relation to the *Dew*, but after finding the Gnats to be multiplied and the little watry Animals to be much leſſened in quantity, and finding great numbers of their empty skins floating on the face of his *Dew*, He thought, he had juſt reaſon to perſwade himſelf, the Gnats were by a ſecond Birth produced of thoſe little Animals.

That vapouring away great quantities of his putrefied *Dew* in Glaſs Baſons, and other Earthen glaſed Veſſels, He did at laſt obtain, as he remembers, above two pound of *Grayiſh Earth*, which when he had waſhed with more of the ſame *Dew* out of all his Baſons into one, and vapoured to ſiccity, lay in leaves one above another, not unlike to ſome kind of brown Paper, but very friable.

That taking this Earth out, and after he had well ground it on a Marble, and given it a ſmart Fire, in a coated Retort of Glaſs, it ſoon melted and became a Cake in the bottom, when it was cold, and looked as if it had been Salt and Brimſtone in a certain proportion melted together; but, as he remembers, was not at all inflamable. This ground again on a Marble, *he ſaith*, did turn Spring water of a reddiſh purple Colour.

That by often calcining and filtring this Earth, He did at laſt extract about two ounces of a fine ſmall *white Salt*, which, look'd on through a good *Microſcope*, ſeemed to have Sides and Angles in the ſame number and figure, as *Rochpeeter*.

The Motion of the Second *Comet predicted, by the ſame Gentleman, who predicted that of the* former.

Monſieur *Auzout*, the ſame Perſon, that not long ſince communicated to the World his *Ephemerides* touching the courſe of the former *Comet*, and recommended ſeveral Copies of them to the *Royal Society*, to compare their Obſervations with his Account, and thereby, either to verifie his Predictions, or to ſhew, wherein they differ, hath lately ſent another *Ephemerides* concerning the Motion of the *Second* Comet, to the ſame end, that invited him to ſend the other. In

In that Tract he obſerves, firſt in *General*, that this ſecond *Comet* is contrary to the precedent, almoſt in all particulas: ſeing that the *former* moved very ſwift, *this*, pretty ſlow; *that*, againſt the Order of the ſigns from Eaſt to Weſt, *this*, following them, from Weſt to Eaſt: *that*, from South to North, *this*, from North to South, as far as it hath been hitherto, that we hear off, obſerved: *that*, on the ſide oppoſite to the Sun, *this*, on the ſame ſide: *that*, having been in its *Perigee* at the time of its Oppoſition, *this*, having been there, out of the time of its Conjunction: where he taketh alſo notice, that this *Comet* differs in brightneſs from the other, as well in its Body, which is far more vivid and diſtinct, as in its *Train*, whoſe ſplendor is much greater, ſince it may be ſeen even with great *Teleſcopes*, which were uſeleſs in the former, by reaſon of its dimneſs. After this he deſcends to particulars, and informs us, that he began to obſerve this Comet *April* the ſecond, and continued for ſome days following, and that as ſoon as he had made three or four Obſervations, he reſolved to try again an *Ephemerides*; but that, having no inſtruments exact enough, and the Comet being in a place, deſtitute of Stars, and ſubject to Refractions, he feared to venture too much upon Obſervations ſo neer one another, ſince in ſuch matters a perfect exactneſs is neceſſary, and wiſhed to ſee ſome precedent Obſervations to direct him: which having obtained, he thereby verified what he had begun, and reſolved to carry on his intended *Ephemerides*, eſpecially being urged by his Friends, and engaged by his former undertaking, that ſo it might not be thought a meer hazard, that made him hit in the former; as alſo, that he might try, whether his Method would ſucceed as well in ſlower, as in ſwifter Comets, and in thoſe, that are neer the Sun; as in ſuch as are oppoſite thereunto, to the end, that men might be advertiſed of the *determination* of its uſe, if it could not ſerve but in certain particular Caſes.

He relateth therefore, that he had finiſh'd this New *Ephemerides April* the ſixth, and put it preſently to the Preſs; in doing of which, he hopes, he hath not diſobliged the Publick: ſeeing that, though we ſhould looſe the ſight of this Star within a few days, by reaſon of its approach to the Sun, yet having found,

that

that it is always to riſe before the Sun, and that we may again ſee it better, when it ſhall riſe betimes, towards the end of *May*, and in the beginning of *June*, if the cleerneſs of the Day-break hinder us not; he thought it worth the while to try, whether the truth of this *Ephemerides* could be proved.

He affirms then, that the *Line* deſcribed by this Star reſembles hitherto a *Great Circle*, as it is found in all other Comets in the midſt of their Courſe. He finds the ſaid Circle inclined to the *Eclipt que* about 26. *d.* 30′. and the *Nodes*, where it cuts it, towards the beginning of *Gemini* and *Sagittary*: that it declines from the *Equator* about 26. *d.* and cuts it towards the 11. *d.* and conſequently, that its greateſt *Latitude* hath been towards *Piſces*, where it muſt have been *March* 24. and its greateſt *Declination*, towards the 25. *d*, of the *Equator*, where it was to have been *April* 11.

He puts it in its *Perigee March* 27. about three of the Clock in the Afternoon, when it was about the 15. degrees of *Piſces*, a little more *Weſterly* then *Marchab*, or the *Wing* of *Pegaſus*, and that it was to be in *Conjunction* with the *Sun*, *April* 9. Where yet he noteth, that according to another Calculation, the *Perigee* was *March* 27. more towards Night, ſo that the Comet advances a little more towards the *Eaſt*, and retards towards the *Weſt*; which not being very ſenſible in the firſt days, differs more about the end, and in the beginning; which he leaves to Obſervation.

