

curiously enough, being the solitary April week in the list, one in October, and the others practically in July. The exact figures for these six wet days are:—

	inches.
1903 July 23 .....	2'47
1888 July 30 .....	2'49
1878 April 11 .....	2'51
1857 October 22 .....	2'57
1853 July 14 .....	2'63
1867 July 27 .....	3'67

The wet summer of 1903 is responsible for 4 of the 50 weeks, 1852, 1865, 1879, 1888, and 1894 for 3 each, except that 1879 cannot claim the whole of the week ending January 4.

Of the 25 weekly totals of  $2\frac{1}{4}$  inches and over, 17 exceeded  $2\frac{1}{2}$  inches, 9 were over 3 inches, 3 over  $3\frac{1}{2}$  inches, and one, ending 1888 August 4, amounted to 4'29 inches, so that it was quite wet, even excluding the July 30 from the above table. W. W. B.

## CORRESPONDENCE.

*To the Editors of 'The Observatory.'*

*Richard Dunthorne.*

GENTLEMEN,—

The name of the above is known as that of one of those (not few in number) who, unprovided with early advantages, have succeeded, under the stimulus of love for science, in not only acquiring knowledge, but also making some useful contributions to the progress of astronomy. In Poggendorff's 'Biographisch-Literarisches Handwörterbuch' he is said to have been a "Geistlicher," or clergyman, but this is a mistake. The son of a gardener at Ramsey, in Huntingdonshire (where he was born in 1711), he attracted, at the free grammar-school there, the notice of Prof. Long; and after undertaking for a time the management of a preparatory school at Coggeshall, in Essex, Long, then Master of Pembroke Hall, Cambridge, procured him the appointment of butler to that foundation, and employed him as an assistant in his astronomical work. He also acted as superintendent of the works of the Bedford Level Corporation and on a survey of the fens in Cambridgeshire; the locks on the Cam were constructed under his direction, and he made observations for a map of the county, besides taking part, towards the end of his life, in the comparisons for the *Nautical Almanac*. He died in 1775, only five years after his patron, Prof. Long.

Dunthorne's first scientific publications were 'The Practical Astronomy of the Moon,' dedicated to Long, in 1739, and a 'Letter concerning the Moon's Motion,' giving the results of

comparisons between the places from the tables in that work, which was read before the Royal Society in 1747. Two years afterwards another, on the acceleration of the Moon, examined and confirmed Halley's discovery of that fact, giving a numerical determination of its amount. His letter concerning comets was read to the Royal Society in 1751. It gave the approximate elements of the comet of 1264, which appeared so similar to those computed by Halley for the comet of 1556 that Dunthorne concluded that it was periodic, with a period of about 292 years, and would return in 1848. The late Dr. Hind, as is well known, from some investigations which he had made, took up this idea somewhat enthusiastically, suggesting, however, that the comet's return might be delayed by a few years. It has, however, not returned, and there may be some errors in the observations of 1264, on which Dunthorne relied. In the same letter he pointed out the improbability of Halley's conjecture that the comet of 1106 was identical with Newton's comet of 1680. This conjecture was united with that of several previous identifications founded on the theory of a period of about 575 years. Gibbon devoted a long passage in his 'Decline and Fall' to these supposed successive returns, *à propos* of one in the reign of Justinian, which was, in fact, probably a return of the comet of 1682. (Perhaps I may here be allowed to point out a mistake of Mr. Glazebrook in his excellent account of Newton in the 'Dictionary of National Biography,' where he (p. 384, col. ii.) calls the comet of 1680, instead of that of 1682, "Halley's Comet.") Gibbon remarks in a note (Bury's edition, vol. iv. p. 433), "Astronomers may study Newton and Halley: I draw my humble science from the article Comète in the French Encyclopédie." Prof. Bury says in an appendix that "The identity of the comet of 1680 with the comets of A.D. 1106, A.D. 531, B.C. 44, &c., is merely an ingenious speculation of Halley." And the French writer calls it only a conjecture, though he was apparently not aware that Dunthorne had shown the improbability of the conjecture.

Dunthorne computed elements of the orbits of Jupiter's satellites, and had intended to form tables of the motions of all on the model of those of Pound for the first; but want of sufficient leisure from his other occupations prevented his carrying out this design. In his paper on the subject, printed in the 'Philosophical Transactions' for 1761, he is the first, I believe, to use the expression "apojove." J. S. Bailly, in his 'Essai sur la Théorie des Satellites de Jupiter,' published at Paris in 1766, first, so far as I am aware, used the correlative expression *perijove*.

Dunthorne's last astronomical achievement was with regard to the transit of Venus in 1769, which he observed at Cambridge.

Yours faithfully,

W. T. LYNN.

Blackheath, 1905, Mar. 10.