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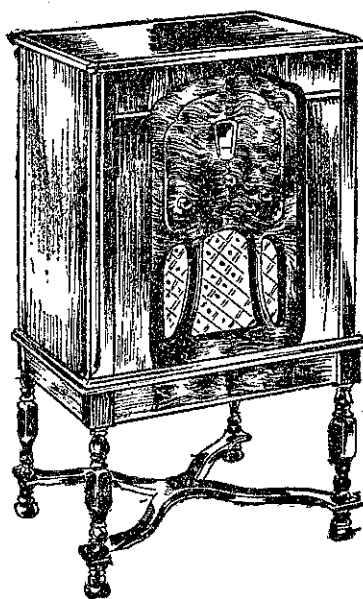
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AN advance of 43 per cent. in the number of receiving licenses issued in Canada during 1930, as compared with 1929, is reported by the Canadian Bureau of Statistics. The 1930 total amounted to 559,116.

THE League of Nations is going full speed ahead with the construction of its own short-wave station at Prangins, near Nyon, Switzerland. "Radio Nations," as the station is to be called, will have six 130ft. pylons arranged for beam transmission.

A LISTENER in the Argentine wrote to the B.B.C.:—"Just at the instant that Big Ben (Westminster) announced midnight in London my clock announced 8 o'clock in Ensenda. This evidence of Big Ben's accuracy may interest you."

A GERMAN ex-convict has been entertaining readers of a European contemporary with an account of how gaol-birds enjoy broadcast programmes without the knowledge of the authorities. Miniature sets, he declares, are obtainable in most prisons, the hiring fees ranging from a quarter of a packet of tobacco for a valve set to half that amount for a crystal. There is no demand for earphones, as these would be easily detected and the wearer would

get a week or a fortnight on "bread and water." A single earpiece suffices, as it can easily be held in the palm of the hand. The bars of the cell usually provide a good enough "aerial," while nearly every cell contains a waterpipe which serves as an earth. All of which goes to explain why the German convict "gains his freedom with a sigh."

A SWEEPING reallocation of American commercial and experimental wavelengths will take effect on February 3 next by order of the Federal Radio Commission. In general, the order puts into effect the new so-called "tolerances," or separations between channels, of one-tenth of one per cent., in lieu of the old standard of two-tenths of one per cent. In effect, it practically

doubles the number of available frequencies, increasing the number of channels between 10 kilocycles and 28,000 kilocycles from 1814 to 3025. Broadcasting stations are not affected.

THE aggravation of interference on the broadcast band in Europe has led to renewed interest in the stenode principle of reception. In a recent interview, Mr. Noel Ashbridge, chief engineer of the B.B.C., said that "a set designed to cut out all the interference of the type now being experienced

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would have a complete 'cut-off' at about 3800 cycles," entailing great sacrifices in quality. Dr. James Robinson, who developed the Stenode, in a letter of reply to the press, pointed out that with the principles utilised in this type of receiver "it is possible to accommodate all European stations in the available waveband and still allow first-class quality production."

A "KLANK EN BEELD" (sound and Picture) exhibition which is scheduled to take place at Amsterdam in May next will be run on international lines and will embrace the closely associated fields of radio, gramophones, television, film production and photography. The presentation under one roof of all the products of these important modern industries is expected to result in a very substantial show.

RECENTLY the British Broadcasting Corporation began experimental local transmission on a wavelength of seven metres. The Telefunken Company in Germany are also doing the same thing, for it has been realised in both countries that there are many possibilities in ultra-shortwave wireless. The B.B.C.'s effort will be purely experimental for the time being, but possibly as a result of these experiments a good many of the existing problems due to interference will be cleared away. In a recent interview,

Mr. Noel Ashbridge, chief engineer of the B.B.C., pointed out that if these experiments proved successful there is a chance that a seven-metre broadcasting system could be used as an auxiliary to the Regional Scheme. "The angle of the ray is limited to a few miles," said Mr. Ashbridge, "and comparatively small power is required, but the transmitter has to be placed at as high a point as possible. The waves are then sprayed over the surrounding district." The fact that the waves completely disappear and are not reflected back to earth, as is the case with long waves, makes it possible to use any number of stations without the chance of their interfering with each other.

ON July 1, 1931, there were 3,719,594 licensed listeners in Germany, or 494,650 more than on July 1, 1930. Included in the total are 168,560 war cripples, blind or unemployed persons, and others, who are given free licenses.

GERMAN listeners are feeling the strain of having to pay their license fees quarterly, instead of once a month, as formerly. Over three hundred Germans have recently gone to prison through inability to meet the demands of the Reichpost.

THE League of Nations has received a request for a general stoppage of all broadcasting during a period of five or six weeks in order to determine whether wireless is responsible for the prevailing wet weather. The signatory to this demand suggests that a "competent commission" would examine the climatic conditions during this temporary lull and publish a report which would either condemn or acquit the radio waves.

THE Danish Board of Broadcasting has decided to engage five "radio inspectors," whose duty will be to trace interference with radio receivers caused by electric motors and other electrical machinery. They will also instruct users of sets how to adjust them without oscillating. Listeners themselves can call in the aid of the inspectors to track down the sources of interference, but they must make a small deposit, which will be forfeit if the complaint proves to be unfounded. Moreover, the complainant will be required to participate in the expense incurred in installing apparatus to overcome the interference.

THE "Daily Mail" (London) states the biggest drive yet undertaken by the United States to secure the wireless trade of Great Britain has begun, and that American travellers are going the rounds of wholesalers and retailers throughout the country. In one day recently three representatives of different United States radio firms called at one of the larger London stores.

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RADIO

TIME TABLE

We still have a few Radio Time Tables left. They are printed on strong paper that stands folding, and enumerate all the leading New Zealand, Australian and American stations, including a number of short-wavers. Frequency, wave-length and power are given of each station, also the call and location. The reasonable price is 4d. each, plus 1d. postage.

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The New Zealand

Radio Record

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What Radio *has* done for the Farmer



THAT radio has materially helped in stemming the rural

drift to cities and in holding a bigger proportion of the population "down on the farm" is a major claim made by the authors in their vital work, "This Thing Called Broadcasting."

This is their reasoning. In 1900 the rural population represented 57.4 per cent. of the total. In 1910 the percentage was 54.2. By 1920 it was 48.6. Of the rural population 33.1 per cent. in 1910 were farmers and in 1920 only 26.3 per cent. But here's the point! Between 1900 and 1910 the proportion of rural to urban population declined 3.2 per cent., and in the next 10 years was 5.6 per cent. At that rate of acceleration the drop should have been 8 per cent. between 1920 and 1930. But it wasn't! Something checked it and that something, it is claimed, was radio, which has contributed so much to personal comfort and the increased allure of civilisation on the farm.

Already in 1925 General Harbord, then president of the Radio Corporation of America, spoke of radio as the farmer's friend in an address before the Advertising Club of New York. By ending the isolation of farm life radio will be the greatest factor of modern times in keeping young men on the farms, said he. Recalling the days when he was a boy on a Kansas farm, General Harbord recounted the hardships of farm life 40 years ago. "Yet it has not been the physical hardships," he said, "but the dullness of life, the utter monotony and the lack of recreation that have caused the farm boy or girl, as well as the paid farm labourer to desert the old farm and seek the city."

"Through radio the farmer now receives the advice of agricultural authorities. It is a friend in the time of the farmer's need. Be it insect plague, animal epidemics, threatening weather, or other adverse conditions, the radio brings the information necessary to meet the problem. With these utilitarian

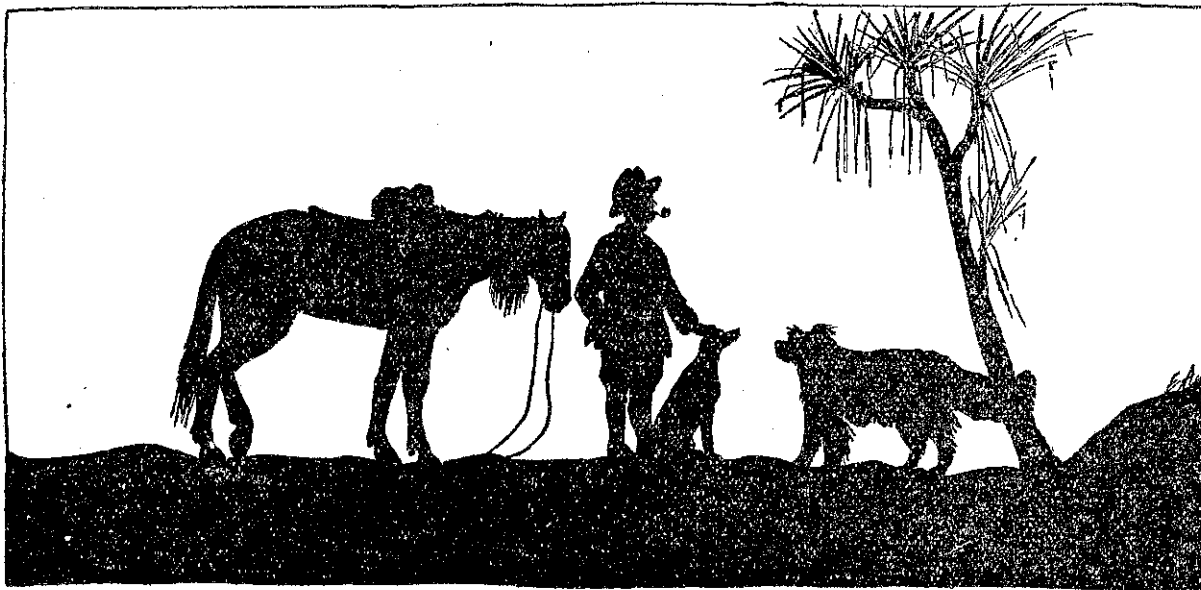
benefits there comes a wealth of entertainment. The great men of the nation, the President himself, will speak in the farmer's home.

"The city listeners, tuning in on a station only to hear a voice reeling off the price of White Leghorn eggs, fancy cabbage, red onions and pork, where he had hoped to hear jazz, may not be much impressed with the value of market reports. But at that very (Concluded on page 2.)

No class throughout New Zealand has benefited more from radio than the farming community. Isolation has been largely conquered, vital information given promptly, social gains extended by brighter entertainment and economic benefits accorded with a free and liberal hand.

Much as has been done, even more may yet be attained. It may be taken for granted that a prime purpose of the new Radio Board will be to expand the service available from radio over larger areas and so extend the benefit of radio to new rural communities. Particularly in these days of economic stress will that coming benefit be appreciated.

In the accompanying article, summarised from "This Thing Called Broadcasting," a vision is given of the benefits conferred upon American farmers by radio, and which in equal part may be expected by Dominion farmers in the future.



moment there are thousands of men on farms who have laid aside everything else in order to listen in on what is to them business information, a matter of dollars and cents.

"But in the long run perhaps the greatest utility of radio to the farmer is in tying in with the extension work of agricultural colleges and schools. The agricultural colleges enrol but 150,000 students. Radio should bring the advantages of scientific schooling to millions of farmers. It will enable the college student whose course has been interrupted to continue it, often with the same instructors.

"Of all that may be said of radio the best is that it will tend to keep the young people on the farm. There is the true independence, there is the real throne of the American sovereign. Entertainment, culture, and throbbing life of the metropolis, carried to the farm by radio, helping to make rural life more attractive, will sustain that class which is the very backbone of our national existence."

BY 1927, however, the farm population of America had given sufficient evidence of its whole-hearted support of radio that Station KFKX, of Hastings, Nebraska, decided to cater exclusively to farmers. Owned by Westinghouse, KFKX came under the management of the National Broadcasting Company on January 10, 1927. Immediately the N.B.C. decided that the farmers should have a station of their own and began to make KFKX the farmers' station. In outlining the scope and policies of KFKX, Mr. H. Aylesworth, president of N.B.C., said, on taking over the station: "Beyond the fact that broadcasting can bring the city to the farm, its mission is to destroy the isolation which formerly shrouded the lonely farmhouse, as well as to bring a service of weather, market, and other information which will enable the individual farmer to take advantage of market conditions."

Six separate informational services designed especially to help farmers in their everyday problems were inaugurated shortly after January 10, 1927, as regular features. Many authorities on various farm subjects presented talks on special phases of agriculture, and a leased wire was installed between the station and the Bureau of Economics, U.S. Department of Agriculture, with an operator always on duty.

Later other farm services grew in numbers to such an extent that KFKX was discontinued in favour of N.B.C.'s Farmers' Network.

FARMERS were quick to take advantage of this service, making the radio pay dividends right from the start. By May, 1927, ten thousand letters were received by the Department of Agriculture, commenting on the service.

Taking advantage of market quotations as they came in over the radio, farmers realised a greater profit from timely sales, and some of them by regulating shipments of crops and live stock in this way secured top prices. Others planned their work in accordance to radioed weather reports, harvesting and planting according to the forecasts. One farmer regulated the ventilators in his poultry house by the reports. Radio taught farmers how to make better rations for dairy cows, poultry, feeder cattle, pigs, horses, and sheep. Radio has given tips on crop ro-

tation systems, farm buildings, cultivation methods. It has taught the cotton planter how to get more per acre; it has taught his wife to prepare new dishes. Broadcasting encouraged farmers to organise for co-operative buying. Letters testify that radio "brought church services to our home," "helped out in the back country," "brought me out of the dark," "made it possible for us to hear a President speak and opera stars sing," "interested my wife in



CECILIE AUDIBERT
(Soprano).

Former musical comedy star, will be heard in a selection of songs from 3 and 4YA Saturday next.

more efficient means of running the home," "makes me content to stay at home, now I don't run around so much," "taught us a number of new wrinkles." And so it goes.

Gratified by the wide acceptance of radio by the farmer, the broadcasts were extended until in short order the Department of Agriculture became the largest user of radio for informational purposes in the world, with daily educational programmes, market news reports, and weather forecasts. By October, 1927, 22 comprehensive farm programmes had been inaugurated over 100 stations. Between 4000 and 8000 letters poured into the Department of Agriculture each week. Farmers learned to do things "the radio way." Of all the programmes Aunt Sammy's chats proved the most popular. One old couple, Aunt Liz and Uncle John, wrote a letter to the Department of Agriculture contrasting radio with covered-wagon days. Formerly they would run to the window to see every passer-by and talk about it for a week. Now they get all the important events of the world. They hear all the sports they missed when they were young. They used to play a wheezy organ or drive 18 miles to a camp meeting to participate in the singing. Now they listen to the finest symphonies. They also learn how to kill

rats. "Learn and earn" is the way they put it.

The Radio Farm School was another popular feature, teaching farmers how to do things in other than the conventional way. The lack of unity which had been manifest in agricultural thought and action was counteracted by radio, tending to the more equal sharing by all agricultural interests of correct knowledge of production and marketing principles.

By January, 1928, 116 representative commercial and agricultural college radio stations were broadcasting farm radio programmes prepared by the Radio Service of the U.S. Department of Agriculture.

There seemed to be no bounds to the enthusiasm of rural radio. It grew and grew. By October, 1928, some of the more popular features, corresponding to the best-known programmes of the East, included the Housekeeper's Chat, a 10-minute talk conducted by Aunt Sammy; two five-day-a-week programme features, the Farm Flashes, answering questions and giving timely tips for each section of the country; the U.S. Radio Farm Forum, taking up on successive days of each week the major production problems of all branches of agriculture; Outdoors with the Scientists; the Primer for Town Farmers; and Farm Science Snapshots. In addition the Agricultural Situation Review gave at the beginning of each month a national view of the farm outlook. And farm playlets, dramatised rural community life, endeavouring to stress the beauty of rural existence.

"—So Shall They Reap."

THE various Agricultural Extension Services conducted numerous surveys, which showed the tremendous interest of the farmers in radio. The Pennsylvania Department of Agriculture made a survey in 1928 which showed that:

Of 352 farm radio owners—
275 made a special effort to tune in on special farm programmes.

199 depended on market radio reports in buying and selling.

274 replied that radio weather reports helped them in planning their farm work.

323 were sure that their families would not be satisfied without a radio.

Dr. Daniel Starch, consultant in commercial research, in 1928 made a survey for the National Broadcasting Company in which 17,099 families were questioned by the "personal interview" method. The tenth question put to them was: "Do you enjoy talks on agricultural subjects?" Dr. Starch sums up the answers as follows:—

"Nearly three-fourths of the farmers (72.12 per cent.), representing approximately one-fourth of the population of the United States, one-third (31.44 per cent.) of the families in small towns, one-fourth (18.19 per cent.) of the families in large cities, over one-third (36.08 per cent.) of all families—including farmers—enjoy talks on agricultural subjects.

There are slight differences between the preferences of farm, town and city

families in respect to several types of programmes. Semi-classical and classical music and grand opera are preferred more by city than by town and farm families; whereas religious services, crop and market reports, and children's programmes are preferred more by farm than by city families."

To the question, "If you had to give up one or the other, which would you prefer to have left, talk or music?" 2358 preferred talk, and 1538 preferred music. This jars somewhat our preconceived notion that music had a wider appeal than talks.

"The Reaper."

THESE figures will give the reader a general idea of the scope of work now being done to aid the farmer by radio. The farmer, well informed on those issues which bear on his business, is now better able to farm efficiently. He makes more money and has more leisure to spend it. The news of the world and its entertainment is his for the turning of a knob. Business-like, well informed, educated, the farmer of 1930 comes to town to attend the conference of grain-growers. He attends the concert by the same orchestra that he hears weekly in his own home. Neither the orchestra nor the selections are less familiar to him than to the urban residents attending. He stays at the foremost hotels, listening while at dinner to the same fine orchestras that broadcast daily. He talks of the stock market, discusses the grain export prospects of the coming year, the latest developments in farm machinery. Spending a few hours in the vast department stores of the city, he purchases refinements for his home, perhaps the latest model radio receiver.

And now, as the farmer walks down the street of the city, smooth-shaven, neatly dressed, self-possessed—nobody turns to stare. He is no different from anyone else. His hands are clean. Machinery does most of the work. The style of his clothes is not different from that of the city. No longer is the farmer a man apart. Due in part to the automobile and the movie, due as much to the widespread influence of radio on all cultural and financial aspects of his daily life, he is truly a citizen of the world.

That picture of American attainment can be translated in degree into actuality in this Dominion. Much already done but paves the way for further attainment.

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S-O-S

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CAR

WELLINGTON - PALMERSTON
NEW PLYMOUTH

Mullard
THE MASTER VALVE

The only Valve with
the wonderful P.M.
Filament. Gives longer
life — more power —
greater volume.

Good-bye, Goo-oo-ood Night

Familiar farewell disappears from the air

MANY listeners have communicated with the "Radio Record," both orally and in writing, expressing concern at the change noted since January 1 in the farewell greetings and closing-down announcement of 2YA, that familiar "Goo-oo-ood-night," which, whether it was liked or not, had become distinctly characteristic of 2YA, and familiar throughout the Dominion and Eastern Australian States, as well as the Pacific Islands. It is a fair inference that this change is not without association with the change in control which took place at midnight December 31.

While there are those who liked the famous "Good-night," there are undoubtedly others who strenuously objected to it. Many, it is known, allowed their dislike such rein as to make a point of switching off before it was heard! Others equally frankly liked it, and made a point of specifically listening in to 2YA for the sake of that farewell utterance.

It is to be noted, however, in support of the change, that no up-to-date broadcasting service in the world, to our knowledge, permits the individuality of the announcer such unrestrained expression as had been developed in this case. Individuality is to be admired, appreciated and encouraged, and in spite of the change that has taken place, it can be anticipated, we think, that no undue restraints will be placed upon the announcers in their effort to make their work vital, attractive and expressive of personality.

To the 2YA and 3YA Announcers

*Mr. Announcer, of 2YA,
Why in the world have you ceased to say
As was your wont but yesterday,
"Goo-oo-ood night."*

*Is it because the Broadcasting Board
Have told you that they could not afford
The time that previously was stored
In "Goo-ood night"?*

*It may be that one day they summoned
You to their office, Mr. Drummond,
And said that in future you'd to, come 'nd
Say "Good night."*

*Then at 3YA there's Mr. Curry,
Who now seems to be in a terrible hurry
To say "Good night."*

*He misses out the "everyone,"
The word our memory lingers on,
And says "Good night."*

*Whatever the reason for the change
We hope that both of you will arrange
To say in accents not so strange:
"Good night, everyone—
Goo-oo-ood night."
("Old Times Again.")*



Familiarly known in New Zealand and abroad as the "Goo-oo-ood Night Man"—Mr. Clive Drummond, 2YA's announcer.

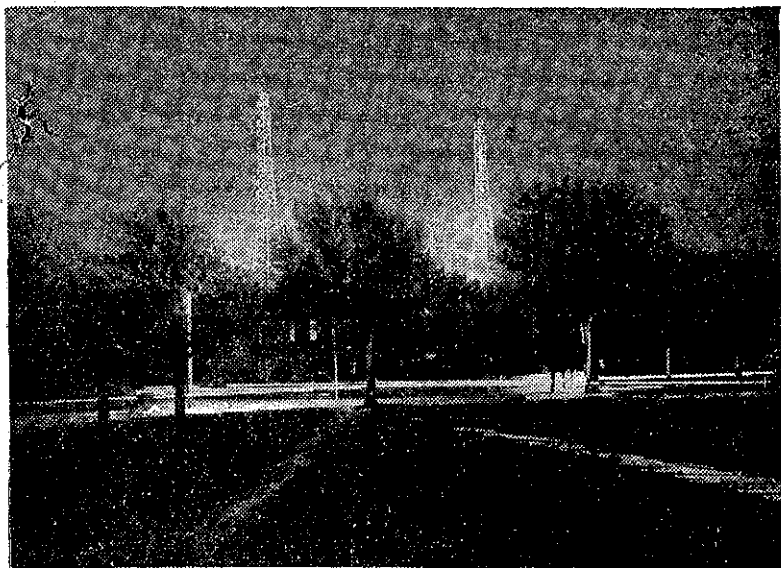
From many letters that have reached us we have space for two only, and a distinctly bright jingle of verse. The personal expressions of view are summarised in the expressions for and against indicated above. The following letters may be allowed to speak for themselves:—

Why not "Ladies and Gentlemen"?

WHY should the public have to suffer since the Government took over 2YA and other "YA" stations? Why can't we still be called "Ladies and Gentlemen," and why is poor old 2YA allowed to stand by itself without its mate, "Wellington"? Why did they take our good old "Goo-oo-ood-night" away from us and leave us with a very ordinary "Good-night"? It is no credit to the station, which is very quickly losing popularity. Please, can't we have our familiar announcements back?—
"Clive."

"The Devil You Know!"

MAY I, through your columns, ask a few questions and make a few comments on "radio as she is transmitted"? It is too early yet to pass any judgment upon the new controlling force in New Zealand radio at the present time, but if the new board's first changes are going to be anything to judge by, well, I am afraid that it will be a case of "better the devil you know"! For instance, why the abrupt change to the formal "Good evening," instead of "Our Clive's" (no, I didn't pay 2/6 for the privilege!) more usual, and certainly more courteous, "Good evening, everybody." Also, apparently, even so early in proceedings, the famous "Goo-oo-ood-night" has seemingly been strangled with red tape. Perhaps the board also is not going to give us any more of the international programmes, as to-night, upon looking for 2YA at 8 o'clock, I am greeted with an assortment of recorded music which certainly bears not the remotest similarity to those excellent fellows, Brother Macey and Brother Brockenshire, and methinks that after all there must have been something in their seemingly inept song, "Oh, Gee! There ain't no Justice!" If 2YA wants to find out what class of programme is suited to the large majority of listeners, let the powers that be tune in to 2ZW. Now, I can see several people rushing for pens to ask me upon what authority I speak for the mass of listeners in picking out a certain programme as being more suited for the average listener, than are those given us by 2YA. Just this, I am connected with the radio business, and in the course of my business come into contact with very many listeners, and I can honestly say that over 90 per cent. of those to whom I have spoken have expressed the above viewpoint. Not that they consider 2ZW is 100 per cent. perfect. Far from it! Being asked what the trouble with 2YA is the most general reply is "Too many second movements, symphony orchestras; not enough humour, and in general the general trend is too much 'high-brow' stuff that the general person cannot understand." (Concluded on page 22.)



