Roland L. T. Clarkson: a Suffolk astronomer

Richard McKim

R. L.T. Clarkson (1889–1954) lived nearly all his life in Suffolk and the surrounding counties, under the dark skies of rural England. A complete set of beautifully illustrated observational notebooks allows us to trace the life of this typical and uncontroversial amateur astronomer, along with his interactions with the BAA. Throughout most of his life Clarkson suffered from a shortage of money and was even forced to sell his best telescopes during the Great Depression. Some previously unpublished details are presented here about the work of the lunar observer H. G. Tomkins of Dedham, with whom he collaborated in the 1920s & 30s. Like Tomkins and many others of his epoch, Clarkson favoured a volcanic origin for the lunar craters: the subject of his only contribution to our *Journal*. Late in life, he was a founder member of the Ipswich and District Astronomical Society, the forerunner of the modern Orwell Astronomical Society Ipswich.

Introduction

Most modern astronomers will be unfamiliar with the name of Roland Lebeg Townley Clarkson (1889–1954; Figure 1),[1] but for decades Clarkson supported many of our Observing Sections. Living in rural East Anglia he had the advantage of really dark skies for many years.

What makes him especially interesting is the complete series of 18 beautifully written and illustrated notebooks that he left.[2] These cover 1906–'53 and reveal in detail the astronomical work of a man who was very much just an ordinary amateur; a far more typical figure than the advanced amateurs who made up the 'Headley Group',[3] or Robert Barker's 'Circle'.[4] The author came across these notebooks when cataloguing the Association's Archives as long ago as 1981, and has always wanted to tell Clarkson's story. This paper does just that.

Clarkson's father was Laurence T. Clarkson,[5] the second son of the Rev. L. T. Clarkson, who had been Rector of St. James, South Elmham. Laurence Clarkson was born in 1857 and later served as Chairman of Wangford Rural District Council. As a surveyor, estate agent and farmer he is associated with the St. James Post Mill, which was the last post mill in Suffolk to be moved (in 1864) and set up as a corn mill.[6] (The mill was dismantled within his lifetime.)

Together with his brother A. Townley Clarkson, Laurence was well known in yachting circles, owning a barge which he had built in 1899, *Spider*, and the houseboat *Coot.* He was a member of the Royal Norfolk & Suffolk Yacht Club. He married Annie Payne, another clergyman's daughter, in 1879. Laurence and Annie had one child, the subject of this biography, in 1889. Annie died the following year and Laurence with his baby son went to live in Beccles. It was natural, therefore, that Roland Clarkson was educated at that town's grammar school. He amassed a long list of addresses in Suffolk and its neighbouring counties, and spent a number of years in 'Constable Country'.[6]

We know that Clarkson had some scientific training, particularly in chemistry, for he made good use of it later. He had various jobs during his working life: the final ones were clerical (involving politics or business) but most early ones were technical. Like many amateurs he used a 76mm (3-inch) refractor for a number of years, but graduated to larger reflectors, eventually concentrating upon a 165mm (6½-inch) Newtonian. He sometimes interacted with better-known amateur astronomers, in particular the lunar observer H. G. Tomkins. Figure 2 shows Roland Clarkson in 1927.

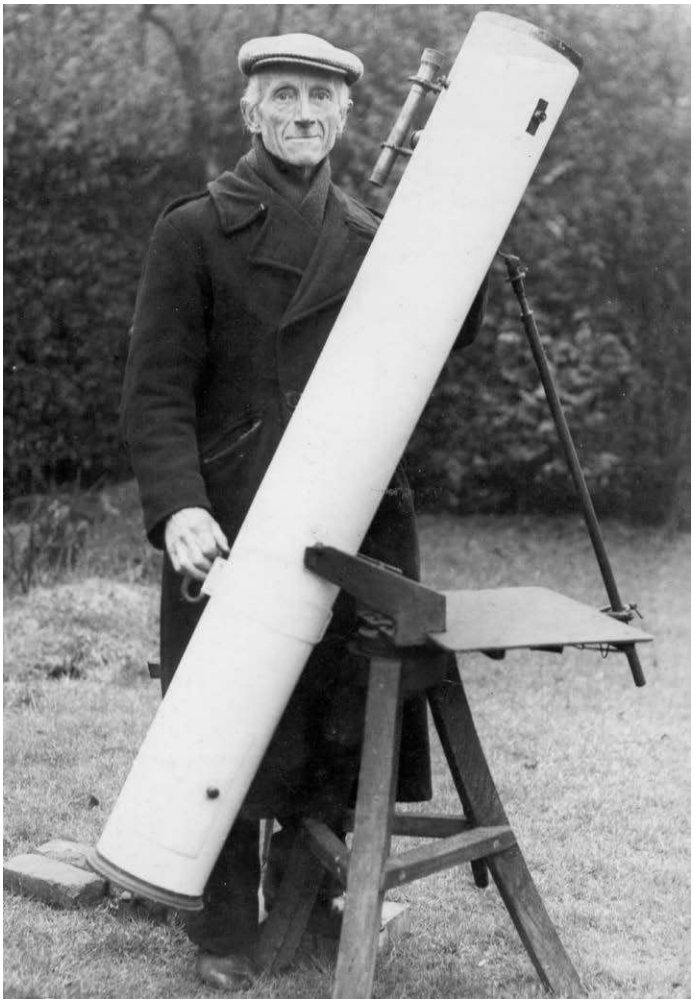

Figure 1. R. L. T. Clarkson in 1954, with his 165mm long-focus Newtonian. *(Photo courtesy Kevin Fulcher)*

Our subject never married and his obituarist described him as leading a solitary life, while always ready to encourage an interest in astronomy and a prolific correspondent. However, that is a sketch from old age, and a cursory reading of his logbooks will show that he often sought company.

Figure 2. R. L. T. Clarkson at Dedham in 1927 with his 229mm (9-inch) reflector. (The original is very small and not quite sharp.)

Early astronomical work, 1900–'12

During this period, the young Clarkson observed with the naked eye and nothing larger than a 38mm (1½-inch) Dollond look-out telescope (essentially a spyglass with a three-pull drawtube and a power of ×12).[7] The Dollond belonged to his father, who was always referred to as 'L. T. C'. There are a few references to 'Uncle A. T. C'.

'The first important astronomical event which I recollect was a lecture by Sir Robert Ball at the Memorial Hall, Beccles, in I think 1905', he wrote in a letter to fellow amateur D. J. Fulcher in 1951.[8] Was this lecture the catalyst for his astronomical career? Formal recorded observations began on 1906 Jan 8, when Clarkson was aged 16 and living at 10 Pier Terrace, Lowestoft (although he recalled having seen the solar eclipse of 1900 May 28 while still at school). The logbooks recall not only his observations, but other astronomical events and meetings, as well as newspaper clippings. 'In 1907 a course of six lectures under the auspices of the Cambridge University … was given at the Town Hall at Lowestoft by the Rev. T. E. R. Phillips [Figure 3A] who [later] was Rector of Headley near Epsom, and a well-known Director of the Jupiter Section of the BAA.' Phillips was reputedly a very enthusiastic speaker,[9] and the young Clarkson must have been excited by the talks.

The low power of the Dollond limited Clarkson's observations. By way of compensation, the night skies were very dark. Fortunately another local amateur had a 76mm (3-inch) refractor, which Clarkson was able to share. He records: 'James Blyth, who was the author of a number of novels dealing with Suffolk fishermen and natives, *Juicy Joe*, *Celibate Sarah*, *Deborah's Life*, *The Same Clay*, *Amazement*, *Rubina*, and others never heard of now I suppose, lived at Pakefield near Lowestoft, and about 1908 bought a 3-inch telescope from Newton and Sons for £5 new, with which he and I used to observe Jupiter, Saturn, [the] Orion Nebula, people on the pier, and other things, but I do not think he did much serious astronomy'.[8] Blyth (1864–1933) turns up in the earliest notebook.

Clarkson saw the transit of Mercury on 1907 Nov 14 from 48 Denmark Road, Lowestoft. He saw the comets of 1910 & 1911, including Halley's and the Great January Comet C/1910 A1, as well as several eclipses of the Sun and Moon. Clarkson was clearly good at creative tasks, and in 1909 from the Mars observations of Percival Lowell he fashioned a canal-laden globe of the planet out of wood. Later he would model lunar craters from plaster.[10] A reference to the large partial solar eclipse of 1912 Apr 17 records that he watched it from Beccles aboard *Coot*, his father's houseboat.

A few records from this early period stand out as being of unusual interest, so we mention them separately.

The thinnest lunar crescent?

Having a fine sea horizon enabled Clarkson to see many objects at low altitude, especially the rising of the Sun and Moon over the sea. He always looked for signs of the young and old crescent Moon. Around dawn on 1908 Jan 3, 'I observed the Moon just above [the] horizon under exceptionally fine conditions at 7.20 a.m., 14 hrs & 13 mins before New Moon. This appears to be impossible, but I am almost sure I saw it.' Later he omitted the record in making a fair copy of his early notebook, although both versions were preserved. Sadly, it seems implausible. First, an online calculator shows that with a modern ephemeris the Moon was new at 19:43 UT, so the time was 12h 23m before new. Second, other calculations show that the Moon was just below the horizon at 07:20, with less than an hour before the Sun would rise. Very likely he had observed a tiny thread of cloud.

As of 2015, according to the *Sky & Telescope* website,[11] the earliest sighting of the new Moon with unaided sight is that by S. J. O'Meara, 15h 32m past new, in 1990 May. Another online source states:[12] 'A longstanding, though somewhat doubtful record for youngest Moon seen with the eye was held by two British housemaids, said to have seen the Moon 14¾ hours after New Moon – in the year 1916'. The website also records a photographic sighting of the new Moon aged 0h by Thierry Legault on 2013 Jul 8, which therefore sets a record impossible to break, at least photographically.

