

industry in India are not only trying to avoid the mistakes made by Western countries during their industrial revolution but are also seeking to utilize the best practices of the best industrial organizations in Western countries. The Ahmedabad Textile Industry's Research Association has attracted interest for the attention it is paying to the industrial application of research, the use of work study, and the training of technologists and technicians. Its latest venture is the holding of a conference deriving its inspiration from H.R.H. the Duke of Edinburgh's Study Conference on the Human Problems of Industrial Communities within the Commonwealth and Empire. Many of the subjects selected for study were the same as those arranged at the Duke of Edinburgh's conference at Oxford. It was particularly appropriate that the Duke was able to open the conference, while another distinguished speaker was Sir Alexander Fleck. The proceedings of the Conference (Ahmedabad Textile Industry's Research Association. Proceedings of the Fifth Management Conference, January 28, 29 and 30, 1959. Pp. ix+93. Ahmedabad: Ahmedabad Textile Industry's Research Association, 1959) have now been published.

A Giant Plesiosaur

ABOUT sixty years ago a fossilized piece of the mandible of a large skull, with three broken teeth preserved on each side, was found in rocks of the Lower Cretaceous near Hughenden, Queensland. The specimen, which is in the collection of the Queensland Museum, is about 8 in. long and $5\frac{1}{2}$ in. in height and breadth. The imperfect teeth were estimated to have been originally at least 10 in. long. The fragment was tentatively identified as a portion of a mandible of an ichthyosaurus. In 1923, the late Mr. Heber Longman, then director of the Queensland Museum, decided that it belonged to a new type of plesiosaur, and the animal was named *Kronosaurus queenslandicus*. In 1931, Mr. William Schevill, of the Museum of Comparative Zoology at Harvard College, U.S.A., while passing through Army Downs, North Queensland, noticed a number of fossil bones partly showing in the Lower Cretaceous rocks. Four and a half tons of rock was blasted out with dynamite and packed and despatched to the Museum at Harvard. After its arrival, Arnold Lewis, a Museum assistant, attempted to free the bones from the hard rock. About six months ago this work was successfully completed, and the skeleton was put together under the direction of the Museum director, Dr. Alfred S. Romer. The skeleton is 42 ft. in length. It has a triangular-shaped skull, 9 ft. long, with eighty spiked teeth each up to 8 in. in length. The characters of the teeth and mandible are identical with those of the mandible fragment recorded by Longman in 1923 (*Austral. Mus. Mag.*, 13, No. 2; June 15, 1959).

Syncarid Crustacea

UNTIL recently only one syncarid was known from the Australian mainland (*Austral. Mus. Mag.*, 13, No. 2; June 15, 1959). This is *Koonunga*, which was described in 1907. Originally it had been found at Ringwood, now an outer suburb of Melbourne, and the stream in which it lived was long ago converted to a storm-water drain. In 1930 it was reported that *Koonunga* was extinct. During the past few years it has turned up in a variety of places,

and is now known to occur sporadically across the southern part of Victoria. *Koonunga* is about one-third of an inch long, brownish in colour, and has a slender, almost cylindrical body. Its eyes are very small, and, unlike those of *Anaspides* and shrimps, are not stalked. It can swim actively, using its legs and abdominal appendages, but is more often found running rapidly over the bottom of pools and streams. This method of locomotion is so distinctive that *Koonunga* cannot be mistaken for any other aquatic animal. It relies on its agility and on its capacity for burrowing into mud to escape from enemies, for it is helpless against predatory aquatic insects.

Koonunga lives in small permanent or semi-permanent swamps and in pools in streams which flow vigorously only after heavy rains. Since many of these places are apt to become dry during the summer, and since the adults cannot withstand desiccation, it had been supposed that *Koonunga*, like so many other freshwater crustaceans, would lay drought-resistant eggs. It is now known, however, that the breeding season is during winter. The eggs, which are inserted singly or in small batches into decaying plants, develop over a period of about two months and hatch in the spring. It appeared that *Koonunga* could survive drought only by descending underground; they have been obtained from pits 2-3 ft. deep in the beds of dried-out streams. *Koonunga* can burrow swiftly into soft mud, but would not seem capable of forcing its way through heavy subsoil. The indications are that, in making its descent, it uses the burrows of freshwater crayfish. These crayfish are known to follow the water-table down to a depth of 6 ft. or more, and could thus provide a safe refuge for *Koonunga* during periods of drought. In some places *Koonunga* must remain underground continuously for six months or more. From this mode of life it would seem only a short step to a wholly subterranean existence, and work in Victoria over the past few years indicates the presence of a rich underground fauna of syncarids. Already, four new species have been found. They lack eyes, and have suffered a general reduction in pigmentation so that they have a translucent, white appearance. The largest species is nearly half an inch long, the smallest only one-sixth of an inch. Though these syncarids are typically subterranean in habit, they may, in special circumstances, live in surface water, and this is where they have been found. Pools are advantageous to syncarids in that few other aquatic animals live in them and there is little competition. The survival of *Anaspides* almost unchanged since Palaeozoic times has been attributed to its living in a stable environment and to its freedom from predation. Conditions on the mainland are less stable. *Koonunga* and its allies would seem to owe their survival to their close association with the freshwater and land crayfishes.

The Liverpool Geological Society

THE centenary of the Liverpool Geological Society will be celebrated during January 1-3 by a three-day meeting devoted to recent advances in geology. At this meeting, run jointly with the eighth Inter-University Geological Congress in the University of Liverpool, the following addresses will be delivered: Dr. W. S. Mackenzie, on "Experimental Petrology"; Prof. S. I. Tomkeieff, on "The Progress of Geology in the U.S.S.R."; Dr. G. Voll, on "Petrofabrics and Small-scale Structures"; Prof. C. F. Davidson, on