JOURNAL OF THE NEW ZEALAND ASSOCIATION OF BACTERIOLOGISTS

CONTENTS

The Routine Use of Penicillinase P. H. Curtis	37
Department of Health Final Examination, August, 1951	40
Rh typing by the Slide and Tube Techniques P. B. Scott	43
Amoebic Pericarditis G. George	45
Obituary:—Thomas Alexander Ross H. L. Haden	47
Dextran and the Cross Typing of Blood G. Bloore	48
The New Zealand Association of Bacteriologists (Inc.) Annual Conference, 1951	49
Here and There	59
To the Editor	60
Council Meeting, August, 1951	61

Communications regarding this JOURNAL should be sent to the Editor, Department of Pathology, Greenlane Hospital, Auckland, S.E.3.

Communications primarily affecting the Association should be addressed to the Secretary, Mr. G. W. McKinley, Bacteriology Department, District Hospital, Waipukurau.

All monies should be paid to the Treasurer of the New Zealand Association of Bacteriologists (Inc.), Mr. H. T. G. Olive, Pathology Department, Public Hospital, Wellington.

Subscription to this JOURNAL is five shillings per year or two shillings per copy, post free.

Contributions to this JOURNAL are the opinions of the contributor and do not necessarily reflect the policy of the Association.

Another Advance in **Service to Science**

We are pleased to announce that our warehouse in AUCKLAND in now able to supply a large amount of laboratory apparatus and reagents.

TOWNSON & MERCER (N.Z.) LTD.

124 LICHFIELD ST., CHRISTCHURCH, P.O. Box 1254. AND NOW
41 QUEEN ST.,
AUCKLAND.
P.O. Box 147.

CHEMICALS:

Inorganic and organic.

CULTURE MEDIA:

Difco and Lablemco.

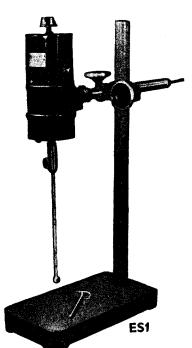
BACTERIOLOGICAL SUGARS:

Thos. Kerfoot.

ASTELL SEALS and Equipment.

BALANCES: Single pan, semimicro, and aperiodic.

INCUBATORS, MACERATORS, and LABORATORY STIRRERS, as illustrated.



PATHOLOGISTS, BACTERIOLOGISTS, LABORATORY TECHNICIANS

You would be well advised to carry adequate stocks. Prices are Increasing. Shortages are in Evidence. LITTLEJOHNS can supply from stock at lowest costs:

Soda Glass Tubing and Rod (Good Range) Pyrex Glass Tubing (Good Range) Pyrex Test Tubes Kavalier Heat Resistant Conical Flasks Kavalier Heat Resistant R.F.B. Flasks Kavalier Heat Resistant 2000 ml Beakers Kavalier Glass Filter Funnels (Good Range) Porcelain Buchner Funnels B.D.H. Micro-Stains and Indicators Micro Cover Slips and Slides Balance Weights (loose) Whatmans Filter Papers **Emil Pipettes** Emil Volumetric Flasks Emil Measurina Cylinders Emil Burettes Thermometers (Good Range) Bunsen Burners Bunsen Burners Wire Gauzes Tripod Stands Pure Rubber Tubing (Good Range) Gas Rubber Tubing (Good Range)

Baker Medical Research Binocular-Monocular Microscopes

(at special price)

Arriving early November, Full Range of Laboratory Glassware, Apparatus and Accessories, and AR and Fine Chemicals.

For BETTER BUYING and BEST SERVICE appoint as your supplier

LITTLEJOHNS SCIENTIFIC SUPPLIES LTD.

Telephone: 56-119

124 A Vivian Street, Wellington.

P.O. Box 6349, Te Aro.



STANDARD INTERCHANGEABLE GROUND GLASS JOINTS

are now being manufactured in New Zealand. Samples and Quotations supplied on request.

REPAIRS AND CONSTRUCTION OF SPECIAL EQUIPMENT undertaken.

The above equipment is manufactured by experienced glassblowers and workmanship is of the highest quality.

Address your enquiries to:-

GEO. W. WILTON & CO. LTD.

P.O. Box 367 Wellington P.O. Box 1980 Auckland

JOURNAL of the NEW ZEALAND ASSOCIATION OF BACTERIOLOGISTS

Vol. 6, No. 3.

OCTOBER, 1951.

Editorial Committee

Editor: A. M. Murphy.

Associate Editor: D. Whillans.

Distribution: Joan Byres, I. M. Cole.

THE ROUTINE USE OF PENICILLINASE By P. H. Curtis

(From Dr. Lindsay Brown's Pathology Laboratory, Auckland)

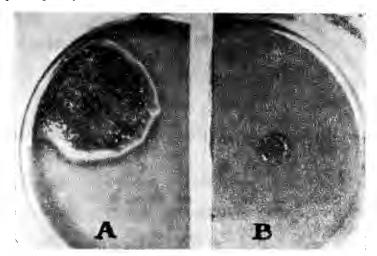
The therapeutic benefit derived from the antibiotics is undoubted, but their increasing use has now shown certain clinical hazards which demand the interest and assistance of the technical bacteriologist.

First, we are familiar with the increasing resistance of organisms and secondly with the changing flora attended by the continued use of the antibiotics in some cases; the yeasts and fungi, for instance, remaining uninhibited (ref.).

The routine laboratory cannot provide all the answers the clinician may require, but let us examine a problem with which we are frequently presented. A swab from a suppurating lesion shows pus and Gram positive cocci in the stained film and produces Staphylococcus aureus on culture inhibited by Penicillin. On the laboratory recommendation, penicillin is given. The lesion may clear up completely. On the other hand, the lesion may also show some improvement only, or it may initially clear up with an acute exacerbation with the withdrawal of penicillin. A further swab shows pus and Gram positive cocci on the stained film but produces no growth on culture. This may indicate that the organisms in the pus are dead or that they are alive but will not grow on culture. In such a case it would appear that the inhibitory effect of the penicillin is not complete clinically but is sufficient to prevent growth on culture.

The clinician then has recourse to the other antibiotics in the hope that the organism is sensitive to one of them. It would be of advantage if the bacteriologist could indicate the degree of sensitivity to each of these, but he has no culture to investigate. One alternative is to test the sensitivity to all the antibiotics on the original pre-penicillin culture—provided there is one. Another alternative is to overcome the inhibitory factor of the penicillin in vitro to provide the necessary culture for further sensitivity tests. Penicillinase fulfils this role.

The following case illustrates the effect of Penicillinase. A swab was submitted to this laboratory for culture from the ear of a patient suffering from otitis media. The swab was cultured on blood agar with a resulting heavy growth of Staphylococcus aureus. A pencillin disc placed on the medium showed a marked zone of inhibition. The patient was then treated with Penicillin and showed some improvement, but the condition failed to clear up completely.



Two experimental blood agar plates which had been treated with Penicillin and then inoculated with Staphylococcus aureus. After incubation, which produced no growth, plate A was treated with fluid penicillinase and plate B with a penicillinase disc and reincubated.

A further swab showed Gram positive cocci in the stained film, but the culture yielded no growth after 18 hours' incubation. Pus continued to be discharged from the ear.

Penicillinase was spread over the original inoculation, the penicillin disc being left in position on the medium, and the culture incubated for a further 18 hours. In order to estimate the possibility of masking by the penicillin disc on the original culture, a further plate was inoculated and it too revealed no growth and was then treated with Penicillinase as above.

On examination the following morning the culture revealed a heavy growth of Staphylococcus aureus over the original inoculation to within about 1 cm. of the penicillin dics's edge, and a number of more isolated colonies towards the centre of the medium.

