

Mechanised Farming

"MECHANISATION and British Agriculture" was the subject of the fourteenth Conference held at Rothamsted Experimental Station, Harpenden, the full report of which has been published and can be obtained on application to the Secretary, price 2s. 6d. In these times of agricultural depression, the use of labour-saving machinery and implements is one of the most feasible means by which farmers may reduce their costs, and the appliances available and their probable lines of development are described by Mr. J. E. Newman, of the Oxford School of Agricultural Engineering. Successful practice in the new cereal husbandry is set out in a series of papers by leading farmers, the record of whose experience is of the utmost value. The question of live stock is not, however, overlooked, and Prof. J. A. S. Watson contributes a stimulating account of the combination of animal husbandry with mechanised farming. The maintenance of soil fertility under the frequent growth of cereals is the subject of a paper by Sir John Russell, who discusses, amongst other problems, the most economical means of restoring to the soil the surplus straw which is now an encumbrance on the large cereal farms. The booklet contains a full account of the discussion following the papers and a summary of the agricultural problems involved.

Prehistoric Pot-Boilers

MR. WILFRED L. BULLOWS, of Streetly, Warwickshire, advertising to a reference to flint pot-boilers by Sir Arthur Smith Woodward in his article on fossil man in China (see NATURE, May 28, p. 784), writes to point out the unsuitability of flint for this purpose. In the course of an investigation of a prehistoric cooking site in Sutton Park, Warwickshire, in 1926, Mr. Bullows carried out a number of experiments with the view of ascertaining the methods probably employed in making use of several cooking pits which had been discovered on the site under mounds of broken stone of an undoubted antiquity. On a considerable area of ground laid bare by a fire which had taken place a few years previously, there were found not only a number of cooking pot-holes, oval in shape and of an original depth of about 1½ ft., but also hearths for heating the stones, as well as ridges of stone, which probably represented the clearings of the cooking pots. The pot-holes had not been lined with clay; but evidently undressed skins had been used as a lining, the shape of the hide probably being responsible for the oval shape of the pit. In a trial in a small pit lined with a sheepskin, it was found that four gallons of water could be raised to boiling point with heated stones in about forty minutes. Fifty pounds of stones, each weighing from two to three pounds, were required. The stones used here by prehistoric man were quartzite pebbles from the Bunter pebble beds, and the same kind of stone was used in the experiment. Flints were found to be useless, as not only did they split alarmingly in the fire, but sudden contraction in cold water reduced them almost to powder. A report by Mr. Bullows on his investigation of this interesting site in Sutton Park and its

bearing on methods of cooking by the use of heated stones appeared in *Trans. Birmingham Archæol. Soc.*, vol. 52, pt. 2, 1927.

Egypt Exploration Society's Exhibition

THE exhibition of archæological finds during the past season, now open at the Wellcome Historical Medical Museum, Wigmore Street, London, covers the work of the expeditions of the Egypt Exploration Society at Abydos, Amarna, and Armant. At Abydos, the Society, working in co-operation with the Oriental Institute of Chicago, is engaged in copying the frescoes of the temple of Seti. The work is in the hands of Miss A. M. Calverley and Miss M. F. Broome, who contribute a magnificent series of paintings as the result of their activities during the past winter. The exhibits from Amarna include a number of photographs, some taken from the air; frescoes which have been restored skilfully; statuary of the age of Akhenaton, mostly broken by his successors, and profiles engraved on limestone, which are thought to be sculptors' trial pieces. Among the other miscellaneous objects included from this site are glass, pottery, and ostraka of the Roman period. At Armant the most remarkable finds were the predynastic plaster 'flags' already familiar from the published description by Mr. O. H. Myers, director of the excavation. Slate palettes, black-topped ware in remarkably good preservation, other pottery, and flints are of a more familiar character than painted skulls and two hippopotami in pink limestone which accompanied them.

Habits of the Pangolin

How the Indian pangolin combines attack with defence is told by Mr. W. G. Adam in the *Field* for June 11, p. 882, in an article on the species as studied by him in Ceylon, of which island it is a native. When rolled up in the defensive position with its tail turned forward, it keeps up a slapping and grinding movement with that member, and if this results in any part of the assailant's body being caught between its own body and tail, begins a sawing movement of the latter which, the scales of the body and tail being opposed in the rolled-up position, inflicts a severe wound. Whether this act be due to instinct or intelligence, the pangolin seems to be an animal of fairly high mentality and advanced instincts. Both male and female care for the young ones, and Mr. Adam has seen the pair jointly hunting for a strayed one by scent and carefully conveying it home when found. Moreover, a young pair stayed about his premises in a semi-domesticated condition for more than a year, recognising strangers with squeaks, but answering to names with those they knew, while the female would even let puppies play with and pull her about.

Woad as a Crop Plant

PLANTS and animals when taken under man's care have to face natural selection in a new and special form, the struggle now being to retain his favour against competitors in cultivation and against his inventions. That highly historical dye-plant, woad, has at last succumbed in this conflict, according to an