

The CHANCELLOR then called upon His Excellency to unveil the marble statue of Sir Thomas Elder, G.C.M.G., which was placed upon the platform.

His EXCELLENCY, who was received with cheers, said:—Mr. Chancellor, Mr. Vice-Chancellor, members of the Senate of the University of Adelaide, ladies, and gentlemen—The annual review of the work and progress of our University, which my old fellow-student, Professor Pennefather, will pass before us, is to be prefaced at this commemoration by a ceremony infrequently witnessed—a ceremony which does honour to one whom I may fairly call the University's greatest benefactor, and which is of surpassing interest to his many friends. (Applause.) I am about to obey the Chancellor's commands by unveiling one of that great sculptor, Mr. Woolner's, most recent and most successful works—a bust of Sir Thomas Elder. (Applause.) Ladies and gentlemen, it is a rare occurrence that the presentation to a public institution of a portrait bust should take place in the lifetime of the subject represented—whenever it has occurred it has been on account of distinguished merit—and still more rare is it that such a bust should be unveiled by him who of all your number by accident of circumstance can least claim his personal acquaintance. So uncommon is this circumstance that I should not wonder if you questioned my fitness to perform this duty—I who am the youngest Doctor of Laws of this University, and scarcely two years a resident in South Australia. I think the reason why I have been asked to do so is to be found in the fact that this bust is presented to this seat of learning mainly in recognition of Sir Thomas Elder's immense public services to this University, this colony, and to Australia, and so you have generously given me an opportunity of testifying to them. But whatever be your reason I can assure you on my part that I esteem the honour very highly. It is with pride, ladies and gentlemen, that I reflect that Sir Thomas Elder is a brother Scot, and an ornament of a race distinguished all the world over for its public spirit and enthusiasm for learning. He has recognised to the full the obligations his wealth imposes on him, and he has discharged them magnificently for the public advantage. This city and its environments have benefited largely by his munificence; every philanthropic and charitable organization can count with confidence on his support. On public grounds Sir Thomas has been a liberal patron of our sports and pastimes—indeed, as far as racing is concerned it would be difficult to exaggerate the value of the services he has rendered it when he has at different times imported for breeding purposes some of the best of English blood. Time, alas! forbids anything but the most rapid sketch of Sir Thomas Elder's public career, so I must hasten on and remind you of how honourably is his name inscribed in the history of Australian exploration. In 1874 the expedition led by Colonel Warburton (whose death we have been recently mourning) was sent out at the joint expense of Sir Thomas Elder and Sir Walter Watson Hughes. It succeeded after great privations in reaching the west coast of Western Australia. In 1875 Sir Thomas equipped and sent out three expeditions under Mr. Ross, with the view of finding a possible route to Western Australia. In the same year he dispatched two expeditions under the able leadership of Mr. Ernest Giles, one of which found a practicable route to the south-east of Western Australia, and the other accomplished the remarkable feat of reaching the west coast of Western Australia and of returning overland to South Australia in safety. In the coming year Sir Thomas proposes to bear the entire cost of an expedition under the auspices of the Australian Geographical Society to discover for us what still remains for us of unexplored Australia. Nor must I omit mention in my rapid sketch that the introduction of the camel is owing to Sir Thomas Elder's public spirit and enterprise. What the camel has done and is to-day doing to facilitate communication in the interior is well known to all of you. As the name of MacArthur reminds you of the Merino sheep, so assuredly will the camel serve to remind Australians of Sir Thomas Elder. (Applause.) But, Mr. Chancellor, Sir Thomas's public services have, perhaps, culminated in his munificent benefactions to this University. He has given—unsolicited and unburdened with conditions—the sum of between £20,000 and £40,000, which associates his name with the Chairs founded by his generosity. (Applause.) The successful establishment of the University was largely owing to his first gift of £20,000 in 1874, Sir Walter Hughes giving a like donation. Then, again, in 1884 £10,000 given by Sir Thomas Elder, augmented to £16,000 by Mr. Angas, enabled you to add the schools of medicine and of other sciences. Sir Thomas has further contributed £1,500 to the endowment of a Chair of Music, and £1,000 to the Evening Classes Fund. Besides all this he has given £3,000 to establish a South Australian scholarship in the Royal College of Music at home. These noble benefactions have been recognised by the University by associating his name with the Elder Professorship of Mathematics, the Elder Professorship of Natural Science, and the Elder Professorship of Anatomy. His great public services received the recognition

and approval of his gracious Sovereign as early as 1878, and in receiving subsequently the high distinction of Knight Grand Cross of St. Michael and St. George Sir Thomas was able to reflect that only one other resident Australian colonist had been similarly honoured. And now, Mr. Chancellor, ladies and gentlemen, some of Sir Thomas's fellow-citizens, anxious to mark their appreciation of what he has done, have subscribed for his portrait bust in marble to be placed in the porch of the University. Sir Thomas Elder is returning to Australia early next year. For long years to come may our opportunities be many of comparing the original with this marble, which I now unveil. May this bust remain for all time as a memorial to generation on generation of students of the munificence and patriotism of one of the founders of their "Alma Mater," in the continued and increasing usefulness of which are centred my highest hopes and most earnest wishes. (Cheers.)

