

Vokes metal processing and plating division

**Vokes Engineering Ltd of Henley Park, Normandy, Guildford, see page 4**



Illustration from Vokes product brochure



Vokes women workers in the sewing machine section

**The Surrey Archaeological Society Research Centre** at Abinger Hammer is normally open:  
 Mon 10:00-16:00;  
 Tue 10:30-14:00;  
 Wed 10:00-16:00  
 and the first Saturday of each month 10:00-13:30.  
 Phone: 01306 731275.  
**You are welcome to use the library.**

If you missed the **SIHG Membership Renewal Form** in the previous Newsletter, it can be downloaded from [www.sihg.org.uk](http://www.sihg.org.uk) and sent, with a cheque payable to **'Surrey Archaeological Society'**, to Surrey Archaeological Society (SIHG), Hackhurst Lane, Abinger Hammer, Surrey RH5 6SE  
**Please note the new address.**  
 You may also choose to pay by Standing Order.

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## SIHG Newsletter No 223 August 2019

### *Lecture Programmes for Autumn 3019*

*Enquires to Programme Co-ordinator Bob Bryson: meetings@sihg.org.uk.*

**The 44th season of SIHG  
Industrial Archaeology Lectures at Guildford  
Church House Guildford, 20 Alan Turing Road,  
Guildford GU2 7YF**

mainly alternate Tuesdays, 19:30-21:30  
(map: [www.sihg.org.uk](http://www.sihg.org.uk))

Single lectures at £5, payable on the night,  
are open to all.

**Programme and registration form can be  
downloaded from [www.sihg.org.uk](http://www.sihg.org.uk).**

8 October 2019

**Sopwith through the Great War**  
*Chris Farara, The Hawker Association*

22 October 2019

**Military Archaeology of the  
National Trust Surrey Estates**  
*Tom Domett, National Trust Regional Archaeologist*

4 November 2019 **Monday**

**Hearth & Home: Vernacular  
Building Materials of South East England**  
*Dr Geoffrey Mead, University of Sussex*

19 November 2019

**One Thames or Two?  
The Archaeology of London's River**  
*Jon Cotton, Surrey Archaeological Society*

3 December 2019

**RAE Farnborough - 100 Years of Aviation  
Research, Development & Innovation**  
*Dr Graham Rood,  
Curator Farnborough Air Sciences Trust (FAST)*

17 December 2019

**Members' Talks Evening - (free)**  
*Short talks by members  
plus refreshments and a chance to meet others*

The programme continues in 2020

**SIHG Lectures in Leatherhead Autumn 2019**

**Thursday Mornings 10:00-12:00**

**Room G6 The Institute, 67 High Street  
Leatherhead KT22 8AH**

**Non-member full fee £50 SIHG member £45.**

Single lectures at £5, payable on the day, are open to all.

**3 Oct National Aircraft Factory No 2**

*David Hassard*

**10 Oct Guildford 1st WW**

*David Rose*

**17 Oct Capital Ships of the German Navy 1935 - 1945**

*Malcolm Tagg*

**24 Oct Noel Pemberton-Billing**

*Colin van Geffen*

**31 Oct HALF TERM - Possible Visit**

**7 Nov The History of Watermills**

*Bryan Lawton*

**14 Nov Artificial Intelligence (AI)**

**& its impact on Society**

*Richard Rumble*

**21 Nov Gustave Eiffel -**

**The Man, the Statue, the Tower**

*Douglas Irvine*

**28 Nov Ada Lovelace and Charles Babbage,  
computer pioneers**

*Roger Price*

**5 Dec Development, Growth and Decline  
of Bus Services**

*Richard Mellor*

**12 Dec Great Canal Engineers**

*Geoff Roles*

**17 Dec Members' Short Talks**

A full Events Diary has not been included  
in this issue of the Newsletter,  
but selected events in Surrey during the  
Heritage Open Days are listed

Saturday 21 & Sunday 22 September 2019

## **Open House London** *including Croydon*

Pre-Order the *Open House London Guide 2019* £8.50 (postage £2)

The guide will be available mid-August with details of over 800 buildings,  
places, talks and walks that will be opening their doors.

[sales@open-city.org.uk](mailto:sales@open-city.org.uk) 020 7383 2131

## Venues, Times & Contacts of Other Organizations

Most venues open 30 minute before the published time. Please confirm details before travelling!

