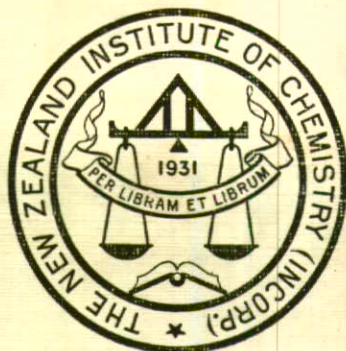


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of the
NEW ZEALAND
INSTITUTE of CHEMISTRY



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JOURNAL
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VOLUME V.

MARCH, 1941

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EDITORIAL

Those members who were able to attend the conference were privileged to hear two most thoughtful and valuable Presidential addresses, and to take part in a discussion on the subject which is of foremost concern to all groups in the community, what part that section of our people with a particular kind of technical training can most usefully play in the war effort. The fact seems to emerge that nothing stands out as an obvious contribution for chemists as such to make, beyond what they would normally do to increase the country's production.

Such sharply conflicting information and opinions were given about the extent to which New Zealand chemists could be absorbed in the larger industrial war production of Australia; that it seems clear that various speakers were discussing quite different parts of that country's chemical labour market. It is a fact that for some years now a steady trickle of New Zealand chemists has been going across the Tasman. Indications are that the flow is increasing. It consists mainly of recent graduates in chemistry taking up positions such as assistant research officers of the Commonwealth Department of Scientific and Industrial Research. On the other hand it appears that no positions are available for more experienced chemists who would like to play a part in production directed specifically to war purposes. The situation may of course change in the future.

Both Dr. Page and Dr. Gardner expressed the opinion that we are, to use the former's words, "close to an important cross-road in the industrial development of this country." Quite briefly, it is at best extremely doubtful whether New Zealand economy can remain based on a few primary products whose position in the world market, or rather the British market, is now seriously challenged. However uneconomic it may be, we seem to be forced in the direction of greater secondary production, and satisfactory development will only be possible if trained technical personnel is available.

We are of the opinion that this problem is closely connected with that mentioned above, the role of New Zealand

chemists and other scientific workers in the war. There seems a good case for requesting that employment be given to such workers in the extended industrial plants of Britain, partly as a contribution to the war effort and partly as a means of familiarising them with processes they will have to be concerned with in the post-war period. These two ends are both worthy, and it would be short-sighted to allow the necessities of the former, though it must take first place, to exclude completely consideration of the second. Indeed we believe that ends can sometimes be means, and should not only be discussed but actively prepared for. No doubt objections can be found to such a scheme. We decline to believe that any of them would be insuperable.

DR. PAGE'S ADDRESS.

We congratulate Dr. R. O. Page on his election as Chairman of the N.Z. Section of the Institute of Chemistry of Great Britain and Ireland and on the address he prepared for the Conference, which our members had the privilege of attending. We had the pleasure of reading it (and that amounts to the shameful confession that we were unable to go to Dunedin) just after seeing a very interesting and entertaining article on "The Mass Production of Chemists" in "Chemistry and Industry" of November 23rd last, by an anonymous writer who seems to have donned the mantle of the late Professor H. E. Armstrong. "Chemicynicus" is concerned about the training of chemists in the Universities. With much of his criticism we agree. With his advocacy of a completely external examination system we most emphatically disagree, basing our opinion on experience, both in teaching under an external examining system, and in acting as an external examiner.

Dr. Page is concerned with the training of industrial chemists. He spends little time on criticism of what is, but much on indicating what might be. He is anxious to see an early start made in training the scientific staff of the industries, the development of which he forsees. The course he suggests is a good one. Whether it can be carried out without considerable expansion in the University staffs is a problem to be studied. He wants, for instance, both Elementary Engineering and Bacteriology. The former is obtainable at Auckland and Canterbury, the latter is just being started, but only at Otago. It may be simpler to begin with a post-graduate course for

industrial chemists and bring in Dr. Page's more comprehensive scheme as the need for it becomes more clearly envisaged. We hope, anyway, that other leaders of the industries involving scientific control will stand with Dr. Page in his advocacy of a forward movement. We hope too, that members of this Institute will read both the article referred to and the address, and be not backward in expressing their views.

