

Register 18th June, 1903.

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COMMERCE AS A PROFESSION.

THE STANDARD OF EDUCATION.

Commerce as a vocation is receiving special attention this week, owing to the gathering in this city of the Council of Chambers of Commerce of the Commonwealth. It may not perhaps be Utopian to hope that one result of the deliberations of this parliament of commerce will be to emphasize the dignity of commerce as a profession. In the United States business is said to be now more attractive to young men of ambition than any of the professions, and this is so because it is being elevated to the standard of a profession. There is a superficial success which is measured merely by the size of a trader's bank balance, and not infrequently this "success" ends with a balance on the wrong side of the ledger. True success in commercial life, however, is something much harder to win, and still more difficult to retain. It depends not only upon energy, industry, and the skill gained by practical experience, but upon that broader knowledge which comes only from study of history and principles. This success cannot be attained except by the acquirement of that knowledge which in this walk of life, as in every other, spells power. What is being done to supply this knowledge is a matter of great importance. For one thing the elevation of commerce into a profession has called for the creation of a literature of business, and publishing houses have undertaken to supply the demand by the issue of series of books on business topics treated both from the theoretical and practical standpoint. It is a noteworthy fact that in a recent report to the board of directors one of the officers of a famous publishing house advocated the policy of abandoning the publication of works of fiction, except such novels as were of the highest literary merit, and of confining its energies more to solid literature, such as books of history, biography, and economics. Already more than one-fifth of everything published relates to business, and this proportion is sure to increase.

—Faculty of Commerce.—

The action which has been taken in Adelaide in establishing a faculty of commerce in connection with the University has been favourably commented upon. It will be interesting to show what has been done, and is still being done, in connection with commercial education. The course to be taken by students who desire to obtain the advanced commercial certificate comprises business practice, accountancy, commercial law, economics and commercial history, banking and exchange, and commercial geography and technology. Instruction is given at the University by means of evening lectures. The course of lectures upon business practice will not start till September. The subject includes documents and correspondence, office organization, and the procedure of arbitration in commercial disputes. With regard to accountancy, consideration of which was commenced last year, students are now in the fourth and final term of the course. The course consists of about 40 lectures, and will be begun each year. A knowledge of bookkeeping of at least a standard for the elementary commercial examination is presupposed. The standard for the examination is about that of the Institute of Accountants of South Australia. There are 76 students attending these lectures. Commercial law covers negotiable instruments, sale of goods, insurance, carriage of goods, and bills of lading, commercial agency, insolvency, partnership, companies, securities, and banking. A complete course was held in 1902, which was attended by 82 students. The lecturer is now in the second term of the 1903 course, and there are 34 students, the decrease being due to the fact that a number who went through last year are now taking other subjects. Economics and commercial history include the economics of industry, of commerce, and commercial history. The second term of the first year is now being completed, and 39 students are on the roll. Banking and exchange, covering the principles and practice of banking, the currencies of various countries, and means of exchange, together with commercial geography, will not be taught till next year. Mr. A. S. Neill has been appointed lecturer in connection with the former, and Mr. R. J. M. Clunes, librarian at the Adelaide University, and formerly a teacher in the Education Department, has been selected to impart knowledge in the latter topic. Up to the present time 116 students have entered for the various subjects, and this number far exceeds early expectations. Twenty-two have passed examinations which have been held. In connection with this scheme of commercial education it must not be forgotten that Mr. Joseph Fisher has donated a sum to provide a medal for the best student in all the subjects of the course, and, further, for special lectures on vital commercial subjects to be delivered by recognised authorities. Adelaide may therefore claim to have done much in the direction of providing commercial education, just as this city has always taken a lead in other branches of instruction.

