The British Astronomical Association
Historical Section

Director: Mike Frost
Deputy Director: Lee Macdonald

Newsletter No. 7 Autumn 2013

From the Director

Mike Frost, Director

It was good to see so many of you at our Section meeting during the Winchester Weekend. I thoroughly enjoyed the whole weekend, but it was particularly good to hold a Section meeting attended by so many people – over a hundred. I hope that people in the audience who hadn't thought much before about the history of astronomy will have appreciated what a rich subject it is. Greetings to any of you who have subsequently signed up to the Section!

Our next Section meeting will be on Saturday 3 May 2014, at the Friargate Quaker Centre, York. Lee Macdonald and I have been looking for a Yorkshire location for a Section meeting, and when we attended the SHA (Society for the History of Astronomy) meeting at Friargate this year we realised we were in an ideal venue. Friargate is centrally located, less than half a mile from the railway station, with a variety of eating establishments close by. York is full of history of course, from the Yorvik Centre to the National Rail Museum. Astronomically speaking, it was the home of John Goodricke, the deaf-mute astronomer who studied Algol and discovered the variability of delta Cephei; we hope it will be possible to send a lunchtime expedition to view the plaque in his honour.

We don't have a theme for the meeting yet, though early offers of talks indicate that 'North Country Astronomers' and 'Astronomy Pre-1700' are possibilities. Please let us know if you would like to be considered as a speaker.

We are also in discussions with the Society for the History of Astronomy, to hold a joint meeting in 2015. We haven't yet finalised the details, in part because most establishments don't accept bookings more than a year in advance. But we're hoping to hold a meeting at the National Maritime Museum, Greenwich, on 28 March 2015 and we have invited some stellar speakers. Make a note in your diaries!

*

It was also a pleasure to meet many more of you at the Historical Section display in the BAA Exhibition at Manchester Metropolitan University on Saturday 22 June. The Exhibition was a great success and much credit is due to Lorraine Crook for organising it; I hope there will be more such exhibitions in future, showing off the best of the BAA at locations around the UK

I have one regret about the day; that I wasn't able to join one of the very popular tours to the Godlee Observatory, organised by members of Manchester AS. They may be surprised to learn that I have visited the observatory once before, many years ago. When I was about 14 years old, my father and I attended a Manchester AS meeting and went to the observatory afterwards. My most vivid memory was of taking a wrong turning on the way out and getting lost inside the UMIST building!

At our Section meeting last year, Kevin Kilburn told us about the extraordinary discovery of a star atlas by John Bevis in the Godlee Observatory. It is great to know that an observatory of historic significance, containing unexpected pearls such as the Bevis atlas, is still in use as a working society observatory.

*

I have recently activated the 'Information' tag on the Section website, www.britastro.org/history. Click on it and you will find a list of useful websites and addresses of libraries. The sources for these originate in a talk called 'An Overview of Sources for Astronomical Historical Research' given to the SHA by the late Peter Hingley, librarian of the Royal Astronomical Society, in July 2007. Peter distributed lecture notes with this talk, which are extraordinarily useful – if I can find a way of distilling more information into a web-friendly format, I will extend this section of the website. Lee and I have both added to the list of websites with some of our own favourites. If you know of any other websites that you think would be of interest and use to Section members, you know who to email!

I apologise that it has taken so long to bring this section of the website into action. We launched the website two years ago, with the technical assistance (greatly appreciated) of Peter Whitham; but after a good start, bringing the range of content up to its intended extent has proved tricky. Those of you who run a website will know that simply keeping things up to date is time-consuming; adding extra material doubly so. I have plans to add extra content to the resources page

and to the Section history page – but don't hold your breath!

But my next task is to activate the final tag on the home page, 'Case Studies'. The idea is to highlight the work of Section members. Obviously, if you have carried out some original research, the best place to publish it would be a peer-reviewed journal; ideally the BAA *Journal*, or perhaps the SHA's Journal, *The Antiquarian Astronomer* if the content is more historical than astronomical. But there may be research you have done which, whilst not breaking new ground, will be of interest to the membership of the Section – for example, research papers for courses in the history of astronomy. We would be more than pleased to exhibit this research on the 'Case Studies' page of the Historical Section. Once again, please contact me if you have something you would like me to upload.

