Sources

Published

Anon. 'The Law of Pews: - A Case at Yeovil', *The Ecclesiologist*, No 82, Feb 1851, new series, 46, 16-19

The Cambridge Camden Society, *Twenty-Four Reasons for Getting Rid of Church Pews (or Pues)* (1844).

The Builder Articles and images, 1846-1852

Dilks, TB, The Story of St Mary's Church Bridgwater, 6th edn. c.1938

Edwards, C, "The Mechanisation of Carving: The Development of the Carving Machine, especially in relation to the Manufacture of Furniture and the Working of Wood', *History of Technology*, 1998, vol.20, 73-102.

Friar, Stephen, *A Companion to the English Parish Church* (Alan Sutton Publishing Limited, 1996).

Holtzapffel, C, Turning and Mechancial Manipulation, 6 vols. (2nd edn., 1846).

Hughes, G Bernard, 'Mechanical Carving Machines', *Country Life*, September 23, 1954, 980-991.

Jarman, S G, A Handbook of St Mary's Church Bridgwater: Bridgwater Gazette, 1885.

Jervis, S, Victorian Furniture, The Victorian and Albert Museum (Ward and Lock, 1968).

Jordan, T B, 'On Carving by Machinery', *Transactions of the Society of Arts, Supplemental Volume*, (London, 1852) 124-136.

Medley, The Reverend J, 'The Advantages of Open Seats', *The Transactions of the Exeter Diocesan Architectural Society*, Vol 1, 1843,156-170, plates follow 175.

Pevsner, N., The Buildings of England: South and East Somerset (Penguin 1958)

Port, M H, Six Hundred New Churches, The Church Building Commission 1818-1856 (Spire Books 2006)

Powell, Rev A H *The Ancient Borough of Bridgwater in the County of Somerset* (Page and Son, Bridgwater 1907)

Short, Reverend Edward, 'The pew system, the chief hindrance of the Church's work in Towns' (a sermon preached at Christ Church, St Pancras, Advent, 1851 (with an Appendix)', *The Ecclesiologist*, No 90, June 1852, new series, 54

Victoria County History: Somerset, vol.6, 1992 held at http://www.british-history.ac.uk

Woolrich, Tony, Saint Mary's Church Bridgwater, how it came to be the way it is today (2005).

Unpublished

Brandwood, Geoff, 'Anglican Congregational Seating: A Study from Leicestershire and Rutlland, Draft for Sarah Brown of English Heritage', n.d.

Archives of the Devon Nineteenth-Century Churches Project, held by Jo Cox and Martin Cherry.

Copy plans and drawings of originals formerly held by the Somerset RO, held by Dr Peter Cattermole.

Somerset Record Office

Somerset RO, D\D/cf/1904/74 Somerset RO, D\D\WBf8/2

Somerset Local Studies Library

Microfilms of the The Bridgwater Times and The Bridgwater Mercury

A note on the images

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Appendices

Appendix One: The Architect and the Contractor

As explained in the text above, no design drawings for the benches have been found. A long section by Brakspear (undated) shows a different profile of bench end. However, there is documentary evidence of a request for an amended design and it seems reasonable to attribute the existing design to him, rather than to Wainwright. The use of carving machinery may have required adaptation of the design.

William Hayward Brakspear (1818-1898) was in partnership with Dickson in Manchester in the 1840s. They designed the Commissioners' Church, Christchurch, Ashton Under Lyne, in 1847-48. Brakspear was an accomplished draughtsman. Photographic copies of two drawings of external elevations of the new Palace of Westminster survive. The drawings are signed by him, presumably when working for Charles Barry. These are thought to be the first contract drawings for the works and pre-date his move to Bridgwater.

According to his own account in *The Builder*, illness forced Brakspear to give up the Manchester practice and he decided to move to London. The Bridgwater commission to restore the Church of St Mary was won in spring 1849 when he was still in partnership with Dickson. Dickson is not referred to subsequently and the commission seems to represent the separation of the partners. He clearly lived in Bridgwater during the work on the church, which he supervised personally, acting as Clerk of Works. This dual role of designer and supervisor of the work was given as the reason for the size of his bill and was an irritation to the architectural establishment, who wished to see a clear separation between the roles of architect and builder. Within three or four months of the completion of the restoration he decided to give up as Clerk of Works to the church, being 'impatient to get to London' but was persuaded to stay after the vicar offered him 2 and a half per cent on top of his commission of 5 per cent. The record of the works to the chancel, dated 1852, give his address as 1, Adelphi Terrace, London and a plan of St Mary's dated 1854 simply states 'London' after his name.

Woolrich has identified two other buildings designed by Brakspear in Bridgwater: the mortuary chapel in Wembdon Road Cemetery and the old vicarage in Durleigh Road. He also designed the mayoral chair in the town hall. While in the south west Brakspear was a member of the heavily Tractarian Exeter Diocesan Architectural Society and contributed two antiquarian drawings which survive in the Society's scrapbook.

Limited research on the internet, including the Images of England website, has provided little more information about Brakspear's later architectural works. Works identified after the Bridgwater project are in the Manchester area. He rebuilt the medieval church of St Mary the Virgin at Bowdon, Greater Manchester, 1851-1861. This is listed Grade II* and, as far as research for this report has been able to establish, appears to represent his major surviving church work. The aisle roofs incorporated fabric from the earlier church, in the manner of his rebuilding of the nave roof at Bridgwater. He restored the medieval church of St Bartholomew in Wilmslow, 1861-1865. He also designed the Wesleyan church of St Paul in Bowdon, Greater Manchester, built in 1874. This had a large dome and was described as 'a gothic monstrosity' by Sir Nicolaus Pevsner, who nevertheless regretted its demolition in 1968.

John W Wainwright is listed as 'Builder' Monmouth Street, in local directories in 1848 and 1852/3. He does not appear in Pigot's *Directory* of 1842 or Kelly's *Directory* of 1862.

Appendix Two: Carving machines

(The bulk of this appendix was written by Tony Woolrich)

Early history

The origins of the use of revolving cutters for making mouldings in wood lie with Sir Samuel Bentham, who worked in Russia in the 1780s, devising machinery for Potemkin. One of his machines produced mouldings, the profile of which could be changed by altering the cutter for a different one. Ten years later as part of his contribution to his brother's Panopticon project in penal reform, he made a machine for making sash bars, to demonstrate to the British government the possibility of productive work by unskilled prisoners. His idea was forgotten but revived by Paxton in the machines devised for mass producing sash bars for the Hyde Park building of the 1851 Exhibition.