- Amberley Museum:** New Barn Road, Amberley, nr Arundel, West Sussex BN18 9LT; info 01798 831370, office@amberleymuseum.co.uk.
- Ancient Technology Centre :** 10:00-16:00; £6; Damerham Road, Cranborne, Dorset BH21 5RP; (behind school); 01725 517618, www.ancienttechnologycentre.co.uk.
- Anne of Cleves House:** Tue-Sat 10:00-17:00, Sun-Mon 10:00-17:00; £6.30/£6; 52 Southover High Street, Lewes, Sussex BN7 1JA; 01273 474610.
- Basingstoke Canal Society:** 20:00; Parish Pavilion, Recreation Ground, Station Road, Chobham, GU24 8AJ; www.basingstoke-canal.org.uk/, contact - Malcolm Brickwood, coronal066@yahoo.com, 07437 200021.
- BIAG, Berkshire Industrial Archaeology Group:** 19:30; £2-50; St Mary's Church Hall, Castle Street, Reading, RG1 7RD; www.biag.org.uk.
- Brixton Windmill :** Windmill Gardens, West end of Blenheim Gardens, Off Brixton Hill, London SW2 5EU.
- Brooklands:** open Summer 10:00-17:00, Winter 10:00-16:00; £11/£9.90; Brooklands Rd, Weybridge, Surrey KT13 0QN; www.brooklandsmuseum.com; 01932 857381.
- Brunel Museum:** Railway Avenue, Rotherhithe, London SE16 4LF; www.brunel-museum.org.uk; 020 7231 3840.
- Chatham Historic Dockyard:** 10:00-18:00, online £22/£19-50 (season ticket); Chatham, Kent ME4 4TZ; www.thedockyard.co.uk; 01634 823800.
- Coultershaw Beam Pump :** waterwheel, C18 pump & C21 turbine; E side of A285, 1½ miles S of Petworth at the river bridge GU28 0JE; www.coultershaw.co.uk.
- CNHSS, Croydon Natural History & Scientific Society:** 19:45; free? UR Church Hall, Addiscombe Grove, E Croydon CR0 5LP; http://cnhss.co.uk; 0208 668 1431.
- Crossness Engines:** 10:30-16:00, £8; The Old Works, Crossness STW, Belvedere Road, Abbey Wood, SE2 9AQ; www.crossness.org.uk; 020 8311 3711.
- Croydon Airport Visitor Centre:** Open, guided tours first Sun of month, 11:00-16:00, free; Airport House, Purley Way, Croydon CR0 0XZ.
- Didcot Railway Centre:** 10:30-17:00; £10-00/£9-50; Didcot Parkway railway station, Didcot, Oxfordshire OX11 7NJ; www.didcotrailwaycentre.org.uk; 01235-817200.
- Docklands History Group:** 18:00, £2; Museum of London Docklands, West India Quay, Hertsmere Rd, Canary Wharf, London E14 4AL; 01689 851982; www.docklandshistorygroup.org.uk.
- Gatwick Aviation Museum:** Open Fri, Sat and Sun; 09:30-17:00; £7-50; Vallance-Byways, Lowfield Heath Road, Charlwood RH6 0BT; Exhibits are photo-friendly; www.gatwick-aviation-museum.co.uk/; 01293 862417.
- Godalming Museum :** Open Tue-Sat; 10:00-17:00; 109A High Street Godalming, Surrey GU7 1AQ; 01483 426 510.
- GLIAS, Greater London Industrial History Society:** 18:00; Alan Baxter Associates, 75 Cowcross Street (through the archway, in the basement at the rear of the building), Farringdon, EC1; www.glias.org.uk., info Tim Sidaway, secretary@glias.org.uk.
- Greenwich Industrial History:** 19:30, £1; Old Bakehouse, rear of Age Exchange Centre, opp Blackheath Stn, Bennett Park, 11 Blackheath Village, SE3 9LA; no parking.; http://greenwichindustrialhistory.blogspot.com.
- Haslemere Educational Museum:** Open Tues to Sat 10:00-17:00; admission by donation; 78 High Street, Haslemere, Surrey GU27 2LA; www.haslemere-museum.co.uk; 01428 642112.
- HIAS, Hampshire Industrial Archaeology Society:** 19:45, free; Underhill Centre, St John's Road, Hedge End, Hants SO30 4AF; www.hias.org.uk; 01962 855200.
- Honeywood Museum:** open Wed-Fri 11:00-17:00, Sat-Sun, BH Mon 10:00-17:00, free; Honeywood Walk, Carshalton SM6 3NX; 020 8770 4297.
- Honeywood Museum Friends:** 19:30, £4-50; www.friendsofhoneywood.co.uk; 020 8642 4778.
- House Mill:** tour£4; 11:00-16:00; no booking; Three Mill Lane, Bromley-by-Bow E3 3DU; www.housemill.org.uk; info 020 8980 4626, info@housemill.org.uk.
- IWA, Inland Waterways Association:** £10/£8; www.waterways.org.uk; 0203 612 9624.
- Kempton Steam Museum:** 10:30-16:00, £7/£6; Snakey Lane, off elevated A316, Hanworth, Middx; entrance TW13 7ND; www.kemptonsteam.org; 01932 765328.
- Kirkaldy Testing Museum:** first Sunday of month; 11:00-17:00; guided tours; 99 Southwark Street, London SE1 0JF; www.testingmuseum.org.uk
- London Bus Museum:** see Brooklands.
- London Canal Museum:** 10:00-16:30; Talks 19:30, £4/£3; 12/13 New Wharf Road, London N1 9RT; www.canalmuseum.org.uk; 0207 713 0836.
- London Museum of Water and Steam:** Wed-Sun; 10:00-16:00; Green Dragon Lane, Brentford, Middx TW8 0EN; www.waterandsteam.org.uk; 020 8568 4757.
- London Sewing Machine Museum:** 14:00-17:00; 308 Balham High Road, London SW17 7AA; 020 8682 7916. www.craftysewer.com/acatalog/London\_Sewing\_Machine\_Museum.html
- Mapledurham, Watermill:** pre-booked guided tour + cream tea £10; Tue, Wed, Thu; Mapledurham, Reading RG4 7TR; www.mapledurhamwatermill.co.uk; over 18s only; 07843 742833.
- Markfield Beam Engine and Museum:** 11:00-17:00, cost? Markfield Road, South Tottenham, London N15 4RB; www.mbeam.org; info @mbeam.org; 01707 873 628.
- Michelham Priory Watermill:** most afternoons, £9.80/£8.80; Upper Dicker, Hailsham, East Sussex BN27 3QS; 01323 844224.
- Museum of London:** 150 London Wall, London EC2Y 5HN; www.museumoflondon.org.uk.
- Museum of London Docklands:** Mon-Sun: 10:00-18:00; no.1 Warehouse, West India Quay, London E14 4AL; www.museumoflondon.org.uk/docklands, info.docklands@museumoflondon.org.uk, 020 7001 9844
- Newcomen Society London:** 17:45, free; Dana Studio, 165 Queen's Gate, Kensington, London SW7 5HD; http://newcomen.com.
- Postal Museum:** 10:00-17:00; online £16 with ride on the Mail Rail; please book; 15-20 Phoenix Place, London WC1X 0DA; www.postalmuseum.org, 0300 0300 700.
- Portsmouth Historic Dockyard :** 10:00-17:30, site ticket, annual £26/£24.25; HM Naval Base, Portsmouth PO1 3LJ; www.historicdockyard.co.uk; 02392 728060.
- Reigate Caves:** Barons' Cave £2/£1.50, Tunnel Road: £3/£2; 10:00-16:00; (Barons Cave is not suitable for those with significant mobility difficulties).
- Royal Gunpowder Mills:** 10:00-17:00; Beaulieu Drive, Waltham Abbey, Essex, EN9 1JY; £10.50/£9; www.royalgunpowdermills.com/.
- Rural Life Centre:** open Summer Wed-Sun 10:00-17:00 + Bank Holiday Mondays, £8-50/£7-50; Old Kiln Museum, Reeds Road, Tilford, Farnham, Surrey GU10 2DL; www.rural-life.org.uk; 01252 795571.
- STEAM - Museum of the Great Western Railway:** 10:00-17:00, £8/£6-50; Firefly Avenue, Swindon SN2 2EY; www.steam-museum.org.uk; 01793 466 646.
- Twyford Waterworks :** 11:00-16:00, £7/£6; Hazeley Road, Twyford, Hampshire SO21 1QA; info 07516 458900, enquiries@twyfordwaterworks.co.uk
- WACT, Wey & Arun Canal Trust:** The Granary, Flitchfold Farm, Loxwood, Billingshurst West Sussex, RH14 0RH; 01403 752403, office@weyandarun.co.uk.
- Watercress Line, Mid Hants Railway:** all day travel £14, free on non-running days; Station Rd, Alresford, Hants SO24 9JG; (or Station Rd, Alton, Hants GU34 2PZ); www.watercressline.co.uk; 01962 733810.
- Wealden Iron Research Group (WIRG):** www.wealdeniron.org.uk/.
- Wey & Arun Canal Trust:** The Granary, Flitchfold Farm, Loxwood, Billingshurst West Sussex, RH14 0RH; office@weyandarun.co.uk; 01403 752403 (Mon - Fri 09:30 - 13:30)
- Whitchurch Silk Mill:** Tue-Sun, bank hols; tours on some days 14:00; 28 Winchester St, Whitchurch, Hants RG28 7AL; www.whitchurchsilkmill.org.uk, 01256 892065.

