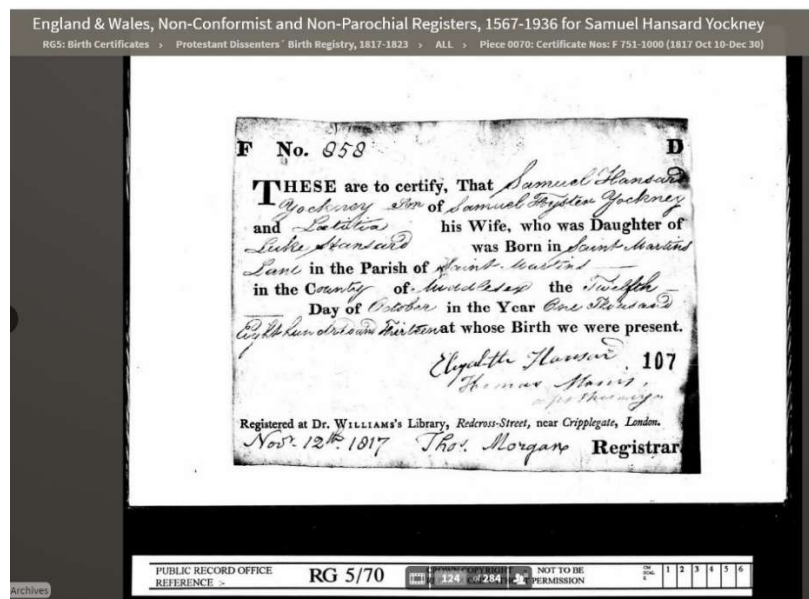


The Engineers – Samuel and Sydney Yockney

The Engineers for the line were S H Yockney and Sons of St Anne's Gate London. Engineers designed railways and supervised the works. Samuel Hansard Yockney was the senior partner. The junior partner and Resident Engineer was his son, Sydney William Yockney.

Samuel Hansard Yockney 1813-1893

Samuel Hansard was the eldest son of Mr Samuel Foyster Yockney and grandson of Samuel Yockney, tea merchant. He was educated at Mill Hill School which was established in 1807, founded by Nonconformist merchants and ministers and remains a leading public school. His birth is recorded in the Protestant Dissenters' Birth Registry.



It was not originally intended that he should follow a profession but losses in the family business made that necessary. In approximately 1837 he was placed as a pupil with Messrs. Stothert and Company who made locomotives engines for the Great Western Railway. Shortly afterwards he was appointed engineer and manager by the contractor for the Box Tunnel on the Great Western Railway impressing Isambard Kingdom Brunel.

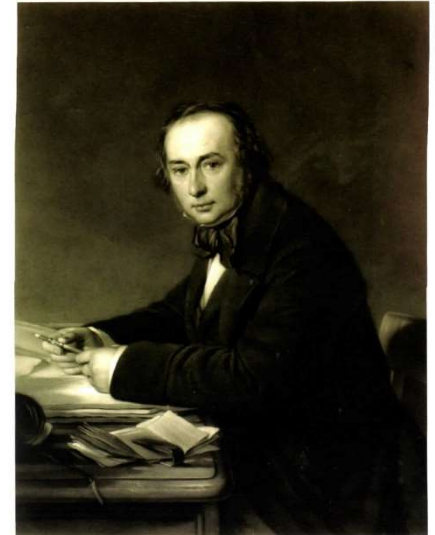
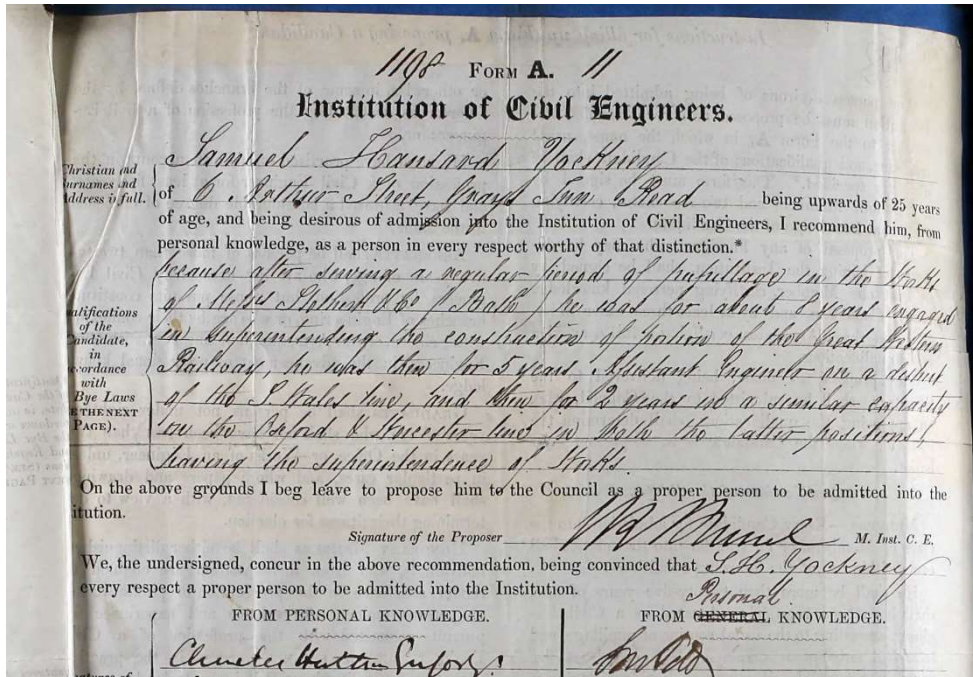