Now under the control of the Radio Board—3YA, Christchurch.

Editorial Notes

Wellington, Friday, Jan. 15, 1932

THE famous "Goo-oo-ood night" of 2YA has disappeared from the air—to the joy, be it frankly said, of some and the dismay and concern of others. With the change in control new formal announcements at the opening and closing of sessions were adopted, and under that system of uniformity disappears Mr. Drummond's famous "vowel elongation of saccharine unctuousness," as it was once described. On the other hand, it is beyond doubt that to many that "Goo-oo-ood night" was a welcome link with 2YA. From these admirers and adherents have come protests. Some of those protests are published elsewhere, and possibly more will follow as the sense of loss is appreciated. Those welcoming the change are not likely to be so vocal.

ON the whole we think the famous farewell may fittingly pass away with a suitable epitaph as having served its turn. At the same time we sincerely trust that the Radio Board and its management will not restrict unnecessarily the personality of its announcers on the air. Radio for its best development requires friendly, yet dignified, intimacy of contact between the station and its audience. Undue formality and mouthing assumption of dignity are out of place. Standardisation of announcement to the total exclusion of radio personality would be undesirable and disastrous, and, while standardisation in the opening and closing announcement is desirable and necessary, we trust that room will be left for a certain amount of elasticity and expression of personality in the contact between Mr. Announcer and his listening friends.

AN exhaustive analysis of the merit of various styles of announcers was made some time back in America by a "Radio Voice Technique Committee" formed at the request of the Radio Corporation of America and New York University for the purpose of determining what characteristics constitute a perfect radio announcer. As an outcome certain definite conclusions were reached, and to encourage the announcers of America to aim at the highest possible standard in their work a gold medal is awarded annually to the announcer whose technique is adjudged the best by a jury of scholars, literary figures, fore-

most actors and exponents of speech. This award is in high repute and fosters the ideal of the announcer's art. That the influence of the announcer is great needs no argument. Already it is being shown in Britain that provincialisms and local dialects are tending to disappear in conscious and unconscious adoption of the standard speech as heard over the air. The same thing applies in America. The dialects in various States are disappearing, attributable in the main to radio influence, and perhaps in lesser degree to the increased personal contact permitted by the modern revolution in transport.

ONE of the early shocks experienced by the investigating committee was the discovery of the distinct unsuitability of the feminine voice for radio work. Five thousand listeners of a leading station were canvassed as to which announcers they preferred—men or women. The vote was 100 to 1 in favour of the masculine voice. And that sounded the death-knell of women in this field, which on somewhat superficial observation seemed specially suited to them. What is the reason for this marked preference? Primarily, a man's voice, it has been found, "takes" better over the air and has more volume. Further, the announcer requires to possess a tremendous range of general knowledge, to be familiar with the terms and phrases distinctive of sports of all kinds, a knowledge of politics, weather, business, statistics, market practices, terms, etc. That information sounds better from a man than a woman. But possibly the greatest fault with the woman announcer was that she had difficulty in maintaining balanced utterance, in repressing uncontrolled enthusiasms, and maintaining that reserve and dignity essential to the position. The listener naturally resents a voice that is too intimate on short acquaintance, or that has a patronising quality, such as a teacher might use toward school children. Women, for some reason, have difficulty in avoiding this effect on listeners, and people dislike being talked down to in a condescending manner.

ANOTHER trend revealed by the investigating committee was that in the early days radio announcement was allowed to run toward spontaneity. As maturity developed in the art, that phase passed. (We now witness the abandonment of its last expression in New Zealand.) Following on the period of spontaneity came a phase of artificiality, when the forced laugh and meticulous enunciation of each syllable were notable. That, too, has disappeared, and the art, as evidenced to-day, aims at a balanced and artistic imitation of spontaneity, without vulgarity or artificial stiffness. The value of the voice lies in its ability to portray character, emotion, mood, and atmosphere. The manner must be suited to the occasion. The announcer must speak with conviction when conviction is necessary; must vary his voice to the character of the announcement; must change his tempo as need arises—for instance, from the 125-word-a-minute rate required for statistics, market reports, etc., to the probable 175-word-a-minute rate permitted by descriptive matter and brisk advices. It has been hard to find good radio personalities. Nevertheless, they have been discovered, and the standard is steadily improving. In New Zealand a creditable standard, we consider, has been achieved in the past from the YA stations. We have no doubt that in future that standard will be maintained, and possibly improved as opportunity offers. From the listeners' point of view, it is essential that radio personality be not unduly curbed. Extraneous matter may be clipped and controlled, but it must always be remembered that an attractive personality may be permitted to break rules of a formal character and still please.

THE announcement made in this issue that it is intended by the Board to maintain the system of advisory committees on specialised subjects instituted by the Radio Broadcasting Company is pleasing. Under that system some 114 people, each of distinct capacity in their field, had become affiliated with the broadcasting service in an advisory capacity associated with each of the main stations. Their collective advice was valuable, and it would have

been a distinct loss had their interest and intimate contact with the general body of listeners been lost. We congratulate the Board upon its decision in this field.

AN early corrective should be given to the tendency displayed in some quarters already to demand speedy action on the part of the Board in announcing its programme of future development. Through no fault of its own, the Board's appointment was delayed. Its personnel was announced only in the last few weeks of the Old Year. One meeting only, of a preliminary character, was held prior to the Board assuming control of the service. Before the Board can bring mature judgment to a decision upon the numerous major policy points that confront it, a period of study and close investigation of the whole situation must be undertaken. Many of its decisions on these major points are of an interlocking character; for instance, the question of the degree of support, if any, to be given to "B" stations is wrapped up in the determination of the Board's policy for subsidiary or supporting stations throughout the Dominion. It is helpful to remember that the Post and Telegraph Department has at command large technical resources for rendering aid on this point. Mr. A. Gibbs, the chief electrical engineer of the department, visited America some years back in connection with radio matters, and compiled a report for departmental guidance which doubtless will be available and be of value to the Board. The Post and Telegraph Department is after all primarily concerned with the radio service. Even under the company's regime it must be remembered that the company operated only under a license from the Post Office, and while the company had formulated a scheme for the extension of the service, that scheme was not adopted, probably for political reasons, by the Postmaster-General. It may be that later technical knowledge of broadcasting needs may displace those proposals and make it desirable for the Board to start on an entirely new foundation. These points are mentioned to show that the Board, composed as it is of men definitely chosen for business and administrative reasons, must first call for technical reports of an involved character before it can be in a position to determine its future policy. That period of study will necessitate some months, and as the

fate of "B" stations is involved in that preliminary investigation it is doubtful in our view whether any announcement of the Board's major policy can be made for some considerable interval. In the programme field and the administration of the service, minor changes can be made, and it is in this field that listeners will doubtless first see results of the Board's activity.

Speed Record Broadcasts

Rebroadcasting Descriptions

THE first big "stunt" to fall to the Broadcasting Board has been "Wizard" Smith's record-breaking race on Ninety Mile Beach. This undertaking—we are referring to the broadcasting part of it, the attempt on the world's speed record speaks for itself—has been beset with difficulties. Ninety Mile Beach is not a populous locality—except for toheroa—and telephone communication does not reach beyond Kaitia, so, to bridge the intervening distance a portable transmitting set had to be installed near the beach, with a receiving set at Kaitia, whence the telephonic relay was carried to Auckland and Wellington.

The technical portion of the undertaking was carried out by the engineers of the P. and T. Department, which installed and operated the transmitting equipment and also arranged the necessary relay lines.

The uncertainty as to the date and time of the record-breaking attempt made things difficult for the Broadcasting Board, but proved fortunate for listeners, as the Board arranged for broadcast each evening at 9 o'clock, when the happenings of the day were related and some interesting talks were given.

The arranging for these preliminary talks—which were broadcast by 1YA, 2YA, 3YA and 4YA—is a good augury for the future, indicating that the Board can be expected to make the most of an opportunity.

On Sunday evening the broadcast was also carried out by 4ZP, Invercargill, so that, already early in its career, the Board has set a record by relaying from the extreme north to the extreme south of New Zealand.

In addition to the broadcasts by the

GOOD JOBS FOR RADIO EXPERTS!

The modern radio is a long way ahead of the simple sets that almost anyone could make, consequently, there is a great demand from Radio Manufacturers, Dealers, Shipping Companies, and the Government for MEN WHO KNOW. The I.C.S. RADIO COURSE was planned to meet present-day demands. We train you for REAL success in Radio. Write for illustrated literature and full particulars.

The International Correspondence
Schools (N.Z.), Ltd.,
1822 WAKEFIELD ST., WELLINGTON.

The Maid of the Mill

Schubert's delightful
Song Cycle
presented from

4YA

by

Alfred
Walmsley
and
Dr. V. E.
Galway

Concert Version



The Board Takes Over Head Office Now in Wellington

THE head office staff of the Broadcasting Company was transferred from Christchurch last week, and has now taken up its new quarters in the 2YA Building, Featherston Street, Wellington. The necessary structural alterations have been made, and excellent accommodation has been provided. The staff of the Board appears to be settling down steadily to its work under the direction of the acting-general manager, Mr. E. C. Hands.

There is no indication yet of any great "kicking up of dust," and listeners need not expect any manifestations of that nature nor any clamour as to what the Board proposes to do. No more can be expected of it than that for a time it should "feel its way," and listeners will be well satisfied in their expectation of slow but steady development. At the same time, despite what has been said about the time it would take for the influence of the new Board to be felt, listeners will already have noticed a "something different" about the YA programmes. The Board took up the running on January 1, from which date it is responsible for the service and the nature of the entertainment provided.

The Board proposes to continue the system of committees already in existence, while it will also have the assistance of the Advisory Council which is shortly to be appointed from nominations received from all parts of New Zealand.

Though the three members of the Board bring to New Zealand broadcast-

YA stations, all B stations who applied for permission to connect up with the Board's relay were permitted to do so, and broadcasts were carried out by 1ZR (Lewis Eady), 2ZW, Wellington (Nimmo), and the Western Electric short-wave station, 2ZX, Wellington.

In addition to being used for broadcasting speech, the portable transmitter installed at Ninety Mile Beach has also been used for radio telegraphic purposes. Its call sign is ZLE.

ing a new angle of outlook, it is essentially a business combination—similar to the directors of a company—which will decide questions of policy and act as trustees for listeners who, like shareholders in a company, have invested in the broadcasting service.

The Board, however, differs from the directorate of a company in that it is essentially a non-profit-making concern, though, in the interests of licensed listeners, the service will be run on sound commercial lines. The Board, it cannot be too clearly stated, is not in any respect under Government control, although the Postmaster-General is and always will be the licensing authority. Apart from this, however, the Board will have a free hand—this is clearly the intention of the Act—and will be untrammelled politically or otherwise.

IF the earth lead is taken to a water-pipe it is essential that this is cleaned properly, and that no paint is allowed to remain on the pipe before the clip is placed on it.

ILLUSTRATE Your Goods and SELL Them

Those who buy for the home, farm, office or factory have one thing in common. They usually buy the things that look best for the price. Whether their buying is influenced by newspaper advertisement or catalogue they purchase the goods pictured and described to the best advantage.

Your product can be successfully pictured if you use "Dominion" illustration blocks. Made by craftsmen who know how to produce the best results for every class of printing, they give unusual satisfaction. Let us help you with your illustration problems.

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WELLINGTON

Day and Night Service



Radio Author's Success

First Novel Published

(By "Microphone.")

MR. EDWIN J. LANDON, of Auckland, the author of the broadcast dramatic sketch "The Signal" (which should not be confused with Mary Scott's prize-winning radio play of the same name) which has been successfully produced from 1YA, 2YA and 3YA has had his first novel "Suspicion" published in London. Listeners to "The Signal" will recall that the action in the sketch, which was written specially for broadcasting, took place in the mine-fields of the English Channel and that wireless played an important part in the plot.

In one sense there is an affinity between "The Signal" and "Suspicion," which deals with the activities of German submarines and British Q ships. Mr. Landon had extensive experience in the wireless cabins of Q ships during the war—having begun service on British boats patrolling the English Channel when 17 years of age—and has drawn upon his store of first-hand knowledge in "Suspicion."

Another radio play from the facile pen of Mr. Landon, "The Drum," a story of the Dutch Wars, has been broadcast from 1YA.

Notes and News From the North

(By "Microphone.")

COMMENCING on the first Tuesday in February a recorded programme of popular semi-classical numbers will be presented from 8 p.m. to 10 p.m. at 1YA. Last year Tuesday evenings were devoted to international programmes, while, at present, a studio programme is being given from 8 p.m. to 9.30 p.m., with operatic and classical selections between 9.30 p.m. and 10.0 p.m.

AN interesting talk from 1YA last week was that on "Hitch Hiking Around the World," by Mr. Arthur Cone. Mr. Cone, an enterprising 19-year-old American youth, is hiking around the world, but, as he explained in his lecture, he does not refuse a lift. Mr. Cone, who has a pleasing, racy style and diverting subject matter, will give another talk from 1YA on January 13.

Ultra Short-Wave Wireless Telephony

Important Demonstration by Marconi

IN the presence of representatives of the Italian Government, an official demonstration took place on November 20 in Italy between Santa Margherita Ligure and Levanto—a distance of 25 miles—of the new Marconi quasi-optical, ultra-short wave radio-telephone system. The wavelength used was only 50 centimetres (the same as that employed in the previous demonstration recently carried out between Santa Margherita Ligure and Sestri Levante over a distance of 11 miles), corresponding to the enormous frequency of six hundred million cycles per second.

The success of the demonstration was all the more complete because, although the range had been increased from 11 to 25 miles, the margin in the signal strength was such as clearly to indicate to all present that apparatus used was capable of covering a considerably greater distance.

In an interview granted immediately after the demonstration to representatives of the Press, his Excellency the Marchese Marconi made the following interesting statement:—

"Since 1896, when I was already experimenting with wavelengths of 20 centimetres, I had no doubt in my mind but that the short waves, which are called quasi-optical because they behave very like the waves of visible light, would one day come into use for commercial communications. The results of those very early tests were confirmed by the more recent experiments I carried out at Leghorn during the World War using a wavelength of 50 centimetres. However, nobody, myself included, had then succeeded in producing ultra shortwave apparatus sufficiently powerful, economical, and reliable to justify its immediate use for public telephone or telegraph services over suitable distances.

"During the last six months, my assistants, particularly Mr. G. A. Mathieu, and myself have been concentrating our efforts toward a commercial solution of the problem, and many unexpected and valuable discoveries have been made, I would therefore ask you not to consider this demonstration as a mere scientific experiment, but as a test of a new practical and commercial radio-system which will very shortly be used for public services in Italy. Owing to its simplicity the new system is very moderate in price and in running costs; it will thus soon afford to the inhabitants of many small islands scattered in the Mediterranean a reliable telephone service which they could not, heretofore, enjoy in consequence of the high cost of the submarine cable telephone installation."

Requested to state whether it was correct that the application of this "quasi-optical" wave was strictly limited to very short distance communications, Marchese Marconi added: "Well, at the present stage of our knowledge I do not anticipate a reliable range of more than about 100 miles; but this is of course a very useful range in itself and could be very greatly increased by making use of relays or repeaters wherever possible."

Our Mailbag

Howling Valves Again.

NOW that we have a Radio Board to control broadcasting matters it is to be hoped they will take immediate steps to deal with the howling valve nuisance.

In this district we are never free of this trouble, day or night, and frequently an evening's programme is completely spoilt.

This annoyance has been going on for months past, and protests in the local papers and complaint to the postal authorities have been fruitless.

The matter is serious enough to demand the attention of an expert from outside the district, and besides stop-

ping the trouble it may be the means of discovering a number of unregistered sets.—"Ted Up" (Gisborne).

Announcers and Announcing.

CONGRATULATIONS to dxers on their European verifications. The time is now ripe, it may happen next winter—what about a gold medal for the first dxer to get a verification from London?

Conditions have improved somewhat during the last week, and I have managed to add 2SM, 4BH, 2GN, KOL. I have also picked up a station at R6 overpowering 2NC, but have got no call, but I am picking him to be the new Wellington station, 2ZR.

Our YA announcers are getting worse. When will they wake up to the fact that there are hundreds of overseas listeners waiting to identify their

stations, yet they seldom give their location? It must be remembered that other countries do not pick up New Zealand stations at R7-8, and most listeners like to know where the material is coming from, and it would not keep them at their post very much longer if they gave station particulars when closing down at night. I am sure there are many overseas listeners who would appreciate this. The same applies to most of our B-class stations. I think dxers as well as assisting one another in New Zealand could keep their eye open and probably assist some of their overseas friends in many small ways. I know this is being done by the secretary of the Round the World Club, but he needs all the support he can get from the N.Z.D.X. Club.—B.W. (Stratford).

Travel Broadcasts

TWO interesting people are shortly to be heard on the air. One is Miss D. M. Chown, F.R.G.S., R.E.S., an English authoress who loves to travel round the world on tracks that are not too well beaten. One of her achievements was to journey alone from the Cape to Cairo, availing herself of any means of transport that presented itself on by-way or highway. Miss Chown has been to New Zealand on a previous occasion, and when she broadcast a talk in Japan she was able to tell her English listeners there a lot about this country. She has been booked for a series of talks from 2YA in February, and will take as her theme "A Woman's Wanderings Through Africa."

THE other lecturer is a young American, Arthur Cone, who is "hitchhiking" round the world. This expression implies walking when necessary, but always welcoming a free lift on anything travelling on land, water, or air. He has travelled thus during the last five years. He lately worked his way on the Ventura across the Pacific to Australia, saw that country, and also Papua. Now he is doing New Zealand, after having worked his passage across the Tasman. Though still in his teens, he has had a life of varied experiences.

He told 1YA listeners about them on Wednesday, January 6, and will speak from 2YA on Friday, January 22.

World Radio News

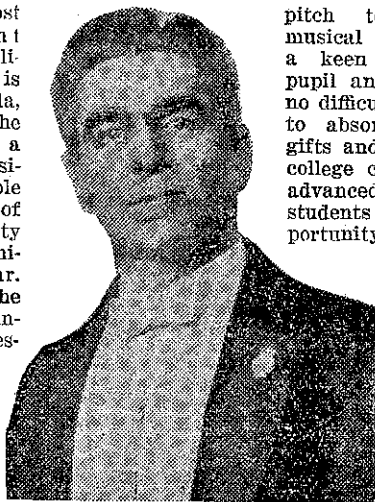
THE French police distinguish between classes of unintentional electrical disturbance and those in which the offender has wilfully endeavoured to interrupt the pleasures of broadcast listeners. From Paris comes a report that a resident has been fined nearly £6 for maliciously upsetting his neighbour's reception by means of an electric machine.

A SMALL fee of a dollar a year is charged for a radio license in Canada, and for this a fleet of cars is maintained under Government control to trace down all complaints of interference, such as leaky lines, faulty transformers, etc., on the power mains. This fleet does good work, and the results warrant the small charge made. Otherwise the stations are privately owned and controlled.

Noted Flautist - Conductor

2YA Orchestrina's Director

ONE of the most prominent musical personalities at 2YA is Signor A. P. Truda, conductor of the Orchestrina and a distinguished musician with a notable record. A man of genial personality and tact, he is universally popular. As a conductor he has an extraordinary sense of orchestral balance. In Wellington he is well known as the conductor of a very efficient choir of St. Mary of the Angels.



SIGNOR A. P. TRUDA.

As may be imagined, Signor A. P. Truda comes from a distinguished musical family. At the early age of ten he commenced his musical education at the Principe Umberto College, at Salerno, where for six years, under Professor Genovese, he studied music and the art of flute playing in its various branches.

At the age of twelve he was one of twenty boys chosen at the college to sing in the boys' chorus in the opera "Carmen." The choir-master was the celebrated organist, Rossi, and the opera conductor was none other than Lombardi. Among the leading performers were Enrico Caruso, Pignataro and others. This was the youth's introduction to grand opera.

Further continuing his studies, he went to Naples for three years, where he became a pupil of the celebrated flautist, Professor Casi, a protegee of Briccialdi, who was noted for his wonderful tone colour, phrasing and voice control. The professor, a man of great culture and experience, quickly perceived Truda's sense of

pitch temperament and musical aptness, and took a keen interest in his pupil and certainly found no difficulty in getting him to absorb his own fine gifts and qualities. At a college concert, where the advanced and talented students were given an opportunity of performing in the presence of notable conductors, Truda played "Fantasia" from "Rigoletto," a number with melodious theme and technically difficult variations. His performance was so predominantly artistic

that it won for him the admiration of several conductors present and was responsible for his appointment later to play first flute in symphony and operatic orchestras under the eminent conductors, Lombardi, Barrella, Grandini and Marzano.

Signor Truda has made comprehensive tours of Australia and New Zealand as flautist and conductor, and has been associated in concerts with Madame Calve, Blanch Arral, Rosina Buckman, Lidia Lipovska, Philip Newbury and others. He was solo flautist in the New Zealand International Exhibition Orchestra and during an afternoon chamber concert given by Alfred Hill, Cyril Monk, Gladstone and himself, Madame Blanch Arral, the prima donna who was touring New Zealand at that time, heard Truda playing, and although she had a flautist, made special application to the president of the Exhibition and the conductor to release Mr. Truda for a particular concert in Christchurch. At the conclusion of this, Madame presented him with a gold pencil as a memento.

Broadcasting to the Empire

An Announcement was recently made that the B.B.C. had intentions immediately to proceed with a Short Wave Station for Empire B'casting

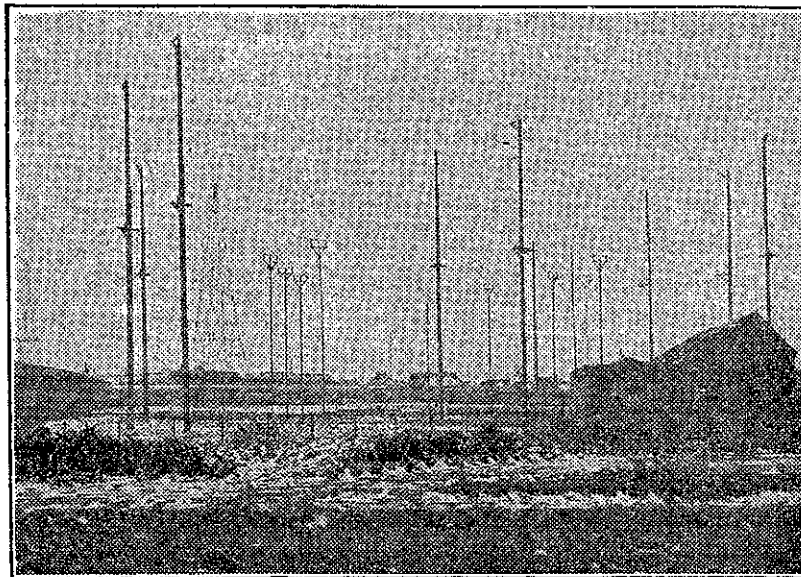
A LITTLE over a year ago —writes "World Radio," which is the official journal of the British Broadcasting Corporation—we gave an account of the position of the Empire broadcasting scheme as it existed at that time. A further stage has now been reached.

