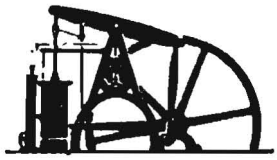

SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

NEWSLETTER No. 10. APRIL 1976

S.I.A.S. NEWS

Sussex Industrial History. The Society is pleased to report that the first of the revived issues of our Journal, Sussex Industrial History, is now available and is circulated to Members along with this Newsletter.

The financial viability of this undertaking depends, of course, on adequate sales being made to the general public; the General Secretary or the Editor would welcome any suggestions for giving the Journal appropriate publicity; in particular, although many of the better-class bookshops in the area have been approached and have agreed to take copies, the Secretary or Editor would be pleased to hear of any that have apparently been missed.

Southern Television. The project mentioned in the January Newsletter, for a series of programmes to be prepared by Southern Television on old ways of life in south England has unfortunately had to be postponed for economic reasons.

Southern Industrial History Centre. Negotiations are now in hand, and are proceeding satisfactorily, for the Southern Industrial History Centre to acquire from the West Sussex County Council a lease of part of the old chalk pits at Amberley. It is intended to establish a partly open-air museum there to illustrate the industrial history of the South of England and to act as a centre for the various societies at present working in the field of Industrial Archaeology. A Charitable Trust has been formed for this purpose and much material has already been collected and is in store in various places in the County.

Bibliography. Parts 23 and 24, prepared by Hugh Gordon are enclosed with this Newsletter.

'Industrial Past'. The General Secretary has a few copies of the Winter 1975 issue at 20p. each if any member wishes to obtain one. This publication was first mentioned in the October 1975 issue of the Newsletter.

VISITS

Hayles Paper Mill. Members are reminded of the possible visit to Hayles Paper Mill, Maidstone, to see the manufacture of hand-made paper which was referred to in the January issue of the Newsletter. The open days are on 28th and 29th April, and members who would like to visit the mill MUST get in touch with the General Secretary as it is a special favour from the owners to allow us to come on these open days and the numbers are severely limited. Applications to come on the visit should reach the General Secretary before Easter.

Brighton Intercepting Sewer. Tuesday May 18th, 7.30 p.m. Meet on the Lower Promenade between the Palace and West Piers at Archway No.260. The visit will last about 2 hours. Conditions are suitable for ladies although a vertical ladder has to be negotiated. The number is limited to 25 and so will Members wishing to take part please notify the General Secretary not later than May 4th. Reference to the Brighton Sewer system is made in the article by Sue Farrant later in this Newsletter.

Members of the S.I.A.S. are invited to take part in the following two visits arranged in connection with the W.E.A. course on Industrial Archaeology recently held in Chichester:

Routes and Relics of Canals and Railways south of Chichester Tuesday April 27th. Meet at 7.00 p.m. at Chichester Canal Basin.

Coultershaw. Monday, 7th June at 7.00 p.m. To inspect the Beam Pump at Coultershaw Mill and the Wealden Iron site at Fernhurst.

Visits Secretary. It is regretted that the number of visits so far arranged for this summer is less than usual but it has not yet been found possible to appoint a Visits Secretary. The General Secretary would be very pleased to hear from any Member who would be prepared to undertake this extremely interesting and very rewarding task to replace Mr. Hugh Gordon who has had to give up this duty for health reasons.

CURRENT PROJECTS

East Grinstead Goods Shed. The full record, referred to in the January 1975 Newsletter, with measured drawings and photographs of the Mid-Victorian Goods Shed and Stables which are about to be demolished, has been made by one of our Members, Mr. Ralph Wood. A copy of the record will be deposited in the West Sussex Record Office. Brief details and photographs are also given in the Sussex Industrial History, 1976 Issue.

Ifield Mill. The project, referred to in the October 1975 Newsletter, is continuing satisfactorily. Extensive work will be carried out during the coming spring and summer in digging out the mill stream and repairing the banks. Help is required for this task and any volunteers are requested to make contact with Mr. Henbery (Crawley 23481).