Coloured lithograph showing Box Tunnel west front (Science Museum Group Collection CC BY-NC 4.0)

When Box Tunnel was completed, Samuel was placed by Brunel on the staff of the Great Western Railway and given the task of constructing the tunnels and works between Bristol and Bath. He was also responsible for the manufacture of coke at Bristol, which at that time, as all locomotives used coke exclusively, was a very important office.

The coke-oven work injured his health and so he applied for and was granted a move to the South Wales division in 1846. He was an Assistant Engineer supervising the construction of the 770-yard Newport tunnel, on the line between Cardiff and Chepstow. This was followed by a similar role on the Oxford- Wolverhampton line building high timber viaducts and the 950-yard Dudley Tunnel.

In 1853 Samuel applied to become an Associate Member of the Institution of Civil Engineers. Brunel proposed his application. Brunel's signature is corroborated by his portrait and signature, shown below, from the STEAM museum of the Great Western Railway. The Institution, founded in 1818 was the world's first professional engineering body.



Lithographed portrait of Brunel from a painting by J.C. Horsley and Brunel's signature
 Images supplied by STEAM Museum of the Great Western Railway, Swindon

Samuel Yockney's application to become an Associate Member of the Institution of Civil Engineers, signed by Brunel

Lithographed portrait of Brunel from a portrait by J.C. Horley and Brunel's signature (STEAM museum of the Great Western Railway, Swindon)

Samuel subsequently moved to France laying railways around Paris. In 1859 he returned to carry out further railway work, then a two-year period working for the Admiralty followed by appointments as Engineer-in-chief, General Manager and Secretary to the Sirhowy Tramroad in South Wales, which he converted into a regular railway. The Sirhowy Railway was opened in 1865.

In 1866 Samuel produced the plans that led to The Wye Valley Railway Act which authorised the railway to be built. There was a banking crash at this time, investors lost confidence and the money to build the railway could not be raised. The plan was revised to follow the east bank of the Wye to Tintern Parva. The Wye Valley Railway Amendment Act 1875 empowered this revised plan to be built. The role of resident engineer passed to his son William Yockney.



CHAPTER II.
 An Act for granting further powers to the Wye Valley Railway Company; and for other purposes relating to their authorised undertaking. [14th June 1875.] A.D. 1875.

