Rogers & Co. Bristol Boilermakers

Robin Stiles

Just prior to last Christmas my attention was drawn, by David Pollard, to a 19th Century Ledger, advertised in the Catalogue of a local specialist bookseller, purporting to be the Order Book of Henry Stothert of Bath. On inspection of the Ledger and conversation with the bookseller this proved not to be the case but rather to be the Order Book of Messrs Rogers & Co, Boilermakers of Moorfields, Bristol. The miscataloguing had arisen. from the fact that Henry Stothert had been one of Rogers's best customers and had by chance the first order in the book.

My particular interest was aroused by the inclusion of orders from Bristol sugar refiners and also from local collieries - including the Golden Valley Colliery. Most orders, other than repairs, included a dimensioned drawing of the article to be supplied as well as full details of the size and thickness of the plates of wrought-iron used. Even a preliminary inspection showed the very wide scope of works being undertaken by Rogers & Co. in the April 1830 to August 1866 period of the Ledger, covering far more than just simple Boilers and Vats. Accordingly I duly purchased the volume, and have since analysed the contents by putting it on computer.

The first surprise to emerge was the wide diversity of boiler design occuring throughout the period. Primitive 'Round' (or Haystack) boilers were still being ordered as late as May and September 1838 (by Dudden, Rossiter & Co. of Frys Bottom Colliery, and Messrs White of Nailsea Coal Co.) and were almost exclusively required by Colliery Companies. Perhaps the Haystack had special advantages, where only low pressure for Atmospheric Steam pumps was required, in being able to use the pit's otherwise unsaleable 'small coal'.

At the same time improved high pressure 'Eggended' boilers were being ordered by Colliery Companies - William.iBrain, of Kingswood Lodge Colliery in January 1836, and Trotter Thomas & Co. of Winnels Hill in the Forest of Dean, in

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Haystack Boiler.

August of that same year, no doubt required to

One peculiar instance of 'Cornish' type design

Hinnells Thomas, y Egg Ended Boiler

run steam winding engines.

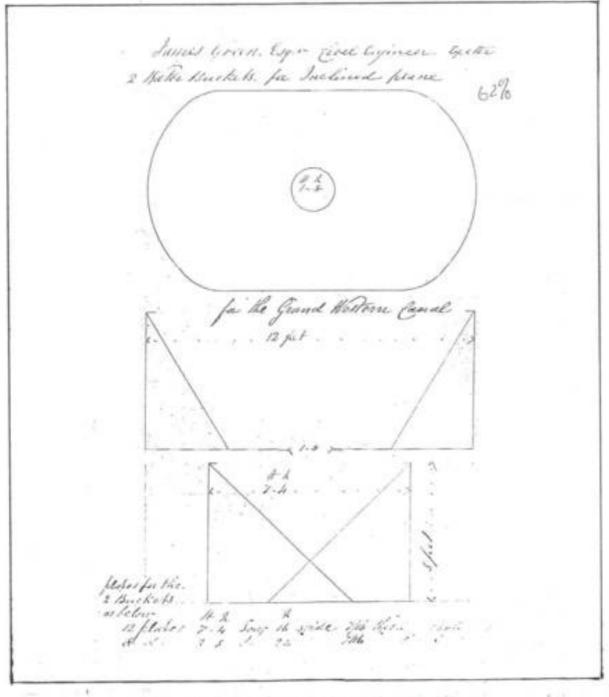
In January 1837, PW Smith of Bristol who was clearly a colliery proprietor as he had previously been ordering coal hudges, but for an unidentified coalpit (probably the Great Western Colliery in St Philips Marsh) ordered a high pressure cylinder boiler but with flat ends, presumably on the grounds of economy for that notoriously unsuccessful pit.

Only a few others (including Lucas & Co. of Nailsea Glassworks ordering in June 1836) favoured this type of simple flat ended cylinder boiler; those of this type - but further incorporating an inner firetube, of the 'Cornish Boiler' type renouned for its economy of coal being limited to five ordered at various times by J J Fisher of Frome, one each by Stephens & Co. of Bridport and J P Willmott of Sherborne, and two by W J Rogers of Jacob Street Brewery in July 1866. There are no signs in the Order Book of any multi-firetube or 'Lancashire' type boilers that were ultimately destined to predominate. was commissioned by William Turner, Engineer of Bath, in June 1833 when he ordered a tiny horizontal cylinder boiler of 1 foot 6 inches diameter and 2 feet long, with an internal firetube of only 10 inches diameter. Could this possibly be an early attempt at an experimental small steam locomotive similar to that built by William Ashman at Clandown in 1826 ⁽¹⁾?

