve rectifier is used. Dry rectifiers of any type should not be overloaded, and the manufacturers' statements of carrying capacity should be taken as liberal if a reasonably long life is desired for the unit.

In using any dry rectifier there is a point to be remembered. These rectifiers will not stand up to heavy back-voltage without injury, so that it is not safe to employ with them a transformer secondary of much higher voltage than specified, reducing the voltage with a rheostat or resistance, because in such a case the back-voltage would be that of the transformer secondary plus the battery voltage. This, however, only refers to half-wave rectification, which is not recommended for A eliminators on account of the greater difficulty of removing hum.

## *Tips and Jottings.*

### Artesian Well Earth.

A CARTERTON constructor says:—"My earth is a pump bore 35ft. into sandstone. Needless to say it gives great results, and at between 5 o'clock and 7.30 my dials are a solid mass of Yankee stations. I have given up all hope of sorting them out." This is a good tip for any listener near an artesian well to connect an earth wire to the pipe and note the result.

### Aeroplane Radio Generators.

IN answer to a query, aeroplanes usually derive current for their radio transmitter from a small dynamo fitted with a propeller, which is driven by the air when the 'plane is under way.

### Thoroughly "Dud" Output Transformers.

AN American dealer gave a wholesale firm a trial order for two output transformers at a low price. When they arrived he attempted to measure the resistance and found that the coils would pass one ampere at 85 volts! The cover was torn off and revealed two short coils of resistance wire connected from "in" to "out" on each side, consequently the inductance was practically nil. A block of pig-iron was included to give weight.

### Coil-Driven Loud-Speakers.

AN American journal says: "We have already mentioned the superior qualities of the Magnavox and Jensen speakers. We have recently seen a curve which we believe to be truthful—which shows a uniform response from below 35 cycles to above 6000 when a unit of this type is used with a rather large and awkward baffleboard. We do not believe it necessary to go down to 35 cycles for excellent quality—but it is comfortable to know your automobile can go 75 miles an hour even though you haven't the nerve to drive it at that rate.

The trend toward dynamic speakers is already evidenced in the interest shown on Cordtlandt Street, the cut-rate market of New York. Here are a half dozen imitations of the real thing, which the gullible radio public is buying as fast as it can. It is reported that several receiver manufacturers, whose names are well known, are interested in the dynamic speaker, and that several have already made arrangements for using it in 1929 models.

### B Eliminators not Suited for Short-Wave Reception.

THE sensitiveness of the detector circuit of a short-wave receiver, which is invariably built on the "low-loss" plan, makes it extremely susceptible to alternating current variations of any kind, so that the slightest trace of ripple in plate current is made apparent. Even with a B battery in use, there is often trouble through the aerial or lead-in picking up a.c. hum from power lines or house-wiring, and this trouble is naturally far more pronounced when there is direct connection, or nearly so, between the receiver and the mains, per medium of an eliminator. On short-wave reception, too, the slight variation in plate current caused by line fluctuation, makes it impossible to maintain critical adjustment.

### Aluminium Quality.

In America, commercially pure aluminium sheet is designated as "2S." An aluminium-manganese alloy sheet of lower conductivity is designated "3S."

# Electrolytic Condensers

MANY correspondents have at different times made inquiries regarding the construction of electrolytic condensers, and the following details are given for the benefit of those who wish to experiment with such.

The theory of the electrolytic condenser is as follows: When an electrolytic cell consists of an aluminium and a lead plate and a suitable electrolyte is connected to a direct-current line, with the aluminium plate as the positive terminal, a uniform film, without pinholes, is formed over the entire surface of the aluminium plate. This film is a very good insulator and reduces the direct current almost to zero. In this case there is no leakage current caused by sparking as happens when the cell is used for rectifying purposes. The small leakage current at the point where the aluminium electrode leaves the solution can be reduced to an almost negligible amount by carefully insulating the aluminium plate where it enters the liquid. A cell of this type forms a very good high-capacity condenser, with the gaseous film acting as the dielectric.

This condenser is limited to a certain voltage at which the film breaks down, allowing current to flow again until a new film is formed. Because of this fact, the electrolytic condenser is not injured by breakdown, since it takes only a short time to form a new film. Various electrolytes have different critical voltages, and for high-voltage work some are more suitable than others. The critical voltages of some of the common electrolytes are as follow:—

Sodium sulphate, 40; potassium permanganate, 112; ammonium chromate, 122; potassium cyanide, 295; ammonium bicarbonate, 425; solium silicate, 445; ammonium phosphate, 460; ammonium citrate, 470; sodium biburate ("borax"), 480.

The critical voltage is approximately correct when aluminium plates and the electrolyte formed by a 1 per cent. solution of one of the respective chemicals shown above are used. The approximate capacity obtained per square inch of condenser plates depends upon the formation voltage.

### Condensers for Direct Current.

THE construction of a condenser which may be used for "B" power units can be accomplished as follows:

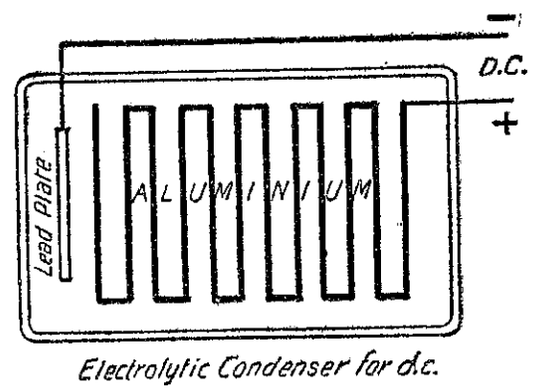
A piece of extra pure aluminium sheet about six inches wide should be cut. The length of this aluminium sheet depends upon the capacity of the condenser and the size of the container. It should be bent back and forth as shown in Fig. 1. A lug should be left on the end of the plate, so that a contact can be easily made to this plate. The lug should be bent upwards and provided with a tight-fitting rubber tube generously covered with vaseline, to prevent sparking at the point where it leaves the solution. This lug can be cut as shown in the diagram, so that it will not be necessary to waste very much material in order to get this connection.

