THE STONEHOUSE BRICK AND TILE COMPANY

Ray Wilson

Introduction

A survey of brickmaking in Gloucestershire published in 1910 reported six brickworks operating in the Stroud and Stonehouse area while a further seven had closed in recent times. (1) Brief details of the thirteen sites are given in Appendix 1. The three sites still working at Stonehouse included that of the Stonehouse Brick and Tile Company Ltd which was the largest of all thirteen sites. Their works covered about 20 acres of land in one tract to the north east of Stonehouse town centre (SO 809052). The brickworks had the benefit of its own private siding as it was situated immediately to the north of the Great Western Railway and just to the east of Stonehouse Burdett Road (GWR) Railway Station. The company started production in 1891 and it was the last of the local brickworks to close when production stopped in 1968.

Very little appears to have been written about the history of brickmaking in the Stroud and Stonehouse area. The following is an attempt to record at least some of the history of one of the major local brickworks. It is freely acknowledged that the account given here is far from complete and that the material presented may subsequently require revision. However, it is considered worthwhile to set out what is available now in the hope that it may stimulate interest in the subject. Thus it may be possible that additional sources will be revealed so that some of the gaps can be filled and any mistakes rectified.

Early history

Evidence of brickmaking on the site prior to the establishment of the Stonehouse Brick and Tile Company is found on the tithe map of 1839 with the pasture called Brick Kiln Orchard. (2) Half a century later in 1890, Mr Arthur W Anderson the manager of the Bracknell Brick and Tile Company was engaged to visit Stonehouse to investigate the possibility of setting up a large scale modern brickworks on the site.(3) The invitation would appear to have come from a local person, Mr E Jenner-Davies, and his business associates. Although A W Anderson was aged only 31 there can be no doubt that he was well qualified for the task. His grandfather, father and two uncles were all clayworkers in County Durham where he was born. He had entered his father's business at the age of 15 and by the age of 20 he was managing a small brickyard at Beverley. Over the next ten years he increased his experience of brickmaking by moving four times and each time to be works manager.(3)

A copy of A W Anderson's report on the Stonehouse site survives and in it he states that "... the top strata of about 3 or 4 feet would be very suitable for making drainpipes, roofing, ridge or other tiles and the clay below that for the making of building bricks etc.".(4) He continues that "... he did not remember having seen any place that seemed so naturally to accommodate itself to the conditions required for economical working and if carefully planned and laid out in the first instance a place could be made that would be able to produce goods at such a cheap rate as to make a most profitable investment". That seems to have been sufficient for Jenner-Davies and his colleagues and on 22 December 1890 the Stonehouse Brick and Tile Co. Ltd. was formed.(5,6)

The Chairman was Mr M P Hayward of Cheltenham and Mr E Jenner-Davies of Stonehouse and Mr J F Hayward of Bath were Directors.(6) In his report A W Anderson offered to experiment with clay samples so that he could "speak with more certainty as to the goods that could be produced from it, the best methods of working, the most suitable machinery etc.". Whether he did this is not clear but what we do know is that he was in fact appointed as the first works manager and charged with the job of setting up the works from scratch.(7)

The Early Years (1891-1908)

Production started in 1891.(5) At first a small area of the site was levelled to allow the necessary buildings to be erected.(6) Later, the clay pit was progressively cut into the mass of Liassic clays slipped down from the Cotswold scarp face.(8) This hillside is known as Gay's Hill and is separated from the much larger Doverow hill to the north-east by a shallow valley. Figure 1 shows a plan of the works taken from the 1923 edition of the 1:2500 Ordnance Survey map.

Over 20 distinct strata have been identified in the clay face.(8) They include the Capricornus and Lower Margaritatus beds of the Middle Lias which, according to Richardson, constitute the best natural brickearth in Gloucestershire.(1) As early as 1904 the clay below the Marlstone Rock Bed capping Gay's Hill was already being worked to a depth of 100 feet. The various deposits were given local names such as "yellow plastic", "brown marl" and "blue lias".(6)

The Number 1 plant set up in 1891 consisted of four 'Newcastle' kilns, brickmaking machinery by Whitehead, a horizontal high pressure steam engine by Lees of Hollingwood with a Cornish boiler, grinding rolls and the necessary haulage gear for the clay.(5-7,9) The works were also equipped with specialist grinding and pugging machinery for the production of tile and terra cotta. (Pugging is the process where clay is ground with water to make it plastic so that it can be extruded or moulded.) A more detailed account of the Number 1 plant is given in Appendix 2.

