

HEALTH REFLECTIONS.

arose from touching and fondling dogs and allowing them to lick one's hands or face. Pure Milk Supply.

Lecture by Professor Cleland

On Wednesday evening Professor J. B. Cleland (of the Adelaide University) gave an address at the lecture room, North Terrace Institute, under the auspices of the South Australian branch of the Health Inspectors' Association of Australia. The subject was "Health Reflections on Dust, Flies, Mosquitoes, Hydatids, and Milk."

Dust and Its Effects.

Professor Cleland said that dust affected the health of persons in a number of different ways. The intricacies of the nasal passage existed in part to filter the inhaled air and free it from foreign particles. If persons breathed through their open mouths there was much more likelihood of foreign matter actually entering the lungs. The particles wandering cells picked up might be portions of carbon from the smoke of the cities, or tubercule bacilli from sputum dried and pulverised and raised in the dust by sweeping carpets, and so on, and small particles of quartz as in the case of goldminers working in quartz and probably dry blowing. The tubercule bacilli gave rise to pulmonary tuberculosis unless the individual had tissues which were able to surround the bacteria with a dense fibrosis and so limit their spread.

Flies.

In referring to flies, the speaker pointed out that those which congregated on one's back when out walking were of a different species from those known as the common house fly. The latter was an introduced species, which had accompanied the white man when he came to Australia and had established itself here. It was not found far from human habitation. The bushfly was a native species, and, strange to say, though the white man had now been living in Australia 140 years, the bushfly had not yet ventured into the houses. The common house fly was not the only species which went inside. During the winter time the common variety was hardly to be seen at all, and the one usually seen was a lesser house fly, which was readily recognised by its relatively longer and narrower body. The lesser house fly occurred in such small numbers that it was probably of no hygienic importance. The common house fly however, was an insect of grave potentialities, in as much as it was given to visiting latrines and cesspits and might convey from them to the kitchen the germ of typhoid fever. That fly should be combated in every way. In addition to those three species there were two common brown blowflies and several kinds of blue and green bottle flies. In dealing with the habits of flies and their numbers and kinds caught on tanglefoot, and brought under his observation, Professor Cleland said that by such enumeration one was able to ascertain the relative prevalence of the various flies for each week of the year, and he had found that the prevalence generally anticipated the incidence of typhoid fever—that was to say, fly prevalence preceded the prevalence of typhoid fever by a few weeks.

Mosquitoes.

In and around Adelaide there were several species of mosquitoes, which were fairly numerous, and their habits were diverse. The domestic mosquito was purely a domestic one, and was introduced to Australia by the white man. It lived entirely in the neighbourhood of human habitation, its breeding taking place in tanks, both of the fresh water and septic kinds, and in collections of domestic water. It was a plain brown creature, and it bit only at night, and then only in the dark. There was another mosquito not quite so common which bit by day as well as by night. It was smaller and blacker than the other, and had a beautiful white lyre-shaped marking on the thorax and white band on the proboscis. There was also an anopheline mosquito (which was a possible conveyor of malaria) and a salt water kind (which did not go into houses, but was met with among trees and rank grass in damp gardens).

Hydatid Disease.

The lecturer said it had been found that in adults dying at the Adelaide Hospital 2 per cent. had had hydatid cysts, though only about 5 per cent. had died as a result of such infection. The dog, of course, became infected by taking hydatid cysts, which were so frequently present in the liver and lungs of sheep, cattle, and even pigs. If that offal were not thoroughly boiled, and the hydatid acolices destroyed, hydatid tapeworms might develop from their being ingested by the dog. Cases of human infection might arise from drinking from a waterhole where dogs had bathed; but it was more likely that such infection

of compulsion, and recommended its adoption in Australia. Something, too, will doubtless be said of the new use which forest fires have provided for aircraft, which in America and Canada are systematically employed for obtaining early information of outbreaks, and even in conveying fire-fighters and appliances as close to the scene as aeroplanes can bring them. Such controls act as a kind of insurance, and the owners of the plantations, whether Governments or private companies, are not so foolish as to grudge the cost.

VALUE OF RESEARCH.

Work at Adelaide Hospital.

Mr. J. G. Sleeman (medical superintendent of the Adelaide Hospital) when discussing on Wednesday the Commonwealth Government's offer for the loan of a quantity of radium for the treatment of cancer, said that if the offer were accepted, the Adelaide Hospital would be able to treat patients on a more extensive scale than in the past.

