

SCIENCE AND THE LEGISLATURE

Unofficial Member

NOVEL PROPOSAL

By PROFESSOR J. B. CLELAND

In this article, stress is laid upon the need for a scientific outlook in national affairs. Professor Cleland's suggestion is that science should be represented in the Legislature by a non-voting member.

IN a leading article in "Nature," on July 23 last, entitled "Science and Social Economics," it is pointed out that science touches the life of society closely at many points, but that there are certain spheres in which its contribution is only just beginning to be perceived. Professor W. McDougall is quoted as attributing much of the responsibility for our present position to our neglect of the social sciences. He pleads for the direction of our most powerful intellects to the research in the biological, the human, and the social sciences.

The article goes on to indicate various directions in which science can contribute materially to the solution of many of the problems that affect our present social fabric. The writer points out that we need an increasing number of administrators who can count among their qualifications a first-hand experience of scientific technique. To use to full advantage the resources and contributions of science, a scientific outlook is as essential in national affairs as in industry. It is suggested that the value of the mature, sober, impartial spirit of science in the functioning of our national system may be nearer recognition because of the present chaos. Previous articles have pointed out that while scientific knowledge has increased by leaps and bounds, progress in other directions has too often lagged lamentably behind. The application of science to agriculture, to the chemical industries, to mining and other engineering problems, and to the betterment of the health of man and his domestic animals, has revolutionised these spheres of human activity. The business man is setting his house in order, and commerce is more and more invoking the aid of science and is employing scientific methods with success in its manifold ramifications. The time is not far distant when those who seek to be the leaders in thought and action in all walks of life will need to be equipped with the training and broadened outlook that the knowledge of scientific method brings in its train.

Expert Guidance

Among our most important political institutions are the Parliaments that voice the supposed wishes of the people, and the Governments that devise and administer the policies and direct our broader social activities and our relationships with other countries. Our present system of selection of members of Parliament cannot be considered as necessarily choosing for such high office those best fitted to speak on behalf of the people and best trained to devise the most suitable policies to adopt. As yet, however, no one has suggested a more suitable or generally acceptable method of selection; and, perhaps, taking everything into account, Great Britain and her Commonwealth of States has not been badly served by her statesmen and politicians. Nevertheless, politics have lagged far behind in the advance towards efficiency made in other directions by our social organisations.

In our Houses of Parliament important questions are raised almost daily which have a scientific bearing. It cannot be expected that members of Parliament or even Cabinet Ministers should be an fait with all, or even many, of the subjects that have to be discussed. Ministers of the Crown have, in the public service, men of ability and scientific training who are capable of throwing a flood of light in many of these cases on the problems concerned, and of giving an unbiased opinion thereon. The views of these men may or may not be made available to members of Parliament in general; they may merely be used to guide Ministers concerned in forming their opinions on the subject. The time has surely come when Parliament should have available a further source of information on the scientific problems that may confront it. This could be readily attained by the selection of some person with high scientific attainments and a broad outlook

whose duty it would be to attend debates in which any matters with a scientific bearing may be discussed, and who would have the right to be heard at the bar of the House on this aspect of the question. Such a person would be to all intents and purposes a member of Parliament, but he would have no vote and no political interests. He would catch the Speaker's eye when the time was opportune for his views to be heard.

Unbiased Judgment

A man imbued with the true scientific spirit is compelled when called upon to express without fear or favor a judicial summing-up of the position as far as the information available makes this possible. The true investigator, seeking out the truth of the matter at issue, deviates not to right or left from the path of rectitude in his striving towards the goal of perfect knowledge. The selection of the right kind of person for such a high position should not be a difficult matter. We do not find it difficult to select for our important judicial positions men of the highest probity and talent. Similarly it should not be impossible to select for the guidance of Parliament a scientific advisor of the same high standard. It cannot be expected, of course, that such a person should have all the branches of scientific knowledge at his finger-ends, but he should know, and he would make it his business to know, where to seek sound and reliable information on those branches of science with which he was not familiar. In other words, he would present to the members of Parliament assembled a resume of the pros and cons of the scientific aspect of the matter under consideration, with a summing up in this or that direction. Members of Parliament would have reasoned and correct information on this aspect to guide them in their deliberations. The press would report the opinions expressed and the people as a whole would know the exact position. In the final decision the advice thus tendered might or might not be followed, but should the decision made be against such advice or not in harmony therewith, the members in opposition would have to justify their attitude or be considered unworthy to represent the people. Australia has led the world in certain directions in the political arena. Why should she not make a further advance whose success can be guaranteed and whose expense is negligible?

