





The Men Who Made Invention Work

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The introduction of electricity into lighthouses from 1860 onwards requires big changes to the infrastructure of each station, as well as significant changes to the personnel assigned to tend it.

A Churn Of Staff

Atemporarily away from South Foreland to the Lizard Light, James Core's move to Cornwall was more than temporary. When the Siemens generators were installed at the Lizard, James found a different story. He had watched over them for weeks at South Foreland, but once they were in permanent operation in Cornwall their reliability was poor and the Trinity Board decided to replace them with the ubiquitous Holmes generator which, despite everything, had always been reliable. Core was still there in 1891 and by then he must have become the lighthouse service's leading expert on the Holmes magneto generator as it had taken a considerable slice out of his working life

He had been succeeded as Engineer-in-Charge at South Foreland by James Sparling who had joined the light with a number of new keepers. It seemed as if the change in the decade had seen a change in the old order as there were a number of new names and faces, but the one thing that had to remain was continuity, and if it wasn't vested in the Principal Keeper then it would usually be found in another senior hand. Seniority lists were all-important to light keepers as they slowly moved up the pecking order to reach 'PK' and take charge of their own light station, but, as has already been said, it was not clear during the 1870s just who was that keeper-incharge.

One candidate seemed to be Samuel Hast who served 12 years at South Foreland from about 1872, but he had been followed by Thomas Harper White with 14 years from 1875 and Charles Winn with 13 years from about 1878. All three were present when Sparling, the new EIC arrived, but only two of them had experienced the stress and intensity of a period of trials. In 1881 Thomas White was the eldest (37) over Hast (31) and Winn (26); age usually indicated an approximate position on their seniority list. In the year of White's arrival he had been 31 and although that is quite young, it was not unknown for a keeper to be appointed to PK at that age, and



ABOVE: An old postcard, the image taken in the late 19th century, showing the South Foreland High Lighthouse from the rear. Keeper cottage accommodation is to the left and right and between them is a covered corridor (now demolished) enclosing a small courtyard between the cottages. The lantern at the rear is screened to prevent light being cast over the surrounding countryside. The kitchen garden looks to be well filled with produce.

it was the same age as the new Engineer-in-Charge, James Sparling, when he was recorded at the 1881 census. However, the keepers were somewhat akin to the experiments - some lasted longer than others, and this aspect of their careers is not properly understood.

In 1881, at the time of the census, this was a very young station. The average age of the eight resident staff was 29 years and 8 months. It had been in operation for nine years and about eighteen keepers had occupied the decade since the previous census. Unfortunately the Enumerator has made no attempt at recording accurately who lived in which residence, and that is a great loss to the record.

This was the decade when the British really began to believe that they could do anything. The British Empire was flowering into world domination. The Royal Navy was the largest in the world. There was barely a place in the world where there was not a fort with a red-coated company from the Royal Garrison Artillery. English-inspired lighthouses were appearing along the coasts of China and Japan,

and James Douglass was heavily engaged in building or rebuilding rock lighthouses around our coasts. In the years 1878-82 he replaced Smeaton's tower on the Eddystone with a magnificent structure of his own. His attention had been temporarily diverted from South Foreland, but it would return in a little while.

Meanwhile the new station crew were adapting to each other with Samuel Hast and Thomas White at the centre of experience whilst Charles Winn was one of the new boys.

Thomas and Jessy White

Thomas Harper White was the first to arrive in 1875, but from where cannot be certain. In 1871 he was on the South Bishop light and he was still there when his first child was born later that year. Thomas was the son of a mariner, born in Blackwall, the home of the Trinity Buoy Wharf, on the 23rd December 1843. He was taken by his parents, Thomas and Mary Ann (née Parker), to St. Anne's Parish Church in the Commercial Road, Limehouse



ABOVE: An old postcard having a hand-coloured image taken in the late 19th century of the South Foreland Low Lighthouse. Its attractive family accommodation is comprised of two single-storey cottages on either side of the tower. The site is much closer to the cliff edge than that of the High light and the plot is fenced off to enclose useful kitchen gardens.

for his baptism on the 31st March 1844. A marriage to Jessy Elizabeth Goodwin took place in Stepney in 1868/3Q, apparently before Thomas had joined Trinity House as a lightkeeper. Their first child, also named Thomas Harper, was born on the 28th July 1871 and baptised at St. John's Parish Church, Pembroke Dock on the 30th August and the mother's name is recorded as Jessy Elizabeth. By 1881 she has become Emily, which must be someone's error, as her daughter has also been named Jessy. She had been born in Bromley, Middlesex, sometimes referred to as Bromley by Bow, in 1872/2Q. This was one of the districts of Poplar and helps to pinpoint the location of the family and confirm that they had not yet arrived at South Foreland.

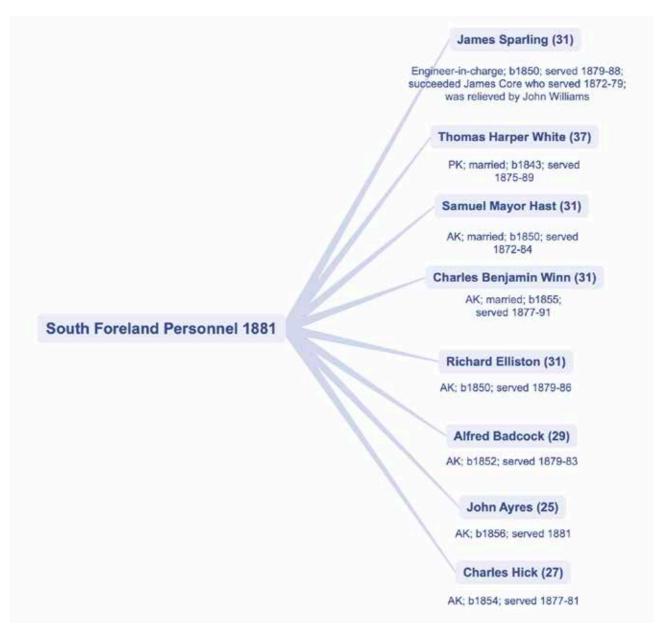
Charles and Louisa Winn

Charles Benjamin Winn was another mariner's son born within walking distance of another Trinity House Depot – at East Cowes on the Isle of Wight which served the southern counties. Charles had been born at the beginning of 1855 to William Winn

a mate in the Trinity Service and his wife Ellen (née Hall). Charles was third in a family of five by 1861 and they all lived at Whippingham.¹ In 1871 the family had moved to Admiralty Road, Yarmouth in East Anglia, but Charles had suffered the indignity of being apprenticed to a tailor.² He must have joined Trinity House as soon as he reached 21 in 1876, and when he came to South Foreland in about 1877 he was still a bachelor. He had probably come from his induction rock lighthouse as all new keepers had done. It was the way the Service determined whether or not these new recruits were suitable to serve as light keepers. It didn't take Charles very long to spot a young lady at the parish church who just happened to be the daughter of the Parish Clerk - William Dixon Goldsack. Louisa Goldsack had been baptised to William and Sarah Ann on the 19th February 1854 and 25 years later she walked down that same aisle at St. Margaret's at Cliffe on Wednesday 3rd September 1879 as the new wife of

^{1 1861} Census RG9/693 Folio 11 Page 20.

^{2 1871} Census RG10/1787 Folio 10 Page 14.



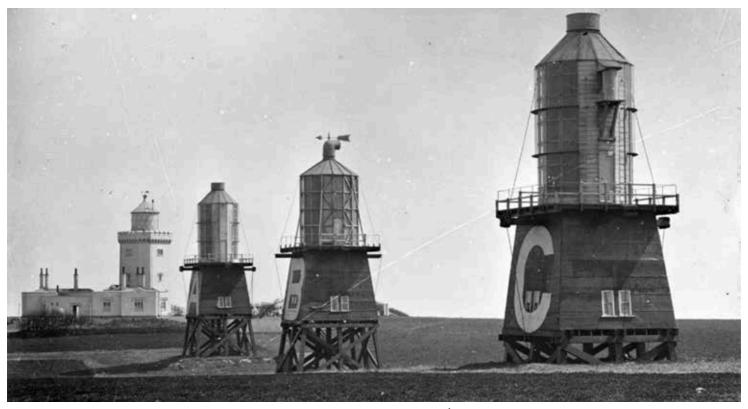
Charles Benjamin Winn. Also present to witness the ceremony was Thomas Harper White and the present authors can claim a distant relationship to Louisa who was a niece to both Matilda and Catherine Goldsack, the wives of John and George Knott.

Of course, there were four other keepers on the station when the census enumerator called and two of them had joined in 1879 – Richard Elliston (79-86) aged 31 and Alfred Badcock (79-83) aged 29, whilst the remaining two were John Ayres (1881) aged 25 and Charles Hick (77-81) aged 27. Only Elliston would be there to witness the next series of trials in 1884.

These Crazy English!

Inward bound international shipping heading for the Downs passed close to the South Foreland and deck hands who hadn't passed that way for a number of months could not believe their eyes. "Are they playing tricks with us? Why do these crazy English need **five** lights on one foreland?" But there was method in the madness.

The first hint to the public that something large and complicated was being contemplated at South Foreland came in a Trinity House Notice to Mariners dated 20 November 1883 and published in certain newspapers of interest to mariners. This was followed by a report in the *East Kent Times* that a committee of the Trinity House Board had visited South Foreland on Wednesday 16th January 1884. It was a very high powered committee of eight gentlemen led by the Master, Sir Sydney Webb and included four Elder Brothers and Sir James Douglass. They had come for the purpose of selecting sight lines to a distance of 3 miles inland, so that measurements of the relative value of oil, gas and electricity could be taken at night, especially in foggy weather.



ABOVE: "These crazy English! Why do they need five lights on one Foreland?" (The fifth was, of course, the Low Light, not shown in this rare image.) This improbable vision to mariners had been put in place by Trinity House so as to carry out a series of tests to determine - once and for all - the best form of lighthouse illumination.

