be effected, at leaſt in Animals near of Kin; (As Spaniels and Setting Dogs, Iriſh Grey-hounds and ordinary Grey-hounds, &c.?)

16. Whether the Transfuſion may be practis'd upon pregnant Bitches, at leaſt at certain times of their gravidation? And what effect it will have upon the Whelps?

There were ſome other *Quæries* propoſed by the ſame *Author*; as, the weighing of the *Emittent* Animal before the Operation, that (making an abatement for the Effluviums, and for the Excrements, if it voids any) it may appear, how much blood it really loſes. To which were annext divers others not ſo fit to be peruſed but by *Phyſitians*, and therefore here omitted.

A Method
For Obſerving the Eclipſes of the Moon, *free from the Common Inconveniencies, as it was left by the Learned Mr.* Rook, *late* Greſham-*Profeſſor of Geometry.*

ECliplſes of the Moon are obſerved for two principal ends; One *Aſtronomical*, that by comparing Obſervations with Calculations, the *Theory* of the *Moons Motion* may be perfected, and the *Tables* thereof reformed: the other, *Geographical*, that by comparing among themſelves the Obſervations of the ſame *Ecliptick Phaſes*, made in *divers* places, the *Difference* of *Meridians* or *Longitudes* of thoſe places may be diſcerned

The Knowledge of the Eclipſe's Quantity and Duration, the Shadows, Curvity, and Inclination, &c. conduce only to the former of theſe ends. The exact time of the Beginning, Middle, and End of Eclipſes, as alſo in *Total* ones, the Beginning and End of *Total* darkneſs, is uſeful for both of them.

But becauſe in Obſervations made by the *bare* Eye, theſe times conſiderably differ from thoſe with a *Teleſcope*; and becauſe the *Beginning* of Eclipſes, and the *End* of *Total* darkneſs, are ſcarce to be obſerved exactly, even with Glaſſes (none being able clearly to diſtinguiſh between the *True* Shadow and *Penumbra*, unleſs he hath ſeen, for ſome time before, the Line, ſeparating them, paſs along upon the Surface of the Moon;) and laſtly, becauſe in ſmall

Partial

Partial Eclipſes, the Beginning and End, and in *Total* ones of ſhort continuance in the Shadow, the Beginning and End of *Total* darkneſs, are unfit for nice Obſervations, by reaſon of the ſlow change of *Apparences*, which the *Oblique* Motion of the Shadow then cauſeth. For theſe reaſons I ſhall propound a *Method* peculiarly deſign'd for the Accompliſhment of the *Geographical* end in Obſerving Lunar Eclipſes, free (as far as is poſſible) from all the mentioned Inconveniences.

For, *Firſt*, It ſhall not be practicable without a Teleſcope. *Secondly*, The Obſerver ſhall alwayes have opportunity before his principal Obſervation, to note the Diſtinction between the *True Shadow* and the *Penumbra*. And, *Thirdly*, It ſhall be applicable to thoſe Seaſons of the Eclipſe, when there is the ſuddeneſt Alteration in the *Apparences*.

To ſatisfie all which intents,

Let there be of the Eminenteſt *Spots*, diſperſed over all Quarters of the Moons Surface, a ſelect number generally agreed on, to be conſtantly made uſe of, to this purpoſe, in all parts of the World. As, for Example, thoſe, which *M. Hevelius* calleth,

Mons { *Sinai.* *Æthna.* *Porphyrites.* *Serorum.*

Inſula { *Besbicus.* *Creta.*

Palus { *Mæotis.* *Maræotis.*

Lacus Niger Major.

Let in each *Eclipſe*, not all, but (for inſtance) three of theſe *Spots*, which then lie neareſt to the *Ecliptick*, be exactly obſerved, when they are firſt touch'd by the *True* Shadow, and again, when they are juſt compleatly entred into it, and (if you pleaſe) alſo in the *Decreaſe* of the Eclipſe, when they are firſt fully clear from the *True* Shadow: For the accurate determinations of which moments of time (that being in this buſineſs of main importance) let there be taken *Altitudes* of remarkable *Fixed Stars*; on this

ſide

ſide of the *Line*, of ſuch, as lie between the *Æquator* and *Tropick* of *Cancer*; but *beyond* the *Line*, of ſuch, as are ſituate towards the other *Tropick*; and in all places, of ſuch, as at the time of Obſervation, are about 4. hours diſtant from the *Meridian*.

An Account
of ſome Obſervations, lately made in Spain, *by His Excellency the* Earl of Sandwich.

THE Right Honourable the *Earl of Sandwich*, as he appears eminent in diſcharging the Truſt, his Majeſty hath repoſed in him, of Ambaſſador Extraordinary to the King of *Spain*; ſo he forgets not in the midſt of that Employment, that he is a Member of the *Royal Society*; but does from time to time, when his weighty State-Negotiations do permit, imploy himſelf in making conſiderable Obſervations of divers kinds, both *Aſtronomical* and *Phyſiological*; and communicateth the ſame to the ſaid *Society*; as for inſtance, lately, what he has obſerv'd concerning the *Solar Eclipſe* in *June* laſt, the Suns height in the Solſtice, and alſo the Latitude of *Madrid*, eſteeming by the Suns Altitude in the *Solſtice*, and by other Meridian Altitudes, the *Latitude* of *Madrid* to be 40 deg. 10 min; which differs conſiderably from that aſſigned by others; the General Chart of *Europe* giving to it 41 deg. 30 min. the General Map of *Spain*, 40 deg. 27 min. A large Provincial Map of *Caſtile*, 40 deg. 38 min.

To theſe particulars, and others formerly imparted, his Excellency is making more of the ſame nature; and particularly thoſe of the Immerſion of the *Satellites* of *Jupiter*.

We muſt not omit mentioning here, what he hath obſerved of *Halo*'s about the *Moon*; which he relates in theſe words;

Decemb. 25. *Old Style*, 1666. In the Evening, here (vid. at *Madrid*) was a great *Halo* about the Moon, the *Semidiameter* whereof was about 23 deg. 30 min. *Aldebaran* was juſt in the *North-eaſt* part of the *Circle*, and the two Horns of *Aries* juſt encloſed by the *South-weſt* of the *Circle*, the Moon being in the *Center*. I note this the rather (*ſaith he*) becauſe five or ſix years ago, vid. *Novemb.* 21. *Old Style*, 1661. an hour after Sun-ſet, I ſaw a great *Halo* about the Moon of the ſame *Semidiameter*, at