News 4-10-32

MR. Lindsay Dawkins, a son of Dr. S. L. Dawkins, of South Terrace, Adelaide, who has been in London for some months, is remaining there, studying structural engineering at London University. He is also taking singing lessons from Mr. Plunket Greene.

Adv. 5-10-32

HOW TO PASS EXAMINATIONS

Headmasters' Advice

NOVEMBER TRIALS

Talk of examinations is in the air. They are a month distant yet, but already they have cast their shadow over 6,000 of the flower of South Australia's youth, and at every spot where a few students are gathered the conversation runs on lines of "What do you know about the Napoleonic wars?" "Can you identify the minerals?" or "What are the features of the Industrial Revolution?"

For these unfortunates October is a month of anxiety, a prelude to another one of tribulation in which the fruits of a year's work are placed in the scale for assessment with a "slaughter of the innocents" as a climax. To 6,000 November will be a month of trial—students at the University, the public schools and colleges, to whom every passing day means a step nearer to the examination room. For them winter may yield to spring, and football to cricket and tennis, almost unnoticed, for they are in the throes of "swotting."

Nemesis

The consistently industrious can face November with a degree of equanimity, but to the thrifless October has brought vain repinings over wasted days of the first and second terms, and a sickening realisation that

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examinations will be here in a few weeks. Probably more than 2,000 students at the University will sit for degree and diploma examinations, starting early in November, and lasting three weeks. It is impossible to state yet the number who will sit for the public examinations, which will extend from November 21 to December 5, but it will be approximately the same as last year, 2,969 for the intermediate, 1,606 for the leaving, and 330 for the leaving honors.

What Headmasters Say

Headmasters can speak authoritatively about preparation for examinations, so they were approached yesterday for advice to students.

Asked whether it was advisable to devote an entire evening to one subject, or whether better results could be secured by studying a number, Mr. N. M. G. Gratton, headmaster at Scotch College, said it depended on the examination being taken. He advised students preparing for the leaving honors to deal with perhaps two subjects in a two or three hours' session of study, but one doing the intermediate might do three. Much depended, too, on the nature of the work. Where it was definitely "learning," such as the memorisation of the conjugation of Latin verbs, it was better to turn to the subject frequently for short intervals, rather than to concentrate on it for hours on end. Where it was the solution of a mathematical problem, it was preferable to devote longer periods to one subject.

"Methods of study must be governed largely by the individual," Mr. Gratton said. "Some can study for long periods without becoming unduly fatigued, while others find that they must have frequent short respites to keep their brain clear. Some find that they do their best work if they rise early in the morning, while others study best at night. If a student finds that he is doing good work, he should continue, rather than leave a task half completed. Frequent revision should be the rule in the last few weeks."

And here is Mr. Gratton's counsel about the last few days of study—"I do not think it is advisable to study hard the night before the examination. It would be far better to devote the last afternoon to light exercises, such as tennis, or a walk, to do a little light reading that night, and to get a good sleep by retiring early. A good breakfast is a fine preparation for a trying day in the examination room."

Too Many Subjects

Mr. H. L. Ward, one of the principals of Muirden College, said students taking public examinations had to do so many subjects that they did not have sufficient time to master them. That fact accounted for many of the remarks of the examiners concerning the failure of students, and their "howlers." Instead of being able to devote considerable time to one subject during teaching hours, students were forced to turn from one to another at frequent intervals, so that they were unable to prepare one thoroughly. To pass the intermediate they had to be successful in six subjects, and therefore had to take eight, to allow for failures.

