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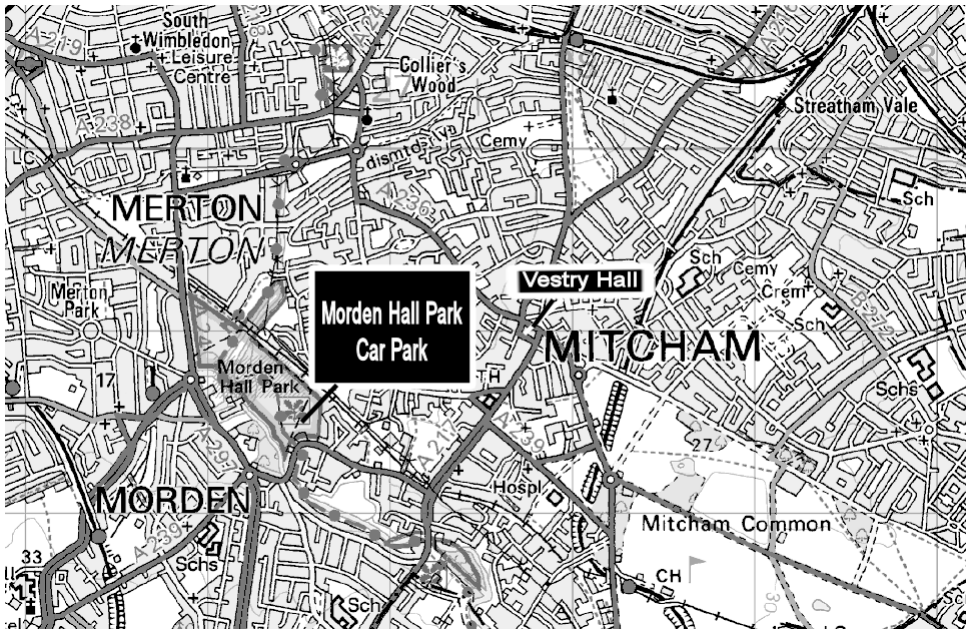
SIHG DIARY JULY 2007

15th Sun	**SURREY INDUSTRIAL HISTORY GROUP** **ANNUAL GENERAL MEETING & PRESENTATION OF CONSERVATION PLAQUE.** Horsley Towers. Full details in AGM Notice.
28th Sat	**SURREY INDUSTRIAL HISTORY GROUP VISIT** **WANDLE INDUSTRIAL MUSEUM & TOUR OF INDUSTRIAL SITES IIN THE LOCALITY** Charge of £2-00 for entrance to museum and sundries. Please contact Robin Turier for detais. Meet in the car park at Morden Hall Park at 10.30 am. See map below..
29th Sun	**RURAL LIFE CENTRE RUSTIC SUNDAY** Members are requested to assist at Rustic Sunday on our exhibits. Please contact Tony Stevens.



SIHG Newsletter #158 July 2007 Web Edition

This edition of the Surrey Industrial Group Newsletter has been reformatted so that it is more easily read online or printed out as a PDF.

Diary entries have been curtailed to cover SIHG events only. Other editorial matter is practically as originally published.

Readers are advised that the views of contributors are not necessarily the views of SIHG

SIHG is a Group of the Surrey Archaeological Society, A Registered Charity No. 272098
Castle Arch Guildford Surrey
Group Patron, David Shepherd, OBE., Group President, Prof A. G. Crocker, FSA.

Newsletter

No.158 July 2007

INTRIGUING BUILDINGS ON THE SLOPES OF BOX HILL

by Nigel Thompson.

About fifteen years ago I was struggling up the steepest, least accessible, part of Box Hill (well, why not!) when I stumbled on a curious building built into the slope of the hill. I struggled on up the hill but was left wondering what it could possibly have been. Earlier this year, having joined SIHG, I dusted off the old curiosity and went out, better equipped, to find the place again and take a more careful look. The second visit started a stream of correspondence and further research. However, despite this I have still failed to conclusively identify the function of the structures. At Alan Thomas's suggestion, I have written this article to throw out the challenge to the learned members of SIHG.

