

observations when the sun should be behind the gallery, we might see them from the dark end of it ten times at least better than in the open light. Now a man on horseback is easily distinguished at a mile distance, when the rays of the sun shine on him, and by suppressing the intermediate light which surrounds us, and darkening our sight, we should see him at least ten times farther; that is to say, ten miles. Ships, therefore, being much larger, would be seen as far as the curvature of the earth would permit, without any other instrument than the naked eye.

But a concave mirror, of a great diameter, and of any focus, placed at the end of a long black tube, would have nearly the same effect as our great objective glasses of the same diameter and form would have during the night, and it was probably one of these concave mirrors of polished steel that was established at the port of Alexandria*. If this steel mirror did really exist, we cannot refuse to the ancients the glory of the first invention, for this mirror can only be effective by as much as the light

* From time immemorial the Chinese, and particularly the Japanese, have possessed the art of working in steel, both in large and small bodies; and hence I have thought that the words *ferro sinico* in the preceding quotation should be understood as applying to polished steel.