According to Knight's *Dictionary of Mechanics* c 1870, vol 1 p 492, the definition of a carving machine was: *One for carving wood, or roughing it out preparatory to the chisels, gouges, and scorpers of the carver.*

He then went on to say that Watt invented a machine in about 1800 for carving medallions and other figures in ivory and ebony; in 1814 or 15 John Isaac Hawkins of London made a similar machine, as did Benjamin Cheverton in 1828.

They all worked on the pantograph principle and were designed to making miniatures of sculptures.

Schubarth's Repertorium mentions a serial history of woodcarving machines in *The American polytechnical journal; a new monthly periodical devoted in science, mechanic arts and agriculture*, Washington and New York, 1853 on. Vol 1, p 243, 248, 376, Vol 2, p 285

According to Holtzapfell, *Turning and Mechanical Manipulation*, 2nd edn., 1846, Vol 1 note A and Vol 2 notes J and K, there were three systems in use in the 1840's for wood and architectural carving.

• Braithwaite's, where dampened wood was charred by a shaped mould, made red hot. The scorched top surface was scraped away to expose new wood, and the profile was deepened by successive wetting and burning. Knight's *Dictionary of Mechanics*, c 1870, vol 1 p 492 noted that ten or twenty successive burnings were needed to reach the full depth of the mould.

According to Holtzapfell Messrs A. S. Braithwaite and Son obtained a patent for this in November 1840. However, no such patent was recorded in the *Alphabetical Index of Patentees of Inventions*. The only one granted to an Augustus Septimus Braithwaite was No 10,680 on 22 May 1845 for a method of making buckles, clasps and other fastenings. The probable explanation is the Braithwaite supported an inventor who took the patent out under his own name and then sold it to Braithwaite. The other explanation is that the patent was in fact taken out in another country, such as Scotland, Ireland or America, so does not appear in the English index.

• Irvine's. William Irvine was granted three patents:

No 9962 on 25 November 1843 No 10,517 on 10 Feb 1845 No 12,073 on 23 Feb 1848

They all relate to methods of cutting mouldings in wood and soft stone. According to Holtzappfel the machine was particularly suited to work in one plane, 'such as the mouldings of Gothic tracery, whether straight, curved, or undercut, and of all sections; the work is generally executed from templates or pattern plates.'

The drill or cutter, made to the profile to be cut, was mounted on a vertical axis at the end of a swinging arm, attacked to the framing of the machine. The work to be machined was fixed to a horizontal table attached to a vertical axis beneath it. The drill could be adjusted vertically by a treadle. The drill would have been probably driven by steam, but it is possible a man wheel might be been used, as the belt ratios could have been set to get the required high cutter speed.

The drill could be swung on its arm, and at the same time the work could be swung on its table, ensuring that all parts of the surface of the work could be reached. Holtzapffel commented '... Any outline that has been drawn on the work may be readily followed with the drill or cutter. But more usually a perforated templet is fixed upon the work, and the end of the cylindrical spindle or drill socket is allowed to rub against the templet, in order that the drill may cut away all the material between the interstices of the template, and which latter mode is much more rapid and exact, especially when many copies of the same work were required'.

The description of the machine is very similar to that of the large coaking machine at Portsmouth dockyard and installed around 1805, as part of the suite of machines designed by Sir Samuel Bentham, Marc Isambard Brunel and Henry Maudslay for the manufacture of ships' blocks: the first application of the use of metal machinery for mass production. The coaking machines were used to cut the seatings in the sides of lignum vitae pulley sheaves for cast gunmetal bearings, or coaks. The bearings had three 'ears' which located in the seatings and stopped the bearings from rotating.

Rees's Cyclopaedia (1810) described its action:

The spindle of the cutter is fixed to a frame, which is connected by joints with a second frame, having a vertical axis in the manner of a double folding door... This spindle has not the power of ascent and descent, but it is evident it can, by the two frames, be moved to any spot near the centre of that sheave that is placed beneath it. The cutter is made to cut out the proper shape by means of a cut by a hole in a piece of fixed brass plate which is of such a figure, that a pin or collar, concentric with the spindle, being traced round its interior surface, will guide the cutter so as to excavate the proper figure in the sheave, which is fixed on a chuck beneath it. The chuck ... is fixed at the top of a frame with rises up and down with the sheave to adjust the depth the cutter shall cut...

A machine developed to inlet or recess wooden gunstocks to receive the metal action was introduced to the Enfield Small Arms manufactory in 1857 from America. By the end of the nineteenth century a machine was introduced in America to cut the punches from which printer's type was cast. This was particularly important since it aided the introduction of typecasting machines. A similar machine was developed by which engravers could cut letters on the sides of gold and silverware. All worked on the same pantographic principle, namely cutters controlled by a template.

References for the Bentham, the Block machines and the later developments:

Jonathan Coad, *The Portsmouth Block Mills*, English Heritage 2005, pp 23, 89 David Williams, *The Birmingham Gun Trade*, 2004, p92 and fig 5.1 *Printing and the mind of man*; Catalogue of the exhibitions at the British Museum and at Earls Court, London, 16-27 July 1963, Exhibit entry 475 at p 55.

Contemporary references to Irvine's machine from Schubarth's Repertorium

London journal of arts and sciences and repertory of patent inventions, conjoined series, vol. 26, p 232, vol. 33, p 301

Polytechnisches Journal von G. und M. Dingler, Stuttgart, b 98, s 422; b 111, s 263

• Jordan's. Thomas Brown Jordan was granted three patents woodworking machines

No 10,377 of 2 November 1844 No 10,523 of 17 February 1845 No 11,564 of 8 Feb 1847

The second concerned his famous carving machine, and the third concerned a machine for making mouldings.

According to Holtzapffel Vol 2 (note K) the machine described in the second patent was more use for machining figures and shapes than for making mouldings. The model and the wood to be carved was fixed flat on a rectangular slide which could be moved by the operator to and fro and from side to side. Over the slide and fixed to the side frames of the machine was a bridge piece, which could be made to rise and fall to which were fixed in the centre (over the model) a tracing finger and to the side (over the work to be cut) drill spindles holding the revolving cutters. As the operative passed the tracing finger over the surface of the model the cutters followed same path, rising and falling as necessary, so creating a copy of the model. Depending on the size of the model, more than one copy could be cut simultaneously.