'The passage of the Great Ones'

Received from Bill Sheehan (USA), 6 March 2013

'Hi, Mike,

I just started reading your interesting "from the director" column; sharing your sentiments about the passage of the Great Ones last year. I've just gotten the go-ahead to publish Patrick's translation of Camille Flammarion, *La Planète Mars* (Patrick signed the rights over to me years ago, as he had been unsuccessful in publishing that huge work, but Springer is going to do it, and I'm going to add an introduction. It's too bad he didn't live to see this!)

I also saw Neil Armstrong in July [2012], at Lowell Observatory, give the keynote for the Discovery Channel Telescope—it was the last public talk he gave, just a couple weeks before he had the heart surgery from which he never recovered—and also, since I was staying in the same hotel as Neil, caught a few minutes of him at breakfast.

…'

Frank McClean and the Ferncliffe Observatory at Tunbridge Wells

Jeremy Shears

Introduction

My abiding memories of the late RAS Librarian Peter Hingley include the wonderfully entertaining conversations we had based on his encyclopaedic astronomical knowledge. In addition, there appeared to be no part of the country with which Peter was not acquainted and he generally had an anecdote to tell about each. For example, noting that I live near Chester, he told me about his visits to the City as well as the hours he spent in the library of Hawarden Castle, just across the Welsh border in Flintshire. Similarly when I mentioned that I had grown up in Kent, he told me about the Ferncliffe Observatory at Tunbridge Wells, which had been built by the pioneering spectroscopist, Frank McClean (1837-1904) in the 1870s. This came as something of a surprise as I had no idea that Tunbridge Wells was once home to an important astronomical research centre. Moreover, it transpired that McClean's residence (Figure 1) was located on the Pembury Road, one of the main routes into the town, and therefore I must have unwittingly driven past it dozens of times over the years. Peter kindly gave me copies of some photographs of McClean's observatory from the RAS archives along with permission to publish them.

Figure 1 Ferncliffe, Tunbridge Wells. Courtesy of Mrs V. Hawkins, Concord College, Shropshire[7]

This note provides a brief overview of McClean's life and some details of his Ferncliffe Observatory to accompany the photographs, which had been given to the RAS by McClean himself. Further information may be obtained from his several obituaries.[1]

Early life, family and career

Born in Down, Ireland, on 13 November 1837, Frank McClean was the only son of the wealthy civil engineer John Robinson McClean, CB, FRS (1813-1873). He attended Westminster School, going on to Glasgow University, where he studied under Professor William Thomson (1824-1907; later Lord Kelvin), and then to Trinity College Cambridge, graduating as 27th Wrangler in the Mathematics Tripos in 1859. He joined his father's firm of McClean & Stileman, becoming a partner in 1862. He worked for some time as an engineer in the Barrow dockyards.[2]

McClean married Ellen Greg (1842-1909), of Escowbeck, Lancashire, in 1865. To what extent this union increased his personal fortune, or whether it was solely from his father's firm, he was nevertheless in a position to retire in 1870 and to devote the rest of his life to his scientific and artistic interests. The couple settled at Ferncliffe, an imposing property just outside Tunbridge Wells, in 1871.[3] They had three sons and two daughters. One son, Lieutenant-Colonel Sir Francis Kennedy McClean (1876-1955), also became a

keen amateur astronomer under his father's influence. He would also gain public acclaim as a pioneer aviator. In 1911 he became a celebrity overnight when he flew a Short Brothers aeroplane between the towers of Tower Bridge in London.

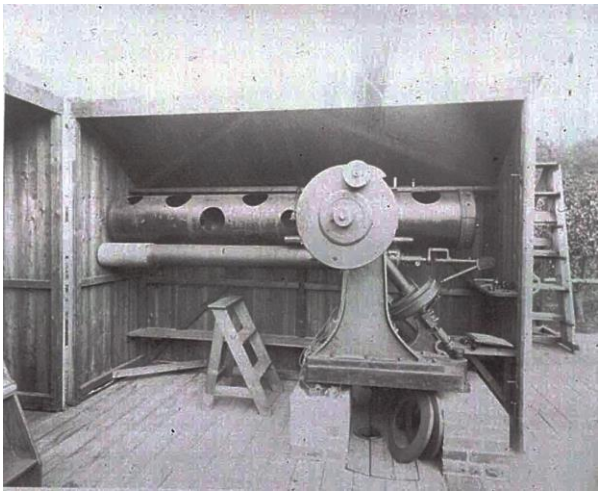
Figure 2 The 15-inch With-Browning reflector and 6-inch Merz refractor at Ferncliffe, ca. 1879. Courtesy RAS

