

Two main groups are represented, a sub-Antarctic (Patagonian-Andine) and a sub-tropical, the latter being the more important. The present work has increased by 50 per cent. the number of genera and species belonging to the sub-tropical group. Mr. Hauman also supplies a number of floristic notes, which conclude the series of memoirs he has already published on the Monocotyledons of the Argentine, in which he has added some seventy species to the flora, about one-third of which are new. The volume concludes with a revision by Mr. Carlos Spegazzini of the Argentine Laboulbeniales, that remarkable group of minute fungi which live parasitically on insects. The enumeration includes 213 species, each of which is carefully figured; a large proportion are described for the first time. The volume is a very important contribution to our knowledge of the botany of temperate South America.

University and Educational Intelligence.

DR. A. SMITH WOODWARD will give a lecture on fossil man, with special reference to the Rhodesian skull, on Tuesday, January 24, at 5.30 p.m. at University College, London. Tickets for the lecture, at 5s. and 2s. 6d., can be obtained from the Secretary of the college. The proceeds will be devoted to the St. Christopher's Working Boys' Club in Fitzroy Square, which is largely worked by students and members of the staff of University College. The chair will be taken at the lecture by the Right Hon. the Earl of Plymouth, who is president of the club.

THE second term at University College, London, begins on Tuesday next, January 17. The following are some of the public lectures to be given during the term:—"Industrial Unrest," by Mr. B. Seeborn Rowntree; "The Bridges of London," by Mr. A. T. Walmisley; "The Preservation of Ancient Buildings," by Mr. A. R. Powys; "The Evolution of Man" (four lectures), by Prof. G. Elliot Smith; "The University of London: Its History, Present Resources, and Future Possibilities," by the provost, Sir Gregory Foster; and two lectures by Sir George Aston on "Some Principles of Amphibious Warfare" and "War History and its Application." A copy of the full programme may be obtained by sending a stamped addressed envelope to the Secretary, University College, London, W.C.1.

THE annual general meeting of the Incorporated Association of Head Masters was opened on January 4 at the Guildhall, and the new president, Mr. C. M. Stuart, delivered his inaugural address. Mr. Stuart stated that the two most revolutionary changes in education—the introduction of the schemes for 25 per cent. of free scholars and advanced courses—were instituted without consultation with secondary school representatives. In consequence, the original schemes had already required several modifications. The whole scholarship system needed reform based upon the study of the capacities of boys. In making awards it was of no use to go below the first 10 per cent., for this meant rewarding mediocrity, and it was by no means certain that the best from among the mediocrity were selected. The following resolution was carried unanimously by the meeting:—"That this meeting, while recognising the need for economy in every department, is of opinion that the recently awakened public interest in education demands that no hindrance of any kind shall be placed in the way of educational progress."

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Calendar of Industrial Pioneers.

January 13, 1890. Daniel Adamson died.—A pioneer in the use of Bessemer steel for boilers, in the application of hydraulic power for riveting, and in the use of high-pressure steam, Adamson in 1861 built one of the earliest triple expansion engines. He became the head of the Penistone Ironworks, served as president of the Iron and Steel Institute, and was one of the chief promoters of the Manchester Ship Canal.

January 14, 1908. John Macfarlane Gray died.—When manager of a works at Liverpool Gray in 1866 constructed for the s.s. *Great Eastern* the first successful steam steering engine, thus enabling one man to do what had previously required as many as one hundred. He was well known for his writings on thermo-dynamics and his advocacy of the application of scientific principles to engine construction.

January 14, 1830. Johan Georg Repsold died.—The founder of the famous firm of instrument makers, Repsold was born in 1771, and was long connected with the Hamburg Fire Brigade. He introduced improvements in meridian circles and supplied many instruments to the large observatories.

January 15, 1900. Thomas Egleston died.—After graduating at Yale, Egleston studied for some years at the Ecole des Mines in Paris, and in 1863 initiated the plan for the School of Mines of Columbia University, New York, where he held the chair of mineralogy and metallurgy for thirty-three years.

January 17, 1909. Francis Elgar died.—Trained in Portsmouth Dockyard, Elgar became one of the first fellows of the Royal School of Naval Architecture and Marine Engineering at South Kensington. He was assistant to Reed, Adviser to the Japanese Government, John Elder professor of naval architecture at Glasgow, Director of Dockyards, and head of the Fairfield Shipbuilding Company.

January 17, 1833. Friedrich König died.—At the age of thirty-two, in 1806 König removed from Leipzig to London, and in 1811 with Andreas Friedrich Bauer (1783-1860) patented the printing machine in which the paper was pressed against the type by a revolving cylinder. On November 28, 1814, the *Times* was first printed on one of König's machines driven by a steam engine, "a memorable day in the annals of typography."

January 18, 1861. John Heathcoat died.—A journeyman frame-smith, Heathcoat at Loughborough in 1808-9 brought out his lace-making machines. The first square yard of plain net sold for 5l.; the price in 1890 was 5d., while the annual value of the trade had grown to 4,000,000l. Heathcoat's factory at Loughborough was destroyed by the Luddites in 1816 and he removed to Tiverton.

January 18, 1865. James Beaumont Neilson died.—While in charge of the Glasgow Gasworks, where he introduced clay retorts and the use of sulphate of iron as a purifier, Neilson experimented on the air-supply for blast-furnaces, and in 1828 patented the "hot blast," which enormously increased the production of iron and made available the black band ironstone discovered by David Mushet. It has been said Neilson did for iron manufacture what Arkwright did for the cotton industry.

January 18, 1873. Pierre Charles François, Baron Dupin, died.—A student of the Ecole Polytechnique, Dupin first gained distinction by his papers on naval architecture and engineering. He made a profound study of the industries of Great Britain and was one of the first in France to raise statistics to the rank of a science.

E. C. S.