Sussex Industrial Archaeology Society Newsletter

Number 134 **April 2007**

The original model of the Daddy Long Legs,
built by Magnus Volk in 1893. See news item on page 7.

ISSN 0263 516X

Registered Charity No. 267159

Newsletter 134

Contents **April 2007**

Ron Martin

Please note that Ron Martin has a new e-mail address for Society business.
sias@ronmartin.org.uk

Members Interest Update

Your Committee tries to provide a wide range of visits, talks, and articles that are of interest to members. To assist with this, we are compiling a list of members' interests. If you joined more than five years ago or your interests have expanded or changed it would be helpful if you could let us know your current IA interests by either e-mail to the Chairman, johnblackwell@ntlworld.com or by letter to the Membership Secretary (address inside back cover).

Editorial — Martin Snow

This is my first effort: thanks to all the contributors who met the deadline.
If you have never (or rarely) had anything published, please consider sending it to me, however short - if it interests you then it will probably grab others too.
Pictures with detailed captions are welcome too.

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FORTHCOMING EVENTS — Pat Bracher

12th - 13th May National Mills Weekend.

Saturday 26th May, 2.00p.m. Tour of Nutley and Hempstead Mills.
A Mills Group Invitation afternoon. Meet at Nutley Windmill (TQ 450 291). You may park beside the mill in the Disabled Car Park.
Hempstead Mill is at TQ 482 217.

Saturday, 23rd June, 10.30a.m. Mystery tour of various IA sites in West Sussex.
Meet in Duncton village on A 285, in the lay-by outside the *Cricketers* PH at SU 959169. If anyone arrives after the party has moved off, please ring me on my mobile 07790 336879. A certain amount of uphill walking on paths is required and hard hats are called for on one site - some will be available but please bring them if you have them. Powerful torches are also advisable on another site.
Parking is limited, so please share transport wherever possible.
There are pubs available for lunch but sandwiches would save time.
Contact Ron Martin, 01273 271330.

Tuesday, 3rd July, 10.30a.m. Visit to Chailey Brickworks, followed in the afternoon, by a walk round New Town in Uckfield, an area you may not know. Meet at the Ibstock Brickwork site in Caveridge Lane, South Chailey, off A 275 at TQ 391 176. Old clothes are desirable.
The visit to the brickworks is restricted to fifteen people, so ring me to secure your place. The afternoon walk starts at 2.30 p.m. at Bridge Cottage.
Contact Ron Martin, 01273 271330.

Wednesday, 18th July, 10.30a.m. Out of County Mills Tour.
Meet at Draper's Mill Margate. Contact Brian Pike 01435 873367.

Wednesday, 18th July, 6.00p.m. Evening Party at Coultershaw.
All members welcome. Contact Robin Wilson 01798 865569.

EVENTS FROM OTHER SOCIETIES — Malcolm Dawes

Detailed below are events organised by other societies, which may be of interest to our members. If you have details for future events please send these to: Malcolm Dawes, 52 Rugby Road, Brighton, BN1 6EB
or e-mail to *malcolm.dawes@btinternet.com*

Friday 13th April, 8.00p.m. *Sussex Industrial History.* A Burgess Hill Local History Society talk by Geoffrey Mead. £2. Cyprus Hall, Cyprus Road, Burgess Hill. http://www.burgesshillmuseum.co.uk

Monday 16th April, 7.30p.m. *Sussex Branch members show a selection of their slides.* Southern Electric Group. £2. Deall Room, Southwick Community Centre, Southwick Street, a short walk north of Southwick Railway Station. 01273 504791.

14th – 15th April. *Goods Train Weekend.* Bluebell Railway. 01825 720800.

Sunday 15th April. *Industrial trains day.* Amberley Working Museum.

Monday 16th April, 7.30p.m. *Water supply from 1830 to the present day.* A Hove Civic Society talk by Trevor Povey. £2. St Andrews Church Hall, Church Road, Hove. www.hovecivicsociety.org

Wednesday 18th April, 7.45p.m. *The train now standing, the making of a train enthusiast.* Sussex Transport Interest Group talk by Roger Brasier. £2. London Road Station, Brighton. 01273 512839.

Thursday 19th April, 7.30p.m. *Images from the South Eastern Trackside.* Railway Correspondence and Travel Society talk by Geoff Dunster. Brighthelm Community Centre, North Road, Brighton. 01444 253657.

Sunday 22nd April. *Toy and Collectors Fair.* Bluebell Railway. 01825 720800.

Sunday 22nd April. *Post Office Vehicle Rally.* Amberley Working Museum.

Sunday 22nd April. *East Grinstead Vintage Bus Day.*
http://freespace.virgin.net/ian.smith/buses/CBR/CBR01.htm

Sunday 29th April. *Cycle Day.* Amberley Working Museum.

Sunday 6th May. *Vintage Motorcycle Show.* Amberley Working Museum.

Sunday 6th May. *Historic Commercial Vehicles Run, between London and Brighton.*

Wednesday 9th May, 7.30p.m. *More than just manhole covers – Halsted's Iron Foundry.* Chichester Local History Society talk by Alan Green. £2. New Park Centre, New Park Road, Chichester. 01243 787592.

Sunday 13th May. *Stationary Engine Working Day.* Amberley Museum.

Wednesday 16th May, 7.45p.m. *Southdown Byways.* Sussex Transport Interest Group talk on journeys by Southdown Bus by John Roberts. £2. London Road Station, Brighton. 01273 512839.