The CHANCELLOR, on behalf of the University, thanked His Excellency for the service he had rendered in delivering an eloquent and graphic review of such a distinguished career. He then called upon Professor Pennefather to deliver the annual oration.

Professor PENNEFATHER, who was received with cheers, then read an address.

The CHANCELLOR, having thanked Professor Pennefather on behalf of the University and of the audience for the address, the proceedings were brought to a close.

"Quiz" 21/3/91

HERE AND THERE.

A University is hardly the place that one would consider it necessary to visit armed with a revolver in the hip pocket, and yet a person straying into the entrance-hall of the Adelaide University is alarmed by various threatening notices on the wall. One strictly prohibits gambling and other vices on the premises. A second informs whom-ever it may concern that the students' room will be re-opened on payment of £8 12s., the damage done to it; and a third proclamation states that hockey-sticks and other offensive weapons must not be introduced into classical lectures. The general impression given by this mural literature is that the University is the resort of prize-fighters and pugilistic sharebrokers. On our next visit we expect to be met by an attendant, who will request us to be good enough to leave our bowie-knife at the door.

TELEPHONE TALKS.

THAT IS REFORMATION!

QUIZ:—"Good morning, Exchange. Please give me the University, and say very gently that Professor Ives is wanted, but don't mention my name. Are you there Professor?" "Yes. Who's that, the Stock Exchange? What! QUIZ? How dare you? Go to!"

"It's all right, Professor. I only want to congratulate you upon not appearing on the Corner for a whole week. That is reformation. Keep it up, dear boy; devote yourself heart and soul to the encouragement of music in this city of scrip and you will have no warmer supporter than QUIZ." "I don't want your congratulations, I don't want your support, and I don't like you."

"Nonsense! That is the way the girls sometimes express their adoration. I take it as a token of your regard for me, and I in return admire your newly-awakened devotion to music." "Yes, I know you, you satirical scoundrel."

"Professor, how long are you going to be a good boy? You see, if you do not keep pace with Marshall Hall in Melbourne there will be trouble. Take the hint. Ta, ta!"



TUESDAY, FEBRUARY 3, 1891.

AN address delivered at the commemoration festival of the Adelaide University by the Professor of Laws, Mr F. W. Pennefather, brings into notice several questions which are of interest beyond South Australia. The first is that of the need of a federal system of legal training throughout Australasia. The present plan, as Professor Pennefather openly says, "is an absurdity. According to it an Attorney-general of one colony, should he wish to hold a brief in another, might have to matriculate and go through a whole University course; and a case has actually occurred in which an eminent Q.C., specially retained to defend a prisoner in another colony, was obliged to pass a qualifying examination in elementary law before he was allowed to open his lips in court!" Remembering that the law throughout Australasia is substantially the same, and that the requirements of one colony differ but little from those of another, it is most unreasonable that such difficulties should exist. Professor Pennefather cogently asks, "Can it be contended that the bar of the United States would have taken

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the place in the world which it has if it had been split up in this manner?" And to take lower, but very practical ground, it is an injury to young men entering the profession that the field before them should be needlessly restricted. The great difficulty in bringing about a federation of the profession arises out of the separation of the two branches in Victoria and New South Wales, where the old English distinctions of barrister and solicitor are maintained. We fear that no outside pressure is likely to succeed in breaking down these distinctions in the two principal colonies, but that they will fall to pieces in course of time we cannot doubt. Meanwhile the New Zealand Government might well endeavour to establish a common federal system with the colonies in which the two branches of the profession are amalgamated. It would merely be a matter of arranging a common system of study to be approved by the judges in the colonies co-operating, who could unite in appointing a board of examiners. The practical advantage to members of the profession in all the colonies co-operating would be very considerable, and there could be no doubt that they would form an inducement to the two branches of the profession in Victoria and New South Wales to amalgamate.

