The Building of the Cutlers' Hall, Sheffield, 1830-34

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Inception and Competition

The name of Sheffield has long been synonymous with cutlery and steel. Although the presence of these important trades is less in evidence today, the "Company of Cutlers in Hallamshire" with its long and distinguished history, is still a powerful body in the city. It has conducted its business and entertained its guests at its headquarters, the Cutlers' Hall, since the seventeenth century. The present building in Church Street (Fig.1), built between 1830 and 1834, is the third to occupy the site, and is, in terms of Sheffield's modest architectural history, an early example of a more sophisticated style of architecture, the Greek Revival. Its monumental and handsome ashlar frontage, dominated by a Giant Order of Corinthian columns, was originally set in a streetscape largely composed of domestic-scale brick Georgian buildings (Figs. 2-3). More importantly, it also comes at a significant time in the wider history of building construction, when important changes were taking place in the relationships between the client, architect and contractor. The building history of this, the third Cutlers' Hall, bridges the continuation of the traditions of the eighteenth century and the introduction of more modern practice. The records of the building contracts have survived, enabling the following analysis of this unique building's construction to be undertaken.

The Hall which occupied the site until 1830 had been built in 1725 (Fig. 4). The Company had organised and overseen the construction of that building entirely by itself, with no professional assistance, and something of that self-confident independent approach was to linger, as we shall see, when it came to building the new Hall. The building of 1725 was, though slightly larger than its neighbours, an otherwise unpretentious Georgian town house, but it had been cheaply built and consequently suffered from maintenance problems for most of its life. The townspeople complained, calling it a disgrace to the town, and, embarrassed by this criticism and sensing the need to enlarge and reflect its rising prosperity and importance, the Company resolved on 18 January 1830 "That a new Cutlers' Hall be built without unnecessary delay."[1]

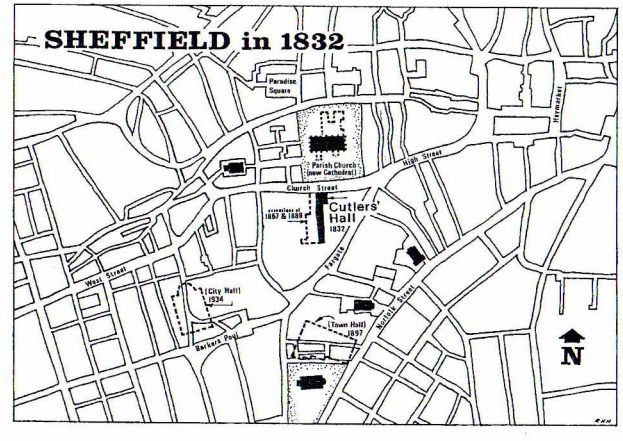

Fig 1: Sheffield in 1832

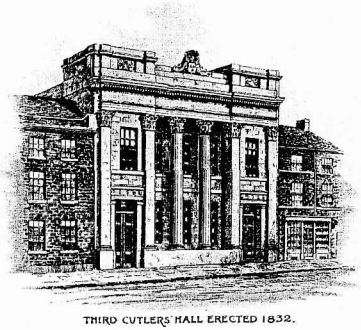

Fig 2: The Cutlers' Hall, Sheffield, 1832 (Courtesy of the Cutlers' Company)

The Company immediately set up a building committee to oversee the building of the new Hall and recommended that an architectural competition should be held. The conditions were published in July 1831:-

> *"To be two storeys high. The front to be of rubbed stone. On the ground floor a public News Room to be as large and well lighted as the situation will allow and on the chamber floor a dining room to the front or otherwise well lighted capable of dining conveniently 200 persons if practicable. There must also be above or below a suitable waiting room or drawing room to be used as a committee room and a suitable servants' hall. There must be a dwelling for the Company's beadle and his small family. There must also be on the ground floor, detached or otherwise, kitchens proper for cooking in such a Hall, water closet to News Room and to the Hall separate. Cellars only necessary for the private use of the Hall. The Company are desirous of limiting their expenditure to about £4,000 over and above the materials of the present building. Plans to be left at Wilson and Younger's offices on or before the first day of September next. The Company reserve to themselves the determination as to which plan they will adopt and it is understood the person whose plan they shall adopt shall be the architects to superintend the building and a compliment of £15 will be given to what the Company shall consider as the second best plan."*[2]

As a result of the advertisement, 13 plans and two models were received by September 1831, but the committee, when it gathered to make its selection, and as so often with competitions, was divided and unable to agree whether to award the commission to Samuel Worth (1779-1870) or to Benjamin Taylor (dates unknown). After some debate, it was eventually agreed to award the commission to both architects, who were then asked to "furnish a sketch or plan of which they both approve."[3] Although it is never stated, it seems, judging from the evidence of the Company's records, that Worth was probably responsible for the design work

