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IN THE STEPS OF CRABTREE
Tony Smith
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Mr. President, 40 years ago to the day on 17th February 1954, my late father Hugh Smith presided at the first meeting of the Crabtree Foundation. It gives me much pleasure and pride to follow my family heritage of Crabtree studies, standing before you this evening. Some three years ago, James Sutherland wrote to me 'Hugh and I never thought the little acorn we sowed all those years ago would grow to such a spreading oak tree', and added with typical subtlety, 'or chestnut would be a better metaphor'. The Foundation owes much to those two men, and to many others also, who will not be forgotten. In serving for five years as your Secretary, I thought I had done enough to avoid ever being called as Orator, but it was inevitable that sooner or later a virgin Secretary of the Foundation would be called. It happened to Arthur Tattersall, who managed to hang on as Secretary for ten years.

The title of my Oration might well be 'In the steps of Crabtree Orators', for it indicates my intention to expand on existing research rather than to explore new ground that has not been trodden before. Others more illustrious than I have already addressed Crabtree's contributions to the sciences. Nevertheless, there are some small fissures in their researches that I hope to fill.

However, let me first turn to Joseph Crabtree's early years in rural Chipping Sodbury. His playgrounds were the gently-sloping buttercup-filled fields of the South Cotswolds. His interests were the birds and flowers and his young female companions. In this pastoral environment, his growing poetic and musical talents naturally took in the surroundings with which he was familiar. We can picture him there, much as he appears in the cherubic illustration attributed to Joshua Reynolds (Armour 1992, [see page 322](#)), or clad in his little leather ale-conner's breeches (Mullin 1993). Peter Armour has suggested that Crabtree's nickname 'Cuckoo Joe' marked his poetic as well as his vocal gifts. Who other could have been the composer of that well-known Gloucestershire folk song Buttercup Joe, from which Crabtree took his nickname after his voice broke? I am indebted to Mr Bob Arnold of Burford for the original words:

Chorus For I can drive a plough
 And milk a cow
 And I can reap or mow.
 I'm as fresh as a daisy as grows in the field
 And they calls I Buttercup Joe.

Notice the clever use of the characteristic Gloucestershire pronoun I and the singular verb 'calls' to aid local understanding. This chorus is accompanied by four verses, quite an achievement for a nine-year-old. Could this delightful early poem have been the subject of Dr. Samuel Johnson's remark in 1763 (Brown 1955) calling Joseph Crabtree a 'blockhead'? Yes, gentlemen, it most certainly was. The fifth and sixth lines of the first verse read:

 Some folks calls I Bacon Fat
 And others Turmut Head.

Dr. Johnson would not have understood or repeated the Gloucestershire 'turmut', meaning turnip, and he replaced it with 'block'. What more likely theatre for the young Crabtree to perform his compositions than the Gloucestershire public houses, where he followed and assisted his father as ale conner after his retirement from the Civil Service and from the sea?

Joseph Crabtree left Chipping Sodbury to go to school at Rishworth in the West Riding of Yorkshire, where he had relatives, when he was twelve years old (Smith 1959). He was old enough to travel on his own and it would have been on horseback since he had few belongings. At Cheltenham he was advised to avoid Tewkesbury with its 53 pubs, a den of drinking and evil ways. At the end of his first day's ride he would have stayed at the *Hobnails Inn* near the northern border of Gloucestershire. He sang *Buttercup Joe* for his supper. In the morning, the view of Bredon Hill to the north-west inspired him to write those few lines of poetry nowadays attributed to our own A.E. Housman, *Summer-time on Bredon*.

I have reconsidered Fred Gee's thesis that Joseph Crabtree was a secret agent of the British Government. He

made an excellent case, but the evidence provided in subsequent Orations since 1984, not always recognised, confirms Gee's conclusion beyond doubt. Allow me to elaborate. The visit to Vienna and Prague in 1791 when he met Mozart (Foreman 1989) is interesting. The primary reason for the visit was an instruction to attend the coronation of the Emperor Leopold II in Prague, to mingle with the rulers and political leaders he would meet and generally to pick up information. The opportunities in such a jamboree were too good to miss. Crabtree's stopover in Vienna was secondary, but while there he realised something very significant for his intelligence work. Hidden in Mozart's prodigious musical output, which was being sent to all the courts and centres of government in Europe, were coded messages. This had to be stopped and the only way was to destroy the coding machine, that is, Mozart himself. The revenge for the pox that Crabtree caught from Mozart, via his wife Constanze, was only incidental, just one of the hazards of the job, and was not the main reason for Crabtree's assassination of Mozart. His rapid departure back to London, after completing Mozart's *Requiem*, was to report back to base.