Tunguska

An unusual observation which was fully explained only later concerned a run of evenings in 1908 June with unusually light or 'luminous' night skies. Years later Clarkson learnt of the fall of the Great Siberian Meteorite – the Tunguska event – which had occurred on June 30 at 6 a.m. British time and threw vast quantities of finely divided matter to great altitudes, and was finally able to link the two stories together.

On Jun 30 Clarkson wrote that 'the twilight remained for a very long time after sunset and at about 11 p.m. it appeared as if the Sun were soon going to rise.' A neighbour had thought it meant a big fire at Yarmouth, and Clarkson kept many clippings from the local press that commented upon the condition of the sky, even though no aurora had been reported.

On the following evening the same effect was noted, and in addition the horizon sky to the north-west at 10 p.m. was a beautiful bright orange, fading into light yellow, light green and grey before merging with the deep cobalt blue overhead. After a period of cloud, the evenings of Jul 7 & 8 were similar, though the sky was less bright.

Bristol & Torquay, 1912–'14

Clarkson's observation of a solar eclipse from the houseboat was the last entry for 1912. After that, his writings record how he stayed in lodgings at Bristol and Torquay from 1912 Jun 19 till 1914 July, where observations could only be made with great difficulty.

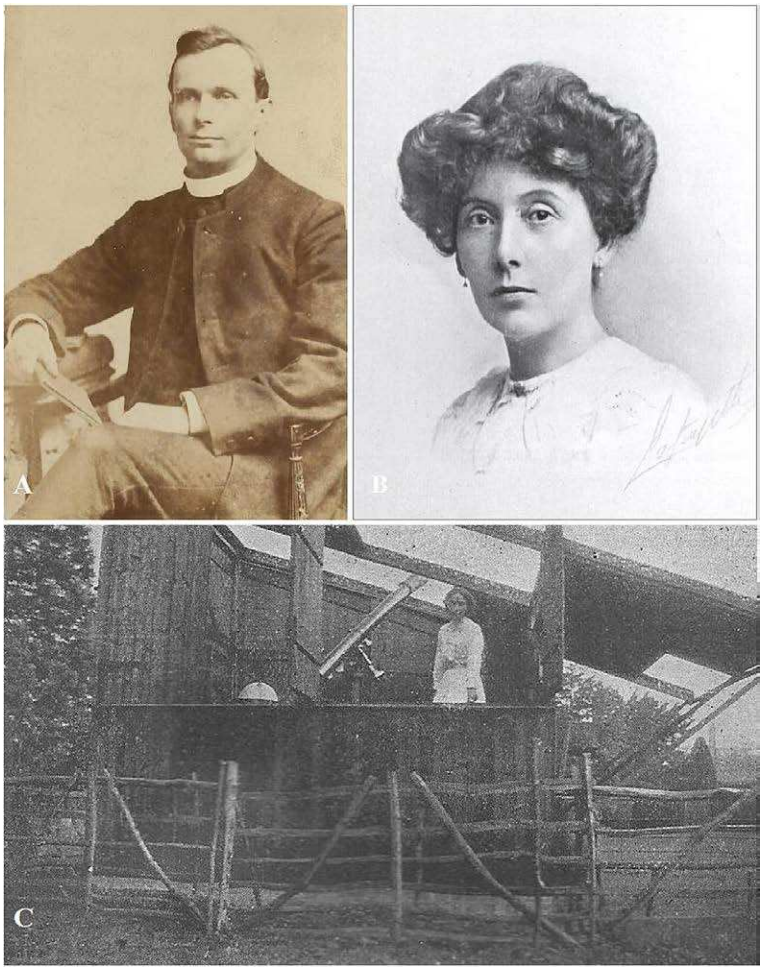

Figure 3. Early influences. **(A)** Rev. T. E. R. Phillips (from BAA Archives). **(B)** Mrs Fiammetta Wilson (from *Knowledge*). **(C)** Grace Cook (from *English Mechanic*).

No astronomical notes at all were made, but much later he recalled: 'Knew Mr Denning the famous meteor observer when I was at Bristol'.[8] This would have been in the years immediately following Denning's sudden breakdown in health, and is unusual in that (as Denning's obituarist would write) although he *knew* many people, he hardly ever *saw* anyone in person. Clarkson was never a serious meteor observer, though he did note bright examples throughout his career.

World War I & afterwards, 1914–'23

Clarkson became chemist to the Burgh Castle Brick & Cement Works in 1914. Although an online search indicated that these works at Great Yarmouth closed in 1912, Clarkson's notebook under 1914 Aug 21 nonetheless records that a partial solar eclipse was 'observed at Burgh Castle from the laboratory'. But then came World War I; according to his logbook Clarkson went off to sea later in 1914. He watched several superb aurorae aboard ship, but kept no notes. This was the start of a long unsettled period that took him away from Suffolk for five years. Online research has revealed that he served as an Assistant Paymaster (a rank in the RN Accountant Branch) aboard the *Shemara* from 1914 until 1915.[13]

As recorded in his own words, Clarkson returned to England in 1915 March. With a background in chemistry, could he have been of greater use to a country at war? Sure enough, a few months later we find him living at Faversham, Kent, working for the Cotton Powder Company: a munitions company for whom he became their 'second chemist' in 1916–'17. As an analytical chemist he joined the Chemical Society (CS; nowadays the Royal Society of Chemistry) on 1918 May 9.[14] The autumn and winter of 1917–'18 saw him travelling about with his father, after which he settled at Wandsworth, London with the Volkes Lighting Company, and could attend CS meetings. His chemical knowledge later came in handy when silvering telescope mirrors.

In 1916 Clarkson took up a correspondence with Mrs Fiammetta Wilson (*d.* 1920; Figure 3B), who together with Miss Grace Cook (1864–1920; Figure 3C) directed the BAA Meteor Section.[15] A bright auroral glow was noticed to have edged the north horizon on 1916 Dec 19–23. It was also at Faversham on 1917 Feb 9–15 that he first witnessed the zodiacal light. Mrs Wilson was the daughter of a family friend: 'Mrs Fiammetta Wilson … [who] was a very active observer of meteors, and lived at Totteridge and later persuaded me to join the BAA, was a daughter of Dr J. H. Worthington, a very well-known Lowestoft doctor…'.[8] Dr Worthington had been a friend of Clarkson's father. Roland Clarkson, Miss Cook and Mrs Wilson were all members of the Ipswich Section of the Chaldaean Society, a national astronomical society with local subdivisions which had flourished briefly in the 1910s & 20s. Clarkson had some letters published in their journal on the subject of planetary shadows.

Living in London would bring about a fortunate result: on 1918 Feb 27 Clarkson attended his first BAA meeting at Mrs Wilson's invitation, and was proposed for membership by her and Phillips. He lived at 1 Lebanon Road, Wandsworth. At that meeting Mrs Wilson had been a speaker, as were Phillips and BAA founder E. W. Maunder.

Nova Aquila, a conspicuous object, was followed for some time during 1918. Clarkson recorded that he needed to work hard at Volkes, and had little time for observing in 1919 March when he transferred to the Astra Light Company and lived in Blackheath. The Director of the BAA Solar Section then was Maunder, whom Clarkson knew personally from the Association's meetings and who also lived in Blackheath. Maunder encouraged him to log naked-eye sunspots.

In 1919 August, Clarkson left London and returned to Suffolk to be with his father. He spent nearly four settled years living at 25 Ballygate, Beccles. On 1920 Mar 22 he watched a brilliant aurora, and Nova Cygni was monitored later in the year. By 1921 he had set up a complete meteorological station in his garden, and made numerous measurements during the large partial solar eclipse of Apr 8. Auroral streamers were prominent on the evening of May 13: 'A. T. C. told me the Yacht Club Steward saw them at Lowestoft'. At last there was another good view of the evening zodiacal light on 1922 Mar 28.

Alas, between 1923 May and 1924 January Clarkson was living in Watford (at 24 Aldenham Road) where he had 'no instruments but plenty of street lamps, and had no opportunity for much astronomy.' But things would soon be looking up.

Serious observational work begins, 1924

Clarkson moved again in 1924 March – this time to The Old House, Dedham, Essex. More precisely, this was the Old House

Private Hotel, recently purchased and run by his father.[5] He lived here until the end of 1927: another period of stability.

He now purchased a 76mm (3-inch) Gregorian reflector and got a good view of the transit of Mercury on 1924 May 8. Better still, the loan and subsequent purchase (for £7 in 1925 May) of a high-quality 89mm (3½-inch) Wray refractor from a Mr Randolph Curtis enabled him to begin some serious astronomy. Curtis, who died the following year, presented Clarkson with a number of books. Clarkson would often show the hotel guests celestial sights with the Curtis telescope, later judged by Dr W. H. Steavenson as excellent. Figure 4 shows Clarkson's best telescopes before 1931.

It was fortuitous that a famous lunar observer and amateur astronomer should choose this very moment to retire to Dedham: H. G. Tomkins.

R. L. T. Clarkson & H. G. Tomkins

Herbert Gerald Tomkins,[16] who had lived in India for many years and lately worked for the Indian Civil Service, finally retired to Suffolk and set up in the grounds of the East House, Dedham, a 60cm (24-inch) reflecting telescope in a fine observatory.

Clarkson of course was already living nearby. His first note about Tomkins was on Aug 11, when the latter asked him to join the house party he was organising to observe the lunar eclipse due three days later. In particular, he asked Clarkson and a Miss Davis to use the Curtis telescope to study the lunar rays at three different points during the eclipse. A rehearsal on Aug 13 ended up with all the confusion of an amateur theatrical, and it rained on Aug 14, but contact had been established. A similar gathering was held for the partial solar eclipse of 1925 Jan 24 and that was clouded out too.

