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## HOW SCIENCE IS DISCOURAGED.

### A PLEA FOR JUSTICE.

The influence of the Adelaide University on the studies of the young men of this community is increasingly important. Last November, for instance, 2,163 students entered for the Senior Examination, and 383 for the Higher Public Examination, while the amount received in fees formed a substantial proportion of the income of the institution. In addition to these students in the more advanced examinations 3,604 candidates entered for the Junior Examination, which is conducted on similar lines in respect to the apportionment of marks. The large extent to which the examinations are utilised by students as a test of proficiency makes it all the more necessary that the influence of the University should be wisely wielded, and at least there is one direction in which of late years this does not seem to have been borne in mind. South Australians are a practical people, and most of the boys who will enter the University to take advantage of its most advanced teaching will have to earn their living in some pursuit in which there will be need for a knowledge of applied science. This may be accepted as manifest, and the corollary is that in the highest examination at which entrants compete there should be a fair field for those who devoted the last year of their life in school to those studies which will prepare them for the scientific courses at the University. It might be surprising to anyone who inspected the regulations for the Higher Public Examination for the first time to discover that the student who presents himself in English or French or German can win 50 per cent. more marks than one who takes up some of the highly-developed science courses, while a student of the ancient languages can win twice as many marks as one, say, who has done extensive work in mechanics, electricity, sound, heat, light, and the chemistry of all the elements and their compounds. This means, as far as the University is concerned, the absolute discouragement of these most useful studies.

It is true that a boy may devote himself, because of his own wish or that of his father or his schoolmaster to modern subjects, but he cannot win by them any high place on the higher public honor list, according to which are adjudged the scholarships offered by the Education Department, while he has absolutely no chance to obtain the Hartley studentship, which is ostensibly given for proficiency in science. This disability is certain a diametrical one opposed to the intention of the donors of these prizes. There is a further drawback so far as the students are concerned, because in some schools classification of the sixth form depends on the marks laid down in the schedule in the University calendar. This can easily be remedied by the principals concerned, and doubtless no further attention need to be called to it, as they are men of commonsense, but can nothing be done to rouse the University Council to a recognition of the gross injustice that is being done to some of their most promising students, because they will and must take up the studies which will be of most practical value to them in after life?

The people who endowed the University were practical men. Mr. J. H. Angus founded a chair of chemistry and scholarships for engineering, while the original endowments of Sir Walter Hughes and Sir Thomas Elder, founders of the University, were expressly for science as well as arts, and it must be patent to everyone that the successes won by graduates of the Adelaide University in wider areas have been almost without exception in scientific pursuits.

Reverting to the intentions of the founders it may be mentioned that the Anglo-Engineering studentship is given for five prescribed scientific subjects, namely, pure mathematics, applied mathematics, chemistry, physics, and geology, the examination being conducted in conjunction with the higher public examination. For those five branches of study, however, it is only possible for the student to obtain a maximum of 2,000 marks, so that the boy desirous of winning the studentship must cut himself off from all hope of occupying a position of distinction on the whole examination. This is obvious, because it is only permitted to take five subjects, and a youth who chooses English history, English literature, Greek, Latin, and pure mathematics, can obtain, if proficient, a maximum of 2,000 marks. The handicap is tremendous, and it is only necessary to make it public to demonstrate its unfairness.

It will be at least one step towards amendment if the marks for science in the higher public examination are made equal to those given to modern and classical languages. The difficulty of attaining success in the former is far greater than in the latter, as anyone with an open mind perusing the syllabus of the examination will acknowledge.

There is but a small leisured class in South Australia who can send their sons and daughters to school—for these remarks apply equally to the women—for the purposes of pure culture. Even if there were more the love of learning should suffice, and students to whom scholarships are often a condition precedent to the enjoyment and advantage of a university career should not be handicapped for their sake. Protests of this kind have been made by schoolmasters to the University Council again and again, and it is time that some attention was given to them. The University is not meant to be merely ornamental. It should strive to be of the greatest possible use to the students and to the community, which is to profit as a result of the training they have obtained. Science therefore should no longer be discouraged in favor of the "hot hunter," who takes up subjects according to their value in marks, and not because of their intrinsic worth.