He said radium bromide had been used in the hospital for years, and certain conditions of the skin, as well as cancer, had been treated in a most beneficial manner. The purchase of radium worth £100,000 by the Commonwealth, was made with a view to instituting centres throughout Australia, at which the element could be used to an extent and in a manner never before attempted in the Commonwealth. The Adelaide Hospital had not refused to treat any patient with radium, although the quantity at the disposal of the institution was limited. The erection of extensive buildings sought by the Commonwealth to deal with patients under the proposed scheme would mean a considerable expenditure, and probably the State could not see its way at the moment to incur this. It was to be hoped, however, that a satisfactory agreement would be reached between the Federal and State authorities. Investigations of great value should result to the community, following the offer of the Adelaide University Council to assist in the research work with the radium, for much good work had already been done there.

CANCER FROM TAR.

Following on the statement by Professor Ewing, of New York, that coal tar products produced cancer with a greater certainty than any known irritant, Professor Brailsford Robertson (Professor of Biochemistry and General Physiology at the Adelaide University), whose work in connection with cancer research is well known, stated to a representative of The Register on Wednesday, that it had been known for a long time that workers in tar contracted cancer of the skin more frequently than did other people. A few years ago a Japanese pathologist had succeeded in inducing skin cancer in mice by painting them with tar. The work was repeated at the laboratories of the Imperial Cancer Research Foundation in London and confirmed; and they had conducted many experiments there with a view to discovering, if possible, what constituent of the tar was responsible for the effect. They succeeded in obtaining a very potent extract from tar, showing that the irritating substance which gave rise to cancer was present to a very small degree, but so far its chemical nature had not been positively identified. Professor Robertson added that he was sure every medical man in South Australia would welcome the establishment of radium clinics in Adelaide. He was not acquainted with Dr Burroughs, who had gone to Townsville (Q.) to supervise the establishment of a radium clinic in the hospital of that town, and was later on coming to Adelaide for the same purpose, but he understood he was recognised as an eminent authority on radium and its use.

COMMERCE MAGAZINE.

The Adelaide University Commerce Students' Association has issued the second 1928 number of its magazine Commerce. This progressive organization is quite in touch with topical events, and its publications are noted for their informative articles. In this issue the editorial comment is devoted to a welcome appreciation of the timely and increasing feeling of optimism in South Australia, and a sound dissertation on business integrity. Among the special articles are contributions on "South Australian State Income Tax," by A. B. Giles; "The History and Functions of the Commonwealth Bank of Australia," by E. J. Collover; and "The Governance of the United States," by C. G. Gordon. One of the features of this issue is an account of the remarkable progress of the business of F. H. Faulding & Co., Limited. There are also the usual association and personal notes.

especially newsprint, and also artificial silk, the latter industry alone being one that threatens to subject the present soft-woods resources of the world to an almost unbearable strain. The State selected for the conference happens to be one which boasts of making exceptional progress in arboriculture. As the result of the passage of the Forest Act of 1918 the area reserved for tree-culture has expanded in ten years from 134,000 acres to over a million, with the certainty of an early and a great extension. Over 650,000 acres are now, or soon will be, under tree-culture, including the 600 acres which were planted only last year with 600,000 pines. The attention already given in South Australia to the production of pines has not been without its influence on the Western State. So much is admitted by its Forest Department, which was stirred to action by the statement that South Australian pines are returning from £250 to £300 an acre. The labor employed in afforestation is far from representing all that is required to fit the product for its various uses, and when it comes to the manufacture of artificial silk we may in following the various stages of the "processing" perceive how extensive and varied is the scope for employment. Standing, the pine is worth £2 a ton; let it be felled and stripped and another £1 is added to its value; reduced by boiling to pulp its value rises to £8 a ton, and bleaching raises it to £11. But it is when it is converted into viscous and spun into silk that the pine reveals its latent possibilities, for the return at this final stage is no less than £1,100 a ton!

