S.A. Government Gazette - Dec. 16th 1920.

## LANDS DEDICATED FOR UNIVERSITY PURPOSES.

SOUTH AUSTRALIA, to wit. } *Proclamation by His Excellency the Governor of the State of South Australia.*

*(L.S.)* W. E. G. A. WEIGALL.

BY virtue of the provisions of the Crown Lands Act, 1915, I, the said Governor, with the advice and consent of the Executive Council, do hereby dedicate the land described in the schedule hereto for University purposes.

THE SCHEDULE.

Comprising that portion of the city of Adelaide, hundred of Adelaide, bounded as follows:—Commencing at a point on a line being the production northerly of the eastern boundary of land for Art Gallery, as gazetted April 18th, 1901, said point being 117¾ links northerly from the north-east corner of said land; thence northerly along the western boundary of University lands for 461¾ links; thence north-westerly at a south-western angle of 118° 44' for 523 links; thence south-south-westerly at a southern angle of 89° 41' for 89½ links; thence westerly at a north-western angle of 118° 39' for 63 links; thence southerly at a south-eastern angle of 89° 46' for 638¾ links; thence easterly at right angles for 359 links; thence northerly at a north-western angle of 88° 25' for 32½ links; thence easterly at right angles for 50¾ links; thence southerly at right angles for 6½ links; thence easterly at a north-eastern angle of 92° 52' for 44 links; thence southerly at right angles for 26½ links; and thence easterly at a north-eastern angle of 88° 43' for 106 links to the point of commencement; reserving all necessary right-of-way.

Given under my hand and the public seal of South Australia, at Adelaide, this 9th day of December, 1920.

By command,

C.Sec., 463/1919. JOHN G. BICE, Chief Secretary.

GOD SAVE THE KING!

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## THE SPREAD OF DISEASE.

### METHODS OF COMMUNICATION.

Professor J. B. Cleland, in the second of his course of University extension lectures on disease in the Prince of Wales Theatre, University, on Tuesday evening, took as his subject community diseases, the spread of which depends in great part on the close association together of many individuals associated. He said a large number of deceases were directly due to the establishment, usually temporary, of some other living creature in or on the tissues of the victim. Man was essentially a gregarious animal, living, as it were, in flocks and herds. This was essential, and enabled division of labor to be carried out in excelsis, from the manicurist to the professional cricketer or white-ant expert; but the arrangement carried with it certain grave disabilities from a health point of view, and among them the facilities which existed for the easy transference of many germs from one to another, and particularly when people associated together in crowds under roofs—as at meetings, in shops, or at dances—or travelled together in crowded tramcars. If all lived on country farms, and met neighbors only occasionally and then across a boundary fence in the open; if they made purchases by telephone and visited the village only occasionally, the liability to contract certain epidemic diseases that were air-borne would be greatly lessened. Many Australians in isolated parts owed their immunity from influenza during the recent epidemic to such wide separation from their fellows. The methods of dispersion of the organisms of community diseases were necessarily very important in considering their control. The germ of each disease must in some way escape from its host before it could reach another victim. Certain air-borne diseases lent themselves peculiarly well to dispersal among the members of crowded assemblies. In influenza it seemed almost certain that the organism, whatever its nature, escaped in some way from the mouth and nose. The parasite, in the light of present knowledge, could not be in gaseous form.

#### Influenza and Measles.

Fortunately, in the case of influenza, two protective factors came in. The influenza organism was probably very easily killed by drying, and, as the pellets of mucus dried rapidly in the air, the method of infection must be more or less immediate, as by the patient talking at or sneezing and coughing towards, the victim; and secondly the dose of the infecting organism must be fairly large, a few germs only being easily overcome, so that dispersal of the germs by air currents, which in the open air might be rapidly achieved, was a further great protection. Suitable masks had been efficacious during the late influenza epidemic.