The Station Master at Martin Mill³ had become used to gentlemen from London alighting from his trains on the only station jointly owned by the SER⁴ and the LC&DR⁵ companies, as they made their way to the lighthouses at South Foreland. The station had only been open since June 1881, but it was fortunate that a 10-ton crane had been installed, as his goods siding had been filled with trucks containing large quantities of timber that had to be seen to be believed. Great, solid baulks of timber, 12 inches (30 cm) square were as much as his delivery horse and cart could handle so he had to summon help from Deal. All this timber was required to build three platforms of varying heights across the undulating heath of the Foreland, yet the platforms had to be exactly at the same level relative to each other. On each platform was built a room, 16 feet (4.9 m) square, and on top of that sat the cylindrical lanterns 21 feet (6.4 m) high by 14 feet (4.25 m) in diameter, again, exactly in line with each other. Officially they were 'temporary' structures, but the carpenters had built something that could easily have remained for

50 years. Who employed the carpenters has not been recorded, but the work had to be finished by the end of March 1884.

The final notification published in the *Lloyd's* List on the 2nd April 1884 described exactly what had been built on the headland and roughly how it would be used, but it assured regular mariners that the characteristics of the permanent lighthouses would not be affected in any way. From Thursday 3rd April experimental lights would be shown at irregular intervals, probably every night, but not Sundays, over the next six months. These lights would be shown from three temporary wooden towers respectively marked 'A', 'B', 'C' and placed 180 feet (55 m) apart. They were in a line NW of the High Light with the experimental light 'A' being 245 feet (75 m) from it. The centre of each experimental light was 15 feet (4.6 m) below that of the permanent High Light and the light showing from the former had variable characteristics.

What was not said in the announcement was that this was to be a trial of illuminants as there were now an increasing number of them available to the general market. Trinity House had pioneered electricity, which some thought to be too bright at close range yet not powerful enough to penetrate fog satisfactorily. They had also tried the limelight, but although it proved to be a

³ This was the station serving the village of Martin Mill, about 2.5 km northwest of St. Margaret's at Cliffe.

⁴ The South Eastern Railway (SER) was a railway company in south-eastern England from 1836 until 1922.

⁵ The London, Chatham and Dover Railway (LCDR) was created on 1 August 1859, and existed until 31 December 1922.

powerful light source, other factors ruled against its use. The Commissioners for Irish Lights had chosen to use coal gas and it had proved to be very successful, whilst the widespread use of colza oil was diminishing due to its cost, as petroleum oils were coming to the market cheaply from America in the form of paraffin oil. This had been tried very successfully at Flamborough and in some Scottish lighthouses, so Trinity House was anxious to include that energy source in their trials.

With the differing qualities of the various illuminants individually well known, including their respective costs (coal gas was 5 times as expensive as petroleum oil), the Trinity House administrators felt it their duty to settle the debate once and for all and extensively trial these illuminants side by side in an unbiased series of scientific experiments. Thus, the scene was set.

The procedure adopted was quite complex and was described in the *London Evening Standard* thus:

"The lights are shown side by side and on one night they all face north and are shown alternately as a fixed light, followed by a light revolving over an arc of 60°. In this position they are visible from Birchington Mill and out to sea they cover the track of all vessels bound to or from the Thames. They are then in a position to be observed by Trinity House officials stationed on the Gull Stream Light Vessel. Then on the alternate night they are displayed southwards across the Straits of Dover in an arc of 40° taking in the Varne Light Vessel from which similar observations are made. The programme requires them to revolve over the arcs stated between 8.45 p.m. and 9.45 p.m. Then between 9.45 p.m. and 10.45 p.m. they remain stationary in a central position and then from 10.45 p.m. until 11.45 p.m. they again revolve."

The Elder Brethren of Trinity House were particularly keen to obtain scientific data about the penetrative effect of these lights during hazy or 'thick' weather and they had laid off a line across the ground to the NE from the centre light tower and posts were inserted in the soil at the exact distance that the each light became invisible. Three 'comfortable' huts had been placed at $\frac{1}{2}$ mile (0.8 km), $\frac{1}{2}$ miles (2.4 km) and $\frac{2}{2}$ miles (4 km) so that photometric readings could be taken.

Unusually for the time, the Elder Brethren were also keen to have information from the wider maritime community and they distributed 'observation books' to ship masters, coastguards, pilots and light keepers and asked them to record

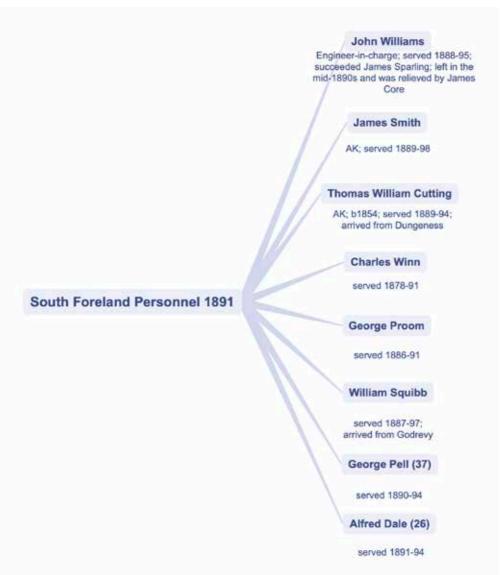
their own impressions using the electric light Tower 'A' as a standard. They were encouraged to write as often as possible under varying conditions of weather and distance, particularly in hazy or poor visibility. Eventually these notebooks would be gathered together and the comments evaluated by the Elder Brethren. Indeed the whole protracted experiment became public knowledge and excited considerable public interest.

One story must be told. When the towers were first lit, a letter was received at Trinity House that had been sent by someone who had been staying at the *Granville Hotel*. The writer declared that the gas lamp was far superior to that of the oil lamp and this was contrary to the opinion held by Trinity House. An investigation was thought to be justified and it was found that the guests were correct, simply because the operators of Tower 'C' (oil lamp) had misunderstood their instructions and had failed to rotate the lamp over the full arc. The lesson was learned, but who were those operators?

Of course, over time there were a large number of official observers as well as casual ones and the *Whitstable Times* noted that on the evening of Sunday 17th August the Trinity Yacht *Argus* put into Dover Harbour with 'a party of scientific gentlemen from Canada' making a series of very important observations from the Channel.

The Holmes generators had now been running more or less continuously for twelve years which was not only a testament to the their design and manufacture, but also to the skills of their maintaining engineers Messrs. Core and Sparling. However, there was no spare capacity to supply electricity to the temporary Tower 'A.' Instead, three new machines manufactured by the French, *Compagnie l'Alliance* of Paris were purchased and installed in the engine house connected to the existing drive shafts. The supply generated was fed to three of the latest carbon arc burners.

The source of the gas for Tower 'B' was not gas in the form of natural gas that we know today. It was not even town gas piped up the hill from Dover. It was manufactured on site from Cannel coal, a strange and largely forgotten material with a very long history. It was first discovered on an estate in Lancashire running in shallow seams just below the surface. It could be dug in the same way as peat and commanded a premium price for its use as an exceptionally good source of domestic heating. Eventually the miners on the Durham coalfields found that it could be carved, and even polished, and jewellery has been found in Scotland made from



it that dated from 3500 BCE.

On Saturday 13th June 1857 at 1 pm, the local MP for Darlington, Edward Pease, laid the foundation stone of a plinth outside Darlington Station. The Stockton & Darlington Railway still owned their very first locomotive No. 1 Locomotion and it was intended to display it on that plinth. A small chamber had been created within the plinth as a form of 'time capsule' and into that cavity was placed a box carved from Cannel coal by Locomotion's first driver, Robert Murray. At South Foreland this coal, which is now known as oil shale, had to be reduced and converted to gas on site in a specially created plant and fed to four gas burners in Tower 'B.' A gasometer is shown marked to the seaward side of the High Light on the large scale OS map of the site (see p199). It is isolated from the main buildings, probably for safety, but it is in the general vicinity of the position of the three temporary towers. A great deal of attention was given to John Wigham's design of gas burner and on Monday 7th April, soon after the start of the trials, the temperature from the 108

burners reached 202°F (94 C) and cracked four of the prisms. This came as some surprise for it was exactly the same equipment that was in daily use at the Galley Head Light in County Cork. The following night the burners were reduced to 88 and fingers tightly crossed. Tower 'C' was fitted with three of James Douglass's 6-wick oil burners which were in standard use throughout the light service, but paraffin was the oil specifically prescribed for use.

In reading these various reports of the intentions and activities, it is clear that a large number of extra staff would be required to take readings of one sort or another at the prescribed times. It is also inferred, but not specifically stated, that each temporary tower would be allocated its own keeper. So, together with the two permanent towers, the entire seven keepers must have been variously employed. It has been suggested that Trinity House sent extra keepers, but an accurate number of those present is not known. It is known that three of the seven keepers present at 1881 had left before the experiments began, but only two of the three

replacements are known. One keeper was C. D. Petitt who stayed until 1890 and the other was William Gaylard who stayed only as long as the experiments required his presence.

Charles and Emma Pettit

Charles Daniel Pettit was 29 in 1884 and he had been born in St. Peter's Thanet, just a few miles away. He had been married to Emma Harmer for five years, but they came to the South Foreland without any children.

William and Elizabeth Gaylard

William Charles Gaylard was a little older at 30 when he arrived at South Foreland. He was a Plymouth-born man who had served on the Eddystone and spent the opening years of the 80s at Europa Point, Gibraltar,⁶ but he was back in Plymouth by Christmas 1883 where his fourth child had been born to his wife, Elizabeth Muchamore.

That Curious Wall

A slifelong connoisseurs of an eye-catching image, there is nothing that excites the attention more than an 'old postcard,' and there is one such image of the Low Light (see p237) that has lived with me for as long as I can remember. It was taken from a path clinging to the cliff edge and looks towards the light from outside its boundary wall. But what was that extraordinarily long 'outhouse' backed against the wall? It was too long for gardening tools and it was too long for a privy. In fact it was too long for both together. A chicken run perhaps! If only we could see the other side.

Until the war broke out in 1939, Mr. Frank Simmons had been a gardener at the house that had been developed on the Engine House site after its sale in 1922, he recalled,

"Until Sir William had it demolished in the 1930s, there was within the seaward boundary a long low brick building about 100 yards (90 m) long with no windows and only an occasional door in the side. This was used when filled with steam or smoke, to test the penetrating power of the light generated. By putting the light at one end, flashing the light along the inside of the building and marking the wall, they could get a good idea of similar conditions found in thick, foggy weather."