## Vokes Engineering Ltd of Henley Park, Normandy, Guildford *by Robert Simonson, Surrey History Centre*

Many technical and scientific innovations have owed much to the knowledge and expertise of dedicated people spending long hours working on a problem until the best solution was found. One such was Cecil Gordon Vokes whose personal archives relating to Vokes Engineering Ltd are held at Surrey History Centre.

Cecil Vokes was born in 1891. He trained as an engineer at John Thornycroft and Co Ltd, Southampton, and from 1916 to 1921 he was chief engineer at the Alliance Aeroplane Company before starting his own business. After various inventions applicable to the motor industry, Vokes became interested in filters. He invented a very efficient system of filtration, initially for air, and carried out many of the tests on his own Lagonda car.

Vokes Ltd was formed as a public company with share capital in 1936 and went on to play an important role in Surrey's 20th century industrial history. There was a factory works at Lower Richmond Road, Putney, and property at Alton, Hampshire, was purchased in 1938 to cope with additional demand. The Putney site was demolished by enemy bombing in October 1940 and the company moved to Henley Park, Normandy, near Guildford, in the spring of 1941.

Vokes filters were widely fitted to tanks and aircraft and were vital in helping to combat the appalling conditions of sand and dust faced in the deserts of North Africa and the Middle East during the Second World War. Vokes also devised a flame trap for the exhausts of night fighters which protected them from being spotted.

