

at Oxford and Cambridge for American students and at Harvard and Yale for British students. The scholarships will be open to both sexes and are to be available for undergraduate as well as post-graduate courses. The Charles and Julia Henry Fund, as it will be termed, is to be administered by twelve trustees, three each being appointed by the four universities concerned, who will have wide discretionary powers. The whole of the residuary estate, estimated at £300,000, goes to the fund.

**PARTICULARS** of vacation courses in England and Wales, 1927, are given in a pamphlet (London, H.M. Stationery Office. 6d.) issued by the Board of Education. Courses for teachers have been arranged: by the Board itself, to be held at Oxford, Cambridge, London, Durham, Birmingham, Nottingham, Bangor, Brighton, Eastbourne, and Studley; by the local education authorities of Brighton, Carmarthen, Cheshire, Glamorgan, Hertford, Kent, and Yorkshire (West Riding); and by five teacher-training institutions. Courses for foreigners are offered by the Universities of London and Cambridge. The University Extension summer meeting will be at Oxford, and there will be the usual university tutorial class summer schools in connexion with all the universities except Reading. Among the various courses offered at Bingley by the West Riding County Council is one by Mr. Stanley Jast on the library and the school. The National Museum of Wales is giving a course on methods of caring for exhibits. Some thirty courses in their special subjects are offered by various voluntary associations. Summer Schools of the League of Nations Union are to be held at Oxford (St. Hugh's College, July 27-Aug. 5) and Geneva (Geneva Institute of International Relations: elementary, July 30-Aug. 5; advanced, Aug. 6-Aug. 12). At Oxford, Lord Hugh Cecil will give the inaugural address, and there will be a preliminary conference of teachers on July 27-29, opened by the Right Hon. H. A. L. Fisher.

**APPOINTMENTS** made by the Committee of Award for the Commonwealth Fund Fellowships to the twenty Fellowships tenable by British graduates in American universities for the two years beginning in September 1927 include the following: Mr. J. M. Alston (Edinburgh), to Harvard University, in medicine; Mr. Maurice Black (Trinity College, Cambridge), to Princeton University, in geology; Mr. G. F. Brett (Leeds), to the University of Michigan, in physics; Mr. David Graham (Queen's University, Belfast), to the Massachusetts Institute of Technology, in electrical engineering; Mr. F. T. Hewer (Bristol), to Johns Hopkins University, in medicine; Mr. M. I. Hutton (Glasgow University and Balliol College, Oxford), to Yale University, in economics; Mr. Eric F. Nash (University College, Oxford), to Harvard University, in economics; Mr. R. A. C. Oliver (Edinburgh), to Stanford University, in education; Mr. A. Oppenheim (Balliol College, Oxford), to the University of Chicago, in mathematics; Mr. R. Robinson (Birmingham), to the University of Pennsylvania, in physical chemistry; Miss E. Simkins (Liverpool), to Clark University, in geography. This year the Commonwealth Fund has established three extra fellowships, primarily intended for candidates from British Dominions who have studied at British Universities. Nominations to these Fellowships include the following: Mr. H. I. Coombs (Adelaide University, Magdalen College, Oxford, and Trinity College, Cambridge), to the Rockefeller Institute, New York, in physiology; Mr. Reginald Jackson (University of South Africa and Trinity College, Oxford), to Harvard University, in philosophy.

## Calendar of Discovery and Invention.

**May 29, 1453.**—From some points of view the fall of Constantinople, which took place on May 29, 1453, may be regarded as contributing directly to the birth of the modern age of scientific inquiry and discovery. When, after a siege of 53 days, Mahomet II. gained possession of the city, many Greeks fled into Europe, carrying with them the precious manuscripts of ancient Greek authors. Included in these were mathematical works which were translated and soon afterwards made available through the invention of the printing press.

**May 29, 1624.**—The first legislative enactment for regulating the granting of industrial monopolies was The Statute of Monopolies (21 Jac. I. c. 3) passed by the English Parliament on May 29, 1624. The Statute was not, as has often been assumed, the foundation of the English patent law; it merely gave parliamentary sanction to principles, already accepted at common law, which now form the basis of all patent laws throughout the world. Its purpose was to prevent the Crown from granting oppressive monopolies, but in the famous section 6 it exempted from the general prohibition the granting of patents for the encouragement of new inventions. This section is still in force.

**May 31, 1836.**—The introduction of screw propulsion was due to many pioneers, of whom, however, the foremost was Francis Pettit Smith. Smith's first patent was taken out on May 31, 1836, and he described his invention "to consist of a sort of screw or worm made to revolve rapidly under water, in a recess or open space formed in that part of the after part of the vessel, called the dead wood or dead wood of the run." His screw was tried successfully in the s.s. *Archimedes*, the first screw vessel to navigate the open seas.

**May 31, 1919.**—On the afternoon of May 31, 1919, the American seaplane NC4, piloted by Lieutenant-Commander A. C. Read, arrived in England, having since May 16 flown in three stages from New York to the Azores, thence to Lisbon and to Plymouth. She was the first machine to fly across the Atlantic.

**June 1, 1785.**—Cavendish in his study of the atmosphere used many methods, and some of these he described to the Royal Society in his paper, "Electric Discharges through Air," read on June 1, 1785.

**June 1, 1894.**—One of the landmarks in the early history of radio signalling was Sir Oliver Lodge's lecture at the Royal Institution on June 1, 1894, on "The Work of Hertz," when, with the aid of a Branly's coherer of filings, signals were detected at a distance from the transmitting apparatus.

**June 1, 1906.**—Five tunnels pierce the Alps—the Mont Cenis, the St. Gothard, the Arlberg, the Lotschberg, and the Simplon. Of these the Simplon is the longest and deepest, being 12½ miles long and more than 7000 feet below the surface. Begun in 1898, it was opened on June 1, 1906. It was bored simultaneously from both ends, and when the two tunnels met, the error of alignment was only 3½ inches.

**June 2, 1881.**—The famous test of Pasteur's views on the efficacy of vaccination of animals for anthrax culminated on June 2, 1881, at the farmyard of Pouilly le Fort. Twenty-five vaccinated and twenty-five unvaccinated sheep had previously been inoculated with some very virulent cultures of the anthrax bacillus. On June 2, Pasteur and others visited the farm. "The carcasses of twenty-two unvaccinated sheep were lying side by side; two others were breathing their last. . . . All the vaccinated sheep were in perfect health. . . . The one remaining unvaccinated sheep died that same night."

E. C. S.