Two other cultures from another patient under similar circumstances had also been treated with Penicillinase. It was noted that in the direct film from one of these, Gram positive bacilli had

also been observed. This culture yielded Diphtheroids together with Staphylococcus aureus.

It would appear that once the inhibitory action of penicillin was destroyed by the Penicillinase, the organism could immediately multiply.

On the other hand, it seems reasonable that should no growth be obtained from a culture after being exposed to the action of Penicillinase, then one may assume that the organism is dead, provided that the potency of the enzyme is guaranteed.

This is intended as a preliminary note and further investigations are necessary. For instance, potency standardisation of the Penicillinase and its preparation in convenient form are problems of manufacture. Photographs A & B show the effect of Penicillinase when applied as a fluid and when applied as a disc. The disc method has advantages of convenience in handling and can more easily be kept sterile, but its effect is not so dramatic. We have not had occasion yet to use Penicillinase in blood culture media.

Summary:

- (1) Hazards in the increasing clinical use of the antibiotics are briefly mentioned.
- (2) Incomplete inhibition by penicillin is discussed and the practical advantages of Penicillinase in routine bacteriology are shown by actual cases.
- (3) The action of Penicillinase allows previously inhibited organisms to grow on culture so that sensitivity to other antibiotics may be investigated.

Note

The Penicillinase (both discs and fluid) used was obtained from Biological Laboratories Limited, Auckland.

Ref.: B.M.J., May 26, 1951; page 1196.

DEPARTMENT OF HEALTH

FINAL QUALIFYING EXAMINATION FOR HOSPITAL BACTERIOLOGISTS

For Certificate of Proficiency in Hospital Laboratory Practice.

August, 1951.

Examiners: Dr. W. Gilmour, Dr. P. P. Lynch.

Paper: Wednesday, August 8th, 1951, 9.30-12.30 a.m.

Time allowed: Three hours.

- 1. How would you carry out a bacteriological examination of milk? What are the pathogenic organisms most commonly found in milk? How would you isolate and identify any one of them?
- 2. How would you estimate (a) serum calcium;

(b) non-protein nitrogen of blood?

Discuss the analytical methods involved in each estimation.

3. What is Romanowsky's stain?

What information can be gained from an examination of a stained blood film?

Discuss the significance of punctate basophilia.

- 4. Write short notes on the following:
 - (a) Scolex;
 - (b) The principles on which pressure sterilization depend;
 - (c) McIntosh and Fildes anaerobic jar;
 - (d) Identification of Entamoeba histolytica.

Practical A. Wednesday, August 8th, 1951, 2-5 p.m.

Part A of the questions below is to be finished by Friday morning, while part B is to be finished during this work period, and handed in to the Supervisor before leaving.

- 1. A. You are provided with an Agar slope of a pure culture of an organism. Identify the organism as rar as possible in the given time. Should you be unable to complete the identification, indicate any further steps you would consider desirable for complete identification.
 - B. Outline your routine for the isolation of pathogenic intestinal bacteria from faeces.
- 2. A. You are provided with a piece of kidney which has been fixed and processed as far as the stage of absolute alcohol. Prepare two sections, staining one with haematoxylin and eosin and the other with Van Gieson stains.
 - B. Describe the various types of microtome with which you are acquainted, detailing their special uses.

- 3. A. Perform a colloidal gold test and estimate the chloride on the C.S.F. provided.
 - B. Describe briefly the preparation of colloidal gold solution and indicate its uses in the Pathological Laboratory.

Label all your work clearly with your number, and keep all practical work for possible inspection by the examiner.

Practical B. Thursday, 9th August, 1951, 9.30-12.30 a.m.

Continue the practical work of questions 1, 2 and 3.

- 4. A. Type and Rh type the specimen of blood provided (X). Indicate which of the three bloods A, B, and C would be suitable for transfusion purposes.
- B. Outline a suitable procedure for the typing of human blood. Both parts A and B of question 4 must be completed in this work period, and the results handed to the Supervisor before leaving.

Practical C. Thursday, 9th August, 1951, 2-5 p.m.

Continue the practical work of questions 1, 2 and 3.

 A. This animal was inoculated for T.B. six weeks ago in the abdominal wall ½" anterior to the right mamma. Perform an autopsy and give your findings.

B. What animals are in general use for clinical laboratory work? Give one example of the use of each animal you mention. What are these animals' gestation periods?

6. A. Do a red count, white count, haemoglobin estimation, sedimentation rate and blood film on the blood provided. Calculate the M.C.V., M.C.H., and M.C.H.C. and Colour Index, giving your workings.

B. Outline the haematological investigations you would perform in the case of a haemorrhagic condition of unknown

aetiology.

Parts B of the above questions 5 and 6 are to be finished and handed to the supervisor before leaving. Parts A are to be finished by Friday morning.

Practical D. Friday, 10th August, 1951, 8.30-9.30 a.m.

- 1. Finish off practical question 1A, 2A, 3A, 5A and 6A.
- 2. Orals.

From 9.30 a.m. onwards the candidates all had an oral examination singly for about half an hour before both examiners.

Answers:

1. A. Two organisms were provided, three of one sort and two of the other being selected at random by candidates. They were S. typhimurium and S. paratyphi B. They both gave typical sugar and motility reactions, both agglutinated Polyvalent Salmonella O, and H (Sp. and n. Sp.) but neither agglutinated polyvalent Salmonella non-specific. The first agglutinated P.S.A. but neither agglutinated P.S.B. or P.S.C. (all H. group). Of the O group, the first agglutinated S. para A O XII (+), both agglutinated S. para B O, and neither agglutinated S. para C O. In the H specific group the first agglutinated S. typhimurium H and the second S. paratyphi B H.

Slide agglutinations were satisfactory for identification, but where serial dilutions were used, the titre was at least 1/160.

- 3. A. Chloride 694 mgms./100 ml. Lange 0123210000
- 4. A. Blood X was A, D+; blood A was A, D+; blood B was O, D+, and blood C, O, D+.
 - 5. A. The animal negative for T.B.
- 6. A. The count was normal except that the differential count showed 10% of eosinophiles and a corresponding diminution of polymorphs.
- "Spots."—The material laid out for the use of the examiners included the following:

Slides: Trichomonas vaginalis (Giemsa stain), Leishman stained slides of the following: Infectious mononucleosis, P. malariae, Erythroblastosis, and slides of the Pubic louse and the worm Enterobius.

Laboratory equipment B 19 stopper, glass jointed still, Gooch crucible, mercury manometer, transfer pipette, incubator capsule, undeveloped film—what use in laboratory?, dark ground objective stop, log X-inch graph paper.

Chemicals: Dimethylaminoazobenzene. phenol-indo 2:6 dichlorophenol, n-l-naphthyl-ethylene diamine hydrochloride, potassium permanganate, MacCartney bottle, dialysing membrane, venule.

Orals: These covered many points connected with the examination itself. Some points covered also were the laboratory findings in erythroblastosis, transfusion details, grouping type of donor, etc., the growth and identification of C. diphtheriae, the standardisation of toxins and antitoxins, the source of infection in Tetanus, catgut and its preparation, use of antiserum, the haemolytic anaemias, routine urine tests, complement fixation reactions, examination of rats in plague, vaccines andtheir preparation intestinal parasites, the differential diagnosis of infectious mononucleosus and chronic lymphatic leukaemia.

Rh. TYPING BY THE SLIDE AND TUBE TECHNIQUES

Phyllis B. Scott

(Pathology Department, Auckland Public Hospital)

It is not necessary here to stress the importance and applications of Rh typing and in particular D typing, but to call attention to the important points in the technique of D typing.