Cecil Vokes retired from the company in the early 1950s and died in 1961. His son Gordon Heatherton Vokes was born in 1919. From 1937 to 1947 he worked for the Bristol Aeroplane Co Ltd, initially as a student apprentice, and from 1948 to 1963 played a key role with Vokes Ltd in development and design. By 1969 the holding company, known as Vokes Group Ltd, with its registered office at Henley Park, had two manufacturing divisions in extensive factory premises.

The General Engineering Division manufactured filtration equipment (including air, oil, fuel and water filters) and effluent treatment equipment and other specialised engineering products, including pipe supports and expansion bellows, food and tobacco processing equipment and metal treatment plant. The Orthopaedic Appliances Division manufactured orthopaedic aids, artificial limbs and related hospital equipment.

The Group had six factories in England and Scotland, and its overseas operations included subsidiaries in France, Holland and Australia, and an associated company in India. From the early 1970s onwards the company was subject to a variety of changes of ownership. It is currently called Vokes Air and is now based in Burnley, Lancashire.



Illustration from Vokes product brochure

The archive (SHC ref 9127) includes annual reports, patents, technical papers on filters, product brochures, publicity leaflets and photographs, including of the Henley Park factory shop floor and workers. □

Many thanks to Di Stiff, archivist at the Surrey History Centre, for sending us this article.



Image of a Vokes filter from Ash Museum

### Images

From Henley Park photograph album: metal processing and plating division, paint spray booths and infra-red drying oven, 1954 (SHC ref 9127/1/7/10)

Promotional photographs from Vokes air and fuel filter product brochures, 1970s-1980s (SHC ref 9127/1/4/22)

From Henley Park photograph album: filter element manufacturing department, women workers in the sewing machine section, 1954 (SHC ref 9127/1/7/10)

Image of a Vokes filter from Ash Museum  
Courtesy of Ash Museum

## The Advance of Technology

by Robert Bryson

Sometimes one has a perception that a particular technology has been around for a long time, only to find on investigation that its life span was actually quite short. The advent of new technology renders the old obsolete much quicker than expected. Other technologies have evolved and been with us in various forms for centuries. If I can give two simple example from our generation; I don't think many people taking their holiday snaps in the 1950-1990 would image that camera would soon not require film. Nor would those same people living in their new homes with gas fired central heating imagine that the local gas works were about to close, not to mention virtually all the national collieries. The last deep mine in the UK, at Kellingley in Yorkshire, closed in December 1915.

### Wind and Water Power

Windmills date from antiquity and Heron of Alexandria is known to have built a small one to power an organ. In the Middle East horizontal windmill with a vertical axis used to grind or draw up water date from before the tenth-century. Vertical windmills appeared in Europe from about 1185 and became popular in the 14th century reaching a peak in 1850. While traditional windmills may now be obsolete wind turbines are now up and coming; large off-shore examples can now generating up to 10 megawatts under favourable conditions.

Similarly, the first documented use of watermills was in the first century BC and the technology spread quite quickly across the world. Commercial mills were in use in Roman Britain and by the time of the Domesday Book in the late 11th Century there were more than 6,000 watermills in England. By the 16th Century waterpower was the most important source of motive power in Britain and Europe. The number of watermills probably peaked at more than 20,000 mills by the 19th Century. Like windmills the traditional form of waterwheel is little used but water turbines are still a feature of large and small hydroelectric schemes; be it the large pumped storage scheme at Dinorwig in Snowdonia capable of supplying up to 1,728 megawatts, or the installation by the Mill Theatre in Guildford capable of supplying up to 45 kilowatts at best.

### Steam Powered Transport

The concept of steam engines also dates from antiquity, but I will take 1712 as my start date being the year that Thomas Newcomen installed the first commercial pumping engine. One hundred and four were installed by 1733 and over 200 eventually in use. Richard Trevithick built the first self propelled steam car in 1801. He also built and demonstrated the first passenger carrying steam train in 1808. Between 1820 and 1840, steam-powered stagecoaches enjoyed some success but these were later banned from public roads leaving steam to power Britain's growing rail network.

For my date for the introduction of the steam train I will take 1825, the opening of the Stockton to Darlington Railway. But for reliable steam powered road traction I will select 1840 the year that Ransomes built the first traction engine. Other manufacturers like Aveling, Burrell, Clayton, Fowler and Garrett were not far behind. The last steam traction engines were built in the 1930s giving the technology nearly a 100 year life span.

Steam ships, cars and machinery are now all things of the past. Steam however is still being used in the process industries and to drive turbo-generators at very large power stations. Taking 1968 when the last steam train was withdrawn, as an arbitrary date for the end of the steam era one could say that steam power in transport had a life of some 143 years (1825-1968) while its use in stationary applications is ongoing (1712 to date)

### Electric Traction

Moving on to consider electric traction, between 1832 and 1839 Robert Anderson of Scotland invented and demonstrated the first heavy electric carriage. Such vehicles relied on rechargeable batteries that were not very efficient; electricity was more practical when used to power tramways where a constant supply of electricity was possible. As many of you will be aware Volk's Electric Railway is the oldest electric railway in the world. This narrow gauge heritage railway still runs along a length of the seafront in Brighton. It was built by Magnus Volk in 1883.