I have found nothing in any of the contemporary newspaper reports that include this building, but this is how it was described in the document written for the National Trust:

"In addition to the three light towers, a photometric gallery 380 feet (116 m) long was built that could be filled with steam generated in the engine house to create any condition from hazy to foggy. The measurements in the gallery consisted of comparing the light output of the naked lamp to that of a standard Harcourt Pentane flame that gave a light equivalent to exactly one candle power. All three types of light were tested, without any lenses." ⁷

The end of the experimentation was officially announced in a *Notice to Mariners* dated 31st March 1885 and the Trinity House Secretary Mr. J. Inglis respectfully requested the return of all the notebooks that had been issued so that their content could be assessed. However, the notice also stated that the three towers would not be dismantled and might even be used occasionally for further experiments.

At the end of what had been the most complex and comprehensive comparator trials ever attempted, Trinity House concluded that there was very little to choose between any of the illuminants for normal purposes and in spite of many opinions to the contrary the electric light was up to 40% better than the gas or the oil in hazy conditions. It really was a case of seeing is believing.

A Flight Of Fancy

Tt was a quarter to four on a Friday afternoon in Learly September 1885. Late visitors to Folkestone's West Cliff Promenade could not believe their eyes when a huge balloon rose from the grounds of the West Cliff Hotel and rose rapidly into the sky above them. The strong SW breeze took hold of it and began to drive it towards Dover from where it was seen about fifteen minutes later at a great height over the Shakespeare Cliff and heading for Dover Castle. It was then seen that the three men in the car were in some difficulty as a great deal of ballast was being thrown out. Now at the mercy of a strong westerly wind the balloon was seen to be rapidly descending much to the consternation of the large crowd of spectators that had gathered at every viewpoint around Dover.

At Admiralty Pier the steam tug *Granville* put out to sea followed by the pleasure steamer *Sir Walter*

⁶ The Europa Point lighthouse in Gibraltar is one of the few overseas lights that have been continuously operated by Trinity House staff. It has been in service from 1838 to the present day.

⁷ SFL/CMP p116.



ABOVE: The Low Light and keepers' cottages precariously positioned close to the cliff edge. We note the significant absence of trees, in great contrast to the view today (p364, 394-5). A path at the front was reportedly used by customs officials and others. But dominating the image is the photometric gallery, a long, white-washed windowless building that was used in experiments to determine the penetrating power of different lighting systems through different atmospheric conditions created inside.

Raleigh whose destination was Ramsgate and they gave chase. About two miles from the coast the balloon's car hit the sea, but the balloon lifted again and continued until it was close to the cliff of the South Foreland lights. At this point it hit the sea again and the car partially sank, the balloon was on its side on the water, but rolling around dangerously over the men clinging to the car. At this point the wind took charge and drove it along, against the tide faster than the steam tug could catch it. At first the aeronauts were feared lost, but they were soon seen clinging to the remains of the car, but in an exhausted state. The leading aeronaut, Captain Dale, had the presence of mind to cut the balloon free from the car just as the balloon drew level with St. Margaret's Bay. A galley had been rapidly launched which succeeded in hauling the unfortunate men to safety into the boat, but now free of its encumbrance and before the tug could secure the balloon, it took off skywards and headed towards Deal at a great height.

Later it was seen again passing back over

Dover and disappearing westwards. At St. Margaret's Bay, whilst the men were recuperating from their ordeal, it was learnt that the unfortunate incident had come upon the men because Captain Dale had lost control of the valve at the top of the balloon that regulated the release of hot air and hence the balloon could not be controlled.⁸

The paddle steamer *Sir Walter Raleigh* returned the men to Dover amid great rejoicing, to be met by the town's mayor and what had begun as a pleasant evening excursion to Ramsgate had morphed into a drama that no one could possibly have predicted and few people would believe had they not seen it with their own eyes. The keepers at the South Foreland lights believed it. They had been given a privileged, grandstand seat for the best drama in town.

⁸ Morning Post, 6 September 1885.

Now You See Him - Now You Don't

It has been said on a number of occasions already in this narrative that the service dates of keepers are very imprecise for a number of reasons. The most common of them was their relatively short duration. In reality a two-year appointment was and remains perfectly satisfactory, but living through it on a day by day basis might even seem like a 'lifetime' if it was not a happy station. However, for the researcher who relies upon the censuses, appointments often fell between the two consecutive events and two or three appointments can easily become invisible. Parish Registers are helpful, but not always available and many keepers did not resort to their local parishes for baptisms.

This was the case for William Gaylard (c84-85), James Thomas (c85-87) and Henry Thomas Knott (c86-87). None of these were captured by a census, yet evidence of their presence on the lights is essential to the story. This evidence purports to be found in the Goods Receipt and Dispatch Books now in the keeping of the National Trust. I have not seen them, so cannot vouch for their existence or even their content, which in the case of one man is vital. Henry Thomas Knott was the son of George Knott and had been born at the Upper Light on the 9th August 1851. He had returned to the place of his birth, South Foreland – or so it would seem.

William and Elizabeth Gaylard

Although I had dismissed it earlier for lack of evidence, it is not impossible that William Gaylard had been sent to the light just for the duration of the tests. If he had come with his family, his eldest daughter was old enough to be admitted to the local school, but there is no entry for Elizabeth Gaylard aged from 6 to 7 years old. William's wife had also had their youngest baby in Plymouth in December 1883 and as he and his wife were both Plymothians it seems probable that he had left his family with their own relatives whilst he lodged with one of the other keepers for the duration of the trials.

Henry Thomas Knott

With the experiments completed in April 1885, Gaylard probably left shortly afterwards and Henry Knott's arrival during 1886 would have made their movements more than 12 months apart, so it is unlikely that one relieved the other. Henry's current situation began with the death of his wife in January 1886. He could not come to South Foreland with his

children. If he came, he came alone. I say 'if he came' deliberately as this appointment was not within the memoirs of 'Cousin Betty' for which I have to single out the unreliability of memory in general. It was not 'Cousin Betty's' memory - it was that of her mother, who had passed her own stories to her daughter in later life.

Memory is a funny thing. It is not tangible in our bodies like a kidney or a tooth, but to us it is real. We must accept, but often do not, that our memory is flawed. Experiences and encounters that we dislike are hidden away at the back of the memory drawer. Experiences and encounters that we enjoy are at the front and easily retrieved. The death of Henry's wife in Holyhead would have affected his children. They had lost their mother and their young lives were in the hands of others. Henry was distraught and at a loss to know what to do. The family tradition is that he came from North Wales to London to seek help from his sister, Mary Jane, but if he had come to South Foreland that could not have happened in the time frame that we have been told.

I have not seen the ledgers that purport to include Henry's name. What I haven't seen becomes hearsay and I may not be inclined to believe it. Yet, someone has extracted his name, without prejudice and is unlikely to have made a mistake. His presence at the light needs no explanation. He had left the Skerries light and was in need of a new appointment. A full chapter is dedicated to Henry's life and career elsewhere in this narrative. For a short time in that career Henry may have returned to the light on which he had been born and not many keepers were able to say that.

James Sparling, Engineer-in-Charge, was the next man to leave. He could be well satisfied with his work after a very successful nine years in charge, but, unlike the keepers, he was a man alone and could not leave until his relief had appeared in person.

John and Mary Williams

The person who relieved James Sparling was Cornishman John Williams, born in Penzance in 1842. He was the first to style himself as an Electrical Engineer, so what was the background that he had brought to South Foreland?

His very common name (and subsequently that of his wife Mary) precluded any realistic chance of finding their births and marriage without more accurate information. Their first record appears in the 1871 Census when on census night John

Williams was in charge of the *Triton* with three other crew members on board – a seaman, an apprentice and a lamplighter. It is this latter occupation that immediately suggests that he was the Officerin-Charge of a Trinity House tender moored in Ramsgate Harbour.⁹

His wife Mary was at home in the town with the family at 13 Elgar Place. Her family of four had been born between 1861 and 1870, but it was 6-year-old Thomas who immediately attracted attention. He had been born at Dungeness in the early summer of 1865. This is a very important, new piece of information in the jigsaw of 'electric lighthouses' as it means that he preceded Duncan Christie as the lighthouse engineer in charge of the Holmes' generators that had been moved from South Foreland on completion of Faraday's experiments. It makes Mary's statement to the census enumerator that her husband was an 'engine driver,' whilst on the Triton not as ridiculous as it sounds. She had probably heard it repeated many times at Dungeness.

In 1881 John Williams and his family were now in Penzance with John describing himself as a 'steamship engineer.' It probably meant that he was now attached to the Trinity House Depot at Penzance and in charge of the machinery of the tender attached to that depot. The family address was 23 St. Mary's Terrace and another son had been added to the number, as well as a nephew in lodgings. ¹⁰ This was the scene that changed again when the Trinity House redeployed John Williams to South Foreland at the end of 1888 to replace James Sparling, but John and Mary Williams brought only their daughter Annie with them.

The first sign that a change was anticipated at South Foreland occurred when Sparling's son, also James, was withdrawn from the local school and sent to a boarding school in Dover in April 1888. On the 8th November 1888, nine-year-old Emily left the school and 'left the parish' which is the date that must equate to the date of the arrival of John Williams.

When Sparling shook hands with Williams, they each faced a new and uncertain future. Sparling was heading to London and not to another lighthouse station. In 1891 he was the Foreman of an Engine Factory in West Ham, London, but was he still working for Trinity House? The answer to that is not clear.

Electric Light Tips

t is January 1889 and the electric lights at South lacksquare Foreland had been running continuously for 17 years. To the statistically minded that is 6,205 days. To the keepers of each light that is 18,615 changes of the carbon rods at three times each night. To the Trinity House Engineer concerned about the economy of scale, that was 37,230 carbon rods for each light. Every new keeper had to grasp the fact that the light was dangerous. It was intensely blue with a high level of ultra-violet light. 11 The temperature at the tip was incomprehensible and the rods gave off carbon monoxide which could be fatal. Ventilation through the lantern was essential to the keeper's work, as they learnt how to change the circular rods quickly. It had to be done in less than three minutes, but what happened to the used tips, like the fag-end of an enormous pencil?

John Williams was quite pleased to have some time ashore, away from the demands of a ship's engine room. He recalled his time at Dungeness as an interesting experience and South Foreland was similar, even if it did have two of everything. There were more keepers at South Foreland, so there were plenty of minds thinking alike if there should be a problem. Two keepers arrived during 1889 needing to be shown the activity involved in their new work. They were James Smith (c89-98) and Thomas W. Cutting (c89-94) and there were some very interesting links between them that are an indication of the closeness of the lighthouse service.

