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capable of carrying on research work, and of leading their students beyond the printed textbooks. He placed great importance on research work. Students should be encouraged to carry on research and to cast their bread on the water, when often it would be necessary to let someone else find it after many days. (Laughter.) Students should not be over-burdened with routine work while engaged in research matters. Provision should be made for post-graduate courses. One of the greatest needs of Australian universities was increased facilities for post-graduate research work. By teaching students to discover for themselves an institution rose from the lower plane of a college to the higher one of a university. A university was essentially a school of conduct. Many universities had refused to grant degrees to students who did not attend the lectures and classes. He deprecated making a university a mere examining body. He referred to the ethical value of the prescribed courses, and emphasised the need for a university spirit and the development of a thorough sympathy and of co-operation between all bodies in the institution. He thought they did not do their duty in Australia in the way of keeping in touch with their graduates. He complimented the chairman on his efforts in the formation of that society (the Graduates' Association). The lecturer referred in terms of appreciation to the satisfactory financial position of the Adelaide University. It was in respect to post-graduates that Adelaide was going to come more and more to the front. He considered that the best service anyone could render to the cause of learning was to make generous provision for that class of work. The country had to look to such enterprise for advancement in industry and manufactures which were essential to the progress of the people. He paid a compliment to the local teaching staff, which, although few, were efficient. There was room for considerable additions, however. In his opinion the Adelaide University should emphatically remain where it was. He could see several reasons why it should not be removed to another site. Many of the teachers and students lived in the city and suburbs, and it might be found irksome to have to travel to a remote suburb. This was especially so in regard to law students. He thought there must be a possibility of sufficiently extending the University without unduly encroaching on the park lands. He regarded the erection of a union room as desirable in the interests of the cultivation of a corporate spirit. Then, too, he regarded it as important that the staff should be increased. Professor Henderson, for instance, ought to be relieved of one of his subjects. History and English were too much for one man. In Sydney they had two professors of English. He strongly emphasised the desirableness of teaching German. It was a fine language, and in spite of the war the country was a great country from the standpoint of devotion to knowledge and patient industry. The lecturer also spoke of the claims of the aborigines, for whose benefit he considered extensive reserves ought to be set aside, even if it involved the reservation of lands of considerable economic value. (Applause.)

In thanking the lecturer, the Minister of Education (Hon. G. Ritchie) mentioned that South Australia, Western Australia, and the Commonwealth Government had set aside large reserves of land for the sole use of aborigines.

The Vice-Chancellor (Professor Mitchell) seconded the vote of thanks.

THE SPREAD OF DISEASE.

PROFESSOR CLELAND'S THIRD LECTURE.

Professor J. B. Cleland delivered the third and closing lecture of the University extension series on community diseases at the Prince of Wales building on Tuesday evening before a large and an interested audience. It afforded him an opportunity, he said, to refer to the controversy which arose out of the published reports of his first lecture, and he expressed a desire to correct one or two wrong impressions or inferences that appeared to have been drawn from the necessarily short extracts from the two earlier lectures that had appeared in the press. The processes occurring in the healing of a simple wound were essentially the same as those taking place round a focus of infection by germs. These processes were unquestionably protective and reparative in intention. They were both examples of disease in its usual medical sense. He had particularly mentioned how much better it would be for human beings if wounds did not occur, or invasions by bacteria, which had to be overcome, did not take place. Although they did not welcome an attack of typhoid fever or of smallpox they should be thankful when they were invaded by the germs of these diseases, that they so frequently put up a good and successful fight against them, the evidence of the conflict being shown in the manifestations of these diseases. To extend an already used simile, how much better it would have been for France had there been no German invasion to be repelled, but that having occurred, surely it was better to react to, and eventually overcome it, than to be passively wiped out of existence. (Applause.)

The question of materialism had been quite foreign to the subject matter which, as delivered, could have given no grounds for the inferences drawn or the suggestions made. It was the cancer cell not the individual to which he had referred as passing into oblivion, an oblivion also shared in by the cells that comprised the scurf on their skin and the hairs that the barber removed. The survival of the germ plasma was unquestionably, biologically speaking, the foremost object that nature had in view, but to what sublime summit, what crowning glory, that might lead in the course of ages, who could tell? (Applause.)

