

square of the diameter of the tube; and it is for this reason that spherical glasses, with a small bore, are of no value when enlarged; we have more light, but less distinction and clearness. Nevertheless, broad spherical glasses are very good for night telescopes. The English have constructed telescopes of this nature, and they make use of them very advantageously to see vessels at a great distance in dark nights. But at present, that we know, in a great measure, how to correct the effects of the different refrangibility of the rays, it seems, that we should make elliptical or hyperbolical glasses, which would not produce the alteration caused by sphericity, and which, consequently, would be three or four times broader than spherical glasses. There is only this mode of augmenting to our sight the quantity of light sent to us from the planets, for we cannot put an additional light on them, as we do on objects which we observe with the microscope, but must at least employ to the greatest possible advantage, the quantity of light with which they are illumined, by receiving it on as great a surface as possible. This hyperbolical telescope, which would be composed only of one single large objective glass, and of an ocular one proportionate, would require matter of the greatest transparency; and we should unite
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