The 24-inch was ready in Newtonian form in 1925 September. Tomkins again asked for Clarkson's assistance, and first light was on Sep 27: 'Mr Tomkins having looked himself, Miss Vera Reynolds, Mrs Tomkins and myself had our turns'. It was officially opened on Oct 3, when Mr and Mrs Tomkins were 'At Home'. For Suffolk this was a really major event.[17]

The author had not previously seen any photographs of this observatory, but as Clarkson kept one in his notebook we can reproduce it in Figure 5, together with his freehand sketch of the skeleton tube of the 24-inch (Figure 6). Later this telescope was converted to a Cassegrain.

Tomkins' idea that the lunar maria were dried-up salt lakes, similar to those he had seen in India, greatly influenced Clarkson in his own views about the origin of the lunar surface features. Tomkins had a regular photographic programme in place.[18] Clarkson never seems to have considered the meteoritic hypothesis, but Clarkson's life did not end until that theory, due in its modern form to Baldwin, was gaining popularity.

The later 1920s

Clarkson always tried to observe regularly, noting any bright comet and the odd eclipse in addition to a staple diet of the Moon and planets, while also watching for any auroral displays. On 1926 Jan 3 he fancied he could faintly see the Ashen Light of Venus. The notebooks contain the odd domestic note, and there is a

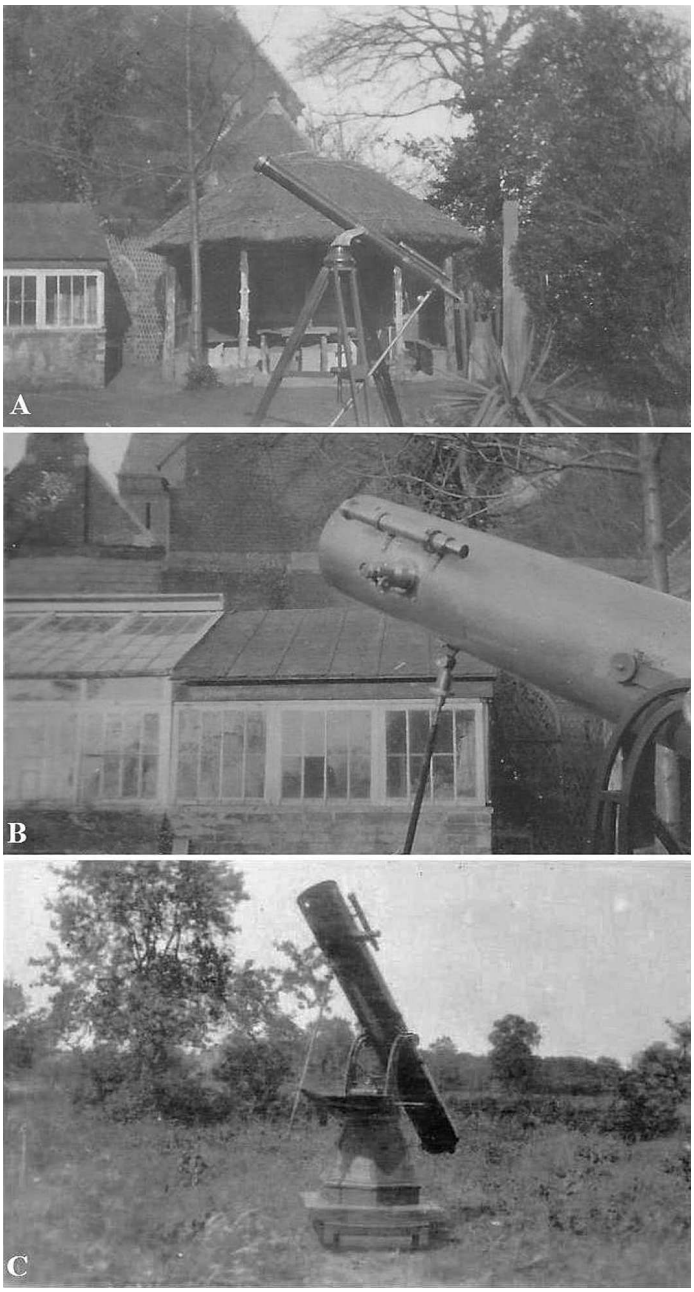

Figure 4. (A) Clarkson's 3½-inch refractor at Dedhfam (1927). **(B)** His 9-inch reflector at Dedham. **(C)** The 9-inch pictured later at Yaxley (1928).

sad one on Jan 19: 'Hector Macdonald Woods, houseboy at the Old House, was found dead on the marshes between Stratford St. Mary and East Bergholt this Tuesday afternoon by search party organised by L. T. C.'.

1926 Feb 1 saw Clarkson and his father at an auction near Framlingham, where for £1 10s they purchased an old and very dirty 254mm (10-inch) Gregorian of *circa* 1760 vintage in a brass tube. Ultimately it worked well, but only at low power.

The year 1926 also saw Clarkson assisting Tomkins with silvering his mirrors, and on Jun 22 Dr W. H. Steavenson visited Tomkins to star test the 24-inch. He was in the process of planning an even larger reflecting telescope for his own London observatory, and next day he visited Clarkson and tested his telescopes for him using an artificial star. The 10-inch Gregorian showed significant astigmatism, and Clarkson took it to H. N. Irving (at the time based in Hitcham) for a further report. Irving found both mirrors faulty – the primary being irregular with a wide turned-down edge – so

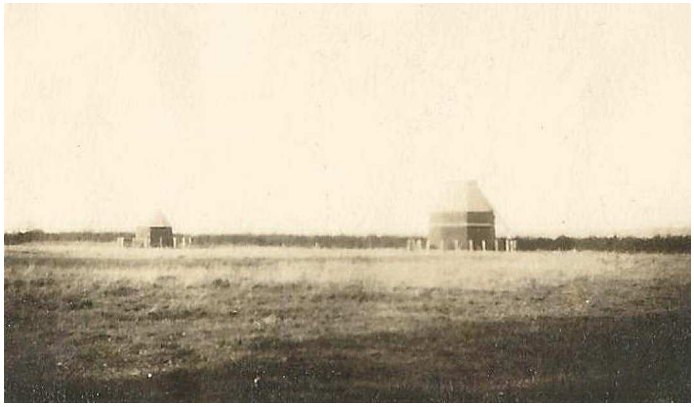

Figure 5. The two observatories of H. G. Tomkins at Dedham. The larger dome housed the 24-inch Cassegrain and the smaller one an 8½-inch reflector.

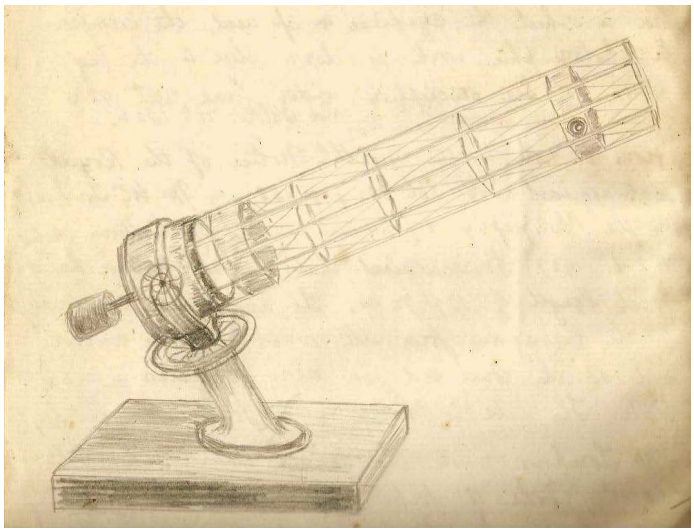

Figure 6. Drawing by Clarkson of the 24-inch telescope built by Tomkins.

Clarkson ordered a new 229mm (9-inch) glass mirror from him. It was ready by Nov 1, but owing to 'business problems' in connection with the hotel, Clarkson put off its collection till December. Finally he had a really useful telescope (Figure 4).

Clarkson gave an astronomy lecture to the Ipswich & District Natural History Society (hereafter IDNHS) at Ipswich Museum on 1926 Nov 6. With the 9-inch at last put into working order at the end of the year, we see his artistic talent maturing in a series of watercolour and finely pencilled drawings of Jupiter (Figure 7). His sketches from 1927 onward became larger and more detailed. Definite markings were seen upon Venus and his work was praised by Henry McEwen of the BAA, but although he sent Phillips his 1927 Jupiter work he was not acknowledged in the eventual *Memoir*. In later years B. M. Peek did acknowledge his Jupiter drawings. The transit of Mercury on 1927 Nov 10 was well seen.

Clarkson always had a good eye for colour: the numerous little watercolours of lunar eclipses are perhaps his most impressive pictures, and form a recurring motif throughout his career. He did a lot of deep sky work in his earlier years (especially with the new 9-inch), catching the spiral structure of Messier 51 easily.