Friday 18th May, 7.00p.m. *Magnus Volk and his Railway.*
A Polegate and Willingdon Local History Society talk by Ian Gledhill.
St.Johns Church Hall, High Street, Polegate. 01323 485971.

Sunday 20th May. *Military Vehicle Day.* Amberley Working Museum.

Sunday 27th and Monday 28th May. *Home Front Celebration – displays of wartime Britain.* Amberley Working Museum.

Sunday 10th June. *Harrington gathering – vehicles made by Harrington's of Hove.* Amberley Working Museum.

Monday 11th June, 7.30p.m. *Slam door trains.* A Southern Electric Group presentation by Keith Carter. £2. Deall Room, Southwick Community Centre, Southwick Street, a short walk north of Southwick Railway Station. 01273 504791.

Tuesday 12th June, 7.30p.m. *Archive Railway films.* A Kent & East Sussex Railway, Sussex Area Group presentation by Dave Baker. Westham Village Hall, nr. Pevensey. 01323 845108

Friday 15th June, 7.00p.m. *Victorian buildings of Polegate.* A Polegate and Willingdon Local History Society talk by Maureen Copping. St.Johns Church Hall, High Street, Polegate. 01323 485971.

Weekend of 16th – 17th June. *Classic fire engines with parades and demonstrations.* Amberley Working Museum.

Monday 9th July, 7.30p.m. *Closed stations around London.* A Southern Electric Group presentation by Jim Connor. £2. Deall Room, Southwick Community Centre, Southwick Street, a short walk north of Southwick Railway Station. 01273 504791.

Weekend of 14th – 15th July. *Railway Gala – steam, diesel and electric locmotives.* Amberley Working Museum.

Wednesday 18th July, 7.45p.m. *The Portsmouth & Arundel Canal.*
A Sussex Transport Interest Group talk by Adge Roberts. £2. London Road Station, Brighton. 01273 512839.

Weekend of 21st – 22nd July. *History of printing.* Amberley Working Museum.

Sunday 29th July. *Vintage Bus Rally.* Shoreham. Contact Chris Pearce. 01903 520286.

Sunday 29th July. *Classic cars from the 50s, 60s and 70s.* Amberley Museum.

Do please check details before travelling.

The details of these meetings and events organised by other groups, are only included as a guide and as a service to members: inclusion here is not intended to be seen as an endorsement.

Contact:
Amberley Working Museum. 01798 831370 www.amberleymuseum.co.uk

THE 35th ANNUAL HISTORY WEEKEND

Friday 6th – Sunday 8th July 2007

A Conference organised by the

Sussex University

in collaboration with the

Institution of Engineering and Technology's (IET)

History of Technology Committee

A Call for Papers

Members of the IET and all others interested in the history of engineering and technology, and particularly electrical and related engineering subjects, are invited to submit papers for possible inclusion in the 35th IET Annual History Weekend Meeting, to be held at Sussex University from the afternoon of Friday 6th July until lunchtime on Sunday 8th July 2007.

Sussex University is one of the new wave universities founded in the early 1960s and is located about 4 miles from Brighton on the A27 between Brighton and Lewes. It has good road, rail and airport (Gatwick) connections. En-suite accommodation will be provided in Halls of Residence on site.

35th Weekend Meeting Themes

As with previous History Weekends any aspect in the field covered by the IET will be considered for inclusion in the Sussex meeting. However 2007 will mark the 150th anniversary of the birth of Heinrich Hertz a key founder of radio and its related technologies. Accordingly offers of papers on Hertz and developments flowing from his work will be particularly welcome. Additionally papers on the early history of the electrical supply industry in Brighton, electric traction and electrical timekeeping before electronics are suggested as possible themes.

Guidance to Authors

Although the length of printed papers is not, within reason, restricted, authors must note that presentation time at the meeting is limited to 30 minutes maximum which must include an allowance for questions. Accepted papers will be published in a bound volume following the meeting and copies lodged in the IET Library.

Abstracts for Consideration

Respondents to this Call for Papers are requested to submit an abstract, not exceeding 100 words, explaining the topic and scope of their proposed paper for consideration by the Programme Committee. Abstracts should be submitted by mid May 2007, preferably by Email to rdmartinroyle@theiet.org. Those not having access to Email facilities may post their abstracts to:

IET Archivist and History TPN Manager
IET Archives, Savoy Place, London, WC2R 0BL
Tel. 020 7344 8436

Daddy Long Legs Model - Resurfaces

During The Model World Exhibition, Volk's Electric Railway Association was presented with the original 1893 model of the Daddy Long Legs. The model, made by Magnus Volk himself was removed from the railway offices in 1939 when Brighton Council acquired the railway and has remained unseen in the family of one of the members of staff of the railway, until now.

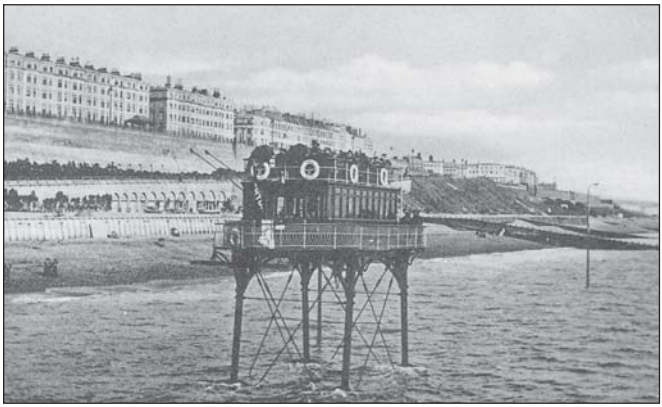
Ian Gledhill, chairman of Volk's Electric Railway Association, said 'We are really pleased to receive Magnus's model of the Brighton & Rottingdean Seashore Electric Tramway as it was formerly known. We can only thank the Chatfield family for looking after it so well for all these years and for their kindness in donating it to us.'

