

the sixteenth century before Christ, a period at which the Minoan culture was at its zenith. The discovery is otherwise remarkable in that it includes swords of exceptionally large size, which are said to be greater in number than any other single find of swords ever made in prehistoric Europe. Associated with them were some hundreds of copper axes, a number of silver axes and twenty-seven gold double axes with golden shafts. The claim that the newly discovered script is itself unknown, but bears a resemblance to characters known from the Phaistos inscription, constitutes the chief interest of the find; though it has other points which will intrigue archaeologists. In the circumstances, its full publication should be delayed as little as possible, even though this should entail postponement of full discussion.

#### Soviet Stratosphere Research

It is learnt from the reports in *The Times* of June 27 and 28 that stratosphere research is very active in the U.S.S.R. It will be recalled that the Russians hold the altitude record of 12 miles for manned balloons made by M. Prokofiev in October 1933, whilst the U.S.S.R. *Stratostat*, which crashed in January 1934, killing its occupants, rose even higher. The present ascent, which was only of 2½ hours' duration, was made from Moscow on June 26, during which time the balloon travelled 100 miles due south. The commander-pilot was M. Kristap Zille, who was accompanied by a physicist, Prof. Alexandre Verigo, of the Central Geophysical Observatory at Leningrad, and a mechanic named Prilutsky. It is stated that during the short flight the altitude reached was more than 9 miles and that the crew landed safely by parachute, apparently as an exercise. Prokofiev's gondola was used, its instruments were landed intact, photographs of the earth were made and varied cosmic ray records taken. It is incidentally stated, though extremely interesting to hear, that the commander had made two other stratosphere ascents in June.

#### London Transport Scheme

ARRANGEMENTS have been concluded between the Government and the Standing Joint Committee of the London Passenger Transport Board and the main line railways for the development of a transport scheme for London. On June 5, the Chancellor of the Exchequer announced to the House of Commons that a £35,000,000 plan had been concluded. In addition to the extensive schemes included in the Private Bill of the Transport Board, it is intended to electrify the suburban lines of the L. and N. E. Railway in north-east London entering Liverpool Street, and to extend tube railways to give new connexions between these electrified lines and the City and the West End. The high level at which Government credit now stands enables an Exchequer guarantee to be given of loans sufficient to enable the whole undertaking to be started at once. It involves the building of about 12 miles of new tube railways, the electrification of 44 miles of suburban railway and

the doubling and electrification of about 12 miles of further suburban railways. In addition, we were glad to learn that trolley buses are to be substituted for tram cars on 148 route miles. These buses, like the cars, are driven by electricity, but they leave the highways more open and much safer for road traffic. It is hoped to complete the works within five years from the date of the loan. Among the improvements, we notice that escalators will be used instead of lifts and will provide ample accommodation for the increased traffic.

#### Gas or Electricity for Domestic Heating?

THE question of whether to heat our houses by gas or electricity is discussed in an article in the *Nineteenth Century and After* of June by Prof. W. A. Bone. He is naturally proud of the progress made by the gas industry during the past hundred years. He points out that the electrical industry is only fifty years old and has the attractiveness and self-confidence of youth, and so is apt to impress uncritical minds with its superiority. We agree that a London gas consumer buys as much potential heat for 8·6d. as would cost an electricity consumer nearly half a crown at 1d. per unit. On the other hand, every bit of the electric heat can be utilised, whilst an appreciable fraction of the gas heat passes up the chimney. Electricians are well aware of the relative costs of gas and electricity for heating, and where economy is the primary consideration, water heating by electricity is only advisable in certain cases. We do not agree with Prof. Bone that a chimney is necessary for the suitable ventilation of bed- and living-rooms. Many systems for ventilating rooms have been devised. Possibly in a few years time chimneys will be considered relics of barbarism, and roof gardens will add to the amenity of life. In London, many consumers now get their electricity at 0·5d. per unit and are delighted with their electric heaters and cookers, even although they have previously had extensive experience of gas rings and fires. Electricians are continually experimenting, just as are gas engineers; and are remedying some of the defects of the early installations. It is now customary to have the switch for the electric fire about three feet above the floor so that the heat can be regulated without moving an armchair.

#### Institute of Physics Lectures at Manchester

THE annual lectures on recent advances in physics arranged by the Manchester and District Local Section of the Institute of Physics were held in the Physics Department of the University of Manchester on June 24 and 26. The first lecture was given by Prof. Franz Simon, who is now working at the Clarendon Laboratory, Oxford, and whose researches on low temperatures are well known. He chose as his subject "Low Temperature Research—its Objects and Methods", and gave an account of recent advances in experimental technique whereby temperatures of the order of a fraction of a degree from absolute zero may be obtained. The principles underlying the experimental methods were considered