

the British races. After the death of his wife in 1861 he went to London, and entering as a student of the Middle Temple in 1868, he was called to the Bar in 1871. He was a man of considerable energy of character, and for some time was Captain in the 48th Middlesex Rifle Volunteers. He died after three days' illness of acute pneumonia, at his residence, Friars Watch, Walthamstow. His second wife survives him.

He was elected a Fellow of this Society 1887 January 14.

JOHN SLATTER was born at Iffley, near Oxford, 1817 April 9. He went up to Oxford in 1835, and entering at Lincoln College, he became one of Lord Crewe's Exhibitioners and graduated in 1838, taking a third class in Lit. Hum. and a first class in mathematics. In 1841 he took his M.A. degree and was ordained. For some years he worked at Leeds under Dr. Hook, the Vicar of Leeds. He then had charge of Sandford-on-Thames, near Oxford, during the years 1852-61, residing at Iffley. In 1861 he was appointed Vicar of Streatley, Berks, and in 1880 Rector of Whitchurch, Oxon., where he remained until the time of his death, 1899 April 7. He had a private observatory at Rose Hill, Iffley, where he worked a good deal. He was obliged to give this up when he went to Streatley, but he still kept up much interest in astronomy. He was elected a Fellow of the Society 1847 November 12, and communicated two short notes to the *Monthly Notices*, one (in *Monthly Notices*, vol. xxxii. p. 317) relating to the observations of the Aurora of 1872 February 4, and containing some interesting remarks as to the height of the Aurora as deduced from observations of an auroral arch made at Streatley simultaneously with observations at Greenwich, 1870 October 24. Mr. Slatter deduced a height of 118 miles above the Earth's surface, on the assumption that the same phenomenon was observed at both places. He mentions one other case, in which the identity of the phenomenon observed was satisfactorily established, and in this case with a base of nineteen miles a height of less than three miles was deduced.

He married Elizabeth, daughter of Richard Wootten, Esq., of Iffley, and had one daughter.

HALE WORTHAM was born at Royston, 1822 July, and was the son of the late Thomas Wortham, solicitor, of Royston. He was educated at Mr. Carver's school at Melbourn, Cambs, and King's College, London. In 1844 he was admitted to practice, and on the death of his father, which occurred shortly afterwards, he succeeded to his business, living alone at Royston. In 1871 December he was appointed Clerk of the Peace for the County of Cambridge, in place of Mr. H. R. Evans, of Ely. When the Local Government Act came into operation in 1888, and many of the functions discharged by Quarter Sessions were transferred to another authority, an enormous amount of work devolved upon Mr. Wortham. He was appointed Clerk to the newly constituted

County Council, and occupied that post until his death. He was also Clerk to the Magistrates of the Arrington and Melbourn Division, and of the Odsey (Hertford) Division; and was a Deputy-Lieutenant for Cambridgeshire. Mr. Wortham owned considerable property in Royston, where he had lived all his life. He died, after a short illness, 1899 April 18.

He was elected a Fellow of this Society 1856 March 14.

PROCEEDINGS OF OBSERVATORIES.

THE following reports of the proceedings of observatories during the past year have been received from the Directors of the several observatories, who are alone responsible for the same :—

Royal Observatory, Greenwich.

With the transit circle 12,104 observations of transits and 11,088 of zenith distances were made in 1899, about 3000 of these observations having been made below pole.

The total number of stars observed is about 5000, about 1400 of these being within 10° of the pole.

The Sun was observed 204 times with the transit circle, its horizontal diameter 162 times, and its vertical diameter 179 times.

The Moon was observed 130 times ; the mean errors in R.A. of Hansen's Lunar Tables with Newcomb's corrections is $-0^s.101$. The errors since 1883, when Newcomb's corrections to Hansen's tables were introduced into the *Nautical Almanac*, are as follows :—

1883	^s +0'031	1889	^s +0'010	1895	^s -0'066
1884	+0'018	1890	+0'020	1896	-0'088
1885	+0'024	1891	+0'079	1897	-0'154
1886	+0'029	1892	+0'083	1898	-0'160
1887	+0'059	1893	+0'034	1899	-0'101
1888	+0'090	1894	-0'016		

The R—D discordance, which had become very small in 1897 and 1898, shows an increase in 1899, the correction to direct observations found for last year being $+0''\cdot08 + 0''\cdot22 \sin Z.D.$ The special observations of pairs of stars directly and by reflection, which have been made for the four years 1895, 1896, 1897, and 1898, show a satisfactory agreement with the ordinary observations reflection and direct at the same transit, confirming the striking diminution in the value of the R—D discordance in 1897 and 1898 as compared with 1895 and 1896. It results, therefore, that the R—D discordance is not in any way due to the circumstance that the direct observation is taken immediately after the reflection observation.

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