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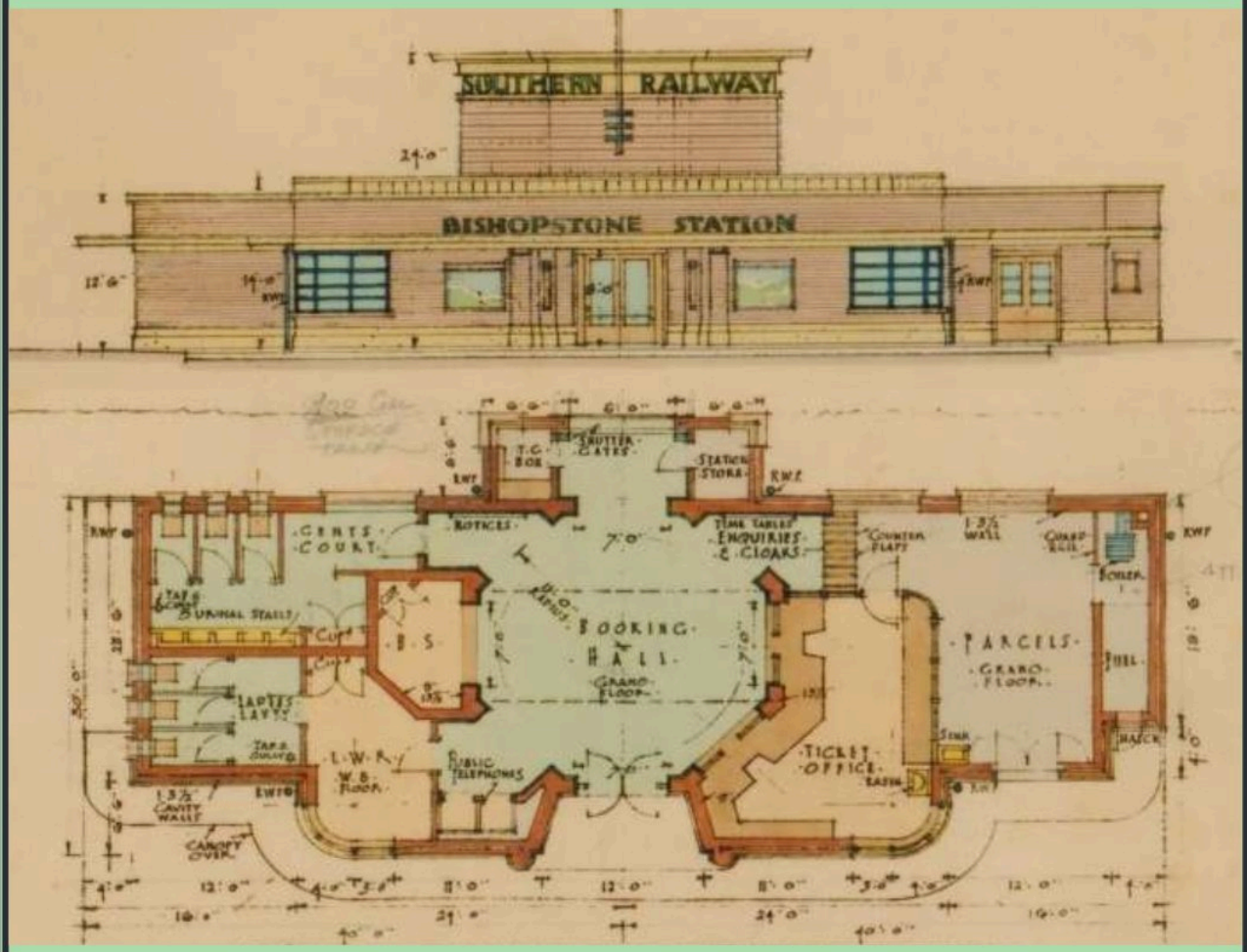

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SUSSEX INDUSTRIAL HISTORY

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Cover illustration: Details from James Robb Scott's architectural drawings of Bishopstone station buildings, showing the front elevation and plan of the main building.

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THE RAILWAY ARCHITECTURE OF JAMES ROBB SCOTT

Alan H J Green

Fig. 1 *Southern Style* – the frontage of Surbiton station, rebuilt on an heroic scale for what was only a suburban station in 1937 to designs by James Robb Scott, and regarded as his finest achievement. Stylish, clean, white-painted, full-blown Art Deco; its lines epitomised the 1930s and reflected the Southern Railway's modern image. Note the clock tower to remind approaching travellers how time was ticking away, and the trolleybus wiring which adds to the period feel. The building was listed Grade II in 1983. (*Author's collection*)

Introduction

The 1930s were an age of elegance, characterised by the Art Deco style of decorative art with its clean (without being austere) lines, uncluttered decoration and curvaceous profiles which was applied to virtually everything from domestic wares through decor to architecture. It was - in a word - *stylish.* Here in Sussex this was nowhere bettered than in the sleek horizontal lines of Mendelsohn and Chermayeff's De La Warr Pavilion in Bexhill.

The Southern Railway, the smallest of the Big Four railway companies, chose to reflect its modernity not in streamlined trains but by undertaking electrification of its main lines in Surrey, Sussex and east Hampshire, extolling the advantages of clean, regular interval services on which there was no risk of your stylish new outfit becoming 'besmutted' en route to your stylish gathering.

The *Brighton Belle* apart, Southern style was chiefly to be displayed in its new and rebuilt stations, designed by their Chief Architect, James Robb Scott and his team at Waterloo.

James Robb Scott (1882 -1965)

James Robb Scott was born 1882 in the Gorbals, Glasgow, the son of the architect Andrew Robb Scott. He trained in Edinburgh as an architect, being articled around 1900 to the practice of Leadbetter & Farley. He then left for the bright lights of London, joining the practice of Belcher and Joass. John Joass was a fellow Scot which doubtless aided Rob Scott's career prospects as he was quickly promoted to the position of Chief Architectural Assistant.

His stay with Belcher & Joass was to be short however, for in 1907 he joined the London & South Western Railway (LSWR), appointed by its Chief Engineer, Alfred Szlumper, as his architectural assistant. He first worked on the extensive rebuilding of Waterloo between 1909 and 1922 where he designed the impressive sweep of main concourse buildings which housed the General Offices of the LSWR[1]. The west end entrance was designed as the LSWR war memorial, the *Victory Arch.* The style he used at Waterloo was neo-baroque, in the so-called *Wrenaissance* manner so popular in the early years of the 20th century. Robb

Scott's work at Waterloo survives, but sadly on the concourse side the elegant curving façade has been partially obscured by the commercial raft recently added at first floor level.*

Fig. 2 The concourse of the rebuilt station at Waterloo. The curving line of buildings on the right, which housed the General Offices, were Robb Scott's first railway job. (*Author's collection*)

At the Grouping, Szlumper became Chief Engineer of the new Southern Railway, and he appointed Robb Scott as his Chief Architect based at Waterloo. Strangely, despite this high office, Robb Scott never became a full member of the RIBA but simply remained a licentiate[2].

From 1925 the SR began a programme of rebuilding many of its stations across the system to designs produced by Robb Scott and his team. The first was Ramsgate in 1925 where a grand new station was provided to replace the independent and operationally inconvenient South Eastern and London Chatham & Dover establishments. This was in a transitional style, best described as 'post-classical' marking the start of Robb Scott's move from his previous neo-baroque towards the *moderne* Art Deco style, characterised by flat concrete roofs, steel-framed fenestration and corner windows. A common feature of *moderne* fenestration was the use of horizontal (lying) panes which emphasised the essentially horizontal lines of British Art Deco buildings. Messrs Crittall of Witham in Essex cornered the market in steel window manufacture and still exist today. Another characteristic of the Art Deco style was white or cream-painted stucco to walls, but although he used this at Surbiton and some of the Chessington branch stations, Robb Scott generally preferred exposed brick with stone or rendered dressings. Either way it was usually very stylish and business-like, as befitted the SR's new modern electric image.

