



# Sussex Industrial Archaeology Society Newsletter

Number 152

October 2011



Lordings Waterwheel Re-commissioning on the former Arun Navigation  
*(Ron Martin)*

# Newsletter 152

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## Editorial

Welcome to *Newsletter* 152. On my wanderings, seeking suitable Heritage Open Days (HODs) venues, I visited the former toll house on the Amberley Road from Storrington, which is now almost unrecognisable, having been extended in many directions, the original two 10' x 10' rooms with a chimney between them have long gone. It was interesting talking to the owner who told me that I was the first person to stop and ask about it in 30 years! I learnt that he still works for Ricardo's in Shoreham and is probably the last person, still working there, to have known Sir Harry Ricardo. He has recently presented a paper on Sir Harry as an interesting personality.

As part of the HODs weekend I was pleased to prompt Ricardo PLC to host tours of part of the site, I was able to help with their dress rehearsal for what was a most interesting talk on the history of the company from Sir Harry's youthful ventures and coming right up to date to view the special hi-tech facility for producing the engine for the McLaren supercar. It is easy to forget that right here in Sussex we have the world leaders in engine research and innovation.

I will be arranging the 2012 Worthing area HODs, some old, some new, suggestions for events are always welcome that I can pass on those for other areas.

The society journal, *Sussex Industrial History* has won the Publication Award of the Association for Industrial Archaeology for the second year running, congratulations to editor Dr Brian Austen and thanks to all the contributors. Brian would welcome your offers of articles for the 2012 edition, please contact him as soon as possible to discuss this.

## **Forthcoming SIAS Events**

### **Malcolm Dawes**

**Saturday 19<sup>th</sup> November. 2.00pm *AGM of Sussex Industrial Archaeology Society.*** This year this will be held at Danny House, Hurstpierpoint. Access via New Way Lane, a turning off Hassocks Road. After the AGM Richard Bourroughs will give a short talk on the history of the house followed by an opportunity after the AGM to view this Elizabethan house.

The following events are at - West Blatchington Mill Barn, Holmes Avenue, Hove

**Saturday 28<sup>th</sup> January, 7.30pm *The Atlantic Rebuild.*** Presentation by David Jones tracing the background behind the scheme to reconstruct the Brighton Atlantic Class H2 steam locomotive *Beachy Head* of 1911, from the discovery of a suitable boiler in 1986 up to the present time. The project provides an insight into the challenges in overcoming the decline of engineering in the UK by using new methods such as water-jet cutting. The presentation will also cover the work currently being carried out and the plans for completion.

(Note: At 2.00pm approx, at the same venue there is a Brighton Circle talk, “*Craven Coaches*” by Ian White. John Chester Craven was the locomotive carriage and wagon superintendent of the LB&SCR from 1847 to 1870 and produced a variety of coaches. Ian has measured and recorded examples that have turned up in use as bungalows, summer houses and chicken houses and will share his findings in what promises to be an interesting and little known subject. - SIAS members are welcome to attend).

**Saturday 11<sup>th</sup> February, 7.30pm *Industrial Archaeology of Lewes.***

Presentation by Bob Cairns using images from his extensive collection of Lewes postcards. The Industrial Archaeology of Lewes will be illustrated with reference to the locations and images on the postcards.

**Saturday 10<sup>th</sup> March, 7.30pm *The development of the British Roadside Letter Box***

Presentation by Paul Snelling covering the development of roadside letter boxes since their inception in 1852 with illustrations of boxes around Sussex. Topics to be covered will be the major milestones in the development of the boxes, the various types and their distinguishing features.

## **Advance Notice for your Diary**

### **SERIAC 2012**

Will be held in Newbury on Saturday April 28<sup>th</sup>

Hosted by the Berkshire Industrial Archaeology Group

## 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](mailto:malcolm.dawes@btinternet.com)

#### **Thursday 20<sup>th</sup> October, 8.00pm *The Great Depression: How the South Coast was affected***

Wivelsfield Historical Society talk by Chris Hare.

Visitors £2.50. Wivelsfield Village Hall. 01444 451568

#### **Sunday 23<sup>rd</sup> October *Autumn meeting of Mills Group at Herstmonceux*** *Details in Mills Group Newsletter.*

#### **Monday 24<sup>th</sup> October, 7.30pm *Heading east – a journey from Brighton along the Coastway East (Part 2)***

Railway Correspondence and Travel Society talk by SIAS Chairman John Blackwell. London Road Station, Shaftesbury Place, Brighton. [www.rcts.org.uk](http://www.rcts.org.uk)

#### **Wednesday 26<sup>th</sup> October *Steam train excursion from London Victoria to Hastings***

Photographic opportunities in Sussex. [www.railwaytouring.co.uk](http://www.railwaytouring.co.uk)

#### **Saturday 29<sup>th</sup> October, 2.30pm *Rye Bay***

History of industry in the harbour and surrounding area. Brighton and Hove Archaeological Society Local History talk by SIAS Secretary Ron Martin.