Accurate Rh or D typing of blood can only be performed by employing a technique which will provide the optimum conditions for the agglutination of the red cells carrying the D antigen by the anti-D in the typing serum. As this anti-body is of the immune type it will require different conditions for reaction from those of the ABO grouping, in which the anti-A and anti-B are naturally occurring anti-bodies. Therefore a D typing or any Rh typing should not be considered the same as an ABO grouping as regards technical procedure.

The correct technique as described below should be used and strictly adhered to. It has been our experience that in a test such as this, personal modifications and short cuts tend to creep into the technique to the detriment of the test.

It cannot be over-emphasised that a thick cell suspension must be used. In demonstrating the Diamond and Abelson slide test to trainees we stress the importance of a thick cell suspension. At a later date, however, the trainee has been having a succession of D negative bloods, but on investigation it is found that too thin a cell suspension is being used for the slide test.

I would like to call attention to the original article on the slide test by Diamond and Abelson:

"The following factors appear to accelerate the slide reaction:

"The presence of unwashed red cells, or washed red cells resuspended in serum, plasma or albumin; the presence of an excess of antigen with gentle agitation and mild warming, both of which make the clumping more rapid and more easily detectable.

It should be emphasised that in order to obtain a satisfactory slide test, one must follow carefully the principle that a thick drop of blood is necessary. If thin suspensions are used on the slide, the results will be equivocal.

"This may be illustrated by the following case:

The effect of diluting red cells on the slide test.

Strength of suspension	++++	+++	++	0
Degree of agglutination with	50%	40%	30%	20%
anti-Rh serum	•	•	,	,-

"Suspensions heavier than 50% may be used*, but the clumps are usually so close together as to be hard to see. A drop of saline, of course, will overcome this difficulty. Suspensions of red cells less than 30% may show agglutination, but this will vary with the type of agglutinin and its concentration in the serum. For these reasons 40-50% suspension of red cells have been found to be the most satisfactory."

In this laboratory we have never experienced any difficulty in reading the result of too heavy a cell suspension in the Diamond and Abelson slide test; in fact it has been the reverse. When rouleaux formation occurs after the slide test has stood for a few minutes, it can be dispersed by adding a large drop of 0.85% saline. The addition of the saline will also make the agglutinates stand out more clearly. We have found that it is not necessary to warm the slide for routine slide D typings.

Here I must point out that in this laboratory we use the slide test only for typing recipients who require urgent transfusion. Where time permits we always use the tube test, as it is a more sensitive test. In the tube test a 2-5% suspension of red cells is used in comparison with 40-50% suspension used in the slide test. The tube test, of course, is incubated for one hour at 37°C.

Comparison between the Slide and Tube Techniques.

SLIDE.

Oxalate or preferably plain blood specimen.

Red cell suspension in own serum.

2 drops of 40-50% suspension.

Reagent: 1 drop of anti-serum.

Rock gently on slide.

Examine after 3 minutes.

TUBE.

Oxalate or preferably plain blood specimen.

Red cell suspension in own serum.

1 drop of 2-5% suspension.

Reagent: 1 drop of anti-serum.

Flick tube to mix contents.

Incubate for 1 hour; examine microscopically.

When examining the content of tube typings draw the deposited cells up with a Pasteur pipette, place on a slide and *gently* draw about an inch along the slide with the stem of the pipette to get an even film. Rough handling will break up the Rh agglutinates.

Conclusion:

D typing by slide and tube techniques has been discussed and optimum conditions for performing the tests have been stressed. They are:

- 1. Heavy cell suspensions for slide D typing.
- * I would like to point out that whole blood itself is approximately a 50% suspension.

- 2. The presence of plasma, serum or albumin as a cell diluent.
- 3. Rigid adherence to the prescribed techniques.

Acknowledgments:

I wish to express my thanks to Dr. Staveley for assistance and helpful criticism in preparing this article.

Reference:

Diamond, L.K., and Abelson, N.M. (1945), J. Lab. Clin. Med. 30, 204.

AMOEBIC PERICARDITIS G. George

(Bacteriologist, Rotorua Hospital)

A Case Summary:

(1) This case occurred in May, 1950. As this is a condition very rarely met with, it was felt that a brief description would be of interest.

The case presented itself as a female child aged 20 months, who had never been outside New Zealand. The initial symptoms were those of empyema, severe anaemia and general distress. The patient was mildly cyanotic.

Upon chest aspiration large quantities of thick blood-tinged pus were obtained.

Routine laboratory investigations failed to reveal any organisms likely to be expected.

The specimens were cultured in every manner possible and carefully examined for M. tuberculosis. All this failed to reveal any causative organisms.

During this time further quantities of pus were freely aspirated and the patient's condition was not improving.

The possible actiology was now a matter of some concern, as intensive therapy with antibiotics appeared to have no effect.

It was then recalled that the father of the child had been treated for periodic attacks of amoebic dysentery, contracted over seas.

While at the time the connection seemed remote, arrangements were made to obtain a further specimen of fresh pus, which was examined promptly, using an improvised warm stage for the presence of vegetative amoebae.

After greatly prolonged searching a characteristic motile amoeba was found. Further specimens of pus also revealed small numbers of amoebae.

As a further point of interest, Sir Philip Manson-Bahr was visiting Rotorua at this time, and on being informed of these findings, he showed great interest and offered many interesting and helpful observations.

The site of infection was revealed to be the pericardium, greatly enlarged, and not a true empyema. This was found by the injection of a small amount of air, following aspiration, the patient then being X-rayed.

In spite of a temporary improvement the patient's condition gradually deteriorated and death occurred.

On post mortem a left upper lobe liver abscess was revealed which had tracked upwards and reached the pericardium.

The implications of this case are obvious. Upon investigation, other members of the same family, including several preschool age children, were found to have cysts of E. histolytica in their faeces. To date none have exhibited any active symptoms.

This case serves to illustrate the importance of reliable negative results which in the face of significant clinical symptoms must lead to further investigations to demonstrate a logical aetiology of the condition.

The macroscopic appearance of the pus may be a point of interest. While tending to vary in viscosity its colour remained unchanged and the nearest description is that of "Anchovy Sauce," a characteristic pinkish-brown coloration with a somewhat transparent tendency differing slightly from that usually encountered from similar sources.

Microscopically there were rather numerous large macrophage cells, many closely packed with granules. Polymorph leucocytes predominated, but otherwise no particular distinguishing features were noted.

Symptoms.—A general description of a case of Amoebic pericarditis has been made. It is believed that this case is unique as far as New Zealand and possibly many other countries are concerned.

It is understood that this case will be the subject of a more comprehensive paper by a former member of the medical staff to appear in an overseas medical journal.

Acknowledgment.—I wish to thank Dr. E. H. Bridgman, Medical Superintendent, Rotorua Hospital, for permission to publish this article.

OBITUARY

Thomas Alexander Ross

Mr. T. A. Ross died suddenly at his home at the age of sixtytwo on the morning of the fifteenth of July, 1947, whilst still a member of the staff of the North Canterbury Hospital Board.

Born in Edinburgh, he began work as a boy under Sir Henry Wade in the museum of the Royal College of Surgeons in that town. His duties took him across to the Royal Infirmary, where he cut histological sections and prepared museum specimens. It was here that he met Dr. A. B. Pearson, in 1912, and expressed a wish to come to New Zealand if his services would be required. At this time there were only two laboratory assistants at the Royal Infirmary, a 1000-bed hospital, and their chief work was helping at post mortem examinations.

In August, 1913, at Dr. Pearson's request, Mr. Ross came as his first Technician to the Christchurch Hospital Laboratory, where he did general laboratory work in the Old Laboratory.

