then the three departments (schools of mathematics, economics and politics and humanistic studies) had been scattered over the campus of the university and the town of Princeton.

The School of Mathematics of the Institute is devoted to research work in mathematics and theoretical physics. It consists of a permanent staff of six professors and one associate, their assistants and a varying number of temporary members, both from this country and abroad, some of whom receive stipends from the Institute.

The new building provides office space for the permanent and temporary members, room for the collections of the humanistic school and space for a research library. The School of Mathematics has started to build up its own library, which is intended to cover both mathematics and mathematical physics, and is prepared to buy second-hand books and sets of periodicals from private owners and duplicates from other libraries. Offers addressed to The Library, Institute for Advanced Study, Princeton, N. J., will receive careful consideration.

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RECORD OF CHEMICAL PROGRESS

COPIES of the January, 1939, issue of the *Record of Chemical Progress* were sent to members of Section C of the A.A.A.S. because they contained preprints of the papers to be given at the Richmond meeting. There is an unusual demand for this issue; hence, any copies returned to the secretary will be deeply appreciated, and postage will be refunded.

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SCIENTIFIC BOOKS

ENGLISH DIET

The Englishman's Food; A History of Five Centuries of English Diet. B. J. C. DRUMMOND and ANNE WILBRAHAM. 574 pp. with appendix. London: Jonathan Cape.

THIS book represents an attempt, according to the authors, "to present a picture of the changing character of the English diet during the past five centuries against a background of social and economic history." As such, it is unique among histories of nutrition. It is dedicated to William Stark (1740–1770), a martyr to the experimental study of foods, himself as subject (p. 286). It is of interest to American readers to learn that Stark "was diverted from anatomical studies with John Hunter to the study of the functions of foods as the result of a chance conversation with Benjamin Franklin, who at the time was in London on one of his political missions." This is but a sample of the wealth of interesting historical detail to be found in this book.

The outline of the book in 5 parts and 25 chapters is in the main chronological, but the historical journey is interrupted by pleasant interludes dealing with modern concepts of nutrition. For example, in discussing diet and health previous to the seventeenth century, it is noted that for the English peasant a great deal depended on the amount of "white meats," *i.e.*, milk, whey, cheese and eggs, which was eaten. Then follows an account of the recent experiments of Dr. Corry Mann on behalf of the Medical Research Council of Great Britain, showing the benefit of adding milk to the basic diet of a boys' institution, which provided rather small proportions of animal protein, fat and insufficient green vegetables. Further consequences of a diet lacking in dairy products in those times are discussed at this point in terms of vitamins.

Reviewing the seventeenth century writings of Burton ("Anatomy of Melancholy"), Samuel Pepys ("Diary"), John Evelyn ("Diary"), Thomas Muffet ("Health's Improvement"), Robert Boyle ("Medical Experiments") and others, the authors conclude that "all classes, rich and poor alike, were insufficiently protected against scurvy." An entire chapter (VII) is devoted to this disease at this point, particular attention being given to the origin of methods for its treatment. "All the evidence points to the English having learnt about scurvy from the Dutch sailors during the period of great voyages which started with Vasco de Gama's discovery of the West African Coast in 1498." Referring to the expedition of Jacques Cartier to the "backside of Newfoundland" in 1535 and the remarkable cure which he found for scurvy, the authors confute the opinion of Lind (1753) and others that it was a decoction of spruce tips which effected the cure, by recalling that Cartier's notes particularly refer to the fact that the "Indians had to wait for the leaves to appear in the spring." The tree, on the opinion of Dr. J. Gilmour, director of the Royal Botanic Gardens at Kew, was *Sassafras officinale.* The discussion of scurvy in this chapter and in Chapter XIV is the most enlightening historically known to the reviewer. The authors have brought to light many older writings bearing on the subject, ordinarily quite overlooked. Noteworthy is the little book entitled "Observationes circa Scorbutum," by Johannes Bachstrom, published at Leyden in 1743, which demolished all the complicated distinctions which had grown

up between "land scurvy" and "sea scurvy," and was perfectly definite about the primary cause, namely, a deficiency of fresh vegetables in the diet.

