

GRADUATES' ASSOCIATION.

THE ANNUAL MEETING. The seventh annual meeting of the Graduates' Association of the University of Adelaide was held at the University on Thursday evening.

At the conclusion of the business, Professor Cleland spoke on the significance of blood grouping in anthropology, and Dr. Campbell on the importance of physical anthropology.

NEWS. 29. 8. 24

RESEARCH IN METALLURGY

Career of Mr. H. S. Elford

Mr. Harold S. Elford, B.E. (in metallurgy), Dip. A.S., F.S.A.S.M., has been appointed an assistant to the superintendent engaged in operations for the Electrolytic Zinc Company on the west coast of Tasmania.

Mr. Elford was born at Moonta Mines. He was educated at the local public school and Moonta District High School.

On the completion of his studies he secured a position in the research department of the Electrolytic Zinc Company at Risdon, Tasmania, where the treatment works of the company are situated.

THE NEWS

SATURDAY, JULY 30, 1927

AGE OF BIOLOGY

(By Prof. T. Brailsford Robertson) The Victorian age may be termed the Age of Physics, because the great discoveries of the nineteenth century concerning the physical properties of matter found practical expression in the latter half of that century in the invention of machines which have transformed the material surroundings of our lives by enhancing the wealth-producing power of the individual and making possible the manufacture of the countless necessities, conveniences, and luxuries with which we are now accustomed to surround ourselves.

But all of this makes little difference to the fundamental part of ourselves, our ideals, our wishes, and our ultimate fate. We can do more things in our lives, but the purposes remain the same. Our lives are fuller and

they are longer, but only a little longer. It is not physics or machinery which has lengthened them, but the first halting advances of biology.

The discovery of bacteria by Pasteur and the hesitating application to our daily lives of this discovery, yet far from complete, has added 11 years to the average man's duration of life within the past 30 years. But this represents only one channel through which biology can affect ourselves.

Processes of Life

This century will be the Age of Biology; the next, perhaps, the Age of Psychology. Biological science is today where physical science was in the early part of last century—painfully picking its steps among the bewildering array of assorted facts, reducing them slowly to order, and evolving out of them a few fundamental generalisations which will guide us ere long to the control of the most intimate processes of life.

That which affects life affects us in a way and to a degree that machinery cannot affect us. The slightest degree of control of our physiological processes or of disease which we may attain must affect our lives in ways far more numerous than we can discover and result in social reverberations of the most intricate and far-reaching kind.

But the effect of abolition of a dread disease would be nothing in comparison with the effect of discoveries which would enable us to affect the quality of succeeding generations, placing in our hands control of the future more certainly than we can control the present.

Human History

A recent German writer, in a book which has attracted world-wide attention, has propounded and worked out in great detail a view of human history, which, if not quite novel, is at least new as an exact and a soberly considered philosophy of history.

Like a plant or an animal, a civilisation has its childhood, youth, maturity, old age, and death. Likening these to the seasons of the year he deduces from countless details of analogy with other civilisations that we of the Western civilisation stand in the early winter of our development.

Spengler's book convinces by its sweep of argument and wealth of illustration, although one factor is left altogether out of consideration. That is the growth and development of science. Ours is the first scientific civilisation. While it might make little difference to our fate that we can make more things, travel more quickly, communicate more rapidly, and command more wealth than the Romans of the Empire, the slightest advance in biological science at its present stage of development may transform the lives of every one of us and absolutely recreate our historical destiny.

Biological Science

Without biology our fate is assured. The limit beyond which we cannot go is already in sight. At best, if no greater disaster overtakes us, we can enter within another century or two into a prolonged period of stationary civilisation, only materially in advance of the Chinese, perhaps behind it in other not less important respects.

If we are ever to give life and actuality to ideals which struggle for expression within us all and create a new life of ever-progressing richness and greatness it is to biological science that we must look for the knowledge which may grant to us the power to wrest our historical destiny from the creeping paralysis of age and mould it nearer to our heart's desire.