Next, would a visit to Sweden and the Low Countries really be an acceptable alternative to the Grand Tour (Fisher 1991)? I think not. Crabtree was sent to visit Linnaeus specifically to obtain seeds of the remarkable *Brassica Rutabaga* or Swede Turnip. These were troubled times in Europe and British troops needed to be fit, strong and well-fed to defend our interests at home and abroad. Good reports had been received of the high nutritional value, good keeping characteristics and ease of transportation of the swede. It was vital to introduce it to Britain for mass cultivation. A visit to Linnaeus was the answer and Crabtree, with his youthful experience of 'turmutts', was the best person to go. We are told (Fisher 1991) that the mission failed because Linnaeus returned home to find his daughter fondling the phallic model of the stinkhorn fungus that Crabtree had brought as a gift. Linnaeus threw two large swedes at Crabtree, who accepted them as a gift in return. However, Freeman (1975) tells how the sour-faced Fru Linnaea presented Crabtree with the seeds of the *Brassica Rutabaga* and moreover that she and Sophie entertained Crabtree to a supper of boiled swedes and mutton, similar to this evening's excellent fare, gentlemen. Clearly after throwing the swedes, Linnaeus was pacified by his daughter, who explained how much she had enjoyed playing with Crabtree's gift. The two accounts are thus compatible. Crabtree brought the seeds back to London and promptly propagated some of them in the gardens of his friend, Sir Joseph Banks, at Hounslow. Others he sent to his Uncle Agreeen in Maine, that staunch supporter of British colonialism, for him to develop the mass production of the swede, or rutabaga as it is known there, for feeding the British troops in North America.

Mr. President, here from the Crabtree archive, to illustrate the event I have just described, is the glass model of the *Phallus Impudicus* presented to the Foundation by Richard Freeman, identical to that in the Linnaeus collection. It has lain unused, as far as I know, except by the Keeper of the Archive, since 1975. I have taken post-secretarial executive action in arranging for it to be modified for another purpose, additional to what at first may appear. Its shaft has been skilfully cut by Mr. Brian Humm so as to form two claret glasses for the use of the President and the Orator at this and future dinners of the Foundation.

Crabtree's connection with Joseph Bramah has been described by Rowe (1980), but there was a more sinister side which Rowe did not mention. Their association while living and working together between 1773 and 1783 in St. Giles was certainly productive: the Bramah lock, the Bramah press, the water closet, beer pump, fire engine and humble fountain pen were all Crabtree's inventions patented and manufactured by Bramah. All was not well financially, and when Crabtree departed for France to join his uncle in the wine shipping trade, matters got worse and Bramah ceased all payments to him. This led to an irreparable rift between them and in Crabtree's case a desire for revenge. Crabtree was not a man to cross on scientific matters, as we have previously heard from the burning of Joseph Priestley's house at Birmingham (Jones 1959).

Thus, in 1796, Crabtree was delighted to appear as an expert witness in the court case brought by Matthew Boulton and James Watt for infringement of Watt's patent for a condensing steam engine. Bramah was to appear as the chief witness for the defendants. Crabtree rushed back from his intelligence assignment with the Baroness Liechtenstein on a haystack in Austria (Gee 1984) to appear in court. The court was hot, crowded and noisy. Bramah, called to give evidence, was verbose and much affected by the 'alkalescent and morbid exhalations of the large and close assembly' and the court became impatient. Crabtree's chance came as Bramah described the repetitive up-and-down action of a greasy piston in a well-lubricated channel, with its sexual connotations. Crabtree started the barracking, shouting 'fool', 'blockhead' (note the same insult as used by Dr. Johnson on Crabtree), 'shoemaker', and, worse, 'shit-house maker'. The proud and conceited Bramah was not allowed to continue his exposition and was thoroughly discredited, much to Crabtree's pleasure. The case was won by Boulton and Watt, but Bramah would not give up so easily and wrote a 91-page letter of complaint, with more evidence, to the judge. On page 82 he quite unreasonably criticises the patent for proposing to lubricate and seal the piston of the engine with, among others, 'fat of animals, quicksilver'. It is notable that quicksilver (or