Contemporary references to Jordan's machine from *Schubarth's Repertorium*. Repertory of Patents. New Series, Vol 5, p350; Vol 6, p333; Vol 10, 235 Polytechnisches Journal von G. und M. Dingler, Stuttgart, b97, s416; b99, s271; b106, s 410

Woolrich has found no illustrations of Irvine's machine, but a description of Jordan's formed a major part of the article 'Carving by machinery' in Tomlinson's *Cyclopaedia* (1854) (which did not mention Irvine's method at all). This in turn was copied by later writers such as Knight.

Copies of Irvine's patents could be obtained from the British Library. These will contain precise details of how the system worked and have illustrations. They might provide clues to explain the making of Saint Mary's bench ends.

Enquiries to the Science Museum by Dr Cattermole established that the museum had held a 1:4 scale model of Jordan's machine for carving wood and other materials. The object was removed from the collection in the 1950s and destroyed. A detailed account of the machine, written by Jordan, was published in 1852 in the *Transactions of the Society of*

Arts. This is too long to include in this document. A *Country Life* article of 1945 reproduces a photograph of the destroyed model (see sources).

The following references show something of the interest generated by Pratt's and Jordan's machines in the 1840s, just before the Bridgwater re-seating scheme was undertaken.

The Builder, No 54, 4th May, 1844, 232

'GOTHIC TRACERY ETC.

At the last weekly conversazione of the Royal Society at Albermarle Street, some very curious and elaborate specimens of carved Gothic tracery, executed by a newly-invented machine, for which Mr T Pratt, of New Bond Street, has obtained a patent, were exhibited, and excited a great deal of attention. The specimens are remarkable for their finish, as well as the beauty of their designs, and they can be produced with a rapidity and at a rate of remuneration which will put it in the power of most persons to have carved doors, pieces of furniture etc. For the fitting up of cathedrals, churches and public buildings, the employment of this machine will obtain at a tenth part of the usual expense better carving than can be procured by other means without incredible labour and great waste of time. The carvings for the church at Camberwell are being cut by this instrument'. *Morning Paper*.

The Builder, No.114, 12th April, 1845, 177-178

'PRATT'S CARVING MACHINE

SIR, - In your last number, I find an article relating to Pratt's patent carving machine, which I am afraid has a direct tendency to mislead a great portion of your architectural readers, more particularly the junior members of the profession. As an ornamental draughtsman, and an enthusiastic admirer of decoration generally, I am induced to offer a few remarks on this subject, and trust you will deem them worthy of insertion in your useful and popular publication. I am under the necessity of quoting from the article mentioned, it being stated therein that by means of Pratt's machine "the most elaborate tracery can be carved out of the solid wood or stone with great rapidity, and for about one-third of the sum it would cost, if executed by hand." This estimate is wrong in every respect; and with all due deference to Mr. Pratt's discernment, I shall now endeavour to shew the falsity of his assertions. On applying to Mr. Pratt for information respecting his process, he offered to take any description of work, and execute it equal to specimens in his window, at a lower price than by hand. On shewing the drawings, however, for the work required (a Gothic screen perforated and worked on both sides), he remarked that he could not do that, nor this (pointing to several parts of the tracery), "as there was not enough of it alike to pay him;" and those parts which he offered to do for £1. (perhaps for 15s.) each were, on his refusal to do the whole, eventually put into the hands of a first rate workman, and by him completed at 14s. 6d. each – so much for price. The reason Mr. P. cannot take a small order is that the necessary metal patterns (for the cutters of the machine to work by) are sufficiently expensive in themselves to prevent their being kept in stock; and even if such was not the case, every design being different, a new set of patterns must still be made for each job previous to its commencement. The cost of these patterns must be considerable from the care which is required not only in casting, but in giving them a true face afterwards, and the necessity which exists of shifting them frequently, renders the process throughout tedious and irksome in the extreme; and although the cutters act very well, and cut clear with the grain of the wood, still, against it they are quite the reverse.

When the machine has done its portion of the labour, the mitres, eyes, &c., not being touched by the cutters, must be finished by hand, and taking into consideration the cost of the wood pattern in the first instance, the delay caused in casting and filing up the same, the fitting of the patterns in the machine, previous to the work being commenced, the necessity which exists for shifting the cutters over the fillets from one foil to another, and the incompetency of the machine generally to finish its work, must, I think, convince any reasonable person that Pratt's patented process is not a cheap one. Again, as Mr. Pratt does not consider it worth his while to take small orders, I do not see how his plan can be productive of any good result as regards the interests of the architect. That the machine is capable of "working any form, however elaborate," is incorrect, for if such was the case, it would work the mitres, and as it does not do so, it cannot properly be said, that Mr. Pratt, by means of his machine, can produce Gothic tracery, the beauty of which depends entirely upon the accuracy of the mitreing. Having, upon several occasions, had an opportunity of carefully examining work executed by this process, I have invariably found it rough and inferior in every respect to that done by hand, and am also of opinion, that instead of "calling into operation a school of carvers," it will have a contrary effect. My reason for arriving at this conclusion is, that the present race of carvers are sadly wanting in their knowledge of, and, in fact, seem to have no conception of relief. The carver of wood or stone, if he works upon material prepared by the machine, thus literally throws away the best opportunity he has of acquiring freedom in execution, combined with taste, the "roughing out" being the most essential part of his art.

As regards the specimens alluded to at Ravensworth Castle and Malvern, they are at too great a distance from town for those who are most interested in the matter to visit, but fortunately the machine decoration to that splendid ecclesiastical edifice, Camberwell New Church, may be seen and *admired* by any person who may feel inclined to trouble himself by walking or riding that far, or by calling at Mr. Pratt's establishment, in New Bond-street. I beg to apologize for the length of this communication, and am, Sir, &c..

F.M. 8, Great College-street, Westminster, March 26th, 1845'.