Non-members £3. United Reformed Church Hall, 102 Blatchington Rd, Hove. [www.brightonarch.org.uk](http://www.brightonarch.org.uk)

#### **Friday 4<sup>th</sup> - Sunday 6<sup>th</sup> November *South Eastern Gala***

Special weekend featuring locomotives and carriages from the railway companies of the old South Eastern & Chatham Railway. Bluebell Railway. 01825 720800 [www.bluebell-railway.co.uk](http://www.bluebell-railway.co.uk)

#### **Sunday 6<sup>th</sup> November *London to Brighton veteran car run***

**Sunday 6<sup>th</sup> November *Public Consultation Evening to show the proposed development of the Wey and Arun Canal in the Dunsfold area***

*Winn Hall, Dunsfold. The Wey and Arun Canal Trust.*

[www.weyandarun.co.uk](http://www.weyandarun.co.uk)

#### **Wednesday 9<sup>th</sup> November, 7.30pm *Towards a history of Halnaker House***

Chichester Local History Society talk by Dr Andrew Foster and Caroline Adams. £2. New Park Centre, New Park Road, Chichester. 01243 784915

**Friday 11<sup>th</sup> November, 8.00pm *Life around Burgess Hill in the early 1300s***

Burgess Hill Local History Society talk by Heather Warne. £2.

Cyprus Hall, Cyprus Road, Burgess Hill. [www.burgesshillmuseum.co.uk](http://www.burgesshillmuseum.co.uk)

**Monday 14<sup>th</sup> November, 7.30pm *Photographs of the young Andrew Marshall***

Southern Electric Group, Sussex Branch presentation by Andrew Marshall.

£2 visitors. Deall Room, Southwick Community Centre, Southwick.

[www.southernelectric.org.uk](http://www.southernelectric.org.uk)

**Wednesday 16<sup>th</sup> November, 7.45pm *Reminiscences of the fifties and sixties***

Sussex Transport Interest Group presentation by Tony Sullivan £2.

London Road Station, Shaftsbury Place, Brighton. 01273 512839

**Saturday 26<sup>th</sup> November, 2.30pm *Brighton transformed***

The impact of Victorian innovation and housing developments on the city.

Brighton and Hove Archaeological Society Local History talk by Sue Berry.

Non-members £3. United Reformed Church Hall, 102 Blatchington Rd, Hove.

[www.brightonarch.org.uk](http://www.brightonarch.org.uk)

**Wednesday 7<sup>th</sup> December *Steam train excursion from London Victoria to Hastings***

Photographic opportunities in Sussex. [www.railwaytouring.co.uk](http://www.railwaytouring.co.uk)

**Saturday 10<sup>th</sup> December *Steam train excursion from Haywards Heath to Bath***

Photographic opportunities in Sussex. [www.railwaytouring.co.uk](http://www.railwaytouring.co.uk)

**Wednesday 21<sup>st</sup> December *Steam train excursion from London Victoria to Hastings***

Photographic opportunities in Sussex. [www.railwaytouring.co.uk](http://www.railwaytouring.co.uk)

**23<sup>rd</sup>, 31<sup>st</sup> December and 2<sup>nd</sup> January 2012 *Victorian Christmas Special Trains***

Booking essential. Bluebell Railway. 01825 720800

**Saturday 21<sup>st</sup> January, 2.30pm *The discovery of Sussex 1800-1939***

Brighton and Hove Archaeological Society Local History talk by Peter Brandon.

Non-members £3. United Reformed Church Hall, 102 Blatchington Rd, Hove.

[www.brightonarch.org.uk](http://www.brightonarch.org.uk)

***Do please always 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.*

## **IA and me**

### **Malcolm Dawes**

My first recollections of IA date back to my childhood when we visited relatives in Bromley whose back garden looked down on the main railway line from London to Dover. The sound of steam trains charging past seemed to occur every few minutes although I assume that my memory has exaggerated the frequency of the service. When I was a student in the early 1970s my contact with railways was renewed. I had some spare time in the summer vacation and read that the Bluebell Railway was desperate for any help to run the railway on their first attempts at mid week opening. The first day I was in charge of the booking office whilst one other volunteer looked after the rest. On my second visit it soon became apparent that I was the only volunteer to turn up. The man in charge of the railway that day (who I think should remain anonymous) issued me with instructions on how to run a station and I was then in charge of Sheffield Park Station. However once the service was about to start it was realised that I would also have to become the signalman. “When that bell rings twice, pull that lever, one ring means pull that lever” – he obviously had been impressed by my turn at being a booking clerk the previous week. The train departed and I was the only one left at Sheffield Park. Only a few customers wandered in during mid-week openings so I was not inundated with issuing tickets but all the time I was listening out for the bell to ring. Eventually the ringing began and I started pulling levers, hopefully in the correct sequence. I was extremely relieved to see the returning train appear in the distance and to welcome it back to Sheffield Park. This was to be my highpoint of railway management as in the following weeks there were plenty of volunteers. My memory of that day seems unreal when compared to today’s attitudes to health and safety but I’m very glad that it did happen and for one day I could say I was in charge of a railway.

The other vivid memory of IA in the 1970s was when I took my girlfriend to have a look around the deserted Goldstone Pumping Station in Hove. (I knew the best places to take her – she did end up marrying me). The Pumping Station had been unused for years and was in a sorry state and I thought that I might get some photos of the dereliction. But as we wandered around, a door opened and a water board worker invited us in. He was there to maintain a small electric pump but he and a colleague used their spare time to polish the engines and keep the place tidy. In those days the Pumping Station was almost a forgotten relic but it turned out that inside the beam engines, boilers, and workshops were all being looked after. These two water board workers, in the true tradition of IA volunteers, were caring for these engines as best they could because they felt that they were valuable historic

artefacts and could one day be returned to steam. Thankfully eventually they would be brought back to life, many years later as the Engineerium.

A working beam engine is an extraordinary and almost mesmerising sight, and all powered by fire and water. For me this is what IA is all about. However to keep such engines in working condition requires huge levels of commitment and high levels of skill from volunteers. I am continually astounded by the craftsmanship and the hours that volunteers give to their diverse projects. My involvement with SIAS has enabled me to appreciate the work of so many committed people working on IA projects throughout the county.