The public announcement, a fortnight ago, of the intention of the B.B.C. immediately to proceed with plans for establishing a short-wave station to be used for broadcasting to the various parts of the Empire has aroused a considerable degree of interest in this country. It may be expected that an equal measure of notice of the announcement will be taken by the Dominions and colonies. Indeed, the messages sent to this journal by their representatives in this country indicated clearly the satisfaction with which the Empire in general has received the news.

It is a matter of history that the B.B.C. arranged with the Marconi Company to establish an experimental short-wave transmitter at Chelmsford. This transmitter, G5SW, was capable of putting about 12 k.w. into the aerial, and was made up largely of existing apparatus. It transmitted on one wave only, viz., 24 metres, approximately, which was chosen as a compromise to give the best chance to most of the Empire to carry out reception experiments. The programme material used consisted generally of excerpts taken from the Daventry, 5XX, programme. Transmissions from this station started in November, 1927, under license from the Postmaster-General, which made clear the experimental nature of the station. (The transmission of news was forbidden, for instance.)

BY 1929 a considerable number of reports and data had been received by the B.B.C., from which several important conclusions resulted. Firstly, there was no doubt that a real listener, as apart from an amateur, interest existed and that there was a widespread hope that a service would be undertaken. Secondly, the interest was greatest in the colonies, while the Dominions were interested mainly in the occasional transmission of special events—for instance, the Armistice Day ceremony at the Cenotaph.

On the basis of these reports and a detailed examination of the data, the B.B.C. was able to submit a fairly precise scheme to the Colonial Office, via the Post Office, in November, 1929. This proposed scheme, together with two variants of it, were further considered



*What an Empire broadcasting short-wave station looks like.
The forest of aerials associated with PCJ, the Dutch Empire
Broadcasting Station.*

by the Imperial Conference, 1930, but, as we expected, this Conference gave them little support, passing the following resolution: "The Conference recognises the technical and financial difficulties of the scheme and feels that further information is required to determine whether they can be overcome. It recommends as a first step that his Majesty's Government in the United Kingdom should suggest to the British Broadcasting Corporation that that body should communicate particulars of the scheme to the broadcasting organisations or other appropriate authorities throughout the Empire, and should invite them to furnish their views (after any necessary consultation with their respective Governments) as to the value of such a service, and as to their readiness

to make a contribution toward its cost in return for the right to relay any part of the service which they may require.

AT the request of the Post Office, the B.B.C. acted on this resolution, by communicating particulars of the three schemes to broadcasters in Canada, Australia, New Zealand, and South Africa; to the High Commissioners of Newfoundland and Southern Rhodesia; to the Ministry of Marine and Fisheries, Montreal (for communication to Canadian broadcasters other than the Canadian National Railways); to the Indian State Broadcasting Service; and to the Broadcasting Department of the Department of Post and Telegraphs, Irish Free State.

The position was becoming unsatisfactory. The existing station is not entirely representative of modern technique—it can use but one wavelength, whereas several are essential—and restrictions on its use in any case deny the provision of a comprehensive short-wave "service" to the Empire. At the same time, its maintenance costs a considerable amount annually. It appeared that the time had come when a decision had to be made as to whether this experimental station should be definitely closed down or a new and adequate station provided.

Now, the need of an adequate Empire broadcasting service was not decreasing—quite otherwise, in fact. The B.B.C. decided, therefore, that in view of the urgency of the problem it must assume the necessary financial responsibility involved in going ahead with the scheme. Once it is in operation, it is hoped that the interest which it will undoubtedly arouse will result in some (Concluded on page 8.)

Broadcasting to the Empire

(Continued from page 7.)

return on expenditure in the form of a contribution from the colonial listener, possibly a proportion of the license fee paid by such listener to his local administration.

Among the suggestions for financing Empire broadcasting recommended by the Colonial Conference last year was a special fee of 5/- per listener be charged. And so after four years an Empire service is to be inaugurated.

Technical Details.

Technically, the following details will be of interest. Two separate transmitters will be used, arranged for simultaneous operation. They will be erected at Daventry, where a site is already available on the land owned there by the B.B.C. It will be possible to radiate separate programmes from the two transmitters at the same time, although normally it will not be necessary to do so. A number of aerials will be used to permit transmission on the various wavelengths necessary to reach any part of the world at the desired time of day. Although no wavelengths have yet been chosen, it is probable that one wave will be available in each of the bands of short waves allotted to broadcasting by the Washington Conference, viz.:-

Kilocycles.	Metres.
6,000 to 6,150	(50 to 48.8)
9,500 to 9,600	(31.6 to 31.2)
11,700 to 11,900	(25.6 to 25.2)
15,100 to 15,350	(19.85 to 19.55)
17,750 to 17,800	(16.9 to 16.85)
21,450 to 21,550	(14 to 13.9)

It is probable, therefore, that each transmitter will be able to transmit on three short waves, arrangements being made for a fairly quick change from one wave to another. The transmitter will conform to modern standards of frequency, stability, modulation, depth and audio frequency characteristic, while their power will be of the order of 15 to 20 kilowatts supplied to the aerial in carrier-wave condition. The construction of the station will begin shortly, and it should be completed in about one year's time.

Transmission Hours.

In order to reach the ideal of each Dominion and colony being given a programme during the whole of the hours from 6 p.m. to midnight local time, it would be necessary to run the transmitters for a very considerable part of the 24 hours. At the outset, however, the hours of working will depend on the initial success of the service and the demand it stimulates. In general, it will be composed of material available in the Home programmes, but the production of specially-timed programmes would also be involved in any complete service to an Empire which covers some 300 degrees of longitude.

In concluding this brief survey of a wide subject, it is perhaps well to state, for the benefit of British listeners in this country, that, except in certain conditions, the Empire transmitters will not be generally receivable in the British Isles. The direct rays of the short waves in use will become attenuated very rapidly, while the indirect rays which will give the

Empire Broadcasting

A message from Sir Thos. Wilford,
C.M.G., K.C.



—S. P. Andrew, photo.

High Commissioner
for N.Z.

"I am delighted that at last the long-looked-for 'Empire' Short-wave Broadcasting Station is to materialise. By this progressive movement a 'news service,' which has hitherto been lacking, will be given, and will provide a feature that dwellers in the Empire overseas will greatly value; while the use of alternate wavelengths will make the transmissions much more effective than heretofore. The scheme sponsored by the B.B.C. has my sincere good wishes."

service to the Empire will not reach the earth again, after returning from the Heavyside Layer, within a distance of several hundreds of miles, the exact distance depending on the season of the year, the time of day, and the wavelength in use.

News Service from G5SW.
THE Chelmsford shortwave station, G5SW, have started the New

Year well by broadcasting a regular news service for "shortwave listeners in the British Commonwealth," commencing on January 4. This service, according to the announcer of 5SW, is available by special arrangement with Reuters.

This service, no doubt, will be very welcome to Britishers overseas who are well away from daily newspapers which get the cables from Home in quick time, but for the majority of us in New Zealand the news given out by 5SW has already appeared in the local Press; at least, that has been my experience during the past few days.

These news sessions are thrice daily (except Saturday and Sunday, when 5SW is silent) from 12.30 a.m. to 12.45 a.m., 6.30 a.m. to 6.45 a.m., and 12 a.m. (noon) to 12.15 p.m., all New Zealand summer time.

Listening on Shortwave.

NOW that a new Empire station has been decided upon, there is bound to be a much greater interest taken in the most interesting of all broadcast listening—on short waves.

Of course, the British programmes will be rebroadcast by the YA stations, but who wants a rebroadcast programme when it is possible with a very little expense to acquire a shortwave receiver? One can be obtained either ready to use or—the most interesting way—can be built by oneself, and it is not very difficult when you are told just what is required. Next, and most important, is how to tune in the dozens of shortwave stations that are broadcasting interesting programmes from nearly every civilised country in the world. This tuning is just a little tricky at first, but with a little assistance from the right quarter and experience the newcomer to short waves will be surprised at the number of stations it is possible to log, not always strong enough for the loudspeaker, but loud enough to be readable on the phones. There is more credit in logging a very low-power station in a distant country than in putting one of the mighty stations of many kilowatts on the speaker.

Empire Broadcasting



A message from
Hon. Sir Philip
Cunliffe-Lister,
G.B.E., M.C., Sec-
retary of State
for the Colonies.

"It is one of the most pleasant duties which has fallen to my lot since I became Secretary of State for the Colonies to express my gratification at the decision of the British Broadcasting Corporation to erect a short-wave wireless station which will enable broadcasting stations in the Colonies and individual listeners to receive programmes from the Old Country.

We live in an age of great and extraordinary inventions, but I count none greater nor more potent in uniting the bonds of Empire than those which will so soon enable lonely listeners in the heart of Africa and remote islands in tropical seas to hear with their own ears the familiar chimes of "Big Ben" and the same programmes which their own people are listening to in their own homes in distant England."

Empire Programmes

Organisation in Britain

AN interesting development, of which news has just reached the Dominion, is the establishment in London, under the title of Colonial Radio Programmes, Limited, of an organisation with the specific object of recording British programmes and circulating them among overseas broadcasting stations.

The managing-director of this new organisation is Mr. M. A. Frost, who was in the Dominion some few months ago in the course of a world tour. Mr. Frost, as a prominent radio playwright and producer, had very close affiliations with the British Broadcasting Corporation, and was engaged to proceed to America by one of the important national broadcasting chains of that country to give advice and engage in production. Following on that engagement Mr. Frost made a world tour, and as a result has organised the business outlined.

The company is now circulating programmes devised on three main lines:—

- Those sponsored by international advertisers;
- Those distributed by them designed to carry local publicity; and
- Those for purely sustaining purposes.

The latter class only will carry a specific appeal for New Zealand, and this class is to be circulated on the lines of syndicated Press articles. It is intended in the preparation of these recorded broadcast programmes to maintain 80 per cent. of British artists and music, and to keep the tone of the organisation distinctly Imperial. To that end a close liaison and co-operation with the British Broadcasting Corporation is being established.

A sample of one of the new organisation's recorded programmes is now in the Dominion, and may prove to be the forerunner of a development of distinct interest and value to New Zealand listeners. With the increasing attention being given in Britain to shortwave broadcasting for Empire purposes, it is apparent that the various parts of the Empire will no longer be confined to Empire sources for international programmes.

Radio Competition No. 1

Over 200 people tied in The Radio Competition No. 1 by gaining 60 points, the names of the Radio Sets being as follows:

Airzone, Crosley, Ultimate, Philco, Courtenay, Zaney-Gill, Gulbransen, Pilot, Radion, Majestic, Eagle, Q.P.

Retry forms have been sent to successful people, and results will be published after the 16th.

RADIO COMPETITION No. 1

Box 1582, Wellington.

News and Views of the D.X. Club

Answers to Correspondents

"Fernleaf" (Nelson): None of the New Zealand stations, whether logged in day-book or not, are eligible for the competition.

DX93W (Ngahauranga): "Handy's Hand-book," obtainable from the Te Aro Book Depot, Courtenay Place, Wellington, is the book you want.

N. Jenkins (Masterton), and others: Your letters have been held for the "Radio Log."

DX16W (P.N.): An excellent log for three months' dxing. Keep going. No, the dx mottoes submitted to us have not been entirely satisfactory, so we have as yet made no decision on this point.

DX330C (Sandymount): 2CO, Corowa, operates on 560 k.c. (535 m.).

DX29W (Wanganui): Information re 3WR, Wangaratta, has been received previously. Thanks all the same.

Addresses and Addresses Wanted

DX1260C: 2SM, Catholic Broadcasting Co., Australian House, Carrington Street, Sydney.

Would "Sparks" (Waverley), please forward his address?

Identification Wanted

Station heard on approx. 273 m. (1100 kc.), at 2 a.m. on January 4, just closing down. Time was given as 11.45 p.m. Call resembled 3BI, or BY, Melbourne.—DX12NW (Nelson).

J.P.O. (P.N.): Thanks for replying to my query. The appearance of KGW in print was either bad writing on my part or a printer's error. Identification was wanted for a station heterodyning KGU on 319 m. (940 kc.), at 7.45 p.m. on Dec. 10.—"Fernleaf" (Nelson).

On approx. 1085 k.c. (276 m.) on Jan. 1 American announcer stated that at 8.55 p.m. a lady was going to sing "Please Don't Talk About Me When I'm Gone." Another American I heard at the same time on 1080 k.c. approx. (278 m.) was also very good. The transmission was spoiled by a heterodyne. Also an Australian on approx. 1380 k.c. (217 m.) heard at 11.53 p.m. on Jan. 2 broadcasting "Songs of Ireland." At times the announcer would thank listeners for their reports.—Brisbane was mentioned several times.—DX670C (Dunedin).

Wellington station on 1450 k.c. (207 m.) which often relays 2YA. [This is 2YA's first harmonic.—Ed.] Also a N.Z. station on 2YB's frequency, heard shortly before 8 p.m. on Jan. 2. No announcements were heard.—"Omsk" (Whakatane).

American on 1330 k.c. (225 m.) heard between 1 and 2 a.m. New Year's morn-

ing. The following items were heard: "Sweet Genevieve," "Stein Song," "Till We Meet Again," and a piece by the International Concert Orchestra. Another American on 1315 k.c. (228 m.) was heard between 2 and 3 a.m. the same morning with a religious service. One hymn was "Yield Not to Temptation." Also an Australian on 1355 k.c. (221 m.). Items heard: 2.57 p.m., "You Will Remember Vienna"; 3 a.m., "Auld

Dxers' Meeting

I HAVE pleasure in announcing the exact date of the short-wave evening to be held by the Christchurch Radio Society for the New Zealand DX Club members in Christchurch. This function will take place on Thursday, January 28, 1932, and members are asked to try and be in attendance by 7.30 p.m. so as to have a chat before the "business" of the evening commences. The society's rooms are situated in Cashel Street West, near the Bridge of Remembrance, on the first floor of Tisdall's Buildings. Will all DX Club members please wear their badges.—E. W. Watson, DX28MC.

Lang Syne," with bell accompaniment.—"Notnats" (Dunedin).

Australian station operating on approx. 200 m. (1500 k.c.) at 10.30 p.m. on Jan. 6. During intervals between musical numbers he was advertising for various firms. His call I think was "4BH," Brisbane. Is this correct? Static and interference were bad.—DX114A (Hamilton).

The Australian amateur on 1280 k.c. (234 m.) about whose identity I wrote last week was heard again from 2.20 a.m. to 3.45 a.m. on Jan. 5. Strength was again R8, and the quality quite good, but no announcements were heard. One record, "Calling You Back to Me," was played seven times, and others were "Nine Little Miles," "Wedding Bells are Ringing for Sally," and "What Good am I Without You?"—DX1150C (Dunedin).

Stations Identified

DX52MC: Undoubtedly 2CO, Corowa, which, however, operates on approx. 560 kc. (535 m.).

DX Topics

American Loggings.

JAN. 1 was an excellent night for reception here, and I listened to 22 Americans at strength varying from R3

to R9, including two new ones, WCAU, Philadelphia, and KFNF, Shenandoah. By the last mail I received replies from KMMJ, Clay Center, Nebraska, and KFWI, San Francisco, both of whom forwarded Ekko stamps. I was surprised to receive on Jan. 2 a card from 3WR, Wangaratta, verifying my report of April 14, 1931. The following is taken from their card: Wavelength, 288 m. (1260 k.c.); schedule, daily, 2.30 p.m. to 4 p.m., 9.45 p.m. to midnight, N.Z. summer time. Latest Australians heard are 4BH, Brisbane, 217 m. (1380 k.c.) and 2SM, on about 1270 k.c.—DX126-OC.

"Black-listers."

LIKE many others, I have had difficulty in securing replies from KTM and WABC. The only Australian on my "black-list" is 5DN. 3WR replied after my fourth report. Jan. 1 was an extraordinary night for American reception. They were all on the air for New Year celebrations. I heard 53 of them on New Year's Eve and had XER, KFI, WLW and others without an aerial.—R.A.S. (Mamaku).

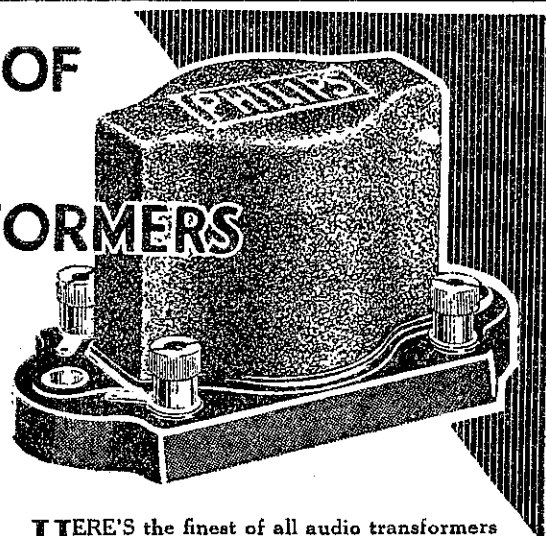
A Prompt Reply.

I NOTICE several dxers are complaining about not receiving replies from WABC. I wrote this station at the end of August and received a reply, which travelled part of the way by air-mail, about the middle of October. I did not enclose postage. Americans on my black list are KTM, KDYL, KMOX and WFAA. I wrote these stations over six months ago. WLS sent attractive Ekko stamp, although I notice in the "Log" that this station is marked as one which would not supply a stamp. I think DX640C's suggestion re aerial policemen is quite O.K.—DX2HB (Hastings).

Concerning Verifications.

I NOTICE that DX730C also has KTM and WABC on his black list. Although very much overdue I received a verification from the latter by the last American mail. It is seven months since I first wrote KTM, so have now sent another report. I wrote WLAC last July, and received verification at the end of November along with one of the testimonials sent 27 N.Z. dxers.—DX170C (Pt. Chalmers).

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W82R

News of XER.

ACCORDING to a recent verification, XER operates on a power of 75 k.w. on 735 k.c. (408m.) full time. Station is owned by the "Villa Acuna" Broadcasting Co., Inc., their address being: "Villa Acuna Coah, Mexico." Their slogan is: "The Sunshine Station between the Nations." I received two cards the second bearing the typewritten words: "Reception verified." It is signed by G. A. McDonald, C.V.B. (North Auckland.) Thanks; on your advice I wrote to XER. I could not catch one word of English while listening to him. The only new Americans I have logged lately are WMBR and KWJJ, the latter a daylight station evidently on an irregular night session.—"Wainui" (Gisborne).

The Beverage.

WITH reference to the Beverage aerial, a correspondent writes: "I built the Outspan Five according to specification, but have shielded only one coil, the centre one. Using it in conjunction with the Beverage aerial, I can receive all the New Zealand and Australian 'A' class stations, and most of the 'B' class, including such small-powered stations as 3ZR Greymouth, 2ZR Hastings. Several Japs are heard regularly after 9.30 p.m. while lately KFI, California, and two other Americans which heterodyne 1YA and 2YA have been heard at medium speaker strength. 2FC and 2BL may be picked up weakly in the daytime, notwithstanding that my locality is not too good. I have tried several other sets, but results are not half so good."

Radio Strasbourg.

I HAVE recently received verifications from Radio, Strasbourg, and WBOQ, New York. It would be a good idea if when members write saying they have received verifications from European stations, they gave the frequencies so that a reliable list could be compiled. Radio, Strasbourg, operates on 869 k.c. (345m.) and their address is 5 Rue des Francs-Bourgeois, Strasbourg.—DX260C

3WR's Schedule.

"JOEY" (Hokianga): Stations of the North-west broadcasting system are: KGR, Seattle, 309 m. (970 k.c.), 5 k.w. KGA, Spokane, Washington, 204 m. (1470 k.c.), 5 k.w., and KEX, Portland,

Oregon, 245. (1180 k.c.), 5 k.w. "Country Lad" (Gore) and others: Particulars of 3WR, Wanganui, are as follow:—Wavelength, 238 m. (1260 k.c.). Schedule, 2.30 p.m. to 4 p.m., 9.45 and 12 midnight daily, N.Z. summer time. The transmitter is crystal controlled with a power of 50 watts. It is operated by the Wanganui Broadcasting Pty., Ltd. A new Australian "B" station, 4BH, Brisbane, was heard at 9.50 p.m. on January 4. Wavelength was approximately 218 m. (1370 k.c.). CFCX, Calgary, was heard at 7.55 p.m. on January 6 on 3YA's frequency until the latter station came on and drowned the more distant transmission. Conditions on Jan. 1 were excellent for reception of the New Year's Eve celebrations from the American stations. The best heard were: WABC, WLW, and W3AU, with KFI, WENR, and WJZ in second place. Nearly all the Atlantic stations were on until well after 9 p.m. N.Z.S.T. Can any dxer give me the frequency of VK-2UR, Uralla, N.S.W.?—DX16W (P.N.).

DX Jottings.

VERIFICATION is just to hand from 3AK, which is operated by the Akron Broadcasting Proprietary, Ltd. Particulars are similar to those published in the "R.R." of Dec. 24. The card is signed by G. F. Palmer, so 3AK is apparently related to VK3RU. Concerning XER, a press reporter of the "Tulsa Daily World," Tulsa, Oklahoma, who heard XER acknowledge my report at 5.18 a.m. C.S.T. on Nov. 29, wrote me for information about Dunedin. He states that although Tulsa is 900 miles from Villa Acuna, XER comes through as loud as the local KVOO, with 5 k.w.—DX1150C (Dunedin).

K6X6, Hawaii, Testing.

AT 8.20 p.m., N.Z.S.T., on December 27, Radio K6X6, Hawaii, operating on about 38 metres, was heard trying to re-broadcast a transmission from an N.B.C. station in San Francisco. I heard him state that he could not make much of their transmission and would call the broadcast off. He stated that the transmitter would not be available the following day and asked for particulars re the programme and when it would next be put over. He closed down: "This is station K6X6, Hawaii."

DX Meeting in Dunedin

I HAVE noticed in the "Radio Log" and in the DX columns of the "R.R." that dxers are desirous of having meetings in the various centres to exchange views, compare notes, etc. If I could be assured of a reasonable attendance I am prepared to arrange for a room for a meeting place for Dunedin dxers, and to call a meeting say some time next month. We could then discuss whether monthly meetings would be advantageous. Personally I think the idea a sound one as quite a number of things could be discussed of interest to dxers, and perhaps we could have lectures and competitions among ourselves. If you are interested, please drop the Editor a line and let him know if you will roll up and he will publish a list of the official numbers of those that are coming along.—DX76.0C. (Dunedin.)

R.C.A. communication, Kahuku, Hawaii, closing down, Hawaiian time is now 10 o'clock.—S.W. (Gisborne).

Over 1000 N.Z. Reports.

ON January 1 a number of American stations were heard, the best being KYW, WLS, WENR, KOA and WLW, which were all at about 88. XER, Mexico, was also very good. When writing recently 7LA mentioned that up to the time of verifying my report they had received 1357 reports from New Zealand.—DX670C (Dunedin).

DX Jottings.

STATION KFXM, 1210 k.c. (248 m.)—this is only a 100-watt station—KGA, 1470 k.c. (204 m.), and WJR, 750 k.c. (400 m.) are among my latest loggings. Did any dxer hear the description of a volcano from KGU, Honolulu, on Dec. 27? I found it very interesting. Also the New Year's Eve celebrations from the American stations, many of which were on all night. What are the frequencies of ZTC, Cape Town, and the Colombo station that DX780C received?—"Omsk" (Whakatane).

Club Meetings.