Professor Pennefather's second suggestion is for a federation of the Australasian Universities upon a plan similar to that of the New Zealand University Colleges. He urges the increased value which would be given to the degrees of a Federal University, and other arguments which we remember were advanced some years ago by Professor Morris of Melbourne. The question does not interest us much in New Zealand, but in connection with it we note a side-suggestion of Professor Pennefather which is worthy of consideration. It is that the existing Australian Universities should adopt the German system, whereby students go from one seat of learning to the other, as such offers special

facilities for the subjects they are studying without loss of time towards obtaining their degree. Thus, a German student takes his first year at Heidelberg to attend the lectures of a professor celebrated in some special branch of the subjects he is principally studying, the second at Göttingen, and the third at Berlin—where he can take his degree; the period of his training counting from his first attendance at Heidelberg. This system is facilitated in Germany by the absence of *interim* examinations such as are held here every year; but that difficulty is not so great that it cannot be got over. Professor Pennefather's next suggestion is that the Adelaide University should follow the example of New Zealand in affiliating to Oxford and Cambridge, so that undergraduates who have kept two years at the Colonial University may obtain their degrees in the old seats of learning with two years' residence instead of three. This does not concern us, but we wish some wealthy New Zealander would take to heart what Professor Pennefather has to say as to the value of residential colleges in connection with a University, and found one in Dunedin. Of the advantages of this system there can be little question, but without some *deus ex machina* it is useless to think of anything of the kind in New Zealand at present.

Burke thought the law "the noblest of human sciences," and urged its value as an instrument of education in a memorable passage which is almost conspicuous by its absence in the able and interesting defence of the studies of his chair with which Professor Pennefather concludes his address. He points out that "in order to be complete, the study of the science of law must involve the study of ethics, of history, of politics, of economics; that it necessitates a realisation of that power which makes for righteousness in the breast of every human being; leads us to consider and compare the causes which have brought about the various phases of human society and the principles which ought to guide the legislators of the land, and exercises the mind by the perception of analogies and investigation of evidence." Mr Pennefather made many friends in New Zealand when he was acting as private secretary to Sir William Jervois. It was this personal interest which drew our attention to an address which is well worth reading on its intrinsic merits, and reflects credit on the chair which Professor Pennefather now occupies. We trust that at least his suggestion for a federation of the legal profession in the colonies in which the two branches of the law are amalgamated will bear early fruit.

THE SOUTH AUSTRALIAN REGISTER,

THE KOCH CONSUMPTION CURE.

Professor Anderson Stuart, who represented New South Wales, South Australia, and New Zealand in his investigation of the Koch consumption cure, arrived in Adelaide by the mail steamer Oceana on Tuesday morning. He has prepared a voluminous report, which will be printed when he reaches Sydney, in which he gives not only a complete history of the discovery of the cure, an account of his investigation in Berlin, and his conclusions, but also most exhaustive statistics regarding the treatment of various consumptives in German and other hospitals. This report will probably be ready for the three Governments in about a fortnight or three weeks. Professor Stuart has arranged for a supply of lymph to be sent weekly to each of the three colonies he represented.

On Tuesday evening the Professor delivered a lecture under the auspices of the S.A. Branch of the British Medical Association in the classroom of Professor Bragg at the Adelaide University. Dr. J. A. G. Hamilton (the President) occupied the chair. There were nearly 100 members of the faculty and medical students present. The lecture was illustrated by lantern slides projected on a screen showing the various stages of the reaction, as it is called, and showing many preparations of the tubercule parasite. There were also a number of microscopes showing the parasite itself as magnified under very high powers, and various experiments were performed to illustrate the fundamental processes of the culture of these parasites and their examination. Some of the lymph was exhibited, as was also the pure culture of the tubercule bacillus, the glycerine extract of which the lymph is.