'Stonehouse bricks' typically have a bright light-red terra cotta colour when fired which is very attractive. Other colours such as 'buff', 'grey' were also available depending on the clay and the amount of firing. The bricks were generally considered to be of good quality although it appears that some problems were encountered towards the end of the firm's working life. The firm produced detailed catalogues of its products with prices and these are summarised in Appendix 3. A W Anderson's papers recall that "The.... bricks have been largely used in the building of first class residences, railway stations, churches, schools and public buildings".(5). Appendix 4 gives a selection of buildings that used brick and terra cotta products manufactured by the company. A very important order secured when the works had only been in operation for about three years was a contract to supply the facing bricks for the rebuilding of St George's Church, Worcester. The work was carried out by the eminent architect, Sir Aston Webb, R.A. He used Stonehouse bricks for facing and ornamental work both outside and inside this church. It ought to be mentioned in passing that it was in St George's Church Morcester that our late President, the Rev. Wilbert Awdry married Margaret Emily Wale of Fernhill Heath near Worcester on 30 August 1938.

Accounts show that the private siding serving the works had been installed by 1892 which permitted direct loading of waggons from the kilns.(6,10) In that same year a gross profit of £163 was made on a turnover of £2912. The turnover had doubled by 1896 but the gross profit was now nearly £1800.(10) In 1894 the Gloucester firm of Bruton, Knowles and Priday compiled a detailed inventory when valuing the site and plant at £6550 and safe for an advance of £3000.(11) Thus in 1898 the Company felt sufficiently confident to more than double capacity by installing the Number 2 plant.(5-7,9) This was built just to the east of the existing Number 1 plant. It included a new steam engine, boiler, brickmaking machinery and drying plant. The five new kilns each had a capacity of 150,000 bricks per week which was 50% higher than each of the four original kilns.(5) Again, the plant is described in more detail in Appendix 2.

It was at about this time that the large chimney was built which was to remain a major landmark in the district for the next 65 years. It was 17 feet in diameter at the base and at 202 feet high it was reputedly the tallest chimney in Gloucestershire. There is a suggestion that originally it was to have been only 190 feet high. However, there was a chimney near Bristol that was slightly higher than this and so the height of the Stonehouse chimney was increased so it could claim to be the tallest in the county when completed in 1900.(5) It has been calculated that the chimney contained 273,000 bricks weighing 1100 tons. The contractors were the Stroud firm of Orchard and Peer and it cost $\pounds790.(5)$

A totally different market the company appeared to be considering was the supply of clay for use as "fuller's earth" in the woollen cloth manufacturing industry. A report dated March 23 1892 from Mr G Embrey the Public Analyst for Gloucester advised Mr Anderson that the clay samples he had provided agreed chemically with fuller's earth.(12) However, because there were no visible fossils Mr Embrey continued that it was impossible to say if it had been obtained from the formation known by that name. He then commented that "the fuller's earth of commerce is subjected to a process of washing to separate the fine from the coarse particles and if you adopt this course I feel sure you will obtain a product equal to any in the market". Unfortunately, we do not know whether Stonehouse fuller's earth was capable of doing the job and whether it was ever marketed. One suspects it was neither.

Good Times and Bad Times (1908-63)

We can gain some insight into the mixed fortunes of the Company over the years 1908 to 1936 from an almost complete run of printed annual reports that have survived.(13) These contain the accounts and balance sheets and a brief summary of the past year which usually makes gloomy reading. For example the summary for 1908 refers to the building trade being bad for some years. Nevertheless, they did return a profit of £323 although no dividend was payable that year on the ordinary shares. The assets of the Company had risen to £19,700. By 1913 the Directors were still disappointed with the trade and they lamented that coal prices were up and they had been forced to pay for a lot of repairs. The assets remained virtually unchanged that year at £20,200 but profits were up to £675 and they did manage to pay a 5% dividend on the ordinary shares. During the first half of the First World War things did become worse and both the profits and the Company assets declined until in 1917 the assets had fallen to £18,600 and a loss of £246 made. This was the first deficit since the first two years of operation over 25 years earlier.(13) A major setback to the company occurred in 1914 with the death of A W Anderson at the early age of 55.(14)