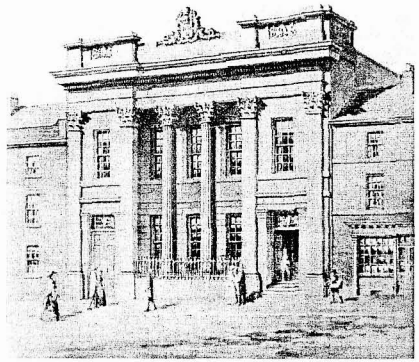

Fig 3: The Cutlers' Hall, Sheffield, Drawing by Alwyn H. Holland published in the *Builder*, 24th May 1918 (Photograph by courtesy of Sheffield City Library)

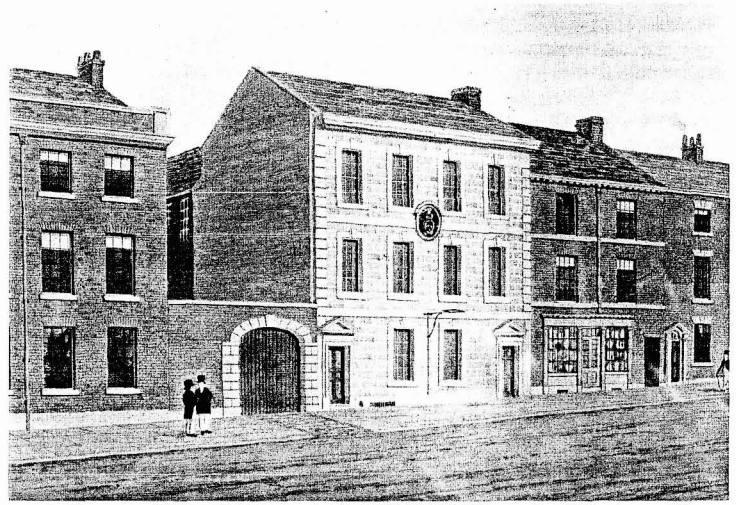

Fig 4: The Cutlers' Hall, Sheffield, 1725–1830, from a painting by S. Worth (courtesy of the Cutlers' Company)

whilst Taylor took care of the site supervision. Whatever the relationship in their new and somewhat unexpected partnership, the architects jointed presented revised plans and elevations which were approved and presented to the Town Trustees in December 1831 for what was the equivalent of planning approval.

A new sub-committee was then set up and instructed to choose the stone for the front of the Hall. With the architects, they selected the stone from Eyam quarry in Derbyshire and the same group was asked "to arrange with Mr Hoyland about his privileges connected with the adjoining property"[4] starting thereby a long running series of altercations with the neighbours over rights of light, chimneys and access. Meanwhile, the architects were instructed to prepare the working drawings and specifications needed before advertising for tenders – not, it should be noted, for one general contractor but for four separate contractors for each of the main trades. In this the Company intended to continue their practice which had served them well in 1725 of taking on the role of co-ordinating the work themselves, with the architects acting additionally as their superintending clerks of works. Unofficially, and from within the building committee, Ebenezer Rhodes, a former Master Cutler, acted as another honorary clerk of works, for on completion of the building he was given £50 "as an acknowledgement of his valuable and most active service as one of the committee in and about the superintending the erection."[5] The practice of competitive tendering was now accepted, but not yet the practice of tendering for contracts in gross – that is the practice where one general contractor undertakes all the work himself, with any necessary sub-contractors as his responsibility. The Company seemed to consider the building process as being the same as for any larger town house. Being composed of practical business men, it felt it could control the process itself, but it failed to appreciate the size and complexity of the new structure, an error of judgement it was later to regret. The cost of the building was estimated to be £6,500 and the building committee was authorised to obtain up to £6,000 from the Company's funds, added to which was the cost benefit from the re-use of materials from the existing Hall and support from other smaller financial donations. In the event, the bulk of the money to build the Hall was borrowed from the Hadfield family to an amount of £5,000 at 4.5% interest, upon the mortgage of three of the Company's River Dunn (Don) shares.

From these sources £2,000 was drawn out in May 1832 and a further £3,000 in August. An extra £1,500 was borrowed from the Hadfields at 4.5% interest in April 1833. Samuel Hadfield had been Master Cutler in 1827 and was a member of the building committee.

