# News and Views

## Solar Radiation as a Cause of Ice Ages

THE supplement to this week's issue of NATURE (p. 591) consists of Sir George Simpson's discourse at the Royal Institution on "Ice Ages". The striking advances of great ice sheets over large areas of the globe which have occurred at long geological intervals have attracted a great deal of attention from geologists, who have described their extent, oscillations and associated phenomena in a huge volume of literature, and there has been much speculation, some of it very wild and baseless, as to their causes, but they have been little discussed from the point of view of physical meteorology. With so much ground to cover in a short time, Sir George Simpson presented the geological results in broad outline, ignored the speculations, and concentrated on the theory of variations of solar radiation as a cause of ice ages which is his own especial contribution to the subject, built up by a number of important researches during the past few years. It has previously been assumed that widespread glaciation required a general fall of temperature, one cause of which might have been a *decrease* of solar radiation; Sir George demonstrated on physical grounds that glaciation is more likely to result from an *increase* of solar radiation. This would have little effect on temperature, but would cause increased snowfall in high latitudes and at the same time heavy rainfall ('pluvial periods') in lower latitudes. That such a paradoxical state of affairs is actually possible was shown by a simple and beautiful experiment in ice formation performed at the discourse and illustrated in the text.

## Further Evidence relating to Peking Man

IN another column of this issue of NATURE (see p. 614) Prof. Franz Weidenreich describes further discoveries relating to Peking man—fragments of femora and part of a humerus. These were extracted from material excavated in the cave of Choukoutein in July last, shortly before further investigation was abandoned on the approach of hostilities. For the actual discovery science is once more indebted to the care and skill as an investigator of Mr. W. C. Pei, by whom the first *Sinanthropus* skull was discovered in the Choukoutien cave in 1929. In view of the fact that little skeletal material of *Sinanthropus* has been discovered in the cave, apart from skulls and teeth, the latter now numbering well over a hundred specimens, the new material is of no little importance, as Prof. Weidenreich shows, both in the light it throws on the build and carriage of this early member of the human family, and also for purposes of comparison with other forms. Thus, for example, Prof. Weidenreich deduces from the larger of the two femoral fragments, which he argues to be feminine, that as reconstructed, it points to the stature of its former owner having been approximately five feet, indicating a stature in the male of five feet four inches. Further, the characters of the leg bones and the humerus agree in indicating that, while the femur presents certain primitive characters, which are enumerated, distinguishing it from that of recent man, nevertheless Peking man walked upright. It is possible that in this respect *Sinanthropus* had the advantage over Neanderthal man. The upper limbs had been completely relieved from the function of locomotion. This freedom of the upper limb would accord with the relatively advanced character of the stone industry which has been discovered in the cave. In other respects the new evidence throws further light on the culture of Peking man. The scorching of one of the bones corroborates previous evidence that *Sinanthropus* had attained the use of fire, while the way in which the bones have been broken—the illustration suggests that they have been hacked off by a stone implement—points in the same direction as the evidence of the skulls—to cannibalism.

## Dr. Adolf Mahr

THE Court of the University of Edinburgh at a meeting held on March 22, appointed Dr. Adolf Mahr to be the Robert Munro lecturer in anthropology and prehistoric archæology for 1938–39. This lectureship was founded in memory of Dr. Robert Munro, most distinguished and widely-known of Scottish archæologists, whose work on palæolithic man and on the lake dwellings of Europe placed him in the front rank of the students of prehistory of the late nineteenth and early twentieth centuries. The choice of Dr. Mahr as Munro lecturer at the present juncture is peculiarly appropriate. Born and educated in Vienna, after holding an appointment on the staff of the Imperial (now State) National Museum of Vienna, when he specialized in studies of the Hallstatt period of the Iron Age, Dr. Mahr in 1934 was appointed director of the National Museum of Ireland and keeper of Irish antiquities. In virtue of his office, the responsibility has devolved upon him of adapting to the service of field archæology the State measures of the Irish Government for the relief of unemployment and economic depression. A large number of men have been absorbed in the work of excavating on occupation sites of all periods of Irish history from prehistoric to late historic throughout the country. A measure of these activities in archæological research, which have been pursued under the direction of Dr. Mahr and supervised by him and his assistants, is afforded by the summary of results which formed the substance of the address delivered by Dr. Mahr