The Volk's Electric Railway Association is hoping to establish a museum of Magnus's railways and other inventions and would welcome any other relevant items. It is known that the Gloucester Wagon Company, that made the tramcar called *Pioneer*, also made a model of it. The whereabouts of this model has not been known for many years. Does anyone know where it is? If you have items or historic information about Volk's Railway please contact Ian on 01273 689657.

Margaret Volk, wife of Bernard Volk (left) holds the model before presenting it to Ian Gledhill, Chairman of Volk's Electric Railway Association.

www.volkselectricrailway.co.uk

More pictures of the railway can be seen in
Volk's Railways Brighton An Illustrated History,
Alan A. Jackson, Plateway Press 1993 ISBN 1 971980 18 6



Postcard of the Daddy Long Legs, the unique sea going tramway which ran from Paston Place, Brighton to Rottingdean.

Research at Coultershaw — Ron Martin

In connection with the Conservation Management Plan being prepared for a future Application for a Lottery Grant, the Society has been carrying out some investigations at Coultershaw. One of the sites that we were interested in is underneath the corrugated steel barn which is located to the east of the Pump House. With the assistance of some members from the Portsmouth and Arundel Canal Group, an area of paving was exposed but unfortunately we came to no very satisfactory conclusion as to its former use. It was probably the site of the Dye House associated with the 18th century Fulling Mill. This was probably located where the present Pump House is located. Fulling mills were used in the process of pummelling the wet cloth to mat the fibres together, with Fuller's Earth being added to the water to clean out the natural grease of the wool. Large wooden mallets were raised and lowered by a cam shaft turned by a water wheel. A Fulling Mill, was extant at Coultershaw from 1658 until at least 1748.

Index to Sussex Industrial History Issues 1-36, 1970-2006

Our editor, Brian Austen, has produced an index to this publication which will be available on the Society's website at www.sussexias.co.uk or a hard copy is available to members on application to the General Secretary (address inside back cover).

The Earl of Sheffield's Tramway — John Blackwell

Mention was made in my winter lecture, on Newhaven, of the Earl of Sheffield's tramway that ran from Meeching Chalk Pit to the quayside on the western side of the harbour near the 'Sheffield Arms Hotel' and readers may be interested in its history.

In 1878, a Parliamentary Act was being sought, which created the Newhaven Harbour Company and authorised that company, among other things, to construct a massive harbour arm which would allow cross channel sailings to be independent of the tides. To facilitate construction of the breakwater a tramway was proposed which would run across the swing bridge and down the western side of the harbour across lands owned by the Earl of Sheffield, whose Sussex seat was Sheffield Park. To overcome the Earl's objection to the Act an agreement was made which allowed him to build a tramway (from any part of his estate) for conveying chalk and other materials down to the waterside which was owned by the Newhaven Harbour Company.

The tramway, half a mile long, ran from his chalk pit to three unloading stages on the quayside. The chalk carried down the tramway was discharged at these stages into sailing ships (after they had been unloaded) for use as ballast. The line itself, of standard gauge, consisted of rails spiked directly onto sleepers and where it crossed Fort Road a red flag was displayed. In 1882 the firm of Colgate & Gray bought the chalk pit from the Earl of Sheffield. (Mr H. Colgate had been the steward of the Earl of Sheffield's estates.) The land between the chalk pit and the riverside was sold to the Newhaven Harbour Company but the tramway rights were retained. The 3-ton wooden wagons were horse drawn and had a very short wheel base being designed for end tipping, with one end hinged. At the unloading stages the ends of the rails were bent in the form of a U-shape. To load a vessel the horse would gallop to the loading stage pulling a single wagon: it would then be released by pulling a cord which uncoupled the wagon. The wagon then moved forward under its own momentum until the wheels of the leading axle entered the U-shape depression in the rail. At this point the wagon body would tip forward, discharging its load into the hold of the ship by means of a drawbridge type chute. At the last moment before the wagon body upturned a safety catch was hooked on the wagon to stop it dropping into the ship's hold. It was, I am, sure a sight never to be forgotten. I just wonder how many times the wagon ended up in the hold of the ship. There were some ninety wagons and three working horses at any one time.[1]

Whiting was shipped to Lancaster to be used in the manufacture of linoleum by James Williamson Ltd. This traffic consisted of about four shipments per year, each of about 250 tons. The whiting was made from chalk which was blasted from the pit side, then loaded into narrow gauge skips, and taken to a crusher. Here it was ground up in water to a slurry and left to settle in troughs. When dry it was broken up and put in drying racks to harden as whiting. From the very start, a connection was made with the London

Brighton & South Coast Railway via the Newhaven Harbour Company's tramway, and box wagons loaded with whiting, hearth stones (for doorstep whitening) and putty were taken to sidings at Newhaven Town. The very last shipment made, coincided with the outbreak of war on 3rd. September 1939.

