

enzymes by the compound in question, and apparent changes in the quality of smell with the concentration are the result of (nearly) total inhibition of some of the enzymes; (4) reversibility of most odors corresponds to the reversibility of many enzyme inhibitions, but there is the possibility of nonreversible inhibition by other compounds, which corresponds to the persistence of certain odors.

As I have no means for carrying out physiological experiments and, moreover, have not conceived of any tests which might be termed crucial for this hypothesis, it is being offered as a mere speculation.

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Errata

In the article "Hemophilia in the Female Dog," by Kenneth M. Brinkhous and John B. Graham (*Science*, 1950, 111, 723), the caption for the fourth column in Table 2, on page 724, should read: "Prothrombin utilized during 1st hr."

In the article "The Availability of Various Manganese Oxides to Plants," by G. W. Leeper (*Science*, 1950, 111, 463), two lines should be inserted after the word "failed" (col. 2, par. 2): "to distinguish between them. However, a solution of quinol in water with no added electrolyte gave quite a . . ."

Book Reviews

The Nature of Physical Reality: A Philosophy of Modern Physics. Henry Margenau. New York-London: McGraw-Hill, 1950. 479 pp. \$6.50.

In this very interesting book Prof. Margenau, a theoretical physicist by profession and a philosopher par excellence, presents his views on the philosophical foundations of modern physics. Although as a rule there are as many opposing philosophical systems as there are people thinking about them, they can usually be divided into groups bearing well-established names. Thus we learn that "Planck and Einstein are critical realists, Eddington and Weyl moderate idealists, and Bohr and Heisenberg vaguely display the colors of positivism" (p. 12). In this sense the author of the book can probably be described as the proponent of the Neo-Kantian school of thought, inasmuch as he states (p. 58) that

clear cognizance of the distinction between *synthesis and integration* on one side, and *imaginative supplementation* of the perceptually given on the other, has been apparent in the Kantian and Neo-Kantian school of thought, and much of the emphasis conferred upon this point by that school is now indispensable as a condition for comprehending modern science.

With this *modus operandi* the author enters into a detailed discussion of the fundamental notions of space and time, and their union in the form of Einstein-Minkowski's four-dimensional world. This is followed by an interesting presentation of the basic problems of statistical mechanics and their bearing on the philosophical interpretation of the laws of probability. The last third of the book is devoted to the problems of quantum theory, causality, and the exclusion principle. It is in this part that a philosopher will become particularly aware of the enormous impact made upon his traditional problems by the factual discoveries of science. Being an expert in the field of theoretical physics, the author presents his material with great clarity, entering into a discussion of such ultramodern problems of physical theory

as the current difficulties of quantum electrodynamics and the problem of elementary particles.

On the whole, this book presents an invaluable source of information for a philosopher who would like to get the authoritative up-to-date picture of the advances of modern physics. On the other hand, the reviewer is not quite sure about the use that can be made of his book by the professional physicists, but it is probably because he belongs (p. 13) to

the ranks of the exterminator brigade, which goes noisily about chasing metaphysical bats out of scientific belfries.

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Lehrbuch der Theoretischen Physik: Physik der Vorgänge-Bewegung, Elektrizität, Licht, Wärme, Bd. I. Walter Weizel. Berlin W35, Germany: Springer-Verlag, 1949. 771 pp. DM 56.90 bound, 53 paper-bound.

This is an excellent text, written with the thoroughness that comes from a deep understanding of the unity and coherence of classical theoretical physics. This is not to say that the subject is considered as finished and complete. The limitations are carefully pointed out and, where appropriate, hints are given as to the successes of quantum theory to be treated in the second volume, which is to deal with the theory of matter.

The present volume includes classical mechanics, elasticity, hydrodynamics, electrodynamics, optics, relativity, and thermodynamics. Each of these fields is treated thoroughly. Although the material is presented in concise form the treatment is not sketchy; sufficient detail is always given to enable the reader to follow the line of argument without difficulty. The subject of mechanics, for example, is covered in 138 pages, starting with the motion of a particle, then discussing motion of a system of particles, introducing the Lagrange equations of the first and second kind for free and constrained