He volunteered for war service, was accepted and sent to Featherston Military Camp in 1915, where he remained as Charge Bacteriologist until 1918, working through the influenza epidemic until he himself eventually became infected. At the beginning of the war there were only three other technicians in the country and two qualified bacteriologists, Professor Champtaloup and Dr. Pearson. Tom Ross, as he was affectionately known amongst his colleagues, was therefore one of the founders of our profession in this country and had battled for many years to form an Association such as the one we now have. In 1920 Mr. Ross was in charge of the Pathology Department at Christchurch while Dr. Pearson was in England. In 1933 he himself obtained leave of absence to study laboratory procedures in England. The happiness of his trip was sadly marred by the death of his wife and by a serious illness which his daughter contracted.

Throughout the years he always maintained a cheerful approach to his work even when, in the earlier days, duty usually continued on into the evenings and over much of the week-end. He was renowned among his many friends for ever having a jest upon his lips. His assured confidence and ability were the result of study, enthusiasm and practical experience, and he remained as Chief Bacteriologist in his old laboratory until the day of his death. He is survived by his daughter, Mrs. R. A. Milne, of Christchurch.

H. L. Haden

Len Haden died at Whangarei on 17th December, 1950, at the age of 63. Before World War I he had been engaged in the timber industry in the South Island. Like many of our older

Delegates Present:

Mr. Ellison (Wellington) Mr. Foster (Christchurch) Mr. McKinley (Waipukurau) Mr. Meads (New Plymouth) Mr. Josland (Wallaceville) Mr. Ward (Timaru) Mr. Samuel (Dunedin)
Mr. Whillans (Auckland)
Mr. Murphy (Auckland)
Mr. I. Cole (Auckland)
Mr. Donnell (Auckland) Mr. Bloore (Blenheim) Mr. Clarkson (Hutt) Mr. Reynolds (Wellington) Mr. Keenan (Hamilton) Mr. Harper (Hamilton) Mr. Murray (Christchurch) Mr. Philip (Auckland) Mr. Buxton (Wanganui) Mr. Patterson (Auckland) Mr. Kennedy (New Plymouth) Mr. George (Rotorua) Mr. Carruthers (Rotorua) Mr. Saunders (New Plymouth) Mr. Adamson (Christchurch) Mr. Olive (Wellington) Mr. Scott (Thames) Mr. Peddie (Wallaceville) Mr. Jarratt (Palmerston North) Mrs. Isabeth (Wairoa) Miss Baird (Ruakura) Mr. Jenner (Hawera) Mr. Donn (Christchurch) Mr. Ekdahl (Gisborne) Miss Grey (New Plymouth) Miss Jarmolicz (New Plymouth) Miss Brown (New Plymouth) Mr. Thompson (Invercargill) Mr. A. Harper (Wanganui) Miss Corsbie (Tauranga) Mr. Carroll (Hastings) Miss Ellerm (Napier) Mr. Rankin (Napier)

Apologies:

Dr. J. Cairney (Director-General of Health), Miss Dick, Mr. Curtis, Mr. Ronald, Miss Kirk, Miss Byres, Mr. Pierard, Mr. Smith, Miss Simmonds, Mr. Hutchings, Mr. Bridger.

President's Address:

Ladies and Gentlemen.

As you are no doubt aware, to-day marks the end of my third and final term as your President. In retiring from the position that I have been proud to occupy, may I thank the members, and in particular my colleagues on the Council, for their whole-hearted and willing co-operation. My task has been an easy and, I may say, a most pleasant one.

Without prejudice I would like placed on record our appreciation and thanks for the splendid efficiency of our able secretary, Mr. McKinley. He is a tower of strength to the Association.

The profession as a whole owes a great debt to the representatives on the Bacteriological Officers' Statutory Advisory Committee, Messrs. Whillans, Buxton and McKinley. Few members know just how closely these gentlemen watch the interests of laboratory workers throughout New Zealand.

I want now to sound a word of warning. The Association has reached a critical point in its life, due primarily to the apathy of the majority of its members. I understand that the Journal is in grave danger of going into recess, if not of extinction, through lack of contributions. The questions we must ask ourselves are these:

"Is the Journal really necessary? Are we to become a type of trade union, or are we to remain a scientific body?"

Should the Journal cease to function, the structure of the Association will be gravely weakened and, in consequence, the status of its members will be impaired. Remember well that the Journal is a scientific publication and as such is perused by members of other scientific bodies, here and overseas.

In congratulating the Editors on producing a Journal with so little contributed material, may I appeal to you all, if you have the interests of your profession at heart, to make some endeavour, be it ever so small, to assist these gentlemen.

In conclusion, I want to thank Mr. Saunders and his colleagues for the splendid organisation and arrangements for this Conference, and wish you all a pleasant and profitable stay in New Plymouth.

Minutes of Conference, 1950:

These were published in the "Journal," October, 1950, and were taken as read.

The minutes were confirmed unanimously. (Murray-Ekdahl.)

Business Arising from Minutes:

Methods of Voting.

Mr. Murray said voting papers should not be signed. Scrutineers should not be candidates for office, even if such candidates were unopposed for office.

The President and Mr. Whillans agreed with these points, and it is intended to give these matters attention.

Mr. Whillans explained the delay in delivery of some voting papers as being due to the fact that they were enclosed in the "Journal," and as second class mail were subject to varying delay. Next year ballot papers will be posted by letter mail.

The President explained the system of preferential voting to delegates.

The Annual Report was presented by the Hon. Secretary. Its adoption was moved and carried without discussion. (Ellison-Olive.)

The Balance Sheet was presented by the Hon. Treasurer, who explained the position at the date of Conference in view of the legal account for approximately £100. This account had just been received.

The Balance Sheet was adopted. (Foster-Peddie.)

It was moved: "That the Council be given power to act as they think fit in the matter of the Association's legal indebtedness, specifically including the matter of raising a loan of £50 by bank overdraft." (Bloore—Jarratt.) Carried unanimously.

A letter of thanks is to be sent to Mr. Pierard, for acting as guarantor. (Murray—Olive.)

Moved: "That Conference, 1951, reaffirms its unanimous support of the Council's action in the recent litigation involving the Hotel, Restaurant and Related Trades Employees' Industrial Union of Workers.' Carried unanimously. (Jarratt—Buxton.)

Election of Officers, 1951-52: President: Mr. Whillans.

Vice-Presidents: Mr. Buxton, Mr. Saunders.

Hon. Secretary: Mr. McKinley. Hon. Treasurer: Mr. Olive.

Council Members: Mr. Adamson, Mr. Jarratt, Mr. Murray, Mr. Samuel.

A letter of thanks is to be sent to Miss Byres for her services to the Association as a Council Member. (Ellison—Olive.)

"That the actions of Council in regard to election of officers be confirmed." (Whillans-Peddie.)

Carried.

52

Moved: "That the voting papers be destroyed." (Jarratt—Ekdahl.) Carried.

Moved: "That Conference expresses its thanks to the outgoing President, Mr. Ellison." (Olive-Murray.)

Carried with acclamation.

Essay Competition, 1951:

There were six entries. The winners were: J. T. Connolly (Auckland), "Photometric Analysis" (Technical); Miss Joan Mattingley (Wellington), "Paul Ehrlich" (Literary).

The President congratulated the winners, and said he was pleased to see so many entries.

Conference, 1952:

An invitation from Hamilton was accepted for Conference, 1952.

General Business:

Mr. Jarratt mentioned that the Workers' Compensation Act now included tuberculosis.

Mr. Harper (Wanganui) asked for more detailed accounts of Council meetings to be published in the "Journal."

Mr. Whillans explained the procedure for abstracting news from Council meetings. Decisions, and not all discussion thereon, were printed.