A total solar eclipse, 1927

On Wednesday, 1927 Jun 29, the total eclipse of the Sun visible across Yorkshire tempted Clarkson to travel to Leyburn (Figure

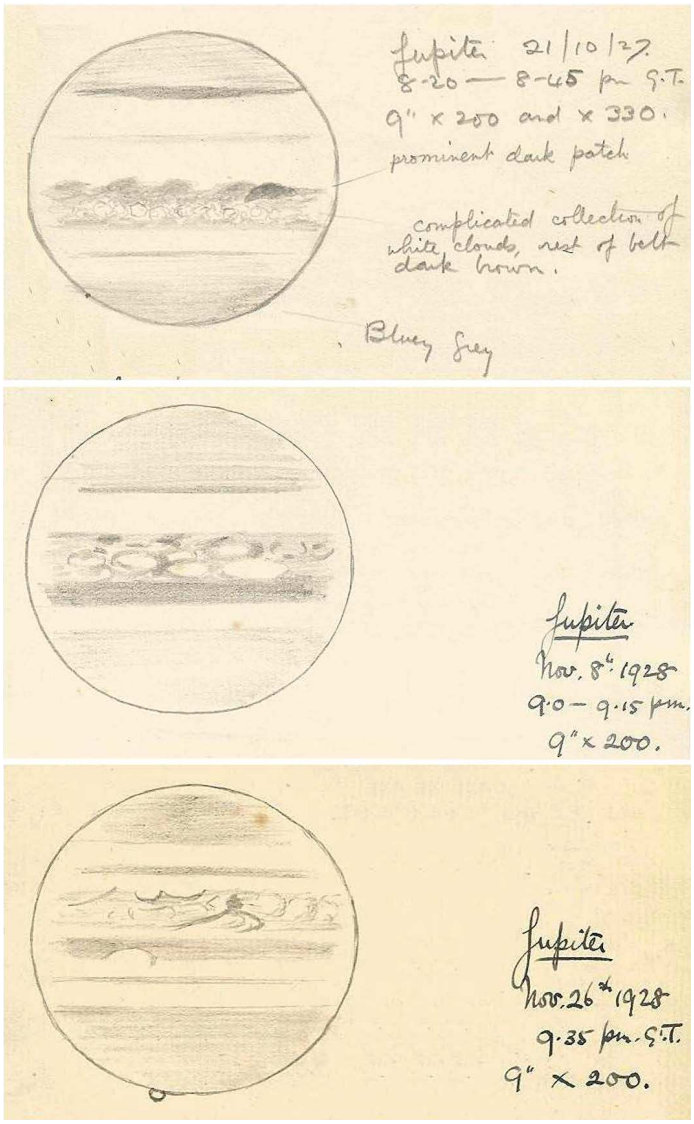

Figure 7. Jupiter in 1927, showing the outbreak of white spot activity in the NEBZ, and in 1928 showing the SEB Revival. Drawn with the 229mm (9-inch) reflector (south is up in all the telescopic views).

8). All this he described in a scrapbook illustrated with watercolours and cuttings. R. A. Marriott has described in detail the similar experiences of other British astronomers.[19] Clarkson was not fortunate in sharing the experience of the Royal Greenwich Observatory group at Giggleswick, where a gap in the cloud occurred at just the right moment.[20]

'Arrived at Ipswich station 7 p.m. [Tuesday Jun 28] to find platform crowded with people, mostly schoolchildren, waiting for the special train to Leyburn. 7.15 p.m.: Special train arrived. Only 6 coaches … Fearful scramble for seats … Engine failed at Bury. Having waited for Up train, old goods engine from yard came on and took us to Ely … 25 mins late. Raining Fordham to Ely. Six coaches from Norwich came on in front.'

At Lincoln a large crowd joined the train and the guard's van was full. Following half an hour of sleep after Doncaster they arrived at Leyburn at 4 a.m.; nearly two hours late. 'Walked up thru [*sic*] town with large crowd … Shops all open. Dance in full swing at Town Hall.'

By 4:45 Clarkson got a place on a stone wall on a hilltop outside the town. At 5:27, first contact, it was still cloudy. Two more trains arrived, and then at 5:47 there were a few minutes' glimpse

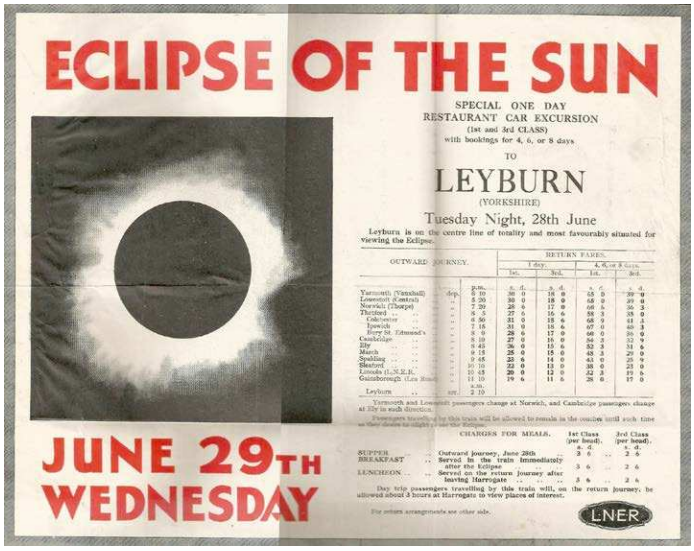

Figure 8. LNER poster advertising the 1927 total solar eclipse excursion, giving details of the special train taken by Clarkson. Third class was 18s 6d, plus 2s 6d for breakfast.

of the partially eclipsed Sun. By 6:10 it was getting dark and chilly, with the landscape looking weird under a leaden sky. At 6:24, 'rapidly everything got funnier and funnier. I wondered what on Earth was going to happen next when suddenly the dark cloud westerly swooped down on us, light went fast, everything turned bright purple and very dark, bright red streak northerly, can't see to read or write … Suddenly light brightens up again, purple gone, light coming back again much more quickly than it faded … The shortest twenty-three seconds I ever remember.'

The Sun broke through at 6:37, but clouds soon returned. At the station: 'Found my train in a siding, got into it, and got some breakfast which I badly needed. Left Leyburn punctually 8.33. All seats being occupied, established myself in the guards [*sic*] van…' There was a long planned stop at Harrogate, and Clarkson took in the sights. At March an inspector boarded the train, 'who inspected these sketches amongst other things'. Ipswich was reached at 7:02, two minutes late, and Clarkson was collected by his father by car. From Dedham, L. T. C. had made temperature measurements, but had not seen a single glimpse of the Sun. BAA Solar Section Director A. M. Newbegin borrowed the eclipse album for a BAA Exhibition.

Things were about to change again for Clarkson, for the Old House Hotel was sold on 1927 Jul 19. One suspects that it did not make enough profit, but Clarkson Senior was now 70 years old, and surely ready to retire from the hotel trade.

Unsettled times

Clarkson Junior and Senior left Dedham in 1927 December, to briefly reside in a rented house in Ipswich. In 1928 March they left The Bungalow, Weymouth Road, and went into temporary lodgings at 1 The Walk, Beccles till June. In August they attended the Lowestoft Regatta.

Clarkson Junior had been appointed Organising Secretary and Agent for the Eye Division of Suffolk. This job (which I believe was as a Liberal Party agent) involved a lot of travelling about; in 1929 April and May he did no observing at all, due to the approaching General Election. I presume that Clarkson's political tendencies were towards the Liberal Party for we find, under 1929 Aug 10, that he took his refractor to Athelington Hall and the 'Great Liberal Fete', where he showed sunspots at a penny a peep. This was repeated the following year. In 1929 September he switched jobs to Organising Secretary of the Woodbridge Division.

By late 1928 the Clarksons were installed in another rented property – The Poplars Farm House, Oakley, near Diss – where they remained for a few years. Here, as in the previous abodes, the 9-inch was stored in a galvanised iron lean-to shed, and rolled out when needed. During 1929 Walter Goodacre assigned Clarkson the job of looking for crater central peaks in Section XI of his lunar map, and the majority of his work was now on observing the Moon. This project was finished two years later. He stayed in touch with Tomkins by letter and occasionally they would meet.

Early in 1929 the Société Astronomique de France invited him to join, which he did. He would send them his reports, and occasionally translate Venus papers from their *Bullétin* for McEwen. He also joined the Lille-based Association Astronomique du Nord *via* Henri D'Halluin.

A bright, golden yellow, vertical sun pillar some 15 degrees long was seen above the setting Sun on 1929 Mar 29, turning a deep orange after the Sun had set, before gradually shortening, fading and reddening. He reported his solar work to the BAA, and there were several large spot groups in the summer. An unusual commission for him was the positioning of decorative stars on the Masonic Lodge ceiling at the King's Head Hotel, Diss, in 1930 January.

Out of the blue in 1930 September came the sudden and unexplained sale of the 3½-inch Wray refractor and 9-inch reflector to Watson & Sons of High Holborn, London, for £30; they were replaced by the purchase of a second-hand 165mm (6½-inch) Irving reflector for £2 10s from a Mr P. A. S. Foster who lived near Eye. Fortunately this turned out to be of good quality. Clarkson left behind a page of small photos of the new telescope set up outside the house (Figure 9).

Another change of residence in 1930 October found father and son in a small house owned by the local farmer in Brome Road, Yaxley, near Eye. The Clarksons carried out the move themselves this time, requiring over 39 trips by car, plus one lorry load for the heaviest items. First they had to sell the perhaps unprofitable Dedham hotel, and then came the sale of his telescopes. More cuts would follow in those early years of the Great Depression: Clarkson still appeared on the BAA membership list for 1931 January, but was forced to resign for financial reasons. In a much later entry under 1951 Apr 29 he 'realised an ambition of twenty years standing, and replaced the 3½-inch Wray telescope' with a good 3-inch refractor. That too would soon have to be sold for profit.

The evening of 1931 Feb 14 allowed a rare view of Jupiter without satellites. On Jun 7 he was awoken at 1:30 by what sounded like a heavy lorry, but was in fact an earthquake whose epicentre was in the North Sea east of Hull. In 1931 April he mentions a busy time with a forthcoming census. A few weeks later, under May 14: 'I commenced wayleave work with the East Anglian Electric Supply Co. Ltd, Stowmarket which lasted till Nov 30.' Meanwhile there was electioneering in East Norfolk for Lord Elmley during October.