"COUNTRY LAD" (Gore): I notice that you have 2KY, 3WR and 7LA on your "black list." I hold verifications from all these stations. I often think that some stations pick up a letter at random and answer it when they feel in the mood. N. Jenkins (Masterton): I wrote to XEN, Mexico City, on September 20, but I have not received a reply yet. DX640C (Dunedin): I think your idea re club meetings is excellent. The following is the translation of a letter I received from Muh-lacher: "Your letter of the 7/9/31 corresponds with our station's programme. We are sending you the programme heard and a list of European stations."—DX 840C (Dunedin).

The N.W. Broadcast System.

"JOEY" (Hokianga) asks which stations are associated with the north west broadcast system. The following are taken from a verification from KHJ, Los Angeles (frequencies are not given): KOIN, Portland; KVI, Tacoma; KOL, Seattle; KFPY, Spokane. I should

imagine these stations are on the Columbia chain, as is KHJ. New Year celebrations from KFI were great. All the stations over there seemed as if they had forgotten to close down.—DX2HB (Hastings).

On New Year's Eve.

UP till the evening of New Year's Day conditions have been very bad here, but on that night they took a change for the better. As it was New Year's Eve in U.S.A., their stations were all on very late. In fact, when I switched off at 10.45 p.m. there was still a dozen or so stations on which could be heard all over the house. Some of these were: KEX, KFOX, WTAM, KYW, WENR, WABC, KOA, KGO, KVI, WFAF, and KFI. At 9 p.m. I logged WKBW, Buffalo, New York, 1489 k.c., a 5 k.w. station, just as he was signing off. He came in at R7, and announced they had been on a special New Year programme. Earlier in the evening XER, Del Rio, was R8 on the speaker. DX12NW (Nelson): I took my information re 3CB's wavelength from the verification. This is what they said in the remarks: "Very pleased to

2CO and 2SM

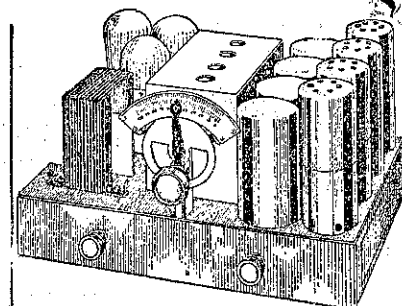
Full details of the new Australian stations 2CO and 2SM will appear in the January "Radio Log" which will be on sale in Wellington on January 19.

hear from you. Regret delay. Wavelength here now 206.8 m., was 214.2 when you heard 3CB.—N. Jenkins (Masterton).

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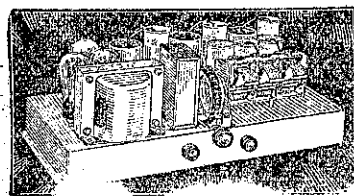


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QUESTIONS: ANSWERS

FRANK KEE.

The Technical Editor will, through these columns, be pleased to help readers experiencing trouble with their sets. Queries are limited to three—for more than this a shilling fee is charged, and a similar fee is payable for queries answered by post. Supplying layouts, circuits and solutions of intricate theoretical problems is beyond the scope of this service.

A coupon must accompany all requests for information. Non-appearance of the coupon in any issue cannot be regarded as a reason for its not being used.

Address all queries, The Technical Editor, Box 1032, Wellington.

DX46W (Wanganui): What is the approximate life of an eliminator and what is the difference in cost between running an electric set and a battery set; also the cost of an eliminator?

A.: A good battery eliminator may be had for sums varying between £5 and £7/10/-. Its life is almost indefinite, although the rectifying valve may want renewing after about two years, while occasionally a resistance or a condenser breaks down, but the chance of any of these happening is very small and an eliminator can be regarded as something permanent. The cost of running an eliminator is almost negligible. It takes very little more electricity than a 20 or a 30 watt lamp. It will probably run 50 hours on a unit, which usually costs about 4d. The cost of a battery, say you provided two batteries to give 90 volts, would work out at approximately 4d an hour.

IM PAT (Rangiora): Place the Ferranti transformer first.

2. What is the average life of my 108 volts battery?

A.: That depends upon how much current your set is taking. It will probably last from six to eight months.

C. G. F. (Woodville): I constructed the shortwave adapter described in the Radio Handbook, but on connecting it to my a.c. set it will not work.

A.: Have you been trying to use a screen-grid valve as detector where a 227 is specified? It seems you have, and have been causing complications thereby. First of all see if your set will work on phones. You make the filament connection as shown in the diagram, that is the filament of the valve sockets in your set. Take the plate leads instead to one tag of a pair of phones,

take the other tag to the plate socket of the detector valve in your set. You should then be able to get the set working. If you cannot under the circumstances, it will be impossible to do so when connecting the adapter up to the set. The adapter could not work in the first audio, which is designed for a 226-valve, and there are only 1.5 volts on the filament. You are using a 227 detector requiring 2.5 volts. Your best plan would be to construct a super, het. type of adapter. One of these was described in the 1931 "Radio Guide." Of the two coils, L1 is the tuning coil, and is the larger, L2 is the reaction coil, and is smaller.

BEGINNER (Auckland): Without further details we cannot say if any harm is being done to your set by the alterations mentioned. However, if a radio serviceman has done the job, and the set now works satisfactorily, you can rest assured that everything is quite in order.

E. W. (Christchurch): Short-wave sets are generally better when two separate coils are used for reaction. You are using the Reinartz circuit as different from the Schnell, which is generally considered to be the better. The "Night Owl Two" recently described in the "R.R." utilises a Schnell circuit. If you change your circuit round to this we think you would get better results.

A. V. B. (Petone): Could you tell me if enamelled-covered wire is suitable for the secondary winding of a 150-watt transformer?—Yes.

CRONA (Napier): Would you tell me where to fit a milliammeter in my set, so as to obtain the total consumption that the set is using in mamps?

A.: Break the "B—" connection to the "B" battery and insert your milliammeter there. The positive will be toward the set, and the negative to the battery.

KIWI (Arapuni): My power transformer is 2½ volts out of balance, there being 197½ on one side of the centre tap and 200 on the other. Will this be detrimental to its performance?

A.: A small difference such as that will be negligible, particularly as the power pack will have ample smoothing.

2. Could you supply the output curve for the 1590 valve?

A.: We are afraid we cannot. Unless you can get it direct from the New Zealand agent you will have to do without it. The valves will not deliver a higher voltage than the power pack voltage even under light load.

OMSK (Bay of Plenty): What would be the cost of a four-valve a.c. set, and will it have to have a rectifying valve?

A.: We do not happen to know of a commercial four-valve a.c. s.w. set, although Johns Ltd., Radio Ltd., or Silver

Marshall may have one. We think, however, you could get one built up for about from £15 to £20; maybe less. However, a dealer could tell you better than we could. If you have already a good commercial set, why not use an adapter? A suitable short-wave super-het. converter could be obtained for about half the sum previously mentioned.

A. C. (Manurewa): How can I find out wavelength in metres from kilocycles?

A.: Divide the number of kilocycles into 300,000.

2. My "B" eliminator takes some time to get into stride; the signals are very weak to start with.

A.: There is something wrong with

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"Wireless: The Modern Magic Carpet," by Ralph Stranger, 5/- (New stocks just arrived—The "Radio Record" and Mr. Dawson, Philips Lamps, say no set owner should miss this.)

Mack's List of World Short-wave Stations, 7d. (Don't miss this.)

"Collins's Wireless Diary, 1932," 4/6. (A mine of information.)

"The How and Why of Radio, 1931," by Hunter. Illustrated—Recommended, 3/8.

"Radio Engineering Principles," by Lauer and Brown, 19/- (A general text-book on radio).

"Drake's Radio Encyclopedia, 1931" (practical reference work), 45/-.

"The Microphone," (U.S.A. monthly for amateur radiophone), 1/-.

"401 Hook-ups" ("Radio news"), 2/11.

"Modern Sets, 1932," 1/8.

"Radio Call Book and Technical Review" (formerly Citizen's Call Book Quarterly), Dec. issue, 1/11.

"Break-In" December (N.Z. Amateur's publication), 4d.

"Radio Questions and Answers" ("Radio Record"), 1/8.

"N.Z. Radio Handbook, 1931," 2/6.

"Radio Physics Course," by Ghirardi—revised and enlarged. Answers every question on Radio, Electricity, Television and Talkies. First lot sold on sight. More stocks on way. Book now, 30/-.

"Mathematics of Radio," by Rider, 13/3.

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Wellington.

the eliminator. Have it tested by a reliable dealer. It may be that the valve is at fault.

NU OHUM (Havelock North).—Is it possible for an amateur to build a shortwave adapter for an all-wave electric set? Where could the circuit and layout be obtained?

A.: The most suitable adapter would be a super het. One of the type described in the 1931 "Radio Guide." See the article on shortwave adapters in this month's "Radio Log."

2. Can one get particulars of the "Radio Crystal Set?"

A.: This set was described in the 1930 "Radio Guide."

R. E.C. (Raetihi).—Could you give a brief description of the Beverage aerial?

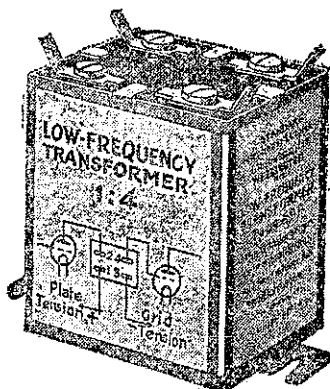
A.: A Beverage aerial consists of a wire about 400 yards long, slung about ten feet above the ground just clear of stock, etc. The wire is not necessarily stranded wire and can be ordinary galvanised iron wire. The distant end must be earthed to a 750 ohms resistance.

2. What are the chief advantages of a Beverage aerial?

A.: The signals are brought in louder than they are on the average aerial. It is strongly directional and the end which is earthed must point toward the stations which are to be supplied.

3. Can you supply information or feature an article for the construction of a shortwave converter?

A.: See the reply to the above correspondent. A complete description of the



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A.18.32

Fixed Condensers

Test and Working Voltages

This week we deal with the third question in Section B of the Radio Serviceman's Examination. The question reads: "A fixed condenser is marked tested 500 volts d.c. State the highest voltages you would apply to it for continuous working (a) in a battery-operated amplifier; (b) if coupled across an a.c. circuit. Explain how you would arrive at these values."

THE question does not call for a treatise on condensers. It asks for a simple fact which every serviceman should know. Condensers are tested, unless otherwise stated, by the flash method, which means that a high potential is flashed across the condenser. Some of the better known makes of condensers are tested for a few seconds at this high voltage, but this is not the potential at which the condenser is designed to operate and for normal purposes; one must take half the test voltage as the working voltage. Thus, in this case, one would not apply more than 250 volts to the condenser for safe working.

Much depends upon the position the condenser will occupy in the amplifier. If used in an output filter there is a chance that higher voltages will be built up through the loudspeaker circuit. If a power valve employing 250 volts on the plate were used in the last stage, it would be unwise to associate with the output filter a condenser tested at 500 volts. It would be better to use a higher test condenser or limit the voltage to 200.

B. In an a.c. circuit conditions are somewhat different. The voltage shown on an a.c. meter is not the total voltage across the circuit. This voltage shown is known as the r.m.s. and is the average one, but owing to the nature of alternating current there is a peak voltage, which is 1.414 times the r.m.s. voltage, and this we must allow for in designing the circuit. If the safe working margin of the condenser is 250 the peak value of the current must not exceed this figure. If we applied mathematics to the problem it would be found that r.m.s. value is equal to .707 of the peak value and .707 of 250 is 175 approximately. Thus for continuous working in an a.c. amplifier no higher voltage than this should be used.

Where surges have to be allowed for, and they are not infrequent in a.c. operated amplifiers, a still lower value of working voltage must be taken. Surges are rarely more than 10 per cent. working voltages, and this brings the "safe" voltage down to about 150. It is unlikely, however, that this point was implied in the question.

Bereavage aerial appeared in the 1931 "Radio Guide" and in the "R.R."

CONSTANT READER (Gisborne).—My five valve screen grid set radiates. Can you tell me a good circuit that will not?

A.: A screen-grid set, unless it is very poorly designed, will not radiate. Are you quite certain your set is radiating? Do not listen to everything you are told. The "Radiogram Five" is not a radiating set.

A. 473 (Helensville).—Is it safe to disconnect the speaker of an all-electric set while using phones?

A.: You can disconnect the speaker voice coil but not the field, which is usually incorporated in the power pack. If, however, the field supply comes from a separate rectifier you will be quite in order to disconnect it entirely.

W. E.E. (P.N.).—A fortnight ago the speaker of my six-valve set started to heat although the tone and quality are splendid.

A.: It sounds as though you have a breakdown in the voice coil which is now passing more current than it is designed to do. You had better consult a radiotician who can soon tell you if there is anything wrong. Neglecting it may possibly cause more serious trouble.

2. What is the correct place for a pick-up jack in the set?

A.: Between the grid and cathode of the detector.

ABERDONIAN (Wellington).—Can I use a three-valve set with batteries? I am now using an eliminator.

A.: Yes, the set will operate quite satisfactorily on 120 volts "B."

2. If I decide to alter the set to a shortwave five-valve set, could this be

S625 (Invercargill).—I wish to use S625 with a shortwave detector having no audio stages following. What is the size of the condenser in my circuit?

A.: Approximately .0001—.00025.

2. Would I make the secondaries in accordance with the table in the "R.R." and experiment with these?—Yes.

3. Would the method of supply the h.t. to the S.G. and plate be, in your estimation, satisfactory.

A.: Yes; we think the method would be quite satisfactory, although it may be better to make the screen voltage variable and the plate voltage fixed.

J. E.H. (Marborough).—I have a battery set earthed to the water service to which also is earthed the telephone. When the telephone rings it can be heard in the speaker. Will this injure the set?

A.: No; but if you want to avoid the annoyance have a separate earth for the set—say a water pipe driven into the ground.

BIMBO (Rongotea).—Of the aerial you suggest the one 60 feet high at each end and 100 feet long is the best although you had better shorten the flat top, otherwise you may have selectivity trouble. 100 feet total length including the lead in is about all that is required for a modern eight valve set. Nevertheless try the big aerial by erecting it on halcyards so that it may be let down, and if it should cause the set to be unselective, you can let it down and put on longer spacing wires and so shorten it.

Useful Hints

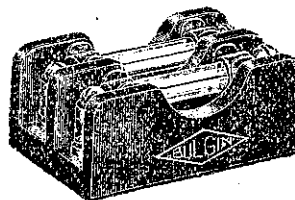
WHEN drilling ebonite remember that the drill will tend to wander unless, after the exact point has been marked, a centre punch is used to give the drill a start on the panel.

THE pentode valve used instead of an ordinary output valve will often give a pleasing "brilliance" to moving-coil loudspeaker reproduction.

IF you are using a screened set which has copper foil covering the baseboard, be sure to avoid creases and inequalities in its surface, as these are a fruitful cause of shorts.

DO not neglect the adjusting screw on your loudspeaker, as the exact distance of the permanent magnet from the diaphragm (controlled by this) is of great importance in getting maximum sensitivity.

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Trade Jottings

Mack's Addaphone

A RECEIVER which with the growing popularity of short-wave listening is in great demand is the "Addaphone," a short-wave receiver marketed by Mack's Radio Service, of Kent Terrace, Wellington.

It is claimed by Mr. G. McCarthy, designer of the "Addaphone," that nowhere in the world is the principle on which the set works remotely suggested—let alone reduced to a commercial success. It may be obtained in two, three, and four-valve models. It is not an adaptor, but may be operated either independently or in conjunction with any set, a.c. or d.c.

Many "Addaphone" owners claim consistent loudspeaker reception from stations in Europe, England, and America.

Jottings

DO not run an aerial wire close to a wall or a ceiling for a greater distance than is absolutely necessary.

IF you use a "B" eliminator you should always switch this off when you switch the set off, and not rely on the on-off switch of the set to break both circuits.

A money back guarantee covers every purchase

Crosley Merola Pick-up with Volume Control.

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Philips B443 Valves.

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Battery Cables—5-wire

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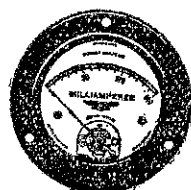
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Radio Serviceman's Examination

The Question Paper

IN response to requests, we are publishing the question paper set in the recently held Radio Serviceman's Examination. Prospective candidates of future examinations will no doubt be interested to prepare answers and compare with our versions as they appear from week to week. In section B we have dealt with questions 1 and 2 and this week discuss 3.

Time allowed: 3 hours.

The candidate must answer all questions in Section A, and at least four in Section B.

Section A:

1. What are the points to observe when connecting up a three-pin plug to connect a radio outfit to the electrical supply?
2. If on connecting a radio set to the electrical supply you find there is no current at the set, what steps would you take to locate the cause?
3. How would you find out the Phase, Neutral and Earth terminals on a three-pin plug socket?
4. With regard to flexible cords between the wall socket and the radio set—
 - (a) What are the standard regulation colours for the live conductor, the neutral conductor and the earthing conductor in a three-core flexible cord?
 - (b) State how you would lengthen a flexible cord.
 - (c) State how you would install a flexible cord between a wall socket fixed on the skirting and a radio set situated against the same wall but 10ft. away.
 - (d) Describe the kind of insulating material used on flexible cords.
 - (e) Do the wiring regulations permit the use of twin twisted flexible cord for radio sets?
 - (f) What class of covering is necessary where the cord is subject to hard usage?

SECTION B.

1. Sketch and give details of a complete outdoor aerial-earth system showing the types and sizes of wire, stating any precautions you would take regarding electric power wires.
2. An owner complains that the loudspeaker of his set will not handle a reasonable volume without distorting. Explain how you would go about curing the trouble—
 - (a) In the case of a battery operated set with magnetic speaker.
 - (b) In the case of a mains-operated set with dynamic speaker.

3. A fixed condenser is marked "Tested 500 volts D.C." State the highest voltages you would apply to it for continuous working.
 - (a) In a battery operated amplifier.
 - (b) If coupled across an A.C. circuit. Explain how you would arrive at these values.
4. Sketch the circuit diagram of a modern power pack, employing full wave valve rectification.
5. You are called in to an A.C. set with a dynamic speaker and a gramophone. A bad A.C. hum is spoiling reception. Detail the steps you would take to check up the source and cure this hum.
6. A 4 m.f.d. section of a power pack filter condenser is "blown." The voltage across it is 325, and the only condensers available are "250 volt D.C. working" of 4 m.f.d.'s capacity. Show how these could be used for the repair.

Tips and Jottings

THE liquid in an accumulator should always be kept at the level recommended by the makers, which is generally at least a quarter of an inch above the top of the plates.

IT is not safe to assume that a set will not interfere with your neighbours because it is a one-valver, for as a matter of fact it is very often the one-valve set which causes so much interference with other people's programmes.

Blue Glow in Pentodes

Proof of Quality

A STATEMENT issued by the Cable Radio Tube Corporation, Brooklyn, N.Y., denies the assertion that the blue glow in pentodes is proof of poor quality—rather is it the reverse. The statement reads:

There seems to be some considerable misunderstanding in regard to what should be the appearance of the Pentode type of valve. We have had a number of correspondents state that the Pentode type has the appearance of having gas, as evidenced by a blue glow, and in consequence there was some doubt as to the quality.

We want to remove any misconception of this gaseous content in the Pentode valve. This phenomenon is not gas, but a cathode ray bombardment of the glass, and is proof of high quality.

This condition is caused by the electrons passing through the grid either above or below the plate, receiving an accelerating energy from the plate, but not being stopped by it, then striking the glass and causing the getter deposits on the glass to fluoresce with a blue colour.

This phenomenon is only present in valves which are gas-free, as a slight trace of gas disperses the electrons in such a manner that their energy and path is not concentrated enough to produce this effect.

One must bear in mind that the phenomenon caused by the bombardment is proof of a gas-free valve. It appears only on the surface of the glass and not throughout the bulb. The real gas glow is most in evidence immediately surrounding the plate, between the filament and plate, or sometimes filling the whole bulb volume. When this phenomenon is not present in the Pentode it is an indication of poor quality, not the reverse.

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Feature Peeps

At

Future Programmes

SUNDAY

From 1YA

FOLLOWING on the relay of the Pitt Street Methodist Church service, where the Rev. W. Walker will preach, with Professor W. A. Moor as organist and choirmaster, 1YA will broadcast a concert to be given in Albert Park by the Municipal Band.

2YA Notes

THE Rev. L. J. Boulton-Smith will be the preacher in the Vivian Street Baptist Church when the service will be broadcast. A studio concert by the Wellington Municipal Tramways Band will follow, with assisting vocalists. Cello solos by George Ellwood will consist of a series of national dances—Hungarian, Polish and Spanish.

Items from Christchurch

THE evening service in St. Mary's Anglican Church, Merivale,

Christchurch, will be broadcast. The Rev. G. W. Dent will be the preacher, with Dr. T. L. Crooke at the organ.

Of special interest on the studio concert programme will be a recital by Rex Harrison, the well-known baritone.

Contralto songs will be contributed by Mrs. R. J. Jamieson. On the instrumental side will be the Studio Orchestra, under Harold Beck.

4YA Notes

THE service to be conducted in Hanover Street Baptist Church by the Rev. Tuckwell will be broadcast. Mr. H. P. Desmoulins will be the choirmaster. A relay of 3YA's studio programme will follow.

MONDAY

Notes from Wellington

THE concert will be mainly of a classical nature, but a number of

popular old favourites will be introduced. The vocal programme will be exceptionally good. The solos by Mrs. A. P. Truda, Mary Bald and Oswald McGuinness can be looked forward to, and the same three artists, along with Mr. Stanton, will form a fine quartet. The records will include a vocal duet by the renowned Gigle and Luca. Pianoforte recitals will be contributed by Alice E. Law,

FEATURETTES

Rex Harrison

3YA, Sunday.

Choral Society

4YA, Tuesday.

"Maid of the Mill"

4YA, Wednesday.

"Breaking the Ice"

2YA, Thursday.

clude two favourites, "On the Road to Mandalay" and "The Two Grenadiers." Christina Young will be heard in four contralto solos, and musical sketches will be presented by Mrs. John Hastings.

Items from Dunedin

THE Dunedin Choral Society, under Alfred Walmesley, assisted by Madame Reggiardo's Instrumental Sextet, will provide the programme.

The choral numbers will include "Hail, Gift of Song," "Epilogue" (from "Caractacus"), "Hear My Prayer," "See the Conquering Hero Comes," "Be Not Afraid," "Hallelujah Chorus," and "Thanks Be to God."

WEDNESDAY

1YA Selections

THE speaker for the W.E.A. session will be the Rev. W. Jellie, who will continue his talks on "Literature and Life." On the evening's concert programme will appear the Mounce Sisters in a series of popular songs: "Sweet Jennie Lee," "Indiana Sweetheart," "Button Up Your Overcoat," and "It Goes Like This."

Kathleen Mulqueen and Len Barnes will present the song cycle "On the River," and they will also be heard in the duet "The Day is Done." Hawaiian numbers will be played by the Waikiki Trio, and the Watters Duo (saxophone and piano) will entertain with novelty numbers. At 8.47 Mr. Arthur Ross will talk on "The Origin of Certain Popular Superstitions and Customs."

2YA Topics

FROM noon race results at Trentham will be broadcast, and at 7.40 Mr. A. E. Wilson speaks on "Tourist and Holiday Resorts." The evening's programme will comprise recorded music, vocal and instrumental. At 9 o'clock Dr. Guy H. Scholesfield, O.B.E., will deliver his weekly lecturette.

Broadcast from Christchurch

PLAYING "Le Seigneur de Kernor," the Studio Orchestra will open the programme. Other numbers will be "The Doll's House" suite, Finck's "Song of My Heart," "A Street in Algiers," and "Waltz of the Flowers." Lottie Colville (soprano), Myra Sutton (contralto), and Percy Nicholls (tenor) will be the vocalists in a bright and varied programme.