We always have a family trip to the Bluebell Railway at Christmas and of course the locomotives are always magnificently turned out. However I find the journey in a newly restored railway carriage is always a joy. Everywhere you look – the painting, joinery, brasswork and upholstery have all been created by volunteers and all true craftsmen of particular trades.

But can any of them say they that have been in sole charge of Sheffield Park Station and half of the Bluebell Railway?

(Ed: Malcolm is our Vice Chairman and collates details of various meetings for the newsletter. He can't know about every meeting that may be of interest, so please do let him know of any you may think would be of interest to other members.)

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## Reflections

### Martin Snow

As a charity the society has various aims, including education, restoration, and maintainance of of our industrail haeritage, often in its widest sense.

Clearly providing talks and visits form an important part of achieving our aims, but encouraging both members and others to become more aware of just what is out there is vital both for the health of the society and the actual relics and records.

Having just passed yet another birthday (I though they had stopped years ago!), I was reminded that none of us are getting younger (one of lifes little certainties - that and taxes!). Various activities, such as membership of our society seems to be reserved for 'later' life, with few youngsters taking part and if so only until the draw of family life takes over for a while. Retirement, once an automatic 'right' at a certain age is that no longer and looking into the future I see it fast receding from my grasp. So 'planning to take up ????? when I retire' is becoming a pipe dream for all of us. Strike now and get actively involved in IA NOW! and encourage your friends and colleagues to join you, it'll get you out of your spouses hair and you never know you might enjoy it. There are several projects you can find in these pages to grasp your interest and to use your skills

# SIAS visit to the De Witt Kilns at Amberley Museum

Malcolm Dawes

Our visit to the Kilns did not quite go to plan as our expert guide failed to materialise. Thankfully we had two experts on hand (Robert Taylor and Ron Martin) so we still managed to have an informative tour around the kilns.

As we did not have the complete story of the kilns and their restoration on the day, the following details, provided by the museum, will hopefully give a more complete picture.

## DE WITT KILNS

### A ROCKY PAST BUT A STABLE FUTURE

It's 1925 and you are looking at the De Witt kiln block.

*You jump as an explosion echoes around the pits and another six tons of chalk are blasted from the cliff face; you hear the clip clop of horses' hooves on the dusty tracks.*

From the 1830s until the late 1960s, this site was used as a chalk quarry. The chalk was burned, night and day, in kilns to produce lime.



The De Witt kiln block as work in the 1920s.

#### A chequered history

The kiln block in front of you has an intriguing past.

In 1904 the owner of the site, Thomas Pepper, wanted to increase the production of lime to boost profits. He asked Hippolyte De Witt, a Belgian manufacturer, to design and build a block of new kilns based on those he had developed for firing earthenware in his own country.

The result was an impressive building housing 18 down-draught kilns.

However, De Witt's design failed. After only five years most of the kilns were changed to traditional lime kilns, shaped like upside down bottles: a design being used successfully elsewhere on site. The kilns fell in to disuse in 1960 when lime production ceased. English Heritage scheduled the De Witt kilns as an Ancient Monument.

#### Restoration

Over the years the kilns fell into disrepair so the Museum decided that this unique piece of engineering history must be preserved. Supported by the Heritage Lottery Fund and through the tremendous hard work of staff, volunteers and specialist builders the building was conserved between 2008 to 2010.

#### Explore more

You can now explore the kiln block for yourself and learn why De Witt's design failed.

Climb to the top to see where the kilns were loaded with chalk and coal.

Visit the Life of Lime exhibition in the old bagging shed, then take a closer look at one of De Witt's kilns.

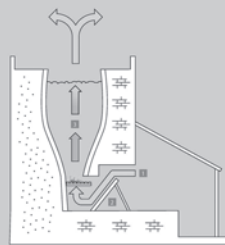
## DE WITT KILNS

### FROM FAILURE TO SUCCESS

It's 1905 and you are standing at the bottom of one of the De Witt Kilns.

*You feel the heat on your face from deep inside the kiln and smell the acrid fumes as the dust catches in your throat.*

From the 1830s until the late 1960s, this site was used as a chalk quarry. The chalk was burned, night and day, in kilns to produce lime.



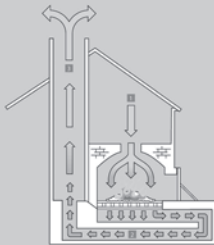
The flow of air and flue gases through conventional inverted bottle-shaped kiln

1. The flow of the flue gases through the chimney creates a low pressure that causes the flue gases to pull in through the top of the kiln, providing the oxygen for the fire to burn.
2. The amount of draught was controlled by the size of the chimney and the amount of air entering the kiln.
3. The pressure difference between the flue gases inside the kiln and the air coming in through the top of the kiln pulled the flue gases for up and out of the top of the chimney.

#### Fired up

A chimney lets the hot combustion gases and smoke escape into the atmosphere. It also creates a difference in pressure that draws air into the bottom of the fire, providing oxygen to make the fire burn.

De Witt's new, untried design relied on air being drawn in from the top of the kiln and down through the fire inside – hence the name down-draught kiln. The combustion gases were drawn through flues beneath the platform and up the chimney at the end of the building.