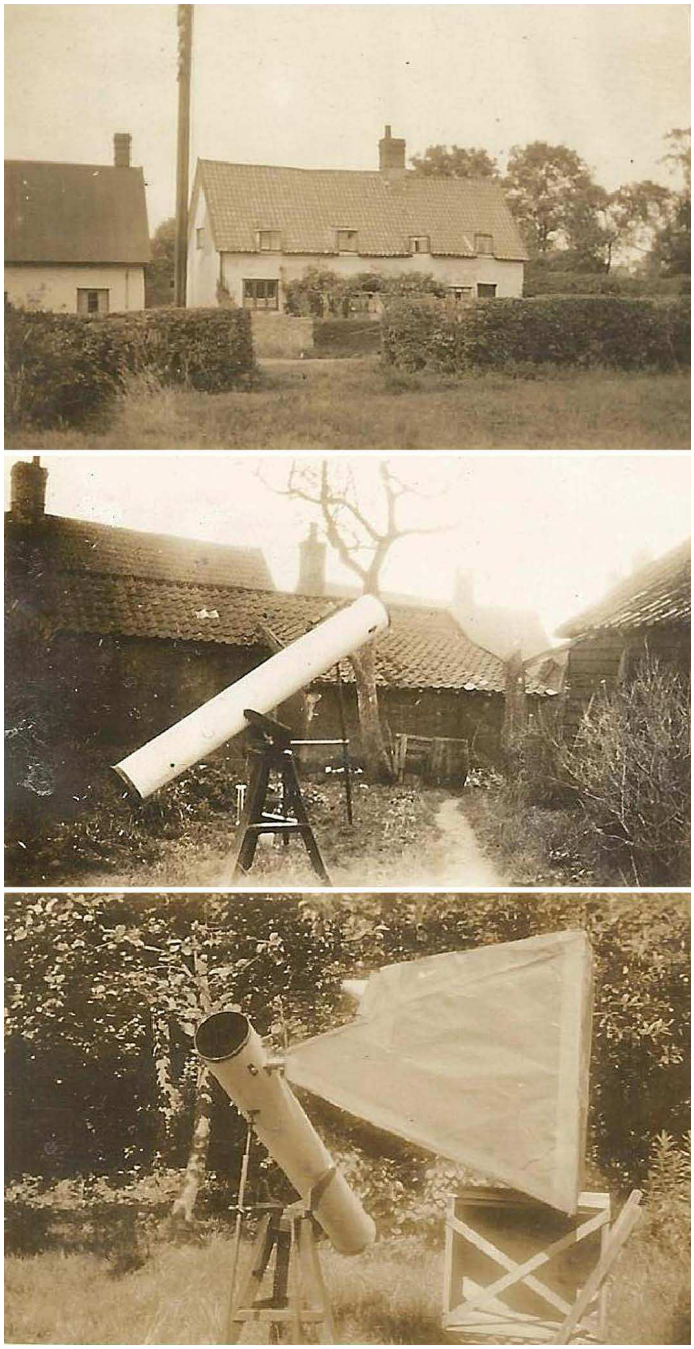

Figure 9. ***Top:*** Yaxley, 1931–'32. ***Middle:*** The 165mm (6½-inch) reflector. ***Bottom:*** The arrangement for projecting the Sun.

Yet another short-term appointment followed in 1932 January, when Clarkson started work with W. C. C. Hawtayne MIEE at Colchester (living in rooms at Beaconsfield Avenue and then Wellesley Road), except at weekends when he drove back to Yaxley. The job related to the Colchester Corporation's electricity schemes, and went on till late October, so once again there were few chances to observe.

It was from Yaxley that Clarkson followed the total lunar eclipse of 1932 Sep 14 in great detail and left a separate sketchbook of his watercolours. *The Morning Post* (1932 Aug 16) had quoted Dr A. C. D. Crommelin in connection with Krakatoa and the dark lunar eclipse of 1884: 'There will be special interest in observing whether the great Andes eruptions of the spring have appreciably affected the atmosphere'. In Figure 10 a similar sequence is shown for a later eclipse. Abnormally fine views of the zodiacal light (which appeared brighter than the Milky Way) were enjoyed on 1933 Jan 25–27, when the evening cone was faintly extended a long way beyond Pegasus to Pisces.

In the spring of 1933 he was busy with the Woodworking Centre of the Eye Council for Social Services, and then in May became Organising Secretary for the Sudbury Division. In August he had a rare chance to visit Broadhurst Clarkson during a business trip to London, and got a better high-power eyepiece. The following month we find him lunching with a friend at the National Liberal Club in London. By 1934 May he was working in Beccles with the East Anglian Electric Supply Co. Ltd., living at Cliff Cottages with L. T. C in June and July; his contract expired in September. During the hot summer weather, H. G. Tomkins died on Jul 17 after two years of heart trouble, but Clarkson only learnt of it from the local papers. At the end of the year he was able to see Nova Herculis two days after discovery, and followed it until 1935 April.

Will Hay's white spot on Saturn in 1933 eluded him, but with better eyepieces he strongly suspected a dark spot north of the NEB northern component on 1934 Oct 10 & 11, and later a whitish spot in the EZ on 1938 Oct 17.

After this long unsettled period, Clarkson would finally find a permanent residence, but not a permanent job.

Trimley

Another new job took Clarkson to Felixstowe. On 1935 May 8 he went to take charge of the Information Bureau at the railway station, and on Jun 20 he was appointed Secretary of the Felixstowe Business and Advancement Association. Surely a better paid position, and the only one he would hold for any length of time, continuing till retirement in 1951 (albeit with a long wartime interruption). For a period his observing again suffered, but there was an interesting partial solar eclipse at sunset on Jun 30 which he was able to watch from Felixstowe golf links.

Father and son quickly found a house to hire in Trimley. This move to a small village outside Felixstowe was their last, and from Jul 4 they lived at The Bungalow, The Avenue, which had an orchard. At Trimley he also acted as Secretary of the Felixstowe Residential Hotels and Caterers Association, and Secretary of the Village Hall. Clarkson corresponded with several French astronomers in the 30s, particularly Henri D'Halluin (Figure 11A), and received a nice postcard from E.–M. Antoniadi about Mercury's atmosphere, dated 1935 Nov 8 (Figure 11B).

In 1936 February, Clarkson attended a lantern slide lecture by E. H. Collinson at St. George's Hall, Felixstowe. Perhaps this was the catalyst for rejoining the BAA on 1936 Nov 25, when his proposer was the young Collinson and his seconder the Solar Section Director F. J. Sellers. Meanwhile, routine work continued and an excellent view of another partial solar eclipse (1936 Jun 19) was logged. Perhaps the most interesting views at this time were of the bright comet Peltier (1936a), of which one of Clarkson's drawings is shown here (Figure 12). The edgewise rings of Saturn provided another spectacle at the end of the year. An entry for a Perseid watch mentions that at the same time the Territorial Army at Felixstowe had engaged in anti-aircraft practice with a searchlight: a first taste of things to come.

In 1937 Clarkson lectured to the IDNHS, from which an Astronomical Section would spring after the War. Comet Finsler

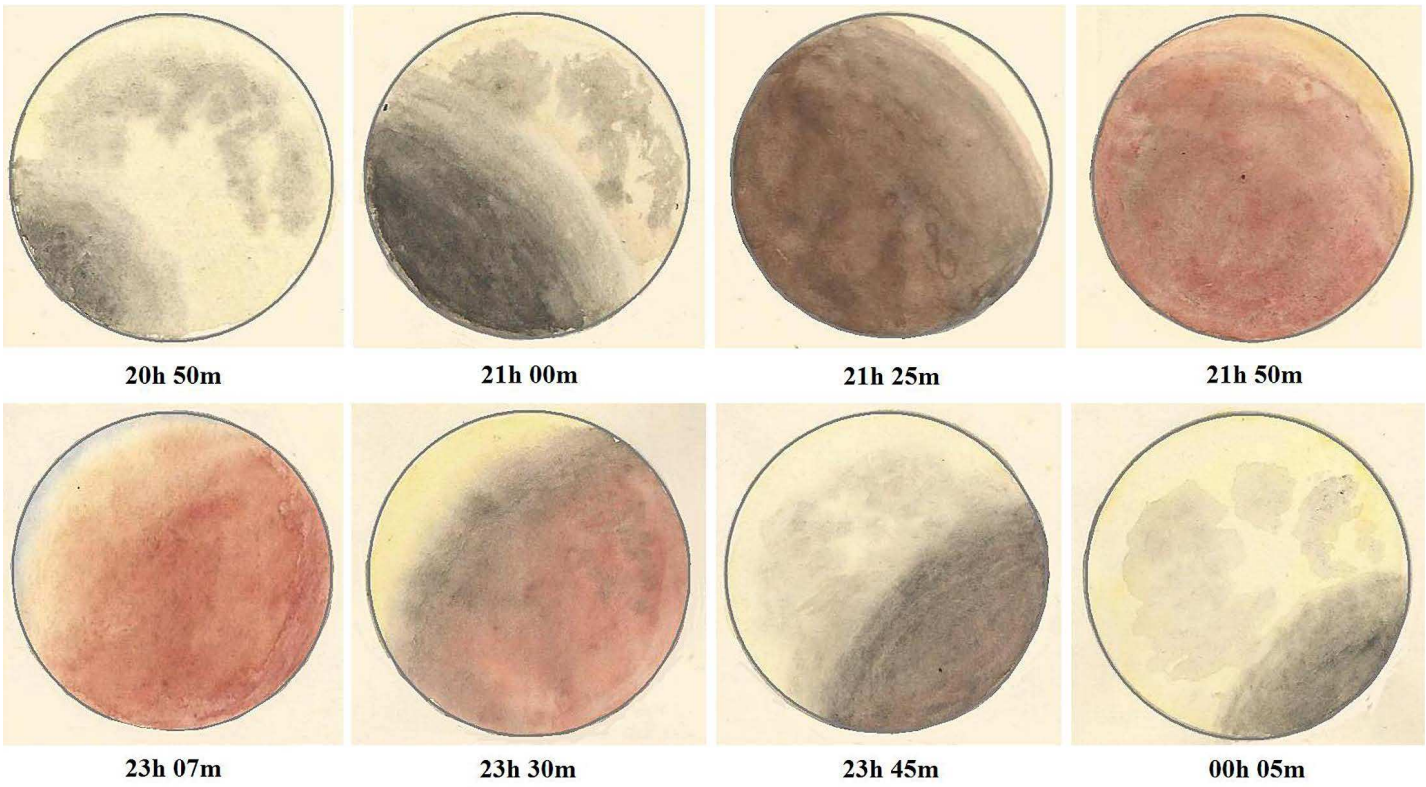

Figure 10. Watercolours of the 1938 Nov 7–8 total lunar eclipse, with the colours as observed with binoculars and the naked eye. Note the strong coppery tint of the umbra around totality, and the bluish tint of the upper limb at 23h 7m.