AUSTRALIAN GEOLOGY

Compendium by Sir E. David

OLD STUDENTS ASSIST

(SPECIAL TO "THE NEWS") LONDON, July 29.

"If I receive the last manuscripts from Australia by the middle of October my book on the geology of Australia will be ready for the printers by December," said Sir Edgeworth David (formerly Professor of Geology at the University of Sydney).

A pressman found Professor David in his house on Parliament Hill immersed in a mass of maps, diagrams, manuscripts, and photographs. He said that the work he had been doing for two years had been a labor of love, which he immensely enjoyed.

He wished to pay the highest tribute to the generous assistance of British and Australian geologists, including a number of his old students, who had contributed chapters on special subjects. Without their help it would have been impossible to do the compendious work, which was beyond a singlehanded effort.

"That map forms the basis of the whole work," added Professor David, indicating a big canvas spread on the floor, outlining in diverse colors the geological surface of Australia.

Mr. H. E. C. Robinson (of Sydney) prepared the map under the supervision of Professor David. When it is published it will have alongside it sections showing the geological strata of north, south, east, and west, with complete bibliography to enable readers to refer to works of other Australian geologists.

Another section tells the story of the evolution of plant and animal life as far as it has been traced in relation to the same problems in other parts of the world.

A new conclusion suggested by the evidence given in the book inclined Professor David to support the theory of Professor Howchin, that there had been glacial action between Adelaide and Lake Eyre, as deduced by the evidence of radio-active minerals in the Lower Cambrian and not the pre-Cambrian period, as some geologists claimed.

"If this is correct," Professor David said, "the great copper producing epoch of South Australia may be of more recent date than the epoch in which the vast copper deposits were formed in North America."

Referring to the survey of the New South Wales coalfields by Mr. W. M. Morris, Sir Edgeworth David expressed the opinion that if the theory that the best coal was actually formed under water in shallower portions of a vast lake were proved correct regarding other coalfields, it would entail a great reduction of the estimates of the coal resources of the world.

ADV. 30. 7. 21

PROBLEMS OF FINANCE.

BRITISH TAXPAYERS' BURDEN.

Under the auspices of the Workers' Educational Association a lecture on the report of the Colwyn Commission was delivered at the Institute, North-terrace, last evening by Mr. G. W. Gibson, lecturer on economics at the Leeds University. There was a large attendance, including many University students, to whom the subject was of special interest, as it is being studied by the classes in economics this year. The chair was occupied by the president of the W.E.A. (Mr. C. H. Dicker).

The lecturer stated that the Colwyn report was called for as a result of post-war conditions, along with reports on industry and trade. England had, since 1921, been suffering from unemployment on a gigantic scale, which in turn led to labor troubles in industry; from falling prices, and from an unprecedented burden of taxation. The terms of the enquiry linked together the national debt and "the incidence of existing taxation," and it was hoped that some examination would be made of their effect upon trade, industry, employment, and national credit. The majority report included an examination of the standard of living between the years 1912 and 1925, the growth of the national debt, the burden of taxation, direct and indirect, upon various incomes; the incidence and defects of different taxes, particularly income tax and death duties; the capital levy; schemes of taxation and debt repayments.

The conclusions of the committee agreed very closely with the findings of Bowley and Stamp in "National Income for 1924," namely, that real earnings had, on an average, kept pace with the rise in the cost of living; that unskilled workers had done better than skilled; that skilled workers in exposed industries had done badly with a 45 per cent. rise in wages, as against 75 per cent. in prices; and that sheltered industries had done best. The savings of the workers were only a small part of the total, and it had been pointed out that insurance policies had kept up to the average, but this was no criterion of other forms of savings. Actually

£130,000,000 to £230,000,000 a year at present-day prices represented the falling off of present-day savings. Then came the problem as to what effect taxation had upon the situation.