The location is the West-facing side of Box Hill, as close as my surveying allows to TQ175515. The River Mole sweeps close under the slope at this point before curving West under Burford Bridge. The hillside is densely wooded with occasional chalky gaps, hence the name "The Whites". There are actually two identical buildings (I only discovered the second on my way down) and they are approximately half-way up the hill. One is about 20m to the left and 10m higher than the other. If you look carefully from the houses on the A24 you can actually see the left-hand one, as it is in a gap in the trees. I have checked the 6" and 25" OS maps of the 1890s and 1930s and there is no sign of them. I suspect that, given the inaccessibility of the spot, it was easier to put tree symbols over the whole slope!

The only visible part of each building is a sort of gable protruding from the hillside with a curved roof and central square hatch. The hatch has remains of hinges to one side. Inside the building is roughly 3m wide and extends roughly 4m back and 4m down into the hill. Construction would have been a challenge given the location. While the buildings may be unknown to historians they have sadly been popular with vandals and the iron ladder which had been in place when I first found the site, was now lying on the floor inside. There are two pipes of about 120mm diameter entering the building from the front at hillside ground level. Both turn upwards inside and one has what could be remains of valve gear slightly above the height of the hatch. There are "tide marks" on the back wall, about 3m above the base. No other pipes entering or leaving were visible from the hatch. Trees growing directly on top which would confirm the antiquity.

The tide marks confirm that the buildings were used for water storage but cisterns usually have an access hatch on top and three pipes: inlet, outlet and overflow. Given the location it would have been easier to put the hatch on the front than the top. Assuming the door was not watertight the hatch in the front would then act as the overflow. The entry level of the two pipes puzzled me initially. One might expect the outflow to be near the bottom. On consideration though this would have been difficult to construct and would have potentially compromised the integrity of the whole container. Siphoning from above would overcome these problems. There is no obvious source of water supply other than the River Mole at the foot of the hill. There is no evidence of a pumping station but it might have been a relatively simple hydraulic ram arrangement. I have no idea whether this system would have been capable of raising the water around 60m. A large house, Burford Lodge stands in the valley directly opposite the two buildings. It seems logical that this is what they were built to supply. This was also the belief of the one person I contacted who knew of their existence. However this would have required the pipe to cross the river. I could find no evidence of any sort on the hillside or riverbanks below. The relative positions of the two buildings suggest that one might have fed the other, possibly to allow for settlement of debris.

I would welcome any information either directly about the buildings themselves or about water supply. The hillside is difficult to navigate and the site not easy to find. I would be delighted to join in a further exploration of the area. I can be contacted through SIHG. ¤

Industrial Archaeology News 141 Summer 2007
review by Gordon Knowles

The AIA Secretary Barry Hood writes on the past year noting the annual Conference and other events, awards made during the year and changes on Council.

Robert Carr gives a flavour of the North West in advance of the 2007 Conference in Preston in August. He notes the bus station there and the Victorian county hall and library. Also remaining IA features in Skelmersdale , Carnforth, Heysham and Blackpool.

The East Midlands IA Conference held in October 2006 is described by Mark Sissons. It was held in Winksworth, Derbyshire in conjunction with the Railway & Canal Historical Society. Talks were given on the Cromford & High Peak Railway, the Ecclesbourne Valley Railway and Winksworth Limestone Quarries. A visit was made to the quarry exchange sidings and a trip taken on the Valley railway.

The Manchester Region IA Conference was held in February and is described by Roger Holden. Talks were on Transport in Trafford Park, Richard Roberts and the Power Loom, the Pressed Glass industry in Manchester, Eva Brothers Crabtree Forge at Clayton and the excavation of Arkwright's Mill.

There is an interesting letter from Angus Buchanan, Hon President AIA, on the recent article on the theme of a 'three generation' model of IA. Angus suggests that the first generates initial enthusiasm for the subject: the second provides the essential scholarly analysis and the third seeks by historical reconstruction to devise strategies for selective preservation and presentation.