### "Forming" the Plates.

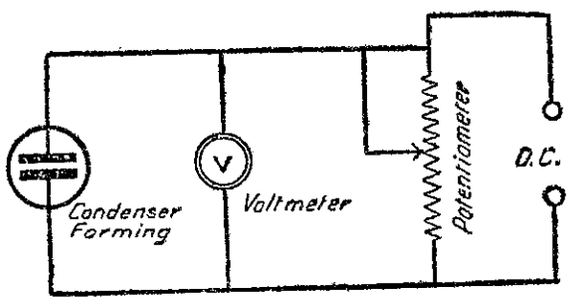
THERE are two types of electrolytic condensers, one for use with alternating and the other for direct current. Where a rectifier is included in the circuit, direct current is being dealt with, for although it is pulsating before it is smoothed, it is one-way only.

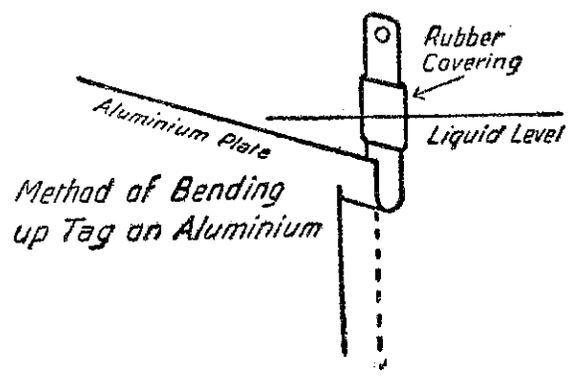
The d.c. type, which is the one under consideration, contains one set of aluminium plates and a lead plate. The lead plate serves only to make an electrical contact with the electrolyte, and should always be used as the negative terminal. This is the type of condenser to be used in "B" power units and other circuits supplied with direct current. An ordinary glass Leclanche battery-jar or a large mason jar can be used as a container; although if the latter is employed it may be necessary to have more than one cell in order to obtain sufficient capacity for the circuit. When used in "B" power units, these condensers must be "formed" with voltages higher than the output voltage of the rectifier tube, so that the condenser will not break down. Because of this, the capacity obtained is not as great as that of a condenser used for low-voltage work.

To "form" the plates of the condenser, it should be placed across a direct current supply of suitable voltage—higher than that in which it is to be used, and should be left in the current for about 24 hours. A forming voltage should be applied which is somewhat above the maximum voltage that is to be applied to the condenser.



Electrolytic Condenser for d.c.



Method of Bending up Tag on Aluminium

When low-voltage condensers are to be made, a system such as the one shown in Fig. 2 should be used. The potentiometer should have rather high resistance and be capable of dissipating the heat generated through its resistance strip.

Probably the most common electrolyte used is sodium biborate, or borax, as it is commonly called, though ammonium phosphate is on the whole more reliable. A saturated solution of the chemical should be made and a small amount of glycerine should be added.

One of the main reasons why chemical condensers and rectifiers have not become more popular is because of the sloppiness and the necessity of renewing the water in the solution. At different times experiments have been made with a number of so-called "jelly" electrolytes, including fused sodium phosphate and several other chemicals. However, these jelly rectifiers have not been successful because, as the water evaporates, the jelly falls away from the electrodes, thus stopping the action.

The zig-zag plates are bent so that there is a space of about 3-16 in between each adjacent surface.

### Another Low-Voltage Type.

THERE is another type of electrolytic condenser that is used for A elimination, but only the following particulars are to hand regarding them. These have a capacity of several hundred thousand microfarads, obtained by virtue of the usual arrangement of nickel and steel plates immersed in a non-acid caustic solution which constitutes the condenser. The plates form one side of the condenser, and the solution the other. When an electric current is passed through the unit, films of hydrogen and oxygen form over the entire surface of the plates. This film is infinitesimally thin and forms the dielectric of the condensers.

Because a condenser increases in capacity as the thickness of the dielectric decreases, this extremely thin film is entirely responsible for the tremendous capacity obtained. It is necessary to use a two-stage filter, using a choke coil and the two large condensers, which smooth and filter the pulsating direct current, changing it to pure, hum-free direct current necessary for "A" power.

The alternating compound of the pulsating direct current is reduced to less than one three-thousandth of its original value. This is far below the point of audibility, and cannot be detected with headphones, even when the output is passed through a 210-type power amplifier.

# *Glossary of Wireless Terms*

From week to week we give here a section of the glossary of wireless terms from the "Listener's Guide."

**PRESSURE.**—A term synonymous with voltage.

**PRIMARY.**—Any circuit in which a transference of energy from one cell to another takes place (as in transformers, loose-coupled tuners, etc.) is distinguished as to its two coils by the terms primary and secondary, the former being the circuit in which the initial energy is flowing and the latter that to which the transference is made.

**PRIMARY BATTERY.**—A battery of cells in which the electric current is generated by chemical action as distinct from a secondary, or storage battery, in which an internal chemical change is wrought by the application of an external current, when the battery is said to be charged; this current is given back—or a considerable portion of it—on discharge, when the chemical change is reversed.

**PROTON.**—A positive particle of electricity. It is now supposed that each atom of matter consists of a nucleus formed by a proton and surrounded by a ring of satellite electrons. The nature of the matter is determined by the number of these particles and their arrangement.