The national debt in 1925 totalled £7,831,744,000, and in 1926 £7,615,916,000. The important thing was to differentiate between internal and external debts, the latter of which, year by year, consumed a portion of wealth in payment of interest and sinking fund. The floating debt had been deliberately decreased, because of its size in the case of a national emergency requiring borrowing on a considerable scale. The decrease in interest had been due to the setting up of a sinking fund and to conversion of war loans. At the same time this marked decrease in interest had been gained at times by conversion of one kind of loan for another of higher denomination, but at a low rate of interest. The issue of loans at a heavy discount was unanimously condemned by the Commission, chiefly on the grounds that what was gained by less interest at the moment was likely to be more than offset if interest fell to any extent, and no further reduction could take place.

The report dealt with the increase of the burden of taxation due to falling prices, and showed that the burden had increased so far as the internal debt interest was concerned from £229,000,000 in 1918-19 to £273,000,000 in 1925-26, or at pre-war prices from £97,000,000 to £176,000,000. The absolute burden had increased by 61 per cent. The burden of taxation had grown from £3 11/4 per head in 1913-14 to £14 14/5 in 1925-26. The rate of income tax had steepened considerably, and death duties had increased in similar proportions. The Commission dealt with the way the burden operated, and the question was asked, "Did high income tax raise prices and affect industry?" The answer was that it all depended on whether the tax could be shifted. In the long run there was no doubt in the higher ranges of income it had a great effect in lessening the amount of saving. It had been suggested that a levy should be placed on capital, but this was opposed on many grounds, including the argument that it might lead to a loss of national prestige, particularly in the money market. The chances were that such a proposal would be unfavorably received. The minority report pointed out that the internal debt on the balance involved a transfer of wealth from the poorer to the wealthier classes. Indirect taxation weighed unduly upon the poor. It should be lightened, as the practice was objectionable.

The report, said the lecturer, was very little guide in the long run. It saw every difficulty in altering the status quo, and therefore offered little comfort by chances of escape. It was a source of regret that in the discussion on taxation the committee was not also called upon to consider the incidence of local rating. Here, undoubtedly, he considered, was a real weight on the social system which pressed unduly upon those least able to bear the strain.

ADV. 2. 8. 27

ANTHROPOLOGICAL SOCIETY.

A meeting of the Anthropological Society was held at the University on Monday evening. Dr. R. H. Puleine presided. Professor F. Wood Jones, now of Honolulu, who was a foundation member, was unanimously elected an honorary member of the society in recognition of his services to anthropology in South Australia.

Dr. Puleine introduced the subject of native fishing methods, and described various net, spear, weir, and poison methods in common use. Along the Queensland coast natives make use of the habit of some fish of secreting themselves in hollow logs to obtain a supply of fish. He had also observed them at Neosa using eel-nets and other traps for fishing. At Marion Bay, on Yorke Peninsula, there was an old native who formerly used to walk along the beach at night with a torch, and spear butterfish in the clear water at the edge of the posidonia weed.

The Rev. J. C. Jennison said that on Murrumbidgee Island, eight miles north of Crocodile Island in the Northern Territory, he had seen a good fish trap. In the centre of the island, which is 2 1/2 miles across, there is a large tidal swamp filled only at spring tides. A weir two feet high, with a wooden framework in the middle, had been built across the channel, which diverted most of the fish into a deep circular pool 14 feet across. Fish were apparently trapped both on the in-flowing and the outgoing tide, being left stranded in the pool.

Mr. P. Stapleton said he had learned from Mr. Steer that at Streaky Bay the natives lit a fire at night-time on the margin of the sea and with sticks slashed into and drove ashore the mullet and other fish that were attracted by the light. Mr. Steer (junior), present as a visitor, confirmed Mr. Stapleton's remarks, and said that the modern implements for beating were hoop-iron and broomsticks.

Mr. C. P. Mountford introduced the subject of "Aboriginal Games and Amusements," with references to the literature on the subject. Not a great deal of information had been recorded on the subject, and no doubt there was a great deal still to be learned. Games with toys were considered, such as returning boomerangs, tops, balls, and reed spears. Cats' cradles were of much importance, and more attention should be paid to them. Story tell-