

AN OPEN APPOINTMENT.

Professor Mitchell and the Gifford Lectureship.

The Vice-Chancellor of the Adelaide University, Professor Mitchell, is deservedly one of the most popular members of that centre of learning. His recent appointment to the Gifford Lectureship, in Scotland—whose list comprises some of the most famous of modern philosophers—has aroused speculation as to whether Professor Mitchell will take up permanent residence abroad. Since his appointment as Vice-Chancellor, in March, 1916, he has



PROFESSOR MITCHELL.

done splendid service on the Council of the University, and his severance would be widely regretted. But it is an open secret that the Professor is happy in his work here, and revels in the Australian climate. Spoken to by a reporter of The Register, his remarks were cheering. He and his family contemplate leaving for the United Kingdom on December 24, on a visit, when Mr. Mark Mitchell will go to Cambridge. But the Professor's lectureship does not begin until 1925; and, like our own Fisher Lectures, there is no call for the lecturer to be permanently resident. For instance, Lord Falfour has been lecturing at Glasgow, and another of the four lectureships in Scotland has been filled by a Professor from Paris. Therefore, our Vice-Chancellor is not resigning from his appointment on the Council, and may even return to Adelaide before taking up the Gifford appointment that comprises 10 public lectures by each representative, who is usually non-resident in Scotland.

Advertiser 21.7.23

"Einstein's Theory of Relativity," by Professor Alexander D. Ross, of the University of Western Australia. Perth: E. S. Wigg & Son.

Professor Ross fills the chair of mathematics and physics in Perth, and he was a member of the Crocker Expedition of the Lick Observatory University of California. The full title of his valuable booklet is "A Popular Introduction to Einstein's Theory of Relativity, with an account of the tests made by the Wallal solar eclipse expedition." There are fourteen plates, including portraits of Dr. Campbell and the members of the expedition, Wallal, the different cameras, and other scenes in the camp.

In his preface Dr. Ross says observations made at Wallal at the solar eclipse of September, 1922, have resulted in a remarkable verification of Professor Einstein's generalised theory of relativity. The contents of the pamphlet, he says, have been written in the hope of giving non-mathematical readers a general idea of the theory, and perhaps of encouraging them to carry their enquiries farther. Strict accuracy has not been unduly sacrificed in the attempt to present the subject in a brief statement and in simple language.

In an appendix Dr. Ross describes the Wallal eclipse tests. So much interest is taken in the Einstein theory that this is sure to be welcomed.

SIR WILLIAM BRAGG.

Succeeds Sir J. Dewar.

At the Royal Institution.

The appointment of the Director of the Davy-Faraday Laboratory at the Royal Institution, London, is always an epoch-making event. It means that a great organisation with funds behind it (lamentably insufficient if judged from an American standpoint) has selected a line of research which it regards as requiring exploitation. The appointment of Sir William Bragg means that the Royal Institution regards the solution of the problem of the atom as one on which the attention of research workers should be concentrated.

No better man (writes a correspondent to the London "Morning Post") could have been selected to fill the place left vacant by Sir James Dewar. Many qualities are demanded from the incumbent. He must himself be a pioneer of the first order in research, and must have a quality that happily often goes with the first, that of kindling enthusiasm and giving inspiration to others. He has also an important duty to the general public, for it is for him to ensure the transmission of the results of pure science to those who are interested in the advancement of knowledge, but who for various reasons are prevented from cultivating science professionally.

Study of the Atom.

In every aspect the appointment of Sir William Bragg is ideal. Like most of the leading physicists, he was trained in the Cavendish nursery, which he entered immediately after graduating at Trinity, Cambridge. He left Cambridge in 1885 to take the chair of Mathematics and Physics at the Adelaide University, and four years later married the daughter of Sir Charles Todd, the Government Astronomer of South Australia.

While at Adelaide he was attracted to atomic problems, and after reading a paper before the Australian Association for the Advancement of Science on electrons, he made a number of interesting speculations on radio-activity and the passage of alpha rays through crystals. A benefactor presented him with some radium, and he had the profound satisfaction of finding that the results he had obtained by theoretical reasoning were confirmed by a direct questioning of Nature.

In 1909 Sir William Bragg came to Leeds as Professor of Physics, and soon collected round him an enthusiastic school of students. Von Laue shortly after his appointment published the account of some remarkable results obtained by passing X-rays through crystals, and by these his imagination was fired. X-rays are comparable with the rays of light, but they are only one ten thousandth as long as light rays, and therefore for certain purposes are a much more powerful weapon than light waves.