However, 1917 saw the first orders direct from the Ministry of Munitions. It is not reported where the bricks were supplied to and it is tempting to think they were for the huge No 5 National Filling Factory at Quedgeley to the south of Gloucester; however, the construction of the factory was essentially complete by July 1916.(15) The following year the War Office had taken control and output doubled. Most of the production was destined for the war effort and only small quantities were available for private customers.

In 1919, after the war had ended, production increased but now the complaint was that there was a shortage of coal.(13) Profits had shot up in 1918 to £1020 and £828 the next year. Dividends of 6% and 8%, respectively were paid on the ordinary shares for these years. Next came two bonanza years with profits in 1920 and 1921 of £2128 and £3605 with dividends of 10% and 12.5%. Then two years later in 1923 the profits slumped to £235 and the building trade was reported to be very bad. The highlight of the 1926 report was that they were now loading direct so there was no double handling. The 1927 report covered the results of the General Strike when the works practically came to a standstill through a lack of coal. The best year of any in this period was 1928 when the profits reached £3804 and a record dividend of 15% paid. The directors conceded that it had been a successful year! In the next five years trade was steady and the profits ranged between £1297 and £2122 with dividends never less than 8%. By 1936 the assets had slowly risen to £24,300.(13)

Sometime after 1936 and before 1940 the company was sold to a consortium of three wellestablished Gloucester building firms. These were W J B Halls and Co., Barton Street, W T Nicholls Ltd, St Pauls Road and J Byard and Sons, Bristol Road.(16) The new owners sought to bring in changes. They installed a new manager, and brought in experts from the north to advise on what improvements should be made to the brickworks. These changes were not welcomed by the established workforce of about 30 to 40. Many of these workers had been with the company for many years.(17)

Considerable changes were in fact introduced. Additional kilns were built on the south eastern part of the site bringing the total up to about 14.(15) A ground mounted monorail system was installed to move the brickearth from the clay face to the brickmaking area by means of small trucks that were operated in pairs. One truck was fitted with a Lister diesel engine which provided both the motive power and the means of tipping the trucks.(18)

The uses the bricks were put to were very varied. Many millions were used in works for the War Office authorities. One of the first consignments carried by the SS Lusitania on her trial trips, before she was put into her regular work of crossing the Atlantic, was a small lot of Stonehouse facings and ornamental goods. These were carried to Gibraltar, to be used there for the embellishment of the officers' quarters. Large numbers of vitrified bricks were produced for stable floors and other paving.(5) An interesting story is that Stonehouse bricks were used in the building of Cape Town post office. Unfortunately, the building has now been demolished and enquiries have so far been inconclusive.(17). Stonehouse Police Station and Post Office are two good examples of the company's products. The Post Office is built using very attractive 'rustic' bricks which were produced by 'roughening' the facing surface of the brick with a wire when they were extruded from the pug mill.

An interesting insight into a neighbour's view of the brickworks in 1954 is given by the headmaster of Wycliffe College, W Sibley, writing in the Wycliffe Star (19)

"Some of us seeing a great cliff of rock and earth and clay where there were once green fields down which we could toboggan, and hearing the daily blasting which means another piece of Doverow gone for ever, are tempted to regard the Stonehouse Brick and Tile Company with rather mixed feelings. Yet we must all recognise that this company is rendering to the reconstruction of England and it is worth noting that scholars are far from being the only educational output of Stonehouse . During the present year facing bricks made at Stonehouse have been used in new buildings of schools and colleges so wide apart as the University College of North Wales at Bangor, Exeter University College, New Didsbury College at Westbury on Trym, Aylesbury Secondary Modern School and the High Wycombe College of Further Education in Buckinghamshire".