Plague in one of its forms, and that the most dreaded, might be an air-borne disease, as influenza presumably was. In the bubonic form, the form usually met with in Australia, the infection was generally a closed one. Measles seemed unquestionably to be an air-borne infection with certain similarities to influenza, as in the tendency to lung complications. Although the mortality from the simple disease itself was not high, fatalities from broncho-pneumonia as a complication were frequent. It seemed probable that during 1892 there were not more than 150 cases of measles in the whole of Australia; in 1895, not more than 200; in 1896, 400; and coming to recent times, in 1909, 1,350. What a golden opportunity we missed in these three earlier years, stamping out indigenous measles by compulsory notification on the part of parents as well as doctors, and by enforcing a strict quarantine. Even in 1909 the task would have been comparatively easy, and doubtless it would be so to-day if a suitable inter-epidemic period were chosen; but sooner or later it would almost certainly slip past the quarantine barrier and run riot through the community.

In other diseases, such as diphtheria and typhoid fever, control was greatly handicapped by some individuals harboring the germs for long periods of time. In typhoid fever it might be for many years after recovery, or even in some cases by their distributing the organisms without ever having been recognisably ill. The great war unearthed another and hitherto unrecognised community disease of great interest, but of singular repulsiveness. He referred to trench fever, a disabling and painful complaint, but one of low mortality, transmissible by body lice. Smallpox was the first epidemic disease clearly recorded for Australia; the virulent form of the disease having been introduced on several occasions and after spreading to a definite extent, been controlled and eventually completely suppressed. For protection against a possible visitation of the malignant forms of smallpox it was very necessary that the public conscience should be kept awake in this matter, and that vaccination and revaccination should not be neglected. Efficient quarantine minimised materially the danger of reintroduction of smallpox into Australia. As a precautionary war measure in the event of future hostilities, adequate vaccination of the community seemed to be exceedingly important; otherwise an unscrupulous enemy whose soldiers had been vaccinated might spread smallpox in a country like Australia, where vaccination was not general, and then invade with its soldiers. It was important for the public to know something about community diseases and how they were most likely to be conveyed. In

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## DREADED DISEASES

### MEASLES, FEVER, SMALLPOX

#### INSTRUCTIVE LECTURE BY PROF. CLELAND.

Some instructive history and observations on community diseases were made in a lecture delivered by Prof. J. B. Cleland, M.D., when he dealt with a long series, ending up with a plea for the education of the public, so that "they will be enabled to carry out intelligently and successfully the measures recommended from time to time by those responsible for the health of the State. A successful health administration, as regards community diseases, always implies the cordial co-operation of the public themselves in the efforts at control. If the public are apathetic, or unduly ignorant, or perversely obstructive, failure more or less complete must inevitably ensue."

—Stamping Out Measles.—

"Plague in one of its forms," said the Professor, "and that the most dreaded, might be an airborne disease, as influenza presumably was. In the bubonic form, the form usually met with in Australia, the infection was generally a closed one. Measles seemed unquestionably to be an airborne infection with certain similarities to influenza, as in the tendency to lung complications. Measles did not occur in the lower animals, and was one of the best examples of a community disease. Its maintenance in our midst was entirely dependent on the transmission of the infection from a previous case during the first few days in which such patient was able to transmit infection to a fresh individual who was not immune to the disease through having had it previously. Measles was a complaint that could theoretically be really "wiped off the slate" of human diseases. The fly in the ointment, however, was this. Measles might be a source of infection to others some time before it was realised that a child had the disease. If we could stamp out the disease in our midst entirely, no further cases could arise among us unless through the introduction from outside of this continent of fresh cases—against which the Federal quarantine measures could reasonably well protect us, although probably to the considerable inconvenience of ships' passengers. It was impossible to try to eradicate measles when it was epidemic; but was there not a possibility of stamping it out during the periods of several years that supervened between epidemics, periods in which the disease was kept alive by attacking relatively few individuals? Although the mortality from the simple disease itself was not high, fatalities from broncho-pneumonia as a complication were frequent. A return prepared some years ago showed that in 1875, a severe epidemic occurred in Australia, and 2497 deaths were registered as due to measles. In 1876 there were only 46 deaths; in 1877, 11; in 1878, 8; and in 1879, 7. In 1880 occurred a relatively mild epidemic with 532 deaths; in 1888 another with 249 deaths; in 1893 the epidemic was more severe with 1708 deaths; and in 1898, there was 1314 fatal cases. In the intervening years the numbers were much fewer and sometimes remarkably low. Thus there appeared to have been only three deaths in 1892, four in 1895, and eight in 1896. It seemed probable that during 1892 there were not more than 150 cases of measles in the whole of Australia; in 1895, not more than 200; in 1896, 400; and coming to recent times, in 1909, 1350. What a golden opportunity we missed, in these three earlier years, stamping out indigenous measles by compulsory notification on the part of parents as well as doctors, and by enforcing a strict quarantine. Even in 1909 the task would have been comparatively easy; and doubtless it would be so today if a suitable inter-epidemic period were chosen; but sooner or later it would almost certainly slip past the quarantine barrier and run riot through the community.