After three years' work carried out in conjunction with his son he had shown to the scientific world that a new weapon, based on his X-ray spectrometer, had been forged for attacking the problem of the composition of the atom. Father and son in 1915 were awarded the Nobel prize for physics. The war for a moment interrupted his researches in pure science, and in 1919 the University of Leeds, in awarding him the doctorate of science honoris causa announced that he had been called "to devote his genius to the national defence, and had labored with conspicuous success to devise the means of detection that were essential to guard us from the lurking peril of the sea."

Future intentions.

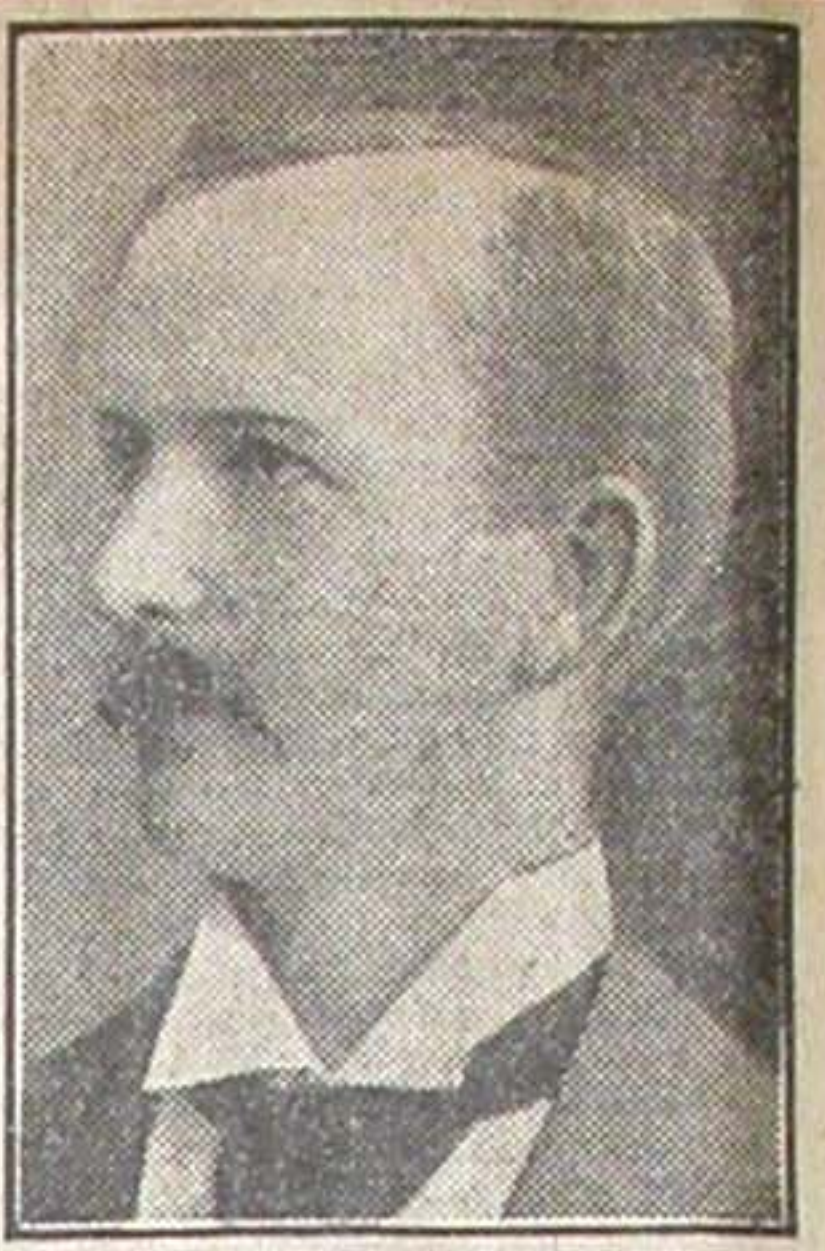
Sir William Bragg has stated that he welcomes the appointment as giving him the equipment and opportunities necessary to enable him to continue his experiments. "It is my intention," he said, "further to investigate the problems connected with crystals and X-rays, as their study will, I am convinced, throw valuable light on the essential structure of all substances. With the facilities of the Royal Institution I feel certain that further advances can be made."

Sir William Bragg's appointment coincides with the publication in "Nature" of a lecture delivered by him before the Royal Society of Arts. The lecture is worthy of study to-day as showing that the author, who has endeared himself to students and friends as a brilliant after-dinner speaker, is a masterly expositor of subjects no matter how technical they may be. It constitutes practically an apologia pro vita sua.

