
The Curious Case of John Logie Baird

John Walker

One of the most unusual stories to come to light in Falkirk in the recent past concerns the early history of that modern icon, the television. There have long been legends of demonstrations conducted in local halls by John Logie Baird himself, of Falkirk businessmen financing his research and clandestine experiments in back-shop laboratories. At first sight this all seems impossibly far-fetched but an examination of such facts as we have available and the addition of a body of more circumstantial evidence, suggests that there may be more than a grain of truth behind these legends. This short article is intended to present the information uncovered on John Logie Baird and the "Falkirk connection" thus far.

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John Logie Baird

If John Logie Baird was indeed looking for some location to conduct his early television experiments, is there any reason why he would have chosen Falkirk? He certainly had very strong family connections with the town. Around 1839 or 1840 Baird's grandfather, James, acquired Sunnybrae farm in Camelon. His parents at that time owned the nearby farm of Sunnyside. On 31st July 1842 James and his wife, Jane Simpson, had a son, christened John. John Baird left Falkirk at the age of 16 to study for the Ministry at Glasgow University, from where he was called to the West Parish Church in Helensburgh in July 1869. The Rev. Baird met and married Jessie Inglis in the late 1870s and on 13th August 1888 their fourth child, John Logie, was born.¹ The young Baird would, therefore, have heard a great deal of the town of Falkirk from an early age.

Baird's interest in electricity manifested itself in childhood and gave rise to a fully operational telephone system connecting a number of his friends, with a switchboard installed in his bedroom.² This experiment apparently came to an abrupt end when one of the connecting cables unseated the unsuspecting driver of a horse-drawn omnibus! He also provided electric light for his home some time before the rest of Helensburgh was similarly equipped. His experiments with communications, electricity and photography led, almost naturally, to an interest in sending and receiving images, rather than sound. The key to unlocking this new technology had been discovered on the 1860s and '70s, when it was noticed that the metal selenium exhibited curious properties when exposed to light. If current from a battery is passed across a piece of selenium which is exposed to bright light, the resistance of the metal varies with the intensity of the light. The brighter the light, the more current the selenium allows through the circuit. This is the basis of the photo-electric cell, or "magic eye" and the television camera.

Young Baird was obviously aware of these discoveries and experimented with the manufacture of selenium cells at his home. However he soon discovered that the current output was extremely small and some form of amplification would be required. This problem would in turn be overcome with the invention of the triode valve in 1906, which established the practicality of both wireless and television for the first time.

His obviously scientific turn of mind led Baird into a course in electrical engineering at the Royal Technical College, now Strathclyde University, in Glasgow rather than into the ministry, as his father had hoped. Throughout this time he maintained his interest in "seeing by wireless" and it seems that his experiments with selenium cells and current amplification continued throughout this period. Having successfully completed his course, which included on the job training in some of Glasgow's many engineering works, Baird enrolled in Glasgow University in 1914 to complete his BSc but the First World War intervened and he volunteered for military service. He was classified as unfit, having been a lifelong sufferer from various chest ailments and instead took a job with the Clyde Valley Electrical Power Company as an assistant mains engineer. This involved him in spending many cold and wet nights in the streets of Glasgow searching for broken or damaged cables and his health suffered accordingly, leading to long spells of absence from work and severely limiting his promotion prospects. He therefore decided to find some area of work which would allow him to, at the very least, stay inside. Having examined a number of possible money-making schemes while with the Power Company, he developed the waterproof Baird Undersock which sold in vast quantities, at their peak earning him £200 a week on top of his salary of 30 shillings! He eventually parted from the Power Company after a spectacular attempt to manufacture a diamond went wrong and blacked out half of Glasgow.³ It is likely that the senior management, who were earning less than he was, were not sorry to see him go!

Once again, however, ill health intervened and forced him to wind up his various business ventures and use the capital raised to head for the much more accommodating climate of Trinidad in November 1919, where he established a jams and preserves factory. He returned to Britain one year later, in November 1920, sold the fruits of his Caribbean labour and embarked once again on a string of money-

making schemes in commodities as varied as honey and strong soap. He was not only able to make a reasonable living but also finance his continuing experiments in television and in 1923 achieved a breakthrough of transmitting an outline image of a Maltese cross.