—Another Step Forward.—

It is not wise to be satisfied with past achievements, and the question may well be considered whether there is ground which is not covered by existing provisions. In most large commercial centres there exist sectional bodies—such as bankers' institutes—for the purpose of imparting practical information respecting business practice and law. This information is conveyed by means of lectures delivered by well-known leaders in the commercial world. Such gatherings are not to be compared with meetings of ordinary debating societies, neither do they cover the same ground as a University faculty of commerce. In London the Chamber of Commerce recognises this means of training the future generation of business men, and arranges regular lectures on the lines indicated. Some years ago there existed in Adelaide an insurance institute, at which various fire, marine, and life insurance topics were discussed. Much useful work was done, but the body has ceased to exist. If something

on similar lines, but embracing a wider range of subjects, could be arranged it is highly probable that many would avail themselves of the opportunity to enlarge their fund of knowledge upon everyday business subjects. Of course, it would be necessary that some of the leaders of thought in the various departments of commerce should be found who would be willing to devote the necessary time and labour to the undertaking. At present commercial men, especially those who are working their way upwards, lack a common meeting ground such as an institution on these lines would provide. America is doing something in this direction. One of the most notable developments of recent years in the direction of helping young men to take a leading part in their profession has been the organization of the American Institute of Bank Clerks, which has chapters in 24 cities and fully 6,000 members. This organization is composed of employees of banks, trust companies, and banking houses, "who desire to improve themselves by devoting a portion of their time to the study of the matters connected with the banking business." The frequent meetings of the different chapters are mainly devoted to the reading of papers on banking topics and to debates on great economic subjects. The institute also maintains a correspondence school of banking. "The effect if all this on the future of finance and commerce must be, in the nature of things, far-reaching," remarks a New York journal. "The business career, notwithstanding the modern tendency to specialization, is clearly to be broadened out. There is to be a deeper knowledge of principles. An appetite for ascertaining the basic truths is to be cultivated. The time will come when business men will not merely ask, 'Does it pay?' but 'Is it right?' knowing that only those things which are founded on right principles are in the long run profitable and enduring. Whatever else may be said of the age we live in, one thing is certain, there has never been a time when the search for vital truth was so intense and universal."

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CONFERENCE OF TEACHERS.

The arrangements for the eighth annual conference of the South Australian Public Teachers' Union are now practically complete. The sessions will commence on Monday, June 29, in the Trades Hall, when the proceedings will be principally of a routine character. The president of the School of Mines and Industries (Sir Laugdon Bouyhton) has invited the members of the union to inspect the institution during the afternoon, and the engagement will have somewhat of the nature of a social gathering. The formal opening of the conference will take place at the Town Hall in the evening. The president of the union has issued about 500 invitations to legislators, professional men, merchants, and other prominent citizens. Gratifying responses have been received to these invitations, and it is expected that there will be a large audience. Arrangements have also been made for the accommodation of the general public, so that there is sure to be widespread interest in the proceedings. The musical tastes of the audience will be catered for by the Sturt-street school choir, under the leadership of Mr. McBride, whose reputation as leader is unique. The meeting place on the following morning will be the Trades Hall. After the election of officers of the union has taken place the Inspector-General of Schools and Professor Towar will deliver addresses. In addition to this an interesting paper on "Some Aspects of Child Study," by Mr. G. H. Knibbs, F.R.A.S., of Sydney University, will be read. Later in the day the business-paper of the conference will be discussed. The programme for Wednesday morning, July 1, includes further transaction of business, and the annual meeting of subscribers to the Teachers' Superannuation Fund, at which there is to be a public acknowledgment of the arduous and self-sacrificing work of Mr. W. L. Neale, who is to be mainly credited with the genesis of the fund. Professor Henderson is to deliver a lecture at the Elder Hall in the evening, and the members of the union are among the invited guests. These meetings are interesting to many others besides teachers, and probably there will be record attendances.

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THE ELDER STATUE.

Mr. John Moule (hon. secretary to the Elder Statue Committee) has received a telegram to the effect that the Minister of Customs (Mr. Kingston) has directed that the Elder statue is to be admitted duty free, and the customs officials have been instructed accordingly.

THE ELECTRON.

Professor W. H. Bragg, M.A., gave the first of a course of three lectures on "The Electron" at the University on Wednesday night.

In a pamphlet on the subject of the lectures, the electron is described as the "atom" of electricity. Researches into the nature and properties of this tiny thing are reducing to order the observations and theories of years. What the electron is, and what it means to the theories of electricity and astronomy, as well as to chemistry, is explained in the following words:—