Rickets is dealt with in Chapters VIII (seventeenth century) and XV (eighteenth century). In the former there is not only a discussion of current theories regarding the control of bone and tooth formation, but the account of some interesting observations regarding the state of the Englishman's teeth, from skeletons collected in the vaults of St. Leonard's Church, Hythe, between the approximate dates 1250 and 1650. Approximately half the palates had lost no teeth at the time of death. It will be news to most physiologists to learn that demonstration of the way in which long bones grow and become calcified was first made on chicken bones by Stephen Hales, vicar of Teddington, whom they remember well as the first also to demonstrate the magnitude of arterial blood pressure (in the horse). A remarkable vicar! Rickets apparently was known in England as early as 1620, but became really serious only "with the rapid industrialization of the towns in the forties of the nineteenth century." Cod liver oil came into use in English clinical medicine in the eighteenth century. It formed a considerable article of merchandise thus early in the trade with Newfoundland. The first observation of benefit to "rheumatic" patients from oral administration of the oil was made at Manchester in 1782.

The book is replete with interesting facts, duly documented, regarding dietary practises from Tudor times down. We learn that at Tudor dinners fish usually came after meat, but this was reversed in the seventeenth century and the sequence soup, fish, meat established for all time. (Californians take note.) On the same page (131) with this information is the record of a wedding dinner for seven, which illustrates the preponderance of meat in the Englishman's diet in Stuart times. The cost of each item likewise is given. In the appendix the authors compute from many quantitative records of prescribed allowances for food, presented in the text, the probable composition of the daily dietary per man, inclusive of vitamins in international units. Some of the very old dietaries (fifteenth and sixteenth centuries) exceeded in food value some of the very modern ones, excepting only vitamins C and D.

The book might be criticized from the standpoint of constructional unity and logical sequence, but this would be academic. The authors have chosen the psychological order rather than logical and obviously have written not only for those versed in the science of nutrition but for the lay reader and the antiquarian as well as the medical profession. The reviewer ventures to predict, however, that the first-named group will read "The Englishman's Food" with the greatest relish. Certainly every teacher of nutrition should read it.

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ANTONI VAN LEEUWENHOEK

The Collected Letters of Antoni van Leeuwenhoek. Edited, illustrated and annotated by a committee of Dutch scientists. Part I. 1673–1676. 454 pp., 39 plates, portrait. Amsterdam: Swets and Zeitlinger, Ltd., 1939. 4to, cloth, $12.25 (about); ltd. edition, $27.50 (about).

LEEUWENHOEK'S extensive publications are all excessively rare works in Latin or Dutch, except those in the *Philosophical Transactions* of the Royal Society of London in 1673–1724. Dr. Clifford Dobell's "Antoni van Leeuwenhoek and His Little Animals" has made available an account of this early microscopist and his work, but what he actually wrote and sketched has been inaccessible to the many microscopists, botanists, zoologists, bacteriologists, histologists, physiologists, chemists, crystallographers and physicians who are interested in some or many of his discoveries.

His writings are now to be made accessible in a series of about 20 quarto volumes, edited, illustrated and annotated by a committee of Dutch scientists and printed on facing pages in Dutch and English. The quality of the work and the success of the enterprise are ensured by the sponsorship of the Royal Dutch Academy of Sciences, whose Mathematical and Physical Section finances the project, and the Dutch Society of Physicians, publishers of *Het Nederlandsch Tijdschrift voor Geneeskunde,* in whose office the work is prepared by a large committee of representative Dutch scientists under the editorship of Professor G. C. Heringa, professor of histology in the University of Amsterdam.

The efforts of the committee have succeeded beyond expectation in locating the original "letters" of Leeuwenhoek and his correspondence with Huygens, Leibnitz and Magliabechi. It has been discovered that the letters published by the Royal Society were not always complete or correct. This edition will therefore publish the letters in full in Leeuwenhoek's own language and parallel them in a correct English translation. The illustrations will be made whenever possible from Leeuwenhoek's own original sketches in red chalk.

Supplementing these factual originals there will be interpretive comment clarifying Leeuwenhoek's obscure and tangled sentences and modern illustrations of objects he discovered prepared by competent specialists. By these scholarly aids the modern reader can arrive at a more complete understanding of the nature and extent of Leeuwenhoek's observations. Furthermore, some of Leeuwenhoek's seemingly child-