He was able subsequently to clarify the images he produced and in 1925 caused a sensation in Selfridges department store in London with a demonstration of his equipment. However, it was still only capable of displaying crude detail in stationary objects and it was not until January 1926 that Baird was able to demonstrate the transmission of moving, three-dimensional objects in a recognisable form. This was done in his laboratory in Soho, London to a group of journalists and, thus, the television age was born. Baird would go on to develop and patent a string of inventions and become involved in radar experimentation. Among his achievements are the world's first all-electronic colour television receiver – the direct ancestor of those most of us own today – fibre optics, facsimile transmission (fax) and video recording, to name but a very few. Baird continued his experiments into 3-dimensional and high resolution television until his untimely death following a stroke in 1946.

This much can be gleaned from even a cursory study of Baird's life and work and it will be readily apparent that there are no mentions of Falkirk. However, this version of Baird's career appears to be less than complete. Recent research by his biographers, Tom McArthur and Peter Waddell,⁴ has revealed what they term a "secret life". This is characterised in a number of ways, including constant misinformation on the true extent of his discoveries, involvement in Government research and a commission in the army. It is from within this hidden chapter of Baird's life that his connections with Falkirk are drawn. The attraction of the town appears to have been two-fold, first of all the presence here of John Hart, a prominent local businessman and radio enthusiast and secondly the availability of capital from the local business community.



John Thomas Hart (1935)

Exactly how Baird and Hart came to know each other is still something of a mystery but it would appear that their business relationship had its foundations in the period following Baird's return from Trinidad at the end of 1920. Hart had served in the Argyll and Sutherland Highlanders, in signalling, during the First World War and afterwards had opened Hart's Radio Supplies in Falkirk. He was widely regarded as being both highly knowledgeable and extremely competent in radio matters and it is

in the workshop behind his retail premises in the Pleasance that much early television experimentation appears to have been carried out. There are numerous accounts from the early 1920s of the two men collaborating on "seeing by wireless" and, while knowledge of the work might not have been widespread, it does not appear to have been particularly secretive. The writer knows of a number of people who were either members of the local Radio Club or had business with John Hart and were quite familiar with Baird, who was occasionally present when they went to have their accumulators charged or buy components. They tend to be surprised that modern researchers treat their recollections as anything out of the ordinary! An example is an apprentice joiner who made the cases for John Hart's radios. He clearly recalls meeting both men in the Pleasance shop. Similarly, John Hart's family recall much from around the period, including such details as Hart calling Baird "Logie". Almost all the witnesses comment on Baird's striking blue eyes, a feature even apparent in photographs of him.⁵



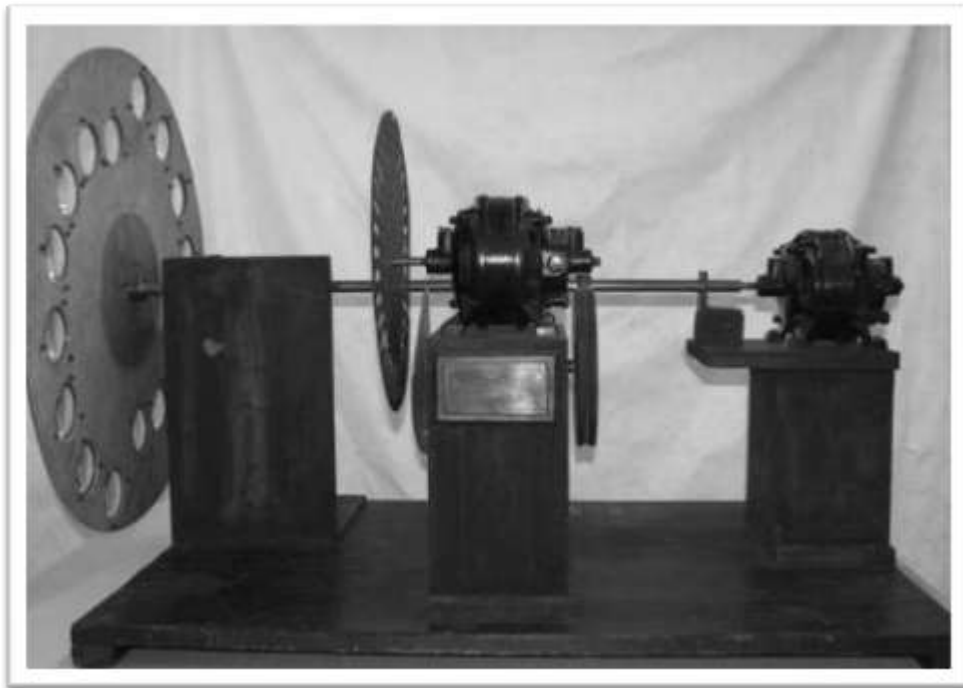
John Hart Junior Outside the High Street Shop in 1933