Unfortunately the owners were suffering increasingly from competition from the large producers who were using clays containing combustible material which significantly reduced their fuel costs. Radical steps were called for and so the old Newcastle kilns were demolished and replaced by an oil fired tunnel system supplied by a German firm.(20) The system was an early example in this country of a fully automated tunnel kiln. However, its firing characteristics were very different to the old style of kiln and considerable difficulties were experienced in getting the new kiln to produce satisfactory bricks consistently.(20) It was probably this competition and the production difficulties which forced the firm to go into voluntary liquidation in either late 1962 or early 1963.

The Final Years (1963-68)

The brickworks including the plant were sold in 1963 for £25,000 (21) and immediately leased to two brothers Samuel and Ronald Hurdiss who had considerable experience of brickmaking. The brothers formed the Stonehouse Brick and Tile Co (1963) Ltd. and employed Samuel's son David as foreman. David Hurdiss had worked in various brickworks leased by the family and prior to coming to Stonehouse was thought to be the youngest brickworks manager in the country when he was running a site at Leamington at the age of 23. The family introduced further changes such as new methods for handling the clay in bulk and moving the bricks on site using pallets and fork lift trucks. They also concentrated on getting the tunnel kiln to operate satisfactorily. Production averaged 100,000 bricks a week but peak output was as high as 220,000 per week.(20)

The now redundant 202 foot high chimney was demolished on October 14 1965. It has been remarked that it had been retired aged 65! Spectacular photographs of the toppling of the chimney were published in the local papers.(22)

The family decided to specialise in the production of high quality 'rustic' facing bricks, although they also made 'Class B' engineering bricks and 'commons'. Unfortunately, they had considerable problems with the 'rustics' with lime blowing out in 'puffs' through the facings after firing and greatly disfiguring the bricks. If this happened after the bricks had been laid it was a very expensive business to put it right.(20)

The new company found trading in the mid 1960's to be very difficult. There was very stiff competition from the very large producers such as the London Brick Company. There has been the suggestion made that the Stonehouse company closed because they ran out of suitable clay and the bricks made from the available clay resulted in sub-standard bricks. However, the problem of the lime in the bricks had been effectively overcome by using clay of excellent quality from the far south eastern end of the site. In any case, the production of the 'Class B' engineering bricks and 'commons' was not affected in the same way that the facing bricks were.(20) The difficult economic climate in the mid-1960's brought production to a complete halt several times. In 1967 David Hurdiss became the production manager of the works but this was to last only one year. In early 1968 the family decided to close their operation at Stonehouse and concentrate on their other brickworks. It took several months to dispose of the stockpile of some 3 million bricks.(20) After closure some of the main buildings were used for a few years by various small firms.(17,23)

The present use of the Site

The Planning Authority (Stroud District Council) had the choice of Industrial Development or Residential Development. It was felt that the latter use was preferable because of the relatively poor access and close proximity to the Town Centre. During the development in about 1978 the derelict buildings and flues presented particular problems. In addition there was no drainage and the brick clay face was considered dangerous because of slippage but was of scientific interest on account of its fossils.(24)

About 135 houses were built on the site to form the Rosedale housing estate and they had to have specially designed foundations because of the clay and former workings. Top soil had to be imported for the gardens and the site was provided with a new drainage system. The cliff face was surveyed, loose clay was cleared and a trench and an embankment formed at the bottom to catch any future fall and protect houses, gardens and personnel.(24)

The three new roads were named Rosedale Avenue, Oak Way and Anderson Drive. The last name is in honour of the man who laid out the brickworks and was its first manager. The Queens Road railway bridge had a low arch and so full size furniture vans could not use it. The Planning Officer arranged for a note to be put on land searches warning prospective purchasers of the low bridge. The Developers were concerned about this in case they lost sales but in fact the houses sold very well.(24)

Concluding Remarks

Today, it is thirty years since the Stonehouse Brick and Tile Company works closed. The new housing estate and the vegetation growing on the cliff face now make it difficult to imagine that a significant part of Gay's Hill was turned into millions of bricks on this site over the course of 75 years. The brickworks may have gone but it will have its memorial for many years to come with its distinctive products to be found in all kinds of buildings, both local and further afield.