Besides the export of chalk and whiting, ice was imported in the spring from Germany, specifically the Frisches Haff ("freshwater bay") and Kurisches Haff in the Gulf of Danzig, on the Baltic Sea. (On modern maps these places are shown as the Vistula Lagoon a freshwater lagoon east of Gdansk, formerly Danzig, in Poland stretching to Kaliningrad in Russia and the nearby Curonian, or Courland, Lagoon cut off by a spit of land from the Baltic Sea and bordering Russia and Lithuania.) The ice, in 3ft cubes, was stored in Ice Stores which stood at the back of the present Gibbon Road. Delivery from the ship was made using the tramway. These stores were built into the chalk hillside and extended at the back into caves with the ice blocks being kept separate by wooden battens. They were shaded by a grove of trees and had doors facing north. Unloading from the store was from the upper level using horse and cart. Ice imports were first recorded in 1887 and ceased before September 1914.[2]

At the outbreak of World War II the shipping trade ceased and the tramway lay neglected and overgrown until 1948 when an agreement was made with British Railways to abandon it, although BR took over the loading stages for their own use. No trace can be seen of the tramway today. The pit is now an industrial estate; most of the trackbed being covered by the Cresta Marine Boat Park and new residential development. The offices were demolished to make a site for Marine Court Flats, and the only reminder of the tramway is the nearby *Sheffield Arms Hotel*. (The only photograph I know of is a train of chalk wagons being drawn by a horse with the *Sheffield Arms* in the background[3].) All the wagons used on the tramway were eventually broken up, their wheels and axles going for scrap while their timber parts were burnt.

Acknowledgement is made to the late Allan Parsons for much of the information used in this article.

References:

[1] Colgate and Gray's "Horses" Account a copy of which is in the author's possession shows the average price being £50 and a working life of a few years.

[2] *Cold Storage and Ice Traders Review'* (July 1901) quotes: 'In 1899 for instance, Norway exported 504,627 tons of ice worth £316,882 to Britain, which imported a mere 515 tons worth £308 from elsewhere.' Imports at British ports from the same journal, January 1906, show Shoreham averaging 8,000 tons per annum and Newhaven is not shown.

[3] *Southern Main Lines Haywards Heath to Seaford,* Vic Mitchell and Keith Smoth (1986) Illustration 63. There is also a map of the tramway.

Learning Curves — Adge Roberts

Do yourself a favour and learn first hand, about the long closed Portsmouth and Arundel Canal (of which the Chichester Canal is a part).

Join a guided walk along the route from Barnham to Ford, a distance of some four miles.

The walks are led by well informed guides who are members of the Sussex Industrial Archaeological Society (SIAS) and have all taken part in archaeological work along the route, the start is at Barnham Court Farm at the site of the Stewart Bridge where much conservation work is being carried out. This is signposted from the Murrell Arms (just east of the railway bridge on the B2233) and from the parish church in Church Lane. The grid ref. for the starting point is SU 956 034.

The walks are generally along the towpath and several recent archaeological finds will be seen and explained by your guide. The poor standard of brickwork will also be pointed out as we pass along the gentle curves of the canal.

The walks start at 10a.m. and begin by first walking west for a ¼ of a mile to visit an interesting feature, and then return eastwards arriving in Yapton at about lunch time. You can bring your own or purchase it from a local shop. The village hall will be open for the use of its toilets. There are also toilets at Barnham Court Farm at the start.

Moving on we arrive in Ford at about 2-30p.m.

There is ample free parking at Barnham Court Farm and a frequent train service from Ford to Barnham with a 10 minute walk to and from the stations.

The walks are on Sunday 1st July as part of the Chichester Festival and are run for the Chichester Ship Canal Trust by SIAS and the following walk is on Saturday 8th September during the National Heritage Open Day. There is no charge to join these walks but donations will be welcome and the proceeds will help to fund the conservation works.

I hope to see you there.

If you can not make these dates then see over for some DIY walks to parts of the canal route.

Six Sites to See in Sussex — Roger Reed

The Portsmouth and Arundel Canal was last used over 150 years ago and whilst many features have been demolished or completely obliterated by the plough, others are in remarkably good condition.

Since 2001, members of the Society have been investigating the canal features. Where these have been excavated, they are conserved and where appropriate, left open to view.

On the Ford to Hunston section the following six sites, are all on a highway or public footpath and can be readily accessed by the public.

For a detailed history of the canal members should consult Alan Green's '*The History of Chichester's Canal*' copies of which are still available from the General Secretary (address inside back cover).

Walkers are recommended to use the O.S. 1:25,000 'Explorer' maps, numbers 120 and 121, to help them find the locations.

Ford Lock No 1. Grid Ref. TQ 003 038, and ***'Lock Cottage'***.

This was the first of two locks that raised barges from the River Arun to the Canal's summit pound at a height of 3.65 metres (12 feet) above the high water mark of spring tides. It was designed to take barges of 3.8 metres (12½ feet) beam with a maximum length of 22.8 metres (75 feet).

The lowest quoin stone, of the upper, south gate with its supporting brickwork is on display. The curved surface accepted the rounded heel post of the lock gate, allowing it to swing and, by its snug fit, seal the water from leaking past. The other three corners of the lock are located under the flood embankments. This site was excavated by SIAS in 2003 and 2004.

The second lock is located in the paddock of '*Lock Cottage*', near the corner of the Churchyard.

'*Lock Cottage*', beside the gravel driveway, was originally two semi-detached cottages for the lock and engine keepers. The engine house and chimney were located on the site of the enclosed garden. The engine with its pump, were used to raise 5,000 g.p.m. of water from the river to supply the summit pound.

