

water would be two-thirds purified in flowing 168 miles at the rate of one mile an hour. With regard to broad irrigation, the conclusion generally arrived at is that sewage farms can never be expected to show a profit if interest on capital is included in the expenditure, and the experience is that there need be no serious danger of the spread of disease from irrigated crops, but that fruits and vegetables so grown should never be eaten without being cooked. With chemical precipitation the great difficulty is the disposal of the sludge, which amounts to twenty to twenty-six tons per million gallons of sewage. The disposal of this sludge generally involves considerable expense, it being found by practice to be of no value as manure. In fact, in some places, after being compressed into cakes, it is burnt or buried in the ground.

The result of the other processes has already been dealt with in the experiments conducted by the Massachusetts Institute.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

LIVERPOOL.—The annual exhibition of antiquities arranged by the Institute of Archaeology, illustrating excavations in Upper Egypt 1906-7, was inaugurated at Burlington House, London, W., on Tuesday, July 16, and will remain open until July 30. The exhibits include scarabs, ornaments, and inscriptions of 2000 B.C. to 1200 B.C., and stelæ of Ptolemaic and later dates, recently discovered by Prof. Garstang, Mr. E. Harold Jones, and the Hon. R. H. Trefusis.

MANCHESTER.—By the will of the late Mr. Mark Stirrup the university has received the following bequests:—Specimens of volcanic rocks and fossils; 1000*l.* for the maintenance of a geological and palæontological collection; 1500*l.* for the foundation of a palæontological scholarship, tenable for two years by anyone who has studied geology in the university.

Mr. J. W. Bews has been appointed to the newly instituted post of lecturer in economic botany.

OXFORD.—In a convocation to be held on September 30, the degree of D.Sc. *honoris causa* will be conferred upon Prof. Charles Barrois, Lille; Prof. A. Heim, Zürich; Prof. A. Lacroix, Paris; Prof. W. Brück, Berlin; Dr. Hans H. Reusch, Norway; Prof. F. Zirkel, Leipzig.

Dr. George Dreyer, lecturer in general and experimental pathology in the University of Copenhagen, has been elected to the newly established professorship of pathology.

SHEFFIELD.—The University has just issued its list of results of examinations, and we observe that three students have obtained the new degree of Bachelor of Metallurgy (B.Met.), viz. R. Matheson, K. Woo, and G. S. Ludlam. It seems only appropriate that the University's first three graduates should have taken their degree in metallurgy, as this department has for many years upheld a high standard of training in the metallurgy of iron and steel compatible with the ancient fame of the city as the home of the manufacture of high-class and special steels. It may not be inappropriate to note, in connection with the present trend of affairs in the East, that one of the honour graduates is a native of China.

PRIVATE enterprise has succeeded in founding, with the sanction of the Ministry of Education, confirmed by the Czar, an Institute of Archæology and Archæography in Moscow. The institute, which has just obtained its charter, ranks with a university, and is open to all graduates of Russian or foreign universities. Its aim is to prepare qualified archæologists and "archæographists." The latter term is applied to persons skilled in the preservation and use of historical archives, libraries, museums, and other collections, public and private, demanding special knowledge. The Moscow Institute of Archæology is the first institution in Russia founded on autonomous principles; it has the right to elect its own staff of professors, and generally to conduct its own internal affairs, subject only to a possible veto of the Minister of Education in certain cases. The course is a three years' one, the final year of which must be spent in practical work either in archæological expeditions and research among the

monuments of antiquity as yet so little studied in Russia, or in similar special work at home or abroad. The institute grants the degree of doctor of archæology or archæography. Among those connected with the new institute whose names are favourably known outside Russia may be mentioned Dr. Uspensky, director of the institute, the author of fifty capital monographs in Russian; Dr. Fleischer, who was associated with English and American archæologists in recent excavations in Persia; Prof. Grot, and other Moscow professors. Privat-docent Visotsky has been appointed secretary to the institute.

THE first meeting of the governing body of the Imperial College of Science and Technology was held on July 12 at the Victoria and Albert Museum, South Kensington. Mr. R. McKenna, M.P., President of the Board of Education, who was accompanied by Sir Robert Morant, opened the meeting. The following members of the governing body were present:—The Earl of Crewe, Sir F. Mowatt, Sir Julius E. Wernher, Sir W. H. White, Principal MacAlister, Mr. A. H. D. Acland, Mr. F. G. Ogilvie, Mr. J. C. G. Sykes, Dr. Glazebrook, Sir E. H. Busk, Prof. Capper, Prof. Farmer, Sir A. W. Rücker, Mr. A. Acland Allen, M.P., Mr. H. Percy Harris, Sir C. Kinloch-Cooke, Mr. R. A. Robinson, Mr. J. T. Taylor, Sir J. Wolfe-Barry, Sir Owen Roberts, Sir W. S. Prideaux, Viscount Esher, Sir A. Geikie, Prof. Tilden, Prof. Gowland, Prof. Dalby, Sir Alexander Kennedy, Mr. T. Hurry Riches, Mr. R. K. Gray, Sir Hugh Bell, Dr. Elgar, Prof. Divers, Mr. A. Sopwith, and Mr. W. McDermott, with Mr. F. E. Douglas as secretary (*pro tem.*). Mr. McKenna, in opening the meeting, took the opportunity to explain the arrangements which would have to be made for the transfer of the Royal College of Science and Royal School of Mines to the control of the governing body, and referred to the importance of the work which lay before the governing body in connection with the provision and organisation of advanced technical education within the Empire. On the motion of Viscount Esher, seconded by Sir Alexander Kennedy, Lord Crewe was unanimously elected chairman. On Lord Crewe taking the chair, Mr. McKenna handed to him the Letters Patent containing the Grant of the Charter of the Imperial College. Provisional committees (including a finance committee, of which Sir F. Mowatt was appointed chairman) were appointed to deal with preliminary matters and to report to the next meeting of the governing body, which was fixed for July 19.

A RECENT issue of the Journal of the Department of Agriculture and Technical Instruction for Ireland contained an exhaustive article on technical instruction in Belfast, by Mr. F. C. Forth, the principal of the municipal technical institute in the city. This account has now been published in a separate form. In the inauguration of the scheme of technical instruction the Corporation had as the chief object the provision of instruction in the principles of those arts and sciences bearing upon the trades and industries of Belfast. The success of the trade classes has been due in great measure to the enlightened view which officers of trade societies in Belfast have taken of the operations of the technical institute and to the encouragement which has been given by employers. In 1900 it was decided to build the excellent technical institute which has now been practically completed at a cost of 100,000*l.* The Belfast Corporation was, it is satisfactory to note, well advised, and as the work of each department developed sufficiently to warrant such a step, a principal teacher for it was appointed, and his first duty was to superintend the equipment of the department allotted to him in the new building and to be responsible for the expenditure of his share of the 40,000*l.* set aside for the equipment of the new institute. Before the building was out of the contractor's hands a number of classes were transferred to it, and useful experience was gained which led to some modifications in arrangements before the building was completed finally. The great bulk of the equipment is now installed, and it is hoped that when the date for the formal opening arrives, the building and its contents will be complete. Belfast is to be congratulated upon the provision the Corporation has made for providing young men and women with a modern and thorough type of technical education.