The Contracts

The various trades were grouped into four categories, and the Company drew up a separate indenture or contract with four contractors, each of whom undertook to execute the work which fell within their area of expertise.[6] The most important of the four was loosely referred to as the "builder", but his indenture indicated more precisely his role as the excavator, mason and bricklayer. Next came the contractor who would undertake the work of carpenter, joiner and slater; following him the contractor for the painting, plumbing and glazing work and finally the plaisterer. While most of these groupings are self-explanatory, it should be noted that the work of the excavator included site preparation, foundations, footings and drain laying. The foundations, or ground works as they were called, had to be made "*in such sufficient manner so that the said intended new hall and buildings can be safely erected thereon and so that the same hall and buildings will not flinch or give way....*" This is the only reference to structural security and it apparently transfers all responsibility for the entire safety of the building on to the contractor. The bulk of the plumber's work was concerned with leadwork – for flashings, dressings, grouting iron bars in the stonework and so forth, and although the Company planned to install running water and water closets, the work of the plumber, in the sense we understand it today, was involved only to a relatively small extent. As evidence of this, the description of the lead work in the first schedule of this indenture is five times longer than the description which deals with drains and water supply pipes. The work of the plaisterer, or plasterer in modern terminology, was of particular importance in this building, since the Hall was to have the most elaborate interior decorations. Given its own separate contract, it therefore came under the immediate control of the Company, which was then able to maintain a close supervision of this important area of the work.

Advertisements for tenders were placed in each of the four Sheffield newspapers, in the papers of Doncaster and Huddersfield, and also in newspapers further afield, including the Leeds Mercury, the Manchester Guardian, the York Herald and the Derby Mercury. Tenders were to be submitted sealed, and tenderers were asked to note that no allowance was to be made for the cost of producing the estimates. The successful tenderers were announced in February 1832. The building work was let to Joseph Laycock £2,777); the joiner and slater was Charles Brown (1,540 and £169 respectively); the painter and plumber including glazier was Robert Drury £584.10s.0d and £170 respectively) and the plaisterer was Newbound & Wilkinson (£368). Various persons stood as sureties in support of these contractors, so for each indenture there were three or more parties: the Cutlers' Company, the contractor, and his sureties. A vestry clerk and grocer were Laycock's sureties, Brown called on Joseph Hadfield, another grocer, and two other builders, both of whom were also called Brown. This sounds suspiciously like a family connection and given that Brown's tender was well below that of any other and, as we shall see, there were to be problems later with Brown, questions might well have been asked as to how he had secured his contract. Drury's sureties were two other builders, and Newbound & Wilkinson named a builder and a silver-plater as their sureties.

Except for Newbound and Wilkinson, where it was clearly impracticable, all three contractors were requested to re-use materials from the existing building. All three were asked to dismantle and sort out the materials for the architects to inspect, select and approve what was suitable for re-use, and the residue could then be disposed of as each contractor saw fit. A sum of money was included in the schedule of prices attached to each indenture by each contractor for the use of these existing materials. Laycock could re-use brick, stone, ironwork and lead; Brown could

re-use timber boards, woodwork, glass, nails, ironwork and slates, Drury could take the lead from the gutters, pipes, sockets, grates "*and other materials belonging to the department of plumber*" but the architects were not in this case required to approve any materials for re-use, and although Drury was the glazier, he was not allowed to have the glass from the windows or sashes. These, as we have just seen, went to Brown, presumably because the glass would not have survived Brown's dismantling of the window frames. Although he was to have most of the lead, Drury was specifically prohibited from taking the lead which was bonded to any bricks, stone or flags, which again would have been difficult to extract and so the benefit of this went to the mason Laycock.

All four contractors had to agree to provide a sufficient number of workmen on the site and to conform to the directions of the architects "*both in regard to the said works, the manner and style of workmanship, the materials to be found for the same and the manner of employing the same materials and shall not continue to employ any foreman or workman in or about the said works who shall displease the architects or whom the architects shall discharge from being further employed thereon.*"

The architects were in fact employed in a dual capacity, as architects and as clerks of works, and their role and responsibilities were consequently complicated. They were taking directions from the client, the Cutlers' Company, and also giving directions on the site, with considerable power, being able to direct the manner and style of workmanship and dismiss workmen at will, yet each of the four contractors also had to keep a competent foreman on site. The architects, acting as clerks of works, were therefore controlling the four contractors, but able to override the foreman and involve themselves with the day-to-day directions of the work on site. Although they must have been able to keep a daily eye on the progress of the work from their offices nearby, it is interesting to see that all four contractors were, as part of their contract, obliged at the start of the job to construct an "*office or counting house for the use of the clerk of works to be not less than twelve feet square and to be fitted up with a suitable fireplace.*"

If, in the opinion of the architects, any of the contractors failed to employ sufficient workmen or men of sufficient ability, or failed to obtain enough materials or to proceed too slowly, the Cutlers' Company could employ other workmen to do the work, at the expense of the defaulting contractor. No sub-letting of the work was allowed without the architects' consent. There were 35 contract drawings for all four contractors to sign, with four more for Laycock only, presumably because these would show the work for the "excavator" in setting out the foundations and drains. Unfortunately, none of the original drawings have survived.