The flow of air and flue gases through a De Witt down-draught kiln

1. The flow of the flue gases through the chimney created a low pressure that pulled air through the top of the kiln, providing the oxygen for the fire to burn.
2. The flue gases are drawn through openings beneath the platform towards the chimney.
3. The pressure difference between the flue gases inside the kiln and the air coming in through the top of the kiln pulled the flue gases for up and out of the top of the chimney.

#### So, why didn't the system work?

It is thought that not enough down-draught was created. This was because there wasn't sufficient difference in pressure between the outside air and that inside the chimney.

Built at the lowest part of the site, surrounded by the chalk cliffs, the location of the kiln block may have been too sheltered. In addition, the flue gases may have cooled too much by the time they reached the bottom of the chimney to create enough up-draught.

Either way, an expensive mistake had been made. However by 1910 the Peppers had converted the De Witt kilns to a tried and tested design: traditional lime kilns, shaped like upside down bottles.

#### Explore more

Take a look inside the kiln. At the bottom you can see the outlets for the flues. Just round the corner you can still see the stump of the chimney that once drew the flue gases away from the De Witt kilns.



The De Witt lime kilns at Amberley are thought to be the only known example of lime kilns, built 1904-5, to a Belgium design. Originally 18 De Witt kilns were built in a single block. However, the design failed and by 1910 all but two were changed to traditional English kilns. The kilns were in use until the 1960s but fell into disrepair when the site was later abandoned.

By the time the Museum took over the site and opened to the public in 1979, the kilns had been designated a Scheduled Ancient Monument. Some emergency repair work was carried out but it was not until recently that the full restoration has been able to take place.

In 2007 the Museum was awarded £391,000 from the Heritage Lottery Fund to restore and interpret the De Witt kilns as well as improve access pathways to the monument. Additional funding of £18,000 from the Museum Friends, Horsham District Council and West Sussex County Council was also secured as was an in-kind volunteer labour contribution of £15,900.

The project consisted of three elements:

- the repair and conservation of the historic structures - this included stabilising the kiln block, reinstating the shedding to the west side of the kiln block and re-laying the railways in the area
- the interpretation of the De Witt kilns within the context of the site and the local community. This consisted of a new exhibition 'Life and Lime at Amberley' in the old bagging shed plus outdoor signage and sculptures of lime workers
- the improvement of the access pathways to the kiln block

In many ways, the project has restored the heart of the Amberley site, drawing all elements of the limeburning and quarrying operations into one unified thread.

The project was officially opened by HRH Prince Michael of Kent on 4 May 2011.

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## **Amberley - Our own Sussex IA museum**

Amberley Museum is our local centre for Industrial Archaeology, as will be seen above, the exhibits include various features from the original working lime works and the later building products business and their surviving buildings. The museum also features other IA displays, including Roads, Buses, and an operating Narrow Gauge Railway, including both veteran steam, petrol and diesel internal combustion propulsion and a few electric power examples.

It did seem a shame that the requirements of 'updated'? (PC?) lottery funding of the education displays has caused the demise of the former stimulating Concrete exhibition and replaced it with bland pointless display boards. It may have been a bit dusty, but at least it was interesting. That aside, if you've not been recently, or before, do get along for a day, it's well worth the admission. (Ed.

## Wadhurst Lights Up for the Queen's Jubilee

John Blackwell

Whilst on a visit to Crowborough Library I came across the following interesting newspaper cutting (presumably the local *Courier* but no name or attribution was obvious, just a date 17<sup>th</sup> May 1891)

'Paraffin lamps were placed throughout the main streets to mark Queen Victoria's golden jubilee. They were spaced at intervals of 60 to 70 yards all the way from Marling Place on Station Hill to where the old tollgate once stood at the lower end of the High Street. (Walters Cottages) The method of lighting was a matter of careful investigation and serious consideration. The committee inspected and tested specimen lamps by various makers, English, German, and French before as the *Courier* put it "awarding the palm, and we think wisely, to C J Davis and Sons of Newington Causeway who have we believe patented this lamp which gives a light equal to 36 sperm candles. Wadhurst is probably the first town to be lighted with this, a perfect triumph in paraffin lamps." The 27 lamps put out their claimed 36 candlepower for the first time on the evening of Monday October 10<sup>th</sup> 1887 – an occasion for almost as much celebration as the dear old Queen's jubilee. The church bells were rung and the Wadhurst Brass Band played several "choice selections". From then onwards until the end of March the lamps were lighted at dusk and extinguished at 10pm – all paid for by voluntary contributions.'

The article was illustrated by an old photograph showing a lamp post of the time with the usual four sided lantern surmounted by a 'chimney' ventilator, whether this was indeed the paraffin lamp is debatable; it looks more like a later permanent installation. Early non-gas street lighting is a subject short on information (members will no doubt prove me wrong). Was paraffin oil the normal source of illumination? I have read of naphtha flares used at fairgrounds; but what were these? Did the lamplighter also have to re fill the lamps?

Any further information (to the editor) would be appreciated.

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### Look around you

Street Lighting and its attendant supports, as lamp standards or brackets, is just one of many items of street furniture that we all pass by on a daily basis without a second glance. It's only when the council (in it's wisdom?) makes a change that we may notice. The streets of our towns once had coal hole covers in the pavement outside most older houses, they are slowly disappearing (or stolen) either to wear or 'progress'.

## **Heritage Open Days in Worthing**

**John Blackwell**

Our *Newsletter* editor is to be congratulated on organising a superb weekend of over 30 events, visits, and guided walks, in the Worthing area, for Heritage Open Days in September. This annual event gives free admission to places not normally open to the public. Of IA interest was the tollhouse at Long Furlong, Ricardo's at Shoreham and East Worthing Waste Water Treatment Plant.