**RADIATION.**—Wireless messages are propagated by the radiation of energy from the transmitting aerial When a receiving set is allowed to "oscillate" (q.v.), a weak radiation occurs from the receiving aerial also,and causes interference with reception by other radio workers within range.

**RADIO.**—Colloquially, an alternative term for wireless. Used in conjunction with the word "frequency," it signifies the oscillations received by the aerial in their passage through the set before rectification, which educes the energy from high-frequency oscillations to low-frequency uni-directional pulsations. They are roughly reckoned as being greater than 10,000 cycles per second in contradistinction to audio-frequencies, which are also roughly reckoned as being below 10,000 cycles.

**RADIO FREQUENCY.**—The oscillations as received on the aerial and passed through high-frequency amplifying valves up to the point where they are rectified by crystal or detector valve, are said to be of "high" or "radio" frequency. Frequencies above 10,000 per second are usually reckoned to be at "high" or "radio" frequency.

**RANGE.**—Refers to the distance over which messages can be received with a given equipment, or the distance to which they can be transmitted for reception with an average set. Improvement in reception range usually necessitates an extension of the high frequency amplifying section of the set, presuming that the efficiency of the existing apparatus is beyond reproach.

**RATIO.**—Used in various senses in radio matters, but particularly in relation to the respective numbers of turns in transformer primary and secondary windings. According to whether the primary has a greater or lesser number of turns than the secondary, the output of the transformer is said to be "stepped down" or "stepped up" in relation to the input.

**REACTANCE.**—See "Inductance."

**REACTION.**—By coupling either electro-magnetically or electro-statically, the plate circuit of a valve back to the grid circuit of the same or a preceding valve, a portion of the amplified energy in the plate circuit is fed back into the grid circuit, from which it again passes through the valve and is re-amplified. Great improvement in signal strength is thus obtained, but if the coupling is made too tight the valve may fall into oscillation when not only are the signals badly distorted, but a continuous wave is radiated from the aerial causing interference with reception over a wide area.

**REACTIVISATION.**—A simple and efficient method of rejuvenating valves which have gone dead. It can be performed by an apparatus which is manufactured for the purpose, or by simpler methods. It is even applicable to valves which have through long and faithful use lost most of their activity. A simple method is to turn up the filament of the valve to normal brilliancy, then reverse the polarity of the B battery, connecting the plus to the plus A battery, and the minus to the side which normally takes the plus B. Leave the valves connected in this manner for a full hour, then turn the filament current down to its lowest point and leave the current on for another half-hour. It will be found that an hour and a half of this treatment is sufficient in most cases to rejuvenate the valves, but in cases where the valves are unusually dead, the treatment may be necessary for double that time. After treatment the valves should be allowed to cool off, and then the batteries are connected in their regular manner. Type 200-A valves cannot be treated in this manner successfully, as once this type has lost its sensitivity it is practically impossible to rejuvenate. The method will, however, bring back to normal all 199, 201A, A Hi-Mu, and power valves which have lost their vim. In testing this method, a set of valves have been used which were so dead that absolutely no signals could be heard. After the process was completed, a matter of nearly three hours, the valves worked as well as ever.

**RECEIVER.**—A term used indiscriminately to designate either a receiving set as a whole or the telephone or loud-speaker receiver. Either use is quite correct, but to avoid confusion, the limitation of the term to describe the set, and the use of the words "telephone" or "telephone receiver" is recommended.

## *The Railways and Wool.*

THE Railway Department is leaving no stone unturned to place before wool-growers the advantages the rail offers for the safe and speedy transport of the golden fleece to market. In addition to a personal canvass by members of the staff, and extensive newspaper advertising, an attractive two-colour art circular, in the form of a blotter, has been mailed to sheep-owners. The circular, inter alia, says:—"The railways make a blotter bid for your business. Woolgrowers! your own railways will give you the best service moving the golden fleece to market. Farmers, put your trust in the reliable train for satisfactory transport of yourselves and your goods.

"Special arrangements of the Railway Department will ensure quick and safe transport of wool. Free help will be given with loading of bales at all man-in-charge stations, and the whole service will be worked as urgent business. Farmers, your railways are helping you with cheap rates for farming machinery, manures, live-stock, wire-netting, and other concessions. The more you use your own railways, the more they will be able to increase their material assistance to the primary producers. Co-operate for your own benefit."

# RADIO DIRECTORY

## *What to Buy and Where*

### AUCKLAND

| | |
|---|---|
| ATWATER-KENT RADIO .. | Frank Wiseman, Ltd. 170-172 Queen Street, Auckland. |
| ALTONA & HAMMARLUND-ROBERTS SETS. | Johns, Ltd. Chancery Street, Auckland. |
| AMPLION LOUDSPEAKERS . | All Radio Dealers. |
| BREMER-TULLY RADIO .. | Superadio, Ltd., 147 Queen Street, Auckland |
| BURGESS RADIO BATTERIES, | All Radio Dealers. |
| CE-CO VALVES .. | All Radio Dealers. |
| FADA RADIO ..... | National Electric & Eng. Co., Ltd. Customs St.; Ra Supplies, Symond St. |
| FEDERAL, MOHAWK, GLOBE | Federal Radio House, 8 Darby Street, Auckland. |
| FERRANTI RADIO COMPONENTS ..... | A. D. Riley and Co., Ltd. Anzac Ave., Auckland, and all leading dealers. |
| GILFILLAN AND KELLOGG . | Harrington's, Ltd., 138-140 Queen Street, Auckland. |
| GREBE RADIO ..... | Howie's, Dilworth Building, Custom st., Auckland. |
| MARCONI ECONOMY VALVES | All Radio Dealers. |
| MULLARD VALVES ... | All Radio Dealers. |
| RADIOLA RECEIVERS ..... | Farmers' Trading Co., Ltd., Hobson Street, Auckland. |
| RADIOTRON VALVES ..... | All Radio Dealers. |
| RELIANCE BATTERIES N.Z. Made | Reliance Battery Mfg. Co., Ltd., 96 Albert Street, Auckland. |
| T.C.C. CONDENSERS .. | A. D. Riley and Co., Ltd. Anzac Ave., Auckland, and all leading dealers. |