The method which he describes is based on the absolute results obtained by the application of X-rays to crystal structure. As a concrete example of what may be achieved by his method he gives a solution

of one of the age-old problems that have vexed chemists and physicists, that of carbon. The diamond is carbon and nothing but carbon; so also is the black lead of commerce. If you burn equal quantities of each the chemist can prove that each contains weight for weight the same quantities of carbon. Why then the physical to say nothing of the intrinsic differences between these two forms of soot?

Professor Bragg's X-ray spectrometer provides the answer by proving that in the case of the diamond the atoms of carbon are linked together by the strongest possible bond, while in the case of black-lead one link in the binding chain is weak. The strength of a chain is that of the weakest link, and it is exactly this weakness that gives the soft and slippery graphite greatly valued by engineers as a lubricant in place of the brilliant but unyielding diamond. In both cases there is a similar ring structure of atoms, and in the diamond this ring has been measured and found to be one hundred millionth of an inch across. The results so far obtained by this remarkable method have confirmed the wonderfully accurate reasoning of chemists, and have thrown new light on the extraordinary structure of the benzene compounds and the optically active organic bodies.



Mr. W. R. Bayly, Headmaster of Prince Alfred College.

Advertiser 21.7.23

THE PHARMACEUTICAL SOCIETY.

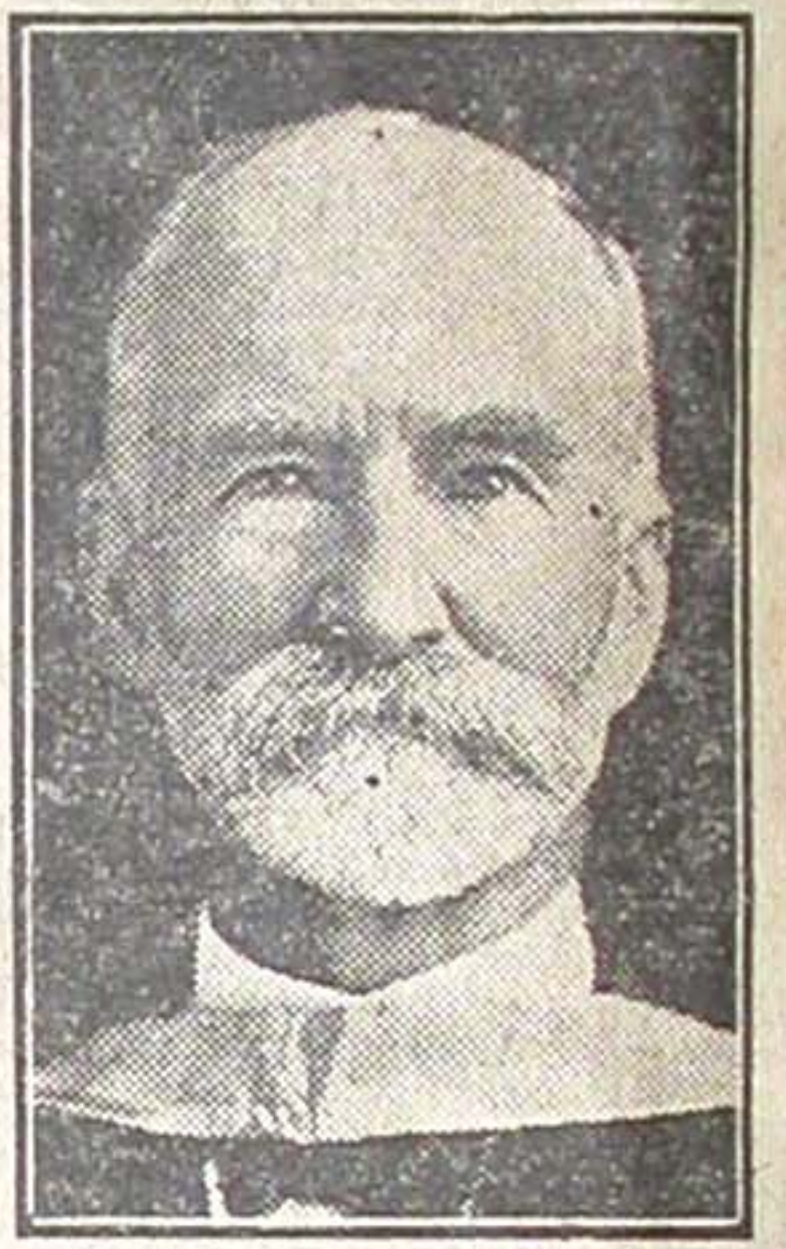
The annual meeting and smoke social of the Pharmaceutical Society was held on Thursday evening. The president (Mr. E. F. Grist) occupied the chair, and submitted the annual report. On the motion of Mr. W. H. Porter, the society expressed its gratification at the election of Mr. E. F. Grist as president. Mr. Grist, in reply, stated that in 1924 the Australasian Pharmaceutical Conference would be held in Adelaide. His occupation of the presidential chair completed 20 years' service on the council, during which time for 10 years he had the honor of occupying the president's chair, and for six years had been president of the board. This he considered established an Australian record, which he considered a high compliment. They had 63 students at the University, and 8 taking instruction at the board's room. Arrangements had been made with the University to have the medical students trained in dispensing by qualified chemists at their establishments, in lieu of the previous training at the Adelaide hospital, and a certificate of fitness was issued by the Pharmacy Board that was accepted by the University. The membership now totalled 125. He regretted to announce the death of two old members—Messrs. J. B. Burden and O. S. Hill—and spoke in eulogistic terms of the services rendered to pharmacy by Mr. O. S. Hill, who was one of the founders of the society. The president's medal would again be open to competition, and the exercises would be set in September. An honor roll, comprising names of all pharmacists who enlisted in the great war, has recently been hung in the council chamber. It contained 61 names. An intimation from the Premier had been given that no alteration in the hours of closing chemists' shops was contemplated at present. He moved the adoption of the report.

