

ADVERTISEMENTS  
DENTAL SCIENCE  
Progress During Past  
Twenty Years  
REVOLUTIONARY CHANGES

By The Public Education Committee of the Australian Dental Association.

Since the last Dental Congress was held in Adelaide, in 1921, the advances made in the profession have been twofold. There has been a great advance in technical efficiency as applied to the treatment of dental disease, and at the same time an almost revolutionary change in the general conception of dentistry as an important branch of general health service. The greatest advance in the past 20 years has been the recognition of the importance of the biological factor, which has reorganised the whole educational programme and made dentistry a responsible health service, with its objectives fundamentally co-ordinated with vital biological departures from the normal—its origin and means of prevention.

On the technical side the hammered rod filling has been replaced by the gold inlay. This has greatly eliminated the nerve strain on both dentist and patient and has also simplified many other technical operations connected with the replacement of lost teeth, and lost portions of teeth through decay. At the same time there has been a marked advance in the technique of local anaesthesia, whereby the general anaesthetic has almost ceased to be used, except for extensive and difficult cases, or for medical reasons. With this advance in technique has gone an improvement in the anaesthetic used, resulting in safety in administration and security from unpleasant effects.

Use of X-Rays

Another advance of modern times is the introduction of X-rays to every dental practice. The apparatus has been greatly improved, being both more powerful and more flexible, and making possible a more accurate matter of no concern to the patient. The general use of such apparatus has brought about definite changes in diagnosis, and as a means of disclosing very early signs of decay, not visible to the eye or other apparatus, it is extremely valuable.

Considerable progress has also been made in the treatment of artificial teeth, and porcelain ones are now procurable in shapes and shades more closely resembling natural teeth than ever before; but many attempts to produce such teeth at a cost which would make them reasonably accessible to the public have not yet resulted in an improved quality of the porcelain itself. The use of porcelain is still a matter of considerable cost to the dentist, and so to the patient. The materials from which the bases of artificial dentures are made have received, and are still receiving, intense attention and study in an attempt to produce lighter and more natural looking gums. Many of the new inventions have yet to stand the test of time, but the attention in this respect augurs well for the production of real permanent advance in the near future.

Greatest Advance of Recent Years

The greatest advance which has been made in dentistry of recent times, however, is not a technical one but one which is the outcome of a realisation that the science of health is intimately, if not actually and primarily, concerned with the health of the mouth, nose and throat, of which the teeth are not the least important part. Local, State, and national health movements throughout the world are stressing as never before the importance of "mouth health."

The dental profession was originally mainly concerned with restorations and replacements of the teeth by disease, and the great need for the development of materials and appliances occupied almost the entire attention of all branches of dental practice. With the discovery of germs and the germ theory of disease, dentistry began to realize its misapprehension in the professional world, and suddenly set to work to bring itself into line with the public. This is shown in service to the patient, and the greatly raised qualifications for the profession, and the acquisition of university status.

Serious View of Responsibilities

The Dental Association takes a serious view of its responsibilities to the community, and there could be no better example of this than the congress to be held next week. Although the science of the health of the teeth is the science in the process of being discovered, the charge that it has been unfaithful of its responsibility is one unimpaired of its responsibility to the profession, for it is only comparatively recently that it began to be master of dental science and practice.

No real progress in any branch of our science is possible until cause and

# DENTAL WORK

## Among CHILDREN More could be Done!



In this respect dental education, particularly among children, is an example.

English authorities realized many years ago that it was essential to educate the masses to recognise the fact that good teeth were an important part in health, and they immediately set out a campaign to improve the nation's wellbeing.

In Australia, however, this side of health has received much less attention, and this fact applies particularly to South Australia. In fact, dental education has declined to such an extent that there are now only two dentists to look after 90,000 children in our public schools.

These two dentists, Misses M. Packer and G. E. Lewis, are graduates of the University of Adelaide, and they inspect the teeth of public school children, and advise their parents of attention that is necessary. Each school is visited in turn, and every child is examined. If attention is necessary, parents who cannot afford to pay for professional treatment are asked to consent to the work being done by the departmental dentists, and to give an assurance that they cannot afford to pay for it.

There is one dentist for the metropolitan schools and another for country schools, and they have their hands full to carry out a specified programme. A few years ago there were twice as many dentists in the schools, and last year the number fell to one.

In their limited field the dentists in the South Australian Education

Department do valuable work. In addition to being dentists they must also be psychologists, for a child has the traditional fear of such treatment.

