

Bittner and Kellner, and in 1892 by the author, who was sent by von Hauer to collect for the museum in Vienna. The whole Alpine Trias seems well represented near the city, some of the massive limestones, rich in *Diplopora*, being spoken of as "Riffkalke." The red limestone with *Ptychites*, the rock best known in our collections, is on an Upper Muschelkalk horizon. While the Eocene period is probably represented by a *Flysch*-facies, the Oligocene and Miocene lagoons and freshwater lakes show that the mountain-land of Bosnia was rising above the sea in Middle Cainozoic times.

The author's detailed descriptions of the region, district by district, are illustrated by sections drawn on a correct vertical and horizontal scale, and by occasional sketches and photographic views. As a type of the sketches, we may mention the effective Fig. 16 (p. 611), showing the rounded forms of the *Flysch* deposits banked and sometimes faulted against the scarped Triassic masses to the east. Another section (p. 639) shows well how the *Flysch* strata, extending north towards Doboj and the great Hungarian plain, have been tilted and overfolded during the orogenic movements of the Dinaric Alps, which continued, as we now know, far into Pliocene times. The steep forms of the lowland landscape, cut into by frequent streams, are readily appreciated from the section.

The palæontological portion of the memoir records fossils from the "Kulmschiefer," including, curiously enough, *Modiola lata*, described by Wheelton Hind as recently as 1896. The author supports (p. 671) E. Haug and J. P. Smith in restoring *Goniatites* as a restricted generic term, so that we again have *Goniatites crenistria* and *truncatus*, as well as *sphaericus* and *striatus*. *Osmanoceras* and *Tetragonites* are described as new genera of goniatites. The *Bellerophon*-beds of the Upper Permian yield, amid a fairly rich fauna, *Promyalina*, a new member of the *Aviculidæ*. These forms, and a number of new species, are suitably figured, either in the text or in the plates. It is pleasant to recall the book-shops in Sarajevo on the way to the bazaar and the river-side, where this last product of Austrian investigation will appear for sale under the shadow of the Sultan's mosque.

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#### ECONOMIC SCIENCE.

*Economic Essays* by Charles Franklin Dunbar. Edited by O. M. W. Sprague, with an introduction by F. W. Taussig. Pp. xvii+372. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1904.) Price 10s. 6d. net.

NO American economist has been held in higher repute for judiciousness, breadth of view, and "soundness" than Charles Franklin Dunbar, professor of political economy at Harvard from 1871 until his death in 1900, sometime Dean of the college (between 1876 and 1882), and later Dean of the faculty of arts and sciences. But his output was never extensive, perhaps because the university teach-

ing of political economy was not his first choice, or at any rate not his first calling. It was not until Prof. Dunbar had attained the ripe age of forty-one that he was appointed to his professorship at Harvard. Previously he had engaged in newspaper work, and had edited between 1859 and 1869 the *Boston Daily Advertiser*. To the work of the editorship of this paper Prof. Dunbar returned for a brief space to fill a breach at a time of crisis in 1884.

Having taken to the profession of teaching after engaging in practical affairs and feeling the excitements of politics, it is somewhat remarkable that Prof. Dunbar's interests after his appointment at Harvard should have been "academic" to so exclusive an extent. He studiously avoided making contributions to magazines upon the economic aspects of current events, and appears to have held that it was the main duty of the economist to trace the leading trends of social forces rather than to spend his energies in directing minor circumstances. Prof. Dunbar's best known work was done upon the subject of banking, and we are told by Prof. Taussig in his introduction to this collection of his late colleague's economic essays that he had meditated a comprehensive treatise relating to America upon the wider subject of which banking is a part, namely, financial history. Prof. Dunbar's little "History of Banking" is read to-day by all students of economics of this country and the United States at least.

The collection of essays before us contains a good deal of material that was not easily accessible previously, and some matter that is now published for the first time, upon the range of subjects which Dunbar made peculiarly his own. Eight out of the twenty essays included deal specifically with banking, and some of them are valuable contributions to our knowledge of the history of banking—for instance, the two dealing with early banking schemes in England and the Bank of Venice. Eight more essays are concerned more particularly with finance, for example, analyses of certain crises, the examination of the direct tax of 1861, and the discussion of the precedents followed by Alexander Hamilton. The remaining four essays arose out of the author's other chief interest, namely, the literature of classical economics; they are entitled "Economic Science in America, 1776-1876," "The Reaction in Political Economy" (written in 1886), "The Academic Study of Political Economy," and "Ricardo's Use of Facts." Certain of these essays were executed so long ago as almost to have become themselves a part of the old literature of classical economics; but, taken as a whole, they will prove enlightening even to economists who have benefited from the analysis effected and researches carried out since Prof. Dunbar's discussions appeared, for without exception the essays collected in this volume are thorough, scholarly, well pondered, and finely proportioned. Prof. Sprague's work of editorship appears to have been done admirably. All students of economics will be grateful to him for having made a collection of Prof. Dunbar's scattered writings and brought to the press the work which he left behind in manuscript.