

JOHN WHEATLEY

John Wheatley was one of the most remarkable men who have lived in the parish* of Bluntisham-cum-Earith, Huntingdonshire. He was born in Earith in 1812 and little is known of his early years save the fact that his mother was a widow with many children to bring up, and although very poor was able to give him some education at a dame school. He himself once declared that his interest in natural history was first stimulated when, as a boy, he watched kites wheeling for hours on motionless wings over the Heath, where for hours he had been sent to mind sheep. Means were found to apprentice him to a carpenter, and in 1829 he came to Bluntisham, where he remained as village carpenter for the rest of his life.

At the age of 25 he read Dick's "Solar System" which inspired him with a passion for astronomy. He at once started what developed into a life-long correspondence with the author, who helped and encouraged him in his experiments.

His first desire in the pursuit of his hobby was to construct a telescope. This he achieved by grinding lenses from the bottoms of glass tumblers to a focal length of 6 feet and used them with a 1 inch focal length eyepiece to give a magnification of 72 times. Achromatic lenses were not then made and single lenses of crown or flint glass were far from satisfactory. Wheatley therefore decided to make a Newtonian telescope and had to obtain a reflector. At that time the present method of silvering glass was unknown, and reflectors were cast in speculum metal and ground to shape.

Wheatley first went to the Merton Iron Foundry at Huntingdon and had cast there a six-inch reflector which came out fairly successfully, but afterwards proved porous. He next approached a founder at March who undertook to cast a nine-inch reflector. This one, after the immense labour of grinding, also proved porous. Wheatley then decided to attempt the casting himself. He carefully studied Gardene's *Treatise on Optics*, and had learned much from the previous failures.

Sufficient copper, tin and silver being obtained (the copper was supplied by an old wash-house boiler), the Waldock Foundry at St. Ives was hired for three days. The copper was first melted and the molten tin and silver added to form an alloy more brittle than glass. After a second melting it was poured into a mould and left to cool for three days. Waldock moved the mould in ignorance and cracked the speculum before it was set. Wheatley, in disgust, put his metal into a sack and returned home.

His next step was to have a furnace built in his yard at Bluntisham. Here he made a successful casting which he covered up with many layers of dry earth and sawdust. This was allowed to cool gradually for many weeks, thin layers of the covering being taken off every few hours during both day and night. This method proved completely successful. While the metal was cooling he made a machine for grinding the reflector, and the grinding occupied all his spare time for six weeks. At the end of that time a perfect eighteen-inch reflector with an eighteen-foot focus was produced in December, 1865.

* About eleven miles north-north-west of Cambridge.

Soon after this achromatic lenses were invented. Better lenses could now be ground and Wheatley abandoned the Newtonian telescope for the Hershelean. This needed no reflectors, being in the form of the tubular telescope with which we are now familiar. He made a number of these and at one time had the fourth largest ever made. He was now in touch with such leading astronomers of the day as Herschel and Lassell and made many important observations. Among these was the re-discovery of Belaugh's Comet.

In those days it was the custom to confine most building operations to the summer months and in some years Wheatley would close down his business completely from the end of October until April, in order to devote the whole of his time to his experiments.

With the necessity of earning his living one would have thought that the study and practice of astronomy would have been sufficient to occupy all his spare time. This was far from being the case.

He was an accomplished musician, and in addition designed his own organ and 'cello. He was a student of wild birds. He was a prominent member of the Bluntisham Meeting House and teacher and superintendent in the Sunday School. He made a large number of working models, one of which received a silver medal at the Great Exhibition of 1851. Much of his work is now lost, or its whereabouts unknown, but a little still remains in the village; Mr. P. D. Tebbutt has two of his speculum reflectors. On the gable-end of a house in Woodend there could until recently be seen a board nailed to the timber; this was lettered by Wheatley and used as a focusing test for his telescopes. Lacking education, money and patronage, there can be little doubt that had John Wheatley possessed these advantages to support his great natural gifts, he would have gained a celebrated place in the scientific world of his day.

[The above article is based on a slightly longer one in "Bluntisham-cum-Earith, Huntingdonshire: Records of a Fenland Parish", by C. F. Tebbutt, Tomson (St. Neots), 1941. The Editors are indebted to Professor F. J. M. Stratton for drawing this publication to their attention and to Mr. C. F. Tebbutt for permission to reprint this material.]