I visited the exhibition in the former St Paul's Church, built in 1812 this was Worthing town's first Anglican Church and is now a community centre. Fine displays by Malcolm Linfield of his continuing work on the Worthing glasshouse industry (see *Newsletter 150*), Ron Kerridge on '*Broadwater Now and Then*' and on St Mary's Farmhouse Durrington, which was built in 1628 and is one of the few remaining pre-nineteenth century buildings in the area. Reminding visitors that heritage also involves conservation was a display of stained glass window restoration by Christine Brown. Other display boards illustrated lost windmills, toll gates, seafront shelters, Tapsell and lych gates. I noted these had all been prepared and mounted by Martin, in addition to his organisation tasks, and understand that they will be on display at our AGM in November.

Two others; also prepared by Martin, showed examples of Mrs Coades' artificial stone in use at Castle Goring, on Findon Place, on a local tomb and decorating the entrance archway of Park Crescent, Worthing. The other display covered the Worthing Hall and Winter Gardens later to become the Kursaal and now the Dome Cinema. The plans and early prospectus displayed had been rescued by SIAS member Aage Roberts from a skip, a timely reminder of how vigilance can preserve unique information for future generations of local historians.

Finally the Sompting Morris added an air of gaiety to the afternoon. It was only when writing this note that the amount of time, energy, and expertise that Martin had expended in organising the whole event became apparent, especially as he started from scratch - there having been nothing arranged in the area in previous years. A commendable effort which I hope was rewarded by good attendances it deserved. (some 600 people attended the events over the four days - Ed.)

### **HODs 2012**

Put the dates in your dairy for next year

**6<sup>th</sup> to 9<sup>th</sup> September 2012**

Did you miss a venue in 2011 or do you have any suggestions

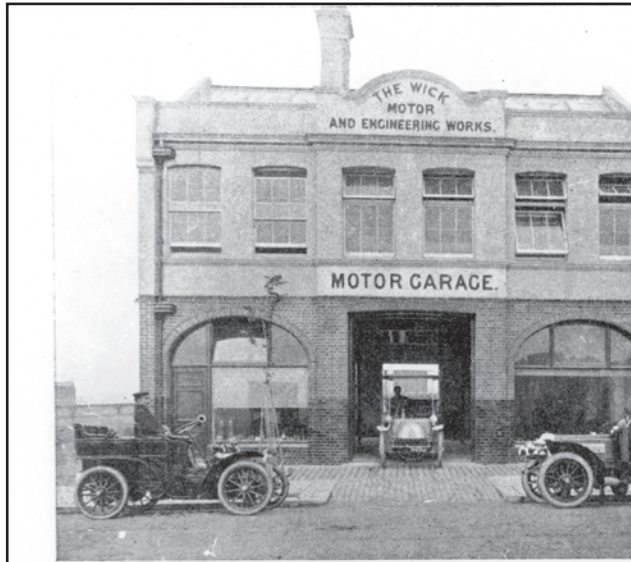
## Wick Motor Garage Davigdor Road Brighton

Notes from *Encyclopaedia of Hove and Portslade, Volume 4 - D to E*

Judy Middleton, 2002

“The architect was F.T. Cawthorne and the Wick Motor and Engineering Works were built in 1904, the work being carried out under the personal supervision of R.W.R. Gill, proprietor. The premises were situated on the north side of the road near the Hove Electric Light Works (now the site of Spitfire House) and ‘housed a formidable tank of petrol containing 400 gallons.’ An advertisement of 1905 stated that the Wick Motor Company was the sole district agent for Daimler cars and that all the work was overseen by R.W.R. Gill ‘a gentleman of much up-to-date skill, and who has carefully studied both the theoretical and practical construction of these vehicles.’ But it seems that by 1907 at least the premises were still the property of the Wick Estate. By 1914 Messrs Langton were running Wick Garage and in the early part of the First World War they produced Stokes bombs and later fuse-hole plugs – they produced over 100,000 of the latter. In 1919 four of Lady George Nevill’s ambulances were stored at the Wick Garage but they were

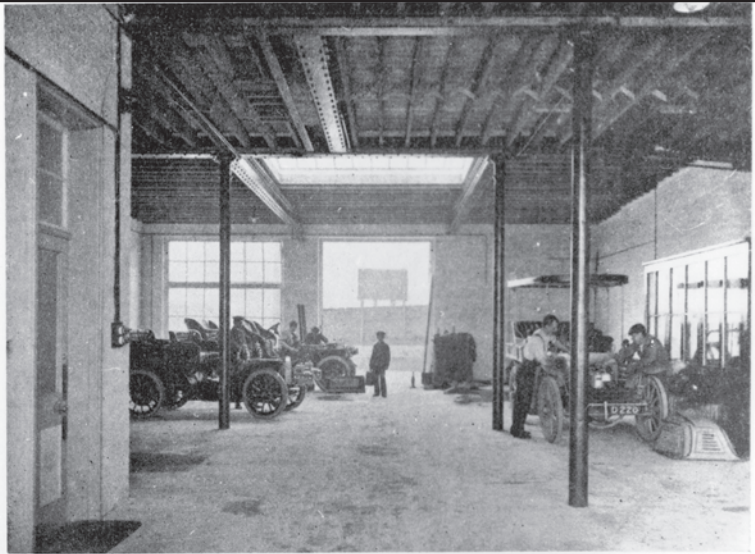
available for public or private use with the necessary drivers and bearers upon application to the St John’s Ambulance Brigade. Also in 1919 Messrs Langton received a licence to increase their petroleum store from 400 gallons to 1,000 gallons”



Exterior of Works.