The Ferncliffe Observatory

McClean's first experiments at Ferncliffe were in connexion with electricity, but in 1875 he built an observatory in which he installed a 15-inch (38 cm) With-Browning reflector and a 6-inch (15 cm) Merz refractor (Figure 2).[4] The observatory itself (Figure 3) was essentially a wooden apex shed just large enough to contain the instruments, with two halves joined by a hinge that allowed them to be swung apart for observation. The shed was mounted on an elevated wooden deck, itself supported on brick foundations. The German equatorial was mounted on two brick plinths which passed through the decking into the ground below.

McClean soon became interested in astronomical spectroscopy and in doing so developed a new design of spectroscope, which was named after him. Existing spectroscopes were difficult to use because it was necessary to align the star with a tiny slit. McClean's innovation was to use a concave cylindrical lens to overcome this. In practice this meant that once a star was lined up with a telescope, the eyepiece could be removed and the spectroscope inserted. This allowed the device to be used on a wider range of telescopes and became instantly popular with amateur and professional astronomers. The patented instrument design was commercialised by the firm of John Browning of London (Figure 4).

I have no information about what became of the Ferncliffe instruments and would be delighted to hear from anyone who can shed any light on the matter.



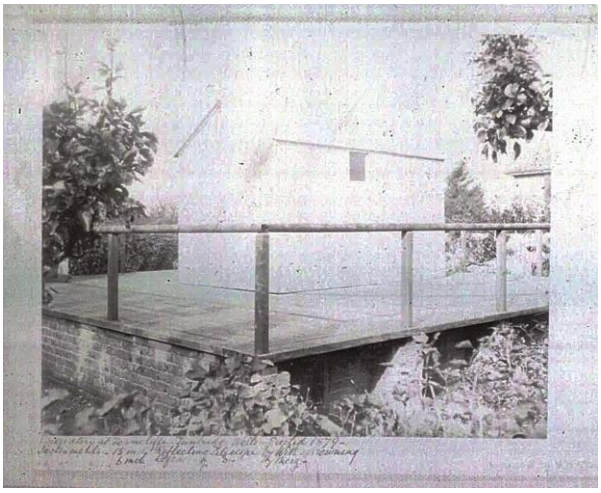


Figure 3(a) (top) and (b) The Ferncliffe Observatory. Courtesy RAS

Life after Ferncliffe

In 1884 the McClean family moved from Ferncliffe to a new home, Rusthall House, on the other side of Tunbridge Wells. There, in addition to a polar heliostat that was located in the roof of the house, McClean built a new observatory containing twin refractors: a 10-inch (25 cm) for visual use and a 12-inch (30 cm) photographic, the latter with an objective prism, which are now located at the Norman Lockyer Observatory at Sidmouth. These telescopes are probably the one depicted on the rather charming bookplate used in McClean's library books (Figure 5). With them, he conducted a spectroscopic survey of some 160 stars in the northern sky. In 1897 he went to the Cape of Good Hope to extend the survey to the southern hemisphere and in the process identified oxygen in the spectrum of β Crucis and other stars. The work earned him the Gold Medal of the RAS in 1899.

McClean was a generous benefactor, presenting the Cape of Good Hope Observatory with the Victoria 24-inch (61 cm) photographic telescope and an 18-inch (46 cm) visual instrument. He founded three Isaac Newton studentships in astronomy at Cambridge University. He also left bequests to Birmingham and

Cambridge Universities, the Royal Society, the RAS and the Royal Institution.

Figure 4(a) (top) and (b) Example of a commercial McClean spectroscope, as sold by John Browning

McClean was an original member of the BAA and served on Council between 1900 and 1902. He was elected FRAS in 1887,[5] FRS in 1895 and was awarded an honorary LLD degree by Glasgow University in 1894. He died in Brussels on 8 November 1904 in his 67th year.