Thomas William and Rhoda Cutting

Thomas William Cutting came from the maritime community in Great Yarmouth. He had been born in 1854/2Q and his father was a mariner. In 1861 his father was not at home in Trinity Place, St. Nicholas Parish and a tiny note on the line suggests that his father was 'recently deceased.' In 1877 he met and married Rhoda Steer. This might have occurred

^{9 1871} Census RG10/998 Folio 121

^{10 1881} Census RG11/2347 Folio 7 Page 8

¹¹ We must today ask if the keepers suffered any ill-effects since this is a most hazardous working environment. We have no evidence of this however. We must assume that, like welders, they wore dark spectacles to protect their eyesight, but they may also have suffered skin burns. There seems also to have been the risk of burns from the handling of hot components, and electric shock from the currents and voltages in use. It seems very likely that these risks were known about and that working practices were in place to offer some protection, but there must surely have been accidents?

^{12 1861} Census RG9/1191 Folio 106 Page 26

¹³ Born in Bovey Tracey 1857/4Q

whilst he was on his induction rock lighthouse and from Penzance that lighthouse would have been the Wolf Rock light. Their first child, a son Thomas Herbert, was born in Cornwall on 17th December 1878 after which they moved to North Wales. The child that was born to them in 1880 whilst in Wales was attributed to a place that was not easily identified – Rumon. However, a little detective work uncovered Rhoda Effie Cutting born on the 10th April 1880 in the Bangor District. This district embraced Penmon, the parish that contained the unusual Menai Light, and who should be there in 1881 but Joseph Steer, PK aged 50 from Bovey Tracey in Devon. 'Rumon' was an enumerator's error which should have read 'Penmon.'

The Schools Admissions Register for St. Margaret's harboured the names of Thomas Herbert and Rhoda Effie Cutting and it was Rhoda's entry that was complete with dates. She was admitted on the 1st April 1889, so it is fair to say that shortly before this date, the family had arrived 'from Dungeness,' as the register records.

Although the keepers arriving at South Foreland with experience of an electric light station were diminishing steadily through the later years of the 80s, Thomas William Cutting was one keeper who had seen it before. Thomas and Rhoda had a son born on the Dungeness Light in 1884/2Q whom they named Joseph Ernest. So it was this family of three children who arrived at the South Foreland light wondering how different life would be from the wild, surreal expanse of the shingle bank that is Dungeness.

Thomas Henry and Hannah Cutting

In 1881 another keeper by the name of Thomas Cutting was at the Inner Farne Island Light. This was Thomas Henry Cutting who seems to have been unrelated to Thomas William Cutting. Thomas Henry Cutting had joined Trinity House in 1858 and he had spent more than a decade on the Haisbro' light in Norfolk between 1861 and 1873 where, he and his wife Hannah had a daughter born in 1861, who they named Laura.

James and Laura Smith

Twenty years later, Laura Cutting met James Walter Smith. He may have been on the Inner Farne light, but there is no evidence of that appointment. James and Laura married in that Northumberland district in 1883 and in August 1885 the family were in Holyhead for the birth of their first child. James

was now serving on the Skerries and he would have known Henry Thomas Knott. He was there when Henry lost his wife and he watched Henry lose his way. Their paths almost crossed again at South Foreland, but not quite, yet there hangs in the air an aura of coincidence. Their second child was born in Holyhead in September 1888, so their arrival at South Foreland was very likely to have occurred by the spring of 1889.

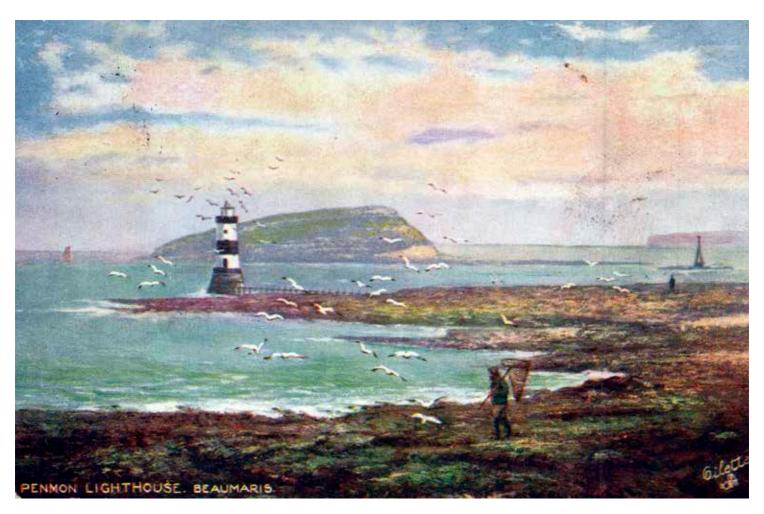
In March 1889 the debate concerning the ability of various illuminants to penetrate fog reached a level of intensity among ship owners which was critically directed at Trinity House. Apparently their recently published conclusions of the results of the trials of 1884/85 were disputed by master mariners and scientists alike, who were demanding an independent investigation, inferring bias on the part of Trinity House. This undercurrent of dissatisfaction had been brought to the surface once again by an article in one March edition of a journal named the Fortnightly Review written by Professor Tyndall, the Trinity Board's Scientific Advisor. In it he made some startling statements concerning the failure in fog and general unsatisfactory working of the newly electrified St. Catherine's Point Lighthouse on the Isle of Wight, which Trinity House claimed to be the 'most powerful in the world.' So all was not 'sweetness and light' as one might say.

It was also in March 1889 that the *Dover Express* carried a curious story from one of its local correspondents. He wrote;

"A few days ago my eyes fell upon a neat little twoshilling volume entitled – How to Make a Dynamo. The writer of this book is Mr. Alfred Crofts of Clarendon Place, Dover, a fellow townsman, who has for years been devoting his study to electricity. It appears from this manual that he has not only fully mastered the task of making a dynamo, but he has written and printed clear directions to enable any amateur to do the same. If they just happen to have a small steam, gas or water engine they might be able to light their house with electricity."

The writer then embarks upon a very detailed explanation which inevitably includes details of the dynamo itself in which he says that the principal differs from the old magneto-electric generator which has been used for such a long time at the South Foreland Lighthouse.

It is a great pity that the length of this piece precludes its inclusion, but it is a remarkable insight into the wider effect that the work at South Foreland had inspired. Alfred Crofts had established a mail



ABOVE: An old postcard of the lighthouse at Penmon on the island of Anglesey. Also known as Trwyn-du, Puffin Island and Menai, this is another example where the families lived in cottages overlooking the lighthouse, just offshore, where their menfolk worked.

order business in which he would supply every part to complete the assembly of a dynamo and he had received orders and enquiries from all over the world. Many unknown and unsung individuals had been enthused by the new technologies and the name 'South Foreland' had become synonymous with invention in the minds of hundreds of people.

Engineers in Charge of Lighthouses

In the early days of the experimentation with an electric light source Michael Faraday was quoted as saying that its operation would require 'more intelligent light keepers,' but, as we shall see, times change and some men were more keen to learn than others.

Major George Henry Elliot of the American Lighthouse Board was on a European tour of inspection in 1873 when he visited South Foreland. What specific experiment was under way at the time of his visit is not important, but he recorded in his diary that:

"Two keepers are designated for each tower, who, in addition to their other duties, make daily observations with the barometer and with wet and dry bulb thermometers, keeping memoranda for the use of some department of the government. The two principals, who are assistants to the engineer, I found to be very intelligent men who seemed thoroughly to understand the magneto-electric machines, and who gave me a very accurate account of their operation. One of them was by trade a watchmaker, and the other a stone mason. The latter told me, with evident pride, that he had laid all the stones at the Bishop Rock, near the Scilly Islands, one of the most exposed stations in the English service, and had been for some years the principal keeper of that light, a position he was obliged to resign, the close confinement affecting his health. Each of these men had been more than 15 years in the service." 14

Major Elliot recognised Faraday's comment in his conversations with John Williams and Fred Spurr when he referred to them as the 'two principals.'
These keepers represented the new generation of

¹⁴ Elliot, George: Report p72.

light keepers. They had replaced Henry Knott and the old generations who knew only duty, loyalty, trimming wicks and keeping their reflectors polished. The experiments in which these keepers would participate were simply the beginning of the constant change, adaptation and innovation that the remaining years of Victoria's reign would demand.

The two censuses that have been explored in the preceding chapters - 1871 and 1881 – showed how the site developed. By this time it had acquired its Middle Buildings or Engine Buildings as the station clearly held eight families, one of which was always the Engineer-in-Charge, but even that position had evolving titles. There was also a continuous stream of light keepers as seven men were needed to man the station. How this replacement system functioned is not well understood, as appointments varied enormously in length. It is difficult to be exact about how many men had succeeded the Knotts, but the names of more than 40 are known between the arrival of George Thomas in 1868 and the death of Queen Victoria in 1901.

In 1892, engineers had been in charge of South Foreland light for 20 years, but South Foreland was not the only lighthouse to have an engineer. As the chapters have progressed I have attempted to highlight these men with their backgrounds and explore the links between them and experienced light keepers. The rank of Principal Keeper (PK) seems to have been temporarily lost at South Foreland, but it was never forgotten as many men left the light on promotion to their own light station. One such promotion came to John White when he left South Foreland for Cromer in Norfolk in 1884, but he had no sooner arrived at his new light than he was dead; a tragic situation for his family. However, before embarking upon the 1890s I will summarize the lighthouses that had become electric light stations and the Engineers who had supported them.

When Faraday completed his experimentation at South Foreland in 1860, the old, oil-burning lamps were restored, but the electric lighting equipment was sent to Dungeness where an engine house was built to house the machinery, which arrived in October 1861. That light was lit in June 1862 and the comment was made in a small paragraph in the *Dover Express* that its boiler consumed 'half of 56 lb (13 kg) of coke per hour and the carbons cost $2\frac{1}{2}$ pence¹⁵ per hour' and the reporter queried why Trinity House had been so lethargic in their desire

When the machinery at Dungeness was set in motion for the first time, there was no ceremony and its first engineer is unknown. Cornishman John Williams was there in 1865 and we have already met him returning to South Foreland in 1888. Williams was superseded at Dungeness by Duncan Christie, an elderly Scotsman from Perthshire, but sometime during the 1870s the need for an engineer at the light ceased and the light reverted to a normal situation with its complement of light keepers.