CONFERENCE.

The Annual Combined Conference of the New Zealand Institute of Chemistry, and the New Zealand Section of the Institute of Chemistry of Great Britain and Ireland was held in Dunedin on January 23rd and 24th. About thirty members attended, including eight visiting members from the branches other than Otago, and some were accompanied by their wives. A Council meeting was held on the evening of the 22nd, and concluded on the morning of the 24th.

The Otago Chairman, Mr. T. A. Thomson, welcomed members at Otago University on the morning of the 23rd, Dr. Soper supporting him and conveying best wishes from the University.

The Annual General Meeting of the New Zealand Institute followed, and after the minutes of the last such meeting had been confirmed, some discussion of general business took place. Members expressed themselves as satisfied with the Journal and thanks were extended to the Editor. It was suggested that Council meetings should be held shortly before an issue of the Journal so that reports of business done may be available for that issue.

A telegram was sent to Mr. J. A. Pond, of Auckland, announcing his election as an Honorary Fellow, in appreciation of his services to the profession of chemistry. Mr. Pond, who is over 90 years of age, was Government Analyst sixty years ago.

A motion expressing appreciation to Mr. T. A. Glendinning for his past services as Hon. General Secretary-Treasurer was carried unanimously.

It was decided to forward the Wellington remit re alteration to rules, to Branches for discussion and comment. The remit made provision for the election of the President and Secretary-Treasurer annually by postal ballot of all members and also limited the period for which they could hold office to five years, i.e., a maximum of five consecutive years.

The following is a summary of the discussion which took

place. Mr. White said that he was in agreement with the idea of a postal ballot. On behalf of Auckland, he stated that it was their opinion that remits should not be discussed, as there was too much weight of local members at a Conference. Professor Soper, while agreeing with the idea of a Postal Ballot questioned the wisdom of calling for nominations from Branches and suggested that Council should nominate. Mr. Andrew disagreed with a Postal Ballot as he felt that older men, who had done a great deal of work for the Institute, and who deserved recognition may be overlooked. He felt also, there was a danger of setting one Branch against another. Mr. Andrew favoured limiting the office of President to 2 years but that there should be no limit on the period for Secretary-Treasurer, which election should be definitely left to Council. Mr. King felt that all members of Council should hold office to the same date. Mr. Lambert pointed out that the remit had been forwarded as a basis of discussion rather than a final re-draft of the rules. Mr. Longbottom said that Conference was the place for discussion. He felt that the rules should be as elastic as possible.

It was decided that Conference should be held each year in a central position.

Council was asked to consider the advisability of holding Conference in August of each year.

Council was also asked to consider the inclusion of a Vice-President in the list of officers.

Morning-tea followed, and then two parties, under Dr. Townend and Mr. R. V. Peryman inspected the Wool Research Laboratory which is housed in the University. Members were shown the textile testing equipment for mechanical, physical and chemical analysis, and examples of various types of problems being tackled by the Association were discussed.

On the chemical side, problems related to the dyeing of wool are a constant source of work as well as providing some of the hardest problems to solve. The methods of attack vary according to the type of uneven dyeing in question, but the investigation generally begins with examination of the sample under filtered ultra violet light, taking the pH of water extracts, examination under binocular microscope, Soxhlet extraction of contrasting portions with petroleum ether for grease and sometimes followed by absolute alcohol for oxidised oil and soap. When metallic stains are suspected (as may be indicated by the appearance under ultra violet light) wet

oxidation of the wool by digestion with mixed sulphuric and nitric acids is used, followed by colorimetric determination of heavy metals. Stains are practically confined to iron and copper though lead sometimes occurs. Metallic stains on bleached white goods are fairly common and surprisingly little metal (less than 0.01 per cent) can produce the coloration. Selenium from the sulphur used in stoving wool goods has been known to produce stains when the sulphur has contained only 0.02 per cent selenium.

A Cambridge glass electrode outfit has proved useful in studies of raw wool scouring resulting in better control of additions of detergents.