Address: "Pemberton", School Lane, Bunbury, Tarporley, Cheshire, CW6 9NR, UK
[bunburyobservatory@hotmail.com]

Notes and references

[1] Obituaries: Turner H.H., *MNRAS*, 65, 338-342 (1905); Newall H.F., *Observatory*, 27, 449-450 (1904); and *JBAA*, 15(1), 47 (1904).

[2] McClean was also resident-engineer for the Furness and Midland Joint Railway.

[3] McClean also retained a residence in South Kensington, London: first at 21 Onslow Square and then at Onslow Gardens.

[4] The year in which the observatory was built remains uncertain. Whilst the *MNRAS* obituary says it was 1875, the RAS photographs themselves are annotated 'Ferncliffe Obs., Tunbridge Wells, Kent. Erected 1879 by F McClean who gave the photos'.

[5] McClean served on the RAS Council from 1891 almost continuously until his death.

[6] McClean's valuable collection of objets d'art from around the world, including glassware, ancient stone carvings and medieval manuscripts, were left to the Fitzwilliam Museum, Cambridge, upon his death. He sometimes bought items under the pseudonym 'Money'.

[7] Concord College was housed in Ferncliffe from shortly after its founding in 1949 until 1973, when it moved to Shropshire. The painting was commissioned by the College at about the time of the move and it presently hangs in the Staff Room.

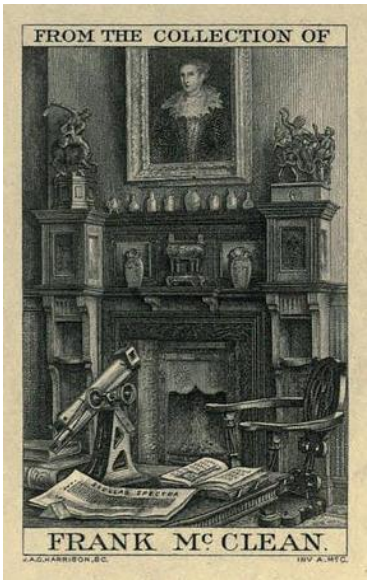


Figure 5 Bookplate of Frank McClean; note the model telescope and the paper on 'Stellar Spectra' on the table. He collected objets d'art, some of which can also be seen[6]

Thomas William Webb – pain and near death in Paris

Stewart Moore

In August 2003 I was in the RAS library looking through The Reverend Thomas William Webb's astronomical notebooks, admiring his meticulous record keeping and his copper plate handwriting. As I opened his Solar System notebook a small piece of paper fluttered out. Initially, thinking it was only a bookmark of some sort I ignored it, but then, intrigued by the handwriting I studied it more closely. It turned out to be a receipt for medical expenses incurred by Webb in Paris in October 1874. At that time I was

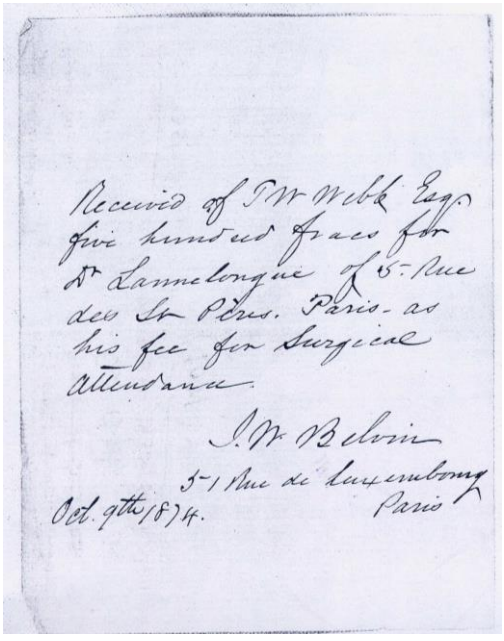
unaware of much of Webb's background, other than what had been written in a few memoirs (the excellent book *The Stargazer of Hardwicke* was not published until 2006, the year of Webb's 200th birthday) and I was not aware of any illness suffered by him or his wife while abroad. I showed the receipt to Peter Hingley (RAS Librarian) who was unaware of its existence and also unaware of any Webb illness. Always happy to spend a few days in Paris, I made a mental note to investigate what had happened to Webb or his wife at that time and track down some of the addresses involved.