Souter Point in Durham was lit on the 11th January 1871 as a new light tower specifically built to be powered by electricity. Henry Millett came from Bradford in Wiltshire as its first engineer and because it was new, he had the assistance of another engine fitter, an ambitious young man named James Core. He stayed until 1872 and then moved to South Foreland to take charge of the new installation there. Henry Millett stayed for at least 10 years as he was still at Souter in 1881 by which time he was 49 years old, but at some point following that he was relieved by James Gowring from Blackheath in Kent. The two censuses for 1891 and 1901 recorded Gowring's presence as Engineer-in-Charge, but by 1911 the station had reverted to the usual pattern of four light keepers and a requirement for an engineer was dropped. Nothing has been found that would elucidate Gowring's background and he and his wife Eleanor seemed not to have any children, which deprived me of an insight into their movements.

On the 1st January 1872 the Deputy Master at Trinity House formally set the wheels in motion in the new engine house at South Foreland. One Engineer is known to have been there already as Edward Rogers was captured by the 1871 census with an assistant fitter called Samuel Heath, a Scotsman from Dundee. Neither of them came with any family and this has made tracing them almost impossible. However, Rogers may have been a millwright which was a trade steeped in the understanding of shafts, gear wheels and gearboxes, and many men in this trade were easily employed by a wide range of engineering companies. He would have had a great deal in common with light keeper Fred Spurr with whom he lodged, but Fred's expertise was on a much

to install such a machine at many more important sites. At the time Dungeness was unique among lighthouses with a continuously working electric lamp. It may have been an experiment in its own right, one of durability and reliability, but very little has been said about the need to maintain the source of that light. Trinity House now needed engineers rather than light keepers.

¹⁵ This is 'old' money; it is 1 p in post-1971 currency.

smaller scale in clocks and watches. Although Rogers had been born in Warrington, Lancashire, his pathway to the light at South Foreland is unknown, as is his subsequent employment.

'Ted' Rogers was not the engineer named at the opening ceremony; it was Mr. Ingram and nothing is known of him. His replacement was James Core from Souter Point and he had arrived at South Foreland by 1874. On the 5th November his wife gave birth to a daughter, Mary Jane, but six days later they were burying her in St. Margaret's churchyard. He stayed until about 1878/79 when it was decided to electrify the Lizard Station. He was relieved by James Sparling who was there at the census in 1881. Sparling was a young Scotsman from Stirling whose first child had been born in Penzance in 1877, yet he had married Emily Creamer at Charlwood in Surrey on the 24th May 1875 with the transcriber ignoring his occupation. At the census he described himself as the 'Engineer of the Electric Lighthouse' and he stayed in charge until sometime after the 8 November 1888 when his daughter Emily left the local school with 'left the parish' written beside her name. He was relieved by John Williams, who had not been ashore since his time at Dungeness in 1865.

Following the experiments with electrical power sources in the mid-1870s Trinity House decided to adopt the Siemens 'dynamos' and install them at the Lizard Lighthouses where there were two towers and therefore two lights. With James Core in charge of South Foreland during those experiments, it made sense that he should take that experience with him to the Lizard. This is where he was the Engineer-in-Charge in 1881. He was still there in 1891 and by now he was 47 years old, but it is interesting that his title had changed from Engineer-in-Charge to Mechanical Engineer. There had been a change in technology at the Lizard. The Siemens machines had not proved to be reliable and Trinity House had resorted to a newer version of the well-tried and reputable Holmes Magneto-generator.

Unlike Dungeness and Souter Point, South Foreland and the Lizard Light retained Engineers-in-Charge until 1911 after which the censuses are no longer available. In 1901, John E. Davies of Pembroke Dock was in charge of the Lizard, but in 1908 he went to South Foreland to replace James Core on his retirement. Davies' place at the Lizard was taken by Henry Percy Harrison, who had been born at Seaforth in Lancashire in 1880 when all the experimentation at lighthouses was in full flight.

It was May 1888 before any more light stations were converted to electricity and for this conversion

we have to look to the Isle of Wight and St. Catherine's Point. This location suffered particularly badly from the effects of fog and in 1875 the light tower was reduced in height by 20 feet, but there are two light towers conjoined. The smaller tower shows a fixed red light whilst the larger tower shows a revolving red light and the electrical conversion took place over the period 1887/88. Just as fog befuddles human logic, so the lighthouse became shrouded in controversy. At first sight the 1891 census did not include an Engineer-in-Charge, but he was there. It was Charles Millett who at 59 years old styled himself as a 'Naval Engineer.' His youngest three children had been born at Souter Point between 1875 and 1881. What is most interesting is that his eldest daughter had been born in Genoa in 1863. I wonder why he was there?

The new installation at St. Catherine's Point was described as a "commodious engine house containing three 12-hp steam engines and two de Meritens magneto-electric machines." Two engines were dedicated to the lights, but the third of the three engines was intended for the fog signal - two large euphoniums on top of a separate engine house (see p203).

As this brief examination of the extent of lighthouse electrification brings the story towards 1891 we find that Dungeness had changed and no longer required an engineer. Souter Point employed James Gowring; John Williams was at South Foreland, the Lizard was overseen by James Core, and Henry Millett had taken on the most recent installation at St. Catherine's Point. The lighthouse service may have lost the talent of James Sparling as he moved away to use his experience as a Foreman of Engine Makers, but if the lighthouses had lost his talent, then the Trinity Board possibly had not.

It has been deduced that the Sparling family left St. Margaret's at the end of 1888 and headed for Forest Gate in West Ham. When they did, they took with them two sons and two daughters who had all been born at South Foreland. Their new home at 29 Tylney Road¹⁷ is close to the Manor Park Cemetery. In its heyday it was a very attractive street and the house is there today with its wooden sash windows and yellow London brick still intact.

It was twelve months later on Tuesday 17th December 1889 that James Sparling was presented with a substantial striking clock of marble and gold with a suitable inscription recording the esteem in which he was held by his friends in St. Margaret's

¹⁶ Hampshire Advertiser, 22 September 1888.

^{17 1891} Census, RG12/1334 Folio 122 p15.

and Dover. ¹⁸ On the last day of January 1890 the *Dover Express* published the reply that Sparling had written to Mr. Cripps of the *Cliffe Hotel* to thank him for the 'handsome marble clock' that he had received as a parting gesture from his many friends. He was most appreciative of their esteem, but apologetic that he had to 'pen a letter from bed whilst suffering from Russian influenza,' yet it was not the last that we shall read of James Sparling.

The Keepers Keep On Coming

There is little doubt that light keepers continued $oldsymbol{1}$ to arrive at South Foreland with scant knowledge of an electric light station. They needed to adapt to new procedures quite quickly and fortunately there was always someone there who could demonstrate those procedures to the 'rookie' keeper. They were not mechanics, but they were very practical with their hands and there always seemed to be a good relationship with their supervising engineer. The completion of the decade of the 1880s inevitably brought another census and another seven light keepers were named for posterity. Three have already been introduced - Thomas Cutting, Charles Winn and James Smith, so it is now the turn of four others who found themselves appointed to the South Foreland Light in the twilight years of Queen Victoria's reign.

South Foreland's longest serving keeper was Charles Winn (78-91). He had been there since 1878 and was the only one remaining who could tell stories about the three 'temporary' towers still in a line and dominating the headland, but he was about to move on later in 1891 following the sad death and burial of his youngest daughter, Daisy, on the 18th May aged just 1 year and 8 months. This is not the first time that a keeper has left a station shortly after a child has died, but in some respects they were able to leave memories of association behind and start anew at a different location.

As with previous censuses, the enumerator has declined to give us the benefit of his fleeting knowledge in revealing who lived in which house and I will say again, that this omission is a great loss to the record. I could probably rightly guess that the senior light keeper always took one of the cottages at the Upper Light and the man was George Proom (86-91), born in Harwich in 1844.

As I look at the manning of these lights from 1881 to 1911 there is a distinct local feel about the station and it adds to my belief that a PK could either

request preferred assistants or that the assistant could follow his preferred PK. There is no disputing the evidence of their presence. Men like Thomas Cutting, George Pell and Samuel Hast are the most obvious, but Tom Proom was a long-time keeper there and may have been related to George Proom.

George and Augusta Proom

In 1891, George Proom was not new to South Foreland, and neither were five of his colleagues, but this was the first time that they had been captured together in an official document. As is so often the case we don't know when George joined Trinity House. Following his marriage to Augusta Woodman in 1867 he was found in 1871 among the five keepers who had lit the lamp on the new, all-electric Souter Point lighthouse. In 1873 his wife presented him with a daughter, Lucy, at the lighthouse, so this experience became his passport to the role of Senior Keeper at South Foreland a little over ten years later. He had returned to Harwich and the Dovercourt station by 1877 and it may have been from there that he was posted to South Foreland. During 1891 he had completed five years in Kent and his daughter, Ada, left the local school at the end of October 1891, but his next station could not be discovered without children being born; none arrived. In 1901 he was the Principal Keeper at St. Ann's Head, but his arrival date is unknown and it is very possible that his time overlapped with that of Henry Thomas Knott who had been at St. Ann's since 1891 and probably left in the September of 1899.

William and Annie Squibb

Following George Proom's arrival it was a good twelve months before William Squibb (1887-97) arrived from Godrevy, on the north coast of Cornwall. Once again the intricacy of keepers' families is encountered as Squibb's wife was Annie Williams, the daughter of John Williams, who had been at South Foreland during Faraday's experimentations. William Squibb and his elder brother Frank were both light keepers, but they had not come from a seafaring background beyond being born a short 20-minute walk from West Cowes on the Isle of Wight. Frank had been born in 1854 and William in 1856 and they always stated that they had been born in Northwood, Isle of Wight. Their father was an agricultural labourer who eventually moved to Niton, the parish of the St. Catherine's Point lighthouse. Frank was at home in 1881 with his parents in Niton at the weekend of the census,

¹⁸ Dover Express, 20 December 1889.

whilst William was on the Avon lighthouse in Gloucestershire, lodging with the Principal Keeper. William was a Supernumerary Light keeper and both brothers were still bachelors.