Apart from the 'Egg-ended' for high pressure use, by far the most popular general purpose boiler design throughout the period of the Ledger was the 'Waggon boiler', so named from the similarity of its cross section to that of a loaded Hay Waggon. One unexpected variant was a firetube slung beneath the boiler in an 'Takeup' keeping it clear of direct contact with the water. This type was particularly favoured by the Textile manufactures. Whilst it would, on the face of it, be a highly inefficient way of heating the water, perhaps it had other advantages such as easy replacement of firetubes and might have reduced the risk of fire to the mill buildings. It is perhaps significant that Holden & Vinings, Sugar Refiners of Stonebridge, Quayhead, Bristol, ordered one in January 1832, but this did not

stop that particular refinery from burning down in April 1859⁽²⁾.

One interesting feature of the Order Book, particularly in its earlier years, is the wide diversity of Marine boilers shown; from the labyrinth complexity of those for The Royal Cambria Steam Packet placed in September 1830, to the tiny pair ordered for a river steamer to run from Bristol to Bath ordered in June 1832 by William Smith of Bristol, of all professions an Organ Builder! rather more famous a person to commision a barge engine boiler is James Green, Civil Engineer of Exeter ⁽³⁾, who did so in February 1831 for a dredger, presumably to operate on the Exeter Ship Canal. Even more interesting is his design shown in an order of October 1834 for two water buckets to work an inclined plane on the Grand Western Canal. There was only one inclined plane on the Grand Western Canal - at Wellisford which unfortuately for James Green, miserably failed to operate due to the water buckets being of too small a capacity, leading to his dismisal from the Canal Company in January 1836. ⁽⁴⁾.



Canal Incline Balance Bucket - for James Green.

entrene Willow 39-2 d 24 dill d. 26 d 20 d. 2 ed. and t ist. 10 d nt 11 d 24 12 12 d 12 d d Cornish Boiler.

Returning to the orders from Collieries these, in the main, consisted of barrel shaped wrought iron 'hudges' for winding coal up the shaft. Each Pit seemed to want slightly different dimensions, presumably dictated by diameter of the shaft and power of the winding engine.

Those for The Golden Valley Coal Company, designed to carry 25 bushels of coal, had a maximum mid-girth or. 'bilge' of 4 feet, a diameter of 3 feet 6 inches top and bottom, and a height of 3 feet 6 inches to match the minimum diameter. 'Ears' were attached to either side from which to hang the hudge from the winding rope. A hoop of iron always reinforced the top, and sometimes also at the bilge. Orders for four were placed in May 1831, two more in the following November, one in May 1832, and another one in July 1835. In July 1836 they ordered an identical shaped hudge, specifically described as a 'Water Hudge' with an 11¹/₂ inch diameter hole cut in the bottom - no doubt to be covered with some sort of water retaining leather flap.

By contrast the next Colliery to the West - Hole Lane Colliery — were ordering hudges of two totally distinct sizes, one of 2 feet 4 inches height and 2 feet 7 inches diameter bilge-, the other of 2 feet 11 inches high and 3 feet 4 inches bilge.

Another typical order from the coalpits were standard bushel measures, of half a bushel and of one bushel, The Golden Valley for example Ordering two sets in January 1831, and a pair of one bushel measure in the following October. Incidentally their final order was in February 1838, for an 'Iron Shute' a keyhole shaped tray of 4 feet 4 inch diameter and total length to the end of a tapering side shute arm of 8 feet.

Whilst there are many examples of Pits ordering both coal and water hudges, there is only one in the Ledger for a 'Man Hudge', ordered by Leonard, Betts & Boult of Easton Colliery, Bristol in December 1833. It is very similar in design to a 4 feet diameter hudge but with a protective dome on top giving it a maximum height of 6 feet 6 inches. Four openings in the sides, only 14 inches wide, were provided for the men to squeeze inside.