The methods of imparting unshrinkability to wool goods are a constant source of interest to a chemist. The treatment with dilute acid hypochlorite leaves much to be desired in the final result but proper chemical control of the process, though difficult to maintain in a mill, has already produced encouraging results. The recently developed gaseous chlorine and sulphuryl chloride processes already being introduced into industry overseas are an important advance in unshrinkable treatments. The quality of the oils used for lubricating the wool fibre in processing demands careful control, and examination of the oils at present in use with special reference to those produced in New Zealand is proving an important item of work.

Members were introduced to some of the difficulties caused by the variability of the wool fibre that had to be faced in the development of various methods of sampling. It was pointed out that for testing the mechanical properties of fibres, yarns and fabrics, conditioning of the material to a standard atmosphere is necessary. The constant temperature and humidity room in which most mechanical testing is carried out is maintained at 65% RH and 70 deg.F.

New equipment has been acquired by the Association for the testing of resistance to shrinkage of textile fabrics, by means of which the Association's tests will shortly be made to conform with the recently introduced British Standard Specification. Typical structural faults in fabrics submitted to the Association were shown and examples given of how the causes of the defects were traced back to responsible mechanisms in the mill. A number of industrial uses were cited for a recently acquired Rotoscope, the instrument being specially useful in the study of variation of spindle speed on the spinning frame.

In the afternoon a visit was paid to the Milburn Lime and Cement Works, and a very pleasant two-hour tour was enjoyed. Members appreciated the time and trouble spent by the management, two executive officers being put in charge of the party. The whole process was followed from the taking of raw material out of the hillside, through the puddler and mixer, where lime is added, to the 200-foot rotary kiln, where the mix is roasted, and finally to the pulveriser and stove. Builders' lime and hydrated lime are also made, and the works is equipped with a laboratory containing, in addition to normal laboratory apparatus, a press capable of exerting 25 tons per square inch, and other concrete testing machines.

PRESIDENTIAL ADDRESS

Dr. Gardner delivered his address at the Savoy Restaurant on the evening of the 23rd.

"In this address," said the President, "I propose to discuss some aspects of the possibilities of expanding the productive capacity of this Dominion, particularly in the direction of initiating new industries.

"I do not, however, propose to confine myself strictly to chemical aspects of the matter but shall consider myself at liberty to refer to economical and even political aspects of the subject. The dictionary meaning of the word *politic* is 'the science and art of government' and I see no reason why any assembly should not be at liberty to discuss that subject or such aspects of it as may happen to interest the particular assembly, though it is proper to exclude from our discussions those personal and partisan tactics that usually go by the name of politics.

"We all know that there can be no exact and clear-cut boundaries to our own branch of science. Just as pure chemistry merges into physics and the biological sciences and becomes inextricably mixed up with applied chemistry, so applied chemistry touches economics, and if I have, in tonight's address, overstepped the boundary, I can only ask your indulgence.

"Now it is my own definite and considered opinion that it is absolutely essential to the prosperity of this country that there should be in the immediate future a large increase, both in total volume and in diversity, in the output of goods manufactured in New Zealand for use in the Dominion. My reasons for that view have been stated elsewhere and I give it here

merely as an expression of a personal opinion with which you are, of course, quite at liberty to disagree. I have gone so far as to argue that it is conceivable and indeed highly probable that circumstances will arise in which it would be advisable for us to foster the manufacture of goods which we ought, in other circumstances, to import. I would in fact, advocate the establishment of what some people would consider "uneconomic" industries. But even the acceptance of that view—and many people will consider it an extreme view—does not commit one to believing that it is right or expedient to attempt the manufacture of every kind of article in New Zealand, and those whose views, more favourable to importing and less favourable to local manufacture, will admit all the more readily that some manufacturing industries are more 'economic' under, or more 'natural' to New Zealand conditions than others. It ought, in theory, to be possible to draw up a list of articles in the order in which it would be advisable to undertake their manufacture in New Zealand. In fact, it is exceedingly difficult to arrive at a satisfactory criterion of the relative 'economicness' (if there is such a word) or 'naturalness' of different manufactures. Any such criterion is a resultant of a number of different considerations, the relative importance of which is a matter on which opinions will differ, and in addition, the drawing up of such a list would involve a survey of circumstances as to some of which no complete data is obtainable and some of which are constantly changing in a manner which is in the present state of our knowledge wholly unpredictable.

