

quantitative study presents formidable difficulties. However, aquatic locomotion and flight are given their place.

The final chapters are concerned with the locomotion of invertebrates. Among the arthropods the elaborate specializations of the appendicular skeleton described by S. M. Manton have given rise to a wide range of locomotor behaviour. The intricate morphology of the spider's knee, the myriapod coxal rock and the jump of *Collembola* serve as examples. In the absence of an internal or external skeleton, the annelids, nemertines and mollusca provide new patterns of movement. The small size of some of these and their slowness make them suitable for laboratory study and it is of interest to find that the most slowly moving of all present the most subtle problems to solve.

Despite the apparently widely differing types of locomotion described in this book, the author is at pains throughout to stress their basic similarities. He returns repeatedly to the fundamental laws that govern the stability and movement of a body and the morphological and physiological features that determine the power output of any musculo-skeletal system. The book will be of great value to the biologist or engineer engaged in research into locomotion or the practical application of muscle physiology. I doubt if it is meat for the amateur naturalist as the series title under which it is published might suggest.

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## OBITUARIES

### Professor S. V. Tyablikov

THE death has been announced of Professor Sergei Vladimirovich Tyablikov of the Steklov Mathematical Institute in Moscow. Tyablikov was a pupil of N. N. Bogolyubov and together they developed the now widely used two-time temperature-dependent Green function technique. Their original paper dealt with the Heisenberg ferromagnet and with their technique they were able to give an expression for the magnetization which was a good approximation for all temperatures in contrast to earlier approximation methods which dealt only with restricted temperature ranges. This technique was further developed by Tyablikov and together with V. L. Bonch-Bruевич he wrote a textbook on the subject. Although his early work also covered topics such as polarons, in recent years his chief interest was in the quantum theory of magnetism and his latest monograph, which has been translated into English, dealt with this topic. His early death is a great loss to his very active group in Moscow.

### Professor H. P. Berlage

THE death occurred on March 3 in Utrecht of Professor Hendrik Petrus Berlage, the son of the well-known Dutch architect, at the age of 71. A geophysicist and meteorologist, Berlage, who was educated in Leyden and Zürich, spent many years in Batavia (now Djakarta) in Indonesia, and was also during that time professor of geophysics at Bandung. In 1951 he joined the Meteorological Institute in De Bilt and from 1954 until his retirement in 1966 he was professor in meteorology, oceanography, and climatology in Utrecht. He was a member of the Dutch Academy of Sciences. Outside meteorological circles he was probably best known for his work on the origin of the solar system, work which was spread over about forty years. He was the first to show the importance of magnetic fields, long before Alfvén, and he was also the author of some popular books on the subject; the latest of these is about to be published in English.

## Announcements

The £300,000 recently given by the **Wolfson Foundation** to the **Lister Institute** is to be used for the purpose of building a new wing. It is hoped that the investigations to be carried out there will concern particularly the role of cellular factors in immunity to infection, and the relationship of such factors to the antibody forming mechanism. Although other laboratories are engaged in similar work, many bacterial and viral infections remain to be studied and protozoal infections have hardly been touched. The new department will be well placed to collaborate with the existing departments of biochemistry, biophysics, experimental pathology, microbiology and virology at the Chelsea laboratories and with the production and research departments at Elstree.

The American Physical Society **High Polymer Physics Prize** has been awarded to **Dr Arthur V. Tobolsky**, Higgins professor of chemistry at Princeton University, and the **Oliver E. Buckley Solid State Physics Prize** has been awarded to **Dr J. Robert Schrieffer**, Mary Amanda Wood professor of physics at the University of Pennsylvania. Both prizes were presented in recognition of theoretical and experimental advances in the study of solid materials.

The **Ernest Orlando Lawrence Memorial Award** for 1968 is to be awarded by the US Atomic Energy Commission to the following: **Dr James R. Arnold**, professor of chemistry, University of California at San Diego; **Dr E. Richard Cohen**, associate director, the Science Center, North American Rockwell Corporation; **Dr Val L. Fitch**, professor of physics, Princeton University; **Dr Richard Latter**, RAND Research Council, the RAND Corporation; **Dr John B. Storer**, deputy director, Division of Biology and Medicine, US Atomic Energy Commission, Washington DC. The awards are being given for contributions in the field of atomic energy.

## CORRESPONDENCE

### New Name for the Kilogram

SIR,—The kilogram is the basic unit of mass which is recommended for the SI system of units and adopted by the Royal Society Conference of Editors<sup>1</sup>. In this system the six basic units are abbreviated: m, kg, s, A, °K and cd. Fractions and multiples of units are denoted by adding a prefix (milli, kilo, etc.) to the name and a corresponding abbreviation (m, k, etc.) to the symbol. This part of the system, however, contains an absurdity (see page 7 of ref. 1) associated with having the multiple name kilogram for a fundamental unit. Hence an entirely new name and symbol for the kilogram is essential for the smooth introduction of the SI system.

It is important that the symbol should agree with the initial of the name and be expressed as a single letter (such as m for metre, s for second). The symbol should avoid confusion with other well used units and also with any of the prefix symbols (k for kilo, etc.). In order to choose the symbol, I have set out the whole alphabet in Table I and considered the main contenders for confusion against each letter.

The symbols least likely to cause confusion are (in order) q j b v w z r. Of these, q seems safer than any other. An effort to derive a name commencing with q and having some natural association with kilogram led to quram or qurram. This name sounds something like kilogram and might be considered for general use. From the initials, j, v, w, z, or r, I could devise no names with any promise of success.