As indicated in BIAS Journal No9 (1976) in the article by Dr Hugh Torrens, Henry Stothert of Bath was locally installing Domestic Kitchen Ranges with back boilers. Curiously the Rogers &

OP AL Frice R you Refinens But 3-22 feet Long Waggon Boiler.

Co.'s Order Book indicates only a very few of these back boilers were of their manufacture, but that they were instead making them in considerable regular quantities for another Bath iromonger - Simon King. What Henry Stothert <u>was</u> ordering regularly from Rogers, so regularly indeed as to be their most frequent customer, were smaller size waggon boilers, typically 3-9 feet long, 2 feet-3 feet 6 inches wide, by 2-4 feet high. Their ultimate destination is rarely stated, one exception being in August 1830 when four were to be 'Used at Miller & Co, Durdham Down, Bristol'.

Vats, pans, cisterns and tanks of various sizes were being ordered by many local firms, particularly when they were first starting up, such as Clark, Maze & Company's 'Great Western Cotten Works' at Barton Hill, Bristol, in January 1838, and Finken Brothers' Avonside Sugar Refinery, St Philips Marsh, in January 1864 ⁽⁵⁾. The beginnings of the great Finzel Sugar Refinery at Counterslip are echoed by orders from Davis & Finzel from October 1836 to August 1838 ⁽⁶⁾. Of all the Bristol sugar refineries, by far the greatest number of orders were coming from Guppy Brothers of the Blackfriars Refinery, Merchant Street. ,As well as cisterns they were often ordering repairs and alterations to cylindrical boilers, particularly for egg-ends to be fitted.

Many of the firms mentioned in George Watkins article 'Steam Power in Bristol' (BIAS Journal No.14) occur in. the Rogers Ledger, including Robert Bayley & Co's Lead Works on Lawrence Hill - a 15 feet long Waggon Boiler with 'Take-Up' and oval firetube supplied in January 1835, presumably to replace the Haystack Boiler first installed with their Boulton & Watt rotary engine in 1790. Similarly, Castle & Co's Distillery in Milk Street having a 6 feet long Waggon Boiler ordered by their Engineer William Jefferies in February 1838.

From their trade card Rogers & Co. started trading in 1800. From the evidence of their Order Book they were prospering up to the end of 1838 supplying an area covering Gloucestershire, Somerset, Dorset and parts of Devon; even on occasion as far as North Cornwall and Southern Ireland. Theirs was a lowly trade but one that provided the very heart and power of local industrial expansion.

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There is then a sudden unexplained gap in the Order Book entries for a period of twenty years, even though the contemporary Mathews Bristol Directories still list them annually at their normal Redfield Place, Moorfields, address. Recommencing as if nothing had happened in July 1858, another gap occurs for three months at the end of the year. There are then repeated gaps, April 1859 to January 1862, March 1862 to December 1863, March 1864 to January 1866, and the final entry on 28th August 1866 - perhaps significantly - is for a brewing boiler repair for Samuel Rogers & Co. Vinegar Makers of Lewins Mead, Bristol.

The local Directories list 'William Rogers (late Rogers & Son) stean 1 engine boiler maker' at Redfield Place annually from 1866 to 1868, both under the list of residents and also under the 'Boiler Makers' in the Trades lists. From 1870 to 1872 'W Rogers, boiler maker' is listed soley in the residents section, after which all reference ceases. It would seem therefore that the company had ceased trading by 1867.

Much further work would be entailed in following through this unusual source of local reference. If anyone carrying out research into any particular Company as listed below would like a print-out of that Company's orders, would write to me, with a stamped addressed envelope, I will be pleased to supply.

References

- 1. <u>BIAS Journal 11 (1978)</u> 'The First railway locomotive in the West of England' Robin Bluhm.
- 2. <u>Western Daily Press Oct. 15th 1930</u> 'Old Bristol' no. 227 (see also Arrowsmith's Dictionary of Bristol).
- 3. For a biography of James Green, see <u>The Bude</u> <u>Canal</u>, Helen Harris & Monica Ellis. pp32-33 (David & Charles. Newton Abbot. 1972)
- 4. <u>The Canals of South fleet England.</u> Charles Hadfield, pp109-110. (David & Charles. Newton Abbot. 2nd Edition 1985)
- 5. According to Mathew's Bristol Directory, this firm had ceased trading by the 1869 edition.
- 6. <u>A Popular History of Bristol.</u> G Pryce 1861 see Appendix B.