"What then, are the major considerations which will help us to determine whether an attempt to make a given article in New Zealand is warranted? Clearly one is the supply of raw materials. In this connection whatever can be done to survey and make known the resources of the country is of first-class importance. I would mention here the work of the geological survey and the associated chemical work, and the excellent work now being done by the Coal Survey division of the Dominion Laboratory. This sort of effort deserves to be better known than it is and we should fight hard for large extensions of this type of work. We should remember also that the raw materials of manufacturing industry include the products of the land. One may here refer briefly to the fairly extensive soil survey of the Dominion now being carried out. Quite apart from the importance of finding new exports and of keeping up the quality of existing exports, these things

are of course of fundamental importance and I should not like it to be thought that because I speak chiefly of local manufactures, I am unmindful of the importance of exports—quite apart from the export aspect—any move in the direction of finding new crops that can be used as starting-points for new industries, or new uses for crops which it is known can be successfully grown, is of great importance to the economy of the country. A major development in that direction and one that will be watched with the greatest interest, is the linen flax industry. This would seem to furnish a good example of the value as a national investment of research into possibilities of production even if the possibilities seem at the time rather remote. Although the fostering of the linen flax industry is primarily a war-time measure, it will be very interesting to see whether, or to what extent, it becomes under peace-time conditions a permanent addition to the resources of the country. Another example, with which I happen to have been directly associated, is the manufacture of starch and derived products from potatoes. If time permits I shall have more to say about that later. This question of raw materials, in the widest sense, is clearly of the greatest importance and we should all give it what attention our individual circumstances permit and take whatever opportunities present themselves of impressing upon the Government and upon the public, the importance of comprehensive research into all aspects of the question.

“A point not to be overlooked is the importance of those researches that lead to negative conclusions. It is quite necessary to know what we have not got and what we cannot do and those investigations which end up in showing that it would be hopeless to attempt a particular manufacture, or that the supplies of a particular raw material are too small to be of any use, are really quite as useful as those that disclose the existence of valuable resources.

“At the same time a thing that has impressed itself on my mind in the last few years is the number of cases in which it has proved practicable on investigation, to manufacture locally on a reasonable commercial basis, goods which have to be made wholly or nearly so from imported materials. As an example from my own experience, I take wax polish for motor cars. The only wax this country produces is beeswax which, owing to its low melting point, cannot be used in any quantity in polishes designed to leave a film which must stand up to direct sunshine. A tin of motor car polish of the wax type

represents practically 100 per cent imported materials, yet these polishes of good quality can be made here, sold at a cost no higher than that of the imported lines and leave the manufacturer a reasonable profit. This particular article is not sold in very large quantities, yet the manufacture in New Zealand of all the car polish used in the country represents a saving in external currency probably of the order of £5,000 a year. This is only one line—I have come across quite a number of similar cases and no doubt other members have too.

“In the case of goods made here from imported raw materials, those raw materials are of course, in the long run, paid for by exports. It does not require as large a volume of exports to pay for these as for the same goods in manufactured form, and if the volume and value of exports can be kept up, the saving can be applied to the reduction of external debt.

“The aspect of the matter that has impressed me greatly over many of these minor manufactures, and some comparatively major ones too, is that they might have been commenced at any time in the last ten or twenty years, but it seemed that some sort of a jolt was needed to bring it home, both to potential manufacturers and to local users, that the thing could be done in New Zealand. The 1931 slump and subsequent political developments provided that jolt in some cases, and wartime conditions are doing so in others, and one hopes that we may look forward to seeing the effect continue and even increase. Then, assuming that the necessary raw materials are available from local sources, or failing that, can be imported at a price which leaves a sufficient margin for manufacturing costs, one has to consider the availability or otherwise of suitable plant and buildings. The magnitude of this problem will naturally vary with the nature of the article of which the manufacture is being considered. Very helpful in this connection is the availability of cheap electric power, even in country districts. We have yet to learn to appreciate fully the extent to which this can be helpful to small-scale manufacturing industries. Then if you can get raw materials and plant, you need workers. At the present time proposed new manufactures may be held up on account of shortage of labour. That is of course an effect of war-time conditions in which a large proportion of our man-power is applied, directly or indirectly to war purposes. Within recent years we have had not a shortage but an over-supply of man-power in comparison with our capacity to find work, and the experience of the last war leads one to fear that after this war we may have the

same again unless preparation is made beforehand for a large and sudden expansion of industrial effort immediately after the war.