The title of the third lecture was "Insects as they affect the spread of disease in Australia." Professor Cleland referred to the well-known difficulties in the construction of the Panama Canal and the development of the Gold Coast, caused by the disease-carrying mosquito. He spoke of the researches of Sir Donald Ross in this connection, and went on to deal with the study of the Australian mosquito, which, he said, often made life a burden, and was responsible for the continuance of three diseases—malaria, dengue, and filariasis. There was also the sword of Damocles hanging over their heads in the presence in the north of the mosquito conveyor of yellow fever. Notwithstanding the general popular idea that all mosquitoes were very much alike, there were probably several hundred species in Australia, each with its own peculiarity. Some of the mosquitoes were domestic and others were known as wild ones. Everyone was presumably acquainted with the culex fatigans, which was distributed practically throughout the Commonwealth, although unquestionably it was of alien introduction. This insect fed almost entirely on man, his domestic animals, and the feathered inhabitants of the roofs of houses. It was interesting to find that the Australian sparrow harbored a species of blood parasite related to that causing human malaria, and probably transmitted by their friend, culex fatigans. The behaviour of this domestic mosquito, which the lecturer humorously described, was, he said, suggestive of the fact that it had lived in intimate association with man for a very long period of time. This mosquito manifested a devilish ingenuity in detecting faults in mosquito curtains and evading the murderous hand. (Laughter.) He went on to deal briefly with several other varieties of mosquito, among them those responsible for the dissemination of dengue, experiments in relation to which he described in an interesting manner. The supposed carrier of malaria in Australia, Nyssorhynchus annulipes, was widely dispersed, but not very numerous, especially in southern parts, although it had been found breeding at the edge of Torrens Lake, and had even been caught in the Adelaide Hospital. They were common along the Murray. These insects were easily recognisable, for when biting or at rest they appeared almost to be standing on their heads. The application of a little kerosine to the surface of water in which the larvae of this mosquito were found was to be recommended in order to bring about their asphyxiation.

On the subject of flies, Professor Cleland said they might possibly play an important part in the spread of typhoid fever and they were at all events a profound nuisance. Certain kinds of flies were evidently pests long before the white man settled in Australia. Flinders in 1802, at Pellet's group of islands, wrote:—"On shore it was hotter, yet the mosquitoes were not very troublesome, but the common black flies, from their impudence, were scarcely less annoying than the mosquitoes." Sir George Grey in 1837, in the north-west of Western Australia, found that the flies made sleep impossible after sunrise. The insects referred to by these explorers was probably the widely distributed indigenous Australian bush fly, which collected on people's backs when they went for a country walk in summer. Seeking moisture in the human eye, this thirsty fly might possibly play a part in the spread of such diseases as trachoma, and might also disseminate "Barcoo rot," a form of superficial ulceration occurring on the hands of people in the bush, or it might spread the "Barcoo vomit," a peculiar Australian disease. This insect might also be capable of spreading anthrax, although undoubtedly it rarely did so, if at all. The common domestic fly—like the house mosquito, unquestionably an introduction—was now universally recognised as a possible source of danger, because in favorable conditions it might be able to disseminate the bacilli of typhoid fever and other allied intestinal diseases, although in a sewerage town the danger from this source was almost negligible.

The lecturer also touched upon the stable fly, which, he said, fed chiefly on cows and horses, and often bit men, which the house fly was structurally unable to do. The stable fly had been incriminated as a possible conveyor of the virus of infantile paralysis, but this was almost certainly a libel. He referred to the loss to the pastoral community caused by the operations of the blow fly, of which, he said, there were several species. In concluding, Professor Cleland said:—"Having considered briefly a few of the various protean aspects of disease, I come to the conclusion of the matter. As in the making of many books there is no end, so in the study of pathology there seems as yet no final point when all will be known of the intricate ways in which our bodies react in disease, of the complex paths by which infection may be acquired or prevented. If I have interested you in this subject, if I have pointed out aspects that may be new to you, if I have shown that all connected with disease is not necessarily repulsive to the layman, may I hope that you will aid as far as you can in furthering the acquirement of still fuller knowledge in all that appertains to our health and well-being." (Applause.)

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PROFESSOR'S REPLY TO CRITICS.