mercury) and animal fat (or suet) were the ingredients of Crabtree's Butter, which Crabtree had formulated, as described by Tay (1965), to relieve the itching of his pudenda from a persistent infestation of crab lice, and which, incidentally, he used to poison Mozart. Undoubtedly he had discussed the itching problem with James Watt in his stay at Birmingham as Watt's guest, and had experimented with ingredients to hand in Watt's laboratory.

Crabtree was there behind the scenes through an exciting age of scientific discovery and engineering invention, not to mention revolutions. Joseph Priestley inspired and typified the spirit of the age in intellectual enquiry. In 1780 he was a Presbyterian minister in Birmingham, but coupled this with studying the fundamental nature of air and water. James Watt, also then settled in Birmingham, was also much interested in the same subject for applications to steam power. Watt, Priestley and others in the area with scientific interests formed the Lunar Society, which met at full moon for scientific discussions. Members included Erasmus Darwin, Wedgwood, Galton, Small and, later, Crabtree. Although their purpose was scientific, the discussions were also politically liberal and even revolutionary. In 1789 the group hailed the French Revolution as a 'victory for liberty and reason'. Priestley was the leader in these political activities. Crabtree was asked by his spymaster to infiltrate and investigate the Lunar Society, which he was able to do under the pretext of an interest in the nature of water. Both Priestley and Watt had established by 1783 that oxygen and hydrogen (not identified as such at that time) could be combined to form water in an explosive reaction. Watt invited Crabtree to visit his laboratory in Birmingham to join him in some experiments to see if the reverse reaction could be initiated, that water could be split up into oxygen and hydrogen. Crabtree's brilliant suggestion (attributable to his wide interdisciplinary knowledge so ably revealed by previous Orators) was that the water in the experiment should be passed through a human body, which in any event is a powerful chemical reactor, and that the gaseous emissions at the exit end should be tested for their explosiveness by the application of a flame. The experiments were carried out in Watt's laboratory one afternoon in 1783 after Crabtree had offered his own body as the necessary chemical reaction vessel and elected to consume 10 pints of beer, mainly water of course, even in 1783. Success was limited, although a small explosive reaction was observed. Crabtree naturally had to remain standing for some days following this experiment, but, on the positive side, his persistent rear-end ailment was at least temporarily cured by the cauterisation from the explosion. The experimenters were of course mistaken on the nature of the anal gas, which was mainly methane, but the result was sufficiently interesting to offer a demonstration to the Lunar Society. The results were sent to Priestley who, it was intended, would submit a paper to the Royal Society with the offer of a further demonstration. But Henry Cavendish had recently made a similar discovery (in a less spectacular manner) and had hurriedly presented his work already. This sparked off a heated controversy between Watt and Cavendish, undoubtedly provoked by Crabtree, whose posterior had been so painfully maltreated for no gainful purpose.

Crabtree, through his now close connection with Watt, was able to attend meetings of the Lunar Society and to observe its dangerous revolutionary tendencies. Unknown to Watt, it was Crabtree who fomented the 'Church and King' riots in 1791, which were directed against members of the Lunar Society on the occasion of a blatant celebration of the second anniversary of the French Revolution. Priestley's two Presbyterian meeting-houses and his own house containing all his scientific works and those of Crabtree and Watt were destroyed by fire. The Lunar Society survived at a lower key, but Priestley fled to America. It was to be some years later, in 1799, that Crabtree was sent by his masters to America to check up on Priestley's anti-British activities.