Notes from Dunedin

THE concert presentation by Alfred Walmesley and Dr. V. E. Galway,



LESLIE FLEMING,

a popular Christchurch bass, who will next appear from 3YA on January 18.

and the 2YA Orchestrina, under Signor A. P. Truda, will add its share to the evening's melody.

Christchurch Jottings

A PROGRAMME by the Woolston Band (conductor, R. J. Estall) will be broadcast. In view of the approaching contest in Wellington the band is at the top of its form and has arranged an excellent programme.

From 4YA

THE programme will consist entirely of selected recorded items.

TUESDAY

Features from 1YA

THE Rev. W. Monckton, M.A., will continue his series of talks on "Present Day Problems" during the W.E.A. session. A half-hour recital of recorded operatic numbers (vocal and orchestral) will follow a programme of popular items.

Jottings from Wellington

LISTENERS should find entertaining a noteworthy bass-baritone, Trevor Thomas, whose solos will in-

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Quaker Var. Condensers. Were 8/6. Now, any size, 6/-
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Automatic Switches for eliminators and trickle chargers. Were 21/-. Now 10/-
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DIALS.

Bakelite 4in. Were 2/-. Now 1/6
Bakelite 3in. Were 1/6. Now 1/3
Bakelite 2in. Were 1/3. Now 1/-

COILS AND BASES.

6-Pin Coil Bases. Were 3/3. Now 2/-
6-Pin Coil Formers. Were 4/-. Now 3/-
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of Schubert's delightful song cycle, "The Maid of the Mill," will be featured.

THURSDAY

Gleanings from 1YA

MR. E. BLAIR will continue his series of W.E.A. talks on "Art and Craft on the Amateur Stage." The Chamber Orchestra, under Harold Baxter, will contribute to the concert, on which will appear the Black-Purdy Duo in whistling solos and songs at the piano. The Tye Sisters will be heard in mezzo-soprano and piano solos.

Wellington Features

THE Salvation Army Silver Band will provide the major portion of the concert. On the vocal side there will be items by Evelyn Robinson (contralto) and Mr. T. C. Wood (bass-baritone) both singing favourite songs.

A one-act comedy, "Breaking the Ice," will be presented by Clement May.

3YA Topics

THE story of the Garden," told in dialogue, will be continued by Messrs. Wiltshire and F. C. Fairclough.

The concert will be of the classical-operatic order, to be followed from 9.30 till 11 by a session of dance music, provided by Peter Bryson's Old Time Dance Band.

FRIDAY

Selections from 1YA

LEE FORE BRACE," teller of sea stories, will be one of the entertainers on the evening's programme. He will take as his theme, "Are There Sea Serpents?"



ALFRED WALMSLEY,

who will conduct the special concert given by the Dunedin Choral Society, assisted by Madame Reggiardo's Sextet, on January 19.



MATI TRIO.

The popular 1YA Hawaiian instrumentalists, to be heard from 1YA on January 22.

—S. P. Andrew, photo.

The Mati Trio, presenting some of the latest hits, the Salon Trio, in vocal and instrumental numbers, Roy Brinden playing the xylophone, and Roger Errington in tenor solos will appear on the programme.

Topics from Wellington

FOLLOWERS of cricket will be interested in the talk to be given at 7.40 by C. S. Dempster on his cricket reminiscences.

The vocalists for the concert will include Amy Dunne (soprano) and Claude Moss (baritone). Berthold and Bent, guitar duo, will play some popular airs, and the Orchestrina's programme will also be of a bright nature. At 9 o'clock Mr. Arthur Cone will tell of his experiences in the United States and Alaska.

3YA Items

The programme will be of a miscellaneous nature, featuring Mrs. Wilfred Andrews, the well-known Wellington contralto.

4YA Jottings

A CONCERT by the Dunedin Orchestral Society, under Alfred Walmsley, will be broadcast.

SATURDAY

Selections from Auckland

DURING the evening's programme there will be as usual a broadside relay from Western Springs Stadium.

Wellington Numbers

FROM noon, results of the third day of the W.R.C. meeting will be broadcast. In the evening a Scottish

there and hear them play on their ukuleles and steel guitars and sing us choruses; and as we went once before it will be easy to find our way about.

Saturday.—You all remember Prince Koyoto? Well, Cousin Mary is bringing him and some little Japanese children on a visit to New Zealand; and Aunt Molly and Uncle Jasper have invited them to visit the 2YA studio during the children's session this evening, and will entertain them at afternoon tea and show them all over the studio. Perhaps the little Japanese children will sing to you.

Sunday.—To-night we are to have the combined children's chorus from St. Giles' Presbyterian Churches of Lyall Bay and Kilbirnie, under the leadership of Mr. Crawford and Mr. Littlejohn. Uncle George will conduct the service.

Technical Tips

KEEP your switch contacts clean, for crackles, scratching noises and poor reception are all liable to be caused by dirty switches.

NEVER attempt to run a lead-in wire (even although it is insulated) through a metal grille, as sometimes fitted over a doorway for ventilation, because if you do this a large proportion of the incoming signal strength may leak away through the insulation to earth.



GEO. TITCHENER,

a very popular entertainer at 3YA. Mr. Titchener will again delight many listeners on January 20.

—Steffano Webb, photo

Children's Sessions

Monday.—To-night Uncle Jeff is taking Kipling Lady to see the new floating dock, and they will tell you all about it, so when you come to Wellington you will be able to be your own guides. There will also be choruses and birthday greetings, not forgetting Uncle Jeff's weekly puzzle.

Tuesday.—We are to have nursery rhymes to-night as Jumbo is conducting the session, and he knows them all and loves them. There will also be a scene from "Little Lord Fauntleroy," and then Jumbo will tell you jungle stories and send birthday greetings.

Wednesday.—Aunt Daisy and her "Cheerful Chirpers" this afternoon with some fresh community songs. Aunt Daisy will have some true stories for you, besides birthday greetings as usual.

Thursday.—Uncle George and Big Brother Jack are taking you in a launch down the Wanganui River, and there should be time for lots of fun and games on the way; and also for choruses about "In a Canoe" and "Bunny's Adventure."

Friday.—Aunt Pera will be here this evening to take Uncle Jim and the Radio Children to Samoa. It will be fun to meet the little children

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Sunday, January 17

1YA, AUCKLAND (875 KILOCYCLES)—SUNDAY, JANUARY 17.

- 3.0 : Selected recordings and literary selection.
6.0 : Children's song service, conducted by Uncle Leo.
7.0 : Relay of service from the Pitt Street Methodist Church. Preacher, Rev. W. Walker; Organist and Choirmaster, Professor W. A. Moor.
8.30 : Relay of Municipal Band Concert from Albert Park. Conductor, Mr. George Buckley.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JANUARY 17.

- 3.0 : Chimes. Selected recordings.
6.0 : Children's evening song service, conducted by Uncle George and assisted by the children's choir from Newtown Church of Christ, under the leadership of Mr. Thomas.
7.0 : Relay of evening service from Vivian Street Baptist Church. Preacher, Rev. L. J. Boulton-Smith; Organist and Choirmaster, Mr. Charles Collins.
8.15 (approx.): Studio concert by Wellington Municipal Tramways Band and 2YA artists.
Band—March, "When the Guards are on Parade" (Nicholls). Hymn, "Fierce Raged the Tempest." Selection, "Maritana" (Wallace).
Tenor—Mr. Arthur Clark, (a) "Skye Fisher's Song"; (b) "A Hebridean Riever's Song"; (c) "A Fairy's Love-Song."
Contralto—Isabel Robertson, (a) "Nearer, My God, to Thee" (Carey); (b) "God's Garden" (Lambert).
Band—(a) Characteristic "March of the Manikins" (Fletcher). (b) "Always the Same Sweet Pal" featuring Bandsman Brown (flexatone) and Bandsman Michell (xylophone).
Baritone—Ernest Glading, (a) "Song of the Torrent" (Mallinson); (b) "Lord Randall" (arr. Cyril Scott).
Weather report and station notices.
Cello—George Ellwood, (a) "Minnetto" (Becker); (b) "Scherzo" (Van Goens); (c) "The Swan" (Saint Saens); (d) "Arlequin" (Popper).
Tenor—Mr. Arthur Clark, (a) "The Troutling of the Sacred Well"; (b) "Heart o' Fire Love"; (c) "An Island Shelling Song."
Band—(a) Tone Poem, "Finlandia" (Sibelius); (b) Celebrated Quartet from "Rigoletto" (Verdi).
Contralto—Isabel Robertson, (a) "Remember" (Landon Ronald); (b) "Ships that Pass in the Night" (Wilkinson-Stevenson).
Baritone—Mr. Ernest Glading, "Border Ballad" (Cowen).
Band—Waltz, "Viennese Nights" (Strauss); "Prelude" (Rachmaninoff); March, "Stars and Stripes" (Souza).
10.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JANUARY 17.

- 3.0 : Gramophone recital.
4.25 : Sports results.
5.30 : Children's song service by children of Anglican Sunday Schools.
6.15 : Chimes.
6.30 : Musical recordings.
7.0 : Relay of evening service from St. Mary's Anglican Church, Merivale. Preacher, Rev. G. W. Dent. Deputy-organist, Dr. T. L. Crooke.
8.15 : Orchestral—Studio Orchestra (Conductor, Mr. Harold Beck), "Zampa."
8.23 : Contralto—Mrs. R. F. Jamieson, (a) "Ashoo at Her Lattice" (from "Jhelum River") (Woodforde-Finden); (b) "Along the Road of Dreams" (Brown).
8.29 : Violin, Cello and Piano—Miss Gladys Vincent, Mr. Francis Bate and Miss Doreen Daly, from Double Concerto in A Minor—"Allegro."
8.37 : Record—De Reske Singers, "Tis Me, O Lord."
8.40 : Violin—Miss Gladys Vincent, "2nd Movement 2nd Concerto in D Minor"
8.44 : Baritone—Rex Harrison, (a) "God is Our Refuge" (Stephens); (b) "The Mother Ship" (Paul Edmonds); (c) "Slow, Horses, Slow" (Mallinson); (d) "A Song of Thanksgiving" (Allitsen).
8.59 : Orchestral—Studio Orchestra, (a) "Egyptian Dance" (Ansell); (b) "Edelweiss Gavotte" (Trouble); (c) "Gnomes' March" (Ketelbey).
9.7 : Weather report and station notices.
9.9 : Violin, Cello and Piano—Miss Gladys Vincent, Mr. Francis Bate and Miss Doreen Daly, from Double Concerto in A Minor—(a) "Andante," (b) "Vivace non Troppo" (Brahms).
9.19 : Record—Choral—The Gresham Singers, "The Shepherdess."
9.23 : Orchestral—Studio Orchestra, "The Old Ballet" (Massenet).
9.32 : Contralto—Mrs. R. F. Jamieson, Songs from Memory Land—(a) "That Hour With You"; (b) "All Roads Lead Home" (Tait).
9.39 : Cello—Mr. Francis Bate, (a) "Ave Maria"; (b) "Gavotte No. 5."
9.45 : Record—Le Scala Chorus, "Va Pensiero Sull'Alti Doreale" (Verdi).

- 9.53 : Orchestral—Suit Orchestra, "Vienna Life" (Strauss).
10.3 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JANUARY 17.

- 3.0 : Chimes. Selected recordings.
5.30 : Children's song service, conducted by Big Brother Bill.
6.15 : Instrumental recordings.
6.30 : Relay of evening service from the Hanover Street Baptist Church. Preacher, The Rev. Mr. Tuckwell. Choirmaster, Mr. H. P. Desmoullins.
7.45 : Instrumental recordings.
8.15 : Relay of concert programme from 3YA, Christchurch.
10.0 : God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—SUNDAY, JANUARY 17.

- 7.30 to 8.15 : Church relay.
8.15 to 10.0 : Studio concert.

Monday, January 18

1YA, AUCKLAND (875 KILOCYCLES)—MONDAY, JANUARY 18.

SILENT DAY.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, JANUARY 18.

- 10.0 : Chimes.
11.12 : Lecturette—"Fashions."
12.0 : Lunch-hour music.
2.0 : Selected recordings.
3.30 and 4.30 : Sporting results.
5.0 : Children's session, conducted by Uncle Jeff.
6.0 : Dinner music session.
7.0 : News session.
7.40 : Talk—Mr. H. C. South, "Books—Grave and Gay."
8.0 : Record—Overture, Berlin State Opera House Orchestra, "Academic Festival" (Brahms).
8.8 : Tenor—Mr. Oswald McGuinness, (a) with violin obbligato, "Ave Maria" (Kahn); (b) "Just for To-day" (Seaver).
8.15 : Pianoforte recital—Miss Alice E. Law, (a) 1. "Consolation"; 2. "Spring Song"; 3. "Spinning Song," from "Songs Without Words" (Mendelssohn); (b) "Andante and Rondo Capriccioso" (Mendelssohn).
8.30 : Soprano—Mrs. A. P. Truda, (a) "Valzer Rosa" (Cimara); (b) "Des Reves" (Dreams) (Hurlstone).
8.36 : 2YA Orchestra—Selection, "Pagliacci" (Leoncavallo).
8.46 : Record—Vocal Duet, Beniamino Gigli, tenor, and Giuseppe de Luca, baritone, (a) "In the Depths of the Temple" (Bizet); (b) "Enzo Grimaldo, Prince of Santafior" (Ponchielli).
8.54 : Contralto—Miss Mary Bald, with orchestral accompaniment, (a) "Soul of Mine" (Barnes); (b) "I Pitch My Lonely Caravan" (Coates).
9.0 : Weather report and station notices.
9.2 : Quartet—Mrs. A. P. Truda, Miss Mary Bald, Mr. Oswald McGuinness, Mr. Stanton, "Agnus Dei" (Cesar Franck).
9.6 : Piano—Miss Alice E. Law, (a) "Prelude in E Minor"; (b) "Air and Variations"; (c) "Scherzo in E Minor" (Mendelssohn).
9.22 : Tenor—Mr. Oswald McGuinness, with orchestral accompaniment, "Come Into the Garden, Maud" (Balfe).
9.26 : Contralto—Miss Mary Bald, (a) "Two Sisters of Binnorie" (Arthur Somervell); (b) "Invitation to Arise" (Graham Peel).
9.31 : 2YA Orchestra, (a) "Awakening of Spring" (Bach); (b) "Toreador and Andalouse" (Rubenstein).
9.39 : Record—Violin, Tossy Spiwakowsky, (a) "Caprice XX" (Paganini-Kreisler); (b) "Tambourin Chinois" (Kreisler).
9.47 : Soprano—Mrs. A. P. Truda, (a) "Serenata" (Drigo); (b) "Avucchella."
9.52 : 2YA Orchestra, (a) "Minuet" (Paderewski); (b) "Dance Kuyawiak."
10.0 : Programme of dance music.
11.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, JANUARY 18.

- 3.0 : Gramophone recital.
4.25 : Sports results.
5.0 : Children's hour.
6.0 : Dinner music session.
7.0 : News and reports.
8.0 : Chimes. Band programme by Woolston Band (under Conductor R. J. Estall) and assisting 3YA artists.
Band, (a) March, "Torchlight" (Mays); (b) Overture, "Raymond".

Week-all Stations-to Jan. 24

[Copyright.—These programmes are copyright, but individual daily programmes may be published on day of performance.]

- 8.11: Mezzo-soprano—Miss Adele Wellard-King, "She Wandered Down the Mountain Side" (Clay).
 8.16: Instrumental Trio—"Melodies Mignonnes" (Sinding).
 8.21: Record—Henson and Male Quartet, "Tell the Doctor" from "Funny Face."
 8.24: Trombone Solo—Bandsman E. Williams, "Quicksilver" (Sutton).
 8.30: Bass-baritone—Mr. Leslie Fleming, (a) "A Dinder Courtship" (Coates); (b) "The Sea Road" (Wood).
 8.36: Record—Clapham and Dwyer, "Buying a House."
 8.39: Band—Waltz, "Pagan Love Song" (Brown).
 8.44: Soprano solo—Miss Freda Judkins, (a) "Were I a Bird" (Logan); (b) "The Fairies Dance" (Head).
 8.49: Instrumental Trio—"Rondo" (Schubert).
 8.59: Record—Henson and Howard, "A Few Drinks."
 9.2: Weather forecast and station notices.
 9.4: Band—Intermezzo, "Serenata" (Toselli).
 9.11: Mezzo-soprano—Miss Adele Wellard-King, (a) "Springtime" (Schumann); (b) "The Lotus Flower" (Schumann).
 9.16: Record—Cello, G. Cassado, (a) "Apres un Reve"; (b) "Evening Song."
 9.22: Bass-baritone—Mr. Leslie Fleming, "All Souls' Day" (Lassen).
 9.25: Record—Chelsea Singers, "Sigh No More, Ladies."
 9.28: Instrumental Trio—(a) "Swedish Folk Song" (Svendson); (b) "Mazurka" (Malling).
 9.32: Record—Minstrel Show, Fireside Minstrels.
 9.33: Band—Humoresque, "The Coster's Courtship" (McKenzie).
 9.45: Soprano—Miss Freda Judkins, (a) "In Beauty Moulded" (Sandford); (b) "Phyllis" (Logan).

- 9.50: Band—Fantasia, "Sailors' Memories" (Hawkins).
 10.3: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, JANUARY 18.

- 3.0: Chimes. Selected gramophone recordings.
 4.30: Sports results.
 5.0: Children's session, conducted by Big Brother Bill.
 6.0: Dinner music session.
 7.0: News session.
 8.0: Chimes. Programme of recorded music.
 8.1: Overture—Royal Albert Hall Orchestra, "Tosca" selection.
 8.9: Soprano—Galli Curci: (a) Traviata, "Addio del Passato." (Act IV.) (Verdi); (b) Waltz, "Sempre Libera." (Act 1) (Verdi).
 8.15: Flonzaley Quartet—Quartet in D Minor (Mozart), (a) "3rd Movement. Menuetto-Allegretto"; (b) "4th Movement, Allegretto Ma Non troppo."
 8.21: Baritone—Mallia Battistini, (a) "O Santa Medaglia"; (b) "Allor Che Tu Coll'estro."
 8.27: Violin solo—Heifetz, (a) "Ave Maria"; (b) "On Wings of Song."
 8.33: Mayfair Orchestra—"Rose Marie" selections.
 8.39: Rosetta Pampanini and Chorus—(a) "There No One Cares to Own"; (b) "Here's to Our Love."
 8.45: J. H. Squire Celeste Octet—(a) "Intermezzo"; (b) "Opening Chorus."
 8.51: Tenor—Beniamino Gigli—(a) "Tombe Degli Avi"; (b) "Tu Che, a Dio."
 8.57: New Mayfair Orchestra—"A Musical Comedy Switch."
 9.3: Weather report and station announcements.
 9.5: Soprano—Elsie Suddaby—(a) "The Almond Tree" (English version); (b) "The Mocking Bird."
 9.11: Humorous—John Henry and Gladys Horridge, "John Henry's Tiger."
 9.17: The Trinity Glee Singers—"Plantation Songs Medley."
 9.23: Arthur de Grief and New Symphony Orchestra—"1st Movement Concerto in G Minor."
 9.29: Baritone—Peter Dawson, "Fiddler of Dooney"; "Song of the Highway."
 9.35: Light Opera Male Chorus with Orchestra—"Jolly Good Fellows Every One."
 9.41: Violin solo—Fritz Kreisler—(a) "Molly on the Shore"; (b) "Dance Oriental."
 9.47: Henry Rivers and Male Quartet—Selection "Lilac Time," parts 1 and 2.
 9.53: Band of the Royal Air Force—March, "Sons of Australia." March, "Sons of New Zealand."
 10.0: God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—MONDAY, JANUARY 18.

- 7.30 to 8.0: News and information.
 8.0 to 10.0: Studio concert.

Tuesday, January 19

1YA, AUCKLAND (875 KILOCYCLES)—TUESDAY, JANUARY 19.

- 3.0: Selected recordings and literary selection.
 5.0: Children's session, conducted by Uncle Dave.
 6.0: Dinner music session.
 7.0: News and market reports.
 7.30: W.E.A. session—Speaker, The Rev. W. Monckton, M.A., "Present Day Problems."
 8.0: Chimes. Spanish March, 1YA Chamber Orchestra, (Conductor, Mr. Harold Baxter), "Triana" (Lope). Overture—1YA, Chamber Orchestra, "Maritana" (Wallace).
 8.13: Tenor—Mr. J. Ainsley Daglish, (a) "Bonnie Wee Thing" (Fox); (b) "All Joy Be Thine" (Sanderson).
 8.19: Humour—Miss Rhona Speed, "The Landlady" (Anon).
 8.26: Suite—1YA Chamber Orchestra, "Indian Love Lyrics."
 8.36: Mezzo-soprano—Miss Doris Grant Cowen, (a) "The Fields are Full" (Gibb); (b) "The Moonlight" (Schumann).
 8.42: Humour—Mr. Dan Flood, (a) "Buck Answers" (Wilton); (b) "The Parson of Puddle" (King); (c) "The Auction of Life" (Lewis).
 8.53: Selection—1YA Chamber Orchestra, "Student Prince" (Romberg).
 9.1: Weather report and station notices.
 9.3: Tenor—Mr. J. Ainsley Daglish, (a) "Until" (Sanderson); (b) "Eleanore" (Coleridge-Taylor).
 9.9: 1YA Chamber Orchestra—Incidental music to "Othello."
 9.17: Humour—Miss Rhona Speed, "Simple Simon" (Anon).
 9.21: Mezzo-soprano—Miss Doris Grant-Cowen, (a) "My Garden" (Tschalkowsky); (b) "Only For Thee" (Tschalkowsky).
 9.26: Selection—1YA Chamber Orchestra, "The Rose" (Myddleton).
 9.32: Programme recorded operatic gems.

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Octet—J. H. Squire Celeste Octet, "Polonaise and Introduction et Romance" (Thomas).
Royal Opera Chorus and Orchestra, Covent Garden—"Coronation Scene and Polonaise" (Moussorgsky).
Concerted with Orchestra—Trio from Finale—"Der Rosenkavalier."
Berlin Philharmonic Orchestra—"Hungarian March" (Berlioz).

10.2 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, JANUARY 19.