“Once the industry is initiated it is our main job as chemists to control the process, look to quality of raw materials and finished products and solve problems as they occur, but before that stage it is our duty to help decide what processes are to be used, what plant will be required and indeed whether the suggested manufacture is, from the process point of view, practical at all. Even before that stage is reached however, there must come from somebody the suggestion that the possibility be looked into. In a great many cases the deciding factor as to whether a manufacture will be commenced is the existence of the right combination of initiative and expert knowledge, and it seems to me that in many cases the initiative can well come—in some cases must come—from the person who also possesses the technical knowledge. Then, when the article is made it has still to be sold. It is no use making it otherwise, so in practice the first thing that is looked at when a new manufacture is under consideration is the possibility of selling it. In fact it is usually the realisation of an actual or potential demand for the article that sets in train the investigation as to whether it can be made.

“The urgency of the demand for an article is roughly measured by the price that can be obtained for it; the comparison of that price with the price at which the article can be made determines whether it can be made at a profit, and that is, in the existing social system, usually what decides whether it will be made at all. In practice, a difficulty—and sometimes the biggest one—is the raising of the necessary capital for the enterprise. While the chemist as such is not responsible for this, he cannot help feeling concerned when he finds that difficulty in raising capital is preventing him from doing useful work which he knows to be technically sound, or when on the other hand he sees money being put into an enterprise which, on technical grounds, can never be successful. The Government can exercise a large degree of control over the question of whether the manufacture of a given article in New Zealand will be financially successful, by such devices as adjustment of Customs duties, import restrictions, licensing of manufacture, control of capitalisation of companies and direct loans or grants of various kinds to industry. All of these methods of control are in operation in New Zealand at the present time. Whatever may be our views on the desirability

of Government control of industry we will all agree that to the extent that such control is in operation it should be worked with full use of the best technical advice available. My own recent experience leads me to have grave doubts as to whether competent technical advice is being fully used in this connection."

Dr. Gardner then reviewed some of the possibilities and impossibilities in chemical industry. The production of coal tar dyes is a very remote possibility but a fairly wide range of coal tar products are already on the market, and this industry should expand. On the subject of liquid fuels, and hence petrol restrictions, he believed our dependence on a commodity which we do not, and probably cannot produce, creates a dangerous position. Restrictions may continue to be necessary even after the war, and research should be directed to the production of alternative methods of transport of comparable efficiency.

Another key material which is lacking is salt. Production from sea water would need about ten tons of coal per ton of salt obtained, and until some cheap method is found we shall have to import both salt and its products. When we add rubber, cotton and many mineral products, the list of essential commodities which we must import or go without, is a formidable one.

Progress is being made in the use of scrap of different sorts, such as re-pulping of paper, cleaning of used engine oil, and the manufacture of nitrocellulose solutions from scrap film. In the important case of scrap iron, there are certain difficulties such as that of sampling. Some very good work is being done with steel of controlled composition melted in electric furnaces, largely from picked scrap with minimum addition of imported ferro-alloys. Success with the Onekaka project will improve the position.

The glass and pottery industries are capable of further development, and on the organic side there are very many possibilities, since we have a diversity of soils and other conditions suitable for the growth of most crops except those requiring the hottest and driest types of temperate climate.