Each contractor had, in addition to providing all the materials, to provide all the "*tools, tackle, scaffolding, moulds, implements as necessary.*" An additional item in the indenture made with Brown, the joiner, was the request for him to provide "*such paper sashes and temporary wood frames and doors as required by the architects,*" presumably for the temporary filling of the window and door voids once the building was roofed over, so that the interior plaster work could safely proceed at the earliest opportunity. Laycock, Brown and Drury had to have finished enough of the work to ensure that the building was roofed by September 1832 six months from the start, and all four contractors, including Newbound & Wilkinson, had to have finished completely by June 1833, giving a total contract period of almost 18 months – although there were clauses for extensions due to circumstances outside their control, subject to the approval of the architects. All mistakes and poor workmanship were to be made good at the contractor's own expense. Alterations were clearly anticipated at the outset. If the Cutlers' Company "*shall be minded at any time or times before the completion of such works as aforesaid to make alterations therein, or in the form of the said intended new hall and buildings or in the materials thereof, they shall be at liberty so to do...*" and the cost differential was to be calculated according to the prices for the various items of works and materials which were attached by each contractor in the

second schedule to his indenture. All alterations had to be confirmed in writing by the architects. "*The full price and compensation for all the said works*" would be paid "*in lawful money of Great Britain*", and would be paid in instalments, "*two thirds parts in value of the work done and materials found in proportion to the said sum (sum inserted) as for the whole, at the end of every successive period of one calendar month henceforth so that not more than two-thirds part of the said total sum or compensation of (sum inserted)....may be at any time paid during the progress of the said works....and the residue at the end or other completion of the said work and undertakings and when the architects shall have certified that the same are fully completed.*"

A substantial sum of money was to be paid by each of them in case of default or breach of contract. This was as much as £2,000 in the case of Laycock, but proportionately less for the other contractors, with Drury being inexplicably exempted altogether from this requirement.

The Construction Period

The ceremonial laying of the foundation stone took place at noon on Whit Monday, 11 June 1832, and was performed by the Master Cutler, in the presence of the Cutlers' Company, the architects and all the contractors. Construction had, of course, commenced well before then. The first payment recorded was of £300 being advanced to Brown in April 1832 for the timber, coupled with a request to the architects to ask Brown to use Archangel rather than Petersburg battens for the three principal floors, provided the additional expense did not exceed £20. It is not clear why this change was requested, but it is interesting to see that the client was taking the initiative, asking the architect to order the contractor to change the specification. In the light of what was to happen later, it is clear that Brown was already causing some concern, by specifying unsuitable or unobtainable materials and more worryingly, he showed signs of taking on work beyond his ability. Brown tried to divert the Company's attention and to shift the responsibility on to the architects. The Company wrote to the architects in June 1832: "*Gentlemen: You are particularly requested by the building Committee for the new Cutlers' Hall to furnish without delay to Mr Brown all the drawings necessary for the completion of the Work he has undertaken that he may sustain no inconvenience on account of your delay.*"[7]

Laycock meanwhile appeared to have had no problems with his side of the work, receiving his first payment of £200, which the architects readily certified, in May 1832.

The error of judgement over the appointment of Brown was compounded by a further misjudgment by the client over the choice of the heating system. In April 1832 Mr Rhodes was asked to "*communicate with Mr Sylvester as to the feasibility and probable expense of airing the new hall upon the last and improved principle*"[8] and the following month Mr Sylvester's proposals for his ingenious central heating system were received and referred to the sub-committee. It was the start of the most disastrous partnership. The Company again took the initiative and instructed the architects, at what was a very late stage in the production of working drawings, "*to have all the flues made to warm and air the Dining Hall, Assembling Room and Staircase on the Principle recommended by Mr Sylvester.*"[9] A payment of £200 to the architects at the same time may have been intended as partial compensation for the extra work involved, since the belated choice of the engineer Charles Sylvester and his patent system as that of the Company and not the architects. There was at the time a growing interest in new methods of heating and ventilating, and a number of patent systems were peddled on a vulnerable market. J.C. Loudon, writing in 1838, gave the following description of the system:

> "*The first grand improvement upon this mode (of heating) was made by Mr Strutt of Belper, near Derby, about 1807; who, soon afterwards, introduced this improved system of heating into his manufactories, the Derby Infirmary, and his own dwelling-house in Derby. It was afterwards made public by Mr Sylvester, in 1820, in his work entitled the Philosophy of Domestic Economy'. Mr Strutt's apparatus was placed in the lowest part of the house or building to be heated, and consisted of an immense iron pot (called a cockle, from the circuitous passages formed round it for the passage of air to be heated), placed in an inverted position, and with the fire under it, and a constant stream of fresh air from the atmosphere passing over it. This air, being heated to 80 or 90 degrees, was carried by air-flues into all the principal rooms of the house; while, the fireplaces being left open, a portion of the air in the rooms escaped by the chimneys, equal to that thrown in by the heating apparatus. It would occupy too much space in this work, to enter much into detail on this subject; otherwise, it would be easy to show that Mr Strutt's principle, that of introducing fresh air along with fresh supplies of heat, is the only principle which combines a due regard to the health of the occupants of the house, with the other objects in view.*"[10]

By July 1833, even before its completion, it was clear that all was not well with Sylvester's system, Loudon's account continues and goes some way to explain the reasons for this:

> "*Mr Strutt's mode of heating (or, as it is generally called, Sylvester's mode) has been introduced into numerous private houses, with different degrees of success: but, partly from the management of the apparatus not being thoroughly understood; partly from the difficulty of introducing it, so as to be thoroughly effective, in houses already built; and partly from the difficulty of getting servants to attend regularly to apparatus of this, or of any other description; but chiefly to another mode of heating (by hot water) having come into fashion; it is now very generally given up. Another reason why it has been given up is, the liability of this plan to overheat the air, and deprive it of its moisture; more especially in cases where the persons managing the stove do not understand that, when an increased temperature is wanted in the rooms heated, it is not to be produced by raising the temperature of the air introduced (which is always understood to be about 80, or a few degrees more or less), but by introducing the air in greater quantities, which is done by producing a more rapid current.*"[11]

This account of Sylvester's primitive central heating system and its problems explains much about the design of the heating services in the Hall, including the number of ventilation ducts originally provided and the lack of a fireplace in the banqueting hall. The testimonials which Sylvester had been submitted originally were looked at again by the committee and in September 1833 Mr Sylvester was called to remedy the defects in his ventilating system at his own expense and under the supervision of the building committee, and to provide a full written description of what he intended doing before any work was done.

In August 1832 Laycock reported that the stone could not be obtained from Eyam quarry in time. A deputation which included the Master Cutler, as well as the architect Taylor, visited the quarry. To their surprise they found that "*almost every stone required for the completion of the new hall was perceptible to each of the Gentlemen....not only perceptible but attainable.*"[12] The 11 foot long stone breastsummers or lintels which Laycock claimed were unobtainable were promised by the Quarryman within a few days and the rest of the stone for the pilasters would, he

said, follow soon afterwards. The Quarry was busy with "*as many men as could be got into the confined space*,"[13] but there were not enough men to get all the stone in a reasonable time. The visitors asked the Quarryman to "*exert himself and employ more men so that the whole of the stone could be got*"[14] and any deficiency he suffered would be recompensed by the Cutlers' Company provided it did not exceed a few pounds. The visitors also felt sorry to see that there was no appearance of a crane to facilitate the raising of the stone and have desired Mr Taylor to recommend one being placed there for that purpose."[15] It is significant to see the command which the architect and indeed the Cutlers had over the quarry company.