ROGERS & CO. ORDER BOOK, Index of Customer's Names

Bone Charcoal & Fertilizer Mills Walter German (St Philip's Marsh, Bristol) George Lockyer (St Philip's Marsh, Bristol) Richard Smith (Chemical Works, St Philip's Marsh, Bristol)

Brewers & Malsters William Ball & Co. (Lawrence Hill, Bristol) Garton & Co (Lawrence Hill, Bristol) W. J. Rogers (Jacob Street Brewery, Bristol) William Turner (Jacob Street, Bristol) William Fookes (Weston Brewery, nr Bath) George Usher (Stroud)

Edward Duffield (Risca, Mon.) Mr Woods (Cardiff)

Brushmakers E. Fry (Bath)

<u>Chemical Works</u> Stephen Cox & Co. (Netham Works, Bristol) Ferris Brown & Capper (Union Street, Bristol) John Goudie (Wilson Street, Bristol) Thomas Eden Jones (Temple Back, Bristol) C. L. Stott (Pile Street, Bristol) Charles Tothill & Co. (Temple Back) John Pritchard (Risca Chemical Works, Mon.)

<u>Comb Makers</u> James Heynes (St James's Barton, Bristol) Henry Winter (Jacob Street, Bristol)

<u>Confectioners</u> Messrs Lucas (Redcliff Street, Bristol)

Dentists Mr Wilson (Bath)

Drysalters Beavan & Visger (Broadmead, Bristol) Lediard Jones & Mortimore (St Thomas Street, Bristol)

Engineers E. B. Clark (Bristol) Edward Collings (Bristol -boiler for brickworks, Pembroke) James Pearce (Cathay, Bristol) James Davis (Bath) William Turner (Bath) J. J. Fisher (Frome, Somerset) . Thomas Richards jun. (Taunton, Somerset)

William Coles (Bradford on Avon, Wilts.) G. & J. Haden (Trowbridge, Wilts.)

Engineers (Civil) James Green (Exeter, Devon)

<u>Gentry</u> Duke of Beaufort, Badminton J. P. Miles Esq. Leigh Court William Tothill Esq. Redland Parade, Bristol.

<u>Glassworks</u> Henry Ricketts & Co. (Avon Street, Bristol) Lucas & Co. (Nailsea Glass Works, Somerset),

Ironfounders Coalbrookdale Co. (Bristol) Griffiths & Lewis (Marsh Steet, Bristol) Harford's Iron Foundry Co. (Jacob Street, **Bristol**) Hill (Ironfoundry, Bristol) George Taylor (New Ironworks, Baptist Mills, **Bristol**) John Winwood (Cheese Lane, st Philips, Bristol) Jackman & Cooke (Gloucester) Henry Stothert (Bath) W. C. Cox (Taunton, Somerset) Carson & Miller (Warminster, Wilts.) Wightman & Denning (Chard, Dorset) Hardy & Co. (Worcester) John Brown jun. (Ty Dee foundry, nr Newport, Mon.) Morgan Lisle (Cardiff)

Ironmongers

Burge Player & Co. (Broad Quay, Bristol) Gwyer & Gibbs (Tucker Street, Bristol) Room, Grazebrook & Co. (Marsh Street, Bristol) J. H. & C. Price (Clare Street, Bristol) T & G Reynolds (Tucker Street, Bristol) Joseph Smith (St Thomas Street, Bristol) Webb & Staite (Marsh Street, Bristol) Henry Clements (Bath) R. Kendall (Bath) Simon King (Bath) Messrs Hindon's (Exeter)

<u>Ironworks</u> ' Wain Brook Iron Co. (Redfield, Bristol) Machen Iron Co. (Mon) Rudry Iron Co. (Mon.)