Reed Comber. The Society has learnt of the existence of an old Reed Comber, for preparing wheat straw and Norfolk reed for thatching, which is in the store of a local thatcher in Hastings. The manufacturers, who are still in business in Devon, state that this type of machine, which is designed to be belt driven from a farm steam-engine, was first made by them in 1898. There are probably not many of these left in the country, the manufacturers having one dating from 1908, and as this one seems to be in fairly good condition it is proposed to acquire it for preservation in a suitable museum.

LECTURES, COURSES AND CONFERENCES

S.S. Great Britain. The Cinque Ports Engineering Group of the Council of Engineering Institutions has arranged a Lecture on 'The Salvage and Restoration of S.S. Great Britain'. It will be held in the Social Club Hall, Dungeness 'B' Nuclear Power Station on Thursday 6th May at 6.30 p.m. (Tea 6.00), and visitors will be welcome. A silver collection in support of the project will be made.

Electrical Development in the North-east 2nd-4th July 1976. A week-end conference organised by the History of Technology Group of the Institution of Electrical Engineers and comprising lectures and visits in the Newcastle and Billingham area with accommodation at the Van-Mildert College, University of Durham. Overall fee £27.00 approx. Details and application forms from Dr. P. Strange, Department of Electrical and Electronic Engineering, University of Nottingham, Nottingham. Non-members will be welcome.

Association for Industrial Archaeology. The Annual Conference of the Association will be held from 10th-12th September 1976, at Southampton University. Application forms may be obtained from F. Brook, 15, Widecombe Avenue, Weeping Cross, Stafford. Our Society is arranging a paper on 'Industrial Archaeology in Sussex'. Any notes on this subject or slides to illustrate it will be gladly received by the General Secretary.

Exhibition. Hassocks Field Society is holding an Exhibition illustrating 'Sussex Life - Past, Present and Future' on Thursday, Friday and Saturday, 5th, 6th and 7th August 1976, at Hassocks County Infant School. 10.00 a.m. to 10.00 p.m. Admission free.

S.I.A.S. will be exhibiting there and the General Secretary will be very pleased to hear from any Member who would be willing to man our stall for part of a day.

SHORT NOTES

Ice Houses. Members may not be aware of the existence of an interesting thatched Ice House on the National Trust property at Scotney Castle, which was erected in 1834. This is mentioned in an article on Ice Houses, by Geoffrey Locke in the Autumn 1975 issue of the National Trust Bulletin which is also reproduced in the latest A.I.A. Bulletin. Other Ice Houses mentioned on National Trust properties in S.E. England are at Hatchlands, Surrey and Ham House, London.

Two further interesting Ice Houses exist at Bromley, one at High Elms and one at Sundridge Park, both having annular access passages flanking the main circular ice well. The former is open to the public at week-ends but the latter is on strictly private ground and difficult to gain access; it is fully described in the Autumn 1975 issue of the Kent Archaeological Review, obtainable from Mrs. Thelma Dutton, Council for Kentish Archaeology, 5, Dawell Drive, Biggin Hill, Westerham, Kent.

A.I.A. Bulletin. It is noted from a recent A.I.A. Bulletin that Shardlow Canal Port, where the Trent and Mersey Canal joins the Trent, has now been designated at a Conservation Area. It is hoped that this will allow some of the most interesting 18th century industrial buildings to be saved from demolition, though this will probably involve finding some suitable alternative use for them.

From the same Bulletin we also note that a Tyne & Wear Industrial Monuments Trust has been formed whose first task will be the purchase and preservation of the Bowes Railway. This was Stephenson's third major railway, being built in 1826, and was once an extensive system of wagonways and railways carrying coal from the collieries south of the Tyne down to the River Tyne for shipment.

Soil-carried Infections. A recent Ministry of Agriculture and Fisheries press release called attention to the danger of infection from both Weil's disease and Tetanus arising from contact with the soil.

Weil's disease is a bacterial infection originating in rats but which can remain alive and infective for a long time in a damp non-acid soil or mud and can enter the body through scratches or through the mucous membranes lining the mouth and nose.

