

University and Educational Intelligence.

ABERDEEN.—Dr. Henry Cook, who graduated M.B., C.M., at the University of Aberdeen in 1883, and died at Bristol on Aug. 3, bequeathed "the entire residue of his estate to the Treasurer for the time being of Marischal College, University of Aberdeen, Scotland, for the use and benefit of the said College". It is estimated that after paying legacy and succession duties, costs and expenses, the gift to Marischal College cannot be less than £50,000.

CAMBRIDGE.—D. R. P. Murray, of Pembroke College, has been re-elected to the Benn W. Levy Research Studentship for one year as from July 1, 1929.

At the inauguration of the new session at the Sir John Cass Technical Institute, Jewry Street, Aldgate, E.C.3, the chairman of the governing body, the Rev. J. F. Marr, in reviewing the work of the past academic year, stated that the provision of grouped courses of instruction has been greatly appreciated by those engaged in technical branches of industry, and further, that insistence on a good knowledge of fundamental science as an antecedent to specialised or vocational training has led to the most satisfactory results. An extension of advanced and post-graduate work had also been made with considerable success. Valuable contributions to industrial research have been made by students of the Institute trained in methods of research. The programme of work for the present session includes a considerable extension of the course of lectures on coal carbonisation and the addition of two courses of lectures, on the application of X-ray analysis to chemical problems and micro-chemical analysis respectively.

THE League of Nations Intellectual Co-operation Committee presented at the League's recent assembly a report on its work and that of the League's chief executive organs in this field, the International Institute of Intellectual Co-operation, which has its seat in Paris, and the International Educational Cinematographic Institute at Rome. As for the last-named Institute, which was inaugurated on Nov. 5, 1928, a mere outline of its scope is given with an announcement that a circumstantial report on its work will be submitted to the next meeting of the governing body in October. Meanwhile, the Institute is congratulated on the publication of the *International Review of Educational Cinematography*. Educational work figures largely in the account of the other Institute's activities, including the expansion of the Educational Information Centres at Geneva and Paris, the publication of a handbook on "The Aims and Organisation of the League of Nations" for the use, primarily, of teachers, and the publication of a periodical, *Educational Survey*, destined to appear twice a year. Other activities mentioned are the promotion of periodical meetings designed to improve university relations, for example, meetings of representatives of university information offices, of institutes for the scientific study of international relations, and of directors of higher education in various countries, the development of international co-ordination of libraries and of the bibliography of the various sciences, the development of the work of the International Museums Office, both in the field of museography and in that of the co-ordination of museums, and the publication of the review *La Co-operation intellectuelle*.

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Calendar of Patent Records.

October 26, 1724.—A patent was granted to John Brent on Oct. 26, 1724, for "a wind engine or machine which would be useful in occasioning motion to all sorts of mill-work and for divers other uses and purposes, far exceeding all wind engines hitherto practised, whose fanes move horizontally and are so disposed as to work with the wind blowing from any point of the compass without turning or altering the position of the engine, the like of which had never been used or exercised in any of our dominions". This appears to be the first patent for a windmill with horizontal vanes.

October 30, 1786.—The power loom was patented by the Rev. Edmund Cartwright on Oct. 30, 1786, and a factory was established at Doncaster the following year with ten looms, worked at first by animal power but later by a steam-engine. This was Cartwright's second loom patent, but the first one, dated the previous year, had been for a crude machine which he had invented, as he himself says, before he had turned his thoughts to anything mechanical either in theory or practice, or had ever seen a loom at work, or knew anything of its construction. The Doncaster factory was not a success commercially, and closed down in 1793.

October 30, 1811.—The steam printing-press was the invention of Friedrich König, who had come to England from Germany in 1806. His cylinder machine—which was used for the first time for newspaper printing by the *Times* in 1814, and delivered on that occasion 1100 sheets an hour—was patented on Oct. 30, 1811.

October 31, 1778.—The first real improvement in the modern door-lock was patented by Robert Barron on Oct. 31, 1778. Previously, security had been obtained only by fixed wards and by tumblers which had simply to be lifted clear of the bolt, but in Barron's lock the levers or tumblers had to be lifted a definite distance by the bits of the key, and blocked the bolt in every other position, whether this was too low or too high. The arrangement of the modern lever lock is the same.

October 31, 1797.—Joseph Bramah's patent, dated Oct. 31, 1797, for a method of raising beer from cellars, includes a process for making jointless lead tubing in which lead in its liquid state is pumped or forced through an annular mould. The mould is kept hot at one end and cooled at the other, so that the lead, entering liquid, issues in the solid state in the form of a tube of the size and shape required.

November 1, 1825.—The first road-cleaning machine with a rotary brush was patented by William Ranyard, of Kingston, on Nov. 1, 1825. The brush was worked by gearing from the road wheels and collected the dust and refuse into a bin carried on the cart.

November 2, 1785.—Lionel Lukin, coachbuilder of Long Acre, has the first patent for a lifeboat, this being granted on Nov. 2, 1785, for a method of "constructing boats for either sailing or rowing which will neither overset in violent gales nor sudden gusts of wind, nor sink if they should by any accident be filled with water". Lukin converted a Norway yawl by placing air boxes at the stem and stern, watertight compartments along the inside of the gunwales, and outside a belt of solid cork, whilst stability was increased by the provision of an iron keel, and a boat of this construction was used with some success. William Wouldhave followed with a self-righting boat in 1789, but Henry Greathead's *Original*, launched in 1790, was the first lifeboat to be placed in regular service. The Royal National Lifeboat Institution celebrated its centenary in 1924.