From data submitted to the last conference it appears that in respect to forest products there would be no difficulty in making the Empire self-supporting, and even a prolific source of supply for the rest of the world. Already there are countries which draw heavily on its resources. America, for one, would be in a bad way for newsprint were it not for the forests of Canada, which supply the Republic with not less than two-thirds of its requirements. From its exports of sandalwood alone Western Australia draws a revenue of £200,000 a year; and it is interesting to add that it furnishes all the sandalwood at present used in China. It may be expected that at next month's conference the question of protection against fire will receive at least as much attention as it did in Canada; for in the Commonwealth it is a serious problem, rendered so, one regrets to learn, by the unaccountable malice latent in the so-called "human form divine." One might scout as an exaggeration or a blunder the statement that as many as thirteen fires were seen by a look-out in one district in Western Australia to have been deliberately caused by a horseman riding through the bush, if it rested on the testimony of any authority less unimpeachable than that of Mr. D. McVicar, the Head Forester. It is not such a miscreant as this that the Legislature could have had in mind, or even the ruffian who was seen in the bush at Pickering Brook deliberately to ignite the dry stubble, when it increased the maximum penalty for causing damage to the forests by fire from no more than £5 to £100, with an alternative of twelve months' imprisonment. Sometimes the object is to facilitate kangaroo-hunting, which means that for the sake of a few pounds there are men ready to destroy plantations worth thousands. On the other hand, it is rare that a call for help in the extinction of a fire is deliberately ignored. But the results of a conflagration are often so disastrous that there are states in America which will not allow the response to such a call to be determined by personal inclination, but render it obligatory on every person summoned to help as far as he can. To say that a man must tender his services whether he likes it or not may not at first thought seem a good way of getting the best out of him; but as the system works successfully in America theoretical objections lose much of their force. Probably there are people who need a little pressing, and do not resent it any more than they resent doing by compulsion other things which, if they were left to themselves, they would prefer not to do. At all events, an official expert who represented Victoria at the Canadian conference, where the subject was discussed, was converted to the principle

CONSERVATORIUM ORGAN RECITAL.

The Elder Hall was thronged on Thursday for Mr. John Horner's luncheon hour recital. Opening with Mozart's "Grand Organ Fantasia in F Minor," one of the most difficult compositions for that instrument yet written, the recitalist brought out all its beauty and grandeur in splendid style. From the allegro maestoso at the outset, through the following fugue and exquisite andante con variazione to the great finale with double fugue elaborated and adorned with semi-quaver figures, Mr. Horner played with the high art that conceals art. In Humperdinck's overture to "Hansel and Gretel," he enabled his hearers to understand why this composer rose to a high pinnacle of popularity, mainly on this operatic work. Mr. Gerald Healy sang the air from Puccini's "Girl of the Golden West," "Ch'ella mi credo libero" ("Let her believe that I have gained my freedom"), melodiously and expressively, to the discreet pianoforte accompaniment of Miss Jean Renou, A.M.U.A. The recital concluded with Alfred Hollins's "Grand Choeur in C." Written by a totally blinded man, it showed notable proficiency, and, as interpreted by the recitalist, glowed with melodic charm, while vividly full of vigour and feeling. The composer is organist of St. George's Free Church, Edinburgh, and the minister there, the Rev. Dr. Black, when passing through Adelaide recently, paid tribute to his musical helper in enthusiastic terms. The "Grand Choeur" was received with loud applause. Next Thursday's programme comprises works by S. S. Wesley, Rheinberger, Martin Shaw, and Villiers Stanford. The large attendances at these recitals shows how highly they are appreciated.

WAITE RESEARCH INSTITUTE.

In connection with the decision of the Government that the Waite Agricultural Research Institute might be allowed to use for a term of years approximately 100 acres of the area given to the Education Department by Mr. Peter Waite for the Agricultural High School, the Minister of Education has approved of an area of grazing land of approximately 15 acres on the south side of the orchard adjoining the area mentioned being leased to the University of Adelaide on a monthly tenancy, to supplement the grazing investigations which are being undertaken by the Waite Institute.

STORIES IN STONES.

Professor Walter Howchin, F.G.S., is achieving a monumental work in recording the story of the rocks of our continent, and in particular of this State, in his book, "The Building of Australia and the Succession of Life." The second part, just issued—there are to be three in all—deals with the Mesozoic (middle life) and Cainozoic (recent life) series. It discusses the processes and effects of the submergence of large areas in the Cretaceous period, and of the raising of the continental land masses in the Tertiary era. Descriptions and beautiful illustrations are given of the vegetable, animal, insect, and bird remains found in the successive formations, and of the indications they afford in piecing together the narrative of continent building. The book is interestingly written, and is published as one of Handbooks of the Flora and Fauna of South Australia, issued by this State's branch of the British Science Guild. The printing is excellently done by the Government Printer, Adelaide.