### COUNTRY TOWNS

| | |
|---|---|
| ANCHORADIO, BREMER-TULLY, RADIOLA, BROWNING-DRAKE, AND ATWATER-KENT RADIO | Radio House, Hamilton. G. S. Anchor, Manager. |
| BROWNING-DRAKE SALES AND SERVICE ..... | J. H. Sinclair, Otane, H.B. |
| CROSLEY ELECTRICAL AND BATTERY MODELS ..... | The Forrest-Crosley Radio Co., Ltd. Cuba Street, Palmerston North. |
| GAROD, CROSLEY, RADIO AND ACCESSORIES ..... | The Hector Jones Electrical Co. King and Queen Streets, Hastings. |
| GILFILLAN, FEDERAL, STANDARDYNE AND GARRARD ELECTRIC RADIO — ALL ACCESSORIES ..... | W. M. Pitcher and Co. Hamilton. |
| GREBE, CROSLEY AND RADIOLA SERVICE ..... | E. Dixon and Co., Ltd., Hawera. |
| RADIOLA DEALER AND SERVICE ..... | G. C. Carrad. 140 The Avenue, Wanganui. |
| ROLA CONE SPEAKERS ..... | J. B. MacEwan and Co., Ltd., Federal Radio Dealers, New Plymouth. |
| PHILIPS VALVES AND APPARATUS | All Good Radio Dealers, |

# Our Mail Bag

Will correspondents please practice brevity, as heavy demands are now made on space. All letters must be signed and address given as proof of genuineness; noms de plume for publication are permitted. Address correspondence Editor, "Radio Record," P.O. Box 1032, Wellington.

ANSWERS TO CORRESPONDENTS.

Enough Said: Your letter was not signed. We are inquiring into the figures given.

L. Rapley (Puponga): The answer to your question is that the observer was in touch with 2BL from the beginning of the description about the take-off, but the clarity was not sufficient for rebroadcasting. Listeners were informed that such was the case, and a summary was given of what had been heard. This was apparently not heard by you. The observer on this occasion was not a member of 2YA staff, but an independent outside expert.—Ed.

"Kellogg," Auckland.—Kellogg transformers are obtainable from F. J. Fear and Co., whose advertisement appears elsewhere in this issue, at 21s. each.

### Aussie on a Crystal.

I NOTICED in this week's "Radio Record" in "A Corner for Beginners," by "Observer," where he mentioned that a 2-valve amplifier and crystal set will only get Australian stations on the 'phones. I would like to say that I have heard 3AR, Melbourne, and 4QC, Brisbane, on the speaker faintly. I have six Australian stations in my log book. Also an article on aerials (by "Switch"), saying that the lead-in should always be from the lowest end. My aerial is about 30ft. high at the far end 50ft. high at the lead-in end, with an aerial of 150ft. of 7/22 stranded wire. I can hear on an average two or three Aussies every night. I also wish to congratulate the R.B.C. on the wonderful performance put up by them during the flight of the Southern Cross.—E. W. Powell (Christchurch).

### A Crystal Puzzle.

YOUR "Record" to hand, with its usual interesting news and articles. As usual, I turned to "Our Mailbag" page first, as I find considerable interest in reading other listeners' views and opinions. Of particular interest to me was a letter from a Petone resident headed "A Crystal Puzzle." I may state that I have had a somewhat similar experience, having made quite a number of crystal sets of different types. I recently constructed a crystal set upon which I tried various types of crystals. The set referred to comprised 30 turns of 22's enamelled wire on a 2½in. former, the coil being tuned by a .0005 condenser, with the usual connections to aerial, phones, det., and earth. I first connected a carborundum crystal to this set, which for some reason was a complete "wash-out." All my connections were tested, so it was not a break in the circuit. However, when a crystal of the R. I. Varley type was used with this set it functioned quite well, but as the volume was not as good as I expected I stripped 10 turns of my coil, which made a big difference. I had heard a friend say that the carborundum det. seemed to work well with only certain types of sets, so I constructed another one, this time simply passing four pieces of string through a cardboard boot box. I wound 100 turns of 22 D.C.C. wire lightly on to a former, pushing the latter out, so as to leave only the wire, which I then slipped over the string, tightening this up at the end by tying a knot in it. I then tapped the coil at exactly the fiftieth turn and connected this tap to the aerial terminal, one end of the coil going to the detector, the other going to the earth. To tune the set all I had to do was to pull the wire along the string like a concertina. I used the original carb. det., which gave great results, showing that the det. itself was perfectly good. Various other crystals were tried, but I decided that the carb. was the best. Although I now possess a three-valve set, I still use this "little chap," when the other members of the family do not want to listen-in. Inquiries from a number of our Auckland dealers led me to believe that I had one of the first shipment of these detectors put on the market, and that numerous complaints had been received from customers regarding all subsequent shipments. I will be only too pleased to give any further information on this subject to my southern friends or others interested, if they care to write to me at the address which I leave with you. Hoping this may be of interest to your correspondent, and thanking you for your valuable space.—N.D.C. (Auckland).