Getting there: Park at the roadside in Ford Lane. (SU 999 037). Walk eastwards. Cross Ford Road and enter gravel driveway to the Church. Keep the fence on your left around the Church, then along edge of the field. Turn right at the flood banks.

Burndell Bridge. SU 983 031 and adjacent **canal bed**.

A brick arched bridge, showing poor workmanship in the construction of the arch. Currently completely overgrown, but a photograph taken in 1985 shows that most of the parapets and the two southern pilasters are missing. It is hoped that the local community will clear and conserve this structure.

By walking 150 metres eastwards along the footpath, a section of partly infilled canal bed in a cutting can be seen.

Getting there: Park in Downsview Road (SU 982 031). Access the bridge site via the footpath between the houses opposite Downsview Way.

Tack Lee Bridge. SU 976 032.

Of the original 18 brick arched bridges on this Canal, this is the best preserved of the three remaining bridges that have their arches intact. It has been restored and incorporated into '*The Pines*' housing development. The workmanship of the original bricklayers left a lot to be desired, as witnessed at the highest part of the arch and the misaligned parapets. The modern repair to the south abutment shows no attempt at matching the bricks or of staggering the vertical joints.

Getting there: Park in '*The Pines*', off Canal Road, off the B2233, Main Road, Yapton.

Denges Barn Embankment. SU 972 035 etc.

This impressive earthwork is 500 metres long and carries the canal around the ruined Denges Barn on a gentle curve. Its maximum height is 3 metres with the towpath on the south side. The canal bed is 13.7 metres wide and 1.8 metres deep. At the barn the embankment was breached in the nineteenth century to aid field access.

Getting there: Park in lay-by on the B2233, Yapton Road at SU 974 034. Walk 70 metres down Drove Lane (note canal bed on the left) and turn right through the kissing gate then over a stile. The embankment is straight ahead.

Stewart Swing Bridge SU 955 034 and **Hollinsworth Swing Bridge** SU 957 034 and adjacent **canal bed.**

There were seven swing bridges on the Ford to Hunston section of the Canal. They were similar to Poyntz Swing Bridge in Chichester, but shorter, as they spanned a narrower waterway. Excavation of both sites was initiated by the landowner and completed by SIAS.

At Stewart Swing Bridge, SIAS has rebuilt the abutment walls sufficiently to carry all the coping stones found locally. The lower bearing ring of the bridge pivot, in its limestone mounting block, can be seen on the north abutment.

The two long cast iron load bearing beams are from a swing bridge installed on this canal. Together with the other cast iron bridge parts, they were found locally and are being conserved.

To the west, the canal was dredged by the landowner in 2001.

At the Hollinsworth Swing Bridge site, the limestone pivot mounting block is located on the north abutment. The abutments will be conserved when time allows.

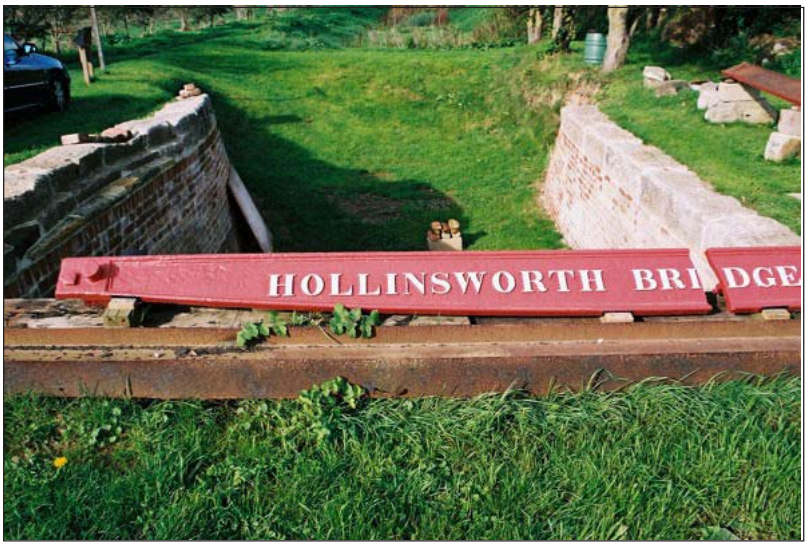
By walking eastwards from Hollinsworth Bridge, through the kissing gate, a good section of canal bed 12 metres wide by 1.8 metres deep can be seen.

Getting there: Park on the verge at the end of Church Lane, Barnham, just beyond the lychgate at SU 957 035. Walk south along footpath to Hollinsworth, then west along the footpath to Stewart.

The Canal at North Mundham.

The canal bed can be seen both east and west of where the B2166 zigzags across the Canal at North Mundham (westward, the first 100 metres has been infilled). Although now very overgrown, it is best seen in winter. This section of the canal was cleared and rewatered by the former Chichester Canal Trust in 1974.

Getting there: Park in Church Road, SU 875 023, just south of where the B2166, Lagness Road, zigzags over the canal.



The Stewart Bridge site looking west.
The picture shows the brick sidewalls and coping stones reinstated over the past three years. The canal bed can be seen at the centre top of the picture. Pieces of cast iron from the Hollinsworth Bridge have been conserved at this site. *(C. Bryan)*

Letter from T. C. Churcher of Northiam

I received this letter from Mr. Churcher following my article about Harringtons in the January 2007 Newsletter. Robin Jones.

