

## News and Views

## Safety in Industry

THE annual report of the Chief Inspector of Factories and Workshops for 1933 provides the usual impressive picture of what is too readily passed over even by scientific workers as one of the routine services which Government renders to the community. Despite this efficient and untiring service, however, industry's toll of accidents is high—113,260 as against 106,164 in 1932 and 688 fatalities as against 602. The increase is not entirely attributed to improved trade. The physical and mental deterioration of workers in prolonged unemployment has untoward results when they are again employed, and, even apart from this, there is a distressingly high proportion of accidents caused by carelessness or contempt of known dangers. The report is in part a record of the watch and ward which is kept over industry to eliminate its dangers and maintain the standards and conditions of employment required by law. It reveals, however, that the inspectorate, in discharge of such responsibilities, is being drawn more and more into educational work, both direct and indirect, perhaps even more among the employees than among employers themselves.

IN such educational work, there is an obvious place for scientific workers, but the report indicates also how important are the services which they can render in the development of safety methods, the investigation of industrial diseases, and the dangers inherent in new processes or products. Examples quoted in the report such as silicosis, cancer of the bladder, or the use of dioxan, sufficiently indicate the wide scope for research in the prevention of industrial disease, and the development of safer operating conditions depends as much upon scientific investigation providing the necessary knowledge as upon mechanical ingenuity in its use. Respirators, fire-extinguishers and the detection of small concentrations of toxic gases are other matters in which research is being conducted, sometimes in co-operation with other bodies such as the Chemical Defence Research Department or the Association of British Chemical Manufacturers. Chapters in the report in which the preparation of reliable accident statistics is discussed or the effect of industrial work on the health of women and girls equally illustrate the claim of the work of the inspectorate to be regarded as a fundamental scientific service which assists to place industrial practice on a basis of carefully ascertained facts.

## Coloration of Young Tapirs

ALL who are interested in the problems presented by the coloration of young animals, will probably pay an early visit to the Gardens of the Zoological Society of London, to inspect the young Brazilian tapir born there a few days ago. As with the wild swine, the 'porklings' of tapirs are longitudinally striped with white on a dark background, but after a fashion of their own, differing conspicuously in the two species.

For the young Brazilian animal presents evidence of a more primitive stage in the distribution of these markings, inasmuch as the spaces between the continuous stripes are partly filled in by rows of spots and dashes representing once continuous stripes. In the Malayan species of the same age these broken bands have vanished. The adults of the two species are no less striking in regard to their coloration. For the Brazilian animal, a forest-dweller, is of a uniform black, while the Malayan is one of the most remarkable to be found among the mammals, for the forepart of the body, including the fore-legs, and the hind-legs as far as the base of the tail, are jet black, while the rest of the body is greyish-white. Observation on the living animal has shown that this is really a singularly effective form of 'concealing coloration', since the animal spends the heat of the day asleep among the great boulders strewn over the floor of dried-up river-beds. To these it comes to bear a striking resemblance, the black areas of the body simulating the shadows and the greyish-white portion the sunlit surfaces of the surrounding masses of rock.

## Iron Age Finds in Berkshire

A SERIES of archaeological investigations on the Berkshire Downs has been organised by the Newbury Field Club under a scheme for the relief of unemployment. Some interesting finds have been made, of which the most noteworthy is an interment of two horses. The skeletons, which were found with their legs intertwined, according to a report from the *Times* correspondent in the issue of August 13, belong to the large-headed, short-necked and short-legged type of the Iron Age breed represented in modern times by the Exmoor and New Forest ponies. One of the skeletons is said to be exceedingly well preserved, but the other had lost its head. The burial is compared with the Yorkshire chariot burials, which are generally held to belong to the earliest phase of the later, or La Tène, period of the Iron Age. The Berkshire example did not, however, include harness and chariot as in the Yorkshire burials. A few miles west of the horse interment, a bronze age burial also included the remains of a domesticated animal. In this instance the skeleton of a dog was found in association with a human skeleton in the contracted position. Other finds include a fragment of beaker pottery (c. 1800 B.C.), and a Roman copper bracelet, found on the same site as the horse burial, and iron age pottery and an ornamented fragment of a Saxon shield found at Seutchamore Knob, near East Hendred.