### Historic Ground.

I THOUGHT possibly some of your readers may be interested to know the exact spot where the Southern Cross commenced the flight over New Zealand after crossing the Tasman Sea from Sydney. If you get a chart of the coastline and look on the northern part of the west coast of the South Island, you will find Paturau River; it is about 16 miles north of the Kahu Rangi lighthouse, and about eight miles south of the West Wanganui inlet. About a quarter of a mile south of Paturau River is the exact spot where the 'plane commenced its flight over New Zealand. The Paturau River Post Office is situated almost directly where the 'plane started overland. Of course, all the people there were out looking for it, but it was a very cloudy morning, and the 'plane was not visible. The time was just 5.58 a.m., and Mrs. Richards, our local postmistress, advised Collingwood postmaster over the wire about seven minutes before it reached Collingwood.—George Nicholls (Mangarakau).

### 1YA Mystery Night.

JUST a line in reference to the 1YA mystery night, which was conducted some time ago. Great interest was taken in it here. I had a party of friends here that night, and we made a fairly complete list. Now you will understand that the condition laid down that each entry must bear the postmark of the following day prevented us from competing, as our nearest post office is 15 miles away. Our intention was to compare our list with the correct one, which we expected would be published in the "Radio Record." Would it be possible for you to print a correct list for the benefit of those who for various reasons were unable to compete, or who, while keenly interested, did not possess sufficient knowledge of the artists to prepare a full list, or, rather, a list full enough to give them a chance. I wish to thank the Broadcasting Company for the way in which they rose to the occasion during the Tasman flight; they deserve great credit for it.—J. Sklenars (Honikiwi).

[The list is published on page 8.—Ed.]

### Appreciation of Records.

MAY I take this opportunity of expressing, through your interesting paper, my appreciation of the fact that gramophone records are now being included in the evening programmes from 2YA, thus enabling those not possessing a gramophone to hear and enjoy the world's best artists, and at the same time, I think, providing variety in the programmes. Regarding the remarks of "B.P.S." in this week's "Record"—in my opinion the more well-known classical music is always most acceptable. Certainly the works mentioned, namely, "William Tell Overture," "Barcarolle," and "Blue Danube," may be "murdered nightly by third and fourth-rate orchestras," but that is not to say the 2YA orchestra or performers are going to "murder" them, as they are all of a high standard, and "J.K." (Trentham)" evidently gives them credit for this. "B.P.S." seems to suggest that those items should be avoided because of their being "hackneyed," but there are many who will never tire of hearing them in spite of this. One could also mention "Humoreske" as being overworked, but does that make us one whit less keen to hear this beautiful melody played by a good artist? I should very much like to see this included as a violin or piano solo in one of the 2YA programmes shortly.—"Fominas" (Brooklyn).

### An Auckland Station.

COULD some listener kindly let me know the call sign of the Auckland station that was on the air about 10.30 on Sunday evening, the 23rd. The wave-length was somewhere near 2KY, Sydney.—G.F. (Dunedin).

### Proportion of Jazz.

LIKE many other letters which appear in your mailbag, this is somewhat in the nature of a growl. The first is with reference to a certain remark of "Switches" in your current issue. He says: "The Sunday afternoon broadcasts by 2YA are immensely popular . . . and a considerable proportion of listeners are glad to be rid of the *eternal* jazz and foxtrot stuff, for *one* session anyhow." The italics are mine. After reading this I looked through 2YA's programmes for the following week. This is what I found:—Monday, no jazz; Tuesday, about one-third of the programme jazz, all records; Thursday, one item might be called jazz, but certainly not foxtrot; Friday, no jazz; Saturday, about half jazz, mostly records. The Sunday programmes, of course, are notorious for the tremendous proportion of foxtrots. As each week's programme from the above station is almost a duplicate of the previous week, I think "Switches'" use of the word "eternal" is a little lax. To my certain knowledge a considerable number of would-be listeners are put off by the absence of the lighter forms of music from the programmes. About 90 per cent. of the dance numbers put over at present are records which the dealers apparently cannot sell, and so "push" by advertisement. I am not, however, a jazz maniac. Few of this species really exist now among listeners. A large number of 2YA's items, however, are neither "highbrow" nor popular. As an example, some time ago an item announced as a request item was played on a mandolin. The announcer said it was the "Miserere" from "Il Trovatore." If Verdi had heard this I am sure he would have wakened and haunted the "artist" for the rest of his life. I have heard and liked solos played by the same player on the same instrument, but Verdi did not compose this glorious duet, to be played like this was. This is an outstanding example, but there have been others of less severity. The "Lost Chord," for instance, was not composed as a cornet solo.

Next I come to the transmission itself. As others have remarked, records always come through very much better than studio items. The tone is more full, there is no distortion and blasting, and there is less hiss in the background. I do not know why, but I would like to know.

After that, a little appreciation. Billy Hart is always very popular; so also are Doug. Stark, George Titchener, Mr. Marshall, and the Melodie Four, and, last but not least, Mr. Announcer. A concert by the Petone Maori Entertainers some time ago was a good move, and could well be repeated, while the orchestra is always worth listening to. I am not going to write all night. I

realise the difficulties the B.C. is up against, and I hope my criticism might be of some little assistance. A few repeat items might be "Glow, Glow," sung some time ago by Mr. Barnes and partner. "Drinking," sung by Mr. Marshall, and "Honolulu Moon," Melodie Four.—D.M.B. (Kelburn).