The Builder, No.213, 6th March, 1847, 108

'CARVING BY MACHINERY'

At a meeting of the Society of Arts, on 24th ultimo, Mr. Jordan read a paper "On the New Carving Machinery," erected for the Houses of Parliament, and also employed at the works of Messrs. Taylor, Williams, and Jordan, Belvidere-road, as described by us some time ago, when it was first brought into operation. The author explained to the meeting the mechanism which forms the two floating tables, and which by a universal motion allows the vertical tracer and cutter to perform their work. A perfect pattern of the work to be carved is first modelled by the artist, and afterwards copied by the machine in wood with perfect accuracy, and in such a manner that two or three copies are made simultaneously. The carving thus prepared by the machine is then sent back to the artist, who introduces by hand the finishing touches, and thus the works have the merits of artistic productions at comparatively small cost. The decorations of the House of Lords are the most extensive works yet done by this machine; but groups of flowers and ribbon work, and sculpturing in the round, were exhibited, and covered the walls of the room'.

The Builder, No.220, 24th April, 1847, 189-190.

'In our last number we alluded to Jordan's patent carving machinery as a most important invention which had tended greatly to facilitate the execution of the carved decorations of the New Palace of Westminster, and having recently visited the works in the Belvedereroad, Lambeth, where we saw the machines in operation, we can confidently recommend them to the notice of all who are seeking real carving at a moderate price.

The machines are extremely simple, consisting of few parts, and being entirely free from jointed movements. The lower or horizontal part is a double railway: one carriage or frame travels on a rail to and from the workman, and a second carriage or table travels on this frame at right angles to the first movement, so that by combining these two movements, the workman can readily work the table in any direction he pleases. On this table is fixed the pattern and as many pieces of work as can be carved at one time, the number being limited only by the relative size of the work and the table.

The second or vertical part of the machine is totally unconnected with the first, and is composed of a strong bridge or girder fixed between columns and across the centre of the lower railway. It carries a vertical slide, having a bottom-bar, to which any required number of cutter-mandrils may be attached: one of the mandrils is fixed exactly over the centre of each piece of work, and a tracer or feeler is similarly fixed over the pattern. The slightest pressure from the workman's foot on a treadle lifts this system of cutters and their tracers off the work, and by a pair of hand-wheels attached to the horizontal or "floating-table," he can move this about in any direction, so as to bring every part of the pattern under the tracer in succession, and by the time he has done this, the cutters which have necessarily been passing over similar forms, and which have been spinning round all the time, at an enormous rate, by the power of steam, have each cut away all the superfluities of its own block, and each produced its own copy of the original pattern.

In this way, from four to six copies are produced simultaneously, and they are all so closely "bosted" as scarcely to require after-finishing, if fixed at ten or twelve feet from the eye. Of course, any amount of finish can be given to the work afterwards by hand, with comparatively small labour; the time of the skilful artist is thus economized, and the beauty of the work may therefore be increased, while both the time and cost of production is greatly reduced. Several of these machines have been in use at the Government works, Thames bank, for the last eighteen months, and their efficiency cannot be better proved than by the splendid work which they have so greatly assisted in executing'.

Appendix Three: Gazetteer of Selected documentary references

This gazetteer is based on material supplied by Dr Peter Cattermole and Tony Woolrich, supplemented with additional material from journals. It includes primary and secondary material of relevance to the history of the benches and the 1849-1852 restoration. The local newspaper references are available on the website managed by Dr Cattermole: http://www.friarn.co.uk/StMary/benches/newspaperpew.htm. The spelling of 'Bridgwater' has been modernised throughout.

1846 6th August. *The Bridgwater Times and Somerset Standard*Letter from Z in Taunton.

'(The Chancel) appeared to me to be partitioned off near the middle by some lath and plaster or something of the sort, (or at all events it was evident that the whole chancel was not made use of.) I have heard that there is a picture in this church, and perhaps, this may be the occasion of the disgraceful affair I have alluded to above. If so, I hope the parishioners have sufficient taste to take a very worldly view of the matter, to have this said picture removed out of the church, and the chancel once restored to its proper and decent proportions.'

1846 15th August. *The Builder*, No 184, 387
St Mary's Church Bridgwater.
'A correspondent of the *Bridgwater Times* notes the gradual decay of the fine parish church of that town and shews that immediate attention should be paid to it.'

1846 5th September. *The Builder*, No 187, 421-422 Why Employ an Architect?

[Various examples of problems arising from not employing an architect, then] 'At a recent meeting of the Bridgwater Corporation, the state of St Mary's church as pointed out by the *Bridgwater Times*, and alluded to by us, was discussed and a committee was appointed, "to obtain the opinion of some *builder* or *person* as to the best plan of repairing the chancel of Bridgwater church and particularly the roof of it, and an estimate of the expense of such repairs, and lay the same before the council".

We do hope that the *Bridgwater Times* will tell the council from us that they ought *not* to go to the "builder" but the "person" and that *person*, in this case meaning architect. He at the proper time would go to the builders, who always find themselves much better off working with *certainty*, and without responsibility under an architect, than when left to themselves or directed by a committee.'

1846 10th September. *The Bridgwater Times and Somerset Standard* 'St Mary's Church requires complete renovation interiorly as well as exteriorly its heavy gallery, its cumbrous pewings are dissightly, inconvenient and absorb the sounds of the clergyman's voice, rendering the effective performance of divine service physically impossible to many, and at all times painful to the officiating minister. The gallery should be taken away altogether, the whole of the church repewed.'

1846 17th October. *The Builder*, No 193, 492 St Mary's Church Bridgwater

'The corporation have determined to commence the repair of this church, to the condition of which we drew attention some time since, by removing the rough-cast with which the walls have been covered. When this was first put on, much of the ornamental stone-work was cut away to form a flat surface and save trouble; niches were then filled up with brickwork and other abominations committed. We trust the committee appointed to consider the subject will go into the matter thoroughly, and effect the complete restoration of the building. Our hint to the *Bridgwater Times* on that matter* see p.421 "Why Employ an Architect?" was not lost sight of, but was ably urged in a leading article the following week.

Relative to our remark on the necessity of taking the advice of a competent professional in these cases, the *Bridgwater Times* says, of that which it wrongly called "the economical system", - "it gives rise to variant empiricism in architecture; being as dangerous to the buildings placed under such a system, and to the pockets of the public, as it is to the deluded individuals who place themselves under the care of the ignorant pretender of the healing art, and sacrifice their health and their money to the mistaken notion that they are doing the best for the one and "in avoiding professional assistance", serving the other. Every day's experience proves this to be the case, and also that empirics are to be found as universally in every science or profession under some form or other, as in the popular lines of quackery in medicine; we would point to this extract from THE BUILDER, as offering a salutary warning to public bodies, who, collectively, are so liable to fall victims to jobbing, which, as individuals, a lively regard for their own interests does in most cases present.'

