

the cost of temperature control would be excessive; (3) for any heating process where the temperature is a function of power input only; (4) to control the rate of change of temperature in a furnace in order to reduce the temperature differential permitted by conventional temperature controllers; (5) for controlling the input to a furnace so as to obtain rapid heating-up without undue over-run at the operating temperature; (6) to control the average output of a motor driving, for example, a conveyor or pump where there is no objection to the motor being periodically started and stopped, such as a pump filling a tank or a motor driving an automatic stoker or a belt travelling through a furnace. The regulator can also be employed to obtain an adjustable time delay of 10–120 sec. and as a flasher with adjustable on/off ratio.

### Future of Electricity Supply in Matabeleland

A PAPER on this subject is contributed by Mr. A. R. Sibson to the February 1945 issue of the *Journal of the Institution of Electrical Engineers* (92, Pt. 2, No. 25). Southern Rhodesia is now coming to life industrially, and the problems of electricity supply require careful consideration if the Colony is to progress on sound economic lines. In this paper, the existing economic and geographical conditions are first outlined, together with the sources of raw materials, power and water. The probable development of basic industries in Matabeleland is discussed and other possible avenues of electricity consumption are detailed, including railway traction and the natural growth of existing load centres. The author then investigates three different methods of supplying the power demand of the future, two of which involve the transmission of large blocks of power over distances in excess of two hundred miles. The peculiar problems inherent in long-distance transmission in Rhodesia are dealt with, and the economics of overhead lines operating at 250 kV. are examined. The author reaches the final conclusion that the use of hydro-electric power, up to a total of 100,000 kW., from the Victoria Falls should be seriously considered as part of a comprehensive scheme for future supplies.

### Insecticides

SOME useful information about the phytopathological uses of the new insecticide D.D.T. (dichlorodiphenyl trichlorethane) has been given by H. Martin and R. L. Wain (*J. Roy. Hort. Soc.*, 69, Pt. 12, Dec. 1944). This substance, at insecticidal strength, is harmless to man and farm animals, but acts both as a contact and stomach poison to insects. D.D.T. could probably replace lead arsenate in the combined spray with lime sulphur, without any objectionable sludge of lead sulphide. Perhaps its most outstanding possibility, however, is its use as a persistent contact insecticide. It is unaffected by light and moisture, in contrast to the pyrethrins and rotenone, and offers the horticultural possibility of applying a contact insecticide at any convenient period—not, as hitherto, when the insects are actually exposed upon the plant. This should provide a useful method of control for such pests as apple blossom weevil and the leaf miners, which are usually protected from any direct spray, but move about the plant for certain limited periods. D.D.T. does not seem to have any egg-destroying properties, and is somewhat slow in action, but these defects are small in comparison with the positive benefits. A short anonymous account following the above reference directs attention to a

new thiocyanate winter wash. The toxic agent is  $\beta$ -butoxy- $\beta'$ -thiocyanodiethyl ether, and this is incorporated with petroleum oil. Thiocyanate washes are non-poisonous to human beings, domestic animals and poultry, are more convenient in use than di-nitro-ortho-cresol (D.N.C.) and give a good control of woolly aphis, which has hitherto eluded all attempts to control it by spraying.

### Palæontographical Society's Centenary, 1947

THE Council of the Palæontographical Society has accepted a recommendation from its Centenary Committee urging the publication of a directory of British fossiliferous localities. The object of the scheme is to produce a small handbook from which any person interested in fossils can ascertain where particular formations and assemblages of fossils can be conveniently studied, and where in any district there is a reasonable chance of collecting typical fossils. Institutions and persons known to have an interest in geology will be circularized and their co-operation sought in supplying data about useful localities in their respective districts. Offers of help from anyone with precise and recent knowledge of fossiliferous localities will be cordially welcomed. Further details may be obtained from Mr. R. V. Melville, Palæontographical Society, c/o Geological Survey and Museum, Exhibition Road, London, S.W.7.

### Display and Bower Building in Bower Birds

MR. E. NUBLING, Normanhurst, N.S.W., has written with reference to the paragraphs under this heading in *Nature* of January 27, 1945, p. 105. These notes were intended as an acknowledgment and condensed version of a very long communication submitted by Mr. Nubling for which space could not be found in *Nature*. We regret that in preparing this abstract a mistake was made: the remark on the whole proceeding of courtship and nidification occurring during decreasing light refers to the lyre-bird, not to the satin bower-bird as stated there.

### Parliamentary Representatives of the Universities

THE following have been elected members of Parliament, to represent the Universities of Great Britain and Northern Ireland: *Oxford*: Sir Arthur Salter and Mr. A. P. Herbert; *Cambridge*: Mr. K. Pickthorn and Mr. H. Wilson Harris; *London*: Sir E. Graham-Little; *Wales*: Prof. W. J. Gruffydd; *Queen's, Belfast*: Prof. D. L. Savory; *Combined English Universities*: Miss Eleanor Rathbone and Mr. Kenneth Lindsay; *Scottish Universities*: Sir John Anderson, Sir John Orr and Sir John Graham Kerr.

### Announcements

THE Lord President of the Council has appointed Dr. W. F. P. McLintock to be director of the Geological Survey of Great Britain and Museum of Practical Geology; Dr. McLintock has been deputy director since 1937.

THE Ministry of Supply has agreed to the release of Dr. H. J. Gough, chief scientific officer to the Ministry. The University of Cambridge has consented to continue the loan to the Ministry of Prof. J. E. Lennard-Jones, who has been appointed chief scientific officer in succession to Dr. Gough. Prof. Lennard-Jones has been chief superintendent of the Armaments Research Department, Ministry of Supply, since 1942.