Tetanus is a spore organism which can lie dormant in soil and can infect trivial wounds and scratches. It is a dangerous disease which can be fatal.

It is therefore important for excavators working in areas of possible infection to keep cuts and abrasions covered and to wash hands and forearms thoroughly before eating, drinking or smoking. W.R.B.

PUBLICATION

"Scratch a Surveyor. . ." by Hugh Barty-King.

One of our members, Hugh Barty-King, has recently published a book on the history of the well-known firm of Surveyors & Valuers, Drivers Jonas & Co., who last year celebrated their 250th anniversary, having been founded in 1725 by Samuel Driver, a market-gardener and budding land-surveyor of Wandsworth. The book, "Scratch a Surveyor . . .", is, as the author states, fictitious but founded on fact. It takes the form of extracts from diaries, memoranda and letters that might have been written by various members of the firm over the years but have, with one or two exceptions, in fact been written by the author based on the extensive research he has carried out. They make interesting and sometimes amusing reading but the influence of hindsight is occasionally apparent in their construction. Amongst other works the firm carried out surveys and valuations for the London-Brighton and the South Eastern Railways and were engaged by the Commissioners of Woods and Forests to report on the old America Ground in Hastings which at that time, 1843, was a derelict marsh. A.J.H.

JAMES LONGLEY AND CO. LTD. CRAWLEY, SUSSEX

The firm of James Longley and Co. Ltd. was founded in 1860 and for over 100 years has been actively involved in Sussex, Surrey and London with many of the buildings and structures which are now valued as part of our national heritage. In 1923 Charles Longley, the eldest son of the founder, set down his recollections of a lifetime's work with the firm. These give a vivid picture of what a working life was like in those days and from which the following notes have been abstracted.

Charles Longley commenced work in 1878 at the age of 14 in the carpenters shop of his father, James Longley, at Turners Green; he started at 6.00 a.m. and worked for 10 hours per day. After about two years he was sent to obtain outside experience in Eastbourne where a number of contracts were being undertaken including some buildings at Birling Gap where the firm did pioneering work on concrete house construction. James Longley himself superintended this work which involved leaving Three Bridges by the first train at 8.30 a.m., walking 4 miles over the Downs to Birling Gap, returning by the last train in the evening and finally driving home from Three Bridges to Turners Green. At the age of 17, Charles was sent to superintend the building of Mayfield station for the L.B.S.C.Rly and subsequently all the stations on the 'Cuckoo Line'. Contracts followed for many other stations including Eastbourne, Tunbridge Wells, Newhaven Harbour and several in South London. Newhaven Harbour Station was completely burnt down one Sunday and an order placed on the following Wednesday for its rebuilding (at the original cost!).

About this time, 1884, the firm moved from Turners Hill to Crawley, a move that proved extremely successful. Very soon after this a contract was obtained for widening Kings Road, Brighton between the West Pier and the old Chain Pier where the Palace Pier now stands; on the first morning hundreds of men appeared asking for work at 4½ to 5d per hour. Subsequently the firm took all the principal contracts let by the Corporation, including work on the 'intercepting sewer' mentioned later in this Newsletter in an article on Public Utilities by Sue Farrant, as well as many other contracts for churches, schools and miscellaneous buildings. When the landward end of the West Pier was destroyed by a storm on 4th December 1896, Longleys built a temporary bridge to enable the work of the pier to be carried on.

A particularly interesting contract involved the building of the public school, Christ's Hospital, between 1896 and 1902 when it was moved from its original site in the City of London. Initially this required about 25 million bricks as well as much Bath and Portland stone, about 21,000 sq.ft. of Longley's patent wood-block flooring and the removal and re-erection of various historic sections of the old buildings. The Oregan pine roofs of the Chapel, the School Hall and the Dining Hall are a special feature of these buildings. Subsequently a number of additions were also carried out.

Another important contract was for the King Edward VII Sanatorium for Consumptives; although the site was five miles from the nearest railway station at Midhurst the workmen had to be there to start work at 6.00 a.m.; however, there were always enough men and the contract was completed in the scheduled time.