The first trial of an electric tram took place in London in the same year, 1883, on the West Metropolitan Tramway Line which ran between Acton and Kew. However, the first full electric tram service was not established in Croydon, London until the last year of Victoria's reign, 1901, (Ironically Croydon still has a tram services, although of modern design.)

By 1952 trams had already been phased out in several English cities with some of London's old trams being sent to Leeds where they remained in service until 1959. Ten years after the demise of London's trams, trolleybuses followed them into oblivion. The life span of the tram in Britain in its original form was, say, 60 years.

Steam and gasoline engines were not the only engines used in early automobiles. It was not until 1880-85 that electric traction using batteries was used successfully to power cars and bicycles. In 1880 a French engineer Gustave Trouvé improved the efficiency of a small electric motor developed by Siemens. Using the recently developed rechargeable battery, he fitted it to an English James Starley tricycle, so inventing the world's first electric vehicle.

English inventor Thomas Parker built the first production electric car in London in 1884, using his own specially designed high-capacity rechargeable



batteries. Interest in motor vehicles increased greatly in the late 1890s and early 1900s. Walter C. Bersey designed a fleet of electric battery-powered taxis and introduced them to the streets of London in 1897.

In 1900, for example, in America electric vehicles out-sold all other types. In Europe Belgian Camille Jenatzy set a world speed record of 65.79 mph in 1899 in a new streamlined electric car 'La Jamais Contente', the first car purposely designed to break the record. Jenatzy incidentally went on to win the Gordon Bennett Race of 1903 in a (gasoline) Mercedes. Sales of electric vehicles declined a few years later and have only now begun to rise again. So other than milk float etc. the early electric car appeared just before the gasoline examples but had a life span of say 25 years; very similar to the reign of the steam car (1895-1924).

**Coal Gas & early lighting**

William Murdoch was the first to exploit the flammability of gas for the practical application of lighting. He worked for Matthew Boulton and James Watt at their Soho Foundry steam engine works in Birmingham. In the early 1790s, while overseeing the use of his company's steam engines in tin mining in Cornwall, Murdoch began experimenting with various types of gas, before settling on coal-gas. He first lit his own house in Redruth, Cornwall in 1792. In 1798, he used gas to light the main building of the Soho Foundry and in 1802 lit the outside in the first public display of gas lighting. The UK town gas industry died in 1987 when operations ceased at the last town gas manufacturing plants in Northern Ireland. The life span of 1802-1987 was thus some 185 years

I thought that gas lights with gas mantles were around long before electric light. This is not true, it could be said that gas mantles were developed to enable gas to compete more effectively with early electric lamps. Carl Auer von Welsbach established a factory in Atzgersdorf in 1887 to make gas mantles, but the company failed. In 1890 he discovered that thorium was superior to the magnesium he had previously used, and in 1891 he perfected a new mixture of mainly thorium dioxide and that gave off a much whiter light and produced a stronger mantle. After introducing this new mantle commercially in 1892, it quickly spread throughout Europe. The gas mantle remained an important part of street lighting until the widespread introduction of electric lighting in the early 1900s. The life span was about 30 years, although surprisingly London still has around 1,500 functioning gas lamps, although coal gas is no longer used.

Meanwhile Joseph Wilson Swan devised a method of treating cotton to produce 'parchmentised thread' in the early 1880s and obtained a patent that same year. His house, Underhill, Low Fell, Gateshead, was the first in the world to be lit by a light bulb. The home of Lord Armstrong at Cragside was also among the first houses to be lit by electricity. The first street in the world to be lit by an incandescent light bulb was Mosley

Street, Newcastle upon Tyne. It was lit by Joseph Swan's incandescent lamp on 3 February 1879. Incandescent light bulbs are now of course obsolete. EU regulations, aimed at reducing energy consumption, have made their sale illegal except for special applications. The life span was say 133 years (1879-2012)

**Pedal Power**

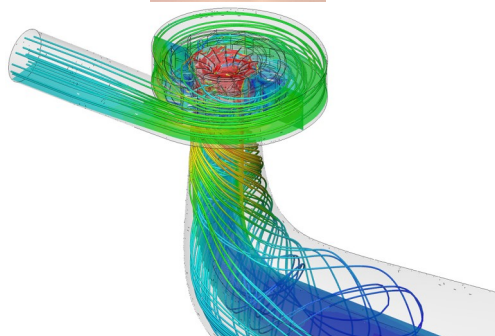
Another development that was very quickly eclipsed was the bicycle. I would have thought that such a relatively simple mechanical device would date, in its modern form, from around the time of the steam locomotive and not just a few years before the car was invented.

While the velocipede (hobby horse with no pedals) may date from 1817 the first mechanically propelled bicycle was built by a Scottish blacksmith in 1835. James Starley founded the Coventry Sewing Machine Company in 1861 going on to make high bicycles, called Ordinary or penny-farthings in the 1870s in what was Britain's first cycle factory.