## IS IT RADIUM?

### INSTRUCTIONS TO PROSPECTORS.

Information received from Olary indicates that miners pegging out mineral claims are unacquainted with the working conditions required, in order legally to retain possession of the ground pegged. The Commissioner of Crown Lands (Hon. L. O'Loughlin) thinks the publication of the following regulations under the Mining Act, supplied by the chief clerk in the department (Mr. F. C. Ward), will materially assist him:—

#### Working of Claims.

Claims, of whatever nature, shall be constantly and efficiently worked by the complement of men required by these regulations for eight hours on every working day, except Saturday, when four hours work shall be sufficient. All operations connected with the extraction of gold from a claim, or the preparation and erection of machinery or other requisite appliances for that purpose, shall be deemed to be working the claim, though carried on at a distance therefrom, and the proof thereof shall lie with the claimholder. The above regulation also applies to mineral claims.

#### Working Conditions of Mineral Claims.

The owner of a mineral claim shall keep constantly employed on the said mine not less than two able-bodied men in diligently searching and mining for and endeavoring to procure minerals and metals other than gold.

#### Forfeiture.

Every mineral claim shall be liable to forfeiture upon non-compliance by the owner with the prescribed conditions as to working the same.

#### Amalgamation of Mineral Claims.

Any number of adjoining mineral claims, not exceeding four, may, if permitted by the warden, be amalgamated and occupied as one claim; provided that two men for each two claims so amalgamated shall be constantly employed on, or in connection with, such amalgamated claim until payable results have been obtained, when two men for each claim so amalgamated shall be employed on, or in connection with, the amalgamated claim. Provided that every horse employed in working an amalgamated claim, and every horsepower of machinery erected in connection with such claim, shall, while used in working the same, or crushing stone therefrom, be counted as two men.

#### Suspension of Mineral Claims.

After three months' work, as required by these regulations, has been performed on or in connection with a mineral claim, the warden may, on written application and for any reason appearing sufficient to him, allow the owner of such claim to suspend or partly suspend operations thereon.

#### Registration.

The owner of a mineral claim, and every person deriving title from or through him, within 30 days after the claim is first pegged out, or the title is acquired, or within such additional time (if any), not exceeding 14 days, as the warden may, on the ground of sickness, absence, or other like disability of any such owner or person, allow, shall register the claim or title in the office of the mining registrar in the mining district wherein the claim is situated.

#### Miner's Right to be Produced on Registration.

No mineral claim or title shall be registered unless the miner's right under which the claim is held is produced to the mining registrar.

#### Neglect to Register.

If any owner or person neglects to register his claim or title in manner aforesaid he shall not be authorized, while the default continues, to prospect or mine thereon, and for default by the owner the claim shall be liable to forfeiture.

Registration in itself confers no title to the ground, but confirms a title previously created by properly pegging and at once working a claim.

Mr. H. G. Stokes, F.G.S., writes:—"A paragraph appears in your issue of the 10th inst., in which exception is taken by the Mines Department to my note of warning to prospectors and the public generally on the alleged discovery of radium ore at Olary. I did not write with the intention of discrediting the report of the Government Geologist, but to warn the public against taking an optimistic view of the discovery. I made a careful examination of the property, and found that the outcrop of iron ore was insignificant, and the so-called, carnotite very sparingly distributed on the surface and in the joints of the iron ore outcrop. Were the ore matrix pitchblende instead of iron ore the find would be probably of some commercial value, but even in such case there is not sufficient material in sight to warrant the sensational reports which have been published in the daily papers. As mentioned in my first note of warning, I was unable to detect the presence of pitchblende (I had then made physical tests). I did not state that the yellow mineral incrustation was not carnotite, but expressed my doubt of its occurrence here. I did, however, state that the matrix was not pitchblende, neither was it magnetite (magnetic oxide of iron), as stated in the official reports of the Government Geologist, published May 4 and 5. It does not, however, follow that the iron ore is not slightly magnetic, as this property is possessed of a variety of minerals. I am obliged to leave for the far north-west of Australia by this Friday's express, via Port Augusta. Mails cannot reach me to which I could reply, if there are any further attacks, under about three weeks. I hope, however, to return to Adelaide about the end of June."