**F**OR many years past the sister watering-places have been the playground of the knickerbockered cyclist; now the fur-clad motorist is the frequent visitor to this place, and the number who travel in these swift and luxurious motor-cars to our health-haven is increasing daily. To meet the demand for extensive works and a garage have been erected at D'Avigdor Hove's Electric Light Works. Here expert aid can be had, and parts, petrol and lubricating oil can be obtained. A staff of capable men is capable of promptly executing every description of work, either repairs or alterations are employed here. All work is carried out under the personal supervision of Mr. R. W. R. GILL, the proprietor, a gentleman of much up-to-date skill, and who has carefully studied both the theoretical and practical construction of these vehicles, and who is closely associated with the highest class of engineering.





Interior of Works.

been a goal for the rapidly taking his curious vehicles to hands of this class, Road, Hove, near cars stored, spare skilled workmen, of construction or personal supervision to-date skill, and cal construction of grades of motor

The workshops are entirely new, and have been fitted up with the most up-to-date machinery; and there exists on the premises every facility for the erection, conversion or repair of any type of car or motor cycle.

In another part of the building there is a lock-up storage accommodation for cars, which may be received at night, washed, over-hauled and adjusted, and delivered next morning. The erection shed is commodious, well lighted and dried. It has special inspection pits; and here are many cars in course of repair, and in this department all the machinery work is carried out.

The firm are the sole district agents for the Daimler Cars, which may be seen and tried at the Showrooms.

We noticed a formidable tank of petrol, containing 400 gallons.

THE

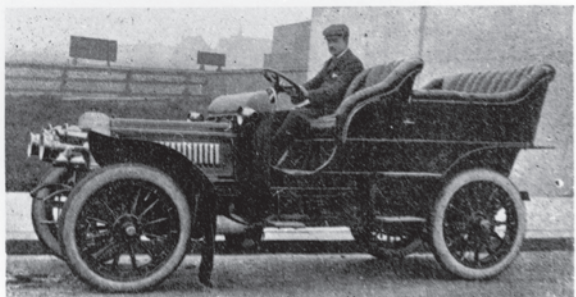
**Wick Motor**

AND

*Engineering Works*

D'AVIGDOR ROAD,

**Hove, Sussex.**



By 1939 Brittain's (Hove) Garage was occupying the site and they were still there in 1958 trading as Brittain's (Caffyns) garage. The premises were demolished in 1985 and were near the present entrance to Wickes in Davigdor Road.

## SIAS Trip up The Brighton Line

**Tim Ralph**

Members who participated in the visit to a number of IA sites along the Brighton line on 4<sup>th</sup> June enjoyed almost ideal weather conditions, it being warm, dry and sunny.

First stop was to view the cottage located above the North Portal of the Clayton tunnel. The cottage itself was added to the ornate portal about 9 years after the opening of the line and curiously is not central as it is joined to the western turret but stops about 2 feet short of the eastern one. The general consensus amongst members was that this was likely to have been due to an error rather than intended.

The enthusiastic occupant not only allowed us into the garden but also showed us the inside of the house where we enjoyed a superb view north up the track from directly above. Despite the trains running directly below the cottage it is remarkably quiet inside with road traffic noise being more intrusive. The kitchen and study are located within the octagonal turrets which gives them a most interesting shape.



View of the Clayton Tunnel cottage from the east.

The cottage is reputedly haunted. Our host told us that whilst he is a bit sceptical about such matters, at times it definitely has a 'presence' about it and he never stays in the property on the anniversary of the fatal accident of 1861 when 23 people were died.

Next stop was a short distance up the road at the South Downs Heritage Centre which is situated within the South Downs Garden Centre at Hassocks. This fascinating exhibition contains displays of crafts such as the Wheelwright, Carpenter and Trug Maker and contains many other vintage tools and machinery. The main purpose of the visit was to view Car 9 from the Volks Electric Railway which is in storage there and had been uncovered especially for us. This car dates from

1898/99 and was acquired from Southend Corporation shortly after World War II. Although requiring a complete rebuild it appears to be remarkably complete and with surprisingly little rot evident; certainly not a job for the faint-hearted though! Some members stayed on to look at the other display items whilst others had lunch in the Café or at Lindfield, our next destination.

The first visit of the afternoon was to view the Lindfield Horse Gin which is now situated in the beer garden of the Red Lion public house. It was originally sited at Durrant's Lindfield Brewery on the opposite side of the road and was used for pumping water. The gin ceased work in 1906. The structure suffered serious damage in the 1987 hurricane and subsequently collapsed. It has since been reconstructed here although very little of the original structure has been retained. An information board gives details about its history. Although not visible from the road, the original brick base of the gin still survives at the rear of the Old Brewery at 49 High Street and the small garden has been designed around it. The old brewery "copper" (vessel) is also a feature there.

Next Brian Austen led us along the High Street to view the unusual 2-storey toll house which still looks very similar to some old photographs which Brian had brought along. Lindfield had two toll gates, one across the High Street at the toll house and a side gate across Hickmans Lane. They were very unpopular, particularly with



Members viewing the long line of brick arches

villagers living in the northern end who had to pay a toll to get to Haywards Heath and the railway station. The tolls were finally abolished in 1884 and on bonfire night that year the gates were burnt in the High Street amid much celebration!

