

through *b*, so as to be reflected internally once at each of the planes *a*, *c*, emerge through *d*, the planes of incidence and emergence will be parallel, and the incident and emergent rays will make equal angles with the edge *ac*, and therefore with a normal to the faces *b*, *d*. Hence the portion of the incident ray which is reflected from the mirror will proceed in a direction parallel and opposite to that portion of the ray which, after internal reflexion at *a* and *c*, emerges through *d*.

In order to ascertain that the construction of such an instrument presented no unforeseen difficulties, I requested Mr. T. E. Butters, of 4, Crescent, Belvedere Road, the well-known maker of sextant-mirrors and artificial horizons, to form the faces *a*, *c* on the edges of a piece of plate glass, and then had the face *d* coated with chemically reduced silver. Upon trial, the emergent light was found to be too bright; but after smoking the angle *adc* in the flame of a candle, in order to reduce the intensity of the light, it became perfectly easy to make the centre of the image of the sun coincide with the object T seen by direct vision.

An image of the sun of suitable intensity for pointing might be obtained by attaching to the edge of the mirror a piece of tinted glass, of the form of the corner *abcd*, with the faces *b*, *d* parallel to the plane of the mirror.

The Society then adjourned, over the Whitsuntide Recess, to Thursday, June 15, the President having announced the Meeting for the Election of Fellows to take place on Thursday, June 1, at 4 P.M.

June 1, 1865.

The Annual Meeting for the election of Fellows was held this day,

Major-General SABINE, President, in the Chair.

The Statutes relating to the Election of Fellows having been read, Mr. Brayley and Dr. Webster were, with the consent of the Society, nominated Scrutators to assist the Secretaries in examining the Lists.

The votes of the Fellows present having been collected, the following Candidates were declared to be duly elected into the Society.

The Hon. James Cockle, M.A.
Rev. William Rutter Dawes.
Archibald Geikie, Esq.
George Gore, Esq.
Robert Grant, Esq., M.A.
George Robert Gray, Esq.
George Harley, M.D.
Fleeming Jenkin, Esq.
William Huggins, Esq.

Sir F. Leopold M^cClintock, Capt.
R.N.
Robert M^cDonnell, M.D.
William Kitchen Parker, Esq.
Alfred Tennyson, Esq., D.C.L.
George Henry Kendrick Thwaites,
Esq.
Lieut.-Col. James Thomas Walker,
R.E.

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