Mr. Jarratt considered members felt they were out of touch, and a method must be found of disseminating information.

The President said Council discussions were brought up at Conference, and suggested that those requiring information on various points write to the Secretary, or letters to the Editor would be useful.

Mr. Murphy and Mr. Adamson desired full reporting of Council Meetings.

Miss Corshie: Could information be sent round in leaflet form to members?

Mr. A. Harper suggested that a Council member should assist the Editor by specially reporting Council Meetings for the "Journal."

The Hon. Secretary reported that this had been a decision of the Council at its meeting the previous evening. He suggested that Council Meetings, where possible, should be held at a date say six weeks prior to "Journal" publication date, to allow recent news to be incorporated in the "Journal."

Mr. Bloore supported this idea, and on being put as a motion (Bloore—Harper) was carried.

Mr. Buxton said this would mean three Council meetings a year,

Mr. Mead suggested publication of a Roll of Members in the "Journal."

Mr. Whillans appealed to members to notify changes of address or status and "Notify the Editor if you don't get your 'Journal.'" He proposed to send out a galley-proof of a membership roll, for members to correct errors, and then it could be published.

Mr. Murphy (Editor) undertook to publish the Roll of Members in the "Journal" when it is brought up-to-date.

- Mr. Bloore suggested that the senior person on each staff should notify the Editor of staff changes.
- Mr. Murray pointed out this was primarily the responsibility of the individual member.
- Mr. Saunders moved: "That where a candidate for examination is not more than three months short of the training period, such candidate be permitted to sit for the examination."
- Mr. Whillans outlined the present system of examination, and said he was opposed to any departure from it. Already there were two intermediate examinations yearly, and provision for a second final examination under the special circumstances of four or more candidates presenting for examination.

The Hon. Secretary outlined discussion at the Pathologists' Conference, and said that we were really well provided for under the present system.

Discussion followed, and the point was raised regarding the trainee who spent, say, 18 months in a District Laboratory and then transferred to a base laboratory. Some base laboratories were allowing only half this time to count as training time for finals or Intermediate Examinations. Others seemed to allow the full time. The general view was that for the Intermediate, training should be allowed to continue without restriction on transfer from a District Laboratory to a base laboratory in those cases where the intermediate examination had not been passed while at the District Laboratory.

Mr. Saunders' motion was not proceeded with, and it was moved and carried:

"That the Council explore the position regarding the Intermediate Examination, with reference to continuity of training of those persons transferring from a district laboratory to a base laboratory before the Intermediate Examination has been passed." (Ellison—Olive.)

Lunch.

General Business:

- Mr. Reynolds: In Wellington, when Juniors were sought by advertising, it was found that the Public Service had taken the pick of those offering. Could the Association publish a resumé of the work of Hospital Bacteriologists for public information?
 - Mr. Olive: The Vocational Guidance Circular covers that.
- Mr. Whillans: Auckland had close liaison with the Vocational Guidance officer, and got good results. Wellington might find that of assistance.
 - Mr. Cole suggested circularising the Career Masters of Schools.
- Mr. Saunders: In New Plymouth the local high school students see the laboratory in the course of conducted tours of the hospital.

The "Journal":

- The Editor (Mr. Murphy) told members that the future of the "Journal" is with the Association. Articles were few and far between. He appealed for articles of all kinds. He welcomed suggestions for improving the "Journal," and would like to see more abstracts from the literature, especially from larger laboratories.
- Mr. Whillans supported Mr. Murphy strongly, and said advertisers could not be expected to support a poor "Journal." To-day costs of production of the "Journal" were soaring.

Mr. Rankin said that criticism of a certain type will not do any good. First, did we want a "Journal"? He thought we did, but we saw the "Journal" suffering as a result of criticism—criticism of one article in particular was vitriolic. People were reluctant to provide articles, fearing to expose themselves to similar criticism. Possible contributors required an assurance that articles they submitted would receive considerate attention, and that they would be protected from scathing criticism in the open columns of the "Journal." He suggested that an agent in each laboratory could see that material was forwarded to the Editor. All sorts of laboratory procedures were interesting and instructive—the commonplace in one laboratory might be an innovation to other laboratories.

The President strongly supported Mr. Rankin's suggestions.

Mr. Whillans supported the idea, and explained that as Editor at the time he had permitted strong comment only because he was aware that the person criticised was well able to look after himself in a battle of words.

Mr. Rankin: But others are discouraged from writing for the "Journal" because they may not be able to defend themselves so competently.

Mr. Samuel suggested more articles on "pitfalls of laboratory practice" and more information on technical "gadgets" and time-savers.

Mr. Bloore supported Mr. Samuel, and said odd notes would assist greatly. Much information at Conference was gained in informal conversation about points of difficulty. Contributors would probably send in notes, whereas a paper was too ambitious for many.

Mr. Cole: The "Journal" must be kept going and all must support it fully.

The Hon. Secretary: As we are agreed on the value of the "Journal," who will guarantee to write articles? "I will take names now," he added.

The following responded to this request: Messrs. Jarratt, Adamson, Cole, Bloore, George, Harper (Waikato), Ellison. Mr. Reynolds volunteered to provide an abstract service.

The President thanked these people for their offers.

The Editorial of the July, 1951, "Journal":

Mr. Olive agreed with the Editorial suggestion that the Intermediate Examination is of the standard of the Final Examination. Mr. Murphy had "beaten the pistof" with his remarks re the Higher Examination. There was more to come regarding the Higher Examination, and comment, if any, should have been at a later date when the full facts were known.

The Hon. Secretary said that he acknowledged the right of the Editor to write his own editorial, and he would not approve of any interference with that editorial right. However, the Hon. Secretary said, he specifically drew the attention of all readers of the "Journal" to the note on the outside of the front cover which stated that contributions to the "Journal"—and in his opinion that included the editorial—are the opinions of the contributor and do not necessarily reflect the policy of the Association. So long as that was borne in mind, he had no objections to the editorial as such. He traced the history of the Higher Examination, and said that despite the editorial suggestion that questions re certain aspects of the examination had not been answered in Dunedin, the minutes of the Dunedin Conference showed that the institution of the Higher Examination had been unanimously supported by Conference 1950. Accordingly, the Council had proceeded to impliment the wishes of that Conference, and very much thought and time

had been expended to that end. There had been no hasty action by the Council in this matter—it had been progressing slowly but surely since Conference 1949.

Mr. Jarratt considered the proposed examination would help to raise the status and standard of work.

Mr. Saunders: Is the examination by thesis, or alternatively by examination?

The President: By either thesis or examination.

Mr. Reynolds: Is this to be original work?

The President: He would think so, but details were not finalised.

Mr. Whillans: There will be no automatic elevation; work will be judged on merit only. He said he found himself in some difficulty. Was the standard slipping a little? Basic training needed attention, and this was related to a higher standard in that work was largely technical in the first instance.

The President: Work is both technical and theoretical.

Mr. Whillans: The work to be done is the main concern. There is limited room for a number at the top. Basic training is a first consideration, and must proceed and be improved. Were we moving too fast with the proposed examination?

Mr. Reynolds thought it was not logical to criticise basic training at present, when most people, if not all, were passing the Intermediate Examination, which was claimed to be of high standard.

Mr. Jarratt: Standard methods will assist training.

Mr. Olive: The finals are conducted by the pathologists. They will surely not pass persons who are not up to standard in basic training.

Mr. Rankin: Will the Fellowship carry a higher salary?

The President: No.

Mr. Ward: Of two people, one with the fellowship, one without, would the fellowship holder receive preference over the other in making appointments?

The President: Possibly. That would be for the person making the appointment to decide.