We are inactive members of the Sussex Industrial Archaeology Society, but the Newsletters etc. are always read by us with great interest. Your recent article on Harringtons cast my mind back many years. I grew up in Hove; my parents moved to Old Shoreham Road in 1931, when I was 14 months old. We lived on the north side of the road about 150 yards east of Harringtons and one of my earliest memories is of the employees crowding out of the premises at the end of the day.

In 1950, my father bought a second hand Humber on a Sunday and on the Monday went to Harringtons to buy a car Handbook. So I assume that Harringtons were either a Rootes Group company or at least a dealer. They also, at that time, had a showroom opposite Hove Town Hall and a little to the east. Later Harringtons fitted a towbar to that Humber. That was before the time when caravanners could buy towbars off the shelf from caravan dealers.

Later, long after my parents left London and my wife and I were living in Sutton, I seem to remember that the Harringtons factory became a B&Q (1). That must have been before the factory was pulled down as you mentioned in your article.

I must emphasise again that I was very interested to read your article and to have so many memories called to mind.

(1) but see following article. (Ed.)

As the subject of the letter is about the automobile side of the activities at Harringtons, I have put together an article covering their work in this field. Robin Jones.

Thomas Harrington Ltd., Automobile Engineers of Hove Robin Jones

As mentioned in the previous article on Thomas Harrington in the January 2007 Newsletter, in 1897 Thomas Harrington started building light horse-drawn passenger wagonettes, flys and landaus at his premises in Church Street, Brighton. Within three years the original works was expanded and new showrooms were acquired in King Street. The increasing popularity of the motor car meant that this became the mainstay of the business, although commercial vehicle bodywork remained as a sideline.

Unlike many, Harrington, adapted well when standardisation of body designs by private car manufacturers in the twenties caused the decline of that part of activities. What work there was tended to be for bespoke chassis such as Bentley and Bugatti,

and this perhaps led to the upmarket image that Harrington continued to foster throughout their existence. In fact, cars continued to be a feature of Harrington work right up to the end of the company, but they were very much the minority. Production of luxury coach and bus bodies became the major occupation of the firm, as already described with commercial vehicle bodies a smaller but significant proportion of the output.

Once production resumed after the First World War, the construction of luxury coaches plus a few buses made up the majority of the firm's output. In 1930, a purpose-built factory known as Sackville Works was constructed in Old Shoreham Road, Hove. Displayed in large but elegant letters on one side of the building was "Motor Coach Builders" while on the other side was "Automobile Engineers". Harringtons had been a Rootes agent since the thirties, the car dealership being run separately from the coach building side, with showrooms being located in Hove and Worthing. In the 1950s, a greater use of glass fibre was successfully applied to their products, thus saving on the costly panel beating process. This led to various ideas being put forward including modifying production sports cars and making fibreglass 'GT' conversions. Base vehicles for this form of bodywork were the Sunbeam Alpine and Triumph TR4. As there was a special relationship with Rootes, Harringtons approached them on the strength of their initial efforts with the Alpine conversion. Rootes were interested in a closed body for an Alpine at Le Mans with a view of eventually creating a production model. Although Harringtons never became part of the Rootes Group, early in 1961 the Rootes family gained a financial stake when the Robins and Day group purchased Harringtons with George Hartwell coming in to take charge of the Harrington Le Mans project. In the latter part of 1962, some changes in management took place. By then, the Harrington Alpine project was over, a victim of the 1960s recession, eventually being deleted from the Alpine range in 1963. The Harrington name continued in motor sales following the Rootes empire, first to Renault and then as BMW agents until the 1980s.

The factory passed to British Telecom as a motor fleet service centre and was finally demolished in 1999. The site is now a retail park with PC World on the area occupied by Sackville Works.

Just to remind members that a special Harrington Gathering will take place at Amberley Working Museum on Sunday 10th June 2007, when many preserved Harrington bodied cars, lorries and coaches will be on display.

(I would like to acknowledge that the source of this material is from the Harrington History web site www.thcoachwork.dsl.pipex.com)

Some Thoughts on Weights and Measures — Ron Martin

To some of us older Members, the metric system and decimal currency are still a bit of a mystery and we hark back to the good old days of the imperial measurements.

The metric system was devised at the behest of the National Assembly of France and legalised in 1795. The basis of length measurements is the metre which was deemed to be on ten-millionth of the distance from the equator and the North Pole, the litre is 1,000 cubic centimetre and a kilogram is the weight one litre of water at 40^0 C. The relation of all units to the next higher or lower is by a factor of 10 or 100. This is all very neat and makes calculations simple, as numbers are also based on the decimal system. However, the units are not always user friendly and it is also not possible to divide any unit exactly by three.

Most imperial measurements are based on the duodecimal system, with a base of 12. Our pre-decimal currency had the best of both worlds, with 240 pence to the pound sterling. One could divide the pound exactly by 2, 3,4,5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 40, 60, 80, 120 and 240, with the further subdivision of the penny into a halfpenny and a quarter (the farthing) The one odd coin that was minted was the guinea, of 21 shillings, this still being perpetuated in racing circles.

Linear measurements in the imperial system are clearly duodecimal with 12 inches to the foot and 3 feet to the yard. The foot is alleged to be based on the size of a man's foot. There are no other units used in ordinary linear measurements below the inch and above the yard, although at sea the fathom is six feet, the cable is 100 fathoms (600 feet) and the nautical mile was 10 fathoms (6,000 feet), although it later become 6080 feet and has now been metricated. Other units of measurements are trade specific, e.g. the hand (4") for measuring height of horses, the span (9") and ell (45") for measuring cloth.