It should be pointed out at this stage that we should not imagine Rob Scott sitting at his drawing board and churning out all the drawings single-handed. He had a team under him and in many cases he would just be the controlling mind behind the designs. As with architectural and engineering practices today each job would be allocated as a project to an individual in the team. His chief assistant from 1923 to 1927 was Edwin Fry who, in his autobiography, was rather scathing about the ability of Robb Scott and many of his staff[3]. There was clearly professional rivalry here, but he may well have had a point as the team's output is of variable quality as is demonstrated by the six Sussex examples. The drawings for Hastings and Bishopstone - reproduced here - do not carry any draughtsmens' signatures, making attribution to an individual impossible.

Fig. 3 Chessington North on the Chessington Branch, opened in 1939, is perhaps the most bold of Robb Scott's designs with its white-painted curvilinear, reinforced concrete cantilevered canopies, and horizontal Crittall windows set in the back walls . (*Author's collection*)

The Southern's electrification project involved some expansion of the London suburban network, including a new line from Motspur Park to Chessington South to serve the suburban sprawl of South West London. The line, completed in 1939, had four stations which represented the zenith of

* Waterloo General Offices went on to become the HQ of the Southern Railway and then British Railways Southern Region. At privatisation the whole building was gutted internally, stripping out the corridors of power to make it open-plan for the HQ of both Railtrack South West and Eurostar. Horror of horrors, it was defiled with plastic windows at the same time.

Robb Scott's designs in their German-inspired reinforced concrete canopies which cantilevered out from the station buildings, providing platforms that were free of obstruction from supporting columns. These canopies are in marked contrast to the rather functional steel structures to be seen at Durrington and Bishopstone of two years earlier. Indeed it would seem that before Chessington very few platform buildings got much architectural input and as a result exhibited the decidedly functional 'engineering' approach emanating from the New Works Office along the corridor – and I can say this as an engineer!

Fig. 4. The frontage of Robb Scott's Hastings station as built. The Diocletian window imparts an element of neo-classicism. The square tower to the right is one of the luggage lifts. Note the enamel signs attached to the canopy vaunting the express services on offer. 'Express' has to be interpreted as a relative term as far as the services to the north were concerned. (*Railway Station Photographs*)

James Robb Scott in Sussex

Whereas on the LBSCR T H Myers' distinctive stations were all variations on his one style, Robb Scott designed in the Art Deco *idiom*, resulting in stations that, whilst distinctive, were all different. Here in Sussex, on the Central (former LBSC) Division, four stations were rebuilt by, or under the direction of, Robb Scott, namely Hastings (since rebuilt again) Haywards Heath, Cooden Beach and Horsham, along with two brand new stations at Durrington and Bishopstone. We will look at these six in detail and do so in chronological order demonstrating how the Robb Scott style evolved.

Hastings (1931)

Hastings station was rebuilt on a large scale in 1931 to replace the rather ramshackle South Eastern Railway establishment that previously served the seaside and fishing town. It was similar in some respects to Robb Scott's first Southern station at Ramsgate, but marked an advance in being more *moderne* including a flat roof to the central block, in place of the former's pitched one. With a completely new track layout as well, the remodelled Hastings was ready and waiting for the forthcoming electrification of the East Coast line which was completed in 1935. The contract for building the new station was awarded in 1930 to F G Miniter Ltd.[4]

The symmetrical main building comprised a tall, red -brick single-storey central block, octagonal in plan, housing the booking hall, with lower flanking wings housing the usual offices and a tea room. The octagon had a flat concrete roof with a pronounced cornice, and over the entrance there was a large Diocletian window lighting the booking hall, above which the legend *SOUTHERN RAILWAY* was emblazoned in bronze letters. The flanking wings had pitched roofs clad in pantiles behind Portland stone parapets which reflected the cornice of the octagon. The airy, octagonal booking hall was top lit by glass pavement lights set into a grid in the roof structure, something that was to become a feature of Robb Scott's designs. It was spacious and also very resonant so would have been an ideal space to hold a concert.

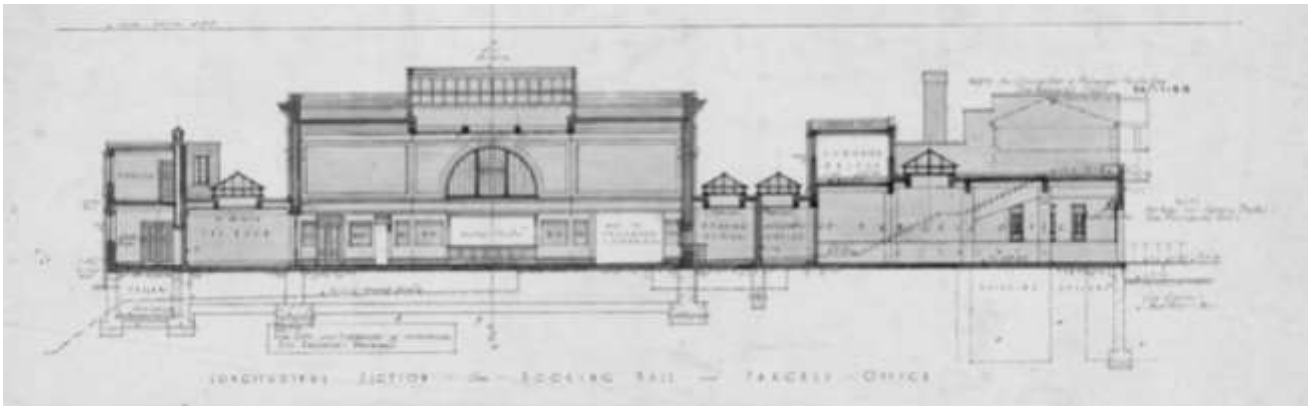

Fig 5. A detail from the drawings for the rebuilt Hastings station giving the longitudinal section through the booking hall and parcels office. The grandeur of the top-lit booking hall is obvious. (*Courtesy of Network Rail Corporate Archive*)

Fig 6. The interior of the spacious booking hall shewing the top lighting. It is bedecked with flags in honour of some obviously momentous, but now forgotten, occasion. (*John Blackwell*)

The buildings had to be remote from the platforms as the latter were arranged as two islands, so it was necessary to ascend a footbridge from the booking hall in order to cross the up loop and a siding to get to the trains. A feature of new SR stations with island platforms was the provision of luggage lifts, and at Hastings these served an independent luggage bridge at the London end of the station. The wide, covered footbridge was of steel construction with a pitched roof and fully glazed.

The platform buildings had standard SR steel canopies over further waiting rooms and lavatories, so there was certainly no shortage of facilities at the new station.

Sadly in 2004 Robb Scott's splendid station buildings were swept away under a 'regeneration scheme' and replaced by a smaller steel and glass structure. The same scheme also redeveloped the goods yard to provide the East Sussex College and a bus interchange. Whilst Connex, and its successor train operator Southern, had not exactly lavished care and attention on the old buildings, they could surely have been refurbished rather than destroyed. The up loop has been cut back to become a bay served from the Ashford direction, thus allowing a level access to be created to the up island. The canopies and most of the platform buildings remain though, albeit now clad in the ubiquitous crinkly tin, but the luggage bridge has gone.

Haywards Heath (1932)

Haywards Heath on the Brighton main line had been a junction station since 1883 when the Ardingly branch opened, and was approached from the north by four tracks, two being the main line and two the branch, but the station itself only had two through platforms[5]. Under the Brighton line electrification scheme, Haywards Heath was remodelled, extending the four tracks south to Haywards Heath Tunnel, but reconfigured as up-up, down-down to serve two new island platforms. The line here is on an embankment and a new remote station building was provided at road level, connected to the platforms above by a subway.

Compared with the grandeur of Hastings the year before, Haywards Heath is rather unadventurous.