Mr. Ward asked three questions, answered by Mr. Ellison

- (1) Would the fellowship be recognised by the Department?—Yes, we think so.
- (2) Would the fellowship be accorded backing by the Pathological Society?—They have suggested the introduction and probable form of the fellowship.
- (3) If the Department and Pathologists do not back the fellowship, would it become purely an internal affair?—Unless status is achieved by good examiners and the co-operation of the Department and pathologists obtained, the examination will not come to anything.

Discussion followed on the pre-requisites for the English Diploma in Bacteriology.

Mr. Reynolds thought a medical degree necessary.

Mr. Foster knows two who obtained the Diploma with a B.Sc. prerequisite.

Mr. Saunders: Manchester requires a B.Sc. pre-requisite.

Mr. Murphy considered that if Mr. Ward's point was that a fellowship would ensure appointment to a position over a candidate without this qualification was correct, then it virtually meant that we were increasing our course to eight years.

Mr. Whillans disagreed and pointed out that graduates do not necessarily get the top positions, and the same would apply here.

Mr. Bloore: When would the work for fellowship be done?

The President: In your own time.

Mr. Rankin: "Are we committed to this position?" He then moved: "That the Association do not proceed further with the Higher Examination." (Rankin—Murphy.)

Amendment No. 1:

"That consideration be deferred until the decision of the Pathological Society is available." (Corsbie—Adamson.)

A further amendment, "That the matter be referred back to the Council for further report" (Whillans—Peddie), was withdrawn.

The voting on Amendment No. 1 was in favour, and this became the motion and was declared carried.

Moved: "That a referendum be held after the Report from the Pathological Society is received, to decide whether to proceed with the Higher Examination." (Josland—Foster.)

Carried. The following recorded their votes against this motion:—Messrs. Olive, Jarratt, Aitken, Saunders, McKinley.

The Hon. Secretary stated that he felt that a proposal which had been endorsed by two Conferences and been the subject of much work by the Council, and proposed by the Pathological Society on 15/8/50, did not need to be referred to members again. He thought it illogical first to seek the co-operation of the Department and Pathological Society and then at a later date to have a referendum to determine whether to proceed or not.

Others who recorded their votes against spoke similarly, and considered that there would now be serious delay, at the best, in implementing the Higher Examination.

The delegates to the Conference of Pathologists outlined their discussions at this conference. (Full report is included in Council Meeting Minutes, 15/8/51.)

Moved: "That this Conference endorse the action of the Council re Standard Methods." (Olive—Whillans.)—Carried.

Honoraria:

The Hon. Secretary, £3/3/-; the Hon. Treasurer, £3/3/-; the Editor, £2/2/-. (Whillans—Rankin.)

The Hon. Secretary informed Conference of the submissions made by the Association to the Salaries Advisory Committee. At the request of the Persident there was no discussion following the reading of the Association's submissions.

Moved: "That the Press be thanked for the excellent coverage given Conference." (Ellison—McKinley.)

The President congratulated Mr. Saunders and his staff on their laboratory demonstrations, and the excellent arrangement of the New Plymouth Laboratory, and also thanked them for the work they had done to make Conference a success.

At this stage Mr. Olive said that one most important matter had been overlooked. The President, Mr. Ellison, was retiring after three years in office, and he had been an Executive member since the start of the Association. He spoke of the excellent work done by Mr. Ellison—in particular the large amount of work involved in the Association's recent legal proceedings, and as a mark of the Association's esteem and appreciation, he proposed Mr. Ellison for Life Membership. This was seconded by Mr. Buxton, the Association's first President, and only life member.

Several speakers, including Messrs. Whillans and Jarratt, strongly supported the motion, and despite protestations from Mr. Ellison that he looked for no reward for his services to the Association, the motion was passed unanimously with acclamation. Mr. Ellison thanked Conference for the honour conferred upon him and said he would do anything he could to further assist the Association.

Conference closed 5 p.m. 17th August, 1951.

Two films were shown during Conference:

- 1. "Film on Island Research Trips," J. A. Samuel.
- 2. "Film on Cell Division," S. O. Jarratt.

The following papers were presented:—

"Clinical Applications of Advances in Infectious Diseases," Dr. D. N. Allen. "Estimation of Sodium and Potassium in Biological Fluids by Flame Photometry," H. Olive.

"Antibiotic Sensitivity Tests," D. Adamson.

"Fluid Egg-yolk Culture of M. tuberculosis," J. A. Samuel.

"Non-pathogenic Acid-fast Bacilli," I. W. Saunders.

"Mistura Biochemicalis," J. Murray.
"Public Health Service (Laboratory)," L. Reynolds.

One paper, "Photometric Instruments and Their Applications," by R. T. D. Aitken, was not presented, but is to be published in the "Journal" as an article.

Social Activities:

On Friday afternoon, 17th August, delegates were the guests of the Taranaki Hospital Board on a conducted tour of New Plymouth, and at afternoon tea.

The Chairman of the Board, Mr. P. Stainton, and the Medical Superintendent, Dr. L. McNickle, accompanied the two bus-loads of delegates and acted as guides, pointing out all places of interest.

The tour was most interesting and enjoyable, and the humorous commentary by the Chairman needed to be heard to be fully appreciated.

Delegates were indeed grateful to these two gentlemen and the Board for a most entertaining afternoon.

A social evening was held on the Friday, and this gave delegates a chance to exchange ideas informally—something that is quite impossible during the crowded two days and one evening of the official Conference. The evening was very successful and the Association is indebted to those New Plymouth members who did the work for this function.

On Saturday, those delegates still remaining made a most enjoyable trip to the Stratford side of Mt. Egmont.

PAPERS PRESENTED

The first paper of the Conference was given by Dr. D. N. Allen, Pathologist, New Plymouth Hospital Board. He dealt with the relationship of host and parasite and the overall influence of the environment. He said that while it had been thought for many years that the bacterium was the simplest of organisms it is now postulated that this might not be so and that the processes of reproduction might be in fact most complex. Those who rely on chance mutation to explain the variation found in bacteria point out that the equivalent of man's whole evolutionary history has the equivalent in three months of a bacterium's life. It is suggested that the redistribution of genetic material in bacteria might be achieved by fusion and subsequent redistribution of the fused mass of genetic material. He then went on to give numerous examples to illustrate his talk, and was accorded an enthusiastic vote of thanks by the members of the Conference.

At the evening session Mr. J. Samuel, of Dunedin Medical School, showed motion-picture films taken on the recent research trips to the Pacific Islands. He gave a running commentary on the habits and customs of the native races, which was both amusing and interesting. The focus of the last research was Puka Puka, a small atoll with a little over one hundred inhabitants. It was interesting to observe the reactions of the natives to the demonstration of the Filaria worm under the microscope. He mentioned the communal life of the island, which was split up into three villages, and compared the standard of health and nutrition with that pertaining in other of the Pacific Islands. Part of the film was in colour and showed vividly both the beauty and primitive state of these islands.

This was followed by a film from the Abbott laboratories which showed by time-lapse photography the way in which tumour cells grow and divide. The view of mitosis which was shown was most impressive and gave a very vivid picture bringing to life text-book sketches. The work was done under the new phase-contrast microscope, and showed what a great help this would be in such future studies.

After supper a paper on the use of the spectrophotometer in measuring traces of sodium and potassium in biological fluids was given by Mr. H. T. Olive, B.Sc., of the Pathology Department, Wellington Hospital. He showed lantern slides of the auxiliary apparatus constructed in Wellington by D.S.I.R. and the Wellington Hospital engineers and other scientific groups, and mentioned what a help this had been in the rapid estimation of such elements and the part it was now playing in the treatment of sick patients. Such methods would be increasingly valuable, he said.