The opportunity is also taken to make an attempt to impress on parents the necessity for guarding their children's health in preserving a clean mouth. It has been found that more than half the children examined require treatment.

THIS work is definitely in the right direction, but much more far-reaching steps could be undertaken.

At the recent Dental Congress in Adelaide the president of the Australian Dental Association (Dr. H. J. Edwards) mentioned the futility of attempting to treat dental diseases already rampant in school children. The cost alone would be prohibitive, and the only remedy that suggested itself was intensive propaganda among children and parents in the basic principle of dental health.

That is the position we seem to have reached. The importance of dental education does not primarily lie in the treatment that is given today. The children now in our schools are the parents of the future, and what they learn will be reflected in the next generation.

Since I returned from England I have found that many parents in Western Australia were not aware of

the necessity for early attention to the teeth of their children," said a Perth dentist who passed through Adelaide recently. "In many cases they had old-fashioned ideas and refused to take their children to the dentist. Temporary teeth were neglected and mouths allowed to remain in a septic condition."

Adv. 27-3-34

Advice has been received from the registrar in Sydney of the Institute of Chartered Accountants in Australia, that Mr. L. T. Ewins, a 1930 graduate of the Adelaide University, has been admitted as an associate of the I.C.A.A. Mr. Ewins, who is still a student at the Adelaide University, is deputy president of the Adelaide University Union, chairman of the union's finance committee, and chairman of the Adelaide University Economics Club. Mr. Ewins is ket Club, and last year he captained the lacrosse club of that institution. His brother, Mr. J. G. Ewins, has been appointed secretary of the Canberra University. He is legal assistant to the Federal Attorney-General at Canberra.

### DEATH OF MR. D. M. CHARLESTON

#### One Of State's First Senators

Mr. David Morley Charleston, one of the first senators selected for the Federal Parliament from South Australia, died at Mile-End on Saturday.

Mr. Charleston was born in the parish of St. Erith, Cornwall, 82 years ago. He served his apprenticeship as an engineer in his native town. Of Hayle, at Messrs. Harvey & Co's ironworks, in 1870 he became a member of the Incorporated Society of Engineers. Between 1870 and 1874 he was actively engaged in the labor reform movement in London.

Taking up his residence in San Francisco in 1874, Mr. Charleston entered the service of the Pacific Mail Steamship Company as marine engineer, trading to China and Japan, and all the countries along the Pacific coast north of the equator, as well as to New Zealand and Australia.

Mr. Charleston came to South Australia in 1884, and was appointed clerk of works at the Hackney Bridge under the Road Board. Later he joined the Adelaide Steamship Company's service, in which he remained until 1887, when he left on account of labor troubles.

Mr. Charleston was next engaged as engineer at the English and Australian Copper Company's works, Moolta, and superintended the erection of all the machinery there.

In 1891 he held his position at Moolta to contest the election for the Central District of the Legislative Council. With Senator Guthrie and Mr. A. A. Kirkpatrick, M.L.C., he was one of the original labor members in the Legislative Council. He resigned his seat and left the Labor Party in 1912, but was re-elected as an independent. Mr. Charleston was chosen as one of

real progress in any branch of knowledge is possible until cause and effect have been firmly established, and the science of the health of the teeth could not make headway until it had been liberated from its position of a minor profession and set forward on its new career, the equal of any other branch of professional activity. Such a status, and the maintenance of such a status and the benefits to be expected from it, can be attained only by the education of the public to the necessity for it. This is gradually coming about, but the progress is all too slow. The public must realize that only by insisting upon a profession of the highest qualifications can the expected result be achieved, and this must come through biological research.

Dental research is still an under-nourished child. All honor is due to those in the profession who, at great personal sacrifice, have made possible many benefits of modern dental technique and outlook, but so little have the people generally realised the benefits to be attained from the discovery of the real causes of dental disease that, up to date, dental research is practically the only unendowed branch of research in the world.

Together with the raising of the general qualifications for the profession, which has been done by the universities, the medical profession, and the acutely dental-health-responsibility-conscious dentist, there is a wonderful opportunity for philanthropically-minded citizens and nationally-minded Governments to provide the means whereby the dental profession, now fully equipped to undertake this most necessary research, may be enabled to do so.

Mr. Charleston was chosen as one of the original senators for South Australia in the first Commonwealth Parliament, but was defeated at the general election in 1903.

While connected with the Labor Party, Mr. Charleston served as chairman of the Eight Hours' Protective Society, and president of the Trades and Labor Council. He was appointed a member of the School of Mines Council, and for more than 20 years was chairman of the finance committee.