The last visit of the day was to view the Ouse Valley viaduct. Due to limited parking at the site, we had to squeeze into a smaller number of cars before driving to the viaduct. A short walk along a footpath led us across the field to the foot of the viaduct where Alan Green gave us an interesting talk about its history. The Grade II\* Listed viaduct is a truly magnificent structure. Designed by engineer John Rastrick with input from architect David Mocatta, it is 1,475ft long, 96ft high and contains 37 arches. It took two years to construct between 1839 - 1841; not bad considering it contains approximately 11 million bricks! The bricks were brought to the site by barge along the River Ouse and are believed to have been imported from Holland although amazingly there appears to be no documentary evidence to confirm this! The



Alan Green detailing the Ouse Viaduct to assembled members - who's that with the Heritage badge?

whole area must have been a hive of activity during its construction. From the northern end of the viaduct we carefully picked our way southwards through nettles along the line of the arches to get to the (now) small stream flowing below it. Here Alan pointed out how the bed of the stream is lined with an inverted brick arch to prevent the water undermining the brick arches. Our return back up to the footpath and then our cars was a lot easier than the walk down to the stream as there was a well-trodden path on the other side of the arches!

Overall it was a most enjoyable day, enjoyed by a good number of members. To everyone involved in day, many thanks.



## Lording's Waterwheel Recommissioning

Ron Martin

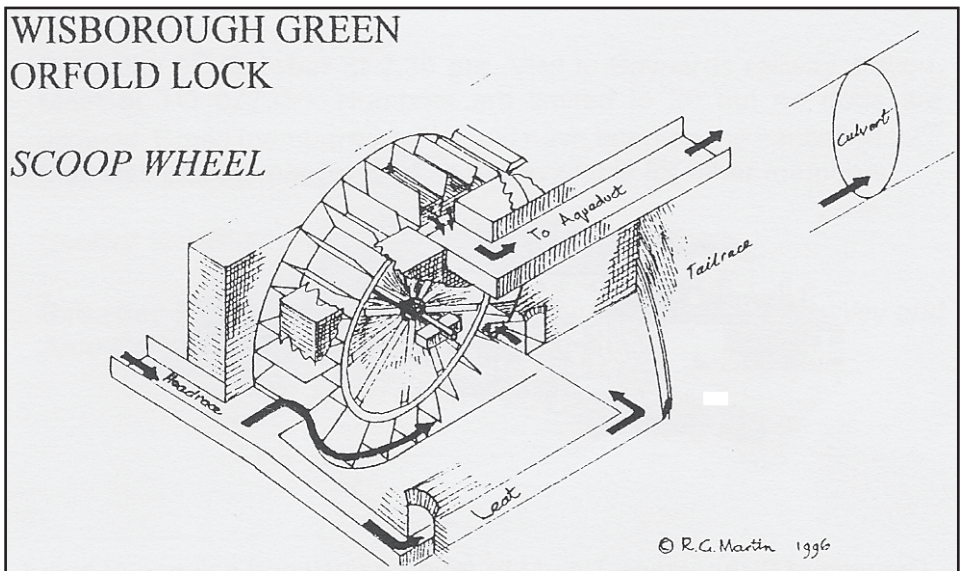
On Sunday 11<sup>th</sup> September 2011, the waterwheel at Lording's Lock was recommissioned during a ceremony that was carried out by the Rt. Hon. Nick Herbert, MP. Originally erected in the late 18<sup>th</sup> century to supply water to the upper pound of the Arun Navigation. The Navigation ran from Pallingham to terminate at Newbridge (on the A272 west of Billingshurst).

The wheel was powered by a low breast-shot scoop wheel which lifted water from the river up into the aqueduct that carried the Navigation over the river.

The wheel became disused in 1816, when the Navigation was connected to the River Wey to create the Wey and Arun Canal. It was rediscovered in 1996 and the design of the structure was investigated and interpreted.

In 2003 the Wey and Arun Canal Trust fitted a new wheel, but this became unbalanced and it was decided that it had to be reconstructed. Now that this has been completed, it is working satisfactorily, at a 14' diameter the wheel, when rotating at a leisurely 2 rpm, lifts 1,800 gallons per hour through a head of about 10'.

A full description of the wheel and pump was included in our *Newsletter No.123*, July 2004, copies of which can be supplied on request to the General Secretary.



## Cast Iron at the Seaside - a Gallery

Martin Snow

A recent enquiry to the Society concerning the the origins of some of the beach Shelters on Worthing front, particularly the one shown here, set me off to see and record, this one dates from 1925, modelled on a listed shelter at Margate.

The supporting columns have grotesque faces for the downpipe outlets and elaborate decoration around the frieze, much detail has been lost to the ravages of time.





There are several shelters built in this style in the 1960s, they replaced some of the Victorian ones lost after WWII. They have been smartened up in recent years. The colour version of these images and views of other shelters together with the related research will be available at the AGM in November.



*(all images; Martin Snow)*

## Did Eastbourne's Tap Water Run Green?

Ron Martin

In the article by John Blackwell in our *Newsletter No.147*, he reports that in 1895, the tap water in Eastbourne ran green as "the water was contaminated with chloride (chlorine) so it is possible that the tap, water did indeed run green and the population were (sic) drinking a (diluted) bleaching agent." I have been investigating this as it seemed to me that this was a strange phenomenon. There is no doubt that the water was hard and contaminated with brine and there are many references to this fact in the *Eastbourne Chronicle* between September and December, 1895, but not once was "green water" mentioned.. This appears to have been first reported in writing by a Mrs. Cecile Woodford, a local historian, who wrote a letter to the *Sussex Life* in January 1970 in which she makes this assertion, even describing it as "bright green" and that it persisted for two years. This was picked up by James Donne, who wrote an article in the July Edition of the same publication, in which he came to the conclusion that the green colour was derived from chlorine, which he described as a green gas, which combined with sodium to create sodium chloride, which is common salt and a constituent of brine. He theorises, quite erroneously that as chlorine gas is green, therefore water contaminated with brine must also be green.