Both James and Charles Longley played a major part in the setting up of the Crawley and District Water Co. which commenced to supply water throughout the district, of a quality second to none, in 1897-1898 and continued up to and beyond the time of writing these recollections in 1923.

At the age of 60, James Longley decided to see the world and made extensive trips to America, Canada, Egypt and the Middle East and at the age of 75 he visited India and Japan. He died in 1915 at the age of 79 after a very strenuous, but very productive, life. E.O.T.

PUBLIC UTILITIES

by Sue Farrant.

Public utilities such as electricity, gas, water supply and waste disposal tend to be ignored when the study of an urban area is undertaken, their usefulness in such work being under-rated, possibly because they seem rather complex and are visually somewhat uninteresting. However, as the demand for study of the local area and its 'environment' increases, so the role of the public utilities must be considered. Furthermore, since it is these utilities that help to make urban life possible, a comparison between the problems met and solved in many of our towns with those obtaining in the urban areas of under-developed countries is of particular significance at the present time.

Electricity

Electricity generating stations today often create the most obvious features of a landscape and, although the number of stations has decreased, their size has increased so that their impact on the landscape cannot be ignored. A study of the electricity supply to a town can often serve to point out the features of locational geography. The establishment of a generating station and the expansion of the electricity supply industry may be easily traced through town directories, local papers and perhaps by information from the area's Electricity Board. All this information should be available in the Reference Library where articles about the industry's local history may also be found.

Electricity supply to domestic consumers was a development of the late nineteenth century. The first generating stations were small, usually run by private companies who sold electricity to the richer members of the town and, if possible, to the Council for street lighting etc. The station would be sited close to a source of coal, usually near a railway station to obtain coal from the nearest coalfield, or, as in Brighton, via the nearest harbour (Shoreham) and thence by rail. These earlier generating stations were built in various types of land-use zone for instance, in Brighton, they were sited

in an area of light industry to the south-east of Brighton station.

As demand increased so did the size of the stations which, together with improvements in equipment, increased the reliability of supply and reduced the cost of production. As stations increased in size so the type of site required changed since, not only did fuel transport costs have to be considered but considerable quantities of water for cooling and land for storage of the larger quantities of fuel were required. Generating stations thus acquired an identifiably 'industrial appearance' which engendered opposition when proposals were made to build them near residential areas. Navigable rivers and harbours became important factors in the choice of sites for re-location or new developments of stations.

Brighton Corporation, having finally taken over the provision of electricity for Brighton in 1894, decided that the requirements of acceptable fuel transport costs, cheap land, ample water, together with adequate distance from residential areas, were fulfilled by a site on Shoreham Harbour and the first large generating station for the area was built there in 1906. This was followed by a second station after World War 2, the first being now on stand-by combined with slow demolition. The early in-town stations in North St. were closed down, one now being part of the G.P.O. and the other a servicing centre for the South Eastern Electricity Board.

Most large modern generating stations are located well away from urban areas although there is a tendency for some of the old in-town sites to be used for up-to-date plant to meet local peak loads. The factors governing the choice of sites for generating stations under present-day conditions may well be worthy of study.

Gas

Although, in recent times, opposition to the siting of electric generating stations has developed as part of the general public attitude towards this utility, in the early stages of the industry they were more acceptable features of the urban area as they were fairly small and not unduly obnoxious. Opposition to the siting of gasworks in urban areas started, however, as soon as the gas supply industry was developed; they were known to be smelly and it was considered that the unpleasant smell should be confined to areas in which smells of a similar kind were generated, i.e. to industrial areas, or, if such areas did not exist, at a suitable distance from the best (most influential) members of the town who, incidentally, were also the main customers. Sites for gasworks, like those for electricity generating stations, had to be chosen with an eye to the cost of transporting the raw material, basically coal. Brighton's first gas works in 1818, twenty years before the coming of the railway to the town, had to be located near to the upper class residents but also had to try to avoid the tax on coal landed on Brighton's beaches; seaborn coal from Newcastle was the only available supply. The gas company located their works to the east of the town, just outside the parish boundary at Black Rock (where the Marina is now under construction) where the coal carrying vessels could be run up on the beach and the coal unloaded into carts for the short haul up the sloping cliff. There was a tunnel up from the beach but whether it was used for coal is unproven.

