first through his intellect that knew the discipline of science, and then from the spirit of human sympathy that gave him an almost apostolic ardour in convincing men that this instrument of scientific thought must for the sake of man's welfare be brought to fuller use in medicine. The achievement of this aim was made possible by the rare gifts of Nature that were so happily combined in him.

Fletcher's mind was quick, critical and retentive. He grasped intuitively both the details and the wider relationships of the many problems continually placed before him; and while he would lend sympathetic attention to every man with a piece of work to put forward, he made extraordinarily few mistakes in his judgment of men and their problems. His astonishing personal knowledge of almost all the research workers receiving support in any way from the Council was utterly unlike that of an official administrator dealing only with written reports, for he sought to meet them as comrades in the field of scientific work who should discuss with him their problems and meet his ever helpful criticism.

To this mastery of the intellectual side of his work were added other qualities which made it easy for Fletcher to win goodwill at first acquaintance, while they determined the firm affection of those who had the happy fortune to know him more intimately. No friend ever had occasion to doubt the sincerity and staunch loyalty of his character; but even without proof of that constancy, it was difficult for a new acquaintance to resist the impression made by his frank manner, his splendid physique and the sense that he gave of tireless strength and energy. His spirits remained unconquerably young, and the boyish half-smile—and perhaps some kindly jest—with which he could suddenly relieve the tedium of a dull discussion, will ever remain in the memory of his friends. These were many, and of enemies he had none among those who took what he never denied to anyone, the opportunity to know him well. Cynicism, that closed defence of the doubting mind, he never used. Rather were his thoughts so freely brought to light that men were apt to misjudge as egotism what was little more than a too frank outpouring of the self-confidence that lies within all men of action. Perhaps in the same category was a habit of giving unsought advice, *more magistri*, to others on the way in which they should manage their affairs. If mistakes in this fashion arose, he was willing, even eager, to listen to criticism; and to be aware of a misunderstanding on such personal grounds was so painful to him that he could not rest until it was banished.

These two foibles were minor elements of weakness in Fletcher's character, and he was quick to apologise for faults into which they might lead him. But on matters where he felt that principles were at stake, he was ever an unyielding and a most formidable fighter. "Walter is a most charming fellow but do be careful of rousing Morley." Then he would make no concessions, and with outspoken courage he would pierce to the heart of arguments that he could show to be based on unthinking custom, however widely honoured or clothed with men's respect. On such issues he was utterly regardless of consequences to himself, caring only that the cause of scientific research, and of the Council in so far as it was identified with that, should not suffer setback. He knew the past struggles through which medical science in England had lately come from smallness to high repute among the nations of the world, and he knew what his share in that work had been. In moments of deeper emotion Fletcher would sometimes use the emphasis of old religious phrases. As his own end came so quickly near he might well have repeated to himself the words of Mr. Valiant-for-truth when he was going down to the river side: "I do not repent me of all the trouble I have been at to arrive where I am. My sword I give to him that shall succeed me in my pilgrimage, and my courage and skill to him that can get it." T. R. E.

News and Views

New Buildings of the University of London

THE University of London was honoured on June 26, when His Majesty the King, who was accompanied by the Queen, laid the foundation stone of the new buildings which are to be erected on the Bloomsbury site. Their Majesties were accompanied by Lord Irwin, president of the Board of Education, and were received by the Earl of Athlone, Chancellor of the University, and the Mayor of Holborn. The chancellors and vice-chancellors of the principal universities of Great Britain and Ireland, and representatives of Dominion and foreign universities and learned bodies formed part of the notable company which witnessed the ceremony. In the opening address, the Earl of Athlone referred briefly to the history of the University, pointing out that although the University now has more than 12,000 internal students and a similar number of external students, it has never had a home of its own. The University is, he said, "standing upon the threshold of the great inheritance she has built up for herself, a heritage which means nothing less than that she shall become not only the University of London in name but in deed and in reality London's University." The King replied, before laying the foundation stone, congratulating the University on the approach of the centenary of its existence and on the prospect of possessing a group of buildings as headquarters for its far-reaching work and influence. He continued: "I count it of good omen that in these difficult times we have the opportunity of showing an unshaken faith in the inestimable benefits of knowledge and

education. No less auspicious is the alliance in this good cause between friends of education in the Old World and the New. The Rockefeller Foundation, our own Government, the citizens of London in corporate and in private capacities all share in a memorable achievement." An article discussing the building scheme appeared in our issue of July 9, 1932 (p. 49), and another dealing with the development of science in relation to the University in NATURE of June 24 (p. 896).

Dr. R. A. Fisher, F.R.S.