10.0 : Chimes. Special gramophone recordings.
10.45 : Lecturette—"Fabrics and Fashions."
12.0 : Lunch-hour music.
2.0 : Selected recordings.
3.15 : Lecturette—Miss I. F. Meadows. Talk prepared by Home Science Extension Department, Otago University.
3.30 : and 4.30 : Sporting results.
5.0 : Children's hour, conducted by Jumbo.
6.0 : Dinner music session.
7.0 : News reports and sporting results.
7.40 : Lecturette by representative of the Agricultural Department, "For the Man on the Land."
8.0 : Chimes. Record—Overture, "The Bartered Bride" (Smetana).
8.8 : Bass-Baritone—Mr. Trevor Thomas, (a) "Myself When Young" (Lehmann); (b) "On the Road to Mandalay" (Speaks).
8.14 : Salon Orchestra (Conductor, Mr. M. T. Dixon)—Overture, "Glory of Russia" (Kreim).
8.22 : Musical sketch—Mrs. John Hastings, "Red Riding Hood" (Wynn).
8.27 : Record—Piano with Xylophone, Raie da Costa, (a) "Parade of the Minutes" (Myers); (b) "Blue Again" (McHugh).
8.33 : Contralto—Miss Christina Young, (a) "Tang" (Hill); (b) "Blue Bells" (Phillips).
8.39 : Salon Orchestra—(a) "The Sacred Hour" (Ketelby); (b) "Enchanted Valley" (Buculosi).
8.49 : Tenor—Mr. Les Stapp, (a) "Mignonette" (Harris); (b) "Sorter Miss You" (Clay-Smith).
8.55 : Record—The Troubadours, (a) "The Cute Little Things You Do"; (b) "Kiss Me Good-night, not Good-bye?"
8.59 : Weather forecast and station notices.
9.1 : Salon Orchestra—"L'Arlesienne Ballet" (Bizet).
9.10 : Bass baritone—Mr. Trevor Thomas, (a) "Some Crimson Rose" (Neighbour); (b) "The Two Grenadiers" (Schumann).
9.16 : Record—Violin, Fritz Kreisler, (a) "Chanson Louis XIII"; (b) "La Precieuse" (Couperin, arr. Kreisler).
9.22 : Musical Sketch—Mrs. John Hastings, (a) "It May be Life" (Herbert); (b) "Fair Warning" (Pease).
9.28 : Salon Orchestra—Two Transcriptions, (a) "Viennese Melody" (Kreisler); (b) "Wlegened" (Burmeister).
9.38 : Contralto—Miss Christina Young, (a) "Waltz Song" ("Tom Jones"), (German); (b) "The Crown" (Rae).
9.44 : Record—Wurlitzer Organ, "Maria My Own."
9.48 : Tenor—Mr. Les Stapp, (a) "When Mary Came" (Manley); (b) "Pale Moon" (Knight Logan).
9.54 : Salon Orchestra—(a) "Scarf Dance"; (b) "Air de Ballet" (Chaminade); latest dance novelties.
10.3 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, JANUARY 19.

SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, JANUARY 19.

3.0 : Chimes. Selected gramophone recordings.
4.30 : Sports results.
5.0 : Children's session, conducted by Big Brother Bill.
6.0 : Dinner music session.
7.0 : News session.
8.0 : Chimes. Special presentation by the Dunedin Choral Society, under the conductorship of Mr. Alfred Walmsley; assisted by Madame Reggiardo's Sextet.
The presentation by the Choral Society will include—"Hail, Gift of Song" (Wagner). "Epilogue" from "Caractacus" (Elgar). "Hear My Prayer" (Mendelssohn). "See the Conquering Hero Comes" (Handel). "Be Not Afraid" (Mendelssohn). "Hallelujah Chorus" (Handel). "Thanks Be To God" (Mendelssohn).
The instrumental numbers will include—"My Cinderella Girl" selection; "The Rose's Honeymoon" (Bratton); "The Gypsy's Wooing" (Trinkauss); "The Hoot Owl" (Gohnlein); March—"The Walk of the Fishers" (Bohnlein).
10.0 : God save the King.

6.0 : Dinner music session.

7.0 : News and market reports.

7.30 : W.E.A. session—Speaker, The Rev. W. Jellie, B.A., "Literature and Life."

8.0 : Chimes. Record—March, Band of His Majesty's Royal Horse Guards, "Knights of the King" (Ketelby).

8.5 : Song Cycle—Miss Cathleen Mulqueen and Mr. Len Barnes, "On Jhelum River" (Woodforde-Finden).

8.20 : Hawaiian Instrumental—Waikiki Trio. Trio, "Isle of Paradise" (arr. Ingall). Steel Guitar Solo, "The Rosary" (Nevin). Ukulele Solo, "Maui Girl" (Lilliborne).

8.29 : Popular Songs—The Mounce Sisters, (a) "Sweet Jennie Lee" (Donaldson); (b) "Indiana Sweetheart" (Hansen).

8.35 : Saxophone and Piano—The Watters Duo. Saxophone: "Trivoltous" (Sanelia). Pianoforte: "Kiddie Capers" (Shilkret). Saxophone: "Weidoeff's Rubato" (Lake).

8.47 : Talk—Mr. Arthur Ross, "The Origin of Certain Popular Superstitions and Customs."

9.2 : Weather report and station notices.

9.4 : Hawaiian Instrumental—Waikiki Trio, (a) "Lament of the Southern Seas" (arr. Ingall); (b) "Aloha Land" (Herzer); (c) "Kalima Waltz" (Awai).

9.14 : Popular Songs—The Mounce Sisters, (a) "Button Up Your Overcoat" (Henderson); (b) "It Goes Like This" (Friend).

9.20 : Saxophone and Piano—The Watters Duo. Pianoforte: "Body and Soul" (Green). Saxophone: "Krazy Kat" (Traumbauer).

9.26 : Vocal—Miss Cathleen Mulqueen and Mr. Len Barnes, "The Day is Done" (Loehr).

9.30 : Programme of dance music.

11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, JANUARY 20.

10.0 : Chimes. Selected gramophone recordings.

11.37 : Lecturette—"Hollywood Affairs."

12.0 : Racing results, first day Wellington Racing Club's summer meeting at Trentham.

2.0 : Selected recordings.

3.30 and 4.30 : Sporting results.

5.0 : Children's hour, conducted by Aunt Daisy.

6.0 : Dinner music session.

7.0 : News session.

7.40 : Lecturette—Mr. A. E. Wilson, "Tourist and Holiday Resorts."

8.0 : Chimes. Programme of recorded music.

8.1 : Overture—New Light Symphony Orchestra, "Madame Butterfly" (Puccini).

8.9 : Soprano—Margherita Salvi, (a) "The Mad Scene" (from "Lucia di Lammermoor") (Donizetti); (b) "Waltz Song" (from "Mirella") (Gounod).

8.17 : Viola—Lionel Tertis, (a) "Allegro Molto" (Mozart); (b) "Theme with Variations" (from "Sonata in A Major") (arr. Tertis).

8.25 : Vocal Gems—Light Opera Company, "Rose Marie" (Friml).

8.33 : Flute—Emil Prill, "Russian Carnival" (Ciardi).

8.41 : Vocal Duet—Michele Fleta, tenor, Florence Austral, soprano, "Final Duet from Aida," (a) "Presago il cor"; (b) "O Terra Addio."

8.49 : Instrumental—New Mayfair Orchestra, "A Musical Comedy Switch" (arr. Hall).

8.55 : Tenor—Richard Tauber, (a) "Your Heart is Mine Alone"; (b) "Nothing But Laughter" (from "The Land of Smiles") (Lehar).

9.3 : Weather report and station announcements.

9.5 : Lecturette—Dr. Guy H. Scholefield, O.B.E.

9.20 : Selection—Marek Weber's Orchestra, "The Beggar Student" (Millocker).

9.28 : Bass—Theodor Chaliapin, "Prologue" from "Mefistofele" (Boito).

9.36 : Violin—Fritz Kreisler, (a) "Rosamunde"—Ballet Music (Schubert, arr. Kreisler); (b) "Larghetto" (Weber, arr. Kreisler).

9.42 : Tenor—Carl Martin Oehmann, (a) "Beloved, Govern Your Wrath"; (b) "Cobbling Song" (Wagner).

9.48 : Instrumental—Squire Celeste Octet, "Introduction et Romance" (from "Mignon") (Thomas, arr. Robertson).

9.56 : Vocal Gems—Light Opera Company, "Sunny."

10.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, JANUARY 20

3.0 : Gramophone recital.

4.25 : Sports results.

5.0 : Children's hour.

6.0 : Dinner music session.

7.0 : News and reports.

7.30 : Addington stock market reports.

8.0 : Chimes. Overture—Studio Orchestra, "Le Seigneur de Kermor" (Gabriel Marie).

8.8 : Soprano—Miss Lottie Colville, (a) "Follow the Fairies" (Baumer); (b) "Yung Yang" (Chinese poetry) (Bantock).

8.13 : Record—Arcadia Orchestra, "Sunbeams and Shadows."

8.17 : Tenor—Mr. Percy C. Nicholls, (a) "For You Alone" (Geehl); (b) "Vale" (Kennedy Russell).

8.23 : Banjo Duo—Messrs. J. N. Havord and M. George, "Stein Song" (Colcord).

8.28 : Humour—Mr. Geo. Titchener, (a) "Zoologie" (Rickards); (b) "For Months and Months and Months" (Smiles).

Wednesday, January 20

1YA, AUCKLAND (875 KILOCYCLES)—WEDNESDAY, JANUARY 20.

3.0 : Selected recordings and literary selection.
5.0 : Children's session, conducted by Uncle Reg.

- 8.37: Suite—Studio Orchestra, "The Doll's House" (Engleman). (a) The Blue Boudoir; (b) The Miniature Piano; (c) The Sleeping Doll; (d) The Clockwork Two-seater.
- 8.48: Contralto—Miss Myra Sutton, (a) "If There Were Dreams to Sell" (John Ireland); (b) "My Irish Daddy Knows" (Haydn Wood).
- 8.52: Record—Unity Quartet, "There's a Tramp, Tramp."
- 8.56: Songs at the piano with banjolele—The Rose and Thistle Duo, (a) "Who Do You Miss?" (Garland); (b) "Tiptoe Thro' the Tulips" (Dubin).
- 9.5: Weather report and station notices.
- 9.7: Studio Orchestra—"Song of My Heart" (arr. Hermann Finck).
- 9.15: Soprano—Miss Lottie Colville, (a) "A Young Girl's Song" (Phillips); (b) "The Answer" (Terry).
- 9.20: Record—Violin—Szigiti, "Zephyr."
- 9.23: Tenor—Mr. Percy C. Nicholls, (a) "Questa O Quella" (Verdi); (b) "La Donna e Mobile" (Verdi).
- 9.29: Banjo Duo—Messrs. J. N. Havord and M. George, (a) "Following You" (arr. Bloy); (b) "Here We Ain't" (arr. Bloy).
- 9.36: Humour—Mr. Geo. Titchener, (a) "The Nasty Way He Sez It" (Ingle).
- 9.40: Record—Piano Solo—Una Bourne, "November" (Palmgren).
- 9.43: Contralto—Miss Myra Sutton, (a) "Hawthorn" (Brake); (b) "A Last Farewell" (Kennedy Russell).
- 9.48: Record—Happiness Boys, "Where Did You Get That Name?"
- 9.51: Record—Virtuoso String Quartet, "Molly on the Shore."
- 9.54: Songs at the piano, with banjolele—The Rose and Thistle Duo, (a) "If You Want the Rainbow" (Dixon); (b) "A Year from To-day" (Jolson).
- 10.0: Studio Orchestra—Characteristic, (a) "A Street in Algiers" (Ansoll); (b) "Waltz of the Flowers" (Tschalkowski).
- 10.7: God save the King.

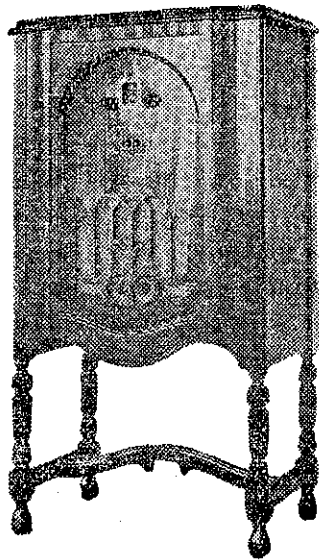
4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, JANUARY 20.

- 3.0: Chimes. Selected recordings.
- 4.30: Sports results.
- 5.0: Children's session, conducted by Big Brother Bill.
- 6.0: Dinner music session.
- 7.0: News session.
- 8.0: Chimes. Concert presentation by Mr. Alfred Walmsley and Dr. V. E. Galway of Schubert's delightful song-cycle, "The Maid of the Mill."
- 9.30: Dance session.
- 11.0: God save the King.

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2YB, NEW PLYMOUTH (1230 KILOCYCLES)—WEDNESDAY, JAN. 20.

- 7.30 to 8.0: News and information.
- 8.0 to 10.0: Studio concert.

Thursday, January 21

1YA, AUCKLAND (875 KILOCYCLES)—THURSDAY, JANUARY 21.

- 3.0: Selected recordings and literary selection.
- 5.0: Children's session, conducted by Skipper.
- 6.0: Dinner music session.
- 7.0: News and market reports.
- 7.30: W.E.A. session—Speaker, Mr. E. Blair, "Art and Craft on the Amateur Stage."
- 8.0: Chimes. March—1YA Chamber Orchestra (Conductor, Mr. Harold Baxter), "Night and Light" (Lankien). Fantasia—"Glory of Russia" (Krein).
- 8.13: Whistling and Vocal—The Black-Purdy Duo. Song at the piano: "Carry Me Back to Old Virginny" (Bland). Whistling Solo, "The Skaters" (Waldteufel).
- 8.19: Record—Humour—Will Kings, "Bertram at the Rotary Dinner."
- 8.23: Vocal and Piano—The Tye Sisters. Mezzo-soprano, "Fair Spring is Returning" (Saint-Saens). Pianoforte, "Rhapsody in C" (Dohnanyi). Mezzo-soprano, "Little Chinese Mandarin" (Phillips).
- 8.32: Selection—1YA Chamber Orchestra, "Katinka" (Friml). Waltz, "Elfentanz" (Lehar).
- 8.43: Popular Songs—Miss Eileen Smithson, (a) "Bridge of Dreams" (Keatings); (b) "Waltz Huguette" (Friml).
- 8.49: Record—Humour—Sir Harry Lauder, "The Message Boy" (Lauder).
- 8.52: Selection—1YA Chamber Orchestra, Ballet Music from "Manon" (Massenet).
- 9.2: Weather report and station notices.
- 9.4: Whistling and Vocal—The Purdy-Black Duo. Whistling, "Il Bacio" (Arditi). Song at the piano, "Caro Mio Ben" (Giordani). Whistling and vocal duet, "La Golondrina" (arr. Black).
- 9.13: Record—Mandolin Orchestra—Mandolin Concert Society, "Echoes of the Volga" (Ritter).
- 9.21: Vocal and piano—The Tye Sisters. Mezzo-soprano, "Yesterday and To-day" (Spross). Pianoforte, "The Sea" (Palmgren). Mezzo-soprano, "A Blackbird's Song" (Sanderson).
- 9.30: Record—Humour—Will Kings, "Bertram Addresses the Tenants" (Rutherford).
- 9.34: Selection—1YA Chamber Orchestra, "Spanish Suite" (Barbot).
- 9.42: Popular Songs—Miss Eileen Smithson, (a) "Someday" (Friml); (b) "Have a Little Faith in Me" (Warren).
- 9.48: Record—Musical Comedy—Columbia Light Opera Company, "The Merry Widow" (Lehar).
- 9.56: March—1YA Chamber Orchestra, "Electric Girl" (Holmes).
- 10.0: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, JANUARY 21.

- 10.0: Selected gramophone recordings.
- 10.45: Lecture—"Cooking."
- 12.0: Lunch-hour music.
- 2.0: Selected recordings.
- 3.15: Talk prepared by Home Science Extension Department Otago University.
- 3.30 and 4.30: Sporting results.
- 5.0: Children's hour, conducted by Uncle George and Big Brother Jack.
- 6.0: Dinner music session.
- 7.0: News session.
- 7.40: Talk by a member of the Wellington Lawn Tennis Association, "Tennis and How to Play It."
- 8.0: Chimes. Salvation Army Silver Band (Conductor Mr. Harold Scotney). March—(a) "Melbourne Temple" (Gullidge); Meditation—(b) "Ewing" (Jakeway).
- 8.10: Contralto—Miss Evelyn Robinson. (a) "Easter Flowers" (Sanderson); (b) "I Heard You Singing" (Coates).
- 8.16: Band—Selection, "Jubilant" (Coles).
- 8.24: Bass-baritone—Mr. T. C. Wood, (a) "Rolling Down to Rio" (German); (b) "Tommy Lad" (Allitsen).
- 8.30: Record—Bournemouth Municipal Orchestra, (a) 'cello, with orchestra, "A Sierra Melody" (White); (b) xylophone, with orchestra, "Slippery Sticks" (Brooke).
- 8.36: One act comedy by Mr. Clement May, "Breaking the Ice" (Thomas).
- 9.0: Weather forecast and station notices.
- 9.2: Salvation Army Silver Band. Tone poem—"Behold the Man" (Marshall); Air Varié—"The Hardy Norseman" (Mountain).
- 9.12: Contralto—Miss Evelyn Robinson. (a) "When You Come Home" (Squire); (b) "Love's Old Sweet Song" (Molloy).
- 9.18: Record—International Novelty Quartet, "The Savoy" American medley; "The Savoy" Welsh medley (arr. Somers.)
- 9.24: Bass-baritone—Mr. T. C. Wood, (a) "Tally-ho" (Leoni); (b) "I Travel the Road" (Mayer).
- 9.30: Band—Selection, "Visions" (Marshall).
- 9.40: Record—J. N. Squire Celeste Octet with vocal quartet—"A Venetian Barcarolle" (arr. Willoughby).

9.48: Band—Hymns, (a) "Salvator"; (b) "Bartholomew" (arr. Hawkes).
March—"The Quest" (Scottney).
10.0: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, JANUARY 21.

3.0: Gramophone recital.
4.25: Sports results.
5.0: Children's hour.
6.0: Dinner music session.
7.0: News and reports.
7.15: Dialogue—E. E. Wiltshire and F. C. Fairclough, "Story of the Garden."
8.0: Chimes. Suite—Studio Orchestra (Conductor Harold Beck)—"Dramatic Music" (Purcell).
8.0: Record—Contralto, Miss Marion Anderson, "O Don Fatale" (Verdi).
8.12: Piano—Miss Pollard, (a) Shadow Dance (Macdowell); (b) Mazurka in G Minor (Chopin); (c) Mazurka in C Minor (Scriabin).
8.17: Contralto—Mrs. F. Nelson Kerr, (a) with piano "The Splendour Falls" (Walthew); (b) with orchestra "Like to the Damask Rose" (Elgar).
8.23: Violin—Miss Gladys Vincent, "Romance Op. 26" (Svendsen).
8.29: Tenor—Mr. Russell Sumner, (a) "In Moonlight" (Elgar); (b) "Now Sleeps the Crimson Petal" (Quilter).
8.35: Studio orchestra—(a) March, "Pomp and Circumstance" (Elgar); (b) "Intermezzo" (Gustave Holst); (c) (for string and tambourin) "Bacchanal" (Edgar Bainton).
8.45: Record—Choral Operatic, La Scala Chorus, "O Signore Dal Titto Ratio" (Verdi).
8.49: Piano—Miss Bessie Pollard, (a) "The Girl With the Flaxen Hair" (Debussy); (b) "The Snow is Dancing" (Debussy).
8.54: Studio orchestra—"Rivers of Devon"; Tamar—"Stately Ships Ride Out to Sea"; Dart—"Waters Flash and Leap" (Markham Lee).
8.59: Record—Male Choral, Operatic, Vocal Gems from "The Street Singer."
9.2: Weather forecast and station notices.
9.4: Studio Orchestra—Henry VII Dances (Edward German).
9.12: Contralto—Mrs. F. Nelson Kerr, (a) "Horses of the Dawn" (Mary Brett); (b) "I've Been Roaming" (Horn).
9.18: Two mazurkas—Violin, Miss Gladys Vincent, (a) "Obertass"; (b) "Le Menetrier."
9.24: Tenor—Mr. Russell Sumner, with orchestra, "Serenade" (Schubert).
9.28: Studio Orchestra—"Mock Morris Dance" (Grainger).
9.32: Dance programme by Peter Bryson's Old-time Dance Band, interspersed with records.
11.1: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, JANUARY 21.

SILENT DAY.

Friday, January 22

1YA, AUCKLAND (875 KILOCYCLES)—FRIDAY, JANUARY 22.

3.0: Selected recordings and literary selection.
5.0: Children's session, conducted by Nod and Aunt Jean.
6.0: Dinner music session.
7.0: News and market reports.
7.40: Sports talk.
8.0: Chimes. Record—Band of H.M. Coldstream Guards, "Suite Francaise" (Foulds).
8.13: Tenor—Mr. Roger Errington, (a) "To a Miniature" (Brahe); (b) "My Dreams" (Tosti); (c) "The Shepherd's Song" (Elgar).
8.23: Novelty Instrumental—The Mati Trio, (a) "Memories" (Alstyne); (b) "Fijian Farewell" (Kaili); (c) "Sur le Bord Mantana" (Lou).
8.32: Novelty Piano—Miss Dorothea Ryan, "Entertainment at the Piano."
8.38: Xylophone—Mr. Roy Brinsden, "Medley Overture" (arr. Brinsden).
8.43: A Sea Story—Lee Fore Brace, "Are There Sea Serpents?"
9.3: Weather report and station notices.
9.5: Instrumental and Vocal—The Salon Trio. Trio:—Ballet music from "Rosamunde" (Schubert). Soprano:—"April Moon" (Batten). Violin:—"Air on G String" (Bach). Pianoforte:—"Romance" (Schumann).
9.17: Record—Quartet—California Humming Birds, "Ten Little Miles from Town" (Kahn). Record—Comedy—Reg. Grant, "Two Lovely Black Eyes" (Coborn).
9.23: Novelty Instrumental—The Mati Trio, (a) "Ehoa" (Lou); (b) "Hilo" (Kaili); (c) "Latest Hit."
9.32: Novelty Piano—Miss Dorothea Ryan, "Entertainment at the Piano."
9.38: Xylophone—Mr. Roy Brinsden, (a) "La Paloma" (Yradier); (b) "Aloha Oe" (Lilinalokalani).
9.43: Instrumental and Vocal—The Salon Trio. Cello:—"A Song of India" (Korsakov). Soprano solo:—"Delightful Bird" (David). Violin:—"Praeludium and Allegro" (Pugnani, Kreisler).
9.52: Record—Comedy—Reg Grant, "Lousiana Lou" (Stuart).
9.55: Record—Orchestral—Orchestra of Opera Comique Paris, "Marche Heroique" (Saint-Saens).
10.3: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, JANUARY 22.

10.0: Selected gramophone recordings.
11.12: Lecturette—"Fashions."

12.0: Racing results, second day Wellington Racing Clubs' meeting at Trentham.

2.0: selected recordings.
3.30 and 4.30: Sporting results.
5.0: Children's hour, conducted by Uncle Jim.
6.0: Dinner music session.
7.0: News and reports and sporting results.
7.40: Talk—Mr. C. S. Dempster, "Cricket Reminiscences."
8.0: Chimes. Overture—2YA Orchestra (under conductorship Signor A. P. Truda), "Medley" (Danks).
8.8: Soprano—Mrs. Amy Dunn, (a) "A Summer Song" (Hartog); (b) "Lillies" (Barry).
8.14: Barthold and Bent Guitar Duo, (a) "You Will Remember Vienna" (Romberg); (b) "1, 2, 3, 4" (Awai).
8.21: Selection—2YA Orchestra, "My Cinderella Girl" (Peters).
8.31: Baritone—Mr. Claude Moss, (a) "Pagan" (Lohr); (b) "So Fair a Flower" (Lohr).
8.37: Guitar Duo—Barthold and Bent, (a) "Honolulu Moon" (Wayne); (b) "Aloha Oe" (Lilinalokalani).
8.44: Soprano—Mrs. Amy Dunn, (a) "The Dorothy Perkins Rose" (Carew); (b) "Home Song" (Liddell).
8.50: Waltz—2YA Orchestra, "Les Patinems" (Waldtenfel).
9.0: Weather report and station announcements.
9.2: Lecturette by Mr. Arthur Cone, "Experiences in the United States and Alaska."
9.17: Baritone—Mr. Claude Moss, (a) "The Arrow and the Song" (Balfe); (b) "Lady Mine" (Lohr).
9.23: March—2YA Orchestra, "The Father of Victory" (Ganne). Foxtrot, "Goblin Blues" (Carlo).
9.30: Dance music of electrical recordings.
11.0: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, JANUARY 22.

