

the development of research is entrusted to indifferent and irresponsible authorities it is difficult to hope for better things. Scientific discoveries may not increase the beauty of the earth, but we live in a practical age and must be practical. To be lulled by a sense of false security is to commit national suicide.

INTERNATIONAL ENGINEERING CONGRESS.

THE International Engineering Congress to be held at Glasgow from Tuesday to Friday next week, September 3-6, will be an important congregation of representatives of all branches of engineering practice. The Congress may almost be regarded as a federated meeting of technical societies, for seven of the nine sections are in charge of such organisations. The suggestion that technical societies should hold simultaneous meetings this year in Glasgow was made by the Institution of Engineers and Shipbuilders in Scotland, and it developed into the scheme for an International Engineering Congress.

Lord Kelvin has accepted the honorary presidency of the Congress, and Mr. James Mansergh, F.R.S., is the president. Mr. Mansergh will deliver a short address on Tuesday, and the members will afterwards meet in their respective sections in the University buildings. A large number of papers are to be read, and among them several of scientific interest. The following is a list of the sections, and of a few of the subjects to be brought forward for discussion:—

Section I.—Railways.—Chairman, Sir Benjamin Baker. The economy of electricity as a motive power on railways at present driven by steam, by Prof. C. A. Carus-Wilson.

Section II.—Waterways and Maritime Works.—Chairman, Sir John Wolfe Barry, K.C.B., F.R.S. Novel plant employed in transporting the excavations on the Chicago Drainage Canal Works, by Mr. Isham Randolph; the improvement of the Lower Mississippi by the Mississippi River Commission, by Mr. J. A. Ocker-son; irrigation in the Nile Valley and its future, by Mr. William Willcocks, C.M.G.; recent improvements in the lighting and buoys of coasts, by Mr. D. Stevenson, and by Baron de Rochemont.

Section III.—Mechanical Engineering (Institution of Mechanical Engineers).—Chairman, Mr. W. H. Maw. Effect of temperature on cooling water in high speed automobiles, by Prof. H. S. Hele-Shaw, F.R.S.; trials of steam turbines for driving dynamos, by the Hon. C. A. Parsons and Mr. G. Gerald Stoney; application of metric system to workshops, by Mr. Arthur Greenwood; power required to drive marine engine works and for electric lighting, by Mr. James Crighton and Mr. W. G. Riddell.

Section IV.—Naval Architecture and Marine Engineering (Institution of Naval Architects).—Chairman, the Right Hon. the Earl of Glasgow. The chief characteristics of the naval development of the nineteenth century, by Sir Nathaniel Barnaby, K.C.B.

Section V.—Iron and Steel (Iron and Steel Institute).—Chairman, Mr. William Whitwell. Report on the nomenclature of metallography, by the committee of the Iron and Steel Institute; on the spectra of flames at different periods during the basic Bessemer blow, by Prof. W. N. Hartley, F.R.S., and Mr. Hugh Ramage; on iron and copper alloys, by Mr. J. E. Stead.

Section VI.—Mining (Institution of Mining Engineers).—Chairman, Mr. James S. Dixon. Presidential address, by Sir William Thomas Lewis, Bart.; alternating currents, and their possible application to mining, by Mr. S. I. Walker; a new diagram of work, by Mr. H. W. G. Halbaum.

Section VII.—Municipal Engineering (Incorporated Association of Municipal and County Engineers).—Chairman, Mr. E. George Mawbey. Research into the

system of sewage purification by bacterial and other methods, by Mr. K. F. Campbell; treatment of sewage, by Lieut.-Col. A. S. Jones, V.C.; sewage disposal, by Mr. A. B. M'Donald.

Section VIII.—Gas Engineering (Institution of Gas Engineers).—Chairman, Mr. George Livesey. Electrolysis of gas pipes, &c., by Dr. Leybold; water gas as an adjunct in the manufacture of coal gas, by Prof. Vivian B. Lewes; Emile Gobbe's process for the production of water gas, by Mr. Fernand Bruyere.

Section IX.—Electrical (Institution of Electrical Engineers).—Chairman, Mr. W. E. Langdon. Electricity supply meters of the electrolytic type, by Mr. J. R. Dick; Kelvin's electric measuring instruments, by Prof. M. Maclean; continuous-current dynamo design, by Mr. H. A. Mavor; the use of electricity in the propulsion of road vehicles, by Mr. A. R. Sennett.

Advantage will be taken of the presence of a large number of engineers in Glasgow to open the new "James Watt Engineering Laboratories." These laboratories are being erected and equipped at a cost of more than 40,000*l.*, the funds being raised partly by subscriptions from the citizens of Glasgow and neighbourhood, partly by a grant of 12,500*l.* from the Bellahouston Trust, and the remainder from funds already at the disposal of the University Court. Lord Kelvin will preside at the opening.

Arrangements have been made for visits to works of interest to members of all branches of engineering, and for a number of excursions. There will also be a banquet, a reception by the Lord Provost, and a ball, so that the social aspects of the Congress are pleasing to contemplate. These pleasures, combined with the meetings of the sections and visits to the International Exhibition, should make the Congress memorable to all who take part in it.

NOTES.

THE seventieth birthday of Prof. Eduard Suess, who for more than forty years has occupied the chair of geology in the University of Vienna, and is universally regarded as the greatest of living geologists, has called forth hearty greetings from all parts of the world. Prof. Suess was born in London on August 20, 1831, his father being at that time a merchant in the City; but, while a sympathetic friend of England, he has always remained a true Austrian, and his life-work as geologist, palæontologist and politician has been carried out in his own country. His researches, while largely palæontological, have covered a wide range, and they have led him to grasp more fully than others the problems in the ancient physical geography of the earth, which he dealt with in his brilliant work, "Antlitz der Erde." As remarked by a correspondent in the *Times*, Prof. Suess, to his own countrymen, "has been much more than a distinguished pioneer in science. He has been a living example of enlightened patriotism and devotion to the public welfare, and an indefatigable reformer, whose works will long remain a monument to his memory."

AMONG the many objects that attracted attention during the recent meeting of the International Congress of Zoologists at Berlin, few were more noteworthy than a large mounted adult male gorilla, exhibited by Herr Umlauff, of Hamburg. This specimen is remarkable not only for its size, which rivals, if it does not exceed, that of any example of the gorilla previously obtained, but also because its exact history is known. It was shot by Herr H. Paschen, of Schwerin, the representative of a Hamburg mercantile firm, in Yaunde, in the interior of the German Colony of Kamerun, about fifteen days' journey from the coast, on April 15, 1900. It has been hitherto generally believed that the gorilla is only to be found in Gaboon and the adjoining