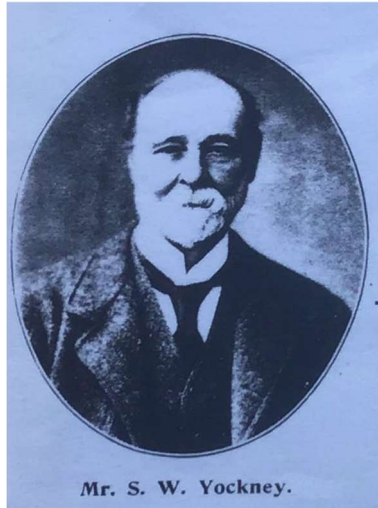
At the dinner to celebrate the opening of the Wye Valley Railway on 21 October 1876 it was recorded by the Monmouthshire Merlin that:

'THE CHAIRMAN next gave the health of the staff who had made the railway. And having referred to the difficulties experienced in making the line spoke of the engineers, Messrs. Yockney, in very

flattering terms. Mr YOCKNEY acknowledged the compliment and gave the credit of carrying out the work to his son who was the acting engineer of the line.'

Other work undertaken with his son included the Guernsey Tramway, the Cardiff and Penarth Tramway, the East Worcestershire Waterworks, and Totland Bay pier on the Isle of Wight.

Sydney William Yockney 1841-1923



Mr. S. W. Yockney.
(Yockney family records courtesy of Iain Yockney)

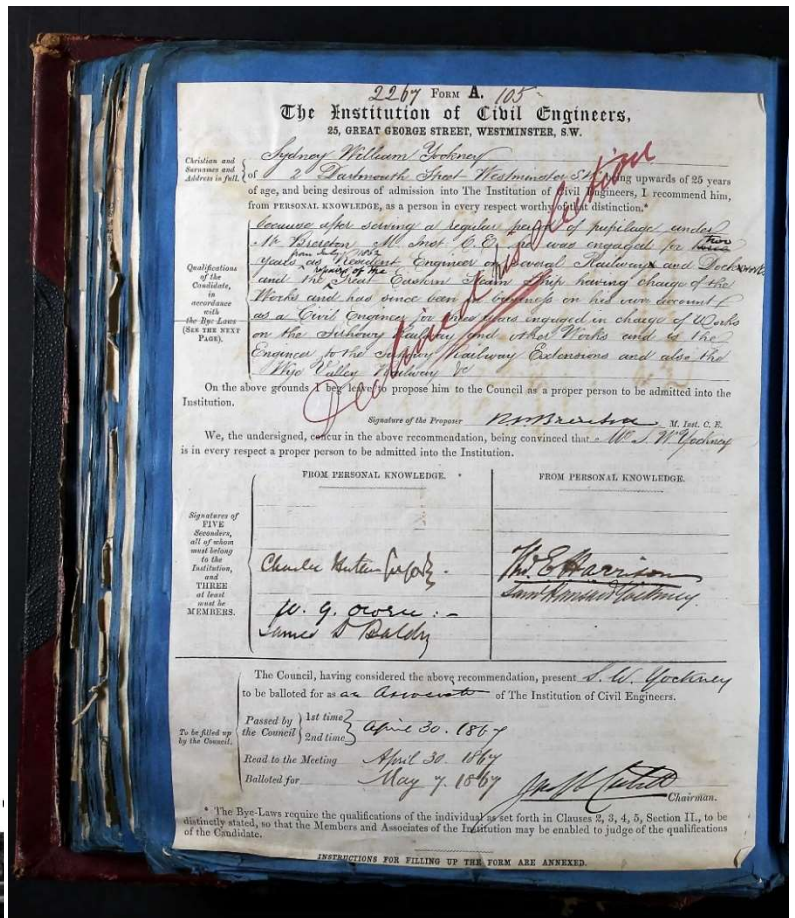
From 1860 to 1864 Sydney Yockney worked under Robert Pearson Brereton initially serving a pupillage and then being engaged on the West Somerset Railway, the South Wales Mineral Railway, the Neath Harbour works and the SS Great Eastern at Liverpool. Robert Brereton worked under Brunel for more than 20 years and, following Brunel's death, completed many of his works.

In 1867 Sydney applied to become an Associate Member of the Institution of Civil Engineers. Despite Brereton being his proposer, the application was written across in red 'Declined his application'.

Some time after this Sydney joined St Stephen's Club in London. The club was formed in 1870 and was initially connected with Conservative Party Members of Parliament and civil engineers. Benjamin Disraeli was one of the founding members.