This was followed by a paper by Mr. D. H. Adamson, of the Pathology Department, Christchurch, on the determination of antibiotic sensitivities in the laboratory. This was well illustrated by photographs and was followed by an interesting discussion. The use of antibiotics has increased markedly in the last few years, and it is important to ensure that these are being used in an efficient manner so that the stay of the patient in hospital may be made as short as possible. The cost of certain of these is so high and some are in such short supply that it is imperative that they are not used if it can be known that they will not be effective. Such methods are becoming routine in all laboratories now and represent a major advance in laboratory work.

Mr. J. Samuel, of the Medical School, Dunedin, gave an interesting talk on the newer methods of growing tubercle bacilli. Normally this grows very slowly, but newer methods have made it possible to speed this up and thus contract to a few days the demonstration of organisms which previously took some weeks. This has been accomplished by growing the organisms on fluid egg-yolk media. He explained, however, the difficulties

and limitations of the method. In addition, to make the organisms more easily seen, he has used fluorescence microscopy, which enables lower power microscopes to be used and thus cover the slides more quickly.

Mr. I. W. Saunders, B.Sc., of New Plymouth, then talked on non-pathogenic bacteria which might be confused with tubercle bacilli, stressed the importance of being able to recognise these organisms, and gave criteria for differentiation. During the morning an opportunity was given of going over the recently renovated laboratory at the Hospital. Members congratulated those responsible for the excellent layout and good working conditions. The bay system in use has been shown to be one of the most efficient ways of making use of the space, and members considered it one of the best examples of a laboratory of this size. Various technical demonstrations prepared by the staff of the New Plymouth laboratory included exhibits showing the bacteriostatic and bacteriocidal effect of methylene blue; original material showing "sulphur granules" and culture from a case of actinomycosis; blood media for the growth of M. tuberculosis; male and female Ascaris lumbricoides; slides of Trichuris trichiura; head of Taenia saginata; coagulase testing; Bordet-Gengou medium; anal swabs for detection of ova and worms; bronchial casts; electron microscope photographs, and many other exhibits.

Mr. J. T. Murray, M.Sc., of Christchurch, gave a talk on the technical

pitfalls in the Biochemical Laboratory.

Mr. L. Reynolds, of Wellington, who has had much experience in England, gave a most interesting and instructive talk on Public Health Bacteriology, and pointed out some of the problems yet to be encountered in New Zealand.

HERE AND THERE

WANGANUI

Miss E. M. Partridge is showing slight progress after a prolonged and painful illness.

Wedding bells sounded for Miss Shona McPhail in May last.

Miss Muriel Burtt is on holiday in England and Misses Joan Wilkinson and Janet Murchie leave for the Homeland in September.

Miss Shona Murphy is transferring from the Animal Research Station, Wallaceville, on September 3rd.

Additions and alterations are at present in progress and should help in giving a more efficient service.

L. F. Buxton.

ROTORUA

Miss Patsy Blackmore, who has been two years on the staff here, is leaving to join the staff of the laboratory, Waikato Hospital, Hamilton.

Miss T. Tapsell has been appointed in her place.

G. George.

TRIP TO MT. EGMONT

Nine Association members visited the Stratford side of Mt. Egmont on the Saturday following the conference. The snow was deep around the mountain-house, and after hiring boots, the party walked two miles up the snow-covered road to the Plateau. Conditions there reminded us all of "Scott of the Antarctic," so we turned back. On reaching the House again, everyone was fully occupied with hot pies and tea. Then several games of table tennis followed, and these games were unique, for the participants wore heavy alpine boots.

Members present were Misses Brown, Corsbie and Grey, and Messrs. Adamson, Buxton, Carroll, Clarkson, Harper and Saunders.

Miss J. Grey, New Plymouth.

AUCKLAND

It is with regret that we report a serious fire in the Laboratory at Middlemore. Fortunately most of the expensive equipment was salvaged and with minor repairs will be in working condition again. The fire occurred in the early hours of Saturday, 1st September, and congratulations are due to those concerned in having a temporary laboratory fully equipped and ready for work on Sunday afternoon. Considerable damage, however, was done to the structure of the building, and the newly-completed Intravenous Solutions Unit was completely burned out. It will be many months before the task of rebuilding is completed.

Congratulations to Mrs. Jenner, of Hawera, and Messrs, Holland, Patterson, Sloan and Walsh, of Auckland, on passing their Final Examination in August last.

MEMBERSHIP OF THE ASSOCIATION

Membership now stands at 83 senior members, 91 junior members, 17 honorary members, and one life member. There have been three resignations and 21 new members elected during the year.

TO THE EDITOR

THE EDITOR:

Sir,—In view of the uncertainty in the minds of some members at the recent Annual Conference at New Plymouth, I feel that, as convener of the committee set up to formulate the terms and conditions of the proposed Higher Examination, I should trace the history of the proposal.

One of the objects of our Association, if not the main one, is the raising of the standard and status of the Certificate examination. To this end enquiries were made as to the possibility of replacing the Certificate with that of a Diploma issued under the aegis of the New Zealand University. Unfortunately this was found impracticable by the University authorities.

The suggestion of a Higher Examination in the nature of a Fellowship to replace the existing Certificate was made, but this was most emphatically rejected by your Council.

Following lengthy consideration, your Council agreed that a Fellowship by thesis or examination was most desirable. Messrs. Buxton and McKinley were deputed to discuss this proposal with the pathologists at their Conference at Christchurch in May, 1949. The pathologists, in the main, supported the proposal.

At the Annual Conference of the Association at Wellington in August, 1949, the question and scope of this proposed Higher Examination was left to the incoming Council. After protracted investigation, involving numerous discussions with other members, the Council submitted proposals for consideration by the Pathological Society in June, 1950. The Executive of this Society formally agreed that a Higher Examination, say a Fellowship, be conducted by the Association of Bacteriologists and submitted three suggestions for consideration.

On the 16th August, 1950, your Council recommended to the Annual Conference at Dunedin the proposal most suited to our Association. This read:

"That the present examination be raised to a higher standard should continue, but that there should be instituted by the N.Z. Association of Bacteriologists a higher qualification, e.g., a Fellowship in one branch to be taken not earlier than three years after the final Certificate Examination."

After a full discussion the Conference unanimously agreed that a higher qualification be instituted on the lines of the above resolution and considered that a thesis be incorporated as part of the examination. A committee comprising Messrs. Murray (Christchurch), Reynolds (Wellington). Saunders (New Plymouth), Whillans (Auckland), and myself as convener, was set up to formulate the terms and conditions for this examination and to report back to the Council. After a considerable amount of work, this report was handed to the Council, approved, and tabled at the recent Conference in New Plymouth. Here it became obvious that either the bulk of the members had not read the "Journals" and did not understand the proposal, or could see little merit in it. If my latter surmise is correct, then we have a direct negation of the unanimous approval of the 1950 Conference.

I might add that the pathologists at their 1951 Conference reiterated their support of the proposal.

The 1951 Conference has recommended that a referendum be taken on the institution of a Higher Examination. Before recording a vote every member should consider the following points:

1. The proposal encourages candidates after passing their Certificate Examination to specialise in certain branches of laboratory practice and produce original work.

2. A natural corollary of 1, is the almost certain raising of the standard

in that particular branch.

3. The proposal is in line with the established procedure of the English Institute, which has a Fellowship.

4. The proposal has the approval of the Pathological Society and the unanimous approval of the 1950 Conference of our Association.

5. The proposal is the product of many hours of deliberation and discussion by, I trust, respected members of our Association.

6. It was never intended to replace the Certificate Examination and no

monetary benefit from it has been envisaged.

7. It would give a fillip to research work in hospital laboratory practice to the benefit of both Association and individual laboratory workers.—

I am, etc., N. J. ELLISON.