Having established beyond reasonable doubt that Baird and Hart were collaborating on something, there remains the question of why Baird would come all the way to Falkirk from his then homes in London or Hastings. No satisfactory explanation has been forthcoming, beyond the speculation that John Hart provided a fund of radio expertise which Baird needed to complete his work on broadcasting pictures through the ether, rather than along telephone lines. Waddell & McArthur have pointed out that Baird was also cultivating technically skilled people in Hastings in the same period and that there is some ill-feeling among these individuals that they have not received the credit they feel they are due for their part in Baird's work. It also appears that there was money available here. No doubt Hart was himself contributing to the costs of the work, at least by supplying and building components if in no other way. Hart's daughter Honor recalls another local businessman who was also funding the work, although this was probably slightly later in the 20s.⁶

Perhaps as a consequence of Baird's need to raise additional capital a number of demonstrations were arranged in and around Falkirk. Information on at least two has come to light, the first in Carron Church hall⁷ in either 1923 or 1924, perhaps sponsored by one of the working men's clubs associated with [Carron Works](#). On this occasion the equipment apparently failed and the audience had to make do with a lecture from Baird. The second is the famous [Temperance Café demonstration](#), which will be examined in detail below.

In the light of the above evidence, Baird's next actions are difficult to reconcile. Having satisfied himself that he could reliably transmit moving pictures, he publically demonstrated his system in Soho in January 1926. In September 1926, John Hart visited Baird in London and was presented with an item of equipment to bring back to Falkirk for display in the local museum. The *Falkirk Herald's* account of this meeting credits Baird with the statement that he had only visited Falkirk once in his life when as a child he had been present at a relative's funeral but he could remember nothing about the town!⁸ This flies in the face of available evidence and can only be credited to Baird's well known habit of covering his own tracks. To the vast majority of the *Herald's* readership there would be no reason to disbelieve such a statement, those in the know would understand why he made it and those on the periphery would probably assume a run of the mill journalistic error!

THE FALKIRK TRANSMITTER



The Falkirk Transmitter

The piece of equipment brought back by Hart is now known as the "Falkirk Transmitter". For a period Hart kept it on display in his shop, he had by this time moved from the Pleasance to the East end of the High Street.⁹ It was then handed over to the care of Falkirk Museum where, apart from a period in the National Museum of Scotland in Chambers Street, Edinburgh, it remains to this day.¹⁰ The Transmitter was very much a forgotten artefact within the museum until the present

curator, Jack Sanderson, arrived in the mid-1970s. Recognising that this could be an important find, he contacted Strathclyde University, from where Peter Waddell arrived and identified the machine as genuine Baird equipment, built in 1925 – 26 and fascinatingly described as having been used on 27 January 1927 – after its arrival in Falkirk! – as the transmitting end of a broadcast between Glasgow and London. The machine resembles everyone's idea of Baird's early equipment, with the dominating feature being the spinning Nipkow disk with lenses around the perimeter, at the front. However, in this case the 16 lenses are arranged in two spirals of 8, to produce an interlacing of the scanned image to reduce flicker, in much the same way as modern TVs do. It would only require the replacement of each spiral with coloured filters to produce colour television! Hart arranged a radio exhibition in Falkirk in 1928, at which Baird was photographed with the machine. The Transmitter is today regarded as one of the earliest surviving pieces of Baird's equipment and, given recent doubts raised over the provenance of the machine in the Science Museum in London, perhaps even the earliest.

THE TEMPERANCE CAFÉ DEMONSTRATION

Perhaps the strangest episode in what is by any measure a strange story concerns a demonstration said to have been given by Baird and Hart in the former Temperance Café around Christmas 1925. This demonstration is of particular importance because we have a series of detailed accounts from an eye witness, the late Robert Shaw of Larbert and, because it seems to represent a final test before the January 1926 public demonstration in London. There can be few events in the recent history of the town which have been subjected to such exhaustive research, mostly as a result of Mr Shaw's wish to erect a plaque on the building, claiming it to be the venue of the first public demonstration of television. As a result of this exercise more questions have arisen than have been answered!

