

differently ; so that the dispersion of the one is corrected by the other, without the general refraction, which constitutes the mirror, being destroyed. A telescope $3\frac{1}{2}$ feet long, made on this principle, is in effect equivalent to the old telescopes of 25 feet.

But the remedy of the first cause is perfectly useless at this time, because the effect of the last being much more considerable, has such great influence on the whole effect, that nothing can be gained by substituting hyperbolical, or elliptical glasses to spherical, and this substitution could not become advantageous, but in the case where the means of correcting the effect of the different refrangibility of the rays of light might be found ; it seems, therefore, that we should do well to combine the two means, and to substitute, in acromatic telescopes, elliptical glasses.

To render this more obvious, let us suppose the object observed to be a luminous point without extent, as a fixed star is to us. It is certain, that with an objective glass, for example, of 30 feet focus, all the images of this luminous point will extend in the form of a curve to this focus, if it be worked on a sphere ; and, on the contrary, they will unite in one point if this glass be hyperbolical ; but if the
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