COUNCIL MEETING, AUGUST, 1951

A pre-Conference Council meeting was held at the residence of Mr I. W. Saunders on 15th August, 1951. There were present: Messrs. N. J. Ellison (Chairman), G. W. McKinley (Secretary), H. T. G. Olive (Treasurer), L. Buxton, D. Whillans, D. H. Adamson, S. O. Jarratt, and A. Samuel. Mr. I. W. Saunders attended by invitation.

Among the matters discussed was a report from the four Bacteriologist examiners in the new Intermediate examination, and it was hoped that they would be able to meet during the Conference and table their report. (Owing to the length of the business sessions this was impossible.) It was thought that if this was published it would assist candidates in further examinations to be held.

The following Junior members were accepted: Miss P. A. Blackmore (Rotorua), Mr. C. J. Masters, B.Sc. (c/o Dr. L. Brown, Auckland), Miss

J. Baird, B.Sc. (Ruakura Animal Research Station), Mr. P. T. Kennedy (New Plymouth), Mr. D. W. Fitzgerald (Timaru), Miss P. Hildreth and Miss H. Whelan, and Messrs. J. Horner and D. Millar (Wellington).

Resignations were received with regret from Mrs. B. Anderson, nee

Wright (Napier) and Mr. S. E. Eames (Auckland).

Arising out of the election of new members and resignation of others and the necessary alterations to the membership list, when a number of members of the Council reported errors and omissions in the sending out of "Journals," it was moved and carried: "That the Editor and an Auckland member of the Council confer re Minutes of Council Meetings with a view to making abstracts for 'Journal' publication." It was also pointed out that it is the duty of anyone who does not get his or her "Journal" in reasonable time (allowing for the great present delay in mailing) to write to the Editor, and on general matters to write to the Secretary. (Note front cover of "Journal.") Changes of address should be notified to the Secretary, who will notify the Editor's Distribution Committee.

Accounts for payment included one for £36/5/- for the printing of the July "Journal."

The report of the two delegates to the Pathologists Conference (Messrs. Olive and McKinley) was received and the following arose:—

University Entrance is now the pre-requisite for the Intermediate and Final Examinations, this to take effect from 1st July, 1951. However, as the notice to this effect was dated 31st July, 1951, the Secretary was instructed to write to the Department of Health pointing this out and asking for a clarification of the position of persons taking up their positions with school certificate between 1st and 31st July, 1951.

Standard Methods as presented to the Conference of Pathologists were handed back to the Association for the selection of the method thought most suitable in each case. The Association had presented a huge pile of methods prepared during the year and was seeking confirmation of what had been done and guidance for future policy.

The Department has arranged for Hospital Boards to notify the Departlaboratory personnel to be kept up to date.

The proposals for the Higher Examination are to receive further consideration by the Pathological Society. (See also Conference report.)

Marks in the Intermediate Examination will be supplied to the Controlling Pathologist or Hospital Bacteriologist.

"Diagnostic Agglutination Tests" (e.g., Widal) and an "Elementary Knowledge of Chemistry" are to be added to the Intermediate Syllabus.

The Pathological Conference recommends that the Association approach the Salaries Advisory Committee requesting that consideration be given to back-dating salary increases to the date a mid-year examination would have been held, had there been sufficient candidates. (At present four candidates is the minimum requirement.)

Certificates of Membership, 1951-52: Mr. Whillans advised that it was difficult to obtain satisfactory card for printing at the moment and this was the reason for the delay, but he will try and obtain supplies of card.

Salaries Advisory Committee: Council members discussed such matters as were not confidential to members of the Salaries Advisory Committee, and it was decided that such non-confidential matters, and in particular the Association's submissions, would be communicated to the General Meeting.

Conference, 1951: Council discussed final arrangements for the Conference with the Conference Secretary, Mr. I. W. Saunders, and the meeting closed at 1 a.m., having commenced at 8 p.m. Mr. and Mrs. Saunders were thanked for the use of their home for the meeting and for the fine supper provided.

BIOLAB

Standardised Biological Reagents

ANTIBIOTIC DISCS

For the rapid assessment of bacterial sensitivity in vitro to PENICILLIN, STREPTOMYCIN, AUREOMYCIN, and CHLORO-MYCETIN.

Colour coded, stable, and prepared to a constant specification. These discs are tested for degree of uniformity of potency against standard reference organisms.

Bottles of 50, 8/6; 100, 15/-; 200, £1/5/-.

AGGLUTINABLE SUSPENSIONS

The widal reaction, like other antigen-antibody reactions in vitro, will exhibit:

- SPECIFICITY
- SENSITIVITY
- REPRODUCIBILITY

when a dependable standardised antigen is employed under controlled conditions.

BIOLAB AGGLUTINABLE SUPENSIONS ensure a stable reagent with standard agglutinability by attention to

- SELECTION OF ANTIGENIC TYPES
- PHASE MAINTENANCE
- ELECTROLYTE COMPOSITION
- ELECTROPHOTOMETRIC SUSPENSION STANDARDISA-TION
- BATCH AGGLUTINABILITY TITRATION WITH STAND-ARD SERA.

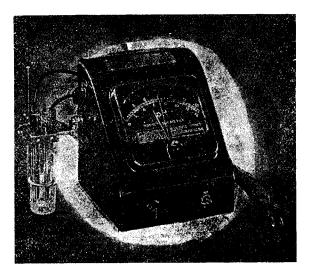
Bottles of 20cc., 4/-; 50cc., 8/-; 100cc., 15/-; 200cc., £1/2/6.

BIOLOGICAL LABORATORIES LTD., AUCKLAND.

Box 2749.

Phone 43-228.

The Accurate Measurement of pH



Fast and accurate pH tests are essential in modern product control. Wherever pH is a factor—in laboratory or industry—Watvic can supply a suitable pH Meter to deliver precise data quickly, accurately and economically.

Illustrated is the MacBeth pH Meter, which operates from line voltage. This accurate industrial instrument is designed to provide such simplicity of operation and freedom from maintenance that it may be used by unskilled workers for routine control.

Also available are the Cambridge Meter, and Instruments for continuous pH recording.

We are pleased to offer our technical services, not only to assist in selecting suitable equipment, but also in its subsequent installation and maintenance. A comprehensive Repair Service is available. Your enquiries on all types of scientific equipment will be welcomed. There is, of course, no obligation.



KELVIN CHAMBERS, 16 THE TERRACE, WELLINGTON.

With Branches at Auckland, Christchurch, Dunedin and all Australian States,

NEW ZEALAND ASSOCIATION OF BACTERIOLOGISTS (Inc.).

It is hoped, in the near future, to print a complete list of the members of the Association, with their addresses and qualifications. Your name and address, in our records, is that appearing in this Journal. If this is incorrect, please notify the Secretary of the Association immediately.

G. W. McKINLEY,

Hon. Secretary,

N.Z. Association of Bacteriologists (Inc.),

C/o Laboratory,

District Hospital, Waipukurau.



WE TAKE PLEASURE IN ANNOUNCING

that we have landed recently the following items:

"PYREX" Aspirators 5 and 10 Litre with Glass Stopcocks

"PYREX" Beakers "Phillips" 400 ml.

"PYREX" Kjeldahl Flasks, 200 ml.

"PYREX" Petri Dishes 4½"

"PYREX" Stopcocks Straight—3 and 5 mm.
Bore

Tripod Stands, Iron, Triangular.

Height: 8"

Side: 5"

KEMPTHORNE, PROSSER & CO.'s New Zealand Drug Company Limited

22-26 Stafford Street, DUNEDIN.

Warehouses at: DUNEDIN, CHRISTCHURCH, WELLINGTON, AUCKLAND.