A summary of the results of the recent membership questionnaire is given. One identified outcome is a need to identify details of members of Affiliated Societies, of which SIHG is one. We are promised more on this later.

Among the shorter notes there is one on the surfacing of the original model of the 'Daddy Long Legs' car for Volks Brighton Tramway. The tramway with rails under the sea was built in 1896 but only survived until 1901, although the concrete support blocks can still be seen stretching from the Marina to Rottingdean. The model will be housed in the proposed Volk's museum. ¤

The Full Turn of the Wheel ISBN 978-0-9552876-1-9
review by Gordon Knowles

This is Peter May's story of the family firm May's Motors of Elstead from 1920 to 1997. It is very much a personal account of the running of the family business over eight decades. It should appeal to those interested in local history in the Godalming area, in family history as well as transport historians.

It is written in a popular style but this does not detract from the detailed business history nor that of the vehicles used by the firm which is found within the text. Dick May, Peter's father, bought a small carriers business in 1920, soon he expanded into buses with a Ford Model T modified to carry both passengers and parcels. By 1927 the business had grown to five buses and a taxi with two bus routes. The bus business was sold on to Aldershot & District in 1928. Apart from a brief flirtation with private-hire coaches in the fifties, May's Motors concentrated on road haulage for the remainder of its existence.

Peter joined the business and gradually took over its running from his father. 1947 saw the nationalisation of road transport and thus the diversification into private hire for five years. Peter got married, raised a family, built up the haulage business and even found time to set up a pig-rearing unit. By 1958 the firm had nineteen trucks, Bedfords were initially favoured, later Guys, Atkinsons and Scanias were added to the fleet. Expansion into Europe brought more challenges which Peter graphically describes. One of the firm's major customers was Cedar Homes in Guildford, one of their vehicles is on the cover of the book.

There is a chapter on Peter's involvement with the Road Haulage Association and the final one describes the loss of two major customers leading to the eventual winding up of the business in 1997. Peter then retired to Cornwall where he has since written his book.

I can thoroughly recommend this very readable book of 236 pages in B5 softback format. There are 80 photographs, 20 in colour. It hopefully will be stocked by local bookshops but can be obtained for £16 post free from
The Roads and Road Transport History Association
124 Shenstone Avenue, Norton, Stourbridge, West Midlands DY8 3EJ
01384 394832 or RoadsandRTHA@aol.com. ¤

THE CROYDON CANAL COMPANY'S TRAMWAY c. 1811 - 1836 (LATER TAMWORTH ROAD): HORSE-DRAWN OR ROPE-HAULED?

by Paul W. Sowan

Tamworth Road

Tamworth Road, Croydon, was developed on the alignment of the Croydon Canal Company's tramway, linking the canal's terminal basin (straddling Station Road and the sites of what are now the West Croydon bus and railway stations) with the end-on junction of the Surrey Iron Railway (SIR) (1803 — 46) and the Croydon, Merstham & Godstone Iron Railway (CMGIR) (1805— 1836) at Pitlake, more or less the modern Reeves Corner near Croydon's parish church and Old Palace. After the canal closed in 1836, the route appears to have become a road, described as 'Up the hill' or 'Up the new road' in the *New valuation of Croydon Parish* in 1839, and Tamworth Road in Roberts' *Plan of the town of Croydon* in 1847, by which time a handful of buildings is shewn in the area of Drayton Road, on the north side. In 1867 it was listed by Latham as a public road.

It is perhaps significant that the 'chief office, show-room, stables, etc.' of Messrs. Chapman & Sons were, in 1898, at 88 Tamworth Road 'with railway sidings' and that this firm was 'started in 1838 by Mr. Steer, and taken over by Mr. IC. Chapman (grandfather of the present members of the firm) in 1850' the business was in 1898 run by Mr. A.T. Chapman 'who entered it 12 years ago, and by the age of 16 had its entire management, being now aged 24.' A fore-runner of Chapmans' business may, at the least, have been established here on account of one or other of the tramways. By 1849 a British Boys' School had been established at Tamworth Road.