Starley's sons continued manufacturing cycles after his death but it was his nephew John Kemp Starley who in 1884 devised 'The Rover' the first recognizably modern bicycle with 26-inch wheels, chain drive, and a diamond-shaped frame. The golden age of the bicycle being ushered in when in 1888, the Scotsman John Boyd Dunlop introduced the first practical pneumatic tyre, which soon became universal. The Raleigh Bicycle Company was also founded in Nottingham that year. They went on to become the largest bicycle manufacturing company in the world, making over two million bikes per year.

So, contrary to my impression, people were not cycling around for many years before the invention of the car. The golden age of cycling started in the same year that Karl Benz' wife Bertha Benz famously took his car on its first road trip. Many people would however continue to use bicycles after cars went into production because of the high cost of motor vehicles.

In conclusion some technologies like water power have been with us a couple of thousand years and continue to be used. Others like electric cars, wind power and arguably the bicycle reached a peak then virtually died out, only to find new opportunities in the modern energy-conscious era. Many like the steam train, traction engine, gas mantle and incandescent light bulb once played an important role in our lives but are now no more. Even steam power and King Coal are not what they were; I leave you with the thought: will oil be next to go? □



Friday 13 – Sunday 22 September 2019  
**Heritage Open Days in Surrey**  
 This year the open days are spread over two weeks  
[www.heritageopendays.org.uk/](http://www.heritageopendays.org.uk/)

**Buckland Windmill**

Yewdells, Dungates Lane, Buckland, Betchworth, Surrey,  
 RH3 7BD  
[www.bucklandsurrey.net/village-history/buckland-windmill/](http://www.bucklandsurrey.net/village-history/buckland-windmill/)  
 Sunday 22 September: 1300-1700

**Manor Farm Tithe Barn and Barnes Wallis Anniversary**

Manor Farm, Manor House Lane, Bookham, Surrey,  
 KT23 4EW  
 Saturday 14 September: 0900 - 1700  
 No booking required  
 Contact for the day: Mrs Carolyn Nicolls  
[www.visitleatherhead.com](http://www.visitleatherhead.com)  
[www.molevalley.gov.uk](http://www.molevalley.gov.uk)

**Carshalton Water Tower**

West Street, Carshalton, Surrey, SM5 3PS  
 Saturday 21 September: 1300 - 1700  
 Sunday 22 September: 1300 - 1700

**Deepdene & the Wartime Railway**

The Green Room Theatre, Rear of Dorking Halls,  
 Reigate Road, Dorking, Surrey, RH4 1SG  
 Thursday 19 September: 1930 - 2100  
 No booking required  
 Max 80 people per tour/session.  
 Talk takes 1 1/2 hours including time for Q&A.  
 Contact for the day: Gail Mackintosh  
[www.deepdenetrail.co.uk](http://www.deepdenetrail.co.uk)

**Dorking Brewery Tour**

Temple Barn, Temple Lane, Capel, Dorking,  
 Surrey, RH5 5HJ  
 Saturday 21 September: 1100  
 Sunday 22 September: 1100  
 Pre-booking: Required  
 Contact: Neel, 01306877988  
[info@dorkingbrewery.com](mailto:info@dorkingbrewery.com)

**Dorking Cave Tours**

next to War Memorial, South Street, Dorking,  
 Surrey, RH4 2HQ  
 Saturday 21 September: Tour 1000, 1100, 1300, 1400  
 Pre-booking Required: all tours must be booked on the  
 Dorking Museum website on the Caves web page  
[www.dorkingmuseum.org.uk/south-street-caves/](http://www.dorkingmuseum.org.uk/south-street-caves/)  
 Access WC nearby. No wheelchair access.  
 Max 12 people per tour/session. 45 mins.  
 Please come 10 mins early for the safety briefing.  
 The entrance is beside the War Memorial in South Street.  
 Contact for the day: Jean Ward 07788 231130  
[www.dorkingmuseum.org.uk/south-street-caves](http://www.dorkingmuseum.org.uk/south-street-caves)  
[www.molevalley.gov.uk](http://www.molevalley.gov.uk)  
 Meet 10 mins before your tour starts.

**Keymer Handmade Clay Roof Tiles & Wienerberger Factory Tour**

Wienerberger Ltd, Walliswood, Dorking,  
 Surrey, RH5 5QH  
 Saturday 14 September: 10.00 - 15.00  
 Pre-booking: Required for Factory tours  
 Visitors Center is free to explore throughout the day  
 Booking Contact: Beth Edwards 07831 389253  
[beth.edwards@wienerberger.com](mailto:beth.edwards@wienerberger.com)  
 Booking closes: 10 September 2019 17:00  
 Max 13 people per tour/session. 1 hour for full tour.  
 The factory tours will be every half hour,  
 starting at 10.30am with a final tour at 2.00pm.  
 Contact for the day: Beth Edwards - 07831 389253  
[www.keymer.co.uk](http://www.keymer.co.uk)  
[www.wienerberger.co.uk](http://www.wienerberger.co.uk)  
 Please use Sat Nav postcode RH5 5QH and follow signs  
 for 'Ewhurst Brickworks' when approaching the factory.