1847 13th April. *The Bridgwater Times and Somerset Standard*Vestry meeting. Motion passed: 'That the practice of appropriating the pews to the wealthier classes has been productive of great evil to the mass of the population that the churchwardens therefore be directed to take possession of all the pews in this church as soon as the present possessors die or leave the town, and that the word "free" be painted upon the door of each pew as soon as it falls into hand.

... Mr Bowen calculated the sittings at the parish church as capable of containing somewhat more than 800 persons.'

Editorial comment:

'The greatest improvement in the church, and the most desirable object as regards accommodation would be the entire removal of the present pews and galleries, substituting the plan adopted with such advantage in St John's church - a regular and uniform row of free sittings.'

1848 16th September. *The Builder*, No 293, 449-450 Bill of a Builder Architect

'Some time ago we referred to the state of St Mary's Church, Bridgwater, and urged the parishioners to do such repairs as necessary, under proper advice. A Mr Hutchings, a "builder and architect", was employed on the part of the parish; tenders were received, which ought to have placed one of the parties tendering in our list of "blind builders", unless indeed he saw further than horses and men. They were as follows:- Stockham, £285 11s; Tottle, £192; Hurford, £165 [sic]. The lowest tender was taken, and a contract was entered into. The work was done,

and Mr Hutchings' bill was sent in; and here it is, a pretty specimen, as most of our readers will admit:-

[Quotes the bill, which came to £52 12s 11d. The final item was 'My attendance daily for twenty weeks...at 30s per week, £30.]

'Pretty well this, for superintending work to the amount of £165. The churchwardens paid the account, but the parishioners are not well-disposed towards re-imbursing them the amount of this amusing charge, and thereupon issue is joined.'

[Quotes the *Bridgwater Times* re the rumour that Hutchings was both contractor and architect and concludes:]

'If the rumour is correct this is a nice illustration of the "running with the hare and hunting with the hounds" consequent on the "builder and architect" system pursued in many of our provincial towns and to the evils resulting from which we have felt it our duty to direct attention on previous occasions.'

1849 7th June. *The Bridgwater Times and Somerset Standard* Committee Statement of 4th June.

Restoration of the Parish Church of Bridgwater.

'The church, ... has been disfigured by an unsightly mass of pewing, varying in height, and concealing from view some of the most striking features of the building.

According to the prevailing usage of the past century, the walls have been covered with white wash and its lofty columns with paint. Many portions of the roof have been removed, and a ceiling of lath and plaster substituted in its stead. The greatest evil, however, remains yet to be noticed; out of 200 pews which at present cover the whole area of the church, fourteen only, offering accommodation to fifty-six persons, are available for use of the poor.

... Attention having been long since been drawn to the inconvenient arrangement of the pews in the parish church, it was determined in the month of February, by the vicar and churchwardens, to offer a premium for the best designs and plans for the complete restoration of the fabric, "a preference to be given to those who should combine correctness of architecture with the smallest outlay and greatest increase of accommodation." The officers of the churchhave unanimously adopted the drawings and plans prepared by Messrs DICKSON and BREAKSPEARE [sic], architects of Manchester; by whose arrangement of seats accommodation will be afforded to 1,383 persons, being an increase upon the present provision of 583 sittings....one half of the entire area of the church shall henceforth be free and unappropriated for ever....the sum of two thousand pounds will be required."

1849 2nd October. Somerset RO, D\D\WBf8/2 Recommendation of Diocesan Architect.

'The works proposed in this undertaking are so well conceived that I see no objection to them. I would however suggest whether the seat ends might not be treated more in accordance with ancient examples. The Font might also with advantage be placed nearer the N or S entrance...' Resolution in favour.

1849 October. Part of a letter to *The Bridgwater Times and Somerset Standard*, quoted by Woolrich in *Saint Mary's Church Bridgwater*, how it came to be the way it is today (2002), 8-9.

'I don't like the going on in our old church. I'd as sooner sit in a barn as there just now. I used to have a cosy comfortable seat, where as sure as Sunday came I used to go without let or hindrance and where I looked round and saw lots of neighbours met together for public worship in decent and respectable order, and now I cannot find a place for myself or see where my old neighbours are poked to but am poked about on some rickety stool jostling against nobody knows who in a most uncomfortable manner'.

The letter notes that the organ had been moved from the west gallery, there was surpliced choir and the congregation were forbidden to use the 'chancel door'.

1849 20th December. *The Bridgwater Times and Somerset Standard* 'Tenders for re-seating the Parish Church - on Monday week, the following tenders were received by the Vicar and Churchwardens:

Mr Thomas Hutchings, Bridgwater	£550	0s
John Perry, Weston-super-Mare	£479	16s
John Mason, Exeter	£454	0s
William Shrewbrooks, Taunton	£436	0s
John Wainwright, Bridgwater	£416	0s
George Pollard, Taunton	£415	0s

Considering that there was but twenty shillings difference between Messrs Wainwright and Pollard, it was unanimously agreed that the contracts be given to Mr Wainwright, who has accordingly entered upon the works.'

From the leader in the same edition: '...Mr John Wainwright, of this town, is the contractor...a man who is equally competent with the builders of other towns to carry out this interesting work....We understand that the works are to be prosecuted with the greatest vigour and activity, and that the whole of the reseating is to be completed by Easter next. As a prudent preliminary step, workmen are now busy in removing the plaister from the roof and wall previous to commencing the re-seating.'

- 1850 5th January. *The Builder*, No 361, 55
 With reference to the seating tender for St Mary's Church, Bridgwater.
 Notes that the architects are 'Messrs. Dickson and Beeakspeere' [sic]
 Lists out the seating tenders and notes that Wainwright of Bridgwater was successful although more expensive by £1 than Pollard of Taunton, who had complained to *The Builder*. *The Builder* considers that 'a townsman would naturally have an extra claim' but agrees that Pollard should be remunerated for his trouble and expense.
- 4th April. *The Bridgwater Times and Somerset Standard*Mr John Trevor referred to the restoration going on in the church....Some objection had been taken to the new pews, and certainly at present they were not so comfortable as the old ones were; still it was not fair to judge until they were finished. The removal of the pulpit was a great advantage, as certainly the clergyman was more audible.