Land measurements are an amalgam, of a binary and a decimal system. The base however is the rod, pole or perch of 5.5 yards, which was the length of the whip a ploughman used to control a brace of oxen. Four rods was the width of a strip of land under the old feudal system. An area of 4 rods x 40 rods was deemed to be the area that could be ploughed by one brace of oxen in one day, its precise size was determined by Edward I and this became the acre (4,840 sq. yards). Thus the linear measurements are four rods to one chain (22 yards, which is also the length of a cricket pitch), 10 chains to one furlong (220 yards, still used in horse racing to measure the length of races) and eight furling to the miles of 1760 yards. The chain is also called as the Gunter's Chain and, as used by surveyors, consists of a steel chain divided into l00 links each of slightly under 8". Edmund Gunter (1581-1626) was an English mathematician who devised the device. As a student surveyor in the 1940s, I well remember using one.

Area measurements are 40 [square] rods, poles or perches (30.25 sq. yds.) to one rood (1,210 sq. yds.) and four roods to the acres (4,840 sq.yds.). If you are using old estate maps you will find the field sized being expressed in acres, roods and [square] perches. When I was a student quantity surveyor our "Bible" was the *Standard Method of Measurement of Building Works* and in the Third Edition of 1935, the units for measuring brickwork was the "....rods superficial of 272 feet reduced to 1 1/2 bricks thick ..." and that persisted until 1948.

Imperial measurement of weight are generally based on a base of four although the relationship also includes the factor of seven. So, there are 16 ounces to the pound, 14 pounds to the stone and four stones to the hundredweight (112 lbs.) and 20 hundredweights to the ton (2,240 lbs.), correctly called the long ton. The stone varied between 12 and 24 pound depending on the material being weighed but the avoirdupois standard became 14 lbs. I cannot understsand why such a strange figure was decided upon; has anyone any thoughts on this? The quarter (of a hundredweight) was 28 lbs. but why was the hundred weight so called as historically it does not appears to be a hundred of anything? In America they have a 100 pounds to a short hundredweight and a 2000 lb to a short ton.

Liquid measurements are also entirely binary with eight gills to the pint and eight pints to the gallon. Most of the other units are related to the containers in which materials were handled e.g., tuns, ferkins, bushels, etc.

Time is the only measurement with has not been decimalised. This is again based on duodecimals and decimals with 60 seconds to the minute and 60 minutes to the hour (360 second in an hour) and 24 hours to the day. This length of a day is determined by the rotation of the earth, but the other divisions appear quite arbitrary and have been also used for angular measure which also has 360^0 in the circle.

AIA Conference in Preston — Ron Martin

The Annual Conference of the Association for Industrial Archaeology is being held this year in Preston, between 10th. and 16th. August. A full programme of events and visits has been organised and these include visits to various mills, to Blackpool, Tower and to industrial sites in the Lune Valley, mills, canals and docks in Preston, the Lancaster canal and docks, Pilkington glass works, BAE aircraft works, the Rossendale Valley and East Lancs. Railway, Chorley Commercial Vehicle Museum, and the textile mills in the Weavers' Triangle.

Full details and Application Forms are available from me, which I can let any member have on request.

Winter Lecture Saturday 17th January.
Railway Development Around Newhaven.

John Blackwell took us on a circular tour of Newhaven using old photographs and slides of the scene today. It was with the arrival of the London Brighton and South Coast Railway in 1847, which had always seen Newhaven as the port for the establishment of a cross channel service, being on a direct line from London to Paris, that development commenced with the building of the London and Paris Hotel. In 1878 the Newhaven Harbour Company was formed and facilities were greatly expanded with the construction of the western harbour arm which allowed channel crossings to not be tidal dependent. Concurrently the channel to the Tidemills was closed and a quay was built to the south along with a new Harbour Station; the planned docks to the east were not yet built.

Starting at the Town Station we looked at the old swing bridge (1866-1974), which carried a track to the western breakwater with a siding to the sheet loft, where the tarpaulins that covered open trucks were waterproofed and lettered. Then, on to the horse drawn tramway, which supplied chalk ballast from the nearby Meeching pit for sailing ships. It was fascinating to hear that the foundations for the breakwater were made by sinking large canvas bags each containing 104 tons of dry concrete, which had been mixed using a giant automated concrete mixer on the new east quay, and then floated across in a specially constructed lighter with opening doors in the hull. Hydraulic cranes were introduced in 1891 and John explained their operation and how the tall accumulator tower was used to pressurise the system. They do not appear to have been very successful and had all been replaced with electric cranes by 1928. A look at the Marine Workshops of 1882 (now a listed building), the sheer legs demolished in 1965 and the 1887 corrugated iron engine shed (now unused and unlisted) took us back to the Town Station. Our thanks to John for a most informative evening with some fascinating old photographs.

Obituary Alan F. Hill — John Blackwell

It is with sadness I record the death of our member Alan Hill.

A Lewesian, Alan's main interest was the River Ouse and its shipping. The author of two publications "*Lower Ouse Navigation 1934–1967*" in 1991 and "*Port of Lewes in the 20th Century*" in 2000; these should be available in local reference libraries. They are essential reading to anyone studying the industrial archaeology of the area and contain some interesting illustrations. Alan was always willing to share his knowledge and at the time of his death we were trying to put together the story of John Every's iron foundry which was a huge concern in the nineteenth and early twentieth century but all its records, other than a few product catalogues, seem to have been lost or more likely destroyed.