Tamworth Road is neither perfectly straight, nor does it have a uniform gradient up the slope from the flat ground of the Wandle gravels at Old Town to the river terrace gravels at North End and London Road.

The Croydon Canal and its tramway

Whilst it is known (Priestley, 1831) that the Croydon Canal Company had a tramway link to that town's two horse-drawn 'main line' tramways, the Surrey Iron Railway from Wandsworth (opened in 1803) and the Croydon, Merstham & Godstone Iron Railway to Merstham (opened in 1805), its exact nature has been unclear. Amongst the few recorded pieces of information is Anderson's description (1898) of arrangements at the canal's Croydon terminus:

> A large basin of water, forming its head, occupied the site on which West Croydon Railway Station now stands. An iron tram, a pioneer of the Railway system, communicated between Merstham and this canal head, the trucks being hauled by windlass up a short incline, now represented by Tamworth Road, on to the landing stage; when their contents of stone, lime, fuller's earth, or timber, being shot into barges, were thence conveyed by way of South Norwood, Penge Common, Sydenham, Forest-Wood and New Cross to Deptford; and the barges returned to Croydon laden with coal.

John Corbet Anderson 1907] was born in London and, after working for a while as an artist or illustrator in Liverpool, settled in Croydon in 1852 where, for the rest of his life, he became known as one of the town's leading historians, with a number of important published books to his credit. As the canal had closed when Anderson was only about nine years old, and some sixteen years before he reached the town, this is fairly clearly not based on first-hand observation, but most probably gleaned in conversations with older residents.

The Croydon Canal Company was authorised to build a canal from a junction with the Grand Surrey Canal near Deptford Dockyard to a terminal basin and wharf at Croydon, close to the present West Croydon Station. Three Acts of Parliament, in all, were required for the authorisation and completion of the canal, the principal Act of 1801 $_{27}$th June, 1801] being followed by a second in 1808 $_{14}$th April, 1808], and a third (after the canal had in fact been opened to traffic in 1809) in 1811 $_{4}$th April, 18111

The canal is known to have opened for traffic to and from Croydon on 22~ October 1809, but as the 1811 Act implies, it was not at that date completed in all its details. The said Act recites it to be *'An Act for enabling the Company of Proprietors of the Croydon Canal, to raise Money to complete the said Canal and Works; and for amending the former Acts relative thereto.' It* is stated that in consequence of the high prices of the land required for the canal and reservoirs, and the expenditure in the necessary erection of wharfs, warehouses, &c., the company have incurred a debt of £ 25,700. It further states, that for the purpose of constructing the reservoirs, bridges, and other additional works, they will require the sum of £ 27,343; and for the discharging of their debts and completing the canal and works, the further sum of £ 50,385. This act, therefore, authorizes them to raise these by granting annuities, with benefit of survivorship, if required, for the works above-mentioned, and to pay off the mortgage debt of
£29,615.

Whether or not the tramway had already been laid by 1809, or whether it was one of the 'additional works' is not clear. There have been suggestions that it did not come into use until 1811. It would have been useful for coal deliveries (downhill) to the Old Town area and (via the CMGIR) to the limeworks at Haling Downs (South Croydon) and Merstham; and even more so for northbound traffic (stone, lime, fullers' earth, etc) from the Merstham district.

The route and nature of the tramway

There is little doubt about the route's, starting and finishing points, and (from Roberts' and the Ordnance Survey's plans) overall gradient of the Canal Company's tramway.

