three different sets of solar co-ordinates, besides having to take into account possible errors in the geocentric positions of the comet. The work was very considerable and not very satisfactory in its results, but still grouping the resulting elements in such a way as to leave no doubt of its identity with Halley's Comet. While the identity can be considered established, I do not consider myself as free from the obligation to extend and perfect the discussion, a work which I have to defer to some other day, and which will be most profitably undertaken when all the appearances of Halley's Comet can be treated as a whole.

The following are the mean values of the co-ordinates of the first three observed positions, as referred to the equinox of A.D. 141·0 :—

A.D. 141 March 27·5	Paris M.T.	$\alpha_{I} = 313^{\circ} \pm 6^{\circ}$	$\delta_{I} = -3^{\circ} \pm 8^{\circ}$
„ April 16·5	„	$\alpha_{II} = 347^{\circ}$	$\delta_{II} = +14^{\circ}$
„ April 22·5	„	$\alpha_{III} = 29^{\circ}$	$\delta_{III} = +18^{\circ}$

The orbital element deduced from these observations which remains most constant is the inclination, which is $i = 163^{\circ}$, *i. e.* the inclination to the elliptic of the orbit of Halley's Comet. For the longitude of the ascending node the extreme values may be between $\Omega = 358^{\circ}$ and $\Omega = 35^{\circ}$, not so very much different from the value it has in the real orbit. The value of the argument of perihelion has a decided variation and may be anywhere between $\omega = 80^{\circ}$ and $\omega = 170^{\circ}$, its mean being almost identical with Hind's value ($\omega = 120^{\circ}\ 55'$). The perihelion distance comes out between $q = 0{\cdot}55$ and $q = 0{\cdot}95$, and the time of the passage of the perihelion may be anywhere between March 23rd, A.D. 141 and April 6th of the same year. If the dates of observation were diminished by about from one third of a day to one day, the resemblance of the orbit to that of Halley's Comet would be much closer. If I may be permitted an opinion on this subject, it is to the effect that the Chinese observations, however rough, will permit a determination of the passage of perihelion sufficiently close to test the results of the calculation of the perturbations. Once determined, with all possible exactness, the practical value of the Chinese observations, the theory of the comet can be entirely left to the researches of the computing astronomer.

Milan, Italy. 1897, March 9. GUSTAVE RAVENÉ.

The Longevity of Astronomers.

THE longevity of astronomers has often been mentioned as a fact. The Herschels, the Cassinis, and others have certainly lived to great ages, notwithstanding the fact that their avocation necessitated irregular hours and exposure to night air at all seasons. Some time ago, in order to while away a leisure hour, I compiled a list of the names of well-known men connected with astronomy, who had

lived beyond the allotted human span of "three score years and ten." This list was by no means complete (the authorities I consulted having been insufficient for me to make an exhaustive summary), but it was very lengthy; and as it may possibly have some little interest, I transcribe a portion of it here, without, however, claiming that it proves anything. I have omitted all instances where the age fell below 80 years. In some cases the year given is a little less or a little more than the exact age: thus J. H. Mädler at the time of his decease was 76 days short of being 80 years of age, while W. Olbers was 81 years and 5 months old. It will be observed that the names included are not always those of practical astronomers. A very large number might be selected of those who died between 75 and 80, such as Argelander, Bode, Boscovich, Challis, James Cassini, Derham, Euler, Galileo, Hevelius, John F. W. Herschel, La Place, La Lande, Le Grange, Maskelyne, Admiral Smyth, T. W. Webb, Lord Wrottesley, &c. There are very few men indeed who, like Jeremiah Horrocks (1641, æt. 22) and W. Gascoygne (1644, æt. 23), have died very young, but left honoured names in astronomical history.

The subject is an interesting one, and it might be useful to form a complete list of the life-durations of the most eminent men who have successfully associated themselves with astronomy. If the exact dates of birth and death were given, the list would supply a ready means of reference to those scientific writers who have occasionally felt the want of such information.

	Obiit.	*Æt.*
Fontenelle, Bernard de	1757	100
Herschel, Caroline L.	1848	98
Cassini, Count J. D.	1845	97
Sabine, Sir Edward	1883	94
Mairan, De	1771	93
Somerville, Mary	1872	92
Santini, Giovanni	1877	91
Sharpe, Abraham	1742	91
Long, Dr. Roger	1770	90
Airy, Sir George Biddell	1892	90
Thales	B.C. 550	90
Humboldt, Alex. von	1859	90
Robinson, Rev. T. R.	1882	90
Bouillaud, Ismael	1694	89
Rosenberger, Prof. Otto A.	1890	89
Gautier, Jean Alfred	1881	88
Biot, J. B.	1862	88
Cassini, J. D.	1712	87
Messier, Charles	1817	87
Wallis, J.	1703	87
Brewster, Sir David	1868	86
Halley, Edmund	1742	86
Schwabe, Samuel Heinrich	1875	86
Barlow, Peter	1862	86
Pingre, Alex. Guy	1796	85
Longomontanus	1647	85
Horrebow, P.	1764	85
Whiston, William	1752	85
Pritchard, Rev. Charles	1893	85
Maclear, Sir Thomas	1879	85
Hutton, Dr. Charles	1823	85
Dick, Dr. Thomas	1857	84
Woolhouse, W. S. B.	1893	84
Newton, Sir Isaac	1727	84
Le Monnier, Peter Charles	1799	84
Herschel, Sir F. William	1822	84
Lee, Dr. John	1866	83
Bernouilli, Daniel	1782	82
Troughton, Edward	1835	82
Olbers, Dr. William	1840	82
South, Sir James	1867	82
Le Gendre, Jean	1833	82
Nasmyth, James	1890	82
Eratosthenes	B.C. 195	81
Aristarchus	? B.C. 280	81
Emerson	1882	81
Moestlin, Michael	1631	81
Maurolico	1575	81
Bernouilli, John	1748	81
Kant, Immanuel	1804	80
Lassell, William	1880	80
Piazzi, Joseph	1826	80
Mädler, J. H.	1874	80
De Lisle, Joseph N.	1768	80
Bacon, Roger	1294	80
De La Hire, P.	1718	80

Bristol, 1897. W. F. Denning.