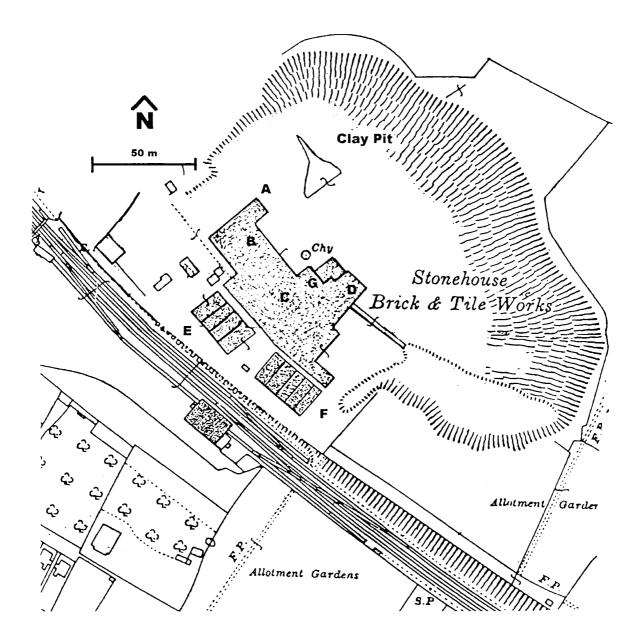
This account is only part of the story and it is hoped that further information may come to light to fill in at least some of the significant gaps. Equally, the site was, of course, only one of several that operated in the area and it is hoped their history will also be researched.

References

- (1) Richardson, L and Webb R, Brickearths, Pottery and Brickmaking in Gloucestershire, *Proceedings of the Cheltenham Natural Science Society*, 1910, New Series, Vol. 1(4), pp 223-287, Gloucester City Library, BT 1376.
- (2) Gloucestershire Record Office (GRO) GDR/T1/172.
- (3) *The British Clayworker*, February 1906, p 339, Profile of A W Anderson.
- (4) GRO D2012/2.
- (5) A W Anderson's papers in private hands.
- (6) Industrial Gloucestershire, published by Chance and Bland, Gloucester, 1904.
- (7) *The British Clayworker*, July 1912, pp.104-105, Description of the Works.
- (8) C P Palmer, *Proceedings of the Bristol Naturalists Society*, 1971, pp 58-86.
- (9) *The Gloucestershire Chronicle*, Saturday June 30 1923, p 7 (Gloucester City Library)
- (10) GRO D2012/6.
- (11) GRO D2012/4.
- (12) GRO D2012/3.
- (13) GRO D2012/5.
- (14) The British Clayworker October 1914 pp 174.
- (15) B Edwards, National Filling factory No. 5, GSIA Journal for 1994, pp 32-52.
- (16) Mr K C Pegler, Former Trainee Manager in the 1940's, Stonehouse Brick and Tile Works Co., Personal communication, 1996.
- (17) Discussion with Mr J H A Anderson in 1994. Mr J H A Anderson is the grandson of Arthur W Anderson, Manager of the Stonehouse Brick and Tile Co. (1890-1914) and he worked in the office of SBTC between 1932 and 1940.
- (18) Discussion with Mr G Harrison, 1995, Former employee, 1940's, Stonehouse Brick and Tile Co.
- (19) The Wycliffe Star Sept-Dec 1954 p 74.
- (20) Discussion with Mr D S Hurdiss, 1998, Foreman 1963-67, Production Manager 1967-68. Stonehouse Brick and Tile Co. (1963) Ltd.
- (21) GRO D1405 2/596.
- (22) The Citizen, Gloucester, 15 October 1965; Stroud News and Journal, 22 October 1965.
- (23) Mr G W Hudson, Personal communication 1995.
- (24) Mr D Ashley, Former Chief Planning Officer, Stroud District Council, Personal communication, 1995.

Acknowledgments

The author gratefully acknowledges information and assistance provided by many people, including the following: Mr J H A Anderson, Dr G N Annis, Mr D Ashley, Mr A Barnard, Mrs D M Crawford, Mr P J Harris, Mr G Harrison, Mr G W Hudson, Mr D S Hurdiss, Mr J Keck, Mr K Pegler, Mr A J Price, Mr J R Simmons, Mr C H A Townley, and the staff of the Gloucestershire Record Office and the Gloucester City Library (Gloucestershire Collection).