Mr Richard Smith had consented to the removal of a faculty pew belonging to Binford House...on condition that two other seats in a convenient situation should be appropriated for the convenience of the inhabitants of Binford House. Motion refers to legal grant or faculty under the seal of the Lord Bishop of Bath and Wells dated 15 March 1736, 'two seats (beneath the said gallery) marked respectively with the words "Binford House"...'

- 1850 2nd May. *The Bridgwater Times and Somerset Standard*Brakspear reports to the Churchwardens on rebuilding the south porch and wall and on the nave roof which he finds 'in a decidedly dangerous condition....The principle of the roof itself is very defective; and I never before met with one of equal span having so little tie in its construction'.
- 1850 15th May. *The Bridgwater Times and Somerset Standard*Noted that St Mary's was to be closed to allow repairs to be done.
- 1850 5th December. *The Bridgwater Times and Somerset Standard*Account of building work done. Wainwright the Contractor. For the new roof, a local stainer, Mr Salmon, employed. Cost of roof £900 less £200 for lead recovered. 'It is much to be regretted that arrangements were not made in this contract for the carrying out of the alterations proposed to the tower arch, as this unsightly object with the unfinished seats below and the plastering surrounding it detracts much from the general effect of the nave'.
- 1851 Somerset RO, D\D\WBf8/2

 Report of the Diocesan Church Building Association

 'Extensive variations' in the plan for the re-seating were reported.
- 1852 31st March. Somerset RO, D\D\WBf8/2
 Letter from the Reverend G J James to the Diocesan Church Building Association.
 'The Nave of the Church was now completed and the whole of the seating fixed, stained and varnished'.
- Proceedings of the Archaeological Institute of Great Britain and Ireland at the Bristol Meeting July 29th-August 5th 1851: Memoirs of the History and Antiquities of Bristol (1853), liv-lv

Minuted comments at the annual assembly of the Archaeological Institute of Great Britain and Ireland.

'The Rev. F Warre called the attention of the meeting to the works at present in progress at Bridgwater Church, by which many of its ancient features were being destroyed under the pretence of "restoration". He particularly alluded to a remarkable hagioscope and stated that the Somersetshire Archaeological Society had employed remonstrance in vain.

Mr Freeman said that, having lately examined Bridgwater Church, he could fully confirm Mr Warre's remarks as to the general character of the works carried on there....he could testify to what seemed to him the gross absurdity of erecting a Decorated clerestory over Perpendicular arcades. The matter was the graver as the architect distinctly asserted his right to innovate upon old buildings at pleasure. He had no wish to say a single word personally disrespectful to the gentleman concerned, as, in the conversation he had had with him, he had found him a courteous and agreeable person; but he felt it strongly to be his own duty and that

of the Institute to protest, in every way open to them, against so monstrous a doctrine'

1851 20th September. *The Builder,* No 450, 597 'THE ARCHAEOLOGICAL SOCIETIES AND BRIDGWATER CHURCH.

We have received a letter from the architect under whose direction Bridgwater Church is being restored, in reply to Mr. Warre's note

In it the writer says, -

"A fair and just criticism of the works of a professional man cannot reasonably be objected to; but to speak of them in offensive language and to denounce them, moreover, as 'desecrations' before a public body of men known to give, at the least, a theoretical study to the subject, and before the world also (apparently, at all events) emanating from so influential a Society, is a mode of proceeding that cannot but be unreservedly condemned as injurious and unjustifiable, if it may not also be considered 'presumptuous' in the unprofessional man.

Mr. Warre will possibly be so good as to give your readers, Mr. Editor, the advantage *in this case* of his 'forty years" experience, and explain to them first the real causes of complaint against the architect, and then describe the *beauties* and the value of those portions removed, as well as the opinions entertained by himself and his Society as to the uses to which they were anciently applied when in the possession of the Romanists; for I should wish this controversy to be in some degree useful, which may be the case, if he would take the opportunity of giving you such an account as shall serve for a record of all that has been removed by the hand of the 'Renovator' from this fine old church.

Do believe, Mr. Editor, that I have some veneration for the *beautiful*, and can also appreciate the wonderful talent so profusely displayed in the works of our forefathers, and that *I do not* esteem my own work before *the good* in theirs.

What I claim both for myself and the profession is this, - that when called upon to restore an ancient building, we shall be allowed the exercise of our judgment in discriminating between the *good and the bad*; and if a necessity exist for rebuilding any portion, and that portion is in itself, or does only contain, an excrescence, that we shall not be compelled to reproduce *the abomination* simply because it *is old or curious*, or existed in a certain position previously, but that we shall be at liberty to call to our aid the whole powers of our mind in taking advantage of every opportunity that presents itself for improving, correcting, or refining the composition so as to produce, as far as circumstances will permit, a beautiful and harmonious whole.

The time is come in which we must bestir and extricate ourselves from *this bondage*, and the degraded position into which we have been thrust, by throwing off the leading-strings which have so long checked and cramped our labours and strivings after *the beautiful*.

W. H. BRAKSPEAR

We cannot admit that, when an architect is called in 'to restore an ancient building,' he is to set about 'improving, correcting, and refining the composition.' This is what the 'beautifiers' of the last century did, and a pretty mess they made of it."

1855 2nd June. *The Builder*, No 643, 261 'ARCHITECTS' CHARGES AND BRIDGWATER CHURCH.

SIR, - The charges in this case, which you have given, must cause great concern to the profession; and, as they are calculated to reflect discreditably upon the body, I shall take the liberty of stating what I conceive should have been the proper charges, and my reasons, leaving it to the architect employed to adduce the grounds upon which he justifies his departure from the usual practice of, at all events, London practitioners, whether for the provincial or London jobs.

The largest charge for design, drawings, specification, and professional supervision in 5 per cent. which would have made the first item £197. 10s. instead of £259. 19s. 2d.