The lecturer began by referring to the discovery that the highly infectious disease known as anthrax, known as woolsorters' disease in England and the Cumberland Disease in Australia, had been found in 1849 to be caused by a certain minute living organism or microbe, and then stated that some other diseases were subsequently proved to be associated with more or less similar organisms. He then went on to show that phthisis or consumption was gradually recognised as an infectious disease. It was true, he said, that a century ago many believed that it was an infectious disease, but it was not until 1865 that it was definitely proved to be an infectious disease as it then was by Villemann. Seeing, then, that infectious diseases had been associated with parasites, Koch looked for the parasite of consumption, and found it in 1882. It was the organism which was now known so widely under the name of the tubercule bacillus. These little organisms were of a vegetable nature of various form, but always of minute size, so that ten thousand would need to be placed end to end to make up one inch in length. They multiplied very rapidly, so that by their wonderful fecundity they made up for their small size and easy destruction, that was when they could be got at. The lecturer compared them, indeed, to the rabbits of Australia, which were small in size and very easily killed when they could be got at, and yet by their wonderful fecundity had hitherto baffled the attempts of all Australia to exterminate them. Those organisms of course always required the microscope to see them, and it was because of improvements in the microscope and the introduction of the coal tar colours into the methods of studying the organisms that Koch was enabled to do the work he has done. Those organisms were around them everywhere always. They were constantly breathing them in or swallowing them in food and drink; but, of course, it was only when they found a soil fitted for them that they, as it were, took root, grew, and multiplied. They were most commonly found in the lungs, because there they had most frequently the chance of entering the body. In the lungs they produced little hard, brown lumps, not unlike miniature potatoes, and so they had been called little tubers or tubercles. As the disease advanced those tubercles broke down. Their contents were expectorated and cavities remained in the lungs. Next to the lungs the intestines were a frequent seat of the parasites, because there, too, there was frequent exposure, and it had been said that they might enter the body through the skin, as proved by the communication of the disease to healthy persons who had worn the underwear of phthisical patients. The parasites were contained in immense numbers in the expectoration of consumptive patients, but here they were mixed with many other organisms, which resided in the putrid matter from the lungs. They could, however, be isolated and cultivated by themselves, and when they had thus been cultivated by themselves the result was what was called the pure culture—that was the parasite, and nothing but the parasite. The lecturer showed the manner in which that was done. Koch

Having obtained the pure culture, immediately set about trying a great variety of substances in order to find a means of destroying them, or at least of checking their growth. He tried all the common disinfectants and a great many substances which are not in use, and found, indeed, that he could easily enough stop the growth of the parasite outside the body, but all the substances that would do that could not be introduced into the body in sufficient quantities to kill the parasite in the body and yet leave the body of the animal intact. In other words, he could not kill the parasite without at the same time killing the patient. Koch says—"Notwithstanding this want of success I did not permit myself to be turned from my search for the means of stopping the development of the bacilli, and in the end I have hit upon a substance which not in the test tube only, but also in animal body, can stop the growth of the tubercle bacilli. All tuberculosis investigations are very tedious, as every one has fully found who has worked at the subject. It is just the same in the case of my experiments with this substance. Although I have been occupied nearly a year with them they are not yet finished, so that with regard to them I can communicate no more than this, namely, that guinea-pigs, which, as is well known, take tuberculosis easily when they have been submitted to the action of the substance, no longer develop tuberculosis when they are inoculated with the tubercular virus, and that in guinea-pigs which are already in a high degree the subjects of general tuberculosis the malady can be brought to a complete standstill without the body of the animal being in any way injuriously affected by the remedy." The lecturer pointed out that by the former experiment immunity against tuberculosis seemed secure, while by the latter experiment the cure of tuberculosis was promised. The lecturer then described the exact nature of the experiments which led Koch on the one hand to the foregoing result, and on the other to the preparation of the lymph. It might be briefly put as follows:—During their growth the bacilli produced substances which had an injurious influence on the living elements of the body by which they were surrounded. The lymph prepared from the bacilli contained a large proportion of that same substance, so that when some of that was introduced into the body the quantity of the substance in the immediate neighbourhood of the bacilli was increased, and if the dose were of sufficient extent the living elements died, and might be cast off if they were near some surface, as, for instance, the skin, the air passages, or the intestines; or, on the other hand, they might be gradually absorbed. In any case, however, the bacilli were not killed, and that was probably the really weak point of the treatment, for unless they were bodily removed along with the dead elements in which they lay they might simply spread into the neighbouring healthy regions, or indeed might be disseminated over the whole body, so that the patient's latter condition might be even worse than his former. The results of at least twenty-eight cases, and probably about forty cases, of post-mortem examinations of persons who had died while under treatment in Berlin were given by the veteran pathologist Virchow, who recited many facts in support of the spread of the disease as the result of the action of the remedy, and definitely stated that after personally examining many tubercles he had not found them destroyed, as Koch had described. Virchow's statements would be supported by what, if confirmed by other observers, was a most serious observation, namely, that of Liebmann, who stated that the examination of the blood from phthisical patients did not show bacilli, but that in all cases of phthisis treated by Koch's fluid numerous bacilli could be found in the blood drawn from the finger. Virchow's statements had also been strongly confirmed by Hansemann, Baumgarten, Ribbert, and others, and the lecturer spoke of the results of their post-mortem examinations. Kromeyer's histological investigations were also described, but as this portion of the lecture was of a highly technical character it would be of little use to the general readers to report it. He then went on to speak of immunity, natural and acquired, and pointed out that while an attack of such a disease as small-pox gave immunity from, that was to say gave protection from, a subsequent attack—and the same applied to some other infectious diseases—the same could not be said of tuberculosis, one attack of which notoriously predisposed to another one. Dr. Stuart then went on to point out that when Koch was advocating the use of his remedy in the diagnosis of phthisis of the lungs he did not put it in the first place, but recommended first the examination of the expectoration, second that of the chest, and then, thirdly, only in doubtful cases the injection. He then spoke of the evils which had resulted from the systematic neglect of Koch's express limitations of the use of his remedy. For instance, Koch said that commencing phthisis could be cured, and earnestly warned against the rule of thumb use of the remedy in all cases without distinction, and yet in spite of that the lecturer saw