### Tom Heeney on the Air.

A LEPPERTON correspondent writes pointing out that Tom Heeney, inspeaking over the air from 1YA on his welcome home, broke the rule regarding controversial matters, and asks why he was allowed to do it. Properly speaking, of course, Tom should have been promptly floored by the announcer, or tapped on the head with a brick. It must be admitted the announcer failed—that is why he is still talking. However, we understand the other party to the incident evened up by counter-controversial matter, so it may be regarded as all-square and unnecessary at this stage to give any party a further opportunity of talking on that point. We prefer not to publish the further remarks made by our correspondent about Tom Heeney—we might meet him some day. —Ed.

### Amateur Transmitting.

A CORRESPONDENT has written asking the wavelength and hours of transmission of certain New Zealand amateurs. No definite wavelengths are allotted, but certain bands are available. These are 120-160, 85-95, and, with special permission, 30-32, 17-21, 10-10.71, 5-5.36 metres. The majority of amateurs work on the 30-32 and 17-21 metre bands. There are no particular hours when they shall transmit.

### In the Early Hours.

ONE evening recently I enjoyed listening to a relay by 3YA of 5SW, London, on the occasion of the signing of the Kellogg Peace Pact. After 3YA closed down I picked up a station at 2.35 a.m. operating on a wavelength of approximately 370 metres. A lady vocalist was singing "Way Down Upon the Swanee River," but I could not identify the call sign. Last evening I tried for this station again and picked it up at 2.45 a.m., receiving a programme of vocal and instrumental items, but the signals were very weak. I again failed to gain any further knowledge of the whereabouts of the station other than the fact of it having a lady announcer. I am a regular subscriber to the "Record" and would be delighted if any other reader could give me any information concerning this particular station.—Henry Jakeman.

[7CA, Calcutta, sometimes heard in New Zealand, operates on 370.4 metres; 2.35 a.m. New Zealand time would be 8.45 p.m. at Calcutta.]

### Harmonics.

DURING the whole evening, news session included, I have been listening to 2YA's programme on about 210 metres. Could you say whether this is the second harmonic or is it another station rebroadcasting? They would hardly re-broadcast news items. Also, last Sunday night I received a station on about 275 metres; I did not get his call sign, but he said something about Atwater Kent Radio Station. They gave a children's session up to about 7.15 and then closed down. A "Cousin Bill" gave mouth organ selections; would this be 2ZM Gisborne. —G.S. (Matamata).

[Wellington on 210 metres would be a harmonic. The other station was 2ZM.]

### Too Much High Brow.

In reference to the programmes put on by the New Zealand Broadcasting Company, I must and can only say that they are getting worse, and the cry for cutting out the "highbrow stuff" is left unheeded. The general public to my knowledge do not want highly classical music night after night, and while I don't want it myself, I can put up with it for a couple of nights a week, provided light stuff or popular music is given more often. Most of the licensees I know of do not want the classics, and if they are not "cut out" to a certain extent, there will be a reduction in the number of old licenses renewed next year, and I'll be one of them.

The Broadcasting Company expect more listeners. How can they get them unless they provide entertainment for them? For, the average set owner classics may be likened to Esperanto to he uninitiated, we know they are both perfect, but most of us don't know why. I should never expect to entertain my friends under the circumstances now prevailing. However,I do not envy the New Zealand Broadcasting Company, for in order to cater for the public they cannot please everyone, but I should suggest, that they give a special week, giving the "highbrows" and the "common herd" a chance to register their wants by naming on a coupon, in the "Radio Record" the night they got the most enjoyment, and the other programmes in the listeners' order of merit. They can then show the listeners they are catering for the major portion by supplying their wants on at least three nights of the week. Thanking you for your space.—"Unsatisfied" (Gisborne).

### The Racing Ban.

NOW, thanks to Mr. Duncan, we are getting down to the real reasons for the racing ban. It is apparently to satisfy the snobbish instincts of the plutocratic racing owners. If we don't belong to the leisured class, we have no right to enjoy racing or want to have anything to do with it. Those that cannot go out to the races, obviously belong to the working class and consequently must have their noses kept close on the grind-stone. Really, Mr. Duncan, I am surprised at you, I didn't think it possible. I thought this was a democratic country where the shilling of Tom was as good as that of his master. Not so, apparently. Racing is for the leisured class and the leisured class only; so "ban" the broadcast and keep the races sacred for the plutocratic few. But me and my mates are going to import a few whippets and breed our own "racehorses" now.—Tyke.

### A Crystal Experience.

JUST a line to say that I checked up the pronunciation of 2YA's announcer one evening, and he was correct in every particular, according to Webster's standard dictionary. His voice is very pleasant to listen to.

I must tell you of an experience with a crystal set. The other day I was wondering what would happen if a lightning flash came in and the guard failed. I adjusted the slider to engage the first turn of the coil and idly made and broke the slider points contact with the coil when I obained a blue-coloured spark like that obtained from a 6.V.A. battery if the terminals are short-circuited. The current was from the aerial, and was caused by an electrical discharge from the atmosphere. This current, if passing through the crystal circuit, will often cause the crystal to become a poor conductor of the carrier wave. The remedy is to clean the cat's-whisker point and to try another face of the crystal. It is therefore good practice for crystal set users to disconnect their cat's-whisker from the crystal when the set is not in use, and, if they do not have lightning guards in circuit, to run the slider down to the first aerial turn of the coil. Any atmospheric electricity will then pass from the aerial direct to the earth, and save possible trouble to the coil. Attention to these points will tend to popularise the crystal circuit, which will become more valued as reception is improved. The ideal the N.Z.B. Company should aim at, is to make relaying a feature, so that anything of real interest in other centres may be had by all crystal users. The catering for valve users all the time is not in the best interest of business. The average valve user can not obtain the purity of tone that is given from a crystal circuit even when the latter has added valves to work a loudspeaker.—"Crystal" (Blenheim).

