

there will always be one or two years in each cycle of nineteen years which will satisfy the conditions of the case, and the date of the Hebrew invasion of Palestine is not known with sufficient certainty to limit the enquiry to any particular cycle.

E. WALTER MAUNDER.

CORRESPONDENCE.

To the Editors of 'The Observatory.'

Galileo and Marius.

GENTLEMEN,—

I should not have troubled you on this subject again had it not been for the recent appearance of the excellent life of Galileo by Mr. Fahie, in which we read:—"As usual, Galileo's right to the first discovery of Jupiter's satellites was contested, the claimant being Simon Mayer (*sic*), of Anspach, whom we have met before in connection with the Capra plagiarism (p. 45, *ante*). In 1614 he published at Nuremberg his 'Mundus Jovialis,' in which he formulated his claims" (p. 107, note). I have already referred to the fact that Mayr had mentioned his discovery in a pamphlet (now very rare) which appeared in 1612, two years before the publication of the 'Mundus Jovialis.' But that is not the main point, which is (as has been recently shown in 'Galilée et Marius,' by J. A. C. Oudemans and J. Bosscha) that he made no claim to *priority* in the discovery, but clearly states that his dates were in Old or Julian Style, and that he first came to the conviction that the little bodies near Jupiter were satellites of the planet (at first supposed to be fixed stars) on the 29th of December, 1609. Galileo must have overlooked this, for, in his 'Il Saggiatore,' he says that Mayr speaks of his discovery as "faite en 1609, et néglige d'avertir le lecteur que s'étant séparé de notre Église, et n'ayant pas accepté l'émendation Grégorienne, le 7 janvier 1610 de nous autres catholiques coïncide avec le 28 décembre des hérétiques." There was then no occasion to be anxious to disprove the independence of Mayr's discovery, and it was quite unworthy of Galileo to suggest that the former had never seen the satellites at all. Moreover, this fact renders Mr. Fahie's reference to Kepler speaking of "the glorious discovery of the Medicean stars by Galileo" quite irrelevant, as of course the principal credit always rests with the first discoverer*. As to the Capra affair, Prof. Oudemans points out that Galileo quite misstates the matter. So far from Mayr writing the book under Capra's name which claimed the invention of the geometrical and

* Prof. Oudemans points out that reference was made by Galileo to Kepler, but that the answer seems to have been suppressed.

military compass, and hastily quitting Italy in 1607 when the plagiary was exposed, Prof. Oudemans shows that he had left Padua early in 1605, and was passing over the Alps from Italy into Germany in the month of July in that year.

When Mr. Fahie speaks, in p. 46, of Mayr "arrogating to himself the merit of two of Galileo's astronomical discoveries," he means those of Jupiter's satellites and of the solar spots. With regard to the latter, there is no reason to doubt the independence of several observers—Galileo, Mayr, Fabricius, and Harriot—but it is very difficult to determine which had the priority. As Prof. Newcomb remarks (Pop. Astr. p. 250), the mere perception "required neither industry nor skill." But, as I mentioned in the *Observatory* (vol. xiv. p. 129), it was from the observations of the spots by David and John Fabricius that the knowledge of the Sun's axial rotation first resulted. No claim for this was made by or on behalf of Mayr. But it is well known that he was a careful observer, and it is incontrovertible that he was the first to telescopically see and describe the great nebula in Andromeda. Yet it was long after this that Galileo permitted himself to call in question the fact that Mayr had seen the satellites of Jupiter at all!

I trust I shall not be suspected in the above remarks of desiring to diminish in any way the great value of Mr. Fahie's 'Life of Galileo.' I am only sorry that he did not see, before completing it, the pamphlet of Prof. Oudemans, which carries conviction with its careful perusal. In common with many others, I always believed, until I read that pamphlet, that Mayr did claim to be the first discoverer of the satellites. Those who concern themselves much with history and dates between 1582 and 1752 must often have noticed how many mistakes have arisen from forgetting the difference of the styles, and sometimes doubt, with Prof. Newcomb, whether the change was worth making. Mayr died in 1624, the year after Galileo's attack upon him.

Yours faithfully,

W. T. LYNN.

Blackheath, 1903, Nov. 5.

Periodical Comets due in 1904.

GENTLEMEN,—

Faye's Comet failed us last year for the first time since its discovery in 1843, having been very unfavourably placed for visibility at the recent return.

D'Arrest's periodical comet has passed its perihelion, but will be nearest the Earth about the middle of January, when, however, its apparent place will be too near the Sun to afford any hope of its becoming visible.

The comet commonly called Winnecke's, because its orbit was not determined until its rediscovery by Winnecke in 1858 (it was first seen by Pons in 1819), was observed at the returns of