"Children of 13, 14, or 15 cannot be expected to do eight subjects thoroughly," Mr. Ward said. "An hour or two at one would enable them to gain a grip of certain fundamentals, but when they have to rush from one to another that is impossible. The same remark applies to homework. When they have to do work on four subjects they no sooner get into one than they have to leave it and turn to another. That means that continuity is broken."

Mr. Ward said his practice when studying had been to work right to the last minute. Success in examinations was largely a matter of what could be retained in the mind for a day or two—many of them were entirely memory tests—so that if study was continued until the last day one might chance to revise in the last hour or two a question which was in the examination paper.

Some students rose at 5.30 a.m., and did a few hours' work before going to school or lectures, but he thought they would be so fatigued half way through the morning that the advantage gained would be lost, while, in view of the early rising, study at night would be impossible.

What Students Say

And the advice of students to brothers in distress. In a handbook issued to "freshers" the Students' Union advised newcomers to the University to work in the first and second terms, and not leave everything to the third, for, when September arrived, spring was on the way, and there were manifold distractions. In studying, the object should be to set oneself a definite task, and cease only when that was accomplished. That method, it was contended, achieved much better results than working for a definite period, for, in the former case, there was a definite objective, while the latter method made a student a mere clock watcher.

News 5-10-32 High Degree for S.A. Professor

The Adelaide University Council will confer the degree of Doctor of Science on Prof. J. A. Prescott, of Waite Institute.



Prof. Prescott

Prof. Prescott submitted a number of papers on soil problems of Australia. These were examined by Sir John Russell and Sir Daniel Hall, two distinguished British scientists, who commented favorably on them. The degree will be conferred at University commemoration in December.

Prof. Prescott, who is the Waite Professor of Agricultural Chemistry, has been engaged for several years on important Australian soil investigations. One aim of this work is to enable farmers to get the utmost value from the ground, and so increase crop production.

The professor is 42 years of age and was educated in Belgium and England. He studied later at Manchester and Leipzig (Germany) universities.

Other doctors of science at the Adelaide University are Sir Douglas Mawson, Sir Charles Martin, Prof. Harvey Johnston, A. K. Macbeth, A. E. V. Richardson, and J. R. Wilton, and Drs. C. E. Fenner, W. T. Cooke, and S. W. Pennycook.

News 6-10-32

£2,000 GIVEN FOR THRIPS FIGHT

Research at Waite Institute

IN the past three months about £1,500 has been sent from all parts of Australia to the Thrips Investigation League, the secretary of the South Australian branch (Mr. E. Whitfield Mills) said today. Altogether £2,153 has been received to push forward the campaign against thrips.

The movement began in Victoria last year as a result of the enormous amount of damage to the gardens of fruit, vegetable, and flower growers. It was estimated that thrips cost the Commonwealth nearly a million pounds last year.

With the help of the Council for Scientific and Industrial Research, the Waite Research Institute, State Departments of Agriculture, growers' associations, and others interested, the league hopes to eradicate the thrips by an intensive campaign.

LABORATORY RESEARCH

To finance the research, sponsors of the scheme are seeking £3,000. Towards this the Commonwealth Bank (Rural Credits Development Fund) has voted £400 a year for three years. The highest scientific talent will investigate the problems in up-to-date laboratories.

Mr. Mills said that a deputation to the Government in this State had recently asked for £200 a year for three years to swell the fund, but it was not known yet whether this would be granted.

In the meantime, experiments on methods of combating the nuisance were being made by Dr. J. Davidson and Mr. J. W. Evans, of the Waite Research Institute. Tests had been made in the Balhannah orchards of the chairman of the Advisory Board of Agriculture (Mr. H. N. Wicks).

The South Australian branch of the league was formed in Adelaide about three months ago. Many different organisations are represented on the committee.

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also News 9-10-32
CONSERVATORIUM LIBRARY

The council of the University has accepted the sum of £87 10/ collected by the Kate Helen Weston Memorial Committee to provide a permanent endowment for the purchase of books to form a library in the Elder Conservatorium, to be known as the Kate Helen Weston Memorial Library. The books will be accessible to persons who are not members of the Conservatorium under the usual conditions applying to the use of the library.