The term 'supernumerary' was a naval term and this is the earliest date I have seen it in the lighthouse service. It applied to those who had just joined the service and was considered to be a form of probation to assess their suitability. They were usually unmarried so could lodge with the Principal Keeper on stations where they had no other family. They usually stayed for one or two months before moving on, and, no doubt, a report concerning their character and competence was handed to the Agent when he next called at the station.

In 1881 John Williams was the Principal Keeper at St. Catherine's Point and with the Squibb Family living nearby, William Squibb inevitably met John's daughter, Annie Williams. They married in 1882 on the island, but that is as close as I can get without a parish register. Their first child was born in St. Ives in 1886 suggesting that William was at Godrevy and again William was not the first keeper to arrive at South Foreland from that unusual island light. His brother Frank had only just married in 1885 and his first child was born at the Avon Light in 1886. This unpretentious light does not normally attract attention, so how strange it is that two brothers should follow each other serving the Avonmouth Docks!

William Squibb and Annie stayed at South Foreland for much of the next ten years, but, unlike his brother's eight children, when William and Annie moved to Anvil Point in Dorset, they took only two children with them.

The two newest keepers were George Pell (90-94) and Alfred Dale (91-94). All the keepers were in their 30s with George Proom being the eldest and most senior, but Alfred Dale was the youngest at 26 and he had been born in a parish with a lighthouse, Orsett in Essex. This suggests a light-keeping lineage as Stanford le Hope is in Orsett and that was the location for the cottages serving the Thames river light of Mucking, but first let me unwrap George Pell's story.

George and Mary Pell

George Dazely Pell was born in Great Yarmouth, Norfolk towards the end of 1853. In 1861 he was the fourth child in a family of seven born to Henry Pell, a ship's carpenter born in Poplar. All the neighbours were engaged in some form of maritime trade, even fishermen, so it was not surprising that George would be drawn towards the sea. In 1871 he was still at home, which was now in Exmouth Road, Great Yarmouth, but without any occupation. 19 The road of terraced cottages is at right angles to the quays that line the River Yare, and at that end of the road today is Trinity Square. Eight years pass before there is another record of him - his marriage on 27 September 1879 in Dale, Pembrokeshire to Mary Sinnett whose father, she reported, was a farmer. That wasn't strictly accurate. George Sinnet, was 78 years old and had been the Principal Keeper at St. Ann's Head in 1861 at the age of 60. When he retired he had only to walk down the road to his son James, who in 1871 was farming 120 acres at Snailton, adjacent to the light station. How George Pell met Mary Sinnett is unclear, but they married in Dale Church after George had made the journey from his home address in Neyland. This was the location of the Trinity House depot that served the South Bishop and George Pell was probably serving his probation there, but, after their marriage, George and Mary settled in Pembroke Dock and were still in the same house in 1889. It was unusual to serve on one rock lighthouse for nearly a decade and the only choice is between the Bishop and the Smalls.

When the family arrived at South Foreland they brought six children, and by October 1891 they had added another daughter Lilian, to the number. But it seems that all was not well with the family. In 1887 their son Henry's baptism was held in private, 40 days after his birth. This was longer than usual for the Pell Family, but a private baptism among working class people was often linked to something being amiss, either with the baby or with the mother. If it was the baby, the ceremony was performed within days, but this ceremony seems to hint at the mother's recovery which was not as it should have been. On Friday 6th April 1894 Mary Pell was buried in St. Margaret's Churchyard aged 35 years old.

A death on a lighthouse station was not common. The South Foreland station was a self-contained community, which totalled 40 in 1891, 24 of whom were children under 17 years old. The cortège to the church made a sad spectacle. All the keepers would have walked behind Mary's coffin. The middle classes discouraged women from attending a funeral: it was something done by the working class and the main reason for distancing themselves from the practice was 'drink.' This was the height of

^{19 1871} Census, RG10/1787 Folio 24 p42.

the period of the Temperance Societies and booklets were published detailing the latest 'fashions' in mourning etiquette. Victorian mourning etiquette was stifling, and women were the principal target of the petty rules.

George Pell's world had disintegrated. It was a repeat of the misfortune that had befallen Henry Knott eight years before. What happens to the children now? Housekeepers were inadmissible on a light station. His eldest daughter, Edith, was 13, and Beatrice was 10, but he had four boys and a baby. What chance was there with such a family to look after? It seems that he left South Foreland soon afterwards, but remained in the service. In 1901 he was another East Anglian who had found a place at Dovercourt where he stayed until his retirement beyond 1911. He married again in 1903 and eventually found his way back to Great Yarmouth where he died in 1937, aged 83.

Alfred and Rowena Dale

Alfred Dale was the son of William Dale, light keeper at Mucking in 1871 who had himself been born at Mucking 37 years before in 1834. This does not suggest a long line of light keepers in the Dale Family as the Mucking light was only lit in 1851, but it does mean that he was in the right place at the right time to join the service. Alfred had been born at the light in 1864, but in 1866 his younger brother was born at Kilnsea in Yorkshire on the banks of the Humber, which indicates that he served on the Spurn light before the family returned to Mucking again by 1871.

Alfred had been at South Foreland long enough to meet Rowena Clayson from the village, and they married in the parish church on the 29th September 1894. By 1901 he had arrived in Cromer as an assistant to Walter H. Warder from Yarmouth in the Isle of Wight, but in 1906 they were back at South Foreland, It was not a happy home coming as we shall see.

Climate Change

The engine house at South Foreland was struck by lightning on Saturday 11th August 1894. The great god Thor singled out the tall chimney of the engine house and gave the engineer a fright. Apparently no damage was done, and James Core was probably thankful for that. He didn't want to be there when the lights could not be lit. It was proof that the cliff tops at South Foreland and Beachy

Head were uncertain places. Both of these headlands are the sheer ends of land where a geological feature has met the sea. The South Downs and the North Downs are magnificent. Consequently in the postwar period strenuous efforts have been made to create long distance footpaths for people to enjoy the unique experience they provide. There was a time when no one would have contemplated such an activity - it was left to the goats and sheep to explore, but in recent times the old Belle Tout lighthouse at Beachy Head has had to be pulled back from the brink, not once, but twice.

It would also be a mistake to assume that vulnerable cliffs were confined to the chalk margins of Kent and Sussex, for two Knott lighthouses in Devon have also succumbed to the encroaching sea during my lifetime. Bull Point, proudly opened by George Knott in 1879, was taken in 1972, and Start Point, once in the care of Henry Thomas Knott, lost its engine house in 1990.

Today, the sad remains of the South Foreland Low Light sit on private land, largely hidden from view. Only its tower is left - the cottages were demolished decades ago. Earlier in this narrative it was said that, when it was built, it was some 80 feet (24 m) from the cliff edge, but that is not far when the sea is so powerful and relentless. (In 2021, Ken found that the distance had been reduced to just seven metres.) Chalk is not the strongest of deterrents as it is porous to water which will freeze in the winter. There were some intensely cold winters in the 1890s and inevitably there would be cliff falls during the thaw. Where they happen seems random, but it is always at the weakest point.

There were a number of significant falls at South Foreland over the two centuries covered by this book. One occurred in 1895 and attracted criticism concerning the building of the Admiralty Pier at Dover. It was said that the shingle that used to be deposited beneath South Foreland was now being swept higher up the Channel towards Kingsdown. At one time there had been a track beneath the cliffs that linked Dover with St. Margaret's Bay and Kingsdown. No one knew its age, but it was shown on Ordnance Survey maps of 1871 and 1876. It undoubtedly enabled the fog signals to be mounted at the base of the cliff for the experimentation described on p197, but that track was slowly whittled away, allowing the high tides to approach the foot of the cliffs.

A meeting was held in St. Margaret's Bay on the 29th January 1895 to express public concern about the frequency of the recent falls. It was said that

12 feet of cliff top had been lost since Christmas.²⁰ Then, on Sunday 3rd February 1895, there was a huge fall which was heard in Dover and created a dust cloud that was compared to a sea fog.²¹ All the London newspapers carried reports and some local correspondents added their own observations and comments. One reported that an inspection of the cliffs had been undertaken on Monday 4th February with the following conclusion;

"It was the largest subsidence that has occurred in a number of years and there was a very real possibility that when the frost breaks more slips will occur. There are several places along the cliff top where there are great cracks as well as in the face of the cliff. One is right in front of the Convict Prison as well as the South Foreland lighthouses and the Cornhill coastguards, which in the course of time must stand in great danger of slipping into the sea, unless something is done to protect the foreshore. So serious has been the effect of encroachment in recent years that the whole line of the cliff from Dover to St. Margaret's has become extensively honeycombed at its base."²²

The Chairman of the Parish Council at St. Margaret's, Mr. J. B. Stone, wrote an open letter to the *Canterbury Journal*, the most influential newspaper in the county and they published it on Saturday 16th February 1895. He outlined the damage that had occurred and pleaded the case for the local community, and highlighted a number of features now long forgotten. One that is relevant to this story was the hut at St. Margaret's Bay that contained the junctions of the telegraph cable to France and the telephone cable to Paris. The former cable was the first to arrive, but it was not always at the Bay.

The first working cable from Calais was hauled to the top of the cliff in a vertical shaft near one of the lighthouses in September 1851. Paul Rees writing for the National Trust quotes the magazine The Engineer & Machinist for this information, but he also quotes the journal of Eliza Cook who was shown 'Brett's Printing Telegraph in a small room of the lighthouse, overlooking the Channel' on the 29th November 1851. The telegraph was the first step on the path to world communications and it was used universally to great effect for 50 years, but there are always thinkers who are never satisfied and one of those men would soon arrive at South Foreland.

The New World of Communication

ur now familiar engineer, James Core, returned to South Foreland and relieved John Williams in the mid-1890s. He was still the Engineer-in-Charge at South Foreland in 1901 by which time he was 57 years old. John Williams, like James Sparling before him, found his way to West Ham and No. 39 Earlham Grove is still there. It is just a short walk from the Forest Gate railway station and Tylney Road, where James Sparling still lived describing himself as a 'Lighthouse Engineer.' Both streets had been built at the same time to the same architect's design, but the Williams' house was semi-detached with a bay window reaching to the first floor. Both houses share the magnificent decorated arch doorway to the front and would have been fit for any Mechanical Engineer as John described himself at the age of 59.²³ However, it does raise the question about the location of the Trinity House factory where they both may have worked.