—Trench Fever.—

In other disease, such as diphtheria and typhoid fever, control was greatly handicapped by some individuals harboring the germs for long periods of time. In typhoid fever it might be for many years after recovery, or even in some cases by their distributing the organisms without ever having been recognisably ill. The great war unearthed another and hitherto unrecognised community disease of great interest, but of singular repulsiveness. He referred to trench fever, a disabling and painful complaint, but one of low mortality, transmissible by body lice. Until recently this disease had lurked among the great unwashed unrecognised, its home being probably some of the densely crowded parts of Europe. The aggregation of large bodies of men for war purposes, and the proximity of these to each other in the trenches and dugouts, allowed an enormous multiplication of these objectionable insects to occur and to be distributed among a greatly increased number of individuals. This disease, like typhus fever, which was also lice-transmitted, was one obviously of easy control in normal times. The professor went on to deal with the history of smallpox in Australia. The historical interests lay, he said, in this being, strange to say, the first epidemic disease clearly recorded for Australia; in the virulent form of the disease having been introduced on several occasions and after spreading to a definite extent having been controlled and eventually completely suppressed; and in the behavior manifested by the different epidemics, are regarded the mildness or gravity of the disease.

—History of Smallpox.—

Describing the ravages of smallpox, the doctor said pockmarked natives were seen at Port Philip in 1803—probably survivors of the extension of the epidemic of 1789 near Sydney—and Dr. George Bennett described an outbreak among the Wellington Valley natives in 1830. It seemed that there had been three epidemic waves of smallpox manifested among our aborigines. One occurred in 1763, and its origin could not then be satisfactorily explained. It evidently reached Port Philip. The second wave occurred during the thirties of last century, and certainly reached the Wellington Valley and Darling in New South Wales, and the neighborhood of Adelaide. The third epidemic took place in the sixties, and seemed clearly traceable to importation by Malays. Its spread could be traced subsequently to Central Australia, and even to the Great Australian Bight. If the last epidemic was clearly traceable to a Malay introduction, and was able to spread, although the native population was sparse, actually right across Australia to the Bight, it seemed reasonable to attribute the two previous epidemics to a similar origin in the north and a similar spread, in as much as there appeared to be no other likely source of infection. It was, therefore, presumably, pure coincidence that smallpox should have decimated the aborigines of Port Jackson shortly after the arrival of Europeans at that place. The extreme, but exceedingly mild form of smallpox that ran riot through New South Wales a few years ago was well worth stamping out on economic as well as on health grounds. The means of doing this, by notification, and by widespread vaccination, were relatively easy. It would undoubtedly pay us equally well to get rid of other mild diseases, where the measures available of controlling them were available. Our isolated geographical position made their re-introduction less likely than in Continental areas.

—Means of Protection.—

"It is very necessary," he added, "that public conscience should be kept awake in this matter and that vaccination and revaccination should not be neglected. It is true that efficient quarantine minimises materially the danger of reintroduction of smallpox into Australia. With the most able administration, however, it is almost certain that from time to time cases will appear on shore, the infection having passed through the quarantine barrier during the period of incubation, and so not being detectable. Moreover, as a precautionary war measure in the event of future hostilities, adequate vaccination of the community seems to me exceedingly important. I can imagine an unscrupulous enemy, with a machiavellian war-policy, arguing as follows, while meditating an invasion of Australia:—'These Australians have been free from smallpox for [illegible] years. Vaccination has been thought unnecessary and superfluous. Very few