Fig 7. The hoarding along the up island at Hastings bears witness to the fact that this is 2004, and demolition of the Robb Scott buildings is underway. Here we see the neglected luggage bridge with its lift towers, which was about to be swept away, and behind it can be seen the span of the footbridge that linked into the main building, also doomed. A Connex-liveried 4CIG awaits departure for either Victoria or Brighton; no head code is displayed so the driver seemingly has not yet made up his mind. (*John Blackwell*)

Fig 8. The frontage of Haywards Heath in early BR days shewing the rather plain building with its wide canopy. Although the poster headers have been changed to BR ones, the old order is still much in evidence in the signage on the canopy and the parapet above. The difference in level between the buildings and the platforms can be appreciated in this view. Signage apart, it has little changed today. (*Author's collection*)

Fig 9. The down platform buildings today which are a mixture of timber and brick construction beneath a standard SR steel island platform canopy supported on a double row of columns. Note that instead of Crittall steel windows multi-paned timber lights have been provided. (*Author*)

The plain single-storey main building is at right angles to the track and houses the booking hall, ticket office, parcels office and bookstall. There is a large concrete canopy to the frontage with a tall parapet behind shielding the flat roof. The booking hall is – or rather was - top lit by glass pavement lights set into a grid in the roof structure as at Hastings, but here, for some reason, they have been painted over. A covered way then leads to the subway through the embankment, providing access to the platforms via stairs and luggage lifts. The platform is covered - as usual - by standard SR steel canopies below which a mixture of timber and brick buildings include waiting rooms lavatories and staff accommodation plus, on the down island, a refreshment room. Instead of the expected Crittall windows the platform buildings have timber multi-pane lights. The signal box, which was next to the up local line, no longer exists but otherwise Haywards Heath is fairly much as built.

Cooden Beach (1935)

Cooden Halt had been opened by the LBSCR in 1905 to serve the western expansion of Bexhill, but by the time of the East Coast electrification the said expansion was deemed sufficient for the halt to be upgraded to the status of a station. A new installation was planned to replace the typical LBSCR timber rail-motor halt, and the name was changed at the same time to Cooden Beach, probably in the hope of luring the unsuspecting London bucket-and-spade brigade to the foot-chafing delights of its shingly shore. It is only two minutes' walk from station to beach so at least the renaming was honest!

Fig 10. The frontage of Cooden Beach in 2020. The unsympathetic conversion to a convenience store, blanking out most of the windows (which had horizontal panes) has robbed it of what little charm it once had. What is now the entrance was formerly the window for W H Smith's bookstall. The station name was originally emblazoned across the parapet in large individual letters: the current effort is rather feeble in comparison. (*Author*)

The railway at this point is on a high embankment so the new station building was provided at road level, perpendicular to the track. Although it was produced in Robb Scott's office, the result does not shew 'Team JRS' at its best, instead being an example of what can happen when the controlling mind is not in control.

The elements – or rather some of them – are there, but the designer clearly did not have a clue as to how to put them together. Indeed, one could be forgiven for assuming that the contract drawing had been a five-minute sketch on the back of a proverbial fag packet. The building is one-and-a-half storeys high so as to accommodate high-level windows above the entrance to light the booking hall, and it is

asymmetrical. The northern portion of the building, to the right of the booking hall, originally housed a shop. All is beneath a hipped tiled roof hidden behind a parapet instead of the expected flat roof, resulting in a large expanse of blank wall. The only concession to comfort is the concrete cantilever canopy sheltering the entrance.

The platforms are linked by a subway through the embankment whence long, covered, dog-leg ramps lead up to the platforms above. These ramps are enclosed in rather flimsy-looking concrete framed timber clad structures and the canopies are of the inevitable utilitarian engineering type. A small waiting room is provided on the down platform

Fig 11. The up platform viewed from road level shewing the covered ramp whose construction starts off in brick but soon becomes concrete framed with timber infill, and also the timber platform screen. (*Author*)

Most of the station building has now been sub-let by Southern as a convenience store, so a new access to the subway and ramps has had to be facilitated by turning the window at the south end into a doorway and creating a tiny new ticket office just inside. The tenant has chosen to blank off all the windows, bar those in the former booking hall doors, by covering them with advertising vinyls, and inserted a suspended ceiling to reduce the height of the former booking hall, none of which has enhanced its appearance.

Durrington-on-Sea (1937)

The third, and final, stage of the electrification of the West Coast line was completed in 1938, plugging the gap between West Worthing and Havant. As part of this a brand new station was built at Durrington-on-Sea. At that time Durrington was the western front of the steadily-advancing sprawl of Worthing* and a new station to serve it was seen as a good idea. Fortunately the controlling mind was back in control in the Waterloo Architects' Office for this one. Durrington opened on 4 July 1937 ahead of commencement of electric services which took place on 30 June 1938.[6] Work started in January 1937 and it caught the imagination of the local press who enthused about the fact that this would be Worthing's fifth station. The *Worthing Gazette* reported that it had been designed 'on a scale proportionate to meet the needs of the new residential area' and that its facilities would comprise a large booking hall and general waiting room with bookstall and ladies waiting room and a large commodious parcels office. The *Worthing Herald* went so far as to opine that it would be a 'railway station deluxe' which was probably taking it a bit far.[7]

Fig 12. The frontage of Durrington-on-Sea as built, shewing the central tower with its massive clock face and the wide flight of steps to the entrance .No concessions were made to disabled access in 1937! Sadly the clock and the Southern Railway lettering have gone, and the original Crittall windows have been replaced in plastic. (*Railway Station Photographs*)

The station building is on the up side, approached by a wide avenue from The Strand in the north. Symmetrical, single-storied and flat roofed, it has square-cornered projecting wings flanking a central entrance to the booking hall, with a reinforced-concrete canopy between, over a wide flight of steps. Originally the legend *SOUTHERN RAILWAY* was displayed in individual bronze letters standing on top of the canopy rather than applied to its fascia; the ensemble is topped by a square tower, also in red brick, given a ribbed appearance by shallow brick pilasters, and carrying on its north face a massive clock face. In true deco style, instead of numerals the clock's dial features hour-division markers. The booking hall below has a deeply coved ceiling. It has been said that the tower housed a diesel powered generator[8] but I have not been able to find any

* The sprawl finally stopped at Goring; at the station as it happened

documentary evidence for this, nor is there any obvious evidence on site as the tower does not exhibit the expected ventilation louvres. Refuelling would have been a challenge as the only access is via a door on its north side which would have to be reached by clambering across the canopy. The need for such a generator here is difficult to fathom.

The clock has long since gone, as has the Southern Railway lettering, much of the fenestration has been plasticised and all the facilities are locked out of use, but at least the station is still staffed.

Fig 13. The up platform viewed from the footbridge. The canopies have been re-clad in 'crinkly tin' and the door on the front of the tower can be seen! (*Author*)

The platforms have long 'engineering' canopies supported on a single row of columns, but there are no facilities provided on the down side. The platforms are connected at the country end by an open footbridge, originally a standard Exmouth Junction pre-cast concrete structure since replaced by a steel one. The station, whilst being neat and thoroughly modern, was not as commodious as Bishopstone of the following year.

Bishopstone (1938)

The Seaford Branch was electrified by the Southern Railway in 1935 and electric services commenced on 7 July that year serving the existing Bishopstone station near Tide Mills. The following year the Guildhall Development Co planned to build housing estates near Bishopstone and paid the Southern Railway to construct a brand new station to serve them.[9] In 1938, when the new station opened, the old one was renamed *Bishopstone Beach Halt* and used in the summer months only, but closed for good in 1942.

