Review: Distribution and Economics of Petroleum

Author(s): H. T. B.

Review by: H. T. B.

Source: *The Geographical Journal*, Vol. 29, No. 5 (May, 1907), pp. 565-566

Published by: geographicalj

Stable URL: <http://www.jstor.org/stable/1776184>

Accessed: 27-06-2016 05:34 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at

<http://about.jstor.org/terms>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

The Royal Geographical Society (with the Institute of British Geographers), Wiley are collaborating with JSTOR to digitize, preserve and extend access to *The Geographical Journal*

"test" maps. The world maps are drawn on Mollweide's equal-area projection, a most excellent provision. The illustrations are good, and, without exception, accompanied by full notes and questions. That a few of the illustrations are printed poorly, with the result that some of the questions partake of the nature of puzzles, does not detract from the general excellence of the whole. There are plenty of diagrams, and, above all, there are scores of exercises. Of the diagrams, we might remark that percentages would have served the purpose as well as actual figures, and lasted much longer. Of the exercises, the pupil is given a map, and he has to find out *from it* the answers to various problems. Nor can any of the exercises be omitted, as much of the text depends on a right solution of these problems.

We fancy that a drawback may be found in the unwieldiness of the book (it measures $11\frac{1}{2} \times 9$ inches, and weighs nearly 3 lbs.); but it should be remembered that it is really a geography and atlas combined. As such it is, at all events, self-contained, though we do not agree with the author when he deprecates the class use of the general atlas. A greater drawback, perhaps, is the omission of an index of text-names. There is a good index of map-names, and no less than three of contents, but none of these helps much if one wishes to refer to some particular item of interest. To look up "Pittsburg," for example, one finds the map whereon the town is printed (though not readily, for the plates are numbered separately, and there are sixty-nine of them, all told, scattered about the book), and that is all. There is nothing left but to search the text in the neighbourhood of the map. It is curious that, with one exception, all these books are deficient in this respect. The exception is Dr. Herbertson's second volume; but neither his first volume nor Mr. Mackinder's offers the slightest approach to an index at the end of the book.

E. R. W.

DISTRIBUTION AND ECONOMICS OF PETROLEUM.

'Petroleum.' By Sir Boverton Redwood. Second Edition. 2 vols. London: C. Griffin & Co. 1906. *Maps and Illustrations. Price 45s. net.*

This comprehensive work now appears in its second edition, considerably enlarged and with many new maps. Of the eleven sections and three appendices, comprising 886 pages, we must chiefly refer to the two first sections giving an historical account of the petroleum industry and the geographical and geological occurrence of oil and natural gas. The sections comprising the chemistry, working, and transport of oil are so technical that we can only allude to them in a very brief manner.

To write a comprehensive text-book on such a variety of subjects necessitated the co-operation of workers whose different subjects have been alluded to by Sir Boverton Redwood in his preface. This has resulted in the most masterly work that has been published on the subject, and it is a tribute to the great industry of the author, who is associated with all the most important petroleum undertakings in England, that the work is thoroughly up to date and forms a veritable encyclopædia on the subject of petroleum.

An examination of the frontispiece maps shows petroleum and natural gas distributed over many countries, but the relative importance of the different occurrences as indicated, is seen on referring to the table in Appendix A, p. 839, where the percentage figures of the total output for 1904 are given. From this it appears that the United States and Russia account for 89 per cent., while the Eastern Archipelago, Galicia, and Roumania send in 8 per cent. India, including Burma, Assam, and the Punjab, produce 1.5 per cent., while Canada and all other countries contribute the remainder. The references to the ancient authors who mentioned oil are of interest, especially that to Plutarch, who states that at Kerkuk, in Mesopotamia, Alexander the Great was much impressed by a gulf of fire which streamed

No. V.—MAY, 1907.]

2 Q

continually as from an inexhaustible source. Oil and gas occur to-day at the same place, as related by Lieut.-Colonel Maunsell in his paper on the "Petroleum Deposits of Mesopotamia," printed in the *Journal* in 1897 (vol. 9, p. 528).

The history of the Russian and American fields is given at length, while the area of the Russian petroliferous territory, as quoted by Mendaléeff and confirmed by Marvin—14,000 square miles—points to a long continuance of the Russian fields. The area of territory worked on the Apcheran peninsula (Baku) is taken at about 9 square miles. The gradual lowering of the oil-level at Baku, caused by continuous pumping, is of interest.

In 1873 the depth from surface was 174 feet.

" 1880	"	"	"	273	"
" 1882	"	"	"	350	"
" 1885	"	"	"	420	"
" 1889	"	"	"	665	"
" 1903	"	"	"	1125	"

The enormous development of the use of natural gas in the United States is noticed. The yield in 1902 is quoted as amounting to 205,784,454,333 cubic feet, while one of the gas wells in Ohio yielded 33,000,000 cubic feet per diem with a pressure (open) of 45 lbs. to the square inch. The distances oil and gas are piped is illustrated in tables given in Section VIII. Lengths of from 300 to 400 miles are not uncommon, the mains being 6 to 8 inches in diameter, and being taken in a straight line over hill and valley without regard to level.

Space forbids us to more than mention the other sections. The ancient Chinese practice of drilling salt-wells in Sechuan, described in Section V. and practised from the earliest times, much resembles American methods, and wells from 1000 to 2000 feet in depth are sunk quite commonly. In the chapter on the origin of petroleum the evidence and views of various writers is stated, and the author is careful not to commit himself beyond the opinion that no single theory is of universal application. "Approximation of product is," he says, "consistent with wide variation of the generating factors."

The work is copiously illustrated, and the twelve double-page maps showing the distribution of oil, together with several maps inserted in the text, much facilitate reference to the geographical distribution of oil. The indexing of a vast amount of facts and information has been done in a complete manner, although it is open to question whether the reference to subjects in such blocks of figures is not too cumbersome. Under United States, for example, there are 6½ lines with 38 references to the text, and 52 lines with 370 references to the bibliography, without any indication of the special subjects treated of. The bibliography is alphabetical under authors' names, and is most voluminous, comprising 5904 references, but with no indication of the relative importance of the works referred to. If the publisher could arrange to print after each chapter that portion of the bibliography dealing with the subject treated in the chapter, reference would be facilitated. We put forward the suggestion for consideration in the event of another edition being called for.

H. T. B.

THE MONTHLY RECORD.

THE SOCIETY.

The Annual Awards for 1907 have been bestowed as follows: The Founder's Medal goes to Dr. Francisco Moreno, one of the foremost