rectifying miſtakes, and encouraging every branch of uſeful knowlege, I ſhall think my time well employ'd in this inquiry, which had its riſe from your inſtructive converſation. I am, with the higheſt reſpect,

SIR,

Your moſt obedient, and moſt humble ſervant,

John Bond.

London, April 15, 1753.

XXIX. *A Letter from Dr.* Bevis *to Mr.* James Short, *F. R. S. concerning Mr.* Gaſcoigne's *Invention of the* Micrometer.

Dear Sir,

Read May 17, 1753.

ALTHOUGH Mr. Townley, in his letter to Dr. Croon, printed in the *Philoſophical Tranſactions*, N° 25, p. 457, has ſufficiently made appear, that the invention of the micrometer was Mr. Gaſcoigne's, and that he applied it to meaſuring ſmall angles in the heavens, and for ſettling the moon's parallax, long before Meſſieurs Auzout and Picard thought of any ſuch matters; yet are the French aſtronomers at every turn for giving it to theſe their countrymen, without ſo much as once mentioning the name of Mr. Gaſcoigne.

No ſooner had the late Dr. Derham reſtor'd the application of teleſcopic ſights to quadrants to its true author Mr. Gaſcoigne, than M. de la Hire, who never made the doctor any reply on that head, took occaſion,

ſion, in the memoirs of the Royal Academy of Sciences for 1717, to aſcribe this contrivance of the micrometer to M. Auzout, in conjunction with M. Picard; alleging, for proof, an extract of a letter, dated Dec. 28, 1666, from M. Auzout to M. Oldenburg, and printed in *Phil. Tranſ.* N° 21. Several others have ſince copied M. de la Hire's aſſertion, and laſt of all, M. Bouguer, in the memoirs of the Royal Academy of Sciences for 1748, lately publiſh'd, wherein he deſcribes an inſtrument, which he calls an heliometer; the contrivance whereof ſeems in every reſpect the ſame as that ſent about ten years ago to the Royal Society, by Servington Savery, Eſq;.

I have now before me the copy of a letter of Mr. Gaſcoigne to Mr. Oughtred, which I made myſelf from the original, written in 1640-1; which original was in the poſſeſſion of the late William Jones, Eſq; F. R. S. and is now in the library of the right honourable the Earl of Macclesfield. It conſiſts of ſeveral ſheets of paper, all about his invention for meaſuring ſmall angles to ſeconds; where he not only gives the geometrical and optical principles of his contrivance, and the conſtruction of the inſtrument, but alſo a ſeries of obſervations actually taken therewith; ſome of which I ſhall tranſcribe.

			′	″
1640 Aug. 5.	Jupiter's diameter	.	0	51
	Mars's	.	0	38
Dec. 24.	Mars's	.	0	25
	Venus's	.	0	25

			′	″			
1640 Aug. 25	Moon's ſemidiam.	15	17	h.	8	*p. m.*
Sept. 19	. . .	15	11			

1640

1640 Oct. 9	16	36 h. 8	*p. m.*
10	16	36	
27	15	38 h 7	*p. m.*
29	15	41	
30	15	43	
31	15	49	

Theſe may ſuffice to prove, that Mr. Gaſcoigne's micrometer was not a mere thing in embryo, but brought to a good degree of perfection above 40 years before that of the French gentlemen was ever ſo much as mention'd. I am,

SIR,

Red-lion ſtreet, Clerkenwell, May 10, 1753.

Your very humble ſervant,

J. Bevis.

XXX. *Obſervations of the Tranſit of* Mercury *over the Sun*, May 6, 1753; *by Mr.* J. Short, *F. R. S.*

Read May 17, 1753.

THE inſtrument prepared for theſe obſervations was a reflecting teleſcope, of two feet focal length, of the Gregorian form, magnifying about 65 times, and ſo conſtructed in its machinery as to move in a plane parallel to the horizon, and alſo, when required, to move in a plane parallel to the equator. This teleſcope had two eye-pieces, each a combination of two glaſſes, *viz.* one eye-piece for the horizontal motion, with wires at right angles to one another, the wires being between the