The problems with Brown the joiner become increasingly serious. The architects refused to certify £400 in August 1832 since they felt that he had not done enough work to justify that payment. Brown then said that he could not proceed. The architects were asked to draw up a statement of the current account with Brown and he was asked to appear before the Company on 28 August. At the hearing he admitted that he had caused some delay, but promised to complete the orchestra floor the following night, the kitchen roof within three or four days, and the assembly room roof that very day. The bond timbers (which were timbers set in the walls in order to tie and strengthen them), and the cross ties were ready and the principal roof would, he claimed, be ready in three weeks. Laycock was being delayed but was still granted a payment of £400. In the middle of September all was still not well. Brown was summoned to appear before the Company's committee but embarrassingly the committee failed to muster and no business could be done. A further £200 was paid to Brown and on the advice of the architects he continued to work through October on condition "*that he attends to the suggestion of the architects and also that he will immediately employ and continue to employ at least 25 efficient men.*"[16] Although a favourable report was received early in November, and the company tried to find ways of improving the supply of timber for Brown (there had been a marked increase in timber prices during the Napoleonic wars, but they had steadied by 1825 although supplies were still restricted), matters got worse. The Company threatened to send a resolution to Brown and his sureties, and send in other workmen, but held back while Brown and an independent measurer visited the site to measure the work already done in the roof. The figures produced by the architects, by Brown and by the independent measurers were all agreed, as was the fact that there were many other serious deficiencies. As a result, Brown was ordered to relinquish his contract for the joinery, being paid only for what he had done and what was currently in progress. The whole matter was referred to the arbitration and settlement of William Hurst (1787-1844), of the architectural practice of Woodhead & Hurst in Doncaster, and Mutual Bonds of Arbitration were signed by both parties . The expense of all this – and the final cost was £54.1s.6d – was borne by the various parties in equal shares. In December 1832 the carpentry and joinery work was offered to Mr Harrop, who had been one of the original tenderers, and he took over the materials on site at Hurst's valuation of £337.17s.5d and it was agreed that the roof was to be finished by Harrop at special daywork rates which the architects would determine. It was then revealed that Brown's tender had been as much as £500 lower than any other and that he had accordingly been given the job, but the Company admitted later that this was a serious misjudgment on their part, and the difficulties which followed his appointment finally cost the company an extra £647. It should be noted that Brown's work on the slating had also fallen behind schedule by February 1833.

Further problems were now coming from the neighbour William Hoyland. Windows had been made in the south of the Hall, overlooking Hoyland's property and he saw these as an invasion of his privacy and interference with his rights to light. Mr Hoyland's chimneys also had to be made taller, at the Company's expense, since the new building was higher than Hoyland's and this, it was claimed, prevented Hoyland's chimneys from working properly. Additional repair work on Hoyland's chimneys cost £16, and the removal of the spout and cornice which overhung his property cost a further £10. In this uncomfortable situation, the Company appeared to pass the

responsibility onto the builder, Laycock. By March 1833 pressure to speed up the work and to complete it on time was directed at him. The committee "*feel themselves reluctant to mingle with their general approbation any thing like censure, but they cannot witness the delay of the completion of his part of the Work without complaint, particularly as Mr Hoyland is sustaining great inconvenience from the present state of the Front of the Hall.*"[17] .

The Committee was not finding it easy to act as both client and contract manager, co-ordinating all the various trades. It was not helping matters by acting as architect and changing parts of the design as well. For example, it asked in April 1833 for an extra 12 inches of wall to be built on top of the front cornice under the carved panels and the Cutlers' Arms, but in May it changed its mind, admitted its mistake and asked that "*the arms and carved panels be taken down and placed in the situation shown in the original elevation the same having been raised to their present elevation at the wish of the building committee.*"[18] Notwithstanding this interference, throughout May and June 1833 the Committee continued to express its concern at the delays, and the architects were asked to bring more pressure to bear on the contractors.

As with most building projects, there were a number of matters which had not been foreseen at the start of the project but which now assumed significance and which occupied the Committee's time towards the end of the main building contract. For example, there was uncertainty in February 1833 about whether to install gas. The desire to be innovatory and experimental was tempered by an understandable degree of caution – particularly after the unfortunate investment in Mr Sylvester's invention, but it was finally agreed to lay on a limited service just as far as the Beadle's house in the rear yard. More curiously, the choice of the material and design for the mantelpieces was also a late decision. This may have been deliberately left to the end in order to see what finances were still available, their size and design being conditioned by finance as much as by a preference for selecting them once the rooms were already largely complete. The Master Cutler and others on the committee visited the quarries of Messrs G. Oldfield & Co. in Ashford, Derbyshire, in May 1833, and it was agreed that the chimney pieces in the Drawing Room and Saloon were to be of white veined marble, to the architects' designs. The cooking apparatus for the kitchen was also a late decision and, planned by Mr Longden, it was installed at a cost of £150. Finally the bell hanging for the various rooms was carried out by a Mr Moor from July 1833, although the conduit for the bell wires must have been installed much earlier.