On the west side of Brighton the Hove gasworks was established to supply the upper-class housing that spread westwards from about 1820; coal was initially carted from the beach and later from Shoreham harbour. Neither of the works serving Brighton was thus surrounded by industry but this was not always the case in other towns; the housing closest to the gasworks was for 'the working classes', this being a feature also found elsewhere.

Re-location did, however sometimes occur, the gasholders on the old site being retained for local storage and, in fact, the gasworks at Brighton were re-located on Shoreham Harbour in 1873 as cheap land, waterborne coal and distance from residential areas exerted their attractions.

Water Supply

Another utility dependent on the availability of the raw material is the water supply and again private enterprise provided water for urban areas. The technical limitations of pumps, pipes and pressure systems, and the cost of providing the piping, ensured that, wherever practicable, water would be provided from sources close to the town to be served. Although coal was used to drive the large beam engines for pumping, geology rather than fuel costs was the prime consideration. The beam engines housed in tall brick engine houses have only recently ceased to be stand-bys and demolition is now frequent, leaving only a small brick building housing electrically-driven pumps.

Because the pumping stations were relatively close to the towns the out-flowing tide of residential building frequently engulfed them. The Goldstone Pumping Station in Hove has been so effected and, although the well continues to supply water, use of the station has been discontinued. The two massive pumping engines are, however, being preserved and the buildings converted to an industrial museum.

Waste Disposal

Gas, electricity and water undertakings were usually initiated by private enterprise but waste disposal was not, the disposal of waste being a problem that no one wanted to know about. However, the Council, Vestry or Town Commissioners would try to make the residents respect the cleanliness of the streets and sensibly dispose of the waste so that for the rich there was little problem; it was in the overcrowded areas where rubbish and sewage accumulated, with the consequent disease, that serious difficulties arose. By the early nineteenth century the connection between disease and polluted water and waste in the streets was firmly established and towns began, in some cases unwillingly, to attempt to cope with waste disposal. Such a task was expensive and, unlike the other utilities did not appear to 'pay its way' so that, in some towns, sections of the Corporation, Commissioners or Council fought a rearguard action against the financial provisions for waste disposal.

Brighton's first major contribution to the 'environmental' or the 'quality of the urban environment' was quite early and not intentional. By the 1840's Brighton was a famous resort for rich and poor, being particularly popular with those on the railway line from London. In 1841 the population was 40,000 and the town was one of the larger rank comparable to those such as Leeds in the industrial part of the North. However, Brighton had a problem .... speculative building of houses with poor sanitary provision has resulted in the permeation of sewage through the chalk into the town wells used by those who could not afford piped water. This consumption of polluted water contributed to a death rate that was as high as that of Leeds - how could Brighton publicise her healthful nature when her death rate was comparable to that of a highly industrial smoky town? People began to wonder whether they should indeed visit Brighton for health reasons; to the visitor the beaches must have provided an interesting sight as, not only were there coal brigs and fishing boats unloading their cargoes, but also several pipes discharging sewage. A sewer pipe laid about 1780 contained the Wellesbourne, a stream that used to flow down the Pool Valley; the stream water was permeated by the sewage and was distributed on to the beach when the tide was low. Part of this sewer may still be seen by

the Palace Pier. Sewers had also been built to convey sewage to the beach from the houses along the cliff top towards Kemp Town and from other houses nearer to the Pavilion; they were, however, made of wooden planks and leaked sewage into the chalk and back into the wells. The 1840 visitor would have seen the effects of this and probably also heard about the epidemics of scarlet fever and small pox which affected the poorer parts of the town.

