

sion of the equinoxes. The heliacal year of a star, or the period of its heliacal rising, especially when it is distant from the ecliptic, differs also from the sidereal year, and differs variously, according to their latitudes in the places of observation. Yet what is singular enough, and what Bainbridge,(1) and father Petau,(2) have remarked,(3) is, that it happens by a remarkable concurrence in the positions, that in the latitude of upper Egypt, at a certain epoch, and during a certain number of centuries, the year of Sirius, was really within very little of three hundred and sixty-five days and a quarter; so that the heliacal of this star returned, in fact, to the same day of the Julian year, on the 20th of July, in 1322 years before, and 138 after Christ.(4)

From this positive coincidence, at a period so remote, M. Fourier, who has determined all these coincidences by great labour and new calculations, concludes, that since the length of the year of Sirius was so perfectly known to the Egyptians, they must have determined it by observations made during a long series of years, and with much exactness; observations as remote as 2500 years before

(1) Bainbridge, *Canicul.*

(2) Petau, *Var. Diss. lib. v. c. vi. p. 108.*

(3) See La Nauze, on the Egyptian year. *Acad. de Bell. Lett. v. xiv. p. 346*, and the memoir of Fourier, in the great work on Egypt, *Mem. v. i. p. 803.*

(4) Petau, *loc. cit.* M. Ideler affirms that this coincidence of the heliacal rising of Sirius, took place also 2782 years before Christ. (*Rech. Hist. in the Ptolemæus of M. Halma, v. iv. p. 37.*) But with respect to the Julian year, 1598 after Christ, which is also the last of a great year, Father Petau and M. Ideler differ. The latter places the heliacal rising of Sirius, on the 22nd of July, the former on the 19th or 20th of August.