**Surrey Archaeological Society****Abinger Research Centre**

Abinger Hammer Village School, Hackhurst Lane,  
 Abinger Hammer, Dorking, Surrey, RH5 6SE  
 Sunday 15 September: 1100-1600  
 No booking required  
 Contact for the day: Anne Sassin 07896 125207  
[www.surreyarchaeology.org.uk](http://www.surreyarchaeology.org.uk)

**Rural Life Centre**

Reeds Road, Tilford, Farnham, Surrey, GU10 2DL  
 Saturday 21 September: 10.00-17.00,  
 tours at 14.00 and 15.30  
 No booking required  
[www.farnhamsociety.org.uk](http://www.farnhamsociety.org.uk)  
[rural-life.org.uk/](http://rural-life.org.uk/)

**Adam Aaronson Glass Studio**

Foxbury Barn, Epsom Road, West Horsley, Guildford,  
 Surrey, KT24 6AR  
 See glassblowing demonstrations  
 Glass gifts and decorative accessories on sale in the gallery.  
 Friday 13 September: Glassblowing demonstrations  
 session one 1430-1530, session two 1600-1700  
 Saturday 14 September: Glassblowing demonstrations  
 session one 1430-1530, session two 1600-1700  
 Sunday 15 September: Glassblowing demonstrations  
 session one 1430-1530, session two 1600-1700

**Chilworth Gunpowder Mills**

Chilworth, Guildford, Surrey  
 Sunday 15 September: 1230-1430  
 No booking required

**Shere Museum**

Gomshall Lane, Shere, Guildford, Surrey, GU5 9HE  
 Saturday 14 September: 1400-1700  
 Sunday 15 September: 1400-1700  
 No booking required

**Dapdune Wharf**

River Wey & Godalming Navigations, Dapdune Wharf,  
Wharf Road, Guildford, Surrey, GU1 4RR

Saturday 14 September: 1100-1700 (2pm guided walk)

Saturday 21 September: 2pm guided walk

No booking required

[www.nationaltrust.org.uk/riverwey](http://www.nationaltrust.org.uk/riverwey)

[www.guildford.gov.uk/heritageopendays](http://www.guildford.gov.uk/heritageopendays)

**Dapdune Wharf and Town Wharf - Guided Walk**

Dapdune Wharf, Guildford, Surrey, GU1 4RR

Led by a representative from The National Trust.

Join a guided walk from Dapdune Wharf to the  
Treadwheel Crane at the Town Wharf in Guildford.

Saturday 14 September: 1400

No booking required

Meet at Dapdune Wharf, Wharf Road, GU1 4RR

[www.guildford.gov.uk/heritageopendays](http://www.guildford.gov.uk/heritageopendays)

**Dapdune Wharf WWII heritage walk**

River Wey & Godalming Navigations, Dapdune Wharf,  
Wharf Road, Guildford, Surrey, GU1 4RR

Sunday 15 September: 1400-1730

Pre-booking Required

The walk is free, but there is a maximum capacity,  
so booking is required.

Booking Contact: Navigations Office 01483 561389

[riverwey@nationaltrust.org.uk](mailto:riverwey@nationaltrust.org.uk)

[www.nationaltrust.org.uk/riverwey](http://www.nationaltrust.org.uk/riverwey) or write to:

Dapdune Wharf, Wharf Rd, Guildford, GU1 4RR

Max 30 people per tour/session.

The walk will take approx 3.5 hours

Contact for the day: Richard Cant

**Guildford Model Engineering Society**

Stoke Park, Burchatts Farm, London Road,  
Guildford, Surrey, GU1 1TU

Sunday 15 September: 1200 - 1700

No booking required

[www.guildford.gov.uk/heritageopendays](http://www.guildford.gov.uk/heritageopendays)

**Henley Fort**

The Mount, Guildford, Surrey, GU2 4RH

Period re-enactors of the

Queen's Royal West Surrey Regiment

Sunday 15 September: 1100-1500

No booking required

**Industrial history of the Wey and Tillingbourne rivers**

Yvonne Arnaud Theatre, Millbrook, Guildford,  
Surrey, GU1 3UX

Moderate 2 hr walk along the River Wey to Shalford Mill.

Saturday 14 September: 1100 guided walk.

Meet at 1030 at Yvonne Arnaud Theatre, Millbrook,  
Guildford, GU1 3UX

No booking required

The walk is four miles. Please bring water, appropriate  
footwear and weatherproof clothing essential.

[www.guildford.gov.uk/heritageopendays](http://www.guildford.gov.uk/heritageopendays)

**Shalford Mill**

The Street, Shalford, Guildford, Surrey, GU4 8BS

Saturday 14 September: 1100 - 1600

Sunday 15 September: 1100 - 1600

No booking required

**Foxenden Quarry Air Raid Shelter**

The Trinity Centre, High Street, Guildford, Surrey

Illustrated talk given by Doug Scott,

local historian and member of

The Guildford Society Design and Heritage Group.