The story as told by Mr Shaw is quite straightforward. As a 17-year old he attended a regular radio class in Falkirk Trades School but on this occasion his teacher had instead sent him to the Temperance Café to witness the demonstration. When he arrived, the room was full and among the crowd was John Hart, who he knew by sight and a woman with a baby. He was taken into a side room from where his face was apparently televised to the main meeting in the adjoining hall, to great applause.

Mr Shaw's account of this incident appeared in the press, both local and national, on a number of occasions over the years and some time ago he decided to conduct some investigations into the event himself. His first action was to contact John Hart's widow, Jean, to ask her if she was the woman with the baby. She said she recalled the event but that he would find no other witness to the demonstration because it had been held exclusively for the benefit of Air Force personnel and was supposed to be secret. However, she had indeed been there with her baby daughter, Winnie, who now lived with and looked after the old lady.

The problem with this statement is self-evident! If this was a secret demonstration, how did an uninvited youth manage not only to walk in off the street but to take on a starring role? In an effort to clarify the situation, contact was made with some of John Hart's children to see if they could confirm that one of them would

indeed have been a baby in late 1925. His eldest daughter, Honor, now living in Canada, was happy to verify that her father was closely involved with Baird and that there was a child that was born in early 1925, who would have been a babe in arms at the time the demonstration took place. It would have been her brother, John jnr. None of the daughters fitted the time-scale. John Hart jnr was also happy to confirm that his father was associated with Baird but his personal recollections were only from the early 1930s onwards. He had, however, never heard his father mention a display in the Temperance Café. There was certainly one other person who would appear to have known about the event, Mr Shaw's tutor at the radio class. His name was Ralph Collumbine and he was a full-time technical teacher at Falkirk Technical School (now the Graeme High School). He is unfortunately now dead but an ex-colleague, who had been a member of Falkirk Radio Club in his youth in the mid-1920s was interviewed. His recollection is that Mr Collumbine never mentioned anything about this demonstration, even when television had become an everyday object there would have been no reason not to talk about it.

There is also a curious lack of any anecdotal evidence to support Mr Shaw's recollection. Nobody seems to remember an event such as this. None of his classmates, to whom he apparently reported back on what was a technological miracle of its time, mentioned it to anybody else. Neither did Ralph Collumbine, John Hart, any of his family, the staff of the Café or any of the audience. In other words, so far no-one has come forward and said, "Yes, I remember my father/grandfather/uncle talking about that". This event caused no ripples in the local community.

Mr Shaw has told the writer on many occasions that no corroboration of his story will ever be found. So far he has been proved right, even the recently uncovered records of the Temperance Trust, which have been in storage since the café shut, have nothing in them. Some time ago the Regional Archivist trawled all his records as a special request and found nothing. So far nothing even tangentially has been found in any written record.

What, then, are we to make of Mr Shaw's story? Anyone who has spoken to him about these events does not doubt his sincerity and it is certain that he is recalling something of an early television demonstration. It has been suggested that he is in fact recalling Hart's exhibition of 1928 or perhaps a demonstration of the Falkirk Transmitter after its arrival in the town in September 1926. He was, however, certain that he went to the demonstration from his radio class and it is known from the certificate that he gained that his course ended in the Spring of 1926. While he was almost certainly not the first person ever televised (a claim John Hart was also heard to make) his account provides added confirmation that something was going on in the town in the early 1920s. Perhaps some additional information will come to light in the future which will allow a greater measure of corroboration.

CONCLUSIONS

On the basis of all the evidence available, it seems certain that some early development work on television was carried out in Falkirk. This mirrors the rather better known situation pertaining in Hastings in the same period. Baird apparently sought out

people who had specialist skills which would help him further his research and Hart was one of those. A fully equipped radio workshop would have been a positive boon!

It is much less likely that Falkirk was the site of the first ever televising of a human face but Hart's claim must be considered stronger than Robert Shaw's. Even if Shaw's dating is correct, Hart had already been involved for at least two years. As McArthur and Waddell noted, the honour of being the first person ever televised probably belongs to an unknown Trinidadian factory worker!