As so often with mental notes they have a habit of being forgotten, and it was only while I was sorting out Deep Sky Section archive material to hand over to Callum Potter earlier this year that the file containing my notes on Webb resurfaced. Peter Hingley had allowed me to photocopy the receipt and it is reproduced here. It reads:-

Received of T W Webb Esq five hundred francs for Dr Lannelongue of 15 Rue des Saints Peres, Paris – as his fee for surgical attendance.
I N *(could be J N)* Belvin
51 Rue de Luxembourg, Paris
Oct 9th 1874.

The receipt is headed in blind embossing:-

DOCTEUR BELVIN
CONSULTATIONS
51 Rue de Luxembourg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his fee for Surgical
attendance.
J. N. Belvin
51 Rue de Luxembourg
Oct. 9th 1874. Paris

Webb's receipt for the operation performed by Dr Lannelongue

Dr Lannelongue (Odilon Marc Lannelongue, 1840-1911) was a famous, and therefore probably very expensive, French surgeon who now has many web references to his name. According to these he is mainly known for his work involving bone diseases, especially osteomyelitis and bone tuberculosis and in 1892 he performed the first craniectomy for craniosynostosis.

In January this year my wife and I set off to cold and damp Paris to find these addresses (and, in an additional bit of research, to track down the grave of Charles Messier). Checking maps and carrying out internet searches before we left showed that Rue de Luxembourg (alongside the Luxembourg Gardens) no longer existed and seems to have been destroyed during the First World War. In its place there is a new road with 20th century building. The numbering has changed and there is no longer a number 51. However, Rue des Saints Peres does still exist, the buildings looking very much as they would have done in Webb's day. No. 15 is an upmarket wallpaper shop (De Gournay – Papiers Peints à la Main) specialising in hand-painted wallpaper, a shop which according to its sign, has been in existence since 1753. Above the shop is a *notaires* and it is easy to imagine that this lawyer's office could have been the clinic or home of Dr Lannelongue in 1874.

So, why was Webb seeking medical attention in Paris and what was wrong with him that resulted in a bill for 500 francs – probably around £1500 in today's money? Janet and Mark Robinson, editors of *The Stargazer of Hardwicke* (Gracewing, 2006, ISBN 0 85244 666 7), give a brief summary of his illness in their book (p. 51) stating that Webb was taken seriously ill with a 'stoppage of the bladder' while on a continental trip and that his wife despaired for his life. Janet and Mark have transcribed much of Webb's correspondence that is in the RAS archives and kindly sent me a copy of a letter that Webb wrote to Arthur Cowper Ranyard in October 1874, describing his illness and how close he came to death.

Having cut short a continental tour Webb and his wife were returning to Hardwicke via Paris when, according to Webb: 'I drank some bad wine which greatly stimulated my kidneys.' After sitting through a long church sermon ('I never thought a sermon so long') Webb was clearly very distressed. The following day he went to a surgeon for 'mechanical relief', but claims he was injured by 'his clumsy operation.' Webb remained very ill and says that upon the advice of Dr Bell (presumably the Docteur Belvin in the receipt above) it was decided to call in Lannelongue, who Webb refers to as 'one of the first operators in Paris.'

Initially Lannelongue could not be found, but the following morning he came 'and operated with great care and my life was saved.' A few days later Webb was 'patched up for the journey to London.' Webb was clearly very impressed with the medical knowledge available in Paris at that time and states in his letter to Ranyard: 'Have I not reason to be most thankful for the mercy that spared me and that postponed my illness to Paris, the centre of surgical knowledge, instead of suffering it to come on in some obscure Swiss or French town, where the blundering of

a country practitioner might soon have terminated my days!' Country practitioners take note! Webb remained ill for some time and according to Janet and Mark was confined to Hardwicke until the end of the year.

It is wonderful how the Victorians kept everything and how much of their correspondence still survives. A point I pondered the other day while tidying my study and filling the recycle box with paper. Even the smallest piece of paper can tell a very interesting story – if you don't throw it away.

