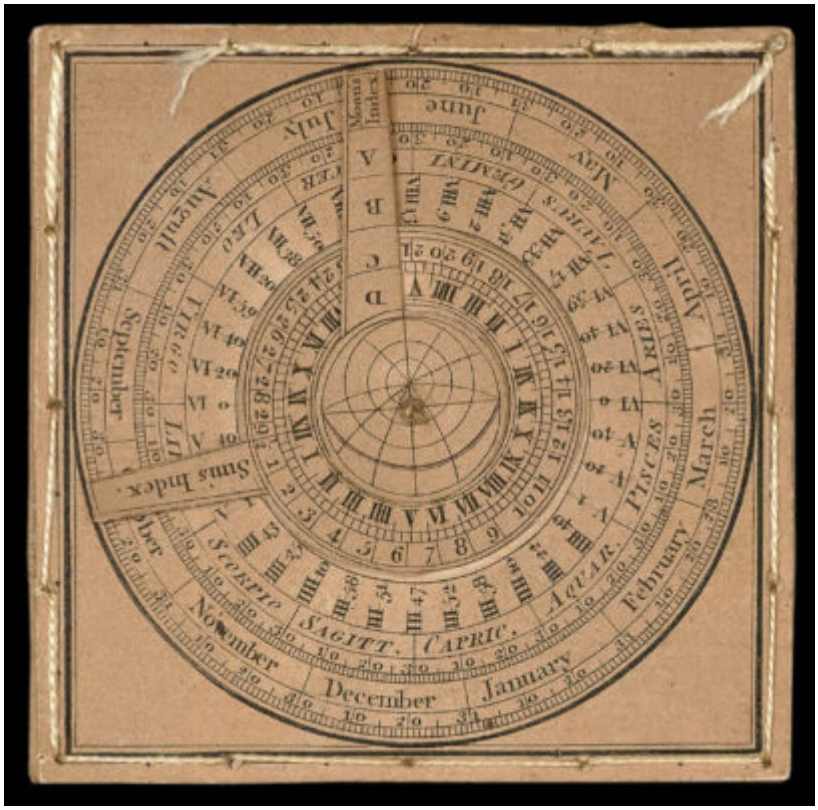

Engraved astronomical instrument on card with internal rotating disc and two pointers in verso.

FERGUSON’S ‘LUMINARIUM

Luminarium

Author
FERGUSON

Publication date
[c.1760]

Publisher

Publication place

Physical description
Engraved astronomical instrument on card with internal rotating disc and two pointers in verso.

Dimensions

Notes
“On 18 November [Ferguson] advertised in the ‘Bath Journal’ that he would begin a course of five astronomical lectures at Wiltshire’s Rooms on Monday 25 November, at 1p.m. Subscriptions were being taken in at Mr Leake’s and Mr Frederick’s bookshops, where “a Syllabus of the lectures may be seen”… In a footnote he mentioned that his “portable CARD-DIALS’ were sold at a shop in Wade’s Passage at a shilling each”. In a further advertisement he mentioned his card dials again, and also his “LUMINARIUM (a small portable instrument) for shewing the Day of the Month, Age of the Moon, Places of the Sun and Moon in the heavens, and times of their Rising and Setting every day of the Year for ever”; this was priced at 2s 0d. one of these devices was enclosed in his letter to [Hugh]

Rose [eEq., of Geddes]. That particular example is no longer filed with the letter (at St Andrews university Library), but another, or possibly the same one, is at the Royal Scottish Museum in Edinburgh" (Millburn).

Extremely scarce. We are only aware of one other example: that held by the Royal Scottish Museum in Edinburgh.

James Ferguson, astronomer, instrument maker, lecturer, natural and experimental philosopher, was born in 1710 at Core of Mayen in the east-most corner of Banffshire. his father was a cottar and too poor to provide him with any formal education. However, his aptitude for learning soon became apparent. At seven, he learned to read by listening to his father teach the catechism to his elder brother. At ten, to earn his keep, he was sent to tend sheep for a neighbouring farmer, and what little spare time he then had was devoted to his developing interest in astronomy, making maps of the stars using beads and thread.

Undaunted by the lack of access to books in his younger years, he set about discovering the principles of mechanics for himself, making models of the machines he saw, including a weight-driven wooden clock with a broken bottle chime – the only materials he had available. The clock kept quite good time, so he attempted to make a watch – the size of a cup – but getting it to work proved beyond the limits of wooden wheel and whalebone spring technology.

This extraordinary ingenuity became known to the neighbouring gentry, who gave him some help to improve his knowledge of mathematics and drawing. For a time he was employed by Sir James Dunbar of Durn, and it was while staying at Sir James's house that he painted the two gate stones: one as a terrestrial globe and the other as a celestial map. While there he was introduced to Lady Dipple, Sir James's sister, who assisted him in going to Edinburgh, where he supported himself for some years drawing miniatures.

After returning north to Inverness to find work, an astronomical rotula that Ferguson had produced was sent to Professor Maclaurin in Edinburgh, who immediately recognized Ferguson's ability and gave him encouragement and assistance. In 1743 Ferguson was able to go to London, where he was introduced to the Royal Society and published astronomical tables and lectures. he also gave lectures in experimental philosophy, and was heard by George III, then Prince of Wales, who afterwards gave him a pension of £50 a year.

In 1763 he was chosen a fellow of the Royal Society, without the usual fees. Ferguson's influence extended widely in his own lifetime: he was the first to form a nebular theory, Thomas Paine mentioned him in his publication 'The Age of Reason', and William Herschel studied astronomy from his books. However, it is, perhaps, as one of the first popularisers of science that his main influence was felt. Ferguson created a number of orreries and machines to illustrate his lectures, and published several books and paper instruments including: 'Astronomical tables and Precepts' (1763); 'Introduction to Astronomy' (1769); 'Astronomy explained' (1772); 'Lectures on Mechanics, hydrostatics, Pneumatics, and optics' (1772); 'Select Mechanical exercises' (1773); 'The Art of Drawing in Perspective' (1775); and 'An Introduction to electricity' (1775).

Bibliography

Provenance

Price:

Inventory reference: 2198