In 1849 the Government Board of Health received a report on Brighton from one of its inspectors which stated that the town must invest in a proper and complete drainage system to reduce its mortality rate but the Commissioners of Brighton did nothing. In 1854 the town was incorporated and the Council elections made the running of the town more democratic. The dispute over Brighton's sanitation, or lack of it, mounted and the election of Councillors in 1859 was fought between the 'sanitary progressives' and the 'sanitary objectives' . The London press and the medical journal, The Lancet, called Brighton an unhealthy place, full of nasty smells. Various sewage schemes were looked at; one objective was to link the private house sewers and to prevent the discharging of their sewage onto the beach but the system was only slightly improved and the sewage and smell on the beaches increased with the population in spite of the fact that the collection pipes extended into the sea even at low tide. The Lancet and the London press had another anti-smelly Brighton campaign and the Corporation at last became dominated by the 'sanitary progressives' who investigated various schemes, winced at the cost, but chose one submitted by a railway engineer, Hawksmoor, costing £80,000. This involved an outfall at Portobello (now just to the west of Peacehaven) which was designed to extend into the sea well beyond the effects of low and high water Hawksmoor's report was examined in 1869, and the Council fought and won an election on the 'intercepting platform' and construction of the system began in 1871.

An intercepting sewer was built from the Hove boundary to Portobello and into it feeds the Hove sewer the two main sewers running down London Road and Lewes Road and other smaller sewers. The network extended slowly over the town and pollution of wells and consequent mortality diminished.

) Reference to the election from Mr. J. Lowerson.

LIST OF MEMBERS

Please note the following changes dated 31.12.75.

EAST SUSSEX Change: FUNNELL, B. St.Leonards-on-Sea, NOT Bexhill-on-Sea.
Delete: MEARS, C.B.

NORTH EAST SUSSEX
Change: FAYLE, A.W. 9a, Streatfield Road, Heathfield.

NORTH SUSSEX Change: LONGLEY, P. Lackenhurst, Brooks Green, Horsham.

BRIGHTON AREA Change: BRIGHTON TECHNICAL COLLEGE, Miss N.M. Hobbs, A.L.A. Librarian, Richmond Terrace, Brighton, BN2 2SZ.

WORTHING AREA Add: CHALLEN, B.J. 71, Downsway, Shoreham-by-Sea, BN4 5GN.

CENTRAL SUSSEX Add: MUDDLE, J.R., Upper Mill, Plumpton Lane, Plumpton, E.Sussex.

WEST SUSSEX Add: LYON, Miss J.M., Chichester High School for Girls, Lancastrian Building, Basin Road, Chichester.

MEMBERS RESIDENT OUTSIDE COUNTY
Add: MEARS, C.B., 14, Mereworth Drive, London SE18.

S U B S C R I P T I O N S

All SUBSCRIPTIONS for 1976/7 became due on April 1st. Please send them di direct to the Treasurer: T.J. Goode, "Gorse" 30, St. Peter's Road, Seaford. Better still, fill in a Banker's Order if you have not already done so, and save yourself further trouble and the Society further expense in sending out reminders. There is a form printed below, cut it out and send it in NOW to the Treasurer please, NOT to your Bank.

Subscription Rates

Full Members	£2.00	Junior Members (under 18)	50p.
Family Members at the same address	£1.00	Full-time Students	50p.
Life Members	£30.00.		

O F F I C E R S

Chairman: W.R. Beswick, Turners House, Turners Green, Heathfield.

Vice-Chairman: P. Adorian, The Mill House, Gibbons Mill, Billingshurst.

Treasurer: T.J. Goode, "Gorse" 30, St. Peter's Road, Seaford.

Gen. Secretary: A.J. Haselfoot, Albion House, Cobourg Place, Hastings, TN34 3HY.

W. Sussex Sec: A.G. Allnutt, 23, Beech Avenue, Chichester PO19 3DR.

Programme Sec: To be Appointed.

Editor: Prof. E.C. Taylor, Clare Cottage, Pett Road, Guestling, Nr. Hastings TN35 4EX.

B A N K E R ' S O R D E R

Name ..... To ..... Bank

Address ....)

....)Address

....)

Please pay to the account of the Sussex Industrial Archaeology Society at LLoyds Bank, College Road, Kemptown, Brighton (A/C No. 0026082) the sum of ..... on April 1st. each year until further notice, and debit to my account.

Signed: ..... Date: .....