There are a number of factual loose ends which can quickly be tidied up. Baird, as noted above, only just survived the Second World War and died in 1946. Since then his reputation has waxed and waned but has been recently restored, thanks in large measure to his biographers and the efforts of his former college, now Strathclyde University. That we are all touched by his legacy is beyond question!

John Hart sold his East High Street business to Peter Samwell and served in the Royal Air Force throughout the War before returning to Falkirk in 1946. In 1951 he moved to London, returning to Scotland in 1966. He subsequently spent the rest of his life in Tain, where he died some years ago.

A MEMORIAL

In early 1995, the Editor and the writer were approached by the Falkirk Town Centre Manager to advise on a Heritage Trail for the town. Funding had been approved by the District Council for 25 plaques and a supporting leaflet. The requisite number of texts were duly produced, including one which, at the time of writing, was destined for a location near Hart's Pleasance shop. It reads:

JOHN LOGIE BAIRD

Among the buildings demolished to make way for the Howgate Centre was the former Falkirk public baths, which had in turn replaced shops and houses in the Pleasance. One of these shops was owned by a radio engineer named John Hart, a close collaborator of John Logie Baird, and much early work on the development of television was done here. Baird was a regular visitor and arranged a number of demonstrations of his invention in the Falkirk area. In 1926 Baird presented the people of Falkirk with one of his early transmitters in gratitude for the help he had received. John Hart later moved to the East end of the High Street, with his business eventually being acquired by Samwell Smith. The Falkirk Transmitter is one of the earliest surviving authenticated pieces of Baird's equipment and is in the care of Falkirk Museum.

SOURCES AND FURTHER READING:

Baird, J.L.	"Sermons, Soap and Television"
<i>The Falkirk Herald</i>	1 st Sept 1926 and 18 th Sept 1926

McArthur, T & Waddell, P "Vision Warrior; The Hidden Achievement of John Logie Baird"

AUTHOR'S NOTE

This is a rather shorter list of sources than would commonly be found at the end of a *Calatria* article. This is because much of the material on which this article is based is in the form of letters to the writer, conversations and, in one case, a tape recording of Robert Shaw made by the Editor <n.b. of *Calatria*> in Stenhousemuir some years ago. Among the people who have contributed:

Mr John Hart Jnr
Mrs Jean Hart
Mrs Honor Trojanowska
Mr Robert McAlpine
Mr J Findlay Russell
Mr Gordon Shanks, Scottish Homes
Mrs Nancy Smith, *The Falkirk Herald*
Dr Peter Waddell, Strathclyde University
Mr Jack Sanderson, Falkirk Museum

Many other correspondents, both locally and further afield, have supplied additional information which has gone some way towards disentangling this remarkable story. If anyone can add any more detail the writer would be only too happy to hear from them, via the Editor.

NOTES :

- 1 These early biographical details are taken from both "Vision Warrior" and from Baird's own notes, "Sermons, Soap and Television", published by the Royal Television Society in 1988 and available in Falkirk Library
- 2 Among young Baird's friends was Jack Buchanan, a close neighbour and contemporary, later to find fame on film and stage.
- 3 Baird's experiment involved encasing a carbon bar in a concrete filled pot. Wires from the exposed ends of the bar were connected in such a way that the entire output of Rutherglen sub-station was directed through it. There was a bang, smoke and the tripping of safety switches. In the subsequent confusion the pot was lost, so it was never established whether the experiment succeeded or failed. Baird thought it prudent to leave shortly thereafter!
- 4 The full story of this remarkable man is beyond the scope of this article but anyone wishing to learn more is referred to "Vision Warrior" outlined above.
- 5 These eyewitness accounts take the form of numerous letters and conversations between the writer and the witnesses.
- 6 Honor recalls this man's name as "Beesley" or something similar.
- 7 This is the old Carron Church which was demolished some years ago, not the current Stenhouse and Carron

- 8 *Falkirk Herald* 18/9/26
- 9 This is the shop which would eventually be bought by Peter Samwell and which closed recently. <n.b. written 1996> The former owners believe that some early Baird equipment may have been thrown away when the cellars were cleaned out in the 1950s.
- 10 According to John Hart's widow, in a letter to the writer, placing the machine on permanent display was a condition of Baird's donation. It is a condition which has been honoured more in breach than in observance!