In May 1833 the sum of £10 was paid to the architects to arrange a "Rearing Dinner" for the workmen. (The term comes from the practice of commemorating that significant stage in building a timber house when the main structural crucks, having been assembled on the ground, were raised and fixed upright by the combined efforts of all the workmen). The committee first met in the still unfinished Hall in August 1833, but the following month the building opened with a dinner for 500 guests and another dinner for 600 workmen in the following week. (The Dining Hall was subsequently used for all major banquets and receptions – see Figs. 5-6). The last payment to the architects in their capacity as clerks of works was made in October 1833. A very late extra in November was the addition of the cornices over the doors at the north end of the dining hall. But despite the dinners and the opening for use, it is clear that many parts remained incomplete because in December 1833 it was resolved "*that every person concerned in finishing the work at the Hall be informed that they are required to complete their Department of the Work directly as the Committee have resolved not to advance any farther Monies on account.*"[19]

The building committee's final report was made in January 1834 and the cost of all the separate contracts was seen to come to £6,151. The final cost for Laycock the builder was £2,977; Brown, for the joinery, was £1,800 and £178 as the slater; Drury's final cost was £760 and Newbound & Wilkinson's £368, plus £68 for the wrought and cast iron. There was then the extra expenditure to Harrop for taking over the joinery work from Brown and with the various agreed extras within each trade the sum rose to £8,066.9s.2d and a farthing. On top of that there

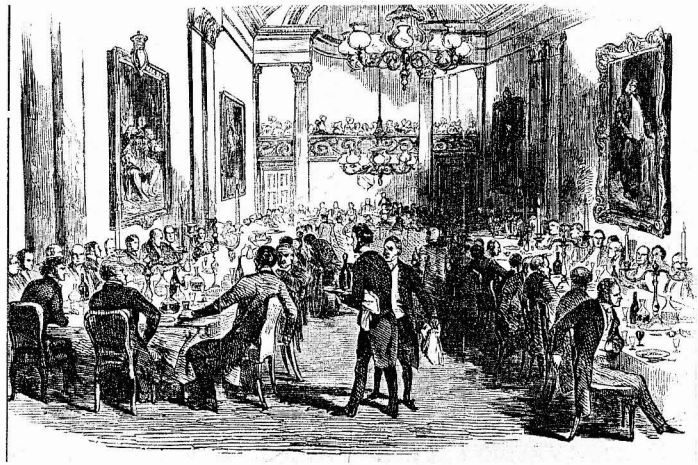

Fig 5: The Collation in the Dining Hall, Cutlers' Hall Sheffield, from the *Illustrated London News*, 24th October 1846.

were various professional fees, the principal one being the architects' commission of £425; together with an additional £154 to them as clerks of works, and £11.7s.11d to the Highway Surveyor, resulting in a final figure of £8,846.12s.1d and a farthing. Laycock submitted a further bill for £457.19s.1d for the work done at the adjoining premises of Messrs Stanley and Hoyland – "*but the heaviest item is for the warm air apparatus of Mr Sylvester.*"[20] The committee had calculated on the ultimate success of this novelty and "*they entertain the hope that necessary warmth, if not ventilation required, may yet be secured.*"[21] Expenses for this apparatus – "this contrivance" – as they referred to it, was about £180. There were yet further extras outside the main terms of the principal contracts, including one for the new sewer from the back of the hall

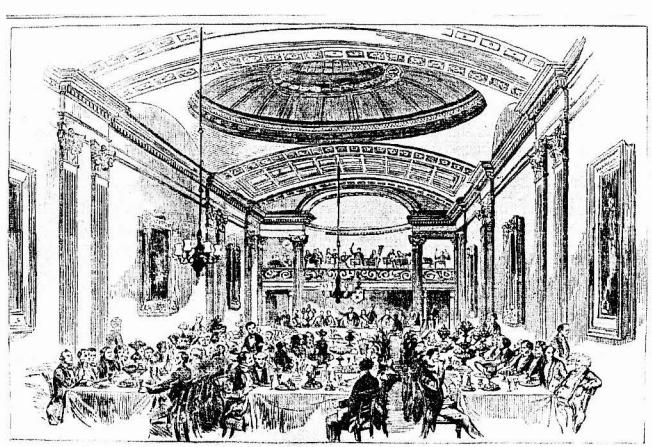

Fig 6: The Cutlers' Feast in the Dining Hall, Cutlers' Hall, Sheffield, from the *Illustrated London News*, 10th September 1853.

to the main sewer in Church Street, which was wisely replanned at an early date to run under the side archway rather than under the building itself, and which cost £44.5s.6d, and there was £356.15s.0d for increasing the height of Mr Hoyland's chimneys. In March 1834, £25.10s.od was paid to Worth and Taylor as the outstanding balance of their account as architects, and the building was insured with the Sheffield Fire Office for £2,000. All the contractors, except the unfortunate Brown, were now seen to have worked well: "*The building throughout indeed is of substantial and excellent workmanship – admirable in contrivance, elegant and tasteful in design, highly creditable to the Architects, honourable to the Cutlers' Company and an Ornament to the Town...*"[22] (Fig. 7)