Key

- A Drying area for pressed bricks
- B No 1 brickmaking machine
- C Large brick drying area
- D No 2 brickmaking machine
- E 4 kilns (1891)
- F 5 kilns (1899)
- G Hand made bricks area
- Figure 1 Stonehouse Brick and Tile Company: Site Plan (OS 1:2500 Maps, Glos. 41.14 and 49.2, 1923

APPENDIX 1

BRICK MAKING SITES IN THE STROUD DISTRICT MENTIONED IN THE RICHARDSON AND WEBB SURVEY OF 1910^{*}.

The survey gives a brief account of all the main brickworks in Gloucestershire that were working in the early years of the 20th century. It also mentions a number of brickworks that had recently ceased production. The sites are grouped according to the nature of the deposits used. In the Stroud and Stonehouse area the thirteen sites listed below are described. Twelve of these sites are associated with the Lias deposits which lie below the Inferior Oolite. One defunct site on the edge of Selsley Common was in the clay deposit known as 'Fuller's Earth' which lies between the Inferior and Great Oolites. Grid references are given for the sites with discernable remains today.

A LIAS DEPOSITS

Lightpill, Stroud

This small brickworks was located on the west side of the railway at Lightpill Mills and disused by 1911. The site produced cream coloured bricks, the colour being attributable to the amount of lime present in the raw clay obtained from the Upper Lias deposits. No obvious signs of the site are visible today.

Holcombe near Nailsworth

Clay pits were opened in the early 19th century in the bottom portion of the Upper-Lias near the Avening Road close to the Weighbridge Inn. The site was not operational in 1911 and there are no obvious signs of it today.

Harper's Brickworks, Rodborough Stroud [SO 843046]

This medium sized site lay to east the of the Bath Road. It was operational in 1911 and today forms part of an industrial estate.

Lightpill Brickworks near Dudbridge, Stroud [SO 838043]

The works lay to the north of Dudbridge Hill and to the east of the old railway. It was operational in 1911 and the survey relates that "the well built kiln is heated by flues underneath". Until very recently the site had been used as a depot for a building firm.

Dudbridge near Stroud [SO 837045]

Samuel Jefferies and Co. operated this site in 1911. It also lies to the north of Dudbridge Hill but unlike the Lightpill Brickworks it was situated west rather than east of the old railway.

Although disused by 1924 the site has not been significantly redeveloped.

Brimscombe Brickworks near Stroud [SO 880022]

This small site closed in the 1890's. The bricks were handmade. Two police houses now occupy the site on the north side of the Stroud to Chalford road.

Small Site on the Chalford side of Brimscombe Station near Stroud

This very small site also closed in the 1890's. No obvious signs of the site are visible today.

Small Site at Thrupp near Stroud

Another very small site which was also closed at the same time as the two Brimscombe sites. No obvious signs of the site are visible today.

Lansdown, Stroud [SO 857055]

These works were situated to the south east of the northern end of Lansdown. They had been abandoned by 1911.

Imperial Works, Stonehouse [SO 816049]

These large works were opened by Samuel Jefferies in 1899. Like the Stonehouse Brick and Tile Co. their works were immediately to the north of the Great Western Railway but about half a mile to the east. A Hoffman kiln "of the improved design" was used. The brickworks remained in production until the 1950's. The site retains an industrial use today. A number of buildings survive from the time of the brickworks.

Atlas Works, Stonehouse [SO 817047]

The Atlas works were situated on the north of the main road from Stroud to Stonehouse and south of the Great Western Railway. According to the survey the yard dates back to 1860 and is the original yard that gained for the bricks from this neighbourhood the name of "Stonehouse bricks". It was operated in 1911 by Messrs Samuel Jefferies and Sons. It has been disused for many years.

Stonehouse Brick and Tile Co. Ltd [SO 809052]

This site is the subject of the present paper and is now a housing estate. The cliff face survives but is starting to become covered in vegetation.

B FULLER'S EARTH DEPOSITS

Longwood Farm, Kings Stanley - just off Selsley Common [SO 820021]

This small site was worked up until 1880. It lies to the south of the road between Nympsfield and Selsley about 500m from Selsley Common. The site is clearly identifiable from the uneven ground and the small cliff face where the clay was dug.