(1937f) was well seen in August. The lunar work continued apace, and by the mid-30s Clarkson was using pen and ink to enhance his crater drawings. Some of these are particularly effective and examples are shown here (Figure 13). The great aurora of 1938 Jan 25 was the next spectacle, and both the local papers and BAA Aurora & Zodiacal Light Section quoted from Clarkson's extensive report.[21] The total lunar eclipse of 1938 Nov 7 was observed under excellent conditions.

On 1938 Apr 2–3 a full-scale air raid blackout rehearsal was held in Felixstowe and Ipswich, repeated on the night of 1939 Aug 10–11. Clarkson was an ARP warden at the latter event, assisting the chief warden who was 'acting as umpire for the various incidents which took place'. War with Germany was only three weeks away.

World War II

'No street lamps, cars with shaded sidelights only' noted Clarkson on 1939 Sep 1. There were soon air raid alerts, and on Sep 6: 'our own chaps engaged British planes coming back again and 2 or 3 were brought down in the Ipswich area'. Soon after: 'We are now getting wonderful starlit skies'. Some fine auroral displays obligingly followed.

Too old for active service, on Nov 20 Clarkson took on a wartime appointment as Chief Assistant to the local Food Control Committee at its office at South Beach Mansion. Around 1940 Jan 30 heavy snow blocked roads and threatened supplies, and with dislocated bus services our subject found it hard to get to work. The local Fuel Committee rationed coal, and it was a very wintry spring.

On Apr 22 four German planes returning home were fired at by the Felixstowe and Trimley batteries. (H2 Trimley Battery was primarily built to protect Harwich and Felixstowe, and originally had four 3.7-inch guns. The site is still in existence.) On the evening of Apr 30 a heavy explosion shook Clarkson's windows, and was later traced to the crash of a Heinkel mine-laying aircraft at Clacton, damaging 50 houses. Jun 12 saw a trawler blown up by a mine, and next morning an RAF machine flew into a barrage balloon cable and crashed upon Marriage's Mill at Felixstowe docks. Clarkson cycled down to watch the blaze. On Jun 21 there were bombs at Old Felixstowe, Harwich and Ipswich, while there were so many enemy aircraft about that he found it impossible to get the telescope out.

Between air raids, Clarkson was able to make good observations of Saturn's widely open rings, and saw definite spots on the planet's South Equatorial Belt on 1942 Nov 21. Around the same time, W. H. Haas in the USA was intensively observing the same outbreak of spot activity. A similar sighting was made on 1944 Feb 15. The opposition of Mars in 1941 was well seen – giving the best views of his career – and reported to the BAA. Later, three of his drawings appeared in the 1941 Mars *Memoir*. An attempt at variable star work (at W. M. Lindley's request) did not succeed.

Clarkson had an aversion to numerical work and never determined central meridian transits for Jupiter, but he did make many drawings. In similar fashion he would lightly dismiss Dr A. F. O'D. Alexander's request to start making intensity estimates for Saturn. However, he did find evidence of seasonal changes in the planet's polar regions. Later on his sketches and watercolour landscapes were invaded by the barrage balloons visible from his site, which were protecting the local docks (Figure 14).

Bombs did not trouble him unduly, though one did fall close enough to crack one of his windows. A serious raid took place on Felixstowe on Aug 16: '5.30 p.m. … about 200 German planes returning from London dropped 14 bombs on Felixstowe, three of them in Highfield Road not far from South Beach Mansion where I was. A great shake up for us all.' On Aug 30 there was bomb damage at the railway station. In 1941 February, Trimley organised its fire-watching rota, Clarkson included.

Several superb nights had to be ignored when there was a procession of bombers, but Clarkson did achieve a lot and his output was hardly less than in peacetime. In May Double Summer Time was introduced, as a wartime expedient.

Clarkson was more in demand as a speaker. On Nov 29 he lectured in Ipswich about 'The rivers and broads of Norfolk'. In the following years he gave several astronomy talks at ARP meetings: there was a great public interest, fostered by the intensity of the blackout. And on 1943 Jan 30 he became Vice-President of the IDNHS.

Early in 1942 Clarkson left the Food Office altogether and worked for a month at Season's Dairy. The next mention of work is on Jun 22 when he started with Bushell & Co., Ipswich accountants and auditors, for which he commuted daily by train. Fire-watching continued, but for the moment there were more references to British than to German planes.

Autumn and winter influenza became a recurring theme now. A bad attack affected him through Christmas 1942. Clarkson's father was still living with him, and when he died on 1943 Jan 5 from bronchitis, the local paper published a usefully informative obituary.[5] Clarkson had another long bout of the flu immediately afterwards.

Later in 1943, Clarkson made a composite drawing of the lunar south polar region and sent it to the BAA. T. L. Macdonald considered it was worth space in the *Journal* but Clarkson did not write up any paper. A rapid retreat indoors was needed on Nov 3: moonlight was also good for bombers. When the Trimley battery opened up with the heaviest barrage of the war to date, '…the Bungalow rocked and shook and the noise was deafening'. Some planes were shot down and others dropped incendiaries upon Ipswich. 'Shrapnel was pattering on the roof, shells were whining just over my head … and altogether things were pretty lively.' In 1944 May, Clarkson left Bushell & Co. and went to Joseph Hant's Bakeries Ltd. 'at a considerably higher salary', but the work proved tiring, and in June after a short holiday he started at the Ipswich Tyresoles Works.

With the invasion of Normandy the Germans quickly became preoccupied, but soon the 'pilotless planes' (V1 flying bombs) were sent over to fall upon southern England. 'Two passed over Trimley and a third … came down in a field … but no damage done.' Another crashed in the sea off Felixstowe on Jul 18. On Aug 25 a Halifax bomber crashed in the sea just off Felixstowe pier. Clarkson's ARP duties continued, and he saw or heard 97 flying bombs pass in October. On Nov 10 one passed only some 45 yards above where he was lying. The fall of a much larger V2 rocket near the railway line on 1945 Jan 12 shook the entire village.

The German surrender in May and VE Day went unreported, but VJ day received a note that 'all the boats in Harwich harbour started blowing their whistles and the WAAFS and RAF chaps at the various billets in The Avenue lit a bonfire opposite the Red House and we had a stirring time, dancing around the fire *etc*., till about 3 a.m.'

Figure 11. French postcards: communications from **(A)** H. D'Halluin and **(B)** E.–M. Antoniadi.

The post-war years

Clarkson worked in Ipswich until 1946 March, and then resumed his old job as Secretary of the Felixstowe Publicity and Advancement Association in April. There was plenty of astronomical interest: huge sunspot groups in 1946 & 1947, and more great aurorae. Clarkson seemed to receive a constant stream of visitors now.

His election as a Fellow of the RAS in 1946 December (having been proposed by Steavenson, Macdonald and Sellers) was a great source of pride. The election was noted in all the local papers, and the cuttings were pasted into his log. He records: 'At

Figure 12. Comet Peltier (1936a) sketched with the 165mm reflector on 1936 Jul 26.

intervals I have given astronomical lectures to the IDNHS during the last 25 years, and there was that series of ten sessions on Astronomy at Christchurch College in Bolton Lane which I ran from Sept to Nov 1946'.[8]

The early months of 1947 must have taken their toll upon Clarkson's now less robust health, with snow on the ground from Jan 23 till Mar 15, very low temperatures, fuel shortages and power cuts. No outdoor telescopic work was done till mid-April, but next month the largest sunspot ever recorded was nicely seen. Sunspots were demonstrated at the Conservative Party Fete on Jun 28: a change from his Liberal affinities. We don't learn many domestic details from the logbooks, but in his later years Clarkson kept at least one cat.

Clarkson served as President of the IDNHS for two sessions in 1945–'47, and later was instrumental in establishing an Astronomical Section. The first move was a Society visit on 1947 Sep 6 to Orwell Park Observatory, where members could use the 254mm Merz refractor; this was a great success. He was visited at home by Mr and Mrs D. J. Fulcher of Ipswich on 1948 Aug 19, and this visit together with another Orwell Park outing on Oct 9 (Figure 15) was instrumental in the process. But after heavy work at the office he was getting very run down, and on doctor's orders had a fortnight off work.

Having no car since the start of the War, Clarkson had to cycle, and the 12-mile round trip to Orwell was only possible on a mild evening, which Oct 9 fortunately was. Following a public meeting chaired by Clarkson at Ipswich Museum on Nov 20, Fulcher was appointed leader of the new Astronomy Section (subject to approval by the Society), after Clarkson was obliged to decline the position. Its first meeting the following month drew a good attendance.