## Excavations at Maiden Castle

EXCAVATIONS which have been planned to cover three years' work, have been begun on the prehistoric earthwork of Maiden Castle, near Dorchester. The responsibility for the excavation has been undertaken by the Society of Antiquaries, and the field-director is Dr. R. E. Mortimer Wheeler, of the

London Museum. According to a report of the work to date which appears in the *Times* of August 10, it has now become evident that a building unearthed by Mr. A. Cunnington in 1882 and again brought to light by the present operations is a temple and not a villa as was at first believed. It is a Roman building which can be definitely identified as the type of temple peculiar to the Celtic regions of France, Germany and Great Britain during the Roman period. It was square in plan with a raised central shrine and a surrounding verandah. Behind the temple is a little two-roomed bungalow which probably served as the residence of the priest. Near these buildings an interesting discovery was a pit-dwelling cut into the chalk to a depth of more than 10 ft. The sides curve towards the top and originally it was covered with a lid-like roof. The floors of rammed chalk were inserted at various periods and the pit would seem to have been inhabited in the later stages of its history. By the Roman period it was filled up. In cutting through a crossbank dividing off the eastern third of the fortress, in which the temple is situated, pottery and a quern of pre-historic date have been discovered, proving that the hill was occupied as a village before Maiden Castle at its earliest stage came into existence.

#### Electric Shut-down in London on July 29

A STATEMENT has now been issued by the Central Electricity Board on the failure of the supply in south-east and east England on Sunday, July 29. In this the Board refers to the joint report of the engineers of the C.E.B. and the London Power Company. The engineers state that they have explored every avenue which might elucidate the general failure, and in their opinion there is only one cause which could fully explain it. It must have been the breakdown of one of the turbines at the Deptford West Station of the London Power Company. The Board states that the system has always, even on Sunday loading, sufficient margin of plant in operation to make good immediately the loss of the largest station's output to the system, and it has also sufficient spare plant ready to be put into operation to maintain that margin against the unlikely contingency of a second station breaking down; but the Board had not considered what would happen if two major stations shut down simultaneously. The Sunday disposition of the generating plant had not allowed for this contingency. If such an abnormal event had happened on a week day, the arrangement of the plant is such that a widespread failure could have been avoided. The Board is satisfied that such a combination of untoward circumstances is not likely to recur and there need be no apprehension of any such general failure in the future.

#### Statistics in Economic Planning

In *Planning* of July 17 (16 Queen Anne's Gate, London, S.W.1) emphasis is laid on the importance of settling economic and social problems, so far as possible, by reference to ascertained facts, rather than by the dim light of ancient tradition or with the aid of a flash of alleged inspiration. But if the fact-finding

method is to prevail, certain conditions must be first satisfied. It is necessary to have a technique for collecting and publishing accurately and promptly the right information in the right form. Planning essentially consists of organising knowledge, and bringing it effectively to bear on current problems of economics, politics and sociology. Here is one of the most obvious contrasts between planning and *laissez-faire*. *Laissez-faire* assumed a process of automatic and almost unconscious growth. A few inquisitive persons, such as Bagehot, might occasionally inquire how the system worked, and which way it was going; but opinion on the whole was indifferent, if not hostile, to the gathering, publication and use of systematic facts and figures. The intense secrecy and suspicion still so often encountered when such information is required, is a survival of this prejudice. The forces now at work are tending to break down this obscurantism, so that one of the most notable features of the present time is the sudden growth of statistics and information services. In certain directions, however, necessary statistics have barely begun to be provided. There is no adequate index of the huge changes in the structure of society which have occurred in the past twenty years, and are still occurring under our eyes. Large-scale planning demands a vast expansion of statistics and information services. Some expansion is taking place, but it is at present completely unco-ordinated, and there are immense gaps.

#### Industrial and Agricultural Statistics

THE Industrial and Agricultural Research Section of the Royal Statistical Society, formed by the Council in 1933, has just issued its first publication as a supplement to part 2, vol. 97 of the *Journal of the Royal Statistical Society*. The issue will be bi-annual (price 5s. each) and the second number will be published at the same time as part 4 of the current volume of the *Journal*. Some indication of the type of problem considered by the Section is obtained from the titles of the papers comprising the first number, which are as follows: "Application of Statistical Methods to Production and Research in Industry", "Statistics in Agricultural Research", "A New Method of Handling Statistical Data", and "Methods of Estimating from Samples the Population Standard Deviation". In addition, an account is given of the formation of the new section, and a bibliography of papers on agricultural statistics published during 1931-33 is included. The payment of an annual subscription of 10s. (excluding postage) secures both numbers of the supplement each year, and also confers the right to attend the meetings as an associate member of the Section. Orders and subscriptions should be addressed to the assistant secretary, Royal Statistical Society, 9 Adelphi Terrace, London, W.C.2, and marked I.A.R.S.

#### Poland and Germany

It is not generally realised that Berlin was originally a Slav settlement. In vol. 18 of *Nauka Polska* (Warszawa: Imienia Mianowskiego) Dr. K. Piotrowicz, director of the Library of the Polish Academy