DR. R. A. FISHER, head of the Statistical Department of the Rothamsted Experimental Station, has been appointed to the Galton chair of eugenics at the University of London. Since 1919, when he first went to Rothamsted, Dr. Fisher has successfully developed statistical theory so as to make application possible to the somewhat special type of data furnished by agricultural experiments, and he has also devised new methods of experiment which have proved very valuable in minimising the disturbances due to soil heterogeneity and other unavoidable irregularities in the experimental material. This is the third professorship obtained by members of the Rothamsted staff during the past twelve months, the two earlier appointments being that of Dr. W. B. Brierley to the chair of agricultural botany at the University of Reading and of Dr. R. H. Stoughton to the chair of horticulture in the same University.

Joseph Nicéphore Niepce

A CENTURY ago, on July 5, 1833, at the age of sixty-eight years, Joseph Nicéphore Niepce, the pioneer of photography, died near his birthplace, Châlon-sur-Saône. Born on March 7, 1765, in good circumstances, Niepce, who was of a meditative and poetical temperament, entered the army in 1792, but after serving for two years had to resign owing to ill-health and failing eyesight. Afterwards, for six years, 1795–1801, he held an administrative post in the Nice district and then returned home and with his brother devoted himself to mechanical and chemical experiments. Having his attention directed to the new art of lithography, he conceived the idea of making pictures by the aid of the sun. Many years were spent before he succeeded in obtaining impressions on plates of polished metal covered with asphaltum. Some of his results were shown to the Royal Society in 1826. Niepce then became associated with his countryman, Louis Jacques Daguerre (1789–1851), by whom, after Niepce's death, the art of photography was established on a practical basis. The first daguerreotypes were produced in 1839, and shortly afterwards the French Government granted pensions to Daguerre and to Niepce's son, Isidore. To-day both inventors are commemorated by statues; Daguerre at Cormeilles and Niepce at Châlon-sur-Saône. In fashioning the statue of Niepce, one writer says: "The sculptor worked for nothing, animated by no motive more selfish than the desire to express in lasting bronze his respect for a great man's memory. If every human being who has had occasion to be grateful to the discoverer of photography had contributed to his work the sculptor might have been royally remunerated, and the statue, instead of bronze, might have been of silver and gold." In the museum not far from the square in Châlon are preserved some of the apparatus with which Niepce made his notable experiments.

Experimental Production of Cancer

THE discussion on experimental carcinogenesis and the experimental transmission of cancer at the Royal Society on June 15 was rather of the form of a symposium which, in spite of compression by the speakers, could not be completed in the two and a half hours occupied. The possibilities of the genetic hypothesis of Boveri and Bauer were not further explored than the brief summary given by the opener, Dr. J. A. Murray. Of the subsequent speakers, valuable contributions to the virus hypothesis were made by Drs. Peacock, Andrewes, W. Cramer and J. McIntosh. The chemical carcinogenic agents and their mode of action formed the subject of an extremely interesting review by Dr. J. W. Cook, who dealt with the possibility of substances of similar action and chemical constitution being formed in the body by non-specific irritants. The biology of the tumours in fowls produced by tar, etc., was described by Dr. Peacock and Prof. J. McIntosh. Prof. A. E. Boycott reminded the meeting of the fascinating possibilities for speculation presented by a combination of the primary hypotheses discussed.

Origins of the General Relativity Theory

THE Gibson foundation lecture, delivered at the University of Glasgow by Prof. A. Einstein on June 20, consisted of a first-hand account of the mental struggles that precede the establishment of new fundamental ideas in science. The special relativity theory showed that velocity was purely relative, and from one point of view the same should be true of acceleration, yet physics seemed to show evidence to the contrary. The attempt to include gravitation in the special theory had to be abandoned. Prof. Einstein came to the conclusion that the key to the real understanding of inertia and gravitation was the experimental result that all bodies in a gravitational field were subject to the same acceleration. From 1908 until 1911 he endeavoured to apply this, but a dilemma arose from which he did not escape until 1912, when he conjectured that the space-time continuum had a Riemann metric. The development of this hypothesis by the aid of the absolute differential calculus of Ricci and Levi-Civita kept Einstein and Grossmann busy from 1912 until 1914. They found the correct gravitational equations, but failed to recognise their physical validity, and thus wasted two years of hard work. Finally Einstein "returned penitentially to the Riemann curvature". "Our final results appear almost self-evident . . . but the years of searching in the dark for a truth that one feels but cannot express; the intense desire, and the alternations of confidence and misgiving, until one breaks through to clarity and understanding, are only known to him who has himself experienced it."