## *Sleepers Awakened*

### *Protest in America.*

A SPECIAL message to the "New "York Times" from Washington, dated August 6, says: "Complaints against early morning and late night broadcasting because it interferes with the sleep of persons who do not like their radio at such times, and because in the summer they are forced to keep widows open and consequently are harassed by the neighbour's radio, are being received by the Federal Radio Commission. That body, however, has no authority to curtail such broadcasting.

"Three letters have been received from residents of Brooklyn, and the bulk are from the eastern zone and from other urban areas where apartment houses predominate and where 'loudspeaker radios can be heard clearly by neighbours.

"M. Fields of Brooklyn appealed to Commissioner Caldwell to prevent musical programmes after 11 p.m., with the possible exception of Saturday nights.

"I ask this out of consideration for those who would like peace after that time, so that they may enjoy a restful sleep," he said.

"This matter may seem humorous in a way, but it is detrimental to the general public health if radio stations are permitted to broadcast jazz music until 12 midnight or 1 a.m., as some of them do. It is comparable to a jazz band standing outside one's door and playing till that hour every night."

O. H. Sandman and P. H. Henckel, both of Brooklyn, also objected to the present time schedules.

Criticising "calisthenics and breakfast entertainments," Mr. Sandman said that for every person "benefited" there are many whose rest and comfort are disturbed, particularly in apartment houses during the "open window" season.

"Not everybody wants to be awakened at 6.45 a.m.," he wrote.

Jazz was characterised as a "public nuisance of the worst kind" by Mr. Henckel, and he expressed surprise that "the police department does not stop it." He lives on a block where a radio store, he says, broadcasts from 11 a.m. to 11.30 p.m.

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WITHIN the last few months a cascade arrangement of three super-valves, operated at 900,000 volts, has been constructed to emit electrons at the rate of 175,000 miles per second —the greatest speed ever developed by human agency.

# Round the World on Short Wave

**Notes of special value to short-wave enthusiasts are contributed weekly to the "Radio Record" by Mr. F. W. Sellens, Northland, Wellington. Observations from others are welcomed.**

MR. F. W. SELLENS writes:—

Our old friend, the mystery station "An Japanese," is again mentioned in the October issue of "Radio News" just to hand. A correspondent of that paper, writing from Barbados, British West Indies, says: "With reference to the station calling 'Hello Japoni,' which puzzled South African listeners as to its origin. I may state that I also got this signal with considerable volume over the loud-speaker, in fact, never had such volume before or since; and I cannot imagine that it could be as far away as Pekin or the Belgian Congo. (These were suggested countries of origin by other listeners.) The party speaking seemed to be talking in French. I have not heard this station for about a month now."

The editor replies:—"As for 'Hello Japoni,' our readers seem to agree this is a Dutch station."

The present writer does not agree with this, as, although heard many times, Dutch was not spoken once while listening to him.

It has been noticed that the Japanese short-wave station often heard during the evening works on various wavelengths. The following is the schedule of JOAK on short-waves each month:

Date .....15, 16, 17, 18, 19, 20, 21, 22
Wave-length
(metres) ..30, 60, 35, 70, 30, 60, 35,70

A WEST COAST correspondent reports having heard at about 1 a.m. Friday, September 20, what appeared to be a two-way conversation in Dutch. He gives wave-length as being lower than 2XAD (21.96 metres). He heard the speaker call "Hello Bandoeng." This would have been duplex telephony between PCLL, Holland, and ANE, Bandoeng, Java. The former station, if not the other, I have read was built for that purpose. On a card received from PCLL some months ago, among other particulars it gives: Beam aerial; direction, Holland-Java.

As recently as this morning (Friday, September 28), I heard a two-way telephony conversation from ANE on 15.93 metres, at good strength, about R8.

### Daylight Saving Time.

THE United States returns to Standard time on October 1, and Great Britain on October 7. This will give us an extra hour of the American stations in the afternoon when reception is best.

I found that with ANE on 15.93 metres the receiver, using a stage of screen grid high frequency amplification was very steady, hand capacity not being at all troublesome; tuning, of course, was rather critical. Previous to adding the screen grid, this station was very difficult to manage, quite O.K. while handling the dials, but directly the hands were taken away trouble started.

### Saturday, September 22.

Was up too late to do more than try 5SW; they were quite good at R6 at 7.30 a.m.

KDKA were tuned in at 12.45 p.m. at R 2-3 increasing to R 5 at 2.30 p.m., when they signed off with the call 8XK. The programme was supplied by the National Concert and Broadcast Bureaux.

2XAD was much weaker than usual, being only R5 at conclusion of transmission at 3.30 p.m.

PCJJ was first heard at 1.30 p.m., R 1-2. They were R 3-4 at 2.30 p.m., when announcements were all in a foreign tongue. The "Marseillaise" was played at 2.35 p.m., closing down at 2.40 p.m. This was apparently a special transmission for some distant country, as their closing time was about 3.10 a.m. G.M.T.

PCJJ commenced their special New Zealand and Australian transmission at 3.30 p.m. with the National Anthem at R6, increasing to R 9 at 5 p.m. Strength was R 6-7 at 6.28 p.m. when they closed down. Reception was excellent all through. Many of the items were vocal gems from various operas.

R.F.M. was fair volume during the evening, but was spoilt by static.

### Sunday, September 23.

KDKA at 10.30 a.m. was R 1—carrier only. Volume increased slightly, but was lost later on. When tuned in again at 3 p.m. were R 6-7, increasing to R 8-9 at 3.35 p.m. Dance music was the fare for the last hour. A morse station was troublesome most of the time.