# STATE MUST HELP to SAVE PEOPLE'S TEETH



BY A MEMBER OF THE DENTAL BOARD

DENTISTRY in South Australia is regulated by legislation that was first enacted in 1902, and which has since been amended several times.

The Dental Act is administered by a body known as the Dental Board. This board consists of a chairman (the Dean of the Dental Faculty at the Adelaide University), a medical man recommended by the British Medical Association of South Australia, and three dentists.

The Dental Act is to protect the public against unqualified people practising dentistry. Actually, the Government says to the dentists, "If you pass certain examinations of a requisite standard, we, the Government, will grant you the right to serve the public's need for dental requirements, and this right is yours alone."

The position was very different before 1902, when anyone could perform dental operations. Today a student must attend the University and Dental Hospital for at least five years to become a dentist.

We in South Australia can boast of improvement in dental standards. But can the dental

profession say that it has fulfilled its obligation to the public?

The Government has placed the responsibility of caring for the public's teeth in the hands of the dentists. But the public's teeth are worse now than they ever were.

As dentists are trained only to repair damage done by decay, and as decay is on the increase, it seems that the problem of decayed teeth will not be solved by the present system of dental treatment. That decay of teeth is on the increase is plain.

In every family the rate can be graphically portrayed by experiences something like this:— If some of the family ancestors had lived to the age of 80, practically all teeth would have been perfect. The next generation would reach about 40 before experiencing dental troubles. The third generation would be seeking the aid of the dentist at about 20, the fourth at 10, and the fifth at five years of age.

If the general degeneration is so considerable in five generations, which would be a span of about 100 years (just about the age of modern dentistry), it does not speak well of dentistry as an agent to prevent or even to check the trouble.

## "Dental Disease Most Prevalent"

TODAY, dental decay is the most prevalent disease. Practically 95 per cent. of our population is affected by it. If it were only the teeth that suffered the condition would not be so alarming, but teeth are part of the body, and that which affects teeth inevitably affects every other part of the body.

Scientists indicate that tooth decay is probably a malnutrition disease, which would prove that 95 per cent. of our population have been, at some time or another, imperfectly nourished. They have not assimilated the correct amount of calcium and phosphorus.

The problem of prevention is not simple, for as we become civilised habits which are detrimental to health become established and difficult to alter.

Dentists realise their inability to save teeth. The wholesale extraction of teeth proves this. And, further, the number of artificial teeth used is so great that it constitutes the biggest turnover of the dental wholesale houses which supply dentists.

## "Preventive Work Does Not Pay"

IT is granted we have a dental hospital. But that will not prevent the disease. That institution just repairs damage already done.

School dentists will never catch up with the ever-increasing destruction by tooth decay. There are not enough dentists in the State to keep mouths and teeth of our school children in perfect order.

*Prevention is the only hope. But how?*

If the Government diverted even a small part of the money now used to investigate the cause of diseases affecting sheep, cattle, crops, and orchards towards eliminating and preventing tooth decay, it would mean a healthier and happier race, less expense in dental and medical treatment, and less time off from work through sickness.

The errors of our civilisation which cause tooth decay are also primarily responsible for 1 per cent. of general diseases. A solution of

Dentists who do try to save teeth find it impossible with some young patients to keep up with the rapidly increasing decay. Parents bring children to the dentist, who sets the mouth in order by filling teeth that are decayed. Three to six months later almost as many more new cavities show up. No wonder parents think dental work expensive.

Filling, extracting, and substitution will not solve the problem.

When disease is affecting our cattle, our crops, or orchards, the Government is ready to spend thousands in seeking a solution. Thousands are being spent in investigating animal nutrition so that better wool and mutton may be produced. But how much is being spent to eliminate this most prevalent and destructive of diseases affecting our children?

If 95 per cent. of our children came to school with one or more decaying finger nails, there would, no doubt, be a Government investigation, but we have become so accustomed to seeing imperfect and decaying teeth that we are lulled into false security.

the problem has been found and applied to small groups. How to apply the principles of prevention to a nation is a Government duty, and a serious one.

The dental profession has failed, and cannot hope to succeed without Government support, as preventive dental service cannot in itself provide a livelihood for those carrying it out. The benefits that the Government could provide would not be evident for many years, but they would be sure.

Will the Government institute the necessary preventive service, or are our people just to drift in bodily degeneration. Surely our children's children are worthy of something better than this.

My principal object in preparing this article has been to stimulate interest, and to hear what others have to say. Have you any help to offer?