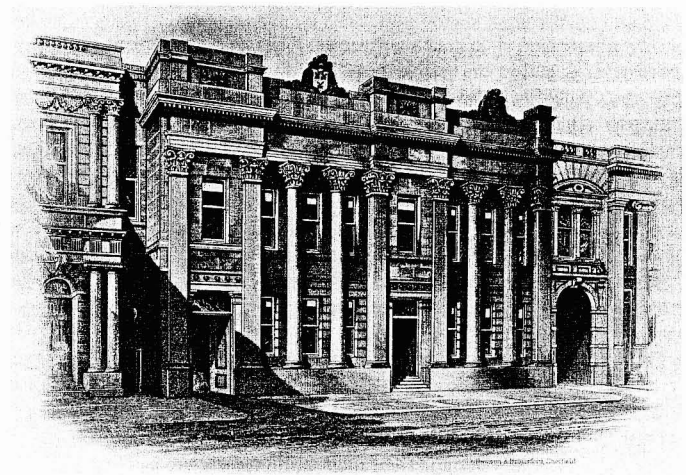

Fig 7: The Cutlers' Hall, Sheffield, as extended in 1888 and as it appears today (courtesy of the Cutlers' Company).

Roles and relationships

Although this account has been based on the records of only one of the parties involved in the building process, namely the client – the Cutlers' Company, it does illustrate an important period of change in the roles and relationships between the three main protagonists - the client, the contractor, and the architect. Certain aspects of the story reflect a continuation of tradition, whilst others anticipate a consolidation of the contractual processes which was to become more widely established and accepted by the middle of the nineteenth century – when for example, the Cutlers themselves came to extend their Hall in 1863. By that time, when a further architectural competition resulted in the appointment of Flockton and Abbott as architects, the initiative and responsibility for overseeing the construction of the new extension was clearly understood to belong to the architects, and it was through them that tenders were sought from a number of general contractors, resulting in the award of the single contract for the entire project to a local builder, Mr Wade.

The 1832 "contract" was, in effect, what we would call today a construction management contract, where the client employs a number of separate contractors and also a contract manager who in turn liaises with the architect. Although the competition conditions stated that the architects were to superintend the building, the Company was reluctant to relinquish that role, or to delegate it completely, and it was the Company's own building committee which in all

practical terms acted as the contract manager, with the architects taking a dual role – partly as the architects in terms of controlling the design and technical specification but also as clerk of works or additional construction managers on the site itself. There was some ambiguity here, and the line of command was not always clear, with some instructions coming directly from the Company as contract managers and others by way of the architects. This is also an indication of the way in which the architect's role generally was changing, moving towards a more professional involvement with the site processes, and away from a predominant pre-occupation with design alone. The fact that they produced over 30 contract drawings for this project (which was not over-large in terms of its plans, sections and elevations) would seem to indicate that the drawings must have covered a considerable amount of constructional detail.

By employing this method of contract management the client – the Cutlers' Company – could maintain control, as it had in the past with its building works, keep a regular eye on the finances (and costs would have been that much lower since there was no general contractor to pay), but, as we have seen, it also had to take all the risks. With a self-confident, almost complacent, attitude and an understanding of building based on traditional knowledge, it was unable to anticipate the problems which could and did arise, and in the event the problems of controlling the work almost stretched the Company to breaking point and certainly cost them more in the long run. The examples of Mr Brown's default over the joinery contract, where the tender figure was clearly grossly inaccurate at the outset, to the problems with Sylvester's heating system, which the Company chose itself on very little firm evidence as to its effectiveness, could have been foreseen by a more experienced professional eye.

But the Cutlers' Company was a self-confident body of local industrialists, who were becoming more aware of their rapidly increasing power and prestige in the town and they wanted a new building which would reflect these aspirations. This is why they decided to have an architectural competition, and to their credit they chose, without any other professional advice, a very advanced and high quality design. Their interest in manufacture and technical innovation, and an anxiety to introduce innovations into their own building, must also explain their enthusiasm for Sylvester's central heating system and their desire to introduce gas lighting. At the same time they clearly felt they could handle the building process itself, but here they underestimated the increasing complexity of building and the conflicts which could and did arise between four separate contractors, each of whom was now guarding his own territory and, with an increasing business sense, ever ready to divert criticism or transfer responsibility elsewhere. It may have been as a result of this experience that the Cutlers' Company came to accept that in running a building contract they were now dealing with a process which had become more sophisticated and complex, and this explains why, until comparatively recently, the Company has always appointed and paid its own architect on a regular and continuous basis to oversee all building works, regardless of whether they were of a major or minor nature.

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