*Richardson, L and Webb R Brickearths, Pottery and Brickmaking in Gloucestershire, *Proceedings of the Cheltenham Natural Science Society*. 1910, New Series, Vol. 1(4), pp 223-287, Gloucester City Library, BT 1376.

APPENDIX 2 INSTALLED PLANT AT STONEHOUSE BRICK AND TILE CO

Plant No 1 erected in 1891 (Refs. 5-7, 9 in main text)

Cornish Boiler 22 ft x 5 ft 6 in - working pressure 70 psi. Horizontal high pressure engine by Lees of Hollingwood. Cylinder 14 in bore, 30 in stroke with drop valve cut-off gear by Excelsior Engineering Co. Stroud Ltd. Double delivery wirecut brick making machine by J Whitehead & Co. with three pairs of grinding rollers and clay hauling gear. The above has a capacity of 2000 to 2500 bricks per hour. Small clay grinding and pugging machine for grinding clay for tile and terra cotta making by John Whitehead and Co. Auxiliary engine for

driving this by Robey & Co. Lincoln. Six foot Mortar Mill by Smedley Bros, Belper with horizontal engine for driving same.

Kilns: No 1 block of 4 double ended Newcastle type kilns built in 1892 comprising kilns 1,2,3 and 4 capable of burning about 100,000 bricks a week.

Plant No 2 erected in 1898-99 (Refs. 5-7, 9 in main text)

Brickmaking: Lancashire Boiler by Daniel Adamson & Son, Dukinfield, 24 ft x 6 ft 6 in working pressure 100 psi. Horizontal engine cylinder 17in bore, 30 in stroke with patent automatic valve cut-off gear. Double wiper delivery brick machine by John Whitehead and Co. Hauling gear. This plant has a capacity of 3000 to 3500 per hour. One "Titley" power press. One "Toggle" lever power press by Pullan and Mann, Leeds. Engine for driving presses and brick crusher by Robey & Co Lincoln. 1 brickbat crusher by Jackmen & Co.

Drying plant: Single floor $100 \ge 30$ ft heated by exhaust steam from engines. Three floors each $100 \ge 30$ ft heated by direct fire. One six track Sutcliffe tunnel dryer fitted with supplementary heating pipe in addition to heated 11 ft ≥ 6 ft fitted with 230 3 in tubes. A through heater with a 48 in Sutcliffe fan driven by an engine made by the Green Economiser Co. Tunnels 110 ft long. Total length of dryer 165 ft and width 26 in. Sidings for dry bricks and for returning empties all roofed over.

Kilns: No 2 block of 5 double ended Newcastle type kilns built in 1899. Capacity about 150,000 per week.

Additional Plant c.1940-1957 (Refs. 16, 18 in main text)

Ground mounted monorail system for transporting clay from face. Five more kilns.

Plant Present in 1963 (Ref. 21 in main text)

Oil fired tunnel kiln 230 x 40 ft, 14 ft to the eaves, 9 ft diameter wet grinding pan, Rawdon brick de-airing machine (3000 bricks per hour), 95 h.p. Fielding & Platt diesel engine, Braithwaite type tank 30,000 gallons, 201 ft tunnel kiln.

APPENDIX 3

SUMMARY OF PRODUCTS AND PRICES FOR BRICKS TILES AND TERRA COTTA PRODUCTS

These details are taken from two catalogues in private hands published by the company. Unfortunately the date of the main catalogue is not known. Items indicated by * are from a smaller catalogue of specialist products dated 1930. The prices have been converted into decimal currency.

Wire-cut Bricks (prices per 1000 bricks)

3 in Commons: £1.50; 4 courses with joints to rise 1 ft: £1.38. **Red Pressed Facing Bricks** (prices per 1000 bricks) 3 in: £2.30; 4 courses with joints to rise 1 ft: £2.10