<u>Millwrights</u> George Clark (Barton Hill, Bristol) John Cox (Rose Street, Bristol) Edward Collins (Rosemary Street, Bristol) Thomas Harris (Temple Back, Bristol) George Harding (Queen Street, Bristol) Woodham & Bush (Temple Back, Bristol) William Underhill (Crediton, Devon)

Mines

Leonard, Betts & Boult (Lower Easton, Bristol); Henderson & Co. (Pilemarsh, Bristol) West & Brain (Crews Hole, Bristol) William Brain & Co. (Kingswood Lodge Colliery) P. W. Smith (Bristol?) Long & Heeling (Cromhall Coalworks, Glos.) Yate Coalworks (Glos.) Aaron Brain & Co. (Golden Valley Colliery, Bitton, Glos.) Leonard Jefferies & Co. (Hole Lane, Bitton, Glos.) The Crown Coal Co. (Warmley) Samuel Whittuck (Soundwell Coalworks) Pucklechuch Old Colliery (Glos.) Walters & Reynolds (Shortwood Colliery, Glos.) Trotter Thomas & Co. (Wfinmels Hill, nr Coleford, Glos.) Adams Fowler & Co. (Ridings Colliery, Stanton Drew, Somerset) The Chewton Keynsham Coal Co. (Somerset) Newton Coal Co. nr Bath, Somerset) The Twerton Coal Co. (nr Bath, Somerset) J. F. Shanson (Backwell Coalworks, Somerset) Messrs White (Nailsea Coal Co, Somerset) Dudden, Rossiter & Co. (Frys Bottom Colliery, Somerset) Samuel Travis (Sutton Colliery, Bishop Sutton, Somerset) Farrington Coal Co. (Somerset) Mogg, Parish & Co. (New Tyning, Timsbury, Somerset) Mogg, Parish & CO. (Withy Mills, Timsbury, Somerset) Thomas Powell (Bayne Colliery, nr Newport, Mon.) Miscellaneous Bevan & Co. (Starch Makers, Lewins Mead, **Bristol**) Bristol Gas Light Co. (Avon Street, Bristol) Robert Bayley & Co. (Lead Works, Lawrence Hill, **Bristol**) Capper Pass (Metal Refiner, Avon Street, St Philips, Bristol) Castle & Co. (Rectifiers, Milk Street, Bristol) Thomas Doddrell (Grocer & Tea Dealer, Small Street, Bristol) Charles Evans (Coach Maker, Baldwin Street, Bristol), William Gilborson (Brightsmith, Elbroad Street, Bristol)

John Hare jun. (Colour manufacturers, Temple Gate. Bristol) Hillhouse & Co. (Shipwrights, Bristol) George Hollister (Button Maker Stapleton Road, Bristol) Lucas Brothers & Co. (Merchants, Bathurst Wharf, Bristol) George Maggs & Co (Tobacco & Snuff manufactures, ELbroad Street, Bristol) William Player jun. (Mealman, Lewins Mead, **Bristol**) William Smith (Organ Builder, Bristol) West of England and South Wales District Bank (Bristol) William Williams (Coach Maker, Cheltenham Road, Bristol) Westcott (Paper Mills, St Philips, Bristol) James Creed (Plumber, Cheltenham, Glos.) Mills & Elliot (Mustard Mills, nr Stroud, Glos.) Edwin Down (Architect, Bridgwater, Somerset) The Bude Harbour & Canal Co. (Bude, Cornwall) Pin Manufacturers

Robert Charlton (Two Mile Hill, St George)

<u>Pottery Manufacturers</u> Pountney Bristol Pottery (Water Lane, Temple Back, Bristol)

<u>Publicans</u> Charles Vowles (Ship Tavern, Avon Street, Bristol) Messrs Ward (Montague Tavern, Kingsdown, Bristol).

Soap Makers

Fripp & Co. (Castle Street, Bristol) Harding Cox & Shaw (st Philip's Marsh, Bristol) Skelton & Poole (West Street, Bristol) Charles Shearn (Bath)

<u>Steam Ship Owners</u> Duke of Beaufort Steam Packet Lady Rodney Steam Packet Royal Cambria Steam Packet St David Steam Packet The Wye Steam Packet