H Krauss Nield and the Manchester AS

Jeremy Shears

One of the highlights of the BAA Exhibition meeting in Manchester was to view the book containing the lists of officers of the BAA North Western Branch (formed in 1892 and a decade later becoming the Manchester Astronomical Society, MAS) which is in the care of the MAS. One can see signatures of famous astronomers of the region, including Fr. A L Cortie and Fr. Walter Sidgreaves of Stonyhurst College, William Porthouse and the variable star observer Joseph Baxendell Jnr. There is something very special about seeing a signature, as it seems to make an immediate connexion between the past and the present: it is almost as if you can touch the past. A feeling reinforced by a visit to the MAS's Godlee Observatory.

One other signature that caught my eye is one H Krauss Nield. Harry-Krauss Nield (1870-1926) was born in Altrincham and stood unsuccessfully for parliament in the 1923 General Election as the Liberal Candidate for Macclesfield (he had previously stood in St Albans). An architect by profession, he was a member of the BAA, FRAS and FRGS. He participated in the 1900 solar eclipse expedition to Algiers, along with other BAA members. A few weeks before his sudden death, he had been to the USA where he married Margery Porritt of Connecticut.

SHA Autumn Conference 2013 – revised date

The 2013 Autumn Conference of the Society for the History of Astronomy will be held at the Birmingham and Midland Institute (BMI) in central Birmingham on **Saturday 19 October**. **Note the revised date**, which is a week earlier than the usual. The revision was necessary to avoid a clash with an existing booking at the BMI.

Anyone planning to attend is strongly urged to pre-book using the details below so that we can supply accurate numbers for the catering. Papers for the AGM will be circulated in advance and members are invited to raise any issues concerning the Society during the AGM. The programme for the *Autumn Conference* is as follows:-

09:30	Registration
10:00	Madeline Cox: Welcome and Introduction
10:15	Dr Bryn Jones: Welsh Astronomy
11:15	Frank Concannon: Markree Observatory, and Irish Astronomy in the Nineteenth Century
12:15	Lunch (not provided)
13:30	Madeline Cox: Welcome to the afternoon session
13:30	Madeline Cox: 2013 Annual General Meeting
14:30	Mike Leggett: Some Aspects of Norfolk Astronomy
15:15	Afternoon refreshments
15:45	Dr Allan Chapman: Measuring the Heavens and the Earth: Astronomy, Cartography, and Instruments
16:45	Madeline Cox: Concluding remarks
17:00	Close

Tickets are £10 per person and **should be booked in advance** if at all possible. Guests or non-members are most welcome. Cheques should be made payable to 'The Society for the History of Astronomy' and sent to The Treasurer, Roger Hutchins, 5, Sandringham Close, Barkingside, Ilford, Essex IG6 1NU (note that Dr Hutchins has moved during last year and this is his current address) or **pre-register by e-mail** (roger.hutchins@btinternet.com) and pay on the day.

Tea, coffee and biscuits will be provided during the afternoon break. However, you should make your own arrangements for refreshments prior to the meeting and for lunch. The BMI has a cafe and there are numerous cafes and restaurants close by.

The BMI is conveniently located in central Birmingham, within ten minutes walk of New Street station. Its address is 9, Margaret Street, Birmingham, B3 3BS. See:

http://www.bmi.org.uk

History of Astronomy weekend course in Cambridge, November 2013

From Christopher Taylor

Cambridge University Institute of Continuing Education is running a weekend residential course, 'The History of Astronomy' at Madingley Hall on 15th-17th November 2013, for which booking is currently open. See:-

www.ice.cam.ac.uk/component/courses/?view=course&cid=8562

or follow the link from the Section home page.

Allan Chapman is doing two sessions on the role of amateurs in astronomy, Prof. Mike Edmunds two on mechanical devices in astronomy from antiquity to 1605, and on Newton, and Christopher Taylor is to give two talks on the Herschels.

Further dates for your diary

Saturday 3 May 2014 BAA Historical Section Meeting at the Friargate Quaker Centre, York

Saturday 28 March 2015 Joint SHA / BAA Historical Section Meeting at National Maritime Museum, Greenwich. Details to be confirmed.