It also raises the inevitable fact that engineers eventually become obsolete. The knowledge shared by Core, Sparling and Williams was the knowledge of steam engines, shafts, pistons and boilers, as well as Mr. Holmes's magneto-generators. When it came to telegraphs, the machinery no longer needed an engine house, although it needed a cable and an accumulator, but even that was about to change.

The year 1897 provided an opportunity for a spectacular electric light show for the pleasure of huge crowds gathered along every vantage point that the Solent could offer. The Royal Navy mounted its *Review of the Fleet* at Spithead in celebration of Queen Victoria's Diamond Jubilee. Hidden away in one of Palmerston's follies (or should I say forts) behind Dover Castle a small group of men were determined to achieve the impossible.

Fort Burgoyne was the scene of attempts to send telegraph messages without a telegraph wire. It was called a wireless message and they were attempting to send it to South Foreland Upper Light, two miles away. The aim was to find a system that could communicate with lightships. The *London Evening Standard* described what happened.

"Experiments with wireless telegraphy at Dover continued yesterday with some very interesting results. A message transmitted from Fort Burgoyne to South Foreland lighthouse was easily read and an electric bell was rung at the lighthouse by wireless

²⁰ London Evening Mail, 30 January 1895.

²¹ Illustrated London News ,9 February 1895.

²² Morning Post, 5 February 1895.

²³⁻¹⁹⁰¹ Census RG13/1589 Folio 115 p16 and Sparling at RG13/1590 Folio 91 p13.

current. The transmitter is only at one end, so the ordinary means of signalling with a heliograph was adopted between the two points. Accumulators used for the experiments are charged daily at the Dover Electric Light Works. The induction coil used is extremely powerful and produces a thick spark nearly a yard long and messages were transmitted from a wire carried vertically up a pole."²⁴

A month later, the report of a Royal Commission that had been enquiring into The Electrical Communication With Lightships was published on Friday 15th October 1897 with two specific mandates: (1) Which ones was it desirable to connect? (2) How should it be done? Six lightships had already been connected by a tethered system and they included the East Goodwin light vessel, but it was proving expensive and Trinity House Elder Brethren were reluctant to add any further ships. They recommended that four lighthouses should have a telephone connection (that is, with a wire) with the mainland "as soon as possible." Three of them were the Skerries, South Bishop and Godrevy Island. A number of shore lighthouses were recommended for connection to the telegraph system, but this was so that they could display a storm warning to shipping. Seventeen lighthouses (not all English) were named, and six had already been connected, yet the impression given was not one of urgency but "all in good time!"

When it came to the second point of 'how it should be done' they were surprisingly dismissive. It was apparently a simple task to use an overhead telephone wire, even to offshore screw pile lighthouses, and if the lighthouse was at a distance from the shore then only a rock lighthouse presented any significant difficulty when the cable had to be "sunk." The lightships gave the greatest concern and the most reluctance to proceed. The report added that a system of signalling "through the ether" had been brought to the attention of the Post Office by Signor Marconi and it had been decided to await the results of the preliminary experimentation of that system before coming to any conclusion. 25

Towards the end of 1898 as the new century began to loom upon the horizon, the old century still had many surprises to give the world in technological innovations that would find their way into our modern lives. Michael Faraday had set a precedent with his electrical apparatus that had had such a profound effect. Forty years on, history was about to

be repeated, when another scientist-cum-engineer arrived in Britain from Italy in 1896 and was given permission by Trinity House to use the South Foreland Light for his experiments and James Core was the man in charge of that station.

Oh! Mister Marconi - How Wonderful!

Guglielmo Marconi was only 24 years old, yet he was fascinated by radio waves and convinced that he should be able to transmit them over long distances through the atmosphere instead of using cables. Trinity House had long recognized the need for a system of signalling to their offshore rock lighthouses and lightships, and two methods had already been tried. Both were found lacking, as both depended upon the very fragile and vulnerable connection by undersea cable. Marconi was suggesting that wireless telegraphy was possible and Trinity House suggested an experimental link between the South Foreland Lighthouse and the East Goodwin Lightship, a distance of 12 miles.

George Kemp was Marconi's most valued assistant and he had kept a diary of events from the day he first met Marconi in July 1896 and began to work for him. On the 14th December 1898 he wrote that he ...

"... journeyed to Folkestone and arranged with Mr. Banham to erect a mast at the South Foreland Light Station and then I went to Dover to see the people in charge of the tugs who charged £10 to take me to the East Goodwin Light Ship."

On the 17th December, Kemp went out from Deal to the lightship and erected a mast on top of the vessel's own mast before returning to Deal for the night. The following morning he took a train to Dover:

"We walked to the South Foreland Lighthouse where I saw the mast hole and stakes, after which we walked to Deal."

The 19th December 1898 was the day on which George Kemp boarded the East Goodwin Lightship and settled on board to await developments from the headland led by Mr. Marconi. This was to be the beginning of four months in which records would be broken and the world would experience many 'firsts' in this new field of wireless telegraphy.

Christmas Eve fell on a Saturday in 1898 and George Kemp had already endured five days of awful weather as the lightship was tossed about ferociously. He does not record in his diary how the day was spent, but he writes:

²⁴ London Evening Standard, 18 September 1897.

²⁵ Morning Post, Saturday 16 October 1897.

"Mr. Marconi called me up by ringing Vs in code on my bell at 6 p.m. and we went on working at a good speed until 9 p.m. sending the compliments of the season to all the editors of the Daily Express, all friends and relations of the lightship's crew and the Wireless Telegraph staff etc. I sent 'three cheers' to Mr. Marconi and compliments of the season to the Superintendent at Ramsgate. I did some good work during the three hours. I went on deck and looked after the lighting and clockwork machine while the men below enjoyed themselves until the early hours."

It is a great pity that the date and the subsequent accident to the lightvessel makes it impossible to name the crew, but in the 1901 census we see that there was a crew of eleven, four of whom were ashore. George Tracey was the Master and T. A. Jocelyn was the Mate in charge of three lamplighters and six Able Seamen, but one of them may have been significant to this story as we shall see.

Marconi visited the lightship with two of his assistants on the 7th January 1899 and he left it two days later with George Kemp, who had been on board for 22 days, but the objective had been achieved. It was possible to send messages wirelessly. The next question was – just how far would they travel?

As news of the success of the experiment filtered out into the country, it was of great interest to one man on a mission. Mr Edward J. Hobbs, a 73 year-old insurance agent of Ramsgate, was the promoter of a group entitled Electric Communication with Lightships and he had written to the Wireless Company suggesting a demonstration to representatives of 'public bodies.' The Company agreed to his suggestion as Marconi was keen to receive the mayors of the coastal towns with their friends at South Foreland to witness a demonstration of his apparatus at work. This was arranged for Monday 30th January 1899, but not before there had been yet another damaging storm enveloping St. Margaret's Bay on Thursday 19th January. A groyne was washed away together with a hut used by the Coastguard in which to keep their rocket apparatus, but, worst of all, twenty five cattle carcases were washed ashore under the South Foreland lights. No one knew where they had come from, but the smell meant everyone knew where they were! The Coastguard had the unenviable task of recovering them and burying them in quicklime in the Bay.²⁶

It was a small, but enthusiastic group that gathered in a room at the lighthouse looking out towards the Channel at 3 p.m. It included the mayors of Dover, Folkestone, Margate, Ramsgate and Broadstairs, together with a handful of local journalists and others, standing around a small kitchen table. On the table stood a simple apparatus consisting of a transmitter and receiver, whilst under the table were batteries providing 16 volts at 8 amps. The transmitter was a coil about a foot long by four inches diameter, from which protruded two brass rods each with a ball at the end about half an inch apart. In front of this was a tapping key which, when struck, caused a spark to flash between the two brass balls with a loud crack. The receiver was installed in a wooden box about a foot long (30 cm) by four inches (7.5 cm) square. A well insulated cable trailed across the room, out of a small hole in a skylight window, and found its way to the lighthouse flagstaff. At the top of the mast, some 130 feet (40 m) away, the wire ended in a small, V-shaped or forked aerial which transmitted the signal, and it was explained that there was a similar arrangement on the light vessel to a height of 80 feet (24 m).

Mr. Marconi was accompanied by his three assistants, Kemp and Cahen at the lighthouse, and Richards on the light vessel, and he explained that the signal would travel at 1800 feet (550 m) per second and a reply would be almost instantaneous following the transmission. He had asked one of the light vessel crew members to take part and he had received just a few days of instruction.

Suddenly the air of expectation was broken by the noise of the receiver clattering into life and a ribbon of paper tape spewing out with a succession of dots and dashes. Marconi, an expert telegraphist, read the message,

"We are very pleased to receive the present of fruit brought to us this morning by the Trinity tender and Captain Reading this morning.

The return message was prompted by Mr Hobbs following his declared agenda. It said:

"Do you consider Mr. Marconi's system of communication good and likely to be a means of saving life?"

To which came the reply:

"Yes; we think it is a great success."

Then someone in the gathering suggested a question rooted in the mystic acts of the variety halls.

"Was your grandfather ever master of the lighthouse

²⁶ Canterbury Journal 21 January 1899.

at the North Foreland?"

But Marconi, who was keying in the letters of the words, left out the prefix 'grand' from grandfather and the reply came back:

"Not my father, but my grandfather."

It was an answer that caused some knowing looks among the gathering. This was a statement worth investigating as it might identify the young man operating the Morse key on the light vessel. It was very probably John Robert Hurst who at the time of the demonstration was just 17 years old. The reason for my caution is that the research did not exactly fit the statement as I will explain. John's father was Benjamin Hurst (1848), sometimes described as a fisherman, sometimes a 'Master Mariner.' In 1891 he was the Chief Mate on the *Olive & Mary* working out of Ramsgate.

Benjamin's father was Robert Hurst (1812), who was also John Robert's grandfather. Again he was sometimes described as a 'Master Mariner,' but in 1851 was described as the 'Mate of a Trinity Tender.' Among the children in Wellington Cottage, Ramsgate was not only Benjamin aged 3, but also Robert F Hurst aged 8 years.