<u>Sugar Refiners</u> Brice & Co, (Old Market, Bristol) Davis & Finzel (Counterslip, Bristol) Finken Brothers (Avonside, St Philip's Marsh, Bristol) Guppy Brothers (Blackfriars, Bristol) Holden & Vining (Quay Head, Bristol) J. & F. Savage (Wilder Street, Bristol) Tanners, Felmongers & Curriers S. & W. Brown (Bedminster, Bristol) Cottle & Co. (Easton, Bristol) H William Harrison (Baptist Mills, Bristol) James Jenkins (Bedminster, Bristol) Palmer & Son (Glue Manufactures, Locks Mill, Bedminster) W. H. Cox (Wrington, Somerset) Charles C. Williams (Cardiff) Textile Manufacturers & Dyers Baker & Edwards (Flax Mills, Water Lane, **Bristol**) Clark Maze & Co. (Great Western Cotten Works, **Bristol**) Wilkins & Co. (Twerton Mills, nr Bath) Maclean, Stephens & Co. (King Stanley Mills, Stroud, Glos) R. S. Davies & Son (Stonehouse, nr Stroud, Glos.) W. P. Wise (Bonds Mill, Stonehouse, Glos.) Hicks Brothers (Meadow Mill, Eastington, Glos.) Nathaniel Partridge (Bowbridge Dyeworks, Stroud Glos.) Smith & Gyde (Dyers, Arundels Mill, Stroud,' Glos.) Woodwark & Bird (Southfield Mills, nr Stroud) Henry Fletcher (Holcomb Mills, Minchinhampton, Glos.) William Playne (Longford Mills, Minchinhampton, Glos.) Edward Sheppard & Sons (Sheppard's Mill, Uley, Glos.) Strange (Holywell, Wotton under Edge, Glos) S. & W. Long (Charfield Mills, Glos) Samuel Plomer (North Nibley, Glos.)

William French (Crewkerne, Somerset)Holy Rood Mill Co. (Chard, Somerset)Nalder & Hardisty (Darshill, Shepton Mallet, Somerset)C. Barratt (Corton, nr Sherborne, Dorset)

Pyemore Flax Mill Co. (Bridport, Dorset)

<u>Timber Sawmills</u> Edward Kidd (Temple Back, Bristol) William Fear (Bath)

<u>Vinegar Makers</u> John Rock Panter & Co. (Holton Street, Bristol) Wellingtons & Panters (Meadow,Street, Bristol)

<u>Unidentified</u> David Edmonds & Co. (Bristol) Charles Foster (Bristol) G. A. Harris (Marsh Street, Bristol)

Edward Hidd & Son (Bristol) John Jones (Richmond Spring, Bristol) John Lister (Bristol?) Mr MacDonald (St Philips Marsh, Bristol) William Parfitt (Bread Street, Bristol) Plumley Reynolds & Co. (Pucklechurch, nr **Bristol**) V. Rouch (Canons Marsh, Bristol) Richard Smith & Co. (St Philip's Marsh, Bristol) Daniel Gregory (Black Swan Mill, nr Bristol) Mr Saint (Wick Mill, Glos.) William Leman (Wotton under Edge, Glos Daniel Plomer (Wotton.under Edge, Glos.) I. Price (Stroud, Glos.) John Lester (Bath) George Spry (Gay Street, Bath) C. Palmer (New Bond Street, Bath) Joseph Coles (Wells, Somerset) William Underwood Smith (Doulting, nr Shepton Mallet. Somerset)

Edward Murch (Bridgwater, Somerset) Blackmore (Highbridge, Somerset) Blinkhon [Blenkharne?] (Taunton, Somerset) Thomas Richards (Taunton, Somerset) T. & P. Broadmead (Milverton, nr Taunton,) John Hewdebourk & Co. (Taunton, Somerset) Josh. Savery (Taunton, Somerset) Wansborough, Peach & Date (Watchet, Somerset) Ward & Son (Bruton, Somerset) Henry Jupe (Mere, Wilts.) Messrs Hindon (Exeter, Devon) James Northam.(Exeter, Devon) Daniel Maggs (Bourton, nr Shaftesbury, Dorset) Joseph Read (Gillingham, Dorset) Stephens & Co. (Bridport, Dorset) J. P. Willmott (Sherborne, Dorset) John Rees (Mounton, nr Chepstow, Mon.) Edmond Jones (Newport, Mon.) T. & J. Jones (New Ross, nr Waterford, Ireland)

James Green Esor fivel Engmen Briler for a Drudging Bargs Jum Ti 14 171 4 8- 17/28 P > Section