Red Sandfaced facing Bricks (prices per 1000 bricks) 2 in: £2; 3 in: £2.80; 4 courses with joints to rise 1 ft: £2.45 **Red Moulded Bricks** (Various types - typical price £3 per 1000 bricks) Vitrified Goods (prices per 1000) 3 in vitrified Common bricks for paving etc: £1.80 to £2; Pressed stable floor blocks (Grooved or fluted): £3; Pressed Sidewalk or Roadway Bricks: £3.10. Window Sills (Various designs prices 2p to 8p per foot run). Arches for Window or Door Heads (Various designs prices per foot run of opening) Plain Arch: 8p; Semi-Arch: 10p; Semi-ellipsis Arch: 15p; Moulded Arch: 13p to 15p. **Panels** (price each) 7 course Vertical 14 in wide: 38p; 4 course Horizontal 32in long: 38p. **Paterae** (Various designs, price each) 3 course: 4p; 2 course: 2p; Key Bricks: 8p. **Pillar Terminals** (price each, for different sized pillars) 9 in: 8p; 14 in: 38p; 18 in: 53p. Air Bricks (Red Terra Cotta price each) One course by 9 in: 3p; Two course by 9 in: 5p. **Balustrades** (prices per foot run) with coping and plinth: 13p; with coping and plinth and arches: 18p; **Copings** Large number of designs (e.g. half round and Roll Wedge) with or prices from 1p to 8p per foot run. without drip: Garden Edging (Various designs) 'Rustic' and 'Ornamental' patterns between £1.44 and £4 per 100 ft run. Tiles Double Roman Roofing Tiles (per 1000) red: £6; Dun Coloured: £7; Brown Glazed: £8.25. Broseley Pattern (per 1000) Tile: £1.93 Tile and Half: £3; Hip, Valley and Angle tiles all £1.05 per 100; Plain Ridge Tiles 16p Ornamental Ridge Tiles 21p to 28p per dozen. Red Flooring Squares (per 1000) 9 in: £3.85; 6 in: £1.93. **Finials** Various Patterns (price each) Gable end: 18p; Hip: 18p to 25p; Gable: 18p to 25p. **Chimney Pots** (Different styles 12 in to 30 in high: 5p to 13p each). **Agricultural Drain Pipes** (sizes 2, 2.5, 3, 4, 5, 6 and 9 in) 2 in: £1.38 per 1000; 6 in: £6.05 per 1000 9 in: £1.23 per 100 ft. six designs $\pounds 2 - \pounds 6$ complete. *Fire Places *Sundials 1 brass dial 50p extra. *Bird Baths 78p (cement bird 23p extra). **APPENDIX 4**

A SELECTION OF BUILDINGS FOR WHICH STONEHOUSE BRICK AND TILE COMPANY PRODUCTS WERE USED

Gloucestershire Stonehouse Post Office. Police Station.

	Houses in Queens Road.
	Houses in Verney Road.
	Upper Queens Road (Four Houses opposite the Station have very attractive terra cotta panels).
Rodborough	Houses on Rodborough Hill. The copings on the garden wall of one house on
	the left hand side going up the hill have the oval imprint of The Stonehouse
	Brick and Tile Company.
Gloucester	Hatherley Road Schools (1899 by Alfred J Dunn in neo-Queen Anne style)
	Sewerage Works (327,000 bricks) in 1913.
Cheltenham	Ladies College - Boarding House (1896-98).
Worcester	St George's Church, St George's Square.
	(Architect Sir Aston Webb R.A.) 1893-5.
Swindon	Saint Philip's Church.
	The Presbyterian Church.
	Clarence Street School.
	Euclid Street School
	Additions to the Technical Schools.
	Market Buildings.
Westbury on Trym New Didsbury College.	
Aylesbury	Secondary Modern School.
High Wycom	be College of Further Education.
Marlborough	College (100,000 bricks) in 1909.
Exeter University College.	
Bangor University College of North Wales.	
War Office b	uildings (Bulford and Barracks at Tidworth on Salisbury Plain - 6 million bricks).
Railway worl	k "large quantities" for the Great Western Railway and Midland and South Western Junction Companies.
Overseas	
South Africa Cape Town Post Office (now demolished).	
Gibraltar	Embellishment of the Officers' Quarters.
	(Carried by the SS Lusitania on a trial trip).
Argentina	Buenos Aires, Memorial tower to King Edward VII in 1912 (55,000 bricks and
	a further order in 1913).

Sources

A W Anderson's papers in private hands Mr J H A Anderson, former Clerk to Stonehouse Parish Council and employee of the company.

Industrial Gloucestershire

Personal knowledge as a result of site visits and conversations with local residents.