

Although the sections that deal with western Pennsylvania contain no material that is not readily available elsewhere, Mr. Holmes has performed a service to the region by calling to the attention of a much wider group than that reached by monographic studies or local publications the scenes of Washington's activities in western Pennsylvania.

*Western Pennsylvania Historical Survey*

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*Regional Shifts in the Bituminous Coal Industry with Special Reference to Pennsylvania.* (University of Pittsburgh Bureau of Business Research Monographs, No. 4.) By WILBERT G. FRITZ and THEODORE A. VEENSTRA. (Pittsburgh, Bureau of Business Research, University of Pittsburgh, 1935. xvii, 197 p. Charts.)

"THIS study of the soft coal industry is part of a long-term program in regional economic research at the University of Pittsburgh, under a grant from The Buhl Foundation supplemented by funds from the University" (p. vii).

The first part of this book, which comprises nine chapters, is a collection of economic data, with discussion by the authors, about the coal industry of Pennsylvania, arranged to illustrate the changes that occurred in the period from 1917 to 1929. In this period the proportion mined in Pennsylvania of the total soft coal mined in the United States fell from 31.3 per cent to 26.8 per cent (in 1840 Pennsylvania produced 42.2 per cent of the total, but in 1934 only 25.1 per cent). The total production of the nation fell 17 million tons, from 551 million to 534 million, whereas the production of Pennsylvania fell 29 million tons, from 172 million to 143 million, and in the same period that of the important coal-producing states of Ohio, Indiana, and Illinois also declined. On the other hand the production of the southern Appalachian field, notably in southern West Virginia and Kentucky, increased.

These changes are referred to the over-expansion and threat of further expansion of the industry; to wide variation of business activity and seasonal changes in demand for coal; to the geographic spread and shift of the industries that consume coal; to technologic changes that affect the types and amounts of coal used; to the rising importance of competitive fuels; to costs of transportation that favor one region at the expense of another; and to inequalities in the costs of labor in the various regions, particularly between fields where union labor is employed and those where non-union labor is employed.

Shifts within Pennsylvania have resulted in an increased proportion of the total production of coal in the fields of the western part of the state and a decreased proportion in the fields of the central part of the state.

The outstanding technologic change that affects particularly the industry in western Pennsylvania is that from the manufacture of coke in beehive ovens to its manufacture in by-product ovens; whereas beehive ovens were situated at the mines, by-product ovens are situated near or as adjuncts to the industries they serve, so that coal is shipped to the ovens instead of coke to the industries; this has taken some of the manufacture of iron and steel away from the state, has caused a smaller proportion of coal mined in Pennsylvania to be used for coke, and has resulted in the use of less coal per ton of iron or steel produced. Practically all the coal shipped on the Allegheny, Monongahela, and Ohio rivers goes to coke ovens situated at steel plants on the banks of these streams.

Figures given in this book indicate that at the present rate of consumption the supply of bituminous coal in Pennsylvania is enough to last two or three hundred years—a relatively short period of time to a historian, who, if he has any concern for his descendants in the tenth generation, must conclude that the lamented decline in the rate of consumption of our store of coal is a blessing.

The subject of relative quality of coals of the different fields is avoided—or left for treatment by scientists and disposal by engineers. Little is said of constant demands for coal of higher quality, brought about by high costs of transportation, labor, and equipment for burning coal and in spite of technologic advances, such as the development of stokers and the utilization of powdered coal, that had for their original object the economical use of coals that could be bought for comparatively low prices.

The second part of the book, consisting of three chapters, is a presentation of the interest of the public in the bituminous coal industry, and of the means that have been proposed to remedy ultimately the chaotic condition of this essential industry. It seems fitting that most attention is given to a description and analysis of the Guffey-Snyder Coal Act.

This study of the coal industry should be interesting to every thinking resident of western Pennsylvania, a district whose industrial greatness is largely the result of the coal that underlies it. To the busy reader, not interested in detail, examination of the excellent charts that illustrate the book will be well worth while.