## THE JOSEPH FISHER LECTURE.

### MR. L. A. JESSOP ON COMMERCIAL MORALS.

The second Fisher lecture in connection with the Adelaide University was delivered in the Elder Hall last night by Mr. L. A. Jessop, who chose "Commercial character" as his subject. In his preliminary remarks he said he was not one of those who contended that the world was going to the devil because he had experienced more of its ills and gathered fewer of its halfpence than fell to the lot of some other men, and while admitting that the keen competition of to-day did not make for commercial morality; while recognizing that there existed a somewhat cynical tolerance, not untinted with envy, of successful rogues, he confidently anticipated acquiescence when he asked those of the British race if much comfort was not to be derived from the fact—and he sincerely entertained the conviction that it was a fact—that the methods of the majority of English firms were founded on honesty and fair dealing, and that good faith played a marvellous part in the conduct of the Empire's stupendous commerce. When he spoke of English firms he of course included Australian firms, albeit our commercial reputation was somewhat besmirched by some latter-day revelations. While posing as a commercial apologist, he did not pretend that commerce was carried on on altruistic or philanthropic principles. It might be regarded as a reflection on some 2,000 years of Christianity, but the fact remained that to those engaged in trade life was a battlefield, and the prizes went to the fiercest fighters. It was strange to consider the gradations of trade from retail to wholesale, wholesale to limited liability, and thence to the zenith, to that weird triumph of destructive and constructive intelligence and organising power, the combine or trust. If the chief aim of the man of to-day was to be to make money—money as a means to sustain life, money to provide comforts, money to furnish luxuries, money to gratify—a longing for artistic ostentation, money to deck their women with colored crystals and costly fabrics, money to enable them to oppress and move their fellows as pawns on the chessboard of life—why, let them face the music, and honestly admit not on six days, but on seven, that there was no God but mammon, and Rockefeller was his prophet. For John D. Rockefeller was the greatest exponent of the art of making money since the days when money meant not houses, land, stocks, bonds, shares of sorts, or any of the manifold pecuniary symbols of to-day, but just cattle. A strange psychological study this same master of millions, a curious illustration of the doctrine of heredity, for he had read that Rockefeller's father was partly gambler, partly quack, possessed with not entirely disinterested views with regard to the proprietary rights of others; and that his mother was a lady with a Puritan upbringing. Mr. Rockefeller himself was a commercial Machiavelli, in whose sight the end, meaning the accumulation of unwieldy hoards, justified any means to attain it, and he was also a pillar of the Baptist Church. Experience of life taught him (Mr. Jessop) that the man who did not make his Sunday professions square with his weekday actions was not necessarily a humbug in his own sight. It was said of Mr. Gladstone that he could convince most people of many things and himself of anything. Nobody, of course, read Triam Shandy nowadays, but there was a sermon by Sterne well worth the studying, the text "For we trust we have a good conscience." America had been called the land of effort, and if strenuous industry and an insatiable habit of accumulating counted for anything, then she should be the richest country in the world, and not only that, but an object lesson in many, in fact in most, vital respects. A land of some 80 millions of people, absorbing a million aliens in a year; a land possessing an independent geographical position, vast and diversified resources, and a race of financial giants, whose methods they might condemn, but whose ability was convincing; a land with a color question always growing; a land, if common report was not a common liar, honeycombed with corruption—political, social, commercial, but the most interesting land in the world, especially to Australia. For notwithstanding a perennial deluge of legislation, as many as 15,000 Acts of Parliament having been passed in one year, cunning exulted, greed triumphed, wealth accumulated; and, thanks possibly to the infusion of new blood, no talk of men decaying. Labor alternately fought and coalesced with capital; and boodle and graft were the greatest gods in the national Pantheon.