St Stephen's club. Photograph dated 1875
(Leonard Bently Creative Commons)



Sydney Yockney's application to become an Associate Member of the Institution of Civil Engineers marked in red ink 'Declined his election'

In March 1876 Sydney applied to become a Member of the Institution of Civil Engineers, again proposed by Robert Brereton. This application described his involvement with the Wye Valley Railway:

'He is engineer for the Wye Valley Railway Company and for 21 months the works of this railway, now in the course of construction, which is of considerable magnitude, have been in his charge'

The application was passed.

The question arises as to why Samuel's application to become an Associate Member passed while Sydney's was declined and why Sydney was successful nine years later in becoming a Member. There are a number of possible contributing reasons:

- Samuel has 16 years' experience before applying to become an Associate Member while Sydney had 7 years.
- Samuel worked for 8 years for the Great Western Railway where he impressed Brunel.
- Sydney worked for 4 years under Brereton but there is no information about the extent to which he impressed him.
- Brereton was a notable engineer but did not compare in standing with Brunel.

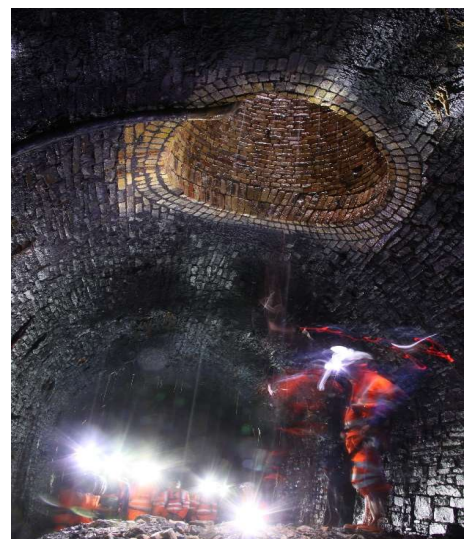
Sydney's application to become a Member:

- Sydney's application to become a Member includes a wide range of projects and was in actual charge of construction projects for 4 ½ years. He also spent 11 years in business on his own account as a civil engineer.
- If Sydney became a member of St Stephen's Club before applying to become a Member of the Institution of Civil Engineers, he could have impressed influential civil engineers.

Sydney was engaged on a wide range of civil engineering projects: railway, docks, waterworks, main roads and bridges. Two of the most notable were the railway swing bridge over the River Neath and the two miles long Rhondda rail tunnel. The Rhondda tunnel contrasted with the Tidenham tunnel by being brick-lined throughout.



Tidenham tunnel. Unlined section followed by brick-lined section (*Graeme Bickerdike – Forgotten relics*)



Rhondda tunnel and airshaft. Fully brick-lined (*'Capt' Gorgeous CC BY 2.0*)

The South Wales Echo, 3 May 1890 reported in relation to the Rhondda tunnel:

'The strata consists of cliff and pennant rock which in the middle is exceedingly hard and compact.

It is arched nearly throughout the unwallied part being about 700 yards in length and of very hard pennant rock. That portion will be left in that state unless the Board of Trade will order the company to arch it.

I asked Mr Yockney if there were other similar lengthy tunnels with portions left unarched similar to those of the Blaenycwm tunnel and he replied that there were. The Brislington and Tidnam (sic) tunnels were not walled or lined throughout. The representatives of the Board of Trade had approved them and declared them to be fit for mineral traffic.'

The Inspecting Officer whose role it was to pass the railways safe to carry passengers was, for both the Tidenham and Rhondda tunnels, Colonel Rich. Colonel Rich investigated over 250 rail accidents and became the Chief Inspecting Officer of the Railway Inspectorate. The thoroughness of his work can be judged from his report on the train crash at Norton Fitzwarren where where 10 people were killed (: https://www.railwaysarchive.co.uk/documents/BoT_NortonFitzwarren1890.pdf)

Colonel Rich inspected and passed as satisfactory the Wye Valley Line in 1876.

The South West Daily News of 12 May 1890 reported about the Rhondda Tunnel that

'Colonel Rich (late Bengal Engineers) of the Board of Trade refused to pass the tunnel until it had been arched throughout. (on 5 May 1890) But for this, the whole line would have been opened with a 'befitting ceremony by the Countess of Jersey. The opening ceremony was indefinitely postponed.

