Pierce, in spite of his obscurity and perversity, is the most original and stimulating thinker that America has produced. His work on logic and scientific method has scarcely been fully appreciated even in his own country. Now that idealism of the nineteenth-century type is unfashionable, Royce is apt to be dismissed as just one of those Hegelians, but he was a very individual one. What is more, that type of philosophy is far from being dead. Though there may be very little positive to be found in the philosophy of Santayana, yet his melancholy, detached, poetical survey of existence has provided some of the best criticism of modern errors and follies ever made, expressed in magnificent English. These are all men of the past generation, who attained maturity round about the turn of the century. In the present generation America has absorbed some half-dozen European philosophies, varying from Neo-Thomism to logical positivism. It is not very clear what the ferment of thought is now producing, especially at a time when books appear to have great difficulty in crossing the Atlantic; but there is very little doubt that it is productive.

It may be worth while to emphasize the fact, probably not fully realized by most, that there is now more philosophical activity and more work of high quality being published in the United States than in the whole of Europe. Whatever the causes, the centre of gravity of the philosophical world is no longer in Western Europe, where it has been for so many centuries. It may never return there again. This is an additional reason for welcoming Prof. Schneider's book.

A. D. RITCHIE

AN EARLY NINETEENTH CENTURY AMERICAN MEDICAL MAN

William Beaumont's Formative Years

Two Early Notebooks, 1811–1821. With Annotations and an Introductory Essay by Genevieve Miller. Pp. xv+88+21 plates. (New York: Henry Schuman, 1946.) 6 dollars.

OF all men who have made really important contributions to the science of physiology, William Beaumont was perhaps the only one who carried out the whole of his researches on a single patient. Born in 1785 in Lebanon, Connecticut, Beaumont eventually obtained a licence to practise medicine and enlisted as a surgeon in the U.S. Army. Ten years later—in 1822—while he was serving at Fort Mackinac between Lake Huron and Lake Michigan, an accident happened in the local store. A gun had been accidentally discharged, and a young French-Canadian had received terrible injuries from buckshot in his left side. This man, Alexis St. Martin, is surely the most famous of all patients. His recovery was slow and he was left with a gastric fistula. After ten months the authorities decided to wash their hands of him, and Beaumont took him under his own personal care. From time to time St. Martin escaped and led his own life, but he frequently returned. The relationship between doctor and patient was not broken until 1844. Beaumont saw soon after the development of the fistula the possibility of using St. Martin as a human laboratory. In 1833 he published at his own expense the work entitled "Experiments and Observations on the Gastric Juice and the Physiology of Digestion". It is one of the great classics of physiology.

Two notebooks of Beaumont have survived—both dating from the pre-St. Martin period, and both preserved in the Washington University School of Medicine. One book covers his medical notes and case histories; the other his jottings from books which he had read, notes on daily incidents in camp life, and other items. Both notebooks have been quoted from previously, but they have now been reproduced *in extenso* in a single book, under the able editorship of Miss Genevieve Miller, of the Johns Hopkins Institute of the History of Medicine.

There is nothing of outstanding interest in the medical notebook, and the authors from which Beaumont makes notes were all widely read in his day. Names such as Haller, Sydenham, Huxham, van Swieten, Cullen and Brown (of the Brunonian System) are common. It is somewhat unusual in a notebook of this type to find six lines devoted to the sorrow with which the death of Miss Maria Allen was received by her sorrowing relatives. We may wonder whether Beaumont had himself been in some way particularly attached to the patient. In the campaign of 1812 against the British he gave a certain treatment for pleurisy and peripneumony, and he noted that he had had more than two hundred cases without a death. On the next page he compares his treatment, for another condition, with that of the surgeon of the 16th Regiment—to his own detriment. So we read of him performing four amputations and three trepannings after an engagement, and in his general notebook he describes the scene on April 27, 1813, after the attack on York Town, when he and his fellow surgeons cut and slashed for forty-eight hours, without food or sleep.

These notebooks foreshadow Beaumont's accurate observation and his enthusiasm for new scenes. The non-medical authors—Shakespeare, Robert Burns, Wolcott, Byron, and others—from whom he quotes are sound enough fare, but the quotations are scarcely the choice of a literary man. One judges that Beaumont was essentially the man of action.

Miss Miller is to be congratulated on the skill with which she has edited these notebooks, and the publisher on the production of a charming volume.

E. ASHWORTH UNDERWOOD

THE STORY OF PENICILLIN

Miracle Drug

The Inner History of Penicillin. By David Masters. Pp. 191+17 plates. (London: Eyre and Spottiswoode (Publishers), Ltd., 1946.) 10*s*. 6*d*. net.

IN order to write both an accurate and a vivid account of the development of penicillin, David Masters has interviewed many people who played leading and even subsidiary parts in this story. Of the leading characters, notably Fleming and Florey, we are given a short life-history and personal description. Other participants come into the narrative only to describe that stage in the research in which their contribution mattered most. Scraps of conversation at critical moments are presumably recollections by the speakers of what they are likely to have said, and the circumstances attending more important occasions include a mention that the decision by Florey and Chain to investigate the possibilities of penicillin was taken under a particular tree while walking through the University Parks at Oxford. Heatley's night vigil with the first experimentally treated mice, his subsequent encounter with