But there appears to be an anomalous combination, in one and the same individual, of architect and clerk of the works, - a course perhaps necessary in provincial parts, but most irregular. However, if accepted, the party in question must abide by the consequence; and, in consideration of his two guineas weekly salary for personal supervision as clerk of the works, forego his claim for remuneration for professional supervision as architect; consequently 2 per cent. more should be deducted from the first item, equalling £79. The account, therefore, should have stood thus:-

For necessary designs, drawings, and		
specification, 3 per cent£118 1	0 0)
For personal superintendence as clerk		
of the works216	7 0)
I presume that the small subsequent		
items of surveys, reports, and		
estimates had no reference to the		
works previously stated as amount-		
ing to £3,946. 3s. and charged for;		
consequently they may be considered		
genuine 29 1	11 0)
		_
£364	8 0)

The charge for taking out quantities for builders for new chancel roof was met by previous charge of £7. 14s. for drawing and estimate of repairs of the same, and the sum of £24. 12s. 10d. charged for estimating value of works proposed, and measuring up works performed, appears already included in the first item at the head of the bill.

Consequently, judging from the face of the account, and with one further explanation, the charge for the architect and clerk of the works, as combined, should seemingly have been £364. 8s. instead of £570. 7s. 4d.

If, on such occasions, the parties who feel themselves aggrieved would only agree to refer such matters to the council of the Royal Institute of British Architects, the employer would be protected from any irregularity of practice, and the professional man upheld in every legitimate charge for "bona-fide" services; for that Body are too deeply sensible that the true interests of the profession consist in that which is

fair, equitable, and high-minded, to protect oppression, or to justify extortion. T. L. DONALDSON.'

1855 9th June. *The Builder*, No 644, 269 'ARCHITECTS' CHARGES AND BRIDGWATER CHURCH.

Mr. EDITOR. – In your brief paragraph upon this matter, there seems something so contrary to the practice of the profession, that it is necessary, for the justification of the members, that further particulars should be given in order to show the grounds upon which the charge of £570. 7s. 4d. on an outlay of £3,946 or nearly 15 per cent. could arise. It may be presumed, that a certain per-centage may have been fairly chargeable upon old materials; but the profession have yet to learn how it can be reconcileable for an architect to act in more than one capacity. If as an architect, it is inconsistent to be paid as clerk of the works. If as clerk of the works, he has no title to remuneration as an architect. I do not know even the name of the individual; consequently, in requesting further explanation, I am only influenced by the desire of vindicating the profession; to protect it from impropriety of practice if such exist; or to justify a charge however large, if fairly earned by legitimate professional services. Will you be pleased to procure the other special circumstances, for the matter must be cleared up.

THOMAS L. DONALDSON.'

****Thus called on, we give the heads of the account as we find them in the columns of the *Bridgwater Times*:-

"Architect's Account.

	£.	S.	d.	
To furnishing all necessary designs work-				
ing drawings and specifications, with				
professional supervision rendered, in				
carrying into effect the several works				
enumerated in statement of expenditure,				
amount being £3,946. 3s. at a				
commission of 7½ per cent	295	19	2	
To furnishing a report of the state of				
dilapidation of the church, with rough				
estimate of repairs	2	2	0	
To surveying and reporting to you the				
condition of tower	2	2	0	
To furnishing a detail drawing and estimate				
of repairs of roof over chancel and				
chapel, amount of estimate £282	7	14	0	
To furnishing a large revised plan of the				
church, for the Incorporated Society	5	5	0	
To furnishing a detail coloured design for				
stained glass window	2	4	0	
To furnishing designs for organ case and				
chancel screens	3	3	0	
To travelling and incidental expenses				
incurred during the progress of these				
works	7	2	0	
	325	11		

Surveyor's Account. To taking out quantities of work in the new chancel roof for the use of contractor's estimate, being £188. 6s. 6d To estimating the value of works proposed, and measuring up and valuing works	3	15	4
performed, as shown by accompanying statement, amount being £1,234. 12s. 8d.	24	13	10
	28	9	2
Clerk of Works' Account. To personal supervision of works from June, 1849, to April 25th, 1850 To personal supervision of works from	33	13	0
April 25 th , 1850, to December 25 th , 1851, at 2 guineas per week	182	14	0
T. 1 0570 7 41	216	7	0"

Total ... £570. 7s. 4d.

The architect states, in a published letter, that there was a special arrangement for the payment of 7½ per cent commission, and that his "personal superintendence saved the parish, in the re-use of old materials, at least twice the amount of his [my] full claims."

1855 23rd June. *The Builder*, No 646, 298 'BRIDGWATER CHURCH AND THE ARCHITECT'S CHARGES.

SIR, - In your remarks upon the "local animadversion" which my charges have met with on the above works, I have nothing to complain of: they evince your usual gentlemanly feeling, and you could scarcely have done less, being called upon as you were for an opinion.

I may perhaps be allowed to say, on the other hand, that Mr. Donaldson would have acted more wisely, in my opinion, had he followed your example, and suspended all comment on your remarks until in possession of the particulars of the case: a simple application would have secured them.

I will proceed at once to an explanation. In the spring of 1849 the work in question was gained in a public competition, and I was induced at that time to give up my Manchester business through ill health, intending on its re-establishment to take up my quarters in London: in the mean time I went to Bridgwater, where, for many months, being duly employed as architect, I conducted the works personally as well as professionally.

In April, 1850, the vicar gave me the sum of £33. 13s. as some acknowledgment for past services in the extra superintendence, and, unasked, offered, for the future, if I would continue to fill the position of clerk of works, a salary of two guineas per week, in addition to the commission of five per cent. which I received as architect. This I accepted.

At a subsequent period, within three or four months of the completion of the works, I intimated to the vicar my intention of giving up the office of clerk of works, as the salary attached to it did not answer my purpose, and that I was impatient to get to London; but to secure me still in the position I had so long occupied, it was arranged that two and a half per cent. should be added to my commission of five per cent. to compensate me, rather than the increase which I demanded in the salary should be allowed. This also I accepted; and it will account, I trust satisfactorily, for the amount of commission being charged at seven and a half per cent. in my account; and I trust also, that the foregoing remarks will justify my having, under peculiar circumstances, filled the two offices of architect and clerk of works.

Regarding the surveyor's account, I may say that generally, in the provinces, the old combination of architect and surveyor still exists, and was familiar both to the vicar and myself; and no one will contend, I should say, that the architect should do surveyor's work without receiving payment for it.