Various authorities I have consulted confirm that although chlorine gas is faintly green when dissolved in water the result is a very pale green. In any event there is no suggestion of free chlorine being present. The only possible explanation for the colouration might have been the presence of algae in the water, although this was never stated in any of the reports made at the time. From 1847 water was being taken from Motcombe Pond which fed the Bourne Stream and was distributed by a pump in Susan Road .There was an outbreak of enteric fever from this source in 1896 and there was considerable disagreement at the time about the shutting down of this source but it is just possible that this was the source of the green water. The lady who started this suggestion was quite elderly at the time she wrote the letter and was possibly repeating rumours that had been around previously but it seems strange that nothing appears to have been written about this between 1895, when the pollution occurred and 1970.

If anyone can offer any explanation for this occurrence or can tell me when the "rumour" first became rife, I will be pleased to hear from them.

**Book Review – Ron Martin**  
***A History of The Keymer Tile Works***

**By Fred Avery**

Keymer Tile Works has been one of the foremost works in Sussex since the nineteenth century, producing good quality bricks and tiles which were used on many buildings throughout South-east England. This book traces the origins of the works and of its many owners in a great deal of detail. The works was originally set up by Sampson Copestake, an entrepreneur who bought large parts of what is now Burgess Hill and the works was well established by 1875, with Henry Johnson, by then a partner, as Johnson & Co. The works was located to the south of Cant's Lane and adjacent to the Eastbourne to Lewes railway line, firing bricks using the clamp system. After a disastrous fire in 1884, the works was substantially rebuilt and was then trading as the Keymer Brick Company, with all bricks being kiln fired and including one large Hoffman kiln. After WWI the works expanded and two more Hoffman kilns, eleven circular beehive kilns and some tunnel kilns were added. One criticism of the book is that there is not a very coherent description of the structures on the site – the architectural drawing (not a sketch) by Ron Martin is only one of building No 1. Brickworks whereas there were several; other drawings were available. Two unfortunate mistakes are that mathematical tiles pre-dated the Brick Tax by several decades and the correct name of the Brighton Children's Hospital was The Royal Alexandra Hospital for Sick Children. It is also unfortunate that some of the illustrations have not reproduced well in my copy.

As a history of the firm and its personalities this is an excellent publication and well worth having for anyone interested in brickmaking and Burgess Hill.

It is an A4 format paper back, comb bound, 32 pages in monochrome, £6 plus £1.50 postage and packing, published by and available from:

Shirley Penny, Burgess Hill Local History Society, 25 Ockley Way, Keymer, HASSOCKS, West Sussex, BN6 8NE.

## Mystery Photo - Where are these?



(Martin Snow)

### Do you know your IA?

These cast iron bollards are listed Grade II.  
Where are they? Why are they listed?

### Update

*Newsletter 151* showed a sight that once accompanied each set of traffic lights, the pneumatic sensor buried in the road that has been replaced by electronics - doing it by wires! The pneumatic road tube was invented in the 1920s.

This neglected example remains in Ham Road East Worthing, long made redundant by the march of technology.

Do you have a suitable puzzling picture that would get other members guessing? If so please let me have it, there are so many strange objects and structures out there, there must be one near to you.

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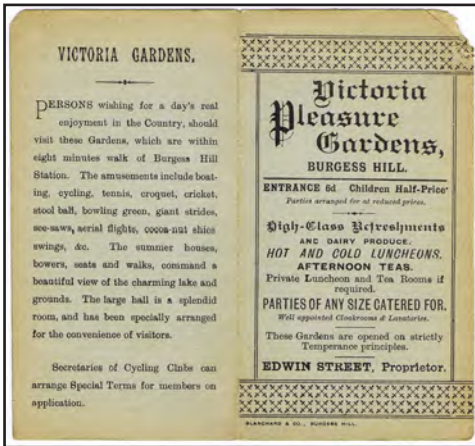
Opinions expressed are those of the respective authors and do not necessarily reflect the views of the Society unless specifically stated.

Subscribing to the Sussex Industrial Archaeology Society gives automatic membership to the Sussex Mills Group.

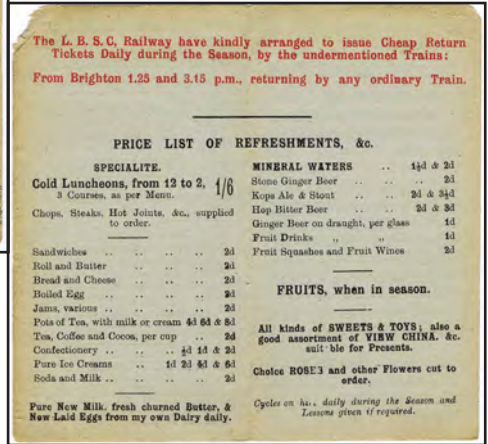
The Sussex Mills Group also produces a Newsletter that is sent to members with this Newsletter.

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A recent find is this ticket from the Victoria Pleasure Gardens, Burgess Hill. The area is now an industrial estate. The original is 5" x 4¾" (Martin Snow)



The newly restored DeWitt Kiln block at Amberley Museum.