The work (to arch the tunnel) is being pushed forward with every rapidity by Mr. Dowell, the contracting agent. 400 men were engaged to complete the work on the tunnel-miners, bricklayers, concrete men and labourers. The article concluded by saying that 'Many yards of side walls and concrete work have been put up since the inspection, and all being well the contractors are sanguine that the tunnel will be completed in 8 or 9 weeks.'

Perhaps experience of rockfalls on the Wye Valley Line and elsewhere had influenced Colonel Rich.

The contractors installed a further 759 yards of brick arch above the arched concrete sidewalls which took less than 54 days because Lucas & Aird had anticipated such a requirement. (*Wikipedia quoting Graeme Bickerdike*). It is quite possible that Sydney Yockney had advised Lucas & Laird to be ready to carry out this work quickly.

The alignment of the tunnel bores of Rhondda tunnel was achieved to a high level of accuracy. Normally a number of shafts are constructed in a long tunnel so that work can commence at several workfaces which reduces the risk of

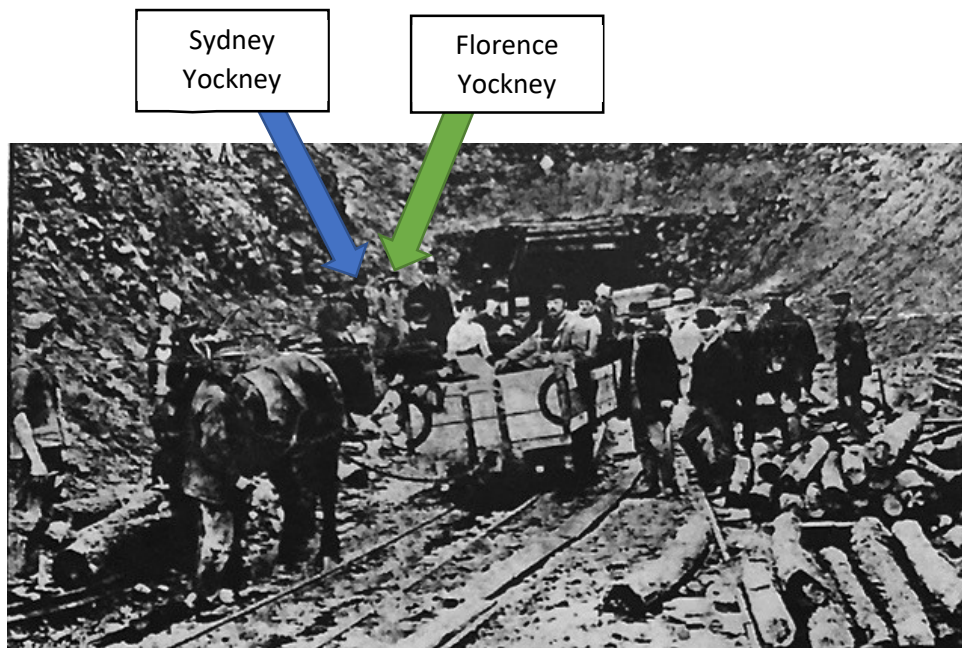


Northern portal Tidenham tunnel built by S W Yockney
(B.M. Handley)

misalignment where the sections of tunnel join up. Only one shaft was feasible on the Rhondda tunnel as the land above the tunnel rose to around 1000 feet above the line. Nevertheless, the tunnel bores joined to within half an inch.

This photograph taken from a book is accompanied by a caption that describes the photograph as:

This photograph is believed to show preliminary work on the 1188 yard long Tidenham Tunnel. The Railway was engineered by Samuel Hansard Yockney and his son Sydney William, who moved into Wye Cottage (overlooking Llancaut) at about this time. The family remained there for the next half century. S.W.Yockney and his wife appear in the photograph and are standing behind the truck, to the left of the heading entrance and immediately adjacent to the man in the black top hat and coat.



Evacuation work for Tidenham Tunnel (Yockney family records courtesy of Iain Yockney)

The photograph is probably taken at the excavation site of the south portal. When the tunnel was completed this portal was approached through a cutting which was subsequently arched over. The photograph seems to show a cutting leading to the tunnel entrance.