3.0: Gramophone recital.
4.25: Sports results.
5.0: Children's hour.
6.0: Dinner music session.
7.0: News session.
7.30: Talk by Mr. J. S. Hawkes, secretary Canterbury Automobile Association, "Tours and Motor Driving."
8.0: Chimes. Salon Orchestra (Conductor, Francis Bate), "Merrie England" (German).
8.10: Baritone—Mr. K. Murray Fountain, (a) (with piano) "Sea Pearls" (McGeoch); (b) (with orchestra) "Duna" (McGill).
8.15: Saxophone—Mr. Hugh Evans, (a) "Souvenir" (Drdla); (b) "The Waltz You Saved for Me" (King).
8.20: Record—Choral, Unity Quartette, "Bells of St. Mary's."
8.23: Record—Raie de Costa, pianist, "Parade of the Minutes."
8.27: Vaudeville Duo, with songs and piano novelties, introducing (a) "For You" (Burke); (b) "Now You're in My Arms" (Downing).
8.36: Salon Orchestra, (a) "Pale Moon" (Logan); (b) "Vola" (Arnt).
8.44: Record—Humour, Wish Wynne, "Filthy Lucre."
8.48: Contralto—Mrs. Winifred A. Andrews, (a) "A Sea Picture" (Elgar); (b) "Silent Noon" (Vaughan Williams).
8.56: Record—Piano, Mark Hambourg, "Harmonious Blacksmith" (Handel).
9.0: Baritone—Mr. Eddie A. Dowell, (a) "Land of My Sunset Dreams" (Hall); (b) "Marguerite" (White).
9.7: Weather forecast and station notices.
9.9: Waltz—Salon Orchestra, "Les Pateneurs (The Skaters)" (Waldtenfel).
9.18: Baritone—Mr. K. Murray Fountain, (a) "Two Little Ships" (McGeoch); (b) "The Secret of the Tide" (McGeoch).
9.23: Saxophone—Mr. Hugh Evans, (a) "Humoreske" (Dvorak); (b) "Good-night, Sweetheart" (Noble).
9.28: Record—Humour, Joyce and Leonard, "Miniature Review."
9.34: Record—Cello, W. H. Squire, "Melodie in E."
9.38: Vaudeville Duo, with songs and piano novelties, introducing (a) "Wrap Your Troubles in Dreams" (Barry); (b) "Two Hearts and a Waltz Refrain" (Stolz).
9.46: Record—Cinema Organ, "Liverpool Cathedral—Evening Song."
9.49: Contralto—Mrs. Winifred A. Andrews, (a) "The Sea Hath Its Pearls" (Bairstow); (b) "Obstination" (De Fontenailles).
9.54: Record—Victor Olaf Sextet, "Hungarian Dance" (Brahms).
9.57: Baritone—Mr. Eddie A. Dowell, "An Old-fashioned Locket" (Marvin and Ford).
10.0: Salon Orchestra—(a) "A Song of Love" (Nevin); (b) "The Old Mill" (Nevin).
10.9: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, JANUARY 22.

3.0: Chimes. Selected recordings.
4.30: Sports results.
5.0: Children's session, conducted by Big Brother Bill.
6.0: Dinner music session.
7.0: News session.
8.0: Chimes. Concert by the Dunedin Orchestral Society, under the conductorship of Mr. Alfred Walmsley, and assisted by 4YA artists. Dunedin Orchestral Society—(a) "Bravonra March" (Zillman); (b) "From the Country-side" (Coates).

Tenor—Mr. Geo. Crawford, (a) "I Hear You Singing" (Coates); (b) "Hushed is My Lute" (Phillips).
 Bass—Mr. F. Edwards, (a) "The Sea Road" (Wood); (b) "Requiem" (Homer).
 Dunedin Orchestral Society—(a) "Othello" Suite (Coleridge-Taylor); (b) "Wanderings in the Wood" (Lange).
 Contralto—Miss Lucy James, (a) "Ye Banks and Braes" (Trdfl); (b) "The Minstrel Boy" (Trdfl).
 Tenor—Mr. Geo. Crawford, "Hail Caledonia" (Straud).
 Orchestra—"La Gazza Ladra" (Rossini). Overture, "Trio in B" (Mozart).
 Bass—Mr. F. Edwards, "Mavourneen" (Aylward).
 Orchestra—"Marriage of Figaro" (Mozart).
 Contralto—Miss Lucy James, "My Dearest Heart" (Sullivan).
 Orchestra—(a) "Ein Klein Nachtmuth" (Mozart); (b) "Washington Greys" (Grafula).
 10.0 : God save the King.

Saturday, January 23

1YA, AUCKLAND (875 KILOCYCLES)—SATURDAY, JANUARY 23.

8.0 : Selected recordings and literary selection.
 5.0 : Children's session, conducted by Cinderella.
 6.0 : Dinner music session.
 7.0 : News and market reports.
 8.0 : Chimes. During the evening there will be a relay of a running description of the broadsiding from Western Springs Stadium.
 March—1YA Chamber Orchestra (Conductor, Mr. Harold Baxter).
 "The Old Brigade" (Myddleton). Suite—"The Fragrant Tear" (Ewing).
 8.13: Soprano—Miss Edith Whittaker, (a) "Country Folk" (Brahe); (b) "The Swallows" (Cowen).
 8.19: Suite—1YA Chamber Orchestra, "Egyptia" (Wood). (a) "Valley of the Kings"; (b) "Slave Dance"; (c) "Pharaoh's Court."
 8.29: Humour—The Tollies, "A Little Nonsense."
 8.39: Record—Xylophone—Rudy Starita, "Dance of the Raindrops" (Evans).
 8.42: Bass-baritone—Mr. Albert Gibbons Taylor, (a) "Chorus, Gentlemen" (Lohr); (b) "The Irish Emigrant" (Barker); (c) "Glorious Devon" (German).
 8.53: Waltz—1YA Chamber Orchestra, "An American Heiress" (Rosey).
 9.0 : Weather report and station notices.
 9.2 : Humour—The Tollies, "A Little Nonsense."
 9.12: Selection—1YA Chamber Orchestra, "Lightning Switch" (Alford).
 9.24: Soprano—Miss Edith Whittaker, (a) "The Amorous Goldfish" ("Geisha") (Jones); (b) "The Cuckoo" (Lehmann).
 9.30: Sports summary.
 9.40: Programme of dance music.
 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, JANUARY 23.

12.0 : Racing results, third day Wellington Racing Club's meeting at Trentham, interspersed with selected gramophone recordings.
 3.30 and 4.30: Sporting results.
 5.0 : Children's session, conducted by Aunt Molly and Uncle Jasper.
 6.0 : Dinner music session.
 7.0 : News session.
 8.0 : Chimes. Relay from Caledonian Hall of Scottish concert in commemoration of the birth of Robert Burns, arranged by the Caledonian Society under the direction of Mr. George Stark and assisted by the Salon Orchestra, conducted by Mr. M. T. Dixon.
 10.0 (approx.): Dance music from the Adelphi Cabaret.
 11.0 : Sporting summary.
 11.10: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, JANUARY 23.

3.0 : Gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour.
 6.0 : Dinner music session.
 7.0 : News and reports.
 7.30: Sports results.
 8.0 : Chimes. Record—Orchestral—Jack Hylton's Orchestra, "Bitter Sweet" Selection.
 8.8 : Contralto—Mrs. D. W. Stallard, (a) "One Fleeting Hour" (Dorothy Lee); (b) "The River of Years" (Marzials).
 8.13: Record—Hawaiian Guitars, "Carnation Flower."
 8.17: Bass—Mr. T. D. Williams, (a) "Zimmersetzhire" (Newton); (b) "Speed the Plough" (Martin).
 8.23: Christchurch Salon Orchestra (Francis Bate, Conductor), "Four Fancies" (Somerville).
 8.33: Humour—Mr. Jock Lockhart, (a) "All Scotch" (Elton); (b) "He's Always Borrowing Money" (Scott).
 8.41: Waltz—Hilo Harmony Four, (a) "One, Two, Three, Four" (Allan); (b) "Rose of Honolulu" (Armstrong).
 8.50: Soprano—Miss Cecily Audibert, with Christchurch Salon Orchestra, (a) "Where is the Song of Songs for Me?" (Berlin); (b) "Dream Lover" (Schertzinger).
 8.58: Record—Midnight Revellers, (a) "We're All Alone"; (b) "Lazy Day."

9.2 : Weather forecast and station announcements.
 9.4 : Christchurch Salon Orchestra—(a) "Love, Here is My Heart" (Sileu); (b) "Carnival at Nice" (Andoff).
 9.14: Contralto—Mrs. D. W. Stallard, (a) with piano, "The Passion of Spring" (David Slater); (b) with Salon Orchestra, "Angus McDonald" (Roedel).
 9.20: Record—London Novelty Orchestra, "The Teddy Bears' Picnic."
 9.24: Bass—Mr. T. P. Williams, with Salon Orchestra, (a) "The Yeoman's Wedding Song" (Jonistowski); (b) "Rocked in the Cradle of the Deep" (Knight).
 9.30: Humour—Mr. Jack Lockhart, "Where's the Face You Had on Monday?" (Walsh).
 9.34: The Hilo Harmony Four, (a) "I Hear the Ukuleles Calling Me Home" (Scott); (b) "Aloha Oe" (Berger).
 9.43: Soprano—Miss Audibert, (a) "Biddy" (Mont. Phillips); (b) "Nobody Knows You Like I Do" (Lanfield).
 9.48: Record—"Jolly Old Fellows," "Chorus Hits of Yesterday."
 9.52: Orchestral Selection—Christchurch Salon Orchestra, "The Five O'Clock Girl" (Kalmor).
 10.2 : Dance music.
 11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, JANUARY 23.

3.0 : Chimes. Selected recordings.
 4.30: Sports results.
 5.0 : Children's session, conducted by Big Brother Bill.
 6.0 : Dinner music session.
 7.0 : News session.
 8.0 : Chimes. Relay of concert programme from 3YA, Christchurch.
 10.0 : Dance session.
 11.0 : God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—SATURDAY, JANUARY 23.

7.30 to 8.0: News and information.
 8.0 to 10.0: Studio concert.

Sunday, January 24

1YA, AUCKLAND (875 KILOCYCLES)—SUNDAY, JANUARY 24.

3.0 : Selected recordings and literary selection.
 6.0 : Children's song service, conducted by Uncle Leo.
 7.0 : Relay of service from the Beresford Street Congregational Church. Preacher: Rev. Lionel B. Fletcher. Organist: Mr. W. Gemmell. Choirmaster: Mr. A. Cherry.
 8.30: Relay of Municipal Band Concert from Albert Park. Conductor, Mr. Geo. Buckley.
 March—The Band, "The Crusader" (O'Donnell).
 Overture—The Band, "Pique Dame" (Suppe).
 Trombone—Mr. Greg. Smith, "The Trumpeter" (Dix).
 Selection—The Band, "Preciosa" (Weber).
 Piccolo—Mr. Hal. McLennan, "The Rose" (de Ville).
 Characteristic—The Band, "The Mill in the Black Forest" (Ellenberg).
 Suite—The Band, "Coppelia" (Delibes).
 Hymn—The Band, "O Gladsome Light" (Sullivan).
 March—The Band, "The Champion" (Graham).
 God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JANUARY 24.

3.0 : Selected gramophone recordings.
 6.0 : Children's evening song service conducted by Uncle George, and assisted by the combined children's choirs from the Presbyterian Churches, Lyall Bay and Kilbirnie, under the leadership of Mr. Crawford and Mr. Littlejohn.
 7.0 : Relay of Church service from St. Gerard's Roman Catholic Church. Organist and Choirmaster: Mr. Mount.
 8.15 (approx.): Studio concert—Wellington Artillery Band, Conductor, Captain T. Herd, V.D., assisted by Mrs. Catherine Goodson, soprano; Mr. Newton Goodson, baritone; Mr. Claude Tanner, cellist, and Philomel Quartet.
 Band—(a) Hymn, "Fierce Raged the Tempest" (Dykes); (b) March, "Champion of the North" (Kearsley); (c) Overture, "The Crimson Star" (Greenwood).
 Soprano—Mrs. Catherine Goodson, (a) "I Will Extol Thee" (Costa); (b) "The Heart of a Rose" (Elaine Defries).
 Cello solos—Mr. Claude Tanner, (a) Prelude from "Herodiade" (Massenet); (b) "Wiegenlied" (Brahms); (c) "La Cinquantaine" (Gabriel Marie).
 Philomel Quartet—(Misses Muriel Hitchings, Agnes McDavitt, Rae Burns, Roma Burge), (a) "The Bridegroom" (Brahms); (b) "The Two Clocks" (Rogers).
 Band—Cornet solo (with band), Sergeant W. H. Bowman, "Robin Adair," with variations, (arr. Hartmann).
 Weather report and station notices.
 Duet—Mrs. Catherine Goodson and Mr. Newton Goodson, "The Day is Done" (Lohr).
 Cello solos—Mr. Claude Tanner, (a) "Cantabile" (Gottmann); (b) "Melodie Arabe" (Glazounov); (c) "Andante" (Gluck); (d) "Rigaudon" (Rameau).

Soprano—Mrs. Catherine Goodson. (a) "Tell Me, My Heart" (Bishop); (b) "Damon" (Max Stange).
 Band—(a) Cornet and Euphonium Duet with band—Sergeant Bowman and Bandmaster Hildreth, "Anthony and Cleopatra" (Riviers); (b) "Pilgrims' Chorus" (Wagner).
 Baritone—Mr. Newton Goodson. (a) "Boat Song" (Harriet Ware); (b) "A Song of Sleep" (Somerset).
 Philomel Quartet—(a) "Eriskay Love Lilt" (arr. Robertson); (b) "Barcarolle" (Brahms).
 Record—Violin solos—Master Yehudi Menuhin. (a) "La Capriciosa" (Ries); (b) "Allegro" (Fiocco).
 Band—(a) Selection—"Masaniello" (Auber); (b) March—"Seventy-Infantry" (Code).

10.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JANUARY 24.

3.0 : Gramophone recital.
 5.30 : Children's song service by children of Presbyterian Sunday schools.
 6.15 : Chimes.
 6.30 : Selected gramophone recordings.
 7.0 : Relay of evening service from Knox Presbyterian Church, Bealey Avenue. Preacher, Rev. T. W. Armour. Organiste, Miss Victoria Butler. Choir Conductor, Mr. A. G. Thompson.
 8.15 : Relay of concert programme from 4YA, Dunedin.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JANUARY 24.

3.0 : Chimes. Selected recordings.
 5.30 : Children's song service, conducted by Big Brother Bill.
 6.15 : Instrumental recordings.
 6.45 : Relay of evening service from the Salvation Army Citadel, Dowling Street, conducted by Adjutant Tong.
 8.15 : Third concert by Margharita Zelanda, coloratura soprano, assisted by the St. Kilda Band, under the conductorship of Mr. James Dixon; Mr. Arthur Lungley, baritone; and the Instrumental Sextet, under Mr. A. H. Pettitt.
 Margharita Zelanda will sing:—"Fairies from the Moon." (Russell); "The Blacksmith" (Brahms); "The Starlings" (Woodford-Finden); "Caratina" "Quel Quardo it Cavaliere," from "Don Pasquale" (Donizetti); "Nea" (Pontet); "Yesterday and To-day" (Spross); "Whether Day Dawns" (Tzchaikowsky); Recitative: "Quella Fonte" and Aria "Reguava Nel Silenzio" (from "Lucia di Lammermoor." (Donizetti).
 The orchestral numbers will be selected from:—"Sumer Dago Suite" (Coates); "Gressenhall Suite" (Woods); "Menuet Pompadour" (Wachs); "Ballroom Chatter" (Albi); "La Voix des Cloches" (Lingini); "Kwang Hen" (Linke); "Pizzicato" (Thome); "Nocturne" (Mendelssohn).
 The Band will play:—March—"Through Bolts and Bars" (Urbach). Fantasia—"United Kingdom" (Rimmer). Cornet duet—"Ida and Dot" (Losey). Selection—"Songs of Scotland" (Round). Overture—"Pique Dame" (Suppe). March—"Invercargill" (Rimmer).
 10.0 : God save the King.

2YB, NEW PLYMOUTH (123 KILOCYCLES)—SUNDAY, JANUARY 24.

7.0 to 8.15 : Church relay.
 8.15 to 10.0 : Studio concert.

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"WHERE THE QUALITY GOODS ARE SOLD"

Good-bye, Good-night

(Continued from page 3.)

In that view is found the essence of the whole affair. Perhaps it is regrettable that, after five years of education along these lines by the Broadcasting Company, the average person still does not appreciate these fifth movements, but there it is, and seemingly we as a class don't want to be educated! Where ignorance is bliss!

I saw a few days ago a proposition that the new board should erect a 50 k.w. station not in Wellington, and I guess Wellington listeners would not appreciate having it here, either, but rather in a position to be located by field measurements for field strength from a transmitter of a portable type. These measurements are taken in the U.S.A., where radio is, as far as transmission at least goes, leading the world. If results are wanted, well the spade work must be done in the first place. Setting a station up in any convenient spot is very like turning a blind man out to fix a position to drill a well in the desert. The results are very uncertain.

It is to be hoped that the new board will not mess round putting up a lot of small stations in any place, where sufficient political influence can be brought to have a good local service. In Dannevirke we are not in a first-class area for reception, but we manage to get along all right with fairly decent receivers, and we would sooner wait for a super-power station, properly situated, than have the band jammed up with several more small stations, heterodyning, and closing out the Australian stations, to say nothing of the Americans.

Well, I think I have taken up enough of your valuable space, so I will leave the torch for your esteemed journal to bear, and sign myself.—Yours in hope, "1916."

Valve Is Huge Welding

Project in Miniature

THAT the production of a radio valve parallels a tremendous industrial task, in miniature, was pointed out by George Lewis, vice-president of the Arcturus Radio Tube Company, Newark, New Jersey, at a recent meeting of industrial engineers.

Aside from the numerous fine elements used in the construction of a valve which could be termed analogous to minute girders, braces, cross-members, etc., there are 186 various spot welds in the final assembly of the elements.

This is equivalent to the number of welds required in laying a three-quarter-mile pipe-line, with each section of pipe 20 feet long. This would be sufficient to weld all steam and water-pipe connections in the average home; or, in the marine field, to weld a mammoth anchor chain 93 feet long for one of the big ocean liners. In aviation, a complete plane, including the frame and fuselage, could be securely welded with this large number of operations.

"It is hardly believable," says Mr. Lewis, "that this great number of welds are necessary in a small article like a radio valve. But fine wire and small parts are used which require a weld no larger than a pin-head."

Wireless Freaks

Strange Phenomena

CELLARS haunted by ghostly voices, water taps that burst into song and bed-springs that croon a lullaby are among the strange antics of wireless which are puzzling radio engineers.

Here are some instances of freak reception which have occurred within the past few months in and near London:—

A pot of water on an electric stove in a Highgate kitchen hummed a tune, which was clearly recognised as the item then being broadcast on the national programme, when the water began to simmer.

An electric radiator in a Hendon drawing-room plays a complete musical programme loud enough for it to be heard in any part of the room.

A kitchen sink in Barnet produced a complete wireless programme with remarkable purity.

Ghostly music was heard through a Hampstead dining-room floor from the cellar below.

"All these things are possible and capable of explanation if all the factors are known," said a wireless expert to a "Sunday Express" representative.

"In the case of the singing pot of water there is probably a leakage between an aerial or telephone wire in the house and the power lead to the electric cooker or the lead itself may be the aerial.

"The loose contact between the electric burner and the pot acts as a rectifier, cutting the radio waves down to a frequency low enough to be heard.

"Vibrating at that frequency the pot bottom will send out sound waves."

Investigation of the ghostly music from a cellar revealed an old water system encrusted with green corrosion.

An electric wire was touching the corroded pipe. When it was moved the musical hum ceased.

Theoretically the reception of the music occurred because the electric wire acted as an aerial, the waterpipe as an earth, the corrosion as a rectifier, the water in the pipe as a condenser, and the roof of the cellar as a sounding board or loudspeaker.

All these manifestations are simply explained as variations of the "singing arc," which is well known to physicists.

The frequencies on anything that may take the place of an aerial vary with the modulation of the human voice or of music and set up air vibrations which are audible.

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Reception in Waikato Value of Local B Station

(By "Microphone.")

ALTHOUGH subject to fading, 2YA and 3YA are the two New Zealand stations best received in the Waikato district.

Fading is not generally experienced with 1YA, but in places about 100 miles away from the station where the ground and sky waves neutralise a large amount of distortion often mars reception. The high voltage power lines around Matangi, Te Awamutu and other places impair the quality of the reception.

The relays last year of 1YA's International programme on Tuesday evening by the Hamilton B station 1ZH were greatly appreciated, many listeners in the Waikato preferring the local relay to the direct transmission from Auckland.

1ZH, which is conducted by Anchor's Radio House, Victoria Street, Hamilton, and operates with a power of 50 watts on a frequency near that of 4YA, Dunedin, has done much to foster radio in the Waikato since the station's inception about eighteen months ago. The station's programmes consist mainly of recorded items, temporary permission to carry on with these having been received from the headquarters in Sydney of the gramophone companies imposing the ban on the broadcasting of records. The station has relay lines connected with 1YA, Auckland, and the Winter Show Concert Hall in Hamilton.

Since the abandonment this year of the International programmes, 1ZH has not relayed 1YA's Tuesday broadcasts. The Hamilton station has not received advice from the Broadcasting Board as to whether weekly relays are to be continued. The Board, by subsidising 1ZH, and by stepping up its power to 100 watts, could cater for the many listeners outside the range of 1YA and 2YB, New Plymouth.

1YA Combinations

AMONG the new combinations that assisted in the bright programmes from 1YA last week were Mr. Hadyn Murray's Trio (violin, cello and piano); the Mounce Sisters, specialty jazz melody duets, the Walter Rae Duo, saxophone and novelty piano duets, and the Da Silva South Sea Wanderers, a novelty instrumental combination.



CATHELEEN MULQUEEN, mezzo-soprano, who will be heard in several numbers with Len Barnes from 1YA on January 20.
—S. P. Andrew photo.

Did You Know That—

IF one of your telephone earpieces breaks down, remember that a wire across its two terminals may enable you to listen to the conclusion of the programme on the one earpiece.

WHEN plug and jack contacts have been in use a long time they should be examined occasionally for specks of dust, dirt, etc. These may lower the efficiency of the component, which may give rise to crackling if its contacts are not cleaned and scraped occasionally.

IF you are unable to get reaction when your condenser is all in, except toward the lower end of your tuning range, a small fixed condenser, usually .0001 or less, connected across the reaction condenser is an improvisation worth trying.

ON some audio transformers it is the practice to provide an extra terminal by means of which the metal case of the instrument may be connected to earth, but there is no need to

Radio-Gram. Instability

Several Causes

IT is occasionally found with combination sets that when they are switched over from radio to gramophone howling results. It may be found that the pick-up itself cannot be touched without getting a squeak from the loudspeaker, while in other cases, when volume is increased, instability results. There are two main causes of this trouble—firstly the amplifying itself, and secondly the position of the pick-up. In the first place it may be found that the howl takes place principally when using the pick-up and the amplifier is being given a far greater input voltage than that used with radio. This increased voltage when amplified, is sufficient to cause audio oscillation. To completely re-design the amplifier is perhaps the best cure in this case.