the remedy being used in Berlin in the most indiscriminate manner, as it were under the very nose of Koch. Perhaps to this were due many of the deaths that were now being ascribed to the remedy, when in truth they were due rather to the unwisdom of physicians yielding no doubt often to the pleadings of patients, who looked for salvation by a few injections, and who neglected therefore every other means of cure which Koch strongly insisted upon. For instance, he insisted upon good nursing, and in order to get it recommended treatment in hospitals rather than at dispensaries or even at patients' homes, and yet Dr. Stuart saw patients in all stages of disease, and chiefly the advanced stages, come in crowds to the outdoor departments to be injected all through the terrible winter season in Berlin, when there was a continuous frost of over three months and the ice was 18 in. thick on the river. Koch insisted upon means such as mountain air, dieting, &c. These were systematically neglected. Patients hurried from the usual approved resorts such as the Riviera to frosty, foggy Berlin, with its overheated, ill-ventilated rooms; in short, so great was the enthusiasm for the remedy at one time that patients thought it was needless to do anything else than get injected a few times. As a matter of fact this enthusiasm was not confined to the public; it extended to the medical profession to an extraordinary degree. No doubt many of the medical men who rushed to Berlin were really enthusiastic in a proper scientific way, but it was equally certain that a great many simply went as a cheap and more or less legitimate mode of advertising themselves. In the majority of cases the visitors could not speak the language, and derived very little benefit from their visit; still they had been there, and that was enough. If they could get a bottle of the lymph they returned triumphant and happy. One happy possessor of three bottles was sorely tempted to part with one of them for the sum of £500, [which was put down on the table alongside the bottle—to such lengths did the enthusiasm go. Dr. Stuart then went on to speak of the results of the use of the lymph, and first of all of the deaths. Numerous deaths had occurred during the treatment. The great majority of these would have died at any rate sooner or later, but there was no question but that some "calamities of medicine" had occurred; that was, some cases that might have lived on for years had died in as many hours, while unfortunately there were some cases which must be put down to the remedy itself. As to cures, there was by no means the same certainty as in the case of deaths, for one must wait to be sure that the cure was real. The cures therefore could not only be admitted as yet as claimed, but firstly, other means had unquestionably succeeded in time past; secondly, cases which the lecturer saw in Berlin in December as cured had broken down in January, when he returned; thirdly, the statements of patients were more favourable than the actual change for the better in their physical condition. This might be accounted for as follows:—Firstly, the consumptive patients were notoriously hopeful; secondly, any patient was hopeful when a new remedy was tried, particularly if it was more or less mysterious; thirdly, a consumptive patient might feel better when he was really worse, owing to slight fever—as was caused by the lymph—temporarily strengthening his circulation; fourthly, throat cases had done best as judged by improvement in the voice, but this might be explained in another way than by the direct action of the lymph; and finally Koch's word was very properly taken by the profession and the public. And the lecturer stated in this connection that the final result of the whole story was not so much the disproof of Koch's statements as the disappointment of the hopes of the public. The public indeed hoped for far more than Koch ever promised. In conclusion Dr. Stuart described the circumstances attending Koch's being in a manner forced to publish before he was ready, and stated that no one was more disgusted than Koch himself. The lecturer gave it as his opinion that "the remedy is a useful aid in diagnosis, but nothing more, and nevertheless considers that a great advance has been made, for it is the introduction of a new method from which great things will probably come, and even in regard to the remedy itself it is the first substance that has ever directly affected the tuberculous process. It is, however, a most potent substance; it must be used with the greatest circumspection, and certainly not in the meantime at least outside the wards of a duly appointed hospital."

Several times during his address the professor was applauded, and when he had concluded he was heartily cheered on the motion of Dr. Way, seconded by Dr. Symons.