This was seconded by Mr. M. Roehlin. Mr. W. Fisk gave an outline of the work done in connection with lodge dispensing.

The financial report, which was satisfactory, was submitted by the treasurer (Mr. A. Moore).

The services rendered to pharmacy by the retiring councillors, Messrs. A. K. Huster, R. O. Fox, and M. A. Moore, were eulogised by the president.

The president of the board (Mr. R. O. Fox) presented diplomas to the following successful candidates at the recent examinations:—Messrs. C. L. Thomas (in absentia), G. L. M. Mildred, H. G. Colyer, and W. Roehlin. Musical items were submitted by Messrs. W. Hurst and D. Magarey.



Mr. Frederic Chapple, C.M.G., Formerly headmaster for 38 years.

Advertiser 23.7.23

NEW LAWYERS.

TWO MORE ADMITTED.

On Saturday morning, in the Full Court, presided over by Mr. Justice Gordon and Mr. Justice Angus Parsons, Irvine Dale Wald and Reginald Mends Gibson were admitted as practitioners of the Supreme Court. Mr. R. N. Finlayson moved for the admission of Mr. Wald, who is a son of Councillor A. G. Wald (the present master of the Freemasons' Lodge of St. Albans). Mr. Wald was educated at St. Peter's College and the Adelaide University. He served his articles with Mr. W. A. Mazarey, of Messrs. Isbister, Magarey, and Finlayson. He has played football with the University teams, and is well known as a rider at the Hunt Club meetings.

Mr. Gibson, who resides at College Park, is a son of the late Mr. R. M. Gibson, a police magistrate, of New South Wales. He was educated at St. Peter's College and the Adelaide University, and has taken a great interest in sport. He served his articles with Messrs. Varley, Evan, and Thomson, and was admitted on the motion of Mr. H. Thomson.

Both candidates took the customary oaths, and signed the practitioners roll.

In congratulating the new members of the bar, Mr. Justice Gordon said, on behalf of the bench, he wished them every success in the profession into which they had that morning been admitted. They would find it recorded in Blackstone that every gentleman should know the law of England. Knowing the law of England, as every gentleman should, he was sure they would conduct themselves as gentlemen. He wished them every success.

Advertiser 21.7.23

Dr. T. Harvey Johnston, professor of zoology at the Adelaide University, has been appointed honorary curator of the Department of Helminthology (the science of worms) at the Museum.

Mail 21.7.23

LECTURES CHAPERONED.

The first girl who attended lectures at the Melbourne University needed a chaperone. It has taken a mere man to find this out—Mr. Frank Gladish, librarian at the Medical School, who for 50 years has made a hobby of keeping newspaper cuttings that concern Universities. And it has taken him all this time to make his horrible secret known. The girl, it appears, arrived with a chaperone and took the Arts course, while the "duenna," as students and professors insisted upon calling her, sat in a little room all by herself. Mr. Gladish himself it was who escorted the girl to and from lectures, but in the meantime she rejoined the duenna in the horrible room apart, there to await the next lecture hour. How frightfully interesting—and unreal.

Register 24.7.23

Many English universities and schools have thrown open their engineering courses to women on exactly the same terms as men.