Clarkson now suffered successively from lumbago, and from frequent overwork at the Bureau, so his 1949 Mar 19 lecture to the Astronomy Section had to be cancelled when he 'went down with nerves' the evening before. He had to miss the Section's outing to Greenwich Observatory on May 21 'owing to nervous breakdown, overwork and neuralgia'. But he was observing Saturn that very evening, and would give many more talks later. It is surprising that with his failing health he never tried to arrange some shelter for the telescope (although he went as far as sketching some designs).

By the 1950 January AGM of the IDNHS, Fulcher considered the Astronomy Section strong enough to become an independent organisation. The Ipswich and District Astronomical Society (IDAS) was formed on Jan 21, with Fulcher becoming Secretary-Chairman and Clarkson serving as President until his death. Collinson (1903–'90), Fulcher (1918–'75) and C. R. Munford – all well-known BAA members – were associated with the Society's early years and it continued to visit Orwell Park. Collinson knew the Merz refractor well, having been the first to apply for permission to use it for observations of Mars in 1931. In 1957 the Society would fold, but in the 1960s some former members of IDAS would be involved with the formation of its modern-day successor, the Orwell Astronomical Society Ipswich (OASI).

By the late 1940s Clarkson's observational output had become smaller, as he was less able to withstand cold evenings. Nevertheless the records continued, and some of his later watercolours were nicely tinted. For instance, those of Saturn in 1949 & 1950 depict a warm-toned retreating southern hemisphere and a bluish northern one.

A brief retirement

Clarkson retired from work in 1951 May, after surviving a very wet spring. He received warm thanks from the Business Association, who gave him his final month off on full pay. It was due to him that they had been able to produce a Felixstowe tourist guide so quickly after the War.

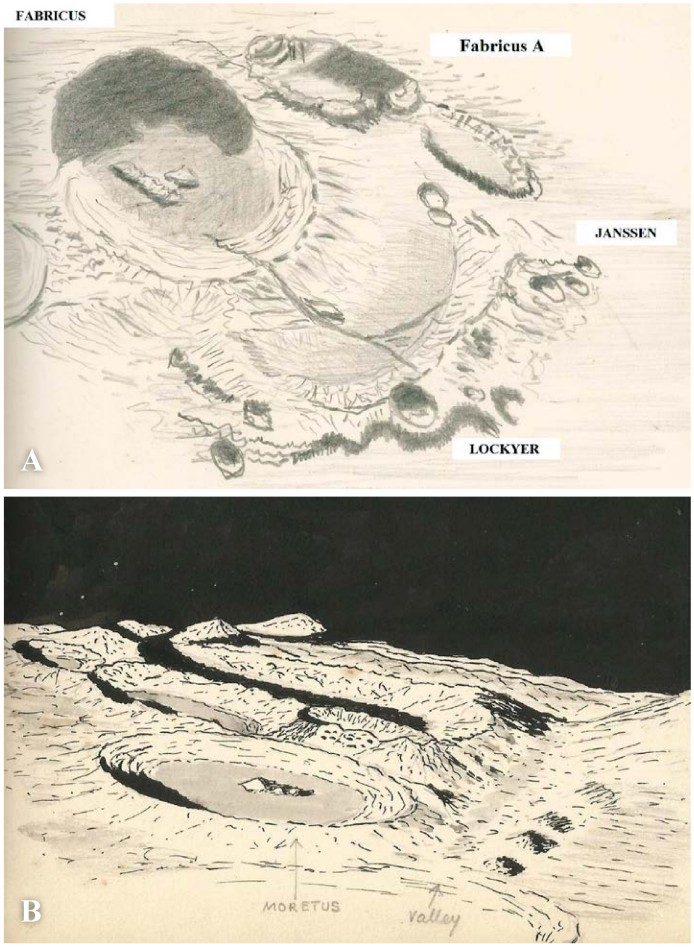

Figure 13. Drawings of the Moon's craters with the 165mm reflector, at ×240. **(A)** Fabricus and Janssen on 1938 Mar 6, 18:00–18:45 UT (relabelled by the author). Note the forked cleft. **(B)** Moretus, Newton and Short on 1938 Mar 12, 20:00–20:45 UT. Note what looked to Clarkson like a shallow valley to the right of Newton.

His outlook was still strictly practical: 'After being quoted £8 10s by Broadhurst Clarkson & Co. for a steadying rod [for his new 3-inch refractor] I went down to Parry's Garage Walton, bought an old car brake rod for 6d'; he made this do the job instead. He was again able to cycle to Orwell Park to observe on Oct 5, and to gain a bit of extra income he became a temporary part-time Christmas postman. Success encouraged a repeat in 1952 July, perhaps intending to go on indefinitely. The early morning starts suited him and he was always home by 10 a.m. But by the end of August he was too exhausted to continue.

Now (for ready cash?) he sold the 3-inch refractor, bought for £15 as recently as 1951. He records that he was still doing work for the Hotels Association. Moreover, he was active with Trimley Village Hall, assisting with preparations for celebrating the forthcoming coronation (which he would view on someone else's television). Rather surprisingly, he again signed on as a temporary postman for Christmas 1952. Shortly into 1953 came a great tidal flood disaster on the East Coast, with a fatal combination of a heavy north-westerly gale and a spring tide; in Felixstowe 39 people were drowned.

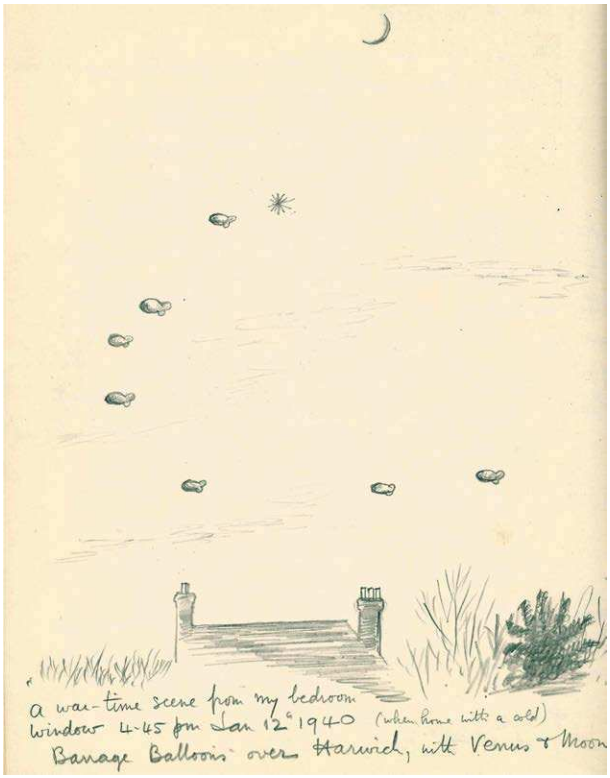

Figure 14. Barrage balloons protecting Harwich, 1940 Jan 12.

Retirement was to be all too short, but in 1953 he was corresponding with undiminished enthusiasm with Richard Baum, sending him a paper about Wargentin-type lunar formations with raised floors for Baum's new periodical, *Vega*. As an adherent of the igneous cratering theory, raised formations were interpreted by Clarkson as domes that had not collapsed. He also corresponded with Ewen Whitaker about the south polar area of the Moon, and contributed to the Lunar Section's periodical, *The Moon*. In August however, he was crippled with lumbago and rheumatism for three weeks. He managed an outing to Ipswich in October, but telescopic work was more or less given up.

A suggestion of immortality came too. In his lunar maps, H. P. Wilkins had given many new names to minor craters. On 1954 Feb 15 Wilkins wrote to him that the IAU had asked him to recommend names for certain craters, and that he was proposing the name 'Clarkson' for Gassendi A. He clearly assumed that his views would prevail with the IAU. Wilkins also informed the *East Anglian Daily Times*, and so there was plenty of publicity for the occasion by them, followed by publication in the Feb 20 *Felixstowe Times* of an interview with the astronomer and a photograph of him at his desk, looking far older than his years. This meant a great deal to our subject. The story even made it into the national papers, with a full column inch in the *Daily Mirror* on Feb 22. After Clarkson's death some of the new names were accepted by the IAU, but others – Clarkson's included – were rejected.

By 1953 November Clarkson had become seriously unwell, suffering from an incurable cancer. An operation had been scheduled for Dec 9, but Clarkson '…could not stand the sleepless nights and painful preparations, and was forced to get them to send me home again on Monday Dec 14'. He had the pleasure of getting a good naked-eye view of the 1954 Jan 19 total lunar eclipse. Confined to the house after a long cold spell up till Feb 10, Clarkson could at least add press cuttings to his logbook. He also had the satisfaction of having an article about lunar observing published by the *East Anglian Daily Times* on Mar 13. After this there are a few slips of paper containing rough notes, obtained *via* small telescopes at the bedroom window, up to Mar 27.

Patrick Moore, then Lunar Section Secretary, knew that Clarkson was very ill and in severe financial difficulty. He acted at once to organise a relief fund,[22] but just before the total of £50 (well over £1,000 in today's money) collected from Clarkson's generous friends could be presented to him by Collinson, he had died in Felixstowe Hospital on 1954 Apr 10 at the age of 65.[1,23] In their Annual Reports to Council, several Section Directors paid tributes. Roland Clarkson was buried in Trimley churchyard.

Clarkson's paper about the origin of surface features on the Moon would appear in print during the month of his death.[24] It was a somewhat unconventional one in terms of geological theory, and he had been greatly upset when asked by the BAA Secretary in February to shorten the paper. But Wilkins had helped in the publication of the shorter version.

Clarkson's beloved 6½-inch Newtonian was acquired by the Association. The photograph shown in Figure 1, of the astronomer in old age with this telescope, was published in a local newspaper.

Conclusions

Roland Clarkson's life was an outstanding example of an amateur astronomer who had experienced the many ups and downs of life, and had witnessed the great rise in popularity of his hobby during and after World War II. Clarkson's notebooks, preserved in our Archives, form a fitting testament to his skill and energy over half a century.