The remainder of the address was devoted to one new industry in which Dr. Gardner is interested--potato starch. In some seasons large quantities of potatoes are wasted as the domestic demand is inelastic. At the same time there is a shortage of dextrine. The process of extracting starch is comparatively simple and the greatest difficulty, the making

of a rasping machine, was overcome by Messrs A. L. S. Cassie Ltd., who got away from the ideas used in other places and designed a machine which has proved very successful. The main difficulty has been lack of capital and an application for a Government loan was turned down by the Bureau of Industry, and permission to form a company was refused on the ground that the relevant Government Department thought that the industry would not be economic. However, the promoters built as good a plant as they could with limited funds, and a few tons of starch have been made at a profit. The starch is not suitable for laundry work, but has industrial uses, especially for making a soluble dextrine, for which there is a good market in New Zealand even in normal times. Now, with Dutch supplies cut off there is a wonderful opportunity.

In conclusion the President urged that a large expansion in manufacturing must be made quickly, and chemists can do much to solve problems and prevent serious mistakes if their services are properly used.

On the morning of Friday 24th, N.Z.I.C. members attended the Annual Meeting and Presidential Address of the New Zealand Section of the Institute of Chemistry of Great Britain and Ireland. Dr. R. O. Page's address was read by Mr. P. White in the President's absence, Dr. Page being unfortunately detained in Christchurch.

The afternoon visit was to the Iron and Steel works, where the various stages in the melting and casting of various types of steel were seen. Interesting features of the laboratory work are the rapid determinations of carbon and manganese. These are carried out within ten minutes and the steel is not poured till the analysis is correct. High carbon, manganese and chrome steels are made.

A second party, which included the ladies, visited the Cadbury-Fry-Hudson factory and each member was presented with a box of chocolates on leaving.

CHEMISTS AND THE WAR EFFORT.

On Friday evening, Conference devoted itself to a general informal discussion on how chemists could help the Government in its war effort.

The President opened the discussion and said that no clear dividing line could be drawn between actual war work and other production. While the army is in New Zealand it is paid, fed and in many ways equipped directly out of our own

production, whereas on going overseas it becomes a charge on our sterling funds which can only be offset by exporting more goods or importing less, or both. Hence an essential part of our war effort is to obtain maximum production here.

Dr. Soper defined war activity as to-day's activity minus that before the war, though no definition is entirely satisfactory. He mentioned a number of ways in which chemists are contributing directly to the support of the fighting services and to the increase of production of goods previously imported into New Zealand. The manufacture of explosives is not immediately practicable here since nitric acid, for instance, is not produced. In fact, the foundation chemical industries for armament production are lacking, and few chemists are available with experience of the type of plant required.

Mr. L. W. Ruddle raised the difficulty of procuring mercury. He said that forty tons were exported from New Zealand between 1918 and 1938, during which time it was also being imported. Now that it cannot be imported, production is no longer being carried on. He expressed the hope that chemists are now sufficiently wide awake and their position in the community well enough understood to prevent a repetition of such incidents as occurred in the last war, when a firm sent an executive to England to find how caustic soda is made.

Mr. J. Paeker drew attention to the increase in manufacturing which is taking place in Australia and suggested that some of our chemists could be absorbed into war work there. On this point conflicting opinions were expressed. Mr. R. L. Andrew said that chemists are not wanted in Australia or elsewhere. (Since this discussion was held several New Zealand graduates in chemistry have been offered positions in Australia.—Ed.). Mr. Paeker further considered that technical workers should be conserved against increased demand later.

The President, summing up, said that while no concrete proposals had been put forward, the discussion had been of value. He concluded that members must accept the Government's guarantee, contained in a letter which he had explained earlier in the discussion, that chemists will be used to the best advantage.

At the conclusion of the discussion, Mr. R. L. Andrew thanked the Otago Committee for a very successful conference. Messrs Thomson and King, Dr. Soper and other members of the Otago Branch may be assured that it was one of the most successful conferences held so far. It will be of great value if at future conferences the final night could be used for a discussion of general interest in which all could join.

COUNCIL MEETING.

At the Council Meeting held in Dunedin during the Conference, some business of interest and importance was completed. Sir Theodore Rigg was designated President-Elect.

The Otago Branch was asked to set up a committee to call for and consider alterations to and re-drafting of the Rules. The suggested alterations are to be published in the Journal as soon as possible.

