date. Under various chapter headings he reviews economic problems concerning oil in world power politics, difficulties and hazards of foreign oil production and the part which oil seems destined to play in the post-war world. In addition, there are informative chapters on petroleum substitutes, the geographical distribution of oil, chemistry of petroleum and the growth of the petroleum industry.

Mr. B. T. Brooks is well qualified to write a book of this character, having had thirty-two years experience in the petroleum industry. The book is written primarily for the American public, but there are many in Great Britain who will find it interesting, and indeed it is highly desirable that problems facing the American petroleum industry should be fully understood here. There is no doubt that as 'co-importers' of foreign oil, Great Britain and the United States will have many problems to face before international agreement is reached on the best method of exploiting world resources of petroleum. The author suggests that "international co-operation after the war will evidently involve a world rationing of such things as petroleum, with quotas, at least to certain nations. International agreements regarding oil means Britain and the United States, and possibly Russia, and this in turn means that private companies must operate within the frame-work of such government agreements. It means a kind of world-wide oil cartel, with the blessing of our own and other governments, although with the foreign policy makers laying down the rules."

A CRITIQUE OF PASTEURIZATION

The Case Against Pasteurization of Milk

A Statistical Examination of the Claim that Pasteurization of Milk Saves Lives. By John P. Bibby. Pp. 71. (London: Staples and Staples, Ltd., 1944.) 1*s.* net.

THE three main theses of this booklet (written as a critique of Prof. G. S. Wilson's book "The Pasteurization of Milk") appear to be (1) that "exposure to light infection" by active tubercle organisms is the best way to induce human resistance to tuberculosis; (2) that the regular consumption of raw milk infected with bovine tuberculosis is a feasible way of developing such resistance, and that the encounter with infective material should take place at an early age—in short, that the consumption of tubercle-infected milk by young children is to their ultimate benefit; (3) that pasteurization not only does us the disservice of preventing this "exposure to light infection" but also seriously damages the milk nutritionally, "devitalizing it at source", an impairment that, it is stated, can be to some extent corrected by adding vitamin D to the diet.

No one would contest Mr. Bibby's view that serious tuberculosis in man should be combated in every possible way, but the logical corollary to his theses (1) and (2) is that the owners of tuberculin-tested herds who at present receive 4*d.* premium for each gallon of milk produced should be penalized and not rewarded. The premium should, presumably, be paid for milk 'lightly infected' with *M. tuberculosis*. Cows with tuberculous udders—doubtless not *too* severely infected—would appear to be a national asset as an insurance against human tuberculosis. Still more should this apply to the lactating tuberculous woman; one wonders whether Mr. Bibby would knowingly put a young child of his own to the breast of a tuberculous wet-nurse?

But even if it were possible to effect satisfactory immunization against tuberculosis by the oral route—a dubious assumption—medical and public opinion would insist that the method should be controlled. Definite numbers of organisms of standard virulence would have to be used, and if the milk to be given to young infants were to be thus artificially infected, it would have to be free from the risk of producing other diseases at the same time, that is, it would have to be previously pasteurized or from absolutely disease-free herds. Moreover, if individual immunity could be acquired in this way, it would have to be acquired in each generation—a grim prospect.

One comment on thesis (3) is not unfair. If the nutritional case against pasteurization has to depend on the selection of statements from early experimenters whose work has not stood up to modern re-investigation, then it is poor indeed. In discussing the effect of pasteurization on the nutritive value of milk, the author quotes nothing later than 1931; this is not done in ignorance, for much of the more recent work, which uniformly does not support this thesis, is quoted in Prof. Wilson's book.

H. D. KAY.

VIRUS DISEASES

Virus Diseases in Man, Animal and Plant

By Gustav Seiffert. Translated by Dr. Marion Lee Taylor. Pp. ix+332. (New York: Philosophical Library, Inc., 1944.) 5 dollars.

THIS edition of Seiffert's work is a translation by Marion Lee Taylor. The book is divided into five main sections. Section A is a 'General Division' in which the main properties of viruses are discussed; Section B gives a brief review of "Certain and Questionable Virus Diseases of Man, Mammals and Birds"; Section C deals with virus-like organisms such as the Rickettsiæ, bacteriophages, *Bartonella* and the agents of pleuropneumonia and agalactia; Section D is concerned with filtrable bacterial forms, and in Section E a short and incomplete description of the laboratory methods of virus investigation is given. In view of the wide scope of the book, it is possible in the space allotted to consider only the superficial aspects of the different subjects under review.

The original German version was undoubtedly a useful contribution to the literature on viruses, and probably fulfilled the aim indicated in the preface, namely, "to furnish an introduction for the many who wish to occupy themselves more closely with the virus problem, to make possible by references to literature further penetration into the subject. . . ." This present edition is, however, unlikely to serve any useful function. It is an almost literal translation from the German by someone who does not appear to be particularly conversant with either the viruses or the virus-diseases. In consequence, the contexture is difficult to follow owing to the close adherence to the original German construction, and many terms, unfamiliar to the British bacteriologist, have been included. Furthermore, although numerous references to original papers are given, all concern articles written prior to 1938. There has been no attempt to bring the edition up to date. R. W. F.