Acknowledgements

I thank Pete Richards for drawing my attention to the existence of ref. 8. I thank OASI and Kevin Fulcher, the son of D. J. Fulcher, for supplying Figure 1. Martin Mobberley kindly provided details of Suffolk windmills. The late Richard Baum kindly let me have some letters from Clarkson, which I have added to the BAA Archives.

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References & notes

1 A short obituary notice of Clarkson written by Ipswich amateur astronomer D. J. Fulcher appeared in *J. Brit. Astron. Assoc.*, **64**, 405–406 (1953).

2 The BAA Archives contain 18 hardback notebooks of Clarkson's (numbered I to XVIII) together with a softcover notebook of watercolours of a total eclipse of the Moon (1932 Sep 14) and a large-format hardcover scrapbook of the 1927 total solar eclipse.

3 The 'Headley Group' refers to the circle of planetary observers who worked at or in conjunction with the observatory of the Rev. T. E. R. Phillips at Headley, near Epsom. Prominent in that group were B. M. Peek, R. L. Waterfield and F. J. Hargreaves.

4 An 'Observing Circle' maintained by the amateur astronomer Robert Barker has been described by the writer: McKim R. J., *J. Brit. Astron. Assoc.*, **123**, 20–32 (2013).

5 L. T. Clarkson's obituary appeared in the *Beccles & Bungay*, a local newspaper, 1943 Jan 16: **www.foxearth.org.uk/BecclesAreaNewspapers/beccles_newspapers_1943.htm**. More details of Suffolk windmills are available: **www.suffolkmills.org.uk/newsletters/038%20January%201987.pdf**.

6 The painter John Constable (1776–1837) had lived and worked in the area, making the Stour Valley famous with such memorable works as *Flatford Mill* and *The Haywain*.

7 With their speculum metal mirrors, the early Gregorians do not yield bright images unless they are freshly polished. I have tested a small, late 18th century metal Gregorian that had once been presented to Oundle School by the BAA. It was hopeless with anything other than the Moon or brighter planets!

8 Suffolk Record Office reference GC14/B1/2: 'Notes on the history of astronomy in Suffolk from R. L. T. Clarkson to D. J. Fulcher', 1951 March. Using this same source in a recent article about Fiammetta Wilson (*The Antiquarian Astronomer*, no. 13 (2019)), W. Barton notes that her father's initials were F. S. rather than J. H. Clarkson knew that the Astronomer Royal Sir G. B. Airy had once given lectures in Ipswich. In fact, Airy had written up that 1848 series of six lectures in book form – *Popular Astronomy: A series of lectures delivered at Ipswich*. My copy is the 7th edition of MacMillan & Co., 1891.

9 The late J. V. Thomson, of the firm Cox, Hargreaves and Thomson (and who in his early years had often heard Phillips speak at BAA meetings), once told me that Phillips was considered rather *too* enthusiastic in the eyes of some of his fellow BAA colleagues.

10 One such plaster model was shown at a BAA Exhibition, and one of the Triesnecker area of the Moon (after Nasmyth) exhibited at the 1925 Oct 3 'At Home' event of H. G. Tomkins (see ref. 17).

11 Sinnott R. W., 'Seeking thin crescent Moons', 2006 Jul 14: **www.skyandtelescope.com/observing/seeking-thin-crescent-moons/** (Accessed 2015). Schaefer B. E. *et al.*, *Q. J. Roy. Astron. Soc.*, **34**, 53–56 (1993) give an authoritative analysis of the young Moon sightings.

12 Byrd D., 'New record for youngest Moon *via* Thierry Legault', 2014 Jul 8: **earthsky.org/space/young-moon-visibility** (Accessed 2015)

13 See: **digital.nls.uk/91933994**. The *Shemara* (ex-*Victoria*) was a 'hired yacht, Pendant No. 06. Built 1899; 477grt/588tm. Armament: 1–12pdr, 1–6pdr. In service 1914 Sep 13 – 1919 Mar 5. May have served as wireless-equipped A/P Group Leader or in special yacht squadrons, at home or in Mediterranean.' From: **www.naval-history.net/WW1NavyBritishShips-Dittmar4AP.htm**.

14 Clarkson's CS membership apparently lapsed after 1927. OASI has posted the CS certificate online at its Clarkson page: **oasi.org.uk/OPO/RLTC/RLTC.php**.

15 McKim R. J., *Astron. & Geophys.*, **57**(4), 14–17 (2016). OASI also has a page about Miss Grace Cook: **oasi.org.uk/History/Cook.php**.

16 H. G. Tomkins (1859–1934) is easily confused with H. Tompkins (1871–1957), another lunar observer and a prolific correspondent in the *English Mechanic*, who was associated with various members of Robert Barker's Circle. An obituary of H. G. Tomkins by A. F. B. (A. F. Bennett) in *J. Brit. Astron. Assoc.*, **45**, 80 (1934) cited his early papers.

17 Clarkson recalled in ref. 8: 'Round about 1922 Mr H. G. Tomkins CIE FRAS, FRPS retired from the Indian Civil Service when he was I believe Head of the Financial Department at Calcutta, and bought, and came to live at, East House Dedham … When I first knew him in 1924 he had converted the coach-houses into extensive workshops, had built two observatories in the paddock, in one of which he had installed an 8½-inch reflector which he already owned, and had started the construction of a 24-inch reflecting telescope … As originally tried it was of the Newtonian form, but was afterwards altered to a Cassegrain, with the camera at the side of the lower part of the tube. It had a focal length as a Newtonian of 18 feet 7½ inches; the flat was by Cooke of York, and a 6½-inch convex mirror.' On 1925 Oct 3: '…one of the biggest astronomical-social events ever held in East Anglia took place at East House, Dedham, when the 24-inch was officially opened, tea was served in large marquees, and some hundreds of invited guests spent the afternoon viewing the various exhibits. There were 23 of these, which included models of the planets, models of lunar craters, drawings of planets, large numbers of photos, a scale model of the solar system stretching across the paddock, a demonstration of sunspots in a dark room, projected through my Wray … giving a six-foot diameter image of the sun and magnificent pictures of the spots … and in another dark room Miss Vera Reynolds gave a similar demonstration of the solar spectrum … I continued cooperating with Mr Tomkins on lunar work until 1932 … The 24-inch was sold to a Japanese observatory, and the 8½-inch reflector presented to the BAA.' OASI also has a detailed webpage about Tomkins: **oasi.org.uk/History/HGT/HGT.php**.

18 See the brief note by Tomkins H. G., *Mon. Not. R. Astron. Soc.*, **88**, 158–159 (1927). He published many lunar papers in our *Journal*.

19 Marriott R. A., '1927: a British eclipse', *J. Brit. Astron. Assoc.*, **109**, 117–143 (1999)

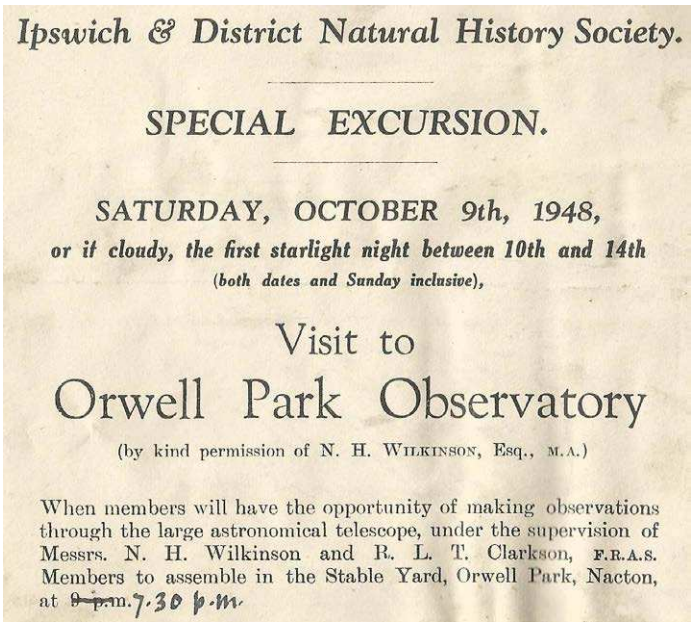
20 The Rev. Charles L. Tweedale, a well-known spiritualist, recounted how in 1927 June the heavens above Giggleswick had obligingly parted, in accordance with a premonition he had experienced. See Tweedale C. L., 'Reflecting telescope making, Also … The total solar eclipse of 1929 [*sic*]', T. Werner Laurie, 1943.

21 Housman W. B., *J. Brit. Astron. Assoc.*, **48**, 205–212 (1938)

22 The action of Patrick Moore in trying to help Clarkson was discovered in a file of the late E. H. Collinson's BAA presidential correspondence, now in the writer's possession.

23 'Trimley astronomer dies', *Ipswich Evening Star*, 1954 Apr 10

24 Clarkson R. L. T., *J. Brit. Astron. Assoc.*, **64**, 202–205 (1954)



Ipswich & District Natural History Society.

SPECIAL EXCURSION.

SATURDAY, OCTOBER 9th, 1948,

or if cloudy, the first starlight night between 10th and 14th

(both dates and Sunday inclusive),

Visit to

Orwell Park Observatory

(by kind permission of N. H. WILKINSON, Esq., M.A.)

When members will have the opportunity of making observations through the large astronomical telescope, under the supervision of Messrs. N. H. Wilkinson and R. L. T. Clarkson, F.R.A.S. Members to assemble in the Stable Yard, Orwell Park, Nacton, at ~~9 p.m.~~ 7.30 p.m.

Figure 15. Handbill advertising an Orwell Park outing. Note the marvellous uncertainty about the date and time.

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