The new Bishopstone station was situated 48 chains (956m) to the east of the existing one, with its buildings at the top of a cutting and linked to the

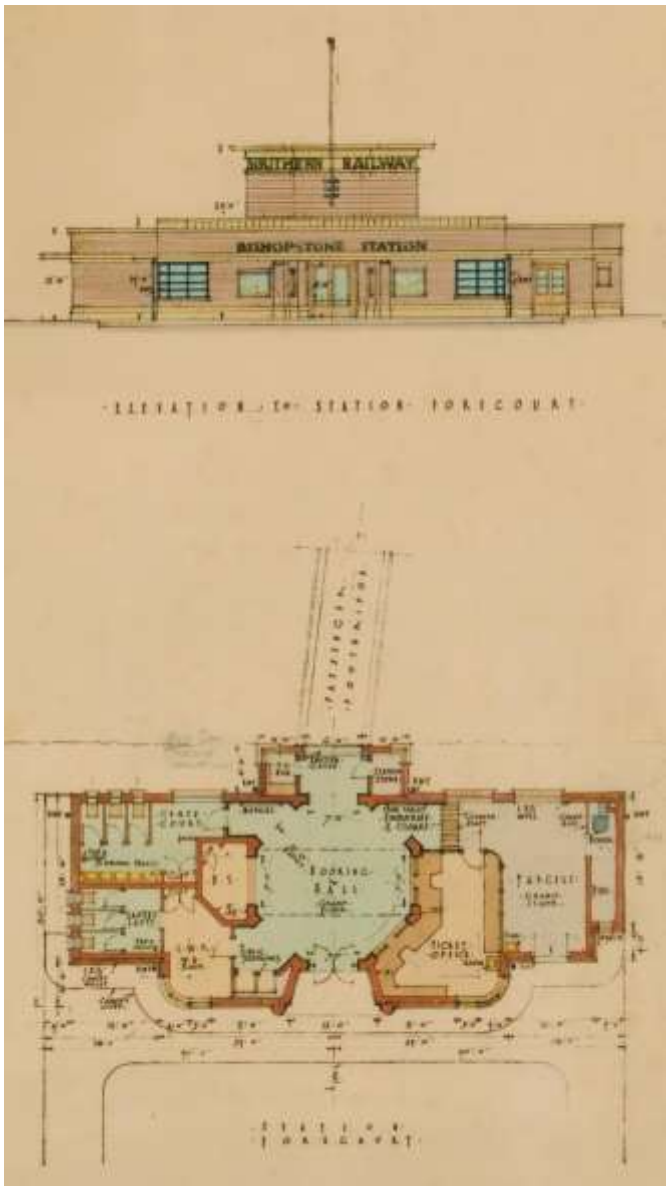

Fig 14. A detail from the drawings of Bishopstone shewing the front elevation and plan of the main building. Comparison with Fig 15 below reveals that the intended horizontal fenestration was not achieved. (*Courtesy Network Rail Corporate Archive*)

platforms below by a footbridge. It was built by J W Ellingham Ltd.[10]

The new station opened on 26 September 1938, but the proposed housing development never materialised (the War undoubtedly did not help) and the new station was far less convenient than its predecessor. Not only that, it was built across a public right of way to the beach and so, as the station footbridge was the replacement for the previous foot crossing, the station buildings had to remain open all night*. The station was eventually to

* This is still the case – your author often wondered why no platform tickets were ever issued at this station!

Fig 15. The frontage of Bishopstone in BR days. The two pill boxes added later to the roof look as though they had been intended as part of the original design. Note the flagpole and compare the actual fenestration with the architect's drawing in Fig 14 above. The view has little changed today but the vast numbers of cars now parked here makes photography very difficult. (*Author's collection*)

come into its own to serve the west end of Seaford which expanded considerably in the 1970s & 80s.

As at Durrington, Bishopstone's main building is symmetrical and of single-storey construction in red brick with a flat roof and central tower. Here, though, the design is more sophisticated: the tower is octagonal with horizontal banding, forming a lofty atrium above the booking hall, and topped by an overhanging flat concrete roof. The booking hall is octagonal, as at Hastings, albeit on a much smaller scale. The projecting central portion of the facade has curved corners and engaged brick columns flank the entrance. In 1940 two pillboxes were added to the roof, cleverly in the style of the building and in matching brickwork – the perfect camouflage! The Crittall windows that were provided on the curved corners do not match the drawings which called for curved horizontally-paned fenestration. Instead there are three vertical flat windows with large single panes and fanlights, canted to the curve of the surrounding brickwork. This is a pity as horizontal panes would have greatly enhanced the essentially horizontal lines of the building. Another feature of note is the stylish square cast iron rainwater pipes.

The atrium is top-lit by Robb Scott's favoured glass pavement lights set within a concrete grid in the roof which would have had to have been painted over in WWII to prevent light leakage drawing attention to the pill boxes. The ticket window was on the west side of the hall and doors off led to the now-closed lavatories, waiting rooms and parcels office. Unfortunately the tiling has been painted over in an act of official vandalism by the train operating company.

The covered footbridge, which links the buildings to the platforms, is of steel with an in-situ reinforced concrete roof and deck. It was originally fully glazed so that passengers could stay dry from buying their ticket to boarding the train. As no facilities were provided at platform level, passengers enjoying the warm comfort of the waiting room in winter had to be pretty fleet of foot to avoid missing their train. The whole ensemble was much more commodious than Durrington of a year earlier and - yes - more stylish. It has to be acknowledged, however, that here someone else was footing the bill so the Southern could afford to be a bit more extravagant!

Fig 16. Bishopstone viewed from the up platform in the 1960s looking towards Newhaven. The elevation of the building above the platforms can be appreciated here. The canopies are of steel and carried on rolled steel columns but there are no facilities at platform level. Other typical SR details to note are the octagonal lampshades under the canopies and the concrete lampposts. The down (far) platform was taken out of use in 1975 and its canopy demolished. (*Ben Brookshank*)

To effect economies, the line between Newhaven Harbour and Seaford was singled in 1975 and at Bishopstone the down platform was taken out of use and its canopy demolished. From then on all trains used the up platform. The station was listed Grade II in 1987 giving it statutory protection. When Bishopstone became unstaffed in 1988 all the facilities in the station building were taken out of use and the glass subsequently disappeared from the footbridge. The unattended station suffered much from vandalism and neglect giving Robb Scott's fine work a rather forlorn look so, as a result, it was put on Historic England's *At-Risk* register.

However, its fortunes are now changing. In 2019 the Friends of Bishopstone Station were set up and on

18 August that year they held a History Day at the station during which their flag was hoisted on a new flagpole kindly provided by Network Rail. This aroused much local interest, and since then Network Rail, and Southern Railway who lease the station, have carried out some work including redecorating the booking hall and removing dirt from the roof so that the atrium is once again top lit. The footbridge has been repainted in green but remains unglazed. The Friends have also produced plans for bringing the station buildings back into use for both the community and rail users.[11]

Horsham (1938)

In 1936 the SR embarked upon what was to prove to be its final main line electrification scheme as the War brought about an abrupt end to its aspirations. Known as the *Portsmouth No 2 Scheme*, it would electrify the former LBSCR routes to Portsmouth from Dorking North and Three Bridges via the Mid Sussex line. This required a wholesale reconstruction of Horsham, where the Dorking and Three Bridges lines meet, to enlarge it to accommodate the new electric services as well as the terminating steam services from Guildford and Brighton. Horsham, along with Bishopstone of the same year, represented the full flowering of Robb Scott's Art Deco style in Sussex.

Fig 17. The frontage of Horsham seen today following a major refurbishment in 2011. It can be seen how the north wing curves around the approach road. Note the prominent central roof light to the booking hall. (*Author*)

As at Hastings and Haywards Heath, the new station has two island platforms, the remote main buildings being accessed by a footbridge with lifts provided for luggage. The distinctive façade here is built of red brick featuring a taller central block and a curved flanking wing to the north - all flat-roofed. Here the desired horizontally-paned Crittall windows are in evidence. The most striking feature though is the way the booking hall is top lit by a wrap-over, curved roof-light, having very pronounced ribs rather reminiscent of contemporary Bakelite wireless sets. The wireless-set theme is continued at the top corners of the central block which were adorned with engaged cylindrical brick pillars, diminishing in three stages with prominent stone banding. Along the sweep of the facade is a cantilevered concrete canopy, much thinner than we have seen before, providing shelter for those awaiting taxis. The back wall of the building is immediately adjacent to the up loop line so is very plain with few windows. The building is listed Grade II.