In the concluding lecture of a series on "disease," delivered at the University of Adelaide on Tuesday evening, Professor Cleland referred to a newspaper controversy which arose out of the published reports of his first lecture. He said:—"May I correct one or two wrong impressions or inferences that may have been drawn from the necessarily short extracts from the two earlier lectures that have appeared in the press? The processes occurring in the healing of a simple wound are essentially the same as those taking place round a focus of infection by germs. These processes are unquestionably protective and reparative in intention. They are both examples of disease in its usual medical sense. I particularly mentioned how much better it would be for us if wounds did not occur, or invasions by bacteria, which have to be overcome, take place. Although we do not welcome an attack of typhoid fever or of smallpox, we should be duly thankful when we are invaded by the germs of these diseases that we so frequently put up a good and successful fight against them, the evidence of the conflict being shown in the manifestations of these diseases. To extend an already used simile, how much better for France had there been no German invasion to be repelled; but, this having occurred, surely it was better to react to and eventually overcome it than to be passively wiped out of existence. The question of materialism has been quite foreign to the subject matter, which, as delivered, could have given no grounds for the inferences drawn or suggestions made. It was the cancer cell, not the individual, to which I referred as passing into oblivion, an oblivion also shared in by the cells that comprise the scurf of our skin and the hairs that the barber removes. The survival of the germ-plasma is unquestionably, biologically speaking, the foremost object that Nature has in view. But to what sublime summit, what crowning glory, this may lead in the course of ages, who can tell?"

Advertiser June 21st 1921.
 Excerpt of interview with the Treasurer, Hon. G. Ritchie

Afforestation.
As Minister controlling Forest Lands, he had also secured information regarding the activities of the Commonwealth and State Governments in afforestation, and the establishment of a Central Forestry School for experimental purposes, and for the training of foresters on up-to-date scientific lines. This school was necessary in order that trained men might be available for the development of a national and very essential policy in connection with afforestation throughout the Commonwealth.

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A NOTED PROFESSOR IN ADELAIDE.

Sir Edgeworth David, professor of geology and physical geography, of the University of Sydney, and one of the most conspicuous figures in the scientific world, arrived in Adelaide last Friday, and will shortly begin an expedition to Central Australia. He was met at the train by Sir Douglas Mawson (whose guest he will be at Brighton for a few days), and other friends. Professor David was born in 1858, his father being the Rev. W. David, of St. Fagan's Rectory, near Cardiff, and his mother was a Canadian. He was a scholar of New College, Oxford, where he won high honors. He was, in his young days, a champion gymnast and athlete, played cricket and football, and rowed bow in the New College eight. Though now 63 years of age, he retains his athletic appearance, and is wonderfully active. At the close of a successful University career he engaged in geological research in Glamorganshire and Brecknockshire. He went to New South Wales in 1882 as assistant geological surveyor, and it chanced that on the R.M.S. Potosi, by which he travelled from England, was Miss G. M. Mallett, now Lady David, who had received an appointment at Hurlstone College under the Education Department. During his residence in Australia, Professor David has been identified with a great deal of important research and exploratory work. He was leader of an expedition to the Ellice Islands in 1897, and scientific officer with the Shackleton Antarctic Expedition of 1907-9. He led the party which reached the South Magnetic Pole on January 16, 1909. The Professor enlisted in 1915, after recruiting the Australian Mining Corps, and rendered valued assistance to the Allied cause in connection with the tunnelling and mining operations in France. He was appointed geologist to the British Armies on the Western Front in 1918-19, and was mentioned in despatches, and awarded the D.S.O. The knighthood conferred upon him last year was a well merited recognition of an honorable and brilliant career.

His Excellency the Governor and Lady Weigall entertained Professor Sir Edgeworth David, Sir Douglas Mawson, and Capt. and Mrs. S. A. White at luncheon on Wednesday. After luncheon Capt. White gave a lantern lecture of his travels in the interior of Australia. His Excellency presided at a meeting of the Executive Council during the day. Lady Weigall, accompanied by Miss Priscilla Weigall, was present at the forty-fifth annual meeting of the Cottage Homes on Wednesday, and exhibited keen interest in the work. Lady Weigall, who is Patroness of the institution, visited each of the inmates of the "Wallaroo Homes," under the escort of Miss M. E. Bagot, the honorary secretary.

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Mr. H. Heaton, lecturer in economics and director of tutorial classes at the Adelaide University, has been awarded the degree of doctor of literature by the University of Leeds. Mr. Heaton published last year a "History of the Yorkshire Woollen and Worsted Industries," and it is for the research embodied in this volume that the degree has been awarded.

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Professor Sir Edgeworth David, of Sydney, and the Government Geologist (Mr. L. K. Ward) left Adelaide by the Melbourne express on Tuesday afternoon to visit the Mount Gambier district and examine geological formations. They will explore the south-east coast, the country in which oil bores are situated, and the volcanic centre. On July 6 Professor David will leave with a geological expedition to the far north. The start has been delayed because the recent rains have rendered travelling difficult.