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1862.



JOHN BROWNING,
Optical and Physical Instrument Maker to
Her Majesty's Government,
The Royal Observatory, the Royal Society,
and the Observatories at Cambridge
Utrecht, &c., &c.

63 Strand,

London 8th January 1891

W. C.

My dear Sir,

In reply to your kind letter of the 6th of December. I regret exceedingly that the number of my engagements prevents me from writing you a short paper as I should wish to do on the use of small apertures by Amateurs in Astronomy.

I am clearly of opinion that the work that can be done with small apertures is far from exhausted; the advantages of large apertures are not as great as is generally supposed, such instruments have serious drawbacks; for instance it is seldom that the atmosphere is not good enough to make successful observations with a Telescope of 3" aperture but here in England at all events the nights that 6" of aperture can be used with the best results are comparatively few.

The use of small apertures is a most valuable training for observers, they are encouraged to improve the keenness of their vision by

Observation instead of trusting to more light and brighter magnifying power.

I know many observers who can see the snow caps on the poles of Mars with a 3" aperture, though 6" of aperture is generally considered to be necessary for the purpose.

I know one Lady who gets excellent views of the Spectra of the larger Stars with a 2 1/2" Object Glass and a W. Clean's Star Spectroscope, the two instruments complete cost only £12.10.0.

Again I have known many observers who have done admirable work with telescopes of 4" aperture and have been induced to obtain telescopes of 8" aperture but they have never done better work with them than with the smaller apertures.

I should like to go on adding illustrations to this but time prevents me.

Trusting these few remarks will show my opinion on the subject and begging you to excuse my brevity. With best wishes

for the success of your Society

I am

Yours faithfully

G. E. Lumsden Esq.

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P.T.O.

N.B.

For the sake of simplicity I have confined all my remarks to the use of Achromatic Telescopes, but all I have said would refer to Reflecting Telescopes, indeed I may say that those who use Reflecting Telescopes have continually begun with apertures of large size while they would have done better work had they begun with smaller apertures and in many cases if they had stopped their apertures down to a moderate diameter.

I have the honor to be, Sir, your obedient servant.

Yours faithfully

J. L. Thompson

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Toronto Canada

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