Professor J. J. Thomson, of Cambridge, and other workers have shown that when an electric discharge takes place across a tube very nearly exhausted of air, the current is borne by a stream of tiny carriers. These are called "electrons." Each carrier has the same mass and the same charge—a negative charge—no matter what the tube is made of or what gas it contains. The mass is far smaller than that of any atom, being about a thousandth of the mass of the atom of hydrogen. One or more electrons can be torn off from each atom; indeed, it may be true that the atom consists of nothing but electrons, in which case we have in the electron the fundamental "material" of all substances. Under some circumstances, easily produced and shown, the electrons move with enormous speed such as would take them once or twice round the earth in a second. The conception of the electron greatly simplifies and strengthens our knowledge of electric action. A current of electricity is a stream of electrons. The positive rays are ethereal ripples, the splashes due to the violent impact of electrons on any obstacle which stops them. Our theories of magnetism, of the influence of heat upon electricity, and of electricity upon heat, and many other theories, are deeply affected by the new discovery. Light consists of ether waves started by the varying motion of the electrons. There is no other cause. Consequently we now know far more of the mysteries of the spectrum, of the influence of electricity and magnetism upon light, and vice versa, of phosphorescence, and fluorescence. We have a better explanation of the fact that substances generally absorb some colors and transmit others, and, indeed, of the general theory of color. The electron in the theory of astronomy is of importance not only because of the new interpretation which it gives of the spectroscopic observations of sun and stars, but because it gives us fresh ideas as to the phenomena of the sun's corona, of comets, and of the aurora, as to the limits of vision through space and other things.

The electron in chemistry gives a new method of research; and has already made clear an entirely new set of chemical actions, and revealed the existence of substances hitherto unknown. It has been found that certain substances are always shooting out electrons and atoms into the space about them. Such are thorium, the new thorium X, and the thorium emanation; uranium and the new uranium X; and most, strange of all, radium, whose radio-activity is so great that the issuing particles possess measurable quantities of energy. In these cases and by these methods we have found, apparently, instances of subatomic change; constant breaking down of atoms to form fresh combinations; a phenomenon of the nature of that vainly sought by the alchemist centuries ago.

Professor Bragg dealt in his initial lecture with the elementary laws of electricity and magnetism, and showed how they were influenced by electrons. His remarks and experiments were followed with keen interest by a large audience.

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UNIVERSITY EXTENSION LECTURES

PROFESSOR BRAGG ON ELECTRONS.

Professor Bragg inaugurated his series of lectures on the electron at the University on Wednesday evening, when the lecture theatre was crowded by an audience constituted of a large number of prominent city men, doctors, lawyers, teachers, clergymen, and several scholars, from the Deputy Postmaster-General down to the University student. The lecturer dealt in a masterful, yet simple, manner with the rudiments of electrical research, beginning with the fundamental principle and working up to the cathode rays and the theory of electrons. He explained the relations of matter, ether, and electricity to one another in the universe, and went on to enumerate and exemplify by a number of interesting experiments the laws which govern the latter. He showed how electricity acts upon electricity, and magnetism upon magnetism, both at rest and in motion; how electricity passing along a wire causes heat; and how it is thought that electricity consists of small portions of electricity. He explained the passage of an electrical spark, and its effect upon the medium through which it passes. Beautiful and intricate experiments demonstrated the results of an electrical discharge through variously exhausted air tubes, and showed the striae and the cathode rays. The final and most interesting experiment was a stream of cathode rays deflected by the influence of a neighbouring magnet, and demonstrated a series of examining and explaining the electrons which will be dealt with in subsequent lectures. There was not a single hitch in the arrangement of the experiments many of which were of an exceedingly intricate and advanced nature, and this and their arrangement reflected great credit upon the lecturer and his assistants. On the conclusion of the lecture the professor was heartily applauded for his lucid and convincing lesson.

Reg. 19th June '03

His Excellency the Lieutenant-Governor in Council has licensed the following persons to practise anatomy in the School of Anatomy at the University of Adelaide:—L. O. Betts, Evelyne Constance Burnett, Florence Bevilacqua, P. T. S. Cherry, D. R. W. Cowan, G. R. C. Cotton, S. G. L. Catchlove, F. G. Cowan, T. H. Donnelly, M. Erichsen, H. Flecker, H. K. Fry, E. J. Frayne, E. W. Griffiths, L. W. Jeffries, E. H. Lewis, P. Marceau, J. R. Muirhead, A. F. Miller, L. J. Pellet, D. Parkhouse, R. G. Plummer, W. Ray, jun., G. W. Richards, M. W. Sprod, N. C. Shierlaw, D. M. Steele, R. J. Verco, and L. P. Winterbotham.