Robert and Mary Hurst

In 1871 Robert Fearman Hurst appeared at South Foreland as a light keeper boarding with his Principal Keeper, George Thomas. He was unmarried and remained single when he moved up the coast to the North Foreland light by 1881. He didn't marry until he was 44 years old in 1887, and at the time he must have been still at the North Foreland as his marriage took place at St. Peter's, Thanet.

It is possible that he had become the Principal Keeper by this time, although the marriage register does not say anything other than 'light keeper.' However Robert Fearman Hurst was John Robert's uncle and not his father. Although important to Trinity House as a mariner, Robert senior had no involvement with the North Foreland lighthouse, unless of course the Ramsgate tender, of which he may have been the Master, was named *North Foreland*.

Edward Hobbs had been instrumental in arranging this demonstration so it was not surprising that he could not resist lobbying his influential and already converted audience. He told them that ten years previously it had been suggested that the four light vessels could be linked to each other by cable with the two lighthouses at a cost

of £10,000. It had already been partially tried and proved unreliable. This apparatus had cost barely £100!

During the demonstration the attentive silence had been broken only by the crack of the spark during transmitting and the clatter of the receiver hammering out the reply, but this was replaced by an enthusiastic round of congratulation at such a successful conclusion. Marconi's charm and boyish appearance in one so young was enhanced by his unpretentious enthusiasm that made it clear that his next ambition was to communicate with ... France!

The gathering concluded with a vote of thanks to Mr Marconi from Edward Hobbs, seconded by the Mayor of Ramsgate Dr. Hawke, who suggested that Mr Marconi should come to the North Foreland lighthouse and demonstrate his apparatus to the townspeople of Ramsgate. Marconi responded by giving everyone a piece of the tape printed that day, as a memento of the occasion.

The First Serious Messages

nefore Marconi's ambitions for a cross-Channel ${f B}$ transmission could be put to the test, the equipment was used practically and usefully for the first time when the three-masted sailing ship *Elbe*, laden with slate for her home port of Hamburg, ran aground on the Goodwin Sands in thick fog on the 11th March 1899. The South Goodwin Lightship fired gun signals that were heard by the East Goodwin ship which sent a message to the South Foreland Lighthouse. They, in their turn, alerted the lifeboats at Ramsgate, Deal and Kingsdown, but they were not needed as the Elbe was re-floated eight hours later. This was the first occasion on which lifeboats had been alerted by wireless, but it also begs the question - how did they receive the message? There is more to this than first appears.

Almost simultaneously with this incident, and early in March 1899, Marconi was given permission by the French Government to set up a wireless station on the foreshore of a coastal village near Boulogne called Wimereux. Dignitaries were invited to the installation on the 27th March only to find a young man in overalls tinkering with an array of equipment. It was Marconi himself, and, during the demonstration, he succeeded in transmitting his triple 'V' for victory to South Foreland Lighthouse. In return Marconi received the message 'are you there?' from the lighthouse, and this was followed throughout the day by a continuous exchange of messages.

A month later, on the 28th April 1899, the East Goodwin Lightship was rammed by the steamer *R*. *F. Matthews* causing an international distress signal to be sent for the first time by wireless. The message read:

"We have just been run into by the steamer R F Matthews of London. Steamship is standing by us. Our bows are very badly damaged."

This event vindicated Marconi's belief in the role that wireless could play in the shipping industry, and within a year he had formed a marine subsidiary to his company.²⁷

So, within this brief summary of events we have a succession of dates spread over five months from December 1898 to May 1899, during which Marconi was frequently present at the South Foreland Light, just as Faraday had been forty years previously. The question for this book relates to the light keepers – who were they and did they sense the excitement of the occasion?

Wireless Signals by Day, but Light by Night

While Marconi and his assistants fiddled with masts and aerials during the day, the lights continued to function by night as was expected by the seafaring community. However, it is not always easy to be certain which light keepers were present at a given date and this was a short four-month period. It seems likely that John Ayres (1892-1900), John Hall (1898-1901) and Alfred Grigg (1898-99) were among the complement of seven keepers until the census enumerator arrived in 1901.

Marconi conducted his experiment in a room in the Upper Light which was traditionally the residence of the Principal Keeper, yet the management at Trinity House did not differentiate between keepers by the standard of their accommodation. Each residence was the same as any Victorian terraced house: four rooms consisting of a kitchen, parlour and two bedrooms - one for the adults and one for the children. George Knott had spent many years here before his move to the Eddystone, but that was almost forty years earlier. It is possible that there was only one keeper at the Upper Light, as rooms may have been left vacant for Marconi's use, especially as he had up to three assistants. There was accommodation at the Engine House, but I have little doubt that one residence was occupied by John Ayres.

27 Paul Isles: Dover Life Magazine 2010.

John and Semelia Ayres

John Ayres was the oldest of the light keepers, but something of an enigma. He was the son of Robert Ayres a Trinity seaman of St. Peters Plain, Yarmouth born in 1856. To begin with, he was easily found in 1861 and 1871 when John had become a mast and block maker at the age of 15. He married in the parish church of Great Yarmouth on the 24th August 1879 when he was still a 'block maker.' Within 18 months he was a light keeper and although married, he was living alone at the South Foreland light in 1881. Semelia Ayres (née Taylor and written Somelia in the census) was visiting her brother Alfred and his growing family in the railway town of the South Eastern Railway at Ashford.²⁸

Ten years on and it was 1891 and the family were found at the little known lighthouse at Great Castle Head in South Wales and the children in the house included one who was just 5 months old. Ayres had not given his family any names, only initials. However their places of birth suggest that they had been in the Milford area for most of the 1880s. Another source suggests that John Ayres arrived at South Foreland for a second time in 1892 and stayed until 1900 when he moved to Winterton on the Norfolk coast. It was here that the names of the children were revealed, but I failed to find any meaningful registrations of their births which would have greatly assisted the dating of his moves.

The two keepers that were to be found in Middle Buildings were Richard Comben (1898-1902) and John Hall (1898-1901) and their backgrounds were very different. Seahouses is a town on the Northumberland coast and the largest town nearest to the Farne Islands, the lighthouse home of Grace Darling, the Victorian heroine.

John and Anne Hall

John Hall had been born in Seahouses in 1871 and in 1891 he was at Grace Darling's lighthouse, the Longstone, not as a light keeper, but a humble labourer assisting two engine fitters who were also lodging at the light. The shadow of the Darlings was never far away and Robert Darling and his son William had both been on the light a few years before.

However, in 1891 Hall was working on the Longstone with Comben, who was not on duty on census night, but was ashore at his lodging in Seahouses. Comben was 24 years old and it was most unusual for a keeper from the south coast, (he

^{28 1881} Census RG11/747 Folio 67 p3.

was from Weymouth) to come so far north. Richard's family were like the Knotts: they had dominated the keeping of the two lights on the Portland Bill since they were lit by Trinity House in the late 18th century. Unlike the Knotts, their domination of the lights was broken in the 1850s, and Richard could only claim a third generation involvement which would inevitably end at Portland after leaving South Foreland in the new century.

By the time that Comben and Hall came together at South Foreland John Hall had joined the light keeping service, completed his training, and had been sent to the Wolf Rock off southwest Cornwall. Whilst in Penzance he met and married Ann Pascoe in the parish church on the 4th January 1896. His marriage, however, revealed that he was not entirely new to lighthouses as his father Thomas had also been a light keeper.

Richard and Helena Comben

On his arrival at South Foreland, Richard Comben may have come from Anvil Point as he had a daughter born in Swanage at the beginning of 1893. The family timed their arrival at South Foreland with the birth of another daughter, Dorothy, in the third quarter of 1898, but John Hall's wife waited until the first quarter of 1899 to present John with another son, Thomas. So determination of dates is difficult and illustrates my point about the uncertainty of a particular keeper being present at a specific date. However, these two shared the Middle Buildings with Engineer James Core; the three households totalled 15 people with seven of them being children under 11 years old. Even if Comben and Hall had not remembered each other from that brief encounter on the Longstone, it was something that would have emerged as they discussed their experiences during their time together at South Foreland.

Throughout the years of experimentation at the station, the Low Light, for the most part, was not involved, but it still had to be lit every night and maintained in the usual high state of readiness and reliability whilst keepers came and went in the normal way.

Henry and Margaret Smith

One keeper who fitted these circumstances was Henry Smith (94-98), born in Gibraltar in 1856. He had a daughter, Eva, born at South Foreland at the beginning of 1898 who was followed by a son, Charles, born at Dungeness in the spring of 1900. He may have been at the light during Marconi's visit, but it is not certain.

Alfred and Clara Grigg

Alfred Grigg (98-99) is the last of our group of keepers who may have been on the light at the same time as Marconi. He was born in Poplar in 1872 and in 1891 he was a boat builder's apprentice living at home in Seamouth Place near the Blackwall Pier.²⁹ His father was recorded as a seaman. He married Clara Child in West Ham in 1895/3Q. His wife was from Leyton in Essex and their marriage brought forth no children. After leaving South Foreland they moved to Dover where their address suggests that he may have been on the Western Pier, but in 1911 they were quietly content, hidden away at the St. Bees lighthouse in Cumberland.

Once again Alfred is an example of a keeper whose career did not seem to fit any pattern. But was there any pattern to the career path of a light keeper? With some keepers, the completion of training was followed by appointment to a rock lighthouse, especially if they were unmarried. Yet there are many examples of keepers' marriages immediately before joining the service or during their training. Was this a way of avoiding a rock lighthouse? For some perhaps, but not others. In Alfred's case he seemed to move from one quiet number to another. Perhaps that was just the luck of the draw. His service, such as it was, characterizes a 'quiet life', and his not having children might indicate a certain introvert personality. The Lower Light at South Foreland in these later years seemed to attract keepers who stayed for the shortest times. and I would suggest that both Grigg and Smith had been its most recent incumbents.

The century was now rapidly drawing to a close and as keepers left more took their place. William Warder came in 1899 and was there in 1900 when John Pearce and Edmond Horton Knott arrived – yes, the Knott Family was back at the South Foreland Light once again!

^{29 1891} Census RG12/329 Folio 4 p2.



ABOVE: Post Office engineers inspect Marconi's equipment on the island of Flatholm in 1897 in facilities not far from the lighthouse.

BELOW: Guglielmo Marconi, in 1901, with one of his first wireless transmitters (right) and receivers (left)