The rectangular canal basin extended (according to John Gent) from about the middle of the present West Croydon Station across Station Road to the modern bus station. The highest point reached by the tramway, at an altitude of about 171 feet above sea-level, was about the north end of North End. The Pitlake end, slightly beyond the western end of Tamworth Road, was at about 144 feet above sea-level. The distance between these points (from Roberts' plan) is of the order of 27 chains (1,782 feet) implying an overall gradient of about I in 66. However, Tamworth Road is only very gently inclined from Reeves Corner to Drayton Road, and steepens significantly only thence to North End. Thus the actual maximum gradient seems likely to be significantly more than 1 in 66, too steep for a horse hauling waggons of stone. Bayliss *(1985)* noted that the average gradient for the SIR was I in 324 (with a maximum of I in 144), and the average for the CMGIR was I in 120.

Anderson's statement that the tramway was about 'three-eights of a mile' long is difficult to reconcile with his description of the windlass-worked incline as 'short,' which one might think an inappropriate description for the stated length. His description of the winding device as a windlass, also, is a puzzle. A windlass is distinguished *(Oxford English Dictionary)* from a capstan by having a horizontal axis, and presumably would be much more easily turned by men than by horses! But it is difficult to imagine that man-power was used to haul trucks of stone up Tamworth Road by turning a vertically positioned wheel, or indeed even a capstan. Another problem is posed by the two bends in Tamworth Road (near the top, and a little above Frith Road) which would have been awkward for cable-haulage.

The best guess concerning the haulage arrangements is, perhaps, a horseworked whim standing at the north end of North End, and a straight cable-worked incline up the steepest part of the tramway route, with a bottom station somewhere near Frith Road. That would imply, perhaps, a 234 yard long incline at 1 in 28, with conventional horse traction from the canal basin to North End, and from Frith Road to Pitlake.

Interchange of traffic with the CMGIR

There is evidence to suggest that the Croydon Canal, and thus its tramway, competed directly with the SIR for traffic northbound from the CMGIR's Croydon terminus. Priestley (1831) described the principal object of the canal as 'the supply of Croydon and its vicinity with coal, deals, and general merchandise, and the export of agricultural produce, chalk, fire-stone, fuller's earth, &c., to London.' And the CMGIR, likewise, was for 'the transit to London of the heavy minerals and other produce found in the vicinity of its southern end, which is effected by its connection with the Surrey Iron Railway, and the Croydon Canal.'

Coal, by coastwise shipping from north-east England, would more conveniently have been brought to Croydon via the Surrey Docks, and the Grand Surrey and Croydon Canals than taking it up-river to Wandsworth and thence by the SIR. Once at Croydon, much of the demand for coal would have been at the Old Palace (where hot water was required for the works), the town's first gasworks at Overton's Yard (from the 1820s), the adjoining brewery, and other concerns. If waggons could run through from the Canal Company's tramway a short distance over the CMGIR metals, delivery virtually direct to the Palace, gasworks and brewery would have been possible. There may even have been sidings.

Chalk, presumably from the white chalk pit at Haling Downs and the grey chalk pit (for hydraulic building-lime) at Merstham; fire-stone (from underground quarries at Merstham), and fullers' earth (from mines or opencasts at Nutfield) were all brought up on the CMGIR, the southern terminus of which was indeed at the chalk pits and stone-quarries there.

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SUNBURY LEATHER COMPANY - ADDENDUM

by Tony Newman

With reference to the entry on pages 12-14 of *SIHG Newsletter 154* November 2006, I have located two files at The National Archives (TNA) which are relevant to this company.

One is the Company Registration File which will contain the formal details of the business such as directors, shareholders, financial structure and closing down arrangements. It may possibly contain contracts about setting up the Limited Company. The Company was first registered in 1904, but a business partnership may have preceded this.

The TNA Reference for this file is **BT31/10840/82234**.

The other is more unusual, it is a Ministry of Labour file and originates from the Wages and Arbitration Department and relates to an Arbitration Awards case in 1919, brought by the London District Leather Producers' Association representing the Company against the London United Patent Leather Dressers' Society. I have no experience of this type of file and cannot say what it might contain.

The TNA Reference for this file is **LAB 2/433/WA4016/2/1919**

Both files may be inspected at Kew, without prior application, by anyone with a TNA Readers' Ticket. I hope this will be of some help ¤

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