Far more common is the trouble due to long pick-up leads. Long loudspeaker leads, which run near the aerial or the aerial circuit of the set tend to cause instability, when the set is working on radio. In a similar way the pick-up leads, when trailed near the audio end of the set, or when running near the loudspeaker may cause trouble when the pick-up is put into operation. If long pick-up leads are necessary it is quite a good plan to use transformer input at the set end. An ordinary radio transformer will be quite satisfactory in most cases, though there are few pick-ups which do not operate well when used with input transformers.

Finally, never run pick-up leads near electric light power wires or an induction hum will almost certainly be picked up.

connect this up if perfect results are obtainable without such a connection.

TROUBLE with reaction overlap is often due to the wrong "B" voltage on the detector, to an unsuitable detector valve, or to a grid leak of wrong resistance.

TOO much reaction is worse than none at all, for it is impossible to hear long-distance or good quality signals if your set is oscillating.

FOR accurate tuning on a short-wave set there are many advantages in mounting a small magnifying glass over the tuning-dial scale.



LEN BARNES, who will broadcast with Cathleen Mulqueen from 1YA on January 20.
—S. P. Andrew photo.

Radio in Sweden

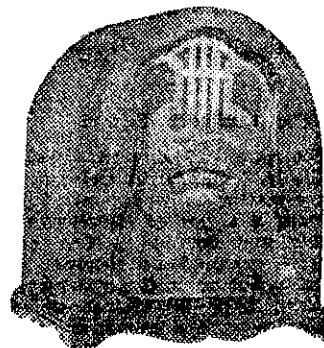
Swedish Journalist's Views

REMARKABLY good reception of local and European stations is obtained in Sweden, according to Mr. Jansen, a Swedish journalist, who is visiting New Zealand in the course of an extended tour.

Mr. Jansen, in a brief chat with "Microphone" in Auckland a few days ago said the owner of a three-valve receiver in Sweden was able to hear practically every station in Europe. This was accounted for to a large extent by the geographical nature of Sweden as the country was generally flat and the greater part in close proximity to the sea. The highest hill near the capital, Stockholm, was only about 1000 feet.

Mr. Jansen said Sweden possessed only one main station which was situated near Stockholm, but there was a number of relay stations. The service was conducted by the State, the license fee being equivalent to about 14/- a year. There were approximately 300,000 licensed listeners in Sweden.

Mr. Jansen displayed a keen interest in the Auckland station. He closely inspected the studio equipment and the transmitting apparatus and took several photographs. He said he was impressed with the progress made in radio in the Dominion.



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N.Z. Short-Wave Club Notes

THURSDAY, January 8, at 7.30 p.m. is the date of the next meeting of short-wavers, who will meet in Messrs. Nimmo's concert hall, entrance in Bond Street. This will be an open night to anyone interested in radio, owing to the fact that it will be a follow-up on Mr. McCarthy's lecture on tuning, and even a crystal set owner might find something to interest him.

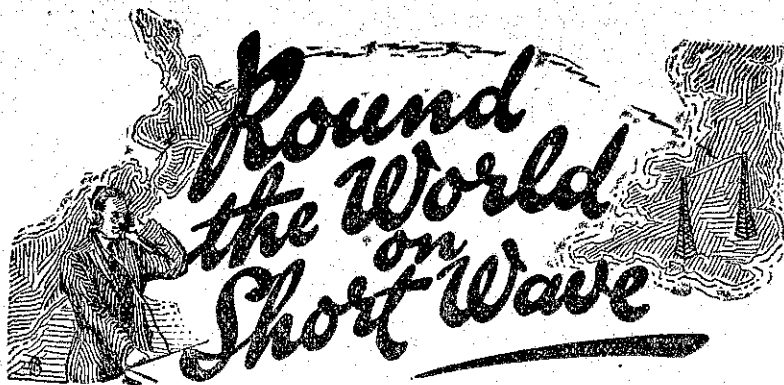
I am now commencing a little propaganda scheme with a view to increasing the membership. For a time I have not bothered much on account of the fact that the more members meant more work, but, by means of a system, the club should be able to cater for many more members than there are at present.

The club issues up-to-date lists of stations and monthly bulletins, and to each member and readers assistance in many ways. In some respects the club resembles a lodge. Each member is in direct communication with headquarters, and is invited to send in suggestions. The idea of organisation is to work for the benefit of the short-wave world, to attract and encourage programmes and to assist stations so that more aerials will be directed our way. As the club is representative of the Dominion in our own sphere it behaves all short-wavers, or those intending to take it up, to join. For the remainder of the year the subscription has been reduced to 3/- for all outside Wellington city. One aspect of our work is to encourage the experiments, for there are many things yet to be discovered.

There are still some firms who maintain that short-wave is a failure, possibly the good excuse is that many people buy a set or parts, and then complain they cannot get anything. In view of this fact, also to help those who would like to take up the hobby, I hope to find time to prepare instructions, so that anyone will be able to tune a set and get the results we are getting.

In conjunction with the club's efforts to double our numbers, we would like to see everyone who has an interest in radio to help to "boom radio" during 1932. Anyone who hears anything of interest or obtains any information, by passing it on through the radio columns, is benefiting us all.

When sending postal notes, please fill them in payable to the club; it is far safer for us both. Listeners in New Zealand and overseas address me: A. B. McDonagh, Secretary N.Z. Short-wave Club, 274 Cuba St., Wellington. Yours fraternally,—MAC.



THIS page is conducted in the interests of shortwave enthusiasts. A weekly log comprising notes of reception and interesting topical events is contributed by Mr. F. W. Sellens, Northland, Wellington, but all listeners are invited to send in paragraphs of general interest.

Short-Wave Club Organisation to Help Amateurs

THIS club was formed less than a year ago for the benefit of those who are becoming interested in these short waves. That the club is serving a useful purpose is proved by the fact that the membership is now 200, and still increasing. Although intended as a local (New Zealand) club, we have a member in the United States who wanted to join us after reading about our activities in the "Radio Record."

Then we have Mr. Edward Startz, the world-known announcer of PCJ, Holland, who says he is proud to belong to this organisation.

The club's sole object is for the benefit of short-wave listeners and experimenters.

Members are advised on all subjects relating to short-wave radio, how and what to build, how to tune, what to listen for (an up-to-date list of stations with their wave-lengths and schedules is posted to members from time to time).

For Wellington members, there are monthly lectures, and for all members a monthly circular is compiled by the secretary, who is anxious to supply any inquirer with full particulars of the New Zealand Short-wave Club.

Wireless in Malaya Scope for Dxers

(By Cuthbert Warren.)

AFTER many efforts to establish radio in Malaya, the Colonial Government station in Singapore (VPW) commenced a series of shortwave experiments and devoted a few hours a week to gramophone records and readings. But as on the upper bands, even down here—80 metres or so—atmospherics were a nuisance. These transmissions are now carried out on 42 metres, under the call sign VSIAB.

Recently several amateur transmitting societies have sprung into being, notably in Kuala Lumpur and Malacca.

A shortwave station is also in operation on Petaling Hill, near the Federal capital.

These transmitters work on low power and here is a splendid chance for the DX bounds to show their mettle. Five thousand miles is nothing to a full-blooded shortwave fan, and the writer is certain reports would be appreciated.

The following timetable will be of assistance to aspirants to Malayan honours. Times have been converted to New Zealand Summer Time, there is a difference of five hours, and the schedule is accurate as at November 1 last.

Kuala Lumpur Radio Society (65 metres).

Sunday—2.15 p.m.: Music relayed from the Selangor Club. This is the famous Spotted Dog, mentioned by Gilbert Frankau.

Tuesday—1.30 p.m.: Native music. 2.00 p.m.: European music and market reports. 2.30 p.m.: Records. 3.30 p.m.: Close down.

Friday—1.30 p.m.: Chinese music. British official news. 3.00 p.m.: Close down.

VSIAB, Singapore (42 metres).

Sunday and Wednesday—4.30 p.m.: Records.

Tanjong Priok, Singapore (31.16 metres).

Monday, Tuesday, Thursday—1.45-2.15 a.m., 5.00-6.00 a.m., 7.30-8.30 a.m., 1.45-2.45 p.m., 3.15-4.15 p.m.: Records.

Petaling Hill, Kuala Lumpur (75 metres).

Thursday—2.00-4.00 p.m.: English music.

Malacca Radio Society (wavelength not known). Irregular transmissions.

WHERE resistance-coupled audio follows a detector valve the value of the anode resistance should be checked up if the set will not oscillate satisfactorily. (Too high a value will decrease or stop reaction.)

RADIO GOODS What to Buy and Where

BURGESS RADIO BATTERIES, All Radio Dealers.

LOFTIN-WHITE AMPLIFIERS Stewart Hardware Ltd., Courtenay Place, Wellington.

MULLARD VALVES All Radio Dealers.

Inventor of Electric Lamp

Claim for Swan

APROPOS our article by "Observer" in a recent issue, in which it was stated that Edison had invented the electric lamp, a correspondent draws our attention to a Press clipping attributing the discovery to Swan, an Englishman.

The clipping reads:

That an Englishman, Sir Joseph Swan, invented the incandescent electric lamp and not Thomas Edison is the claim advanced by Mr. Kenneth Swan on behalf of his late father.

He declares that Sir Joseph Swan's lamp was produced ten months before Edison's, and that the British Institution of Electrical Engineers declined to share in the jubilee celebrations now taking place in the United States because they celebrated the jubilee of Sir Joseph's invention last year.

"I am not moved so much by a sense of filial duty as by a desire to see an Englishman acknowledged by his own people," says Kenneth Swan. His father's successful incandescent carbon filament lamp was exhibited in Newcastle, December 18, 1878, while the date claimed for Edison's invention is October 21, 1879.

A company was formed to acquire his father's process, says Mr. Swan, and when there were threats of litigation between that company and Edison's, instead of fighting they amalgamated, Swan's process being adopted and Edison's dropped.

He also claims that Sir Joseph Swan invented what was called the "squirred filament," which superseded the former type, though this invention also has been credited to Edison.

The DX Competition

A RECORD number of logs has been received for the DX Competition, and among them are some excellent ones. We are now waiting for the return of verifications from several members who sent in logs that possibly will be placed, and, until these are to hand, judging will be held up. We hope, however, to have the results within a week or so.

Choosing an Eliminator

AN eliminator should be chosen to conform with the required current output, and it should be borne in mind that those having a rated output of 20 milliamps or under are suitable only for supplying up to a three-valve set, if one of these valves is of the power type.

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By "John O'Dreams"

Jottings

ANOTHER novel by the writer who chooses to be known as "Colette" has been translated from its original French. The Anglicising has been done with care and competence by Miss Viola Garvin, and "Recaptured" will be read with delight by those who appreciate the fresh charm and fascination of the stories by the Gallic novelist. It is a continuation of the story of the actress Renee Nere, now 36 years of age, and of a mature and irresistible charm. This charm comes into play when she falls in love with the youthful Jean, who has quarrelled with his airy, fairy sweetheart. A not unusual topic, the scene being laid at Nice, but the slight story is beautifully told, with a delicate romantic flavour and more than a touch of pathos.

THE old theme of the clash between the white and dark races has been well exploited by writers of fiction, but in "Keep Thy Wife" Lady Flavia Gifford has shed a fresh facet of interesting and understanding on a somewhat hackneyed plot. A ruling Indian prince is brought up in England and educated at one of the greatest of public schools. He loves and is loved by the lovely Berenice, but sense of duty and knowledge of sinister consequences that dog marriage between a man and woman of different colour and nationality stand in the way of marriage between the ill-fated protagonists. A somewhat sad story, but there is much attractive writing, in particular the description of life at Eton, and later in London.

MOST novel readers have gone through a course of Beresford, and one remembers the "Hamptons Wonder" with delight. Mr. J. D. Beresford possesses in an unusual degree the faculty of characterisation, and in his series of tales of contemporary social aspects of the great game he has contributed some memorable contributions to the portrait-gallery of literature. His latest novel, "The Old People," is the first part of a trilogy, a form of narrative which of late has been something of a fashion among writers of fiction. It is the story of county people of a past generation, and the story follows on the lines of the Victorian novel, but informed throughout with the author's own particular brand of humour, observation, and caustic comment. Although written of time long past, there are indications of the future in the age-old revolt and doubts of what then was modern youth.

Our Fortnightly Book Review

TWO PEOPLE

By A. A. MILNE

THE versatile Mr. A. A. Milne has added another laurel to that already extensively bedecked literary crown bestowed upon him by a public that appreciates gaiety, wit, high spirits, and unerring touch upon the gentler emotions. In time long past our suffrages were captured by "Mr. Pim Passes By," a play which assuredly time does not wither nor custom stale, as witness box-office receipts of the gentle comedy that is rapidly becoming a hardy perennial with repertory societies.

Then there was Christopher Robin, with his fascinating entourage, in whom Mr. Milne demonstrated roving imagination and intuitive divination of passing perplexities and transparent simplicities of the happy heart of a child; and the essays which one is tempted to believe are his métier in the field of belles lettres. He has endeared himself to the Britisher, to whom this particular form of literary art is extremely congenial, by true touch, bonhomie, and occasional stirring of the spirit of romance, whether he be discussing cricket, the English countryside, the exit of the oyster, or the incoming of the celery season.

Now he has written his first straight-out novel, and one hopes it will not be his last, for here we have the unmistakable Milneian charm. The story is slight almost to attenuation. The hero, who has been in turn school-master, bank clerk, and soldier, by means of material manna of unexpected legacy is enabled to marry a lovely lady, whose beauty, to all intents and purposes, is her sole duty. Her he adores, buys an entrancing place in the country in which to domicile his idol, and proceeds to write a novel called "Bindweed," which, as sometimes happens in and out of books, is an instantaneous success, largely owing to judicious boosting by a literary Olympian, whose fiat is unimpeachable anent the "Book of the Week."

Thus is Mr. Reginald Welland's fame established, and he is one of London's lions. When his book is dramatised, he and his Sylvia go forth to the great city and have various adventures, tinged with romance and more or less innocuous, amid a coterie of sophisticates, professionals and habitués of the theatre. The gallery of pen portraits is a large one, including Betty Baxter, who found the loveliness of Westaways "amusing" and talked baby-talk to flowers; "Diddums wantums 'ickle dinkums'" inciting the budding author with desire to commit murder.

The story is told in introspective modern manner, creating an effective impression of the mind of Reginald, its see-sawing hopes and fears, reactions to beauty, and reflections on life in general and individuals in particular. Thus he muses, with some penetration: "Why was there this freemasonry amongst women? A sort of defensive alliance, he supposed, against the masterfulness of man, heritage of the days when women were really slaves. If Woman lacks that sense of honour, of good form, sportsmanship, on which Man so prides himself, it is because subconsciously she is always at war, and in war there are no such things as honour, good form, and sportsmanship. All is fair in love and war, says Man; and then blames Woman for living up to it."

There are lovely touches of description and a deep delight in the pageant of the seasons. "Shadows of butterflies in the early sunshine. Peacocks in the buddleia, folding their wings into blackness, opening them into beauty. Red Admirals, red and black velvet on lilac. Beautiful butterflies—how much prouder God must be of you than of bees. How much more worth while to have made you! The call of the rooks in the elms on spring mornings, blackbirds in February, thrushes in April, the cuckoo who re-awakens in you the memory of every summer."

The story will be read more for its wide-eyed awareness of earth's beauty than for any complexities of plot or striking novelty of characterisation. Through it all is insistence of the hero's ever-recurring delight in the charming Sylvia, this modern love-story being suggested, rather than narrated, with a delicacy and charm of which this bright, particular star in "Punch's" literary galaxy possesses the secret in a high degree.

"WILD RYE" is a tale of the nineties—those superficially starchy days, when human nature was much the same as it is now, despite strict insistence on conventions and the rules for social conduct which were like unto those of the Medes and Persians. The story is the old, old one of a love that goes awry. Jenny Rorke lives with her grandparents in a big provincial town, and falls in love with handsome, wayward Thaddeus Ryott. But in those days long engagements were the custom, and in this case spelt tragedy. For Thaddeus asks of her the greatest gift, and she, fearing to lose him if she refuses, consents to her own undoing. There are sidelights on divergent feminine types, the Parisian charmer, and the dashing and unscrupulous Linda. Miss Muriel Hine has written a good story of a true-hearted woman, and a very appealing one.

IN "The Happy Prisoner," by Mrs. Lorna Rea, the physical disability of deafness is an important factor in a very attractively told tale. The heroine, who suffers from what is usually regarded as a sufficiently unhappy handicap in life, finds her deafness a disguised blessing, for it necessitated her retirement into a world of her own, and a very happy one of dreams and girlish visions. But her peace is broken by a determined lover, who insists on consultation of skilful medico, who cures her. Then follows marriage with the masterful one, and entry into a world of material problems that had not confronted her when she dwelt in spiritual city conjured up in the past. There is not much plot, but elucidation of the somewhat debatable theme is skilfully achieved, and the gallery of portraits etched with a sure and practised hand.

IN "The Trap," by Mr. Allen Havens, the author has written a war story which is entirely unbiased. The book is written by one who knows, but with an odd effect of an entirely unattached and cool onlooker, who weighs the pros and cons of the fate of unhappy mortals caught up in the vortex of that disastrous maelstrom, and sets down his observations and conclusions with restraint and authenticity. There is abundant evidence, however, that he, too, was "out there" amid all the tragedy and cruelty and waste of the glorious and terrible campaign, for there are vivid descriptions of actual happenings such as could have been written only by a man who was himself a combatant. There is no dwelling on filth and wretchedness, horror piled upon horror, of which there has been such a plethora; but no one with a reasoning brain and comprehending spirit will read the book unmoved.

The
December Issue
of

RADIO LOG

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Tips and Jottings for the Constructor

Loudspeaker Buzzing.

IN not a few cases peculiar and very unpleasant "zizzes" in loudspeakers of the balanced armature type may be traced to actual vibration of the baffle board. Some of these instruments produce in themselves a great deal of vibration, and these vibrations are transmitted to the board. The result is that whenever of the natural frequency of the board occurs, resonant effects are observed. One way of overcoming this difficulty is to make a stand for the unit and its cone and to place it behind the baffle so that the front edge of the chassis just clears it.

Protecting Ebonite.

IF an ebonite panel is clamped in a vice without any protection its surface will almost certainly be damaged. To prevent this obtain a lump of cobble's wax and cut two pieces of thick card to fit the jaws. Rub one side of each card with the wax so that its surface is quite sticky. Put both cards in the vice with the waxed side toward the jaws and clamp up tightly. When the vice is opened the cards will then adhere to the jaws. They may be taken off with little trouble, and they will form a perfect cushion for any work which is soft enough to take an impression from the bare jaws.

Cutting Ebonite.

WHEN an ebonite panel is cut, it will be found that the cut edge is very rough in appearance in comparison with the finish of the original edge. To obtain a similar finish for the new edge, the panel must first of all be clamped in a vice and the marks from the saw removed with a medium flat file. Work the file diagonally across the edge, taking care not to cut too deeply at any one point. Next lay the file flat along the edge and push it straight along with firm strokes, keeping the whole length of it pressed down on the work. Now wrap a strip of emery cloth round the file and work with this in straight lines backward and forward until all the file marks have disappeared. Repeat with the finest emery paper. Finally moisten a piece of rag with turpentine, rub this into the edge, and polish off with a clean, soft rag.

A Good R.F. Choke.

A RADIO-FREQUENCY choke for shortwave work may be quite simply made in the following way. On an ebonite coil former $1\frac{1}{2}$ inches in diameter and about 2 inches long wind about 70 turns of number 34 d.s.c., securing the ends to terminals mounted in suitable positions at the end of the former. The whole is then mounted on a baseboard by means of a strip of ebonite which is passed through the former and screwed down at each end.

Curing Microphonic Howl.

THE simplest and best cure for microphonic howl is to apply "damping" to the glass bulb of the detector valve. This may be accomplished either by covering the bulb completely with sticking plaster, or with a soft lead cap. A half-inch nut stuck to the bulb with plasticene or chewing gum is also quite effective.

"Starting" Small Nuts.

A SIMPLE way of "starting" small nuts which are situated in inaccessible positions is to break the point of a lead pencil and then inserting the blunted point into the nut. A little manipulation will suffice to "start" the nut on its thread, after which the pencil may gently be removed and the nut screwed home tightly with the fingers or a small pair of pliers.

Drilling Ebonite.

EBONITE should always be drilled slowly and with not too much pressure on the drill. If the drill is rotated too rapidly the ebonite will chip instead of leaving a clean-cut hole. When the drilling is finished, give the panel a rub over with methylated spirits. This will remove all finger marks and restore the panel to its original condition.

A Useful Adjunct.

AN old shaving brush with the bristles trimmed down until they are about an inch in length is an excellent adjunct to the radio worker's outfit. It can be used for removing traces of flux from a wired up panel, for removing brass steel filings from inaccessible positions, for cleaning soldering irons and for a number of other things.

Slow Motion Dials.

THERE are several points to note when buying slow motion tuning dials. The first is that an end stop is provided after each half revolution. This ensures that the dial will not slip on the condenser central and upset the reading. A second important point is to see that there is no backlash, while finally make sure that the method of fixing to the condenser spindle (and panel if necessary) will result in a firm and secure grip.

Sensitivity Test.

AN excellent test for sensitivity for headphones is to put them on in the ordinary way, holding one of the tags between the lips. Now rub the other tag with a key, file, or other piece of metal. If a rubbing noise corresponding with the movement of the key is heard, you can be sure that the phones are sensitive.

Making Soldered Joints.

THE ability to solder joints efficiently is undoubtedly half the battle in set construction. Certainly it is possible to obtain satisfactory results from the set with no soldered joints, but the chances of possible failure or of undesirable noises occurring in the finished set are greatly diminished where soldering has been employed throughout. After all there is nothing very difficult about making a soldered connection if the following points are borne in mind. Never attempt to work with the iron too hot or too cold. The best indication of the correct temperature is to hold the bit against a piece of paper. It should be sufficiently hot just to scorch it, but not to burn it. With the iron correctly heated, file the end until it is quite clean and dip it into a tin lid on which has been applied a small amount of fluxite, and apply a strip of solder to the finished portion of the bit. The solder should run quite easily and should leave the bit end brightly nickled in appearance. Next clean the two parts which it is desired to solder, apply a small amount of fluxite, and then, by holding the bit on the prepared parts, the two should weld together quite easily.

Bushings for Metal Panels.

NOW that metal panels are becoming more popular the subject of terminal bushings is of some importance. Ebonite terminal bushings, can, of course, be obtained from most dealers at reasonable prices. Nevertheless, this article can be made very cheaply indeed from a piece of ebonite tubing whose internal diameter is sufficient to take the shaft of the terminal. In order to convert such a piece of ebonite tubing into efficient bushes with metal or wood panels, cut sections from the tubing, each section being long enough to enable approximately 1-8in. of it to protrude on either side of the panel. For use these sections should be soaked in hot water, for a few minutes in order to soften them and they should then be inserted quickly in position and the terminal nuts screwed home as rapidly as possible. In this way the tightening pressure of the nuts will compress the 1-8in. of the bush which protrudes on each side of the panel, thereby creating a flange which will effectively insulate the terminal.

Testing Condensers.

WHEN a large fixed condenser of 1 or 2mfd. is connected across "B—" and a "B+" tapping it is possible to remove the wander-plug from the latter tappings without the set immediately ceasing to operate. The smaller the current being taken the longer will the set go on working, and also the larger the condenser the greater will be the period before signals will fade out. This phenomenon is, of course, due to the reservoir effect, or storing capabilities of the condenser. It forms a convenient method of testing large fixed condensers of .5 mfd. and upward. All that has to be done is to connect the condenser to be tested across a "B+" and "B—" switch on the set, and then remove the wander-plug supplying the particular tap and note if reception continues for a while.