Sydney Yockney married Florence Hansard in 1867. His age on the marriage certificate is given as 'full' indicating that he was 21 or older and did not require parental consent. Florence's age is given as 18 which meant that she needed her parent's permission. Florence's father, George Hansard was a barrister-at-law at Lincoln's Inn. On the marriage certificate his rank or profession is recorded as 'gentleman'. Sydney and Florence had celebrated over 50 years of marriage when Sydney died in 1923.

Non-engineering activities of Samuel Hansard Yockney and Sydney William Yockney

Samuel Yockney studied geology as a pass-time. Sydney took part in amateur dramatics.

Amateur Dramatics

The Monmouth Merlin, 14 January 1865 reported:

'Amateur dramatic entertainment was given at the Drill Hall, Newbridge in aid of the Crumlin and Abercarn Batteries of the First Mon. Artillery. The farce 'A Regular Fix' was brought before the audience in a style which would not have disgraced professionals.'

Sydney took one of the leading roles as Mr Charles Surplus.

Sale of Samuel's possessions 1865

Samuel moved house in April 1865 from Woodford House near Blackwood, Newport. The auctioneer's notice of sale refers to S. Yockney Esq which can be confirmed as Samuel as he appears under the Blackwood address in the 1865 Civil Engineering List.

A selection from the list of items for sale illustrates the life-style:

2 superior Alderney cows (excellent milkers), handsome cob horse, butler's tray and stand, mahogany dining table (with three insertions), music stool, hive of bees and carriage lamps.

Masonic Lodge

In 1876 Sydney was initiated into No 142 St Thomas' Masonic Lodge, London. The lodge was founded in 1775.

Act of bravery

Sydney Yockney was the Civil Engineer and Designer for the Neath River Swing Bridge on the Rhondda and Swansea Bay Railway. A swing bridge pivots in the centre to allow ship to pass.

Reginald Langston Yockney (grandson of Sydney) wrote this account of the opening of the swing bridge, the selfless actions of Sydney and the gift of the key that was used to open the bridge to Florence Yockney in view of her husband's bravery.



Mr Charles Surplus – the part played by Sydney Yockney when he was age 24 (*Library of Congress – free to use and reuse*)

Swansea Key

This key was used by Lady _____ to open the swing bridge on the Rhondda, Swansea bay RLY. Engineered by the Yockney firm.
The key was given to Florence Yockney by Lady _____ who was quoted as saying "I feel that you should have this in view of your husbands very brave act".
Sidney William Yockney had dived fully clothed into the tidal River Neath in an abortive attempt to save a workman who had fallen from the bridge.

Written by: RL Yockney 26 Aug 1987

(*Yockney family records courtesy of Iain Yockney*)

The Lady who opened the swing bridge has not been identified.

The key is held today by the Yockney family.



(Yockney family records courtesy of Iain Yockney)



The photograph below was accompanied by a handwritten note in pencil from Reginald Langston Yockney dated 26 August 1987 which said:

‘This photo unfortunately was neither named or dated.

It appears to be of my father A. Langston Yockney AMICE on a bridge on one of the small Rly. Lines the family engineering firm designed and supervised at the turn of the 19th Cent. Probably (very) the swing bridge over the tidal R. Neath on the Rhondda & Swansea Bay Rly.’

Algernon Langston Yockney was born in 1872 and would have been around 20 when the bridge was being completed. The photograph seems to be of a young man of a similar age surveying the part complete bridge. Algernon’s application in 1898 to become an Associate Member of the Institution of Civil Engineers provides additional confirmation of Reginald’s assumption.



(Yockney family records courtesy of Iain Yockney)

The application states:



Enlarged photograph of
Algernon Langston
Yockney son of Sydney
William Yockney (*Yockney
family records courtesy of
Iain Yockney*)

Further evidence comes from this comparison with a recent photograph of the Neath Swing Bridge taken by Stewart Marchant. Both photographs appear to show the same bridge.



Neath Abbey Swing Bridge (*Stewart Marchant CC BY-SA 2.0*)

The bridge is now grade 2 listed and permanently locked.