Fig 18. The roof-light as seen from inside the booking hall (*Author*)

Fig 19. The main entrance is flanked by brick engaged columns, as at Bishopstone, with ribbed capitals – a motif repeated in the frieze of the north wing. All very stylish – apart that is from the rather twee bracket for a hanging basket which is a later addition. (*Author*)

Perversely Ian Nairn, in the original Sussex *Pevsner*, describes the frontage as 'really horrible' and dismisses the whole station with those few words. He does not bother to attribute it to an architect.[12] The current *Pevsner* is much more charitable.

The covered footbridge is of Exmouth Junction pre-cast concrete construction with its beams topped by large Crittall windows creating a bright interior. In fact the wide structure is actually two bridges in one – the segregated northern part serving as the luggage bridge with lift access to each island and the parcels office. As no parcel traffic or luggage is carried these days, the luggage bridge and its attendant lifts have been adapted to provide step-free access to the platforms. The flight of steps down to the booking hall is top lit by more of Robb Scott's glass pavement lights set in a concrete grid.

Fig 20. A view of the up platform looking towards London shewing the standard steel canopies, concrete footbridge and platform buildings. The square structure on top of the bridge is one of the luggage lifts. (*Author*).

At platform level there are to be found the usual SR steel canopies beneath which are blocks of accommodation on each platform providing waiting rooms, staff rooms and lavatories, plus, on the up island, a refreshment room. These are of brick with Crittall windows but the concrete support structures to the footbridge, which incorporate the staff accommodation, along with the footbridge itself, are white painted.

In 2011 a major refurbishment of Horsham was undertaken which gave the station a much-needed facelift. Unfortunately in the process most of the Crittall windows in the footbridge and the platform buildings were replaced in plastic - a retrograde step – but mercifully those on the façade were left unsullied. It is a very busy station, and since the completion of the Thameslink Project destinations on offer now include Peterborough – something that could never have been envisaged back in 1938!

Signal Boxes

The electrification schemes involved some major resignalling works, often replacing two or more small signal boxes with one large one. Initially Southern Railway boxes followed pre-grouping practice as typified by those at Hastings and Haywards Heath. Later on, signal boxes were to get the Robb Scott treatment – out went the traditional pitched roofs and outside staircases and in came flat -roofed *moderne*. Three such boxes were provided in Sussex, all under the Portsmouth No 2 scheme, at Horsham, Arundel and Bognor Regis. All were to a similar design and were christened *glasshouses* for obvious reasons. At Horsham the box controlled colour light signals even though it had a mechanical frame.

Fig 21. The 'glasshouse' signal box at Horsham seen in 2020 when it was in use as a Pway (Permanent Way) lobby. Note the flat roof and projecting concrete canopy. The corner windows in the apsidal ends give all-round visibility. (Author)

The operating floors at Horsham and Bognor have fully glazed apsidal ends; very necessary at Bognor where the box backed onto the road and also controlled Bersted level crossing (since abolished) which, to add interest to the signalman's day, was situated on a busy 'T' junction. Along the front of the boxes Yorkshire sashes are used (one traditional feature that was perpetuated); these have hardwood frames containing a single pane of glass. Once again curved glass to the corners has not been used, instead they have fixed canted lights. At Arundel, where the back of the box faced onto a bank, glazed

corners were only provided on the front elevation. Below the line of the flat roofs projects a wide concrete canopy.

The ground floors, which extend out as wings at either end, are flat roofed and house both the locking room and the internal staircase, whilst a rendered platband runs all round between the floors. The signal box name is carried in large individual metal letters on the front.

Fig 22. The south end of Bognor box, seen from the road, shewing the rendered platband and the overhanging roof. Severe spalling to the soffit of the latter can be seen – the drawback of reinforced concrete in a marine environment. It is seen in 2020 when it was not only still in use as a signal box but was one of the last outposts of semaphore signalling on the Southern. (*Author*)

All three boxes survive at the time of writing – Arundel and Bognor for their intended purpose but Horsham, having been obviated by the Three Bridges Railway Operations Centre in 2005, is now used as a stylish Pway (Permanent Way) lobby.

Envoi

James Robb Scott is an architect of whom few outside railway circles will have heard for his career was almost entirely spent as an employee of railway companies. Happily the new revisions of the *Pevsner* guides include a specialist section on transport buildings, and in the two Sussex volumes James Robb Scott is credited as being the architect of Durrington, Bishopstone and Horsham. Not only that, the new authors are complementary about his work and rightly so as many of his station buildings are now listed.

It is true that the best and boldest of his work – Surbiton and the Chessington branch stations for example – are to be found on his old stomping ground the South Western Division, but – Cooden Beach apart – the Sussex examples, whilst in no way rivalling the De La Warr Pavilion, are commendable. The destruction of his fine Hastings was a lamentable outrage as it was the grandest of the Sussex bunch, but I confess a particular soft spot for Bishopstone, which was the subject of a SIAS visit back in 2017.

James Robb Scott would be very chuffed about the work being carried out by the Friends of Bishopstone Station to reverse the recent neglect and bring his buildings back into full use.

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‘SCATTERED SQUALOR’ AND ‘DOWNLAND HOMES’
The Demise of Vernacular Housing Materials

Geoffrey Mead

During the 19th century dramatic technological changes in the transport infrastructure of the UK created major changes in the use of building materials in the domestic housing market. Prior to the mid-19th century the paucity of efficient transport ensured most buildings were constructed using vernacular, i.e. local, materials. Exceptions to this were buildings constructed in major urban centres or those for prestigious clients, where the use of imported materials expressed wealth, or those near import locations on river and coastal quaysides where transport by water or sea lowered costs.

Until the mid-19th century transport of building materials of all categories was dependant on a seriously run-down transport network. In the north of England and Midlands the growth of the canal network enabled an easier transport of materials, but south of London the southern Home Counties were largely devoid of canals and there was limited river transport. Goods, including those for building purposes which are bulky, heavy and relatively low value could take a long time to reach their destination; famously, Daniel Defoe in 1724 recorded the movement of a tree to the navy yards at Chatham could take up to three years…from west Kent![1] The road system in some localities was being modernised with the introduction of turnpikes, but in general the clays of the Weald and their neighbouring steep sandstone slopes made journeys in Sussex highly problematic for heavy loads. The journey through Sussex from the metropolis was well recorded and a coach journey to Brighton could be over 10 hours; however improvements to the main route across the Weald to the resort in 1825 reduced the journey time to 6 hours. Not to the liking of all, William Cobbett lamented the ability of ‘tax eaters’ to easily travel from Brighton to London: *“Brighton is naturally a place of resort for expectants, and a shifty ugly-looking swarm is, of course, assembled here.”*[2]

It was this difficulty in moving building materials that ensured much of the south east of England had a strong tradition of vernacular housing (see *SIH 49*). The change in transport technology, especially the introduction of railways into the area, meant that there were new ways of getting building materials from their source areas, generally rural, to the rapidly growing urban centres. The railways came relatively late to Sussex, the reason being that, even with the poor road system, Sussex produced nothing that required better transport infrastructure. The main areas of road improvement and later of railway development were in the burgeoning industrial districts of the West Midlands, Central Scotland and the industrial areas of north-east and north-west England. The 18th century had seen the long decline of the Wealden iron industry that finally expired in the 1820s at Ashburnham and there was no other major industry to require efficient transport.[3] The widespread agricultural industry of the county was fragmented and in many

Fig 1. The vernacular revisited...West Wittering modern thatched roofs, 1936 (*Author’s collection*)