2XAF was very poor. Two short-wave listener correspondents remarked about the bad reception of stations 2XAD and 2 XAF on these two days.

RFM, though strong, was not worth listening to; it was mushy.

4NW, Queensland, at R 8 and 2BO, Wellington, were the only amateurs picked up on telephony.

### Monday, September 24.

3ME, Melbourne, opened at 6.28 a.m., changing over to 3LO at 6.30 a.m. The test only lasting one hour, closing down at 7.30 a.m. Reception was excellent at R9, fading being much less than usual. A powerful Morse station was on top of it most of the time. I understood the announcer to state that next week's time would be 6.45 a.m.—7.15 a.m. (8.15 a.m.—8.45 a.m. New Zealand time).

### Tuesday, September 25.

5SW at 6 a.m. was transmitting a French talk. At 6.20 a.m. a musical comedy was heard till 7.30 a.m., when the time signal was given, followed by a short announcement from 5SW, stating they were radiating the London programme.

### Wednesday, September 26.

Reception from PCJJ was excellent. Volume steady at R 8-9 till 6.30 a.m., decreasing to R6 at 7.38 a.m., when closing down. Several times "Hullo. Radio Amateur Sourabaya" was called, with talk in Dutch following.

5SW also was very good. At 5.30 a.m. Miss ——, late principal of the Ladies' High School, Cheltenham, was announced to speak on "Education." This started in the nature of an interview by a gentleman, apparently a headmaster of a boys' college. It developed into an argument, rather heated at times, lasting till 5.50 a.m., when they were switched off in favour of some music.

"Novels" was the subject of the next talk. Music followed again till 6.30 a.m., when "London and Daventry Calling" was heard. The first of a series of six talks on America followed. Strength was best at 6.30 a.m., being R8-9, 100 per cent. intelligible.

2XAF carried out their regular television test from 3 till 3.30 p.m. All that was audible was the carrier with a strong ripple. This ripple is peculiar to the television test, as, when the test was over it disappeared. The signing off talk was R5.

2XC, New South Wales, was heard calling CQ during the evening at R9.

### Thursday, September 27.

5SW was tuned in at 5.45 a.m. when a talk was just concluding. Rapid fading spoilt readability, it being about 50 per cent. Piano selections were given during the next 15 minutes. These were quite good at R8. 6 a.m., one of a series of lectures on "Mechanics of Everyday Life" was given. The subject of this talk was "Levers." The speaker gave an interesting talk which was 100 per cent. readable.

A foreigner was picked up at 6.30 a.m. on about 49.5 metres. Signals were too weak and static too bad to identify.

3CB Richmond, and 3CP, both of Victoria, were chatting, and arranged a schedule for Sunday morning, both heard at the same wevelength, about 32.5 metres. Strength R6-7, each station. At 11 p.m. Big Ben, followed by a lady singing, were heard from 5SW at R3-4.

These evening receptions from Chelmsford continue to improve.

### Friday, September 28.

Big Ben was again heard at 5.30 a.m., followed by a talk about "Whirlwinds, Hurricanes, etc," Strength R6-7, 100 per cent. readable.

From 6.15 a.m. a male chorus with orchestra gave some splendid items. Reception was excellent all through, being R8 from 6-7 a.m. PCJJ also was 100 per cent., with Strength varying from R7 to R8 at its best.

The foreigner—believed to be German—was again heard at about 49.5 metres, also one on about 46 metres, also a Fritz. Both R2, talking all the time.

2XAD was on the air. Heard it first at 6.15 a.m., quite good and clear at R4; they closed down at 7.30 a.m. at R3. This was apparently a transmission independent of WGY, as the call was not heard. 2XAD, on 21.96 metres, with the calls and wavelengths of two other short-wave stations, were given working on one "hook-up."

ANE was working on 15.93 metres. Strength R5-6, very clear and steady. All talk was in Dutch, and appeared to be carrying on a two-way conversation. Always the same voice was heard at this end (the station listened to), but different voices, sometimes a female, were heard in reply. Several times the call, which sounded like "Hullo Berlinger," was heard.

### N.Z.A.R.T. Notes.

On Sunday afternoon, September 23, amateur radio station 1AN Auckland, held two-way communication with the Australian amateur, 3CP, in Melbourne, on a wavelength of 10 metres. This is understood to be the first trans-Tasman work on this frequency.

The Wellington amateur transmitters are carrying out slow Morse classes for the beginner. There is a station on every night sending slow morse. The band at present used is 30-32 metres. On Mondays, Tuesdays, and Wednesdays, times are from 7.30 to 8 p.m., and on Thursdays and Fridays, 10 p.m. to 10.30 p.m., New Zealand mean time. The classes may be extended to the 85-metre band later. All reports are welcomed in order to learn the extent of this service.

### Canadian Short-Waver.

ON Friday, August 31, I picked up a Canadian on 27 metres. This is undoubtedly the station Mr. H. A. Steadman heard. He closed down at 5.23 a.m., signing off, "HG? Manitoba, now closing." Reception was spoilt by static, and was very blurred. The call letters sounded different each time, but "Manitoba" was heard clearly several times.

2XAL has been heard a few times, weak, but clear. 2ME was very good last month. 5SW has improved in volume.—J. D. O'Loughlin (Masterton).

## Short Wave Re-Broadcasts

ONE sometimes hears Wellington listeners complaining that there is not more relaying of oversea short-wave stations by the New Zealand stations. For some time past there has been no attempt on the part of the Australian broadcast stations to relay short-wave transmissions from overseas. The reasons given are that the novelty has now worn off, the poor quality of the reception from these short-wave stations, unavoidable fading, which destroys the musical value, and static. The only hope of success appears to lie in short-wave beam transmission and reception.



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