Book Review **Brian Austen**

Cowdray and Easebourne Andrew Guyatt and Vic Mitchell,

This is a history of a Parish which is often regarded as merely a suburb of Midhurst. As might be expected, the two 'lions', Cowdray House and Easebourne Priory feature in some detail in the early chapters, but thereafter the range of topics covered is diverse. No fewer than two hospitals and three schools have their history related, with photographs and plans by Ron Martin of the recently closed King Edward VII Hospital.

Other topics included are the history of poor relief and the workhouse, which still survives under another guise, road transport, telephone development, television transmission, trades and occupations and leisure activities. Much of this will interest the industrial archaeologist, as will also the wide range of photographs, plans and maps.

Many of the photographs illustrating past activities have never previously been published and the reviewer was delighted to find one of Easebourne toll house of which no other image has been located. Altogether a well composed, enertainly written and comprehensive account of a Parish whose history as a whole has previously been sadly neglected.

Midhurst: Middleton Press 2007 pp 144, colour and b&w illustrations
ISBN 978 1 904474 96 8 £16.95 post free
(available from the publishers at Easebourne Lane, Midhurst GU29 9AZ)

Sundry Reports **Ron Martin**

Over the past few years I have been carrying out surveys of various sites throughout the County. I usually publish a Report in connection with each survey and these are available on request, at cost, which varies from £3 to £5, depending on length of the document and the number of coloured pages. The ones published to date are:

Former Printing Works at St. John's Street, Chichester
Cocking Lime Works
Coultershaw site, an IA overview
Dovecot at Firle Place
Riding School at Firle Place
Warehouse at No. 4 Winding Street, Hastings
West Hill Lift, Hastings; Engine Room
Former ROC HQ in Horsham
Pump House at Lavington Park (Seaford College)

If any members are interested please get in touch with me.

Light Railways in East Sussex — John Blackwell

As an appendix to my articles on the Sussex railways of Colonel Stephens I have listed schemes proposed under the provisions of the 1896 Light Railway Act. One may recall that the Rother Valley Light Railway from Robertsbridge to Rolvenden had parliamentary approval but was built under the provisions of the 1896 act.

Although some of the following received a Light Railway Order LRO from the Board of Trade and extensions of time EOT's to enable finance to be raised, none were ever constructed.

Cuckmere Valley Light Railway. 1897.Engineers Frank Stileman and H Mitchell Whitely. From a siding at the LB&SCR station at Berwick to Birling Gap with a short spur to serve the Eastbourne Waterworks premises at Friston.
ESRO Ref QDP 586.

Nutley Crowborough and Groombridge Light Railway. 1898.Engineer W. Vaux Graham. From a junction with the LB&SCR at Grmbridge to a terminus on the Wych Cross to Maresfield road at Nutley via Rotherfield and Buxted.
ESRO Ref QDP603.

Robertsbridge and Pevensey Light Railway. 1899. Engineer Arthur J Barry.

From the LB&SCR station at Pevensey to the SER station at Robertsbridge via Wartling and Ashburnham Park and furnace.
ESRO Ref QDP 612. RO 1900. EOT's 1903, 1906.

Cinque Ports Light Railway.1899. Engineers D Cook, J T Rossiter and M Parker.

From Ramsgate (Kent) to Hastings via Sandwich, Deal, Dover, Folkestone, Hythe, New Romney, Lydd, Rye, Winchelsea and Pett.
ESRO Ref QDP622. LRO 1900

East Sussex Light Railway Engineer H F Stephens

From the Rother Valley Light Railway at Northiam to the SER at Rye, would have followed the western side of the River Rother and the northern side of the Royal Military Canal.
ESRO Ref QDP 626. LRO1901 EOT's 1904,1907.

The plans and schedules can be inspected at East Sussex Record Office and the above details have been extracted from
'East Sussex Parliamentary Deposited Plans 1799-1970' by Roger Davey
Published by Sussex Record Society Volume 87, 2003.

Annual Coultershaw Working Day

The recent annual clean up day at Coultershaw saw a great deal of energetic work being done by members.

To take part in this activity or to assist with the open day stewarding, contact Robin Wilson 01798 865569

Clearance of undergrowth west of the engine house revealed this culvert. Was it part of the lock on the canal, seen at the left exiting from under the road bridge?

Published quarterly in January, April, July and October.
Contributions for the next Newsletter should be sent to the Editor by the 9th June 2007.

Subscribing to the Sussex Industrial Archaeology Society gives automatic membership to the Sussex Mills Group. The Sussex Mills Group also produces a Newsletter that is sent to members with this Newsletter.
Printed by PLANAHEAD, 42a Commercial Road, Eastbourne.

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Stewart Swing Bridge Site, Barnham Court Farm. The South wall of the bridge support. The coping stones and most of the brickwork was reinstated over the last two years using lime mortar and salvaged original bricks.
The rebate for the bridge to swing into can be clearly seen on the coping stones.
(C. Bryan)

Tile Barn Farm, Barnham, from the air, looking east. The canal route is from the centre bottom to the top of the picture where the canal profile can be seen. The line of trees in between, are the towpath line. The footpath across the field on the left meets the canal at the site of a former swing bridge crossing the canal.
An SIAS interpretation board is at the surviving pivot support stone for the bridge. Continuing east is the Denges Barn embankment and Yapton. *(C. Bryan)*