

WILLIAM LASSELL. By the Rev. T. R. Robinson, D.D., F.R.S.,
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WILLIAM LASSELL belonged to a class of men which is (as far as I know), peculiar to these Islands ; men who, while carrying on commercial or manufacturing business with energy and success, join to it higher pursuits, seeking recreation in devotion to some department of science, some doing this at much sacrifice of time and labour, and frequently at a princely expenditure of money, and often rewarded by results of the highest importance to knowledge. Such persons deserve all honour, and of such none more than the subject of this notice, whose services to what may be called Optical Astronomy were so great as fairly to entitle him to rank with Sir William Herschel and Lord Rosse. He first became known to the astronomical world in 1840 by his description of a Newtonian of nine inches aperture, which he mounted on an Equatorial of his own contrivance at his residence near Liverpool. The specula were polished by hand, but must have been of surpassing light and definition, for he saw with it (having no previous knowledge of the star's existence) the sixth star of the trapezium in Orion, which the elder Struvè had failed to detect with the renowned Dorpat *Achromatic* nine and half inches aperture !

With this instrument he did good work for some years, till the success of the late Lord Rosse, in figuring specula of very large size by machinery, made him wish for a larger telescope. After visiting Parsonstown and studying Lord Rosse's work, he constructed a two feet Newtonian by processes which he has described in the "Astronomical Society's Memoirs" (vol. xviii.) with singular precision and clearness of detail. He was far from copying Lord Rosse's method (and his mode of forming the alloy was objectionable, when arsenic was used, even dangerous), and although his machine was found by himself and also by Warren De La Rue to be imperfect, yet his minute observation of even the most trifling facts and his intelligent appreciation of their bearings on the result, enabled him to obtain in this instance also an admirable telescope ; though ultimately he used another machine whose action nearly resembled Lord Rosse's.

This telescope showed seven stars in the Orion trapezium, which

from my acquaintance with that object in Lord Rosse's six feet, I consider a real feat. With it he discovered the obscure ring of Saturn, his eighth satellite, two satellites of Uranus, and one of Neptune, besides making a number of valuable observations on the physical aspects of the Planets.* In 1850 he applied to the specula of this telescope a system of lever counterpoises intended to support their weight laterally and prevent any of the distortions which he thought the usual hoop supports might produce at low altitudes. But it may be questioned whether they were less likely to do harm than the hoop, which acts very well. Latterly, dissatisfied with the smoky atmosphere of Lancashire, he established this telescope at Malta, where he observed with it for a year. The wonderful clearness of the sky excited in him a desire for yet more powerful optical means, and he constructed another Newtonian of four feet aperture, which he has described in the "Memoirs of the Astronomical Society, vol. xxxvi." Its equatorial is similar to the mountings of the former telescopes, but it would not be sufficient for the present demands of Astronomy, though it met all his requirements then. Yet it was a noble piece of engineering (and its low cost as compared with that of more recent equatorials is not unimportant). The tower which carries the observer is well worthy of notice. It was erected at Malta in 1862, and Lassell worked with it for four years, when failing health compelled him to renounce open air observations, and to return to England. In proof of the excellence of this telescope it may suffice to quote the words of Otto Struvè:—

"The way in which it showed the satellites of Uranus and Neptune gave me a very high idea of the excellence of this telescope. . . . Several double stars which I examined convinced me that in respect of sharpness of image Mr Lassell has obtained a remarkably favourable result; χ Aquila 7 and 8 magnitudes and 0.6 apart, were clearly separated in dark night. . . . And the images were equally perfect at all altitudes."

The observations at Malta occupy a large part of vol. xxxvi. of "Astronomical Memoirs," and are of great value, in particular those of Nebulæ, with their accompanying illustrations; for the correctness

* Some of these were simultaneously observed by Bond in America, with the Harvard fifteen inch aperture Achromatic.

of several I can vouch from my acquaintance with them in the Parsonstown six feet.

It is greatly to be regretted that this noble telescope was not acquired by some national Observatory. Lassell was willing to dispose of it to the Victoria authorities, who were thinking of establishing a great telescope at Melbourne; but an unhappy misunderstanding prevented them from accepting his offer. After a few years the instrument was broken up, and its materials sold. On his return to England he re-erected the two-foot Equatorial and continued to observe with it till his sight failed him. He died October 5, 1880, in his 82nd year. He was not less active as a writer than as an observer. In the Royal Society Catalogue his name occurs seventy-seven times, and there is scarcely one of those papers that does not contain valuable information. And his work was well appreciated. The University of Cambridge conferred on him the degree of LL.D. He was a member of many celebrated scientific Societies, and was President of the Astronomical Society, whose gold medal he received; he received also a royal medal from the Royal Society of London.

I conclude this notice by stating that my intercourse with him gave me the impression that he was a good and noble-minded man of high purpose, and utterly unclouded by any of that jealous and contentious spirit which too often darkens scientific life.

MAURICE LOTHIAN. By Sheriff Hallard.

MAURICE LOTHIAN, formerly Procurator-Fiscal of this county, died at St Catherine's, in the neighbourhood of this city, on 15th July last, in his 85th year.* He became a Fellow of the Royal Society in 1869, having then for some years outlived that critical moment in old age mentioned by the Psalmist. For him, as for others, our diploma was one of the crowning honours of an active and well-spent life.

* Born in the end of the eighteenth century, he was wont to tell of a family incident which connected him with its beginning. His grandfather was in the Porteous mob. Disguised in his wife's clothes, this ancestor took his share in the business transacted in the Grassmarket on that memorable night, came home before dawn, resumed his male attire, went down to Leith, took ship, and never was heard of more.