

the world will remember him as a leader of the anti-Fascist movement in the universities. His student life in Cambridge coincided with the struggle of the Spanish people against Fascism and he was the principal leader in building up the student anti-Fascist movement in Great Britain. After David Guest and John Cornford were killed fighting for the Spanish Republic, Nahum took the place of the latter as leader of the Communist Party in the University.

During this period he spent vacations in Paris working as a leading member of the committee of the World Student Association and became known to thousands of foreign students. In his third year, as president of the Cambridge University Socialist Club, he led the struggle among students against non-intervention in Spain, Japanese aggression and

the Munich policy of appeasement. In the same year he obtained his first class in Part II Physics.

In subsequent years he continued his work among students both in the National Union of Students, as chairman of the Science Faculty, and as chairman of the University Labour Federation.

In his short life he never failed to put into action his belief that the universities must not isolate themselves from the life of the community and that university people have a vital interest in the progressive movement. At meetings called by the University Labour Federation in different parts of the country, students are pledging themselves to work, train and fight against Fascism as never before as the greatest tribute they can pay to the memory of Ram Nahum.

J. D. BERNAL.

NEWS and VIEWS

Centenary of Sir James Dewar

ON September 20 occurs the centenary of Sir James Dewar, one of Great Britain's greatest experimentalists, occupying as he did for forty-six years the chair of chemistry at the Royal Institution and for thirty-six years guiding its destinies both by his position and his discoveries. Dewar added greatly to the lustre of the Institution, and by his many investigations, especially those on the liquefaction of gases and the attainment of high vacua, gained for himself a place among the leading chemists and physicists of his time. Born at Kincardine-on-Forth, he studied under Playfair at Edinburgh and Kekulé at Ghent, and at the age of thirty-three was made Jacksonian professor of experimental philosophy at Cambridge. Two years later he was chosen to succeed Gladstone as Fullerian professor of chemistry at the Royal Institution and after another ten years was made superintendent. The year he went to Albemarle Street had seen the experiments of Cailletet in France and of Pictet in Geneva on the liquefaction of the so-called permanent gases.

Following in the footsteps of his great predecessor, Faraday, Dewar in the early eighties began his own researches on gases which were to lead to many striking results. He first publicly exhibited liquid air, he obtained liquid oxygen and then liquid hydrogen in considerable quantities; in 1892 he invented and freely gave to science and the world the Dewar vacuum flask and in the early part of the present century discovered, as H. E. Armstrong said, "the marvellous power of charcoal to absorb gases at low temperatures" which "will render the period of 1900 to 1907 ever memorable". But Dewar's studies on gases, low temperatures and high vacua are but a part of his researches, which ranged from water to explosives, from atomic weights to spectroscopy, from the properties of soap bubbles to the temperature of the sun. He was elected a fellow of the Royal Society when he came to London in 1877, and lived to receive honours from scientific bodies at home and abroad. In 1904 he was knighted by King Edward. Above all else the welfare of the Royal Institution was his great ambition and anxiety, and after his death which took place on March 27, 1923, a bronze plaque portrait of him was placed on the staircase of the Institution he had served so long and so well.

Sir James Ivory, F.R.S. (1765-1842)

JAMES IVORY, the Scottish mathematician who died at Hampstead a hundred years ago on September 21, had the distinction of being among the first to introduce into Great Britain those methods of mathematical analysis which, from the time of Leibniz and the Bernoullis, had been gradually developed on the Continent. The only mathematical appointment he held was that of professor of mathematics at the Royal Military College then housed at Marlow, in Buckinghamshire. This post he held from his thirty-ninth to his fifty-fourth year. The son of a Dundee watchmaker, he was born in 1765, studied for six years at St. Andrews and Edinburgh and was then, in 1786, appointed a teacher in a school at Dundee. In 1789 he abandoned teaching to become partner in a flax mill, and it was on the dissolution of the partnership in 1804 that he came to Marlow. He gained a wide reputation for his mathematical and astronomical papers in the *Philosophical Transactions of the Royal Society*. He received several medals, including the Copley Medal of the Royal Society, and with several other men of science was knighted in 1831. He was a corresponding member of the Paris Academy of Science.

Soviet Scientific Films

A NUMBER of Soviet scientific films were presented at the Imperial Institute Cinema on September 12 by the Society for Cultural Relations with the U.S.S.R. in conjunction with the Association of Scientific Workers. The films, which covered a wide range of subjects, were of absorbing interest and high technical quality. They included novelties in Soviet scientific and technical practice besides the popularization of well-known facts for children and adult lay audiences. The former featured some excellent photographs of the Black Sea Express, a two-keeled motor sea-glider for passengers, with a speed of fifty miles an hour, Prof. P. Kapitza's miniature turbine for producing cheaply liquid oxygen, and a clever device for protecting workers at the forge from heat with a screen of running water which absorbs the infra-red radiation. An artificial fledgling, made by children, which automatically opens its beak and projects the food inserted by the unwitting mother bird into a bottle of formalin, enabling a