CIV. *An Account of the Eclipſe of the* Sun, October 16, 1762, *in a Letter from Mr.* Samuel Dunn, *to Mr.* James Short, *M. A. and F. R. S.*

SIR,

Read Dec. 16, 1762.

ALTHO' the morning promiſed ſo favourable for ſeeing the Solar Eclipſe of this day, the dark ſtill clouds which were near the horiſon, and extended to a conſiderable altitude, prevented almoſt all obſervation. Saturday noon October 16th, I ſet a pendulum clock to ſolar time by the Sun's tranſit over the meridian, and ſo it went on till Sunday noon 17th, when it had got 8″ of ſolar time, from which I conclude the clock was 6″ too faſt for ſolar or true time at the time of the eclipſe. At 7^h 14′ 24″ per clock I firſt ſaw the upper part of the Sun thro' a Gregorian reflector magnifying 55 times, the upper Eaſtern limb of the Sun appearing eclipſed and the limb of the Sun in a ſtate of undulation, but the limb of the Moon more ſo, with the irregularities of the lunar mountains ſometimes well defined between the fits of vibration. At 7^h 30′ per clock I applyed a ſix foot Newtonian reflector with its magnifying power 110 inverting the object in order to obſerve the contact of the Moon's limb to one of the ſolar ſpots, and at 7^h 36′ 56″ the ſpecked penumbra which ſurrounded a pretty large ſpot on the upper inverted part of the Sun was touched by the Moon's limb, the body of this ſpot being yet

yet untouched, and the Moon's dark limb approaching towards it. At 7^h $37'$ $48''$ per clock it was got ſo near the contact that I was going to pronounce it, but ſeeing the light between the Moon's limb and the edge of this ſpot diminiſh gradually till 7^h $37'$ $54''$ per clock, I concluded this laſt to be the time of contact with the edge of this ſpot. At 7^h $38'$ $17''$ per clock this ſpot was centrally biſſected by the line of the Moon's dark limb, and at 7^h $38'$ $40''$ per clock the edge of the ſpot and its ſurface was covered, a few ſeconds of time after which, the little indiſtinctneſs near its edge was quite vaniſhed and gone.

Whilſt this obſervation was making, the ſky was clear and the limbs of the Sun and Moon were free from undulation, and all other impediment, except the aforeſaid little teeth-like uneavenneſſes in the Moon's limb. And what is remarkable, altho' the three laſt mentioned numbers were ſet down exactly as taken on the ſpot, they differ not from each other a ſecond of time. Nevertheleſs this opportunity has confirmed me in an opinion which I had entertained concerning the internal contact of Venus with the Sun's limb 6th June 1761, for I conclude that the contact of this ſpot with the Moon's limb could not have been judged of by different obſervers in the ſame place, and with equal telſcopes without a difference of at leaſt 5 ſeconds of time, which is much more conſiderable than the ſame number of ſeconds in the contact of Venus with the ſun's limb, the former being ſo ſwift and the latter ſo ſlow.

I have not allowed the $6''$ which the clock was before true time at the time of obſervation, nor reduced the Phænomenon to Greenwich or any other meridian,

meridian, to leave the obſervation in its original form, ſuch reduction being eaſily made.

I am, Sir,

Your very humble, and

obedient ſervant,

Samuel Dunn.

Chelſea, Oct. 17, 1762. Lat. 51° 29′ 5″. Long. 41″ time W. of Greenwich.

CV. *Extract of a Letter from* W. Watſon, *M. D. F. R. S. to* John Huxham, *M. D. F. R. S. containing ſome Remarks upon the Catarrhal Diſorder, which was very frequent at* London *and in its Neighbourhood in* May 1762. *and upon the Dyſentery, which prevailed the following Autumn.*

London 9th Dec. 1762.

Read Dec. 23, 1762. IN the beginning of May, there was at London and in its neighbourhood a diſeaſe, very epidemic, though not fatal, which had ſometime before been very prevalent both in Italy and Germany. It continued during the courſe of the month, and ſome part of June. In it the breaſt was very much affected, and it was very frequently attended with a fever. It is nearly the ſame diſeaſe which was at London in April and May 1743, and