The following regulations for examination for the Associateship were approved:—

1. The candidate must have passed the N.Z. University Entrance Examination or its equivalent.
2. The candidate must have passed the theoretical examination prescribed by the University for Chemistry IIA and IIB, together with two Stage I subjects other than Chemistry I, one of which shall be Pure Mathematics I, applied Mathematics I, or Physics I.
3. (a) The candidate must have had at least seven years' practical experience in a laboratory approved by the Council or,
(b) The candidate must pass a practical examination in analytical chemistry.
4. The fee for the examination shall be one guinea (£1/1/-) plus such fees as the N.Z. University shall charge.

On the motion of Mr. White, seconded by Mr. Andrew, a letter of greeting was sent to the chemists of Great Britain.

The text of the telegram and the reply received are as follows:—

Institute of Chemistry, 30 Russell Square, London
Annual Conference of New Zealand Chemists sends
greetings, good wishes to their British colleagues.

Reply:—

White, Dominion Laboratory, Wellington.

Council cordially reciprocates. Confident. Pilcher.

The Council hopes that members, especially those who were unable to attend the Conference, will express their views on the matters discussed there, by letter either to the Journal or the Honorary General Secretary.

BRANCH NOTES

AUCKLAND BRANCH

The Annual Report of the Auckland Branch shows a satisfactory financial position. Membership stands at 44, compared with 46 in 1939, but there has been a decrease of five among city members. No members were elected during the year. The Branch now has seven country members, an increase of one over 1939, Mr. T. A. Pressley of Somerset, England, having been elected. Local members number nine, A. L. Arkininstall, T. H. Wilson, I. S. Hunt and S. Cotton being new members. G. C. D'Ath transferred to Wellington and E. A. Blair is on active service with the Air Force.

The Branch has, during the last few years, presented the current volume of the "Analyst" to the Chemistry Department of Auckland University College. This year three back volumes were presented to fill a gap in the sequence, the cost being met by donations of two guineas each from two members, the balance coming from Branch funds. The Committee desires to thank the members, who wish to remain anonymous.

WELLINGTON BRANCH.

The Branch reports an increase of eight members, seven newly elected, and one transferred from Dunedin, making the total now 79 full members and five local members. Four members are with the Forces overseas. No award was made by the authorities of Victoria College of the New Zealand Institute of Chemistry Prize. The Annual Dinner was replaced by a Social Evening which was fully supported and was an unqualified success.

CANTERBURY BRANCH.

Six new Associates were elected during 1940, and the Branch membership is now 39, with 12 local members.

The Annual General Meeting was held in November, and after the business was concluded a film evening was held, arranged by Mr. J. Packer. Films demonstrating the Kinetic Theory of Gases, Electrochemistry, and Lubrication, were shown. Members were particularly interested in the educational potentialities of the films, which use some ingenious methods of pictorial explanation.

OTAGO BRANCH.

Membership has increased by 8 and now stands at 43. The first prize awarded by this Branch of the Institute at Otago University was won by J. F. McCahon. Members will be interested to hear that in connection with the course in Bacteriology, which may now be taken as one unit of the B.Sc. degree, classes will be started at the Medical School in 1941.

Correspondence.

The Editor,

Sir,

Another very successful and enjoyable Conference has passed. As in past Conferences, many of our principal members were not present. Many were unable to attend through pressure of work in January. In Christchurch, the Freezing Works and the Wheat Research Chemists are affected. Further, many of our members have their annual holiday at this season and are away with their families. For this reason it was moved, seconded and passed unanimously by those present at the Annual Meeting in Dunedin, to postpone the date till August and to fit in with the University term holidays. This would be a decided improvement and should enable many more of our members to attend and renew old acquaintances. A Conference at such a time would be a good occasion to elect the President for the following year by members attending and thus eliminate the existing confusion concerning at which meeting the President should be elected.

By this proceeding the President could be elected by those present to take office from then, or the first of January, and his Presidential Address would be given a year after his election.


Another motion to elect a vice-president was also put forward and if this were done, he would be the president-elect and would have two to three years to prepare his first address as President. If the Conference is thus arranged we should be able to look forward to much larger gatherings and really good addresses.

Yours, etc.,

L. W. Ruddle.

P.O. Box 1254

TELEPHONE 30-919



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