

Professional Review.

"HERMANN VON HELMHOLTZ."

"It will be admitted that, taking him for all in all, Helmholtz is the greatest Master of Medicine the world has ever seen." This is the description given us of "Hermann Ludwig Ferdinand von Helmholtz," by Dr. John Gray M'Kendrick, M.D., LL.D., F.R.S.S. L. and E., Professor of Physiology in the University of Glasgow, and Fellow of the Royal College of Physicians of Edinburgh, in the book now published by Messrs. T. Fisher Unwin in the series, "Masters of Medicine," price 5s. While there is much in the book which will not appeal to the average nurse, to others it will be intensely interesting, if it is at times somewhat beyond their ken, as it illustrates that most fascinating subject, the "reign of law," alike in the animal, the vegetable, and the mineral kingdoms, and to those who have given some attention to this subject, the book must have great charm. Again, the personality of a genius like Helmholtz must always be a subject of much interest; therefore, if the book is somewhat abstruse, and nurses at times find themselves out of their depth, yet it should not for this reason be put on one side, for it will repay careful perusal, and is worthy of a place on their bookshelves by the side of its predecessors.

One point has struck us much in the previous volumes of this series—namely, that in every instance, at some time at least in their career, the biographers of the great men of which they treat have had to record that they were subjected to much active opposition, amounting sometimes, notably in the case of John Hunter, to virulent personal animosity. There is no hint that Helmholtz suffered in this way. Is the reason to be found in the fact that his career was academic rather than polemic, and so he did not have occasion to run counter to the prejudices of the multitude or to imperil their personal interests?

It is noteworthy that Helmholtz had in his veins English, French, and German blood. His mother was a lineal descendant of William Penn, while his grandmother on his mother's side sprang from a family of French refugees. The admixture of blood is always a happy circumstance, and when, upon the intellectual and stolid German nature, is grafted the vivacity of the French, and the common-sense and tenacity of purpose of the bull-dog Englishman, it is easy to see that the product of these diverse characteristics may be an exceptional nature, and so it proved with Helmholtz. One of his early characteristics was a "passionate zeal to find out realities," and it was his desire to devote himself to the study of physics, but circumstances, or rather the necessity to earn a livelihood, which he could not hope to do by devoting himself exclusively to science, caused him to enter the medical profession, and in due course he became an army surgeon. Early in his career Helmholtz came under the influence of Johannes Muller, "the greatest living force in the University of Berlin at that time." Writing of him long afterwards Helmholtz said:—"When one comes in contact with a man of the first rank, his spiritual scale is changed for life. Such a contact is the most interesting event that life can offer." These words, written by him of his great master apply with equal truth to the influence exerted by Helmholtz himself.

It is noticeable that, when an extraordinarily great

man is given to the world, previous events have led up to the need for him, and this was the case with Helmholtz. He was the man for the hour. We read: "To understand in some measure how he contributed so much to the science of his day we must not only recognise his transcendent genius but also that the times were favourable to its full development."

He was prominently brought before the scientific world at the age of twenty-six by his famous essay on the "Conservation of Force," "one of the epoch-making scientific papers of the century." Ten years later we find him measuring the rate of the nervous impulse, the inventor of the ophthalmoscope, and pursuing those investigations on colour and sound with which his name will always be connected. It is recorded that when von Graefe first saw the fundus of the living eye by means of Helmholtz' ophthalmoscope his face flushed with excitement and he cried, "Helmholtz has unfolded to us a new world! What remains to be discovered?"

It is interesting to note the opinion of the author that "there can be no doubt that one of the secrets of the marvellous activity in research of Helmholtz was that there was the most intimate connection between his function of a professor, whose duty it was to teach, and that of an original investigator. Teaching and investigation went hand in hand. . . . The example of Helmholtz is a strong argument in favour of combining teaching with working; and the results, not only in his case, but in many others, show that, in the advancement of science it may not be the wisest course to endow research alone, and to relegate the researcher to a kind of monastic solitude. It will, on the whole, be better for him and better for science to prosecute research because he must communicate to others the fruits of his own labours."

Towards the end of his life, honours flowed in upon Helmholtz. Amongst others, a Helmholtz gold medal was struck in his honour, to be awarded from time to time for distinguished services to science, and he himself was the first recipient. We must bring this brief notice to a close, but we cannot refrain from quoting part of the speech of the great master on the occasion of this presentation. "You desire to associate my name with this medal, and to hold me up to coming generations as an example of an investigator. I waver between a feeling of joy and a feeling of grave responsibility. I have a proud joy that the result of my thoughts is to work on to future generations far beyond my individual life. You will also understand that as a father cares for his offspring, and endeavours to help them, so I have also a love for the children of my thoughts. These contain the best of my convictions. I lay upon them the utmost stress, and I rejoice if the further development of science is to be in their direction. But the doubt may arise whether my own ideals are not too narrow, and my principles sometimes too imperfect, for the wants of humanity in all time. If so, I hope the awarders of this medal in the future will not confine themselves to what I have accomplished; but I should like to wave on high the one banner on which are inscribed words, that the purpose of science is to comprehend reality and the play of phenomena as regulated by law."

Great words, worthy of the man who spoke them. The search after reality was the enthusiasm of his life, and he was willing that his own ideals should be set on one side, if this was needed by the cause he loved.

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