Saturday 14 September: 1215

**The Pigeon House**

Estate Yard, Albury Park, Albury, Guildford, Surrey

Sunday 15 September: 1100-1700

No booking required

[www.guildford.gov.uk/heritageopendays](http://www.guildford.gov.uk/heritageopendays)

**The Treadwheel Crane**

Town Wharf, Millbrook, Guildford, Surrey

Saturday 14 September: 1030 - 1630

No booking required

**World War Two heritage walk**

Five mile walk taking in the river and surrounding area,  
looking at what evidence of those dark days still exists.

Sunday 15 September: 1400 - 1800

No booking required

[www.guildford.gov.uk/heritageopendays](http://www.guildford.gov.uk/heritageopendays)

Meet at Dapdune Wharf, Wharf Road, GU1 4RR

**Lowfield Heath Windmill**

Lowfield Heath Windmill, Russ Hill, Charlwood, Horley,  
Surrey, RH6 0EL

Saturday 21 September: 1330-1700

Sunday 22 September: 1330-1700

No booking required

Max 10 people per tour/session. Tour last 30 minutes

Contact for the day: 07881951400

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

[www.molevalley.gov.uk](http://www.molevalley.gov.uk)

**Coombe Conduit**

Lord Chancellor Walk, Coombe Lane West,  
Kingston upon Thames, Surrey, KT2 7HE

Sunday 22 September: 1200-1600

No booking required

Max 10 people per tour/session.

Tour takes about 20 minutes.

Water flow was driven by gravity and the buildings show  
evidence of recycling of stonework. More information can  
be obtained from

[https://historicengland.org.uk/listing/the-list/  
list-entry/1080099](https://historicengland.org.uk/listing/the-list/list-entry/1080099)

Contact for the day: Dr. David Kennedy

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

[kingstonhod.wordpress.com](http://kingstonhod.wordpress.com)

**Kingston medieval bridge and Undercroft**

John Lewis plc, Wood Street, Kingston upon Thames,  
Surrey, KT1 1TE

On the riverside adjacent to the current Kingston bridge

Saturday 14 September: 10am-3pm

Sunday 15 September: 10am -3pm

No booking required

Max 30 people per tour/session. 15- 30 minutes

Contact for the day: 07713820039

[www.johnlewis.com](http://www.johnlewis.com)



**Spies and Trained Assassins:****How events in the Mole Valley****Changed the direction  
of World War Two**

Leatherhead Community Association,  
Leatherhead Institute,  
67 High Street, Leatherhead, Surrey, KT22 8AH  
Talk by Lorraine Spindler  
Saturday 21 September: 1100  
No booking required

**The Museum of Military Medicine**

The Museum of Military Medicine, Keogh Barracks,  
Ash Vale, Mytchett, Surrey, GU12 5RQ  
Friday 13 September: 0930 - 1530  
Saturday 14 September: 0930 - 1530  
No booking required  
Please note ID required for access.  
01252 868612  
www.museumofmilitarymedicine.org.uk  
www.guildford.gov.uk/heritageopendays

**Barons' Cave, Reigate**

Castle Walk in the Castle Grounds, Reigate, Surrey  
Guided tours of ancient tunnels beneath Reigate Castle  
Tours last 30-40 minutes and are conducted  
by experienced volunteers.  
Saturday 14 September: 1000 - 1600  
No booking required  
30-40 minutes  
www.reigatecaves.com/

**Reigate Fort Open Day**

Reigate Fort, Reigate Hill, Reigate, Surrey, RH2 0HX  
Sunday 22 September: 1000 - 1500  
No booking required  
www.nationaltrust.org.uk/reigate-hill-and-gatton-park/  
features/reigate-fort-at-reigate-hill-and-gatton-park

The deadline for **submitting copy** for the next Newsletter is

**20 October 2019**

*Submissions are accepted by email to [news@sihg.org.uk](mailto:news@sihg.org.uk), on a memory stick or  
even in typescript.*

**Anything related to IA will be considered.**

*Please note that our Web address will be upgraded in the near future  
to be recognized as secure:*

**<https://www.sihg.org.uk>**

The SIHG Newsletter is now issued quarterly, covering:

**February**  
**March**  
**April**

**May**  
**June**  
**July**

**August**  
**September**  
**October**

**November**  
**December**  
**January**

Published by Surrey Industrial History Group,  
printed by YesPrint 3 Leafy Oak Workshops Cobbetts Lane Yateley GU17 9LW  
© SIHG 2019 ISSN 1355-8188

SIHG is a group of the Surrey Archaeological Society,  
Registered Charity No 272098 - Castle Arch Guildford Surrey GU1 3SX

**Surrey Industrial History Group Officers**

Chairman & Lectures Organiser: **Robert Bryson** [meetings@sihg.org.uk](mailto:meetings@sihg.org.uk)

Secretary: **Hugh Anscombe** [info@sihg.org.uk](mailto:info@sihg.org.uk)

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Newsletter Editor: **Jan Spencer** [news@sihg.org.uk](mailto:news@sihg.org.uk)