Family Coat of Arms

In 1898 a Coat of Arms was granted to Sydney Yockney and his only brother Algernon a Fleet Paymaster on the Royal Navy on HMS 'President' and their respective heirs. The inscription reads:

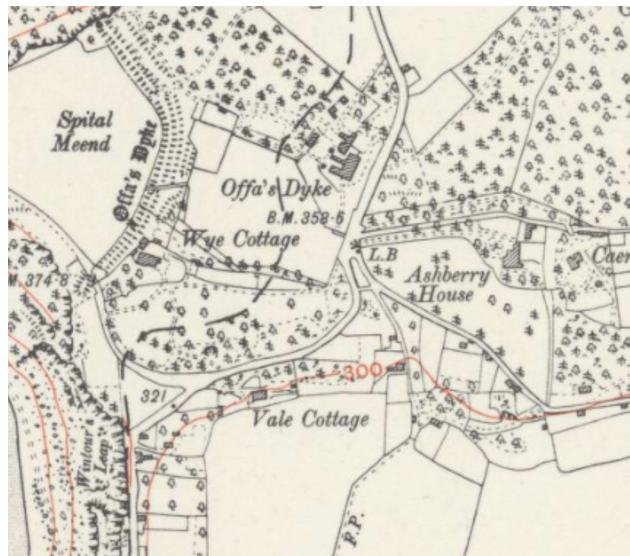


which translates as 'Labour and Knowledge'.

Wye Cottage

Wye Cottage on the Lancaut peninsula near Tidenham was owned by the Yockney family for approximately 70 years. Its position close to Wintour's Leap is shown on this 1880 map.

Wye Cottage on
1880 Ordnance
Survey map
(maps.nls.uk/index.html
CC-BY-NC-SA)



A small number of servants were employed, typical of the professional classes in Victorian and Edwardian times. When living at Wye Cottage Sydney employed:

In 1881 a cook, a housemaid and a governess for his two children.

In 1891 a cook and a housemaid.

In 1901 a cook, a parlour maid and a housemaid.

In 1911 a cook, housemaid and gardener.

Wye Cottage was recorded as having 13 rooms in the 1911 census.

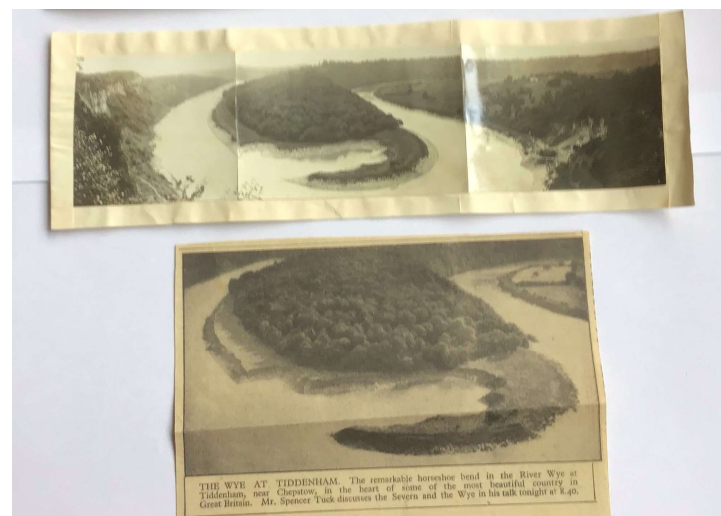
Samuel Yockney died at Wye Cottage in 1893. In 1939 5 Yockneys appeared on the Electoral Roll for Wye Cottage. The house was sold 1947.

One of the advantages of the location of Wye Cottage, apart from the proximity to the railway, was the scenery nearby.

This photograph of the Tidenham horseshoe bend on the River Wye was taken a short distance from the house by Alastair Yockney in 1931. Alastair was one of the five Yockneys appearing on the 1939 Electoral Roll for Wye Cottage.

On the envelope that contained this photograph and the local newspaper cutting is written:

'Photo of the Tidenham Bend 1931 from the cliff at Wye Cottgae by Alastair 1931'.



Acknowledgements

Mr Iain Langston Yockney, a descendent of Samuel Hansard Yockney has been very helpful in making available relevant extracts from the family records and in providing background information.

Annette Ruehlmann, librarian at the Institution of Civil Engineers, has gone to considerable lengths in identifying key documents that have been incorporated into this history.