In 1843, an incident occurred that bore a remarkable resemblance to the burning of Priestley's scientific works. The Bramah factory and the adjoining house in Pimlico were virtually destroyed by fire. Joseph Bramah himself had died long before, but his engineering designs and papers had been stored in the house. Evidence was found that the counting-house had been burgled and the fire had been started deliberately. Gentlemen, I suggest that the intruder and incendiary was Joseph Crabtree himself, intent on recovering the money due to him and, at the same time, wreaking a fearsome revenge on his former partner, even 28 years after his death, for the theft among other things of the design of a fire engine. Such was Crabtree's character.

Joseph Crabtree left France for America in 1799, starting once again a new phase of his life (Rowe 1980). He was already enrolled as an agent of France, but he was also acting on the orders of the British Government to set up an intelligence network in this now independent country. While in Philadelphia, he formed an institute somewhat along the lines of the Lunar Society, outwardly for scientific discussions, but covertly for his intelligence operations. He named it, quite appropriately and for want of anything better, the Crabtree Institute of America. The Institute survived after Crabtree left Philadelphia in 1800 but was infiltrated by American men of science who quickly recognised it as a front for espionage and handed the administration over to the United States Government. In order to avoid printing new headed notepaper, the initials C.I.A. were retained, as they are to this day; the organization grew and eventually moved to the new capital, Washington D.C. Naturally, the

early records of the C.I.A. are now inaccessible to the public. It will remain for American Scholars of Crabtree to penetrate the archives at C.I.A. Headquarters to substantiate this account. It must be, Mr. President, a matter of great pride for the Scholars of the Crabtree Foundation that Professor Reg Jones, our distinguished fourth Orator, was presented with a C.I.A. medal in this past year. We send him our warmest congratulations and also add our congratulations to the C.I.A. for at last recognising its roots.

From Philadelphia, Crabtree rode south along an Appalachian track that has become known as the Blue Ridge Parkway. He left his mark and spread his seed as you might expect. I am indebted to Mr. Leslie Joseph for the information that the Crabtree Falls in North Carolina are named after our traveller. It is understood that the native Indians were so impressed by the massive post-luncheon urination of the Englishman following his customary eight pints of beer that they renamed their local waterfall in memory of his visit. Further down the trail in Eastern Tennessee, Crabtree would have rested at Ball's Fort near present-day Knoxville. There he may have comforted the widow of the late Matthew Ball, recently murdered by Indians. The resulting offspring she blessed with the name Crabtree. This poor little bastard, growing up in the lee of the Great Smoky Mountains, never knew of the heritage he had missed from never knowing his illustrious father. However, the seed was sown, the genes were passed on, and the Crabtrees of Eastern Tennessee are today a thriving race. In the Anderson County and Roane County telephone directories alone can be counted 60 Crabtrees, including Joe W. Crabtree, Joe W. Crabtree Sr. and Joe W. Crabtree Jr. This small area happens to contain the Oak Ridge laboratory, where mankind, most probably including many of Joseph Crabtree's descendants, first separated uranium isotopes for the benefit and destruction of mankind.

Finally, Mr. President, I have to reveal some regrettable news. We have had high hopes that the Foundation would gain access to the large portfolio of Crabtree research material, including an extensive database, amassed by the late Kemper T. Guggenheim, that 'doyen of Crabtree scholarship' as Armour (1992) described him, of the University of Nevada at Reno. You will recall his letter in *The Times Literary Supplement* in 1923 (Sutherland 1954) appealing for Crabtree material, including a copy of the *Ars Salutandi*, that in 1954 he applied under the pseudonym of Hoffman to the Vicar of Chipping Sodbury for permission to open the Crabtree family grave, and that in 1975 he bothered the Vicar once again. I have just received from the University of Nevada at Reno a most distressing facsimile message in answer to my recent enquiry, as follows:

The complete research works of the late Professor Kemper T. Guggenheim, Crabtree Scholar of this university, were committed to floppy-disk storage after his death. I regret to tell you that during the recent testing of the new multiply-charged ion accelerator, the stray magnetic field completely erased all of the Crabtree diskettes.

What a tragedy, Sir, that this archive has been lost forever. We may hope that the forthcoming publication of the *Crabtree Orations*, which I understand will be marketed in the U.S.A. by the University of Nevada Press, will stimulate an explosion of Crabtree research in that country which will dwarf the accidentally deleted work of the late Kemper T. Guggenheim.