He calculateth, that the greateſt Motion it could make in one day, hath been 4. d. and 8′. or 9′; in one hour, about 10′. and 25″. ſo that its *Diurnal Motion* is to its left diſtance from the Earth a little more than as 1. to 14. and its *Hourly Motion*, as 1. to 330.

He wonders, that it hath not been ſeen ſooner; the firſt Obſervations that he hath ſeen, but made by others, being of *March* 17. Whereas he finds, that it might have been ſeen ſince *January*, at leaſt in the Months of *February* and *March*, when it roſe at 2 of the Clock and before: becauſe it is very likely, that, conſidering its bigneſs and brightneſs, when it was towards its *Perigee*, it was viſible, ſince that towards the end of *February* it was not three times as much remote from the Earth, than when it was in its *Perigee*, and that towards the end of *January* it was not five times as much.

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In the interim, *ſaith he*, the other *Comet* could be ſeen with the naked eye until *January* 31. when it was more than ten times further remote, than in its *Perigee*, although it was not by far ſo bright, nor its ſtreamer ſhining as this hath appeared.

He wiſhes, that all the changes that ſhall fall out in this *Comet*, might be exactly obſerv'd; becauſe of its not being ſwift, and the Motion of the Earth very ſenſible, unleſs the *Comet* be extreamly remote, we ſhould find much more light from this, than the former Star, about the Grand Queſtion, whether the *Earth* moves or not: this Author having all along entertained himſelf with the hopes, that the Motion of *Comets* would evince, whether the *Earth* did move or not; and this very *Comet* ſeemed to him to have by deſign appeared for that end, if it had had more *Latitude*, and that conſequently we might have ſeen it before Day-break. He wiſhes alſo, that, if poſſible, it may be accurately obſerved, whether it will not a little decline from its great Circle towards the *South*; Judging, that ſome important truth may be thence deduced, as well as if its motion retarded more, than the place of its *Perigee* (which will be more exactly known when all the paſſed Obſervations ſhall have been obtained) and its greateſt Motion doe require.

He fears only, that it being then to riſe at Break of Day, exact Obſervations cannot be made of it: but he would, at leaſt have it ſought with *Teleſcopes*, his *Ephemerides* directing whereabout it is to be.

April 10. it was to be over againſt the point of the *Triangle*, and from thence more *Southerly* by more than two degrees; and *April* 11. over againſt the bright Star of *Aries*: *April* 17. over againſt the Stars of the *Fly*, a little more *Southerly*, and *May* 4. it is to be over againſt the *Pleiades*, and about the fourth or fifth of the ſame Month, it is to be once more in *Conjunction* with the *Sun*; after which time, the *Sun* will move from it *Eaſtward*, and leave it towards the *Weſt*; which will enable us to ſee it again at a better hour, provided the cleerneſs of the Day-break be no impediment to us. He addeth, that this Star muſt have been the third time in *Conjunction* with the *Sun*, about the time when it firſt began to appear: and foreſees, that from all theſe particulars many conſiderable conſequences may be deduced.

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It will cut the *Ecliptick* about the end of *July*, new Style, a little more *Eaſtwards* than the *Eye* of *Taurus*: at which time there will be no ſeeing of it, except it be with a *Teleſcope*.

It will be towards the *End* of *April*, new ſtyle, twice as far diſtant as it was in its *Perigee*, thrice as far, *May* the fourth, four times, *May* the eighteenth, and five times, *June* the firſt, *&c.*

He would not have Men ſurpriſed, that there have been two *Comets* within ſo ſhort a time; ſeeing, *ſaith he*, there were four, at leaſt, three, in the Year 1618. and in other Years there have been two and more at the ſame time. What he adds about their ſignification, we leave to *Aſtrologers* to diſpute it with him. He concludeth with asking pardon, if he have committed miſtakes, which he hopeth he ſhall obtain the ſooner, becauſe of the ſmall time he hath had for theſe calculations: and he wiſhes that he could have made all the Obſervations himſelf, ſeeing that it is eaſie to fail, when one muſt truſt to the Obſervations of others, whereof we know not the exactneſs: where he inſtanceth, that, according to his Obſervations, the way of the *Comet* ſhould go neerer the Ecliptick than he hath marked it, even without having any great regard to the Refractions: but ſince he would ſubject himſelf to others, he hath made it paſs a little higher, which, he ſaith, was almoſt inſenſibly ſo, in thoſe few days that he was obſerving and writing, but that this may perhaps become ſenſible hereafter: which if it be ſo, he affirms that it will cut the *Ecliptick* and *Equator* ſooner, than he hath marked it, *&c.* However, he thinks it convenient, to have given aforehand a common Notion of what will become of a *Comet*, to prepare men for all the Changes that may fall out concerning it: which he affirms he hath endeavoured to do; the reſt being eaſie to correct, as ſoon as any good Obſervations, ſomewhat diſtant, have been obtained, conſidering, that there need but two very exact ones, a little diſtant when the Star is not ſwift, to trace its Way; although there muſt be at leaſt three, to find out all the reſt. But, then would he have it conſidered, that although his Method ſhould be very exact, if there be not at hand Inſtruments big enough, and Globes good enough to truſt to, nothing can be done perfectly in theſe kind of Predictions.

A Relation