Under this head I may refute a not very delicate statement of Mr. Donaldson's, - that I have charged for work in one or two cases twice over, - by saying, that in the first place, although the chancel roof is referred to in each, the work performed is wholly distinct, hence the two charges. Again, the sum of £24. 13s. 10d. is clearly not "included in the first item at the head of the bill," as measuring is not included in the work for which an architect is entitled to charge a commission.

The editor of the *Bridgwater Times*, in bringing this matter under your notice, - the manner in which he has treated my explanations, and the withholding of letters which in fairness should have been published, - justifies me in saying that this attack is a disgraceful and a personal one, and only to be traced to the fact, that some months since I refused, as an insult to the profession, as well as to myself, an offer of £100. or £120. in liquidation of my claim for balance amounting to £384. The Exhibition Committee have since paid me £250. and I have the vicar's acceptance for £50 payable in twelve months. I have given up the £84. have charged them nothing for the re-use of £1,200. worth of old materials, or for a detailed set of designs, with quantities complete, for the rebuilding of the tower and spire, and many other things I could name; but I think this will be enough to convince all that I have done injustice to no one but myself in the matter, and scarcely deserve the serious charge of having brought discredit upon the profession by the course I have pursued.

Mr. Donaldson may rest assured that I am as warm a supporter of the dignity of the profession as he can be, and have on many occasions preferred the loss of both money and work rather than consent to terms which might bring discredit on our noble profession.

I have now encroached, Mr. Editor, too much upon your space, and I fear upon you patience also, to allow of my making any comment upon Mr. Donaldson's proceedings in this business, or on the views he has expressed thereon: indeed, I hope that its general interest and importance will induce a more able hand than mine to take the subject up fully. The whole subject of architects' charges *must* be put upon a more satisfactory footing shortly, or most serious consequences to the profession must result.

W. H. BRAKSPEAR.'

- 1877 25th July. *The Bridgwater Gazette* Mention of repaving the church.
- 1877 21st November. *The Bridgwater Mercury*Proposed restoration of St Mary's Church.

For three months past, Mr Bradfield, Stonemason, has been engaged...in scraping and chiselling the stone pillars...this work, which is now nearing completion....The chancel is to be re-paved with encaustic tiles, and each of the five steps leading from the nave to the altar will be of coloured marble, with texts of Scripture selected from the first few passages of the Te Deum in point of each riser. The design of the encaustic tile flooring of the chancel, upon which the borough arms will be represented, is stated to be a very handsome one. It is intended to widen the nave-walk, which together with the walks in the aisles, &c, throughout the church, will also be newly paved with encaustic tiles.

- 1878 6th February. *The Bridgwater Gazette* St Mary's closed until 1st Sunday in March.
- 1878 26th June. *The Bridgwater Gazette*Note that St Mary's was due to reopen on 9 July.
- 1878 3rd July. *The Bridgwater Mercury*Some seats to be removed. 18 inch seats were normal.
- 1878 31st July. The Bridgwater Mercury

'At a meeting...on 23 July...it was resolved that it was desirable to execute the following works...the removal of the present blue lias paving and the substitution in its place of tiles to correspond with the proposed new flooring in the chancel, but of a less expensive character....From the commencement of the work in August last until its completion....Contracts were entered into with the following firms and tradesmen: - For repairing the chancel (including the Mosaic floor) and the body of the church and dado, Messrs Simpson and Son, of 110, St Martin's Lane, London, [other contracts nearly all Bridgwater].

The nave and side aisles are covered with Maws tiles of excellent quality and good design; the outer portion of the chancel with tiles of an improved and more expensive design, the inner portion with a still more elaborate and beautiful pattern, having the borough arms represented on it; and the sacrarium being covered with Mosaic floor, which for its chaste and beautiful design and general good quality, is believed to be unsurpassed in any church in the kingdom. The dado is executed in Mosaic panels, of Italian workmanship. [Section on detail of words above the communion table.]

It need only be added that whilst a considerable improvement has been effected by the widening of the centre, south, and cross-aisles, the space in the church has been so economised that the number of sittings have not in any way lessened, and that nineteen inches will still be allotted each seatholder, the sacred edifice being capable of accommodating about 1,500 persons.'

1885 S G Jarman, *A Handbook of St Mary's Church*, Bridgwater Reports forty-six free seats in the church, each representing six, seven and nine sittings. The church will seat about 1,500. The sums received as pew rents provide for the payment of £60 yearly toward the salary of a curate, the salary of

an organist, lighting the church, attendants etc. [It is not clear whether Jarman is referring to rents paid in 1885 or at some earlier date].

c.1900 T Woolrich, in Saint Mary's Church Bridgwater, how it came to be the way it is today (2002), 21

'The font was moved to its present position at the north west end of the church.'

Early T Woolrich, Saint Mary's Church Bridgwater, how it came to be the way it is, 1920s today (2002), 22

'Seats removed from the south chancel chapel when it was refurbished as a First World War memorial chapel.'

1967 T Woolrich, Saint Mary's Church Bridgwater, how it came to be the way it is today (2002), 22

'Two rows of pews were removed from the front of the nave to improve access.'

1976 T Woolrich, Saint Mary's Church Bridgwater, how it came to be the way it is today (2002), 22

'The pews were removed from the north transept and the space used as a social area.'

c.1980 T Woolrich, Saint Mary's Church Bridgwater, how it came to be the way it is today (2002), 23

'Seats from the north parvise were re-used to provide two additional rows of choir stalls.'

1996 T Woolrich, Saint Mary's Church Bridgwater, how it came to be the way it is today (2002), 23

'The introduction of the nave altar involved the removal of 5 rows of pews in the nave, the floor reinforced with concrete and tiled.'

- By Personal communication from Tony Woolrich
- 2000 Two rows of benches removed from the nave. These were immediately to the west of the cross alley from the north door in the north aisle. The work was done to provide space for the literature tables and notice boards. At the same time the inner porch doors were glazed.
- 2002 Personal communication from Tony Woolrich
 Four rows of benches removed from the nave. These were in the north aisle at the
 west end of the church, next to the font. The work was done to permit the
 construction of a curtained storage area.
- 2007 Personal communication from Tony Woolrich
 Four rows of benches removed from the nave in the last bay at the south west end.
 These were temporarily removed with an Archdeacon's certificate, leaving the platform to provide space for a long-running exhibition to celebrate Blake 350.

Text stitched together by Jo Cox of Keystone, but including material from co-authors.

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