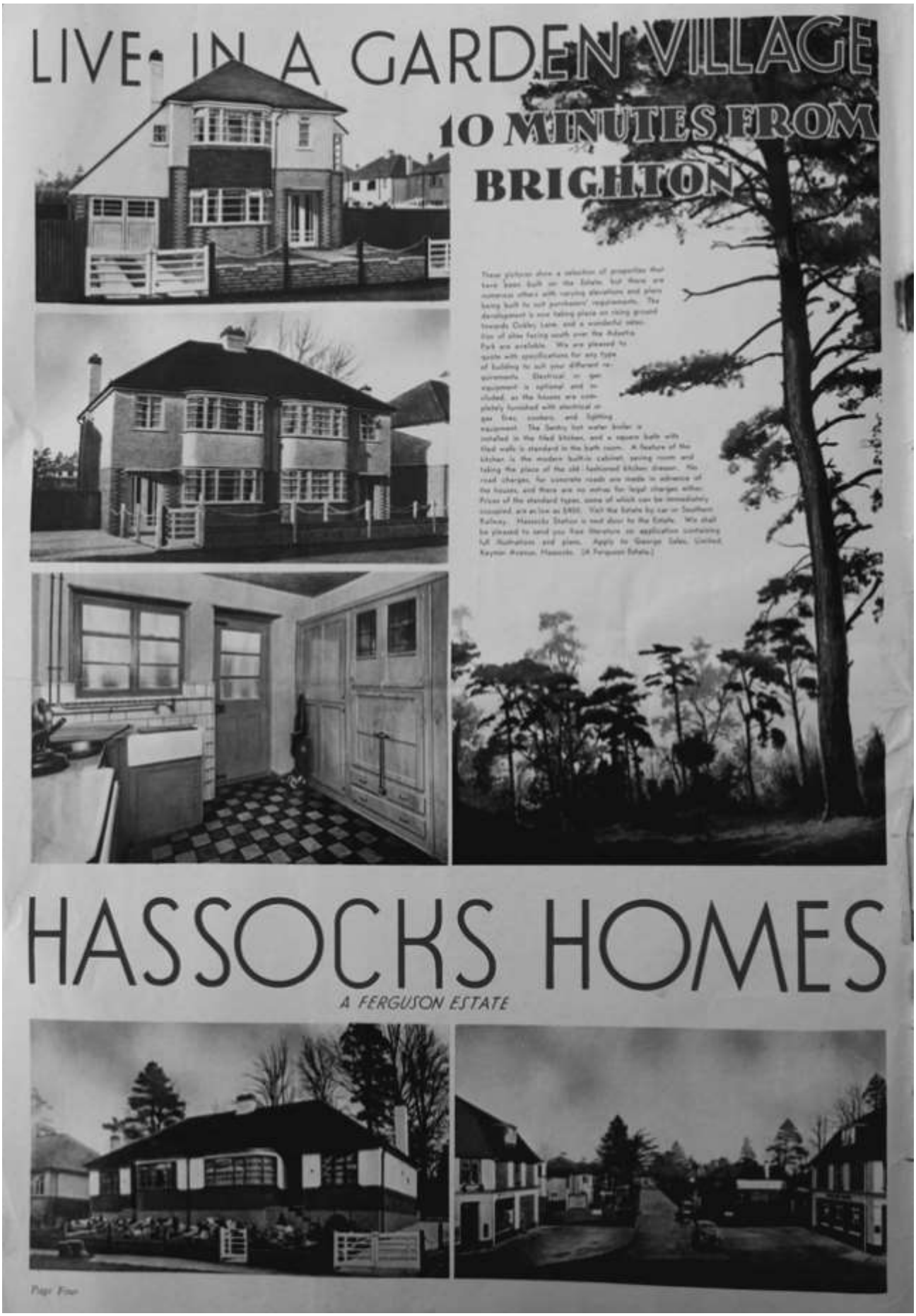

Fig 2. The demise of vernacular… George Ferguson's *Hassocks Homes Garden Village*, 1937 (*Author's collection*)

areas woefully underfunded, thus there was no requirement for decent transport. This had knock-on effects to the provision of building materials which were produced for a series of very local markets; they could be moved by river-boat and barge along the short navigable stretches of the Eastern Rother and Ouse, Adur and Arun and for a short period along the Wey & Arun canal and the Ouse Navigation. These materials were moved along the Sussex coastline to creeks and inlets at Shoreham and Chichester Harbours or to wide, flat shingle beaches at Brighton and Bognor. It was transport inland that was difficult, out through the Downland valley gaps, into the wet and heavy clays of the Low Weald, or up into the heavily wooded slopes and commons of the High Weald. It was this insurmountable obstacle that ensured that a High Weald community such as Wadhurst was one of sandstone walls and dark-red tiled roofs with heavy oak-timbered barns bordering farmyards. It meant that the clay-land farmsteads of the Low Weald such as those around St. John's Common near to Burgess Hill Farm were constructed of Weald Clay bricks, often with roofs of Horsham Stone slabs, while on the Downland flint was employed in church and cottage, farmstead and manor house alike.

In the 1840s this age-old scenario was to change. In May 1840 the first stretch of steam railway was opened in Sussex, running from north of Shoreham-by-Sea eastward to Brighton. Having a dual purpose, it would eventually be part of the west coast line to Worthing and eventually onto Portsmouth, but its initial role was to bring the construction materials needed for the Brighton to London line to the station site on the northern edge of Brighton. This was to get over the difficulty of bringing railway lines, sleepers and ballast onto Brighton beach and then having to move it up, into and through the narrow streets of the resort to the station site. The following year the line from London opened in September 1841 and this was the start of the serious downturn in vernacular building materials usage.[4]

The linkages to the rest of the UK that grew after the Brighton-London link were to have serious consequences for Sussex providers of building materials. The extensive brickfields of Bedfordshire and those around Peterborough, with the benefit of bulk production, saw the demise of many small rural brickyards in the South East. The use of thatch along the West Sussex coast and of clay pantiles and Horsham Slabs in the Weald succumbed to Welsh slates, exported via Porthmadog in vast quantities from the Bethesda and Nantlle quarries of Snowdonia. Sussex, a county with the highest number of native hardwood trees in the British Isles saw huge quantities of softwood Baltic timber imported from such far-flung locations as Riga, St.Petersburgh and Memel.[5] At Portslade the quayside area of Copperas Gap was, and is, home to the Baltic Wharf. Doubtless the imported materials were first employed in higher value dwellings - Stanmer House erected in the 1720s had Plymouth Marble for a fireplace and the use of these 'exotics' gradually filtered down through the social strata.[6] As is often the case the urban areas were 'early adopters'; the construction of Hove's Brunswick Town, for example, used large amounts of Baltic deals. Local newspapers record the cargoes unloaded at Copperas Gap coming not only from the Baltic locations noted earlier, but also from New Brunswick and Quebec, America and Norway.[7] In country areas the upper-crust occupants of rural housing were also fast catching up with the use of the newly-available materials made possible by the transport improvements.

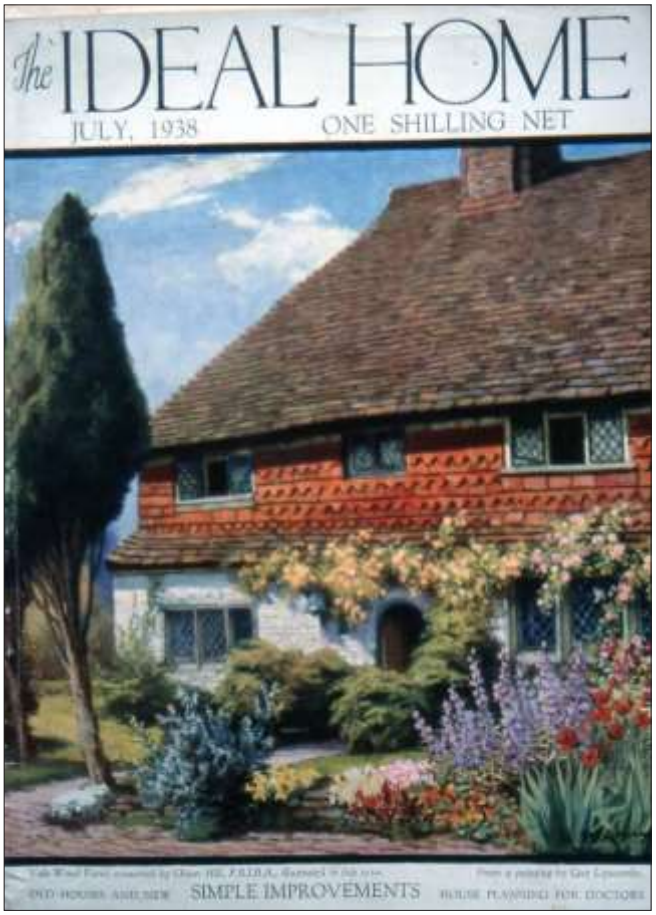

Fig 3. The vernacular idealised…in *Ideal Home*, 1938 (*Author's collection*)

Fig 4. Vernacular gone…Le Corbusier's 'Machines for living'. Connell, Ward & Lucas 'Modern Movement houses in Saltdean', 1935 (MS Briggs *Building Today)*

The latter period of the 19th century saw a raft of new legislation aimed at improving the national housing stock; this was brought about by the dramatic growth of urban and industrial areas in the early 19th century. Brighton, far from being an industrial centre was recorded as having 103% population growth from 1811 to 1821 and 75% growth in the decade following. Government concern on urban housing stock brought about change, albeit very slow change, in the cities and towns. Legislation was enacted in the 1840s to allow local authorities to appoint Medical Officers of Health who's reports, especially for Brighton, make very grim reading, recording the appalling conditions in which sections of the population lived. Permissive Acts were passed in the 1860s which allowed for slum clearance, but on a very limited scale and then only against much local business opposition. The Town and Country Planning Act 1909 was a step forward, but again was limited in scope as it only applied to urban areas. By the outbreak of WW1 the housing situation in the UK was dire with only tiny numbers of dwellings being erected. Health reforms meant more of the population was surviving childbirth and was also living longer, but fewer houses were being built, creating severe overcrowding. Rent controls and a general lack of enthusiasm for private developers to invest in domestic housing saw falling housing numbers during most years in the early 20th century. In Brighton, house construction in the years leading up to WW1 was woefully inadequate with a steady decline in numbers from 1900 onwards. From 1910-1914 only 226 houses were built in the borough of Brighton; the lowest quantity was in 1912 when just 12 properties were completed.[8]

Until WW1 there was still no local authority involvement in the provision of housing for the working classes, although there was some heavily council-subsidised housing by private developers for 'the deserving poor'. By WW1 there was a serious housing crisis across Britain and the manpower going off to war only added to the problem. In 1918 with war at an end and with over 800,000 men in arms due to return to the slums of the urban areas, something had to be done. Although the war had impoverished the national economy, legislation was rushed through to provide local authorities with funds to provide what was then known as council housing. The Addison Act 1919 had a dramatic effect on both provision of housing for the working classes but also on the large scale use by local authorities and later private developers, of non-vernacular building materials.

The economic state of many European nations in the immediate post-war period meant that there was a wholesale export of manufactured goods at heavily reduced costs into the UK. This was noted in the Brighton Gazette of 1925: *"Shoreham Harbour…in May nearly ¾ million bricks were brought in and for some considerable time now an average of a cargo a week has arrived…from Germany, Belgium and Holland."*[9] This was an irony as at that date there was still an active brick-making industry in the Shoreham area and at nearby Portslade by Sea. In November 1928 one of the worst disasters of the RNLI occurred when the Mary Stanford lifeboat based at the tiny coastal community of Rye Harbour was engulfed in a Force 9 storm; her mission that day was to rescue the crew of the *Alice*, a steamer from Riga, Latvia which was (ironically) bringing bricks into the UK.[10] Three years later the Rev. E J Barry preaching at St. James Church, Brighton was reported in the Brighton Gazette as commenting on the tragedy of unemployment after seeing foreign bricks being unloaded in Shoreham Harbour-*"Surely these bricks should be made of British earth by men who are walking about doing nothing. It is not a question of politics but of commonsense and efficient government"*.[11]

Until recently the offices of Brighton & Hove Council Building Control held a series of largely hand-written file cards on every property in the city (these are now held at The Keep archive in Falmer). The cards held details of permissions to build, extend or add to existing structures and had coded links to architects' plans and blueprints held by the council. These latter often had detail on architects' ideas of suitable building materials, both structural and decorative. I employed a number of these file cards when researching for my doctoral thesis on interwar

Fig 5. The Vernacular modernised... Braybon's Old Mill Estate, Patcham, 1934 (*Author's collection*)

building in the Patcham area of Brighton and it is from this data that I have extracted reference to a variety of materials in use in the local construction industry from 1918 to 1939 in a rapidly growing suburban housing area.[12]

After WW1 suburban building came in three definable stages, local authority, small scale developers and major developers, stages that had a considerable temporal overlap. House building was very slow to develop in all sectors, but the Addison Act 1919 allowed local authorities to start the much belated process of providing decent housing for the people living in the dreadful inner urban slums., Brighton, in spite of its perceived wealth had some of the worst housing in the UK and the 1901 census showed only East Ham to be more overcrowded than Brighton. Land was acquired for a major housing scheme outside the borough boundary in the parish of Falmer north-east of Brighton at Moulsecoomb, rather bizarrely then in Steyning East Rural District Council (SERDC). This required a huge investment in all manner of building materials as well as providing much needed work for those in the construction industry. Work started here in 1921 and at the same time at Patcham north-west of Brighton, land held by the Abergavenny Estate came on the market; this was sold as individual fields and was bought by a range of small developers who commenced to sell off very small sections of their land as 'plotlands' which were built over in a highly piecemeal fashion by a myriad of small building firms.[13] In July 1921 The Brighton Argus had small ads on its front page for ¼ acres plots at Patcham priced at £10.

The imported materials used in several of the structures are recorded in the planning applications submitted to George Warr, the SERDC planning officer. His office was not in Steyning but at Southwick Town Hall on the canal side of Shoreham Harbour, a considerable distance from his widespread domain boundaries which extended east to both Patcham and Moulsecoomb, the latter some nine miles distant. Warr's planning decisions were not for local authority housing; as a small, largely rural, council SERDC had very limited funds, so his concerns were over private develop-

Fig 6. Suburbia unchained... George Ferguson's Ladies Mile Estate, Patcham aerial view to north-east, 1934 (*Author's collection*)

ments. Mr Warr's 1926 files contain reference to the use of a variety of continental tiles, used significantly by a number of non-local firms; those supplied by the firm of Langley London Ltd were described thus: *"…Marseilles, Beauvais and Courtrai-Du Nord Tiles…are being used on good class houses all over the South of England, for your information there are more than 50 houses in the Hove district which are being sold for £1050 and upwards covered with these tiles…we have a stock of these tiles at Shoreham…".* The Lowden Syndicate Ltd of Chippenham, Wiltshire provided "*Maas Double Locking Roof Tile.'* [14]

By the early 1930s the change in the national economy and a reduction in the bank rate saw a growth in the fortunes of major building firms, with large estates appearing on suburban fringes across Britain. Wimpey and Bovis both grew nationally at this time and, in the case of Patcham, these large firms were George Ferguson, T J Braybon and W H Lee. They bought materials on a large scale, driving down overall costs with standardised use of ground plans, building materials and fixtures and fittings. Materials and designs seen in building trade magazines and architectural journals available across Britain, both as editorial and advertising content, ensured that there was an increasing standardisation and homogeneity of building styles and designs. Trade journals carried lists of building material costs, citing a limited range of suppliers, thereby reducing the market availability of smaller, usually rural firms.[15]

A sample of architects' plans from the Patcham area used in the interwar years yielded a range of materials in use, although most are relatively broad in description, such as for some houses in Braeside Avenue in George Ferguson's Ladies Mile Estate :*"Brown, red or green coping tiles and white or cream cement".* For the very middle class Carden Avenue houses erected by EG Cornish of Burgess Hill there was more detail given, for the roof *'Antique nibbed tiles*' on some properties and on others *'Acme nibbed tiles and brick noggin'* with *'hard stock bricks'*. One specified *'sand faced antique tiles, red terracotta pots and sand faced red bricks'. Green glazed tiles with White Granite spar'* were specified for Cornerways in Carden Avenue.[16]

At Braybon's Carden Avenue Estate in Carden Close, a lower middle class development, *'Brown tiles and common stock bricks'* were listed along with '*Antique sand faced tiles, 90% sand faced stocks and 10% sand faced reds'*. All these requirements show no requirement for local suppliers to be used, but in other instances, sadly few and far between, the architects' plans specify Sussex providers. In 1936 Tangmere Rd on Carden Avenue Estate listed *'Keymer sand faced wire cuts'*. Cornerways, noted previously, was to be constructed with' *Keymer Stocks'* and in Court Close, an expensive 1936 cul-de-sac *'local multi-coloured stock bricks were listed'*. Consulting Molly Beswick's *Brickmaking in Sussex*, Keymer Brick & Tile Works Co would seem to be the likely supplier here; their business was located in Nye Road, Burgess Hill and had opened in 1875; although bought in the late 1920s by Maidenhead Brick & Tile Co., it continued to trade under its own name. Dale Crescent was a small development by WH Clarke with roofs of '*Marley Antique brown concrete tiles'* but *'Henfield Wire Cuts'* for the structure while others on the same estate had *'Black and red tiles'* above '*Henfield Rustics with black pointing*'. The Henfield brickyard was that located on the west side of the Steyning Road, which had opened in 1934 as Henfield Bricks Ltd, employing around 50 men making c100, 000 bricks per week. By 1939 the south side of Dale Crescent was being developed as 7 pairs of bungalows using-'*Keymer or other approved local stock facings'*. Nearby Ladies Mile Estate was a large estate with initial proposals for 850 houses and bungalows (not all eventually built); this was the final northern extension to Brighton's rapidly growing suburban fringe before WWII and the 1947 Town & Country Planning Act (T&CPA) contained the urban 'envelope'. At Deeside on Ladies Mile Estate '*Keymer Rustic wire cuts'* were required for a four-bedroom house with a *'white stippled stucco finish'*.[17]

In 1934 the large local building firm, T J Braybon, developed a superior estate on the site of Ballard's

Mill, south of Patcham village; houses here were nearly twice as expensive as many on Ladies Mile Estate: *Hamsey stock bricks, sand faced 'Antique' roofing tiles and cement rendered cream finish, Keymer Dun tiles'.* The Hamsey stocks were from a brickyard north of Hewinstreet Farm, run originally by James Chandler of Lewes but, by 1927, by the Hamsey Brick Co.[18] Overhill Way in 1937-38 was a mix of semi-detached and detached houses built with *'Keymer facing at lower wall, Henfield semi rustic bricks*' for the semis and '*Sussex stocks*' on the detached, with '*Antique Sussex stocks at base of house walls'.* Sunnydale Avenue developed by WH Lee had instructions for '*Burgess Hill multi-coloured stocks'* with *'white cement rendering on first floor, red or mottled sand faced tiles'*. Burgess Hill brickmaking was listed under the parishes of both Keymer and Clayton and it is difficult to distinguish which yard this could refer to. However, this may be a yard on Dunstalls Farm, operated by the Dunstall Brick Co which was in operation from 1933 to 1938. [19]

South of Ladies Mile Road the land had been part of the Patcham Place estate and thus was not sold with the Abergavenny land in 1921; Highview Avenue (later Highview Avenue South) built on this estate in 1936 was a more exclusive part of Patcham and the housing developed by TW Bassett was designed by Overton & Massey, architects, of West St. Brighton. Their stipulations for an '*oak door, oak timbering and standard metal windows in wood frames'* also included the instruction for *'Red facing bricks-Dorking pressed bricks'.* Adjacent to Highview on the south side of Ladies Mile Road was a short line of 1935 semi-detached houses built of *'Sussex stock facing bricks and sand faced tiles (mottled)'.* At the east end of Ladies Mile Road beyond the early 1920s housing, a new line of bungalows was developing in 1934 constructed in '*Rustic Flettons and Keymer Tints, roofs of Red sand-faced Marley tiles'.* Nearly opposite on the north side of Ladies Mile Road, the garden that lay west of George Ferguson's home, The White House, was sold off and the Swordsmill Estate of six semi-detached bungalows was built in 1939 with '*Facing bricks of Henfield multi-reds'.*

House construction was changing dramatically in the interwar years; the early developments were often by small building firms working in conjunction with local legal firms and architects. The building trade had not changed dramatically from the previous centuries, with physical labour by man and horse prevailing and building trade regulations and conditions woefully inadequate for the task. This is admirably described in Robert Tressell's

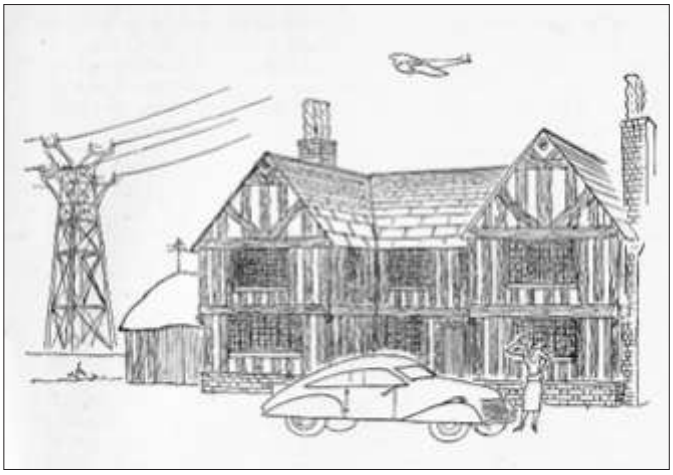

Fig 7. The vernacular as popular culture... Stockbrokers' Tudor. (Osbert Lancaster, *Pillar to Post,* 1938)

Ragged-Trousered Philanthropists, which outlines the appalling conditions of the building trade in Mugsborough, a thinly-disguised Hastings.[20]

By the 1930s the major building firms were bringing new techniques and materials into the picture. George Ferguson, the developer of Ladies Mile, had spent some time in the United States and brought back the then revolutionary ideas of using tipper trucks instead of a horse and cart and introducing power-tools into house building. His method of mass building kept costs down and the use of new methods increased housing output. From the end of the 19th century the increasing external constraints and regulations involved in housebuilding was having an effect on the materials and artefacts employed, and in consequence there was a rapid standardisation of many aspects of house construction, not least in the fixtures and fittings. Many vernacular buildings drew their water from nearby wells or ponds, sanitation was by a cesspit or latrine type toilet, and lighting was by candle, rushes or similar, and heating and cooking by open wood or coal fires. The need for plumbing, lighting and heating in the rapidly expanding new housing areas resulted in new government legislation, which meant many small local providers were unable to meet the legal requirements being introduced. There were very few small builders who could provide pipework or wiring that was locally produced and increasingly it was the major national manufacturers who were claiming large sections of the housing materials market. The exterior of housing, the 'carcass' is but one component of the housing market and as has been noted, the use of imported bricks, tiles and timber was to have a detrimental impact on local producers of these commodities.

Once the carcass is in place then 'fixtures' can be added, and here there was more involvement with UK companies. Electrical switchgear was available from the local Brighton firm of Allen West, but was also provided by Ellisons of Birmingham amongst others. Glazing for house frontages in the interwar style of coloured glass panels had a local Sussex producer in Cox & Barnard, 'stained glass artists' of Old Shoreham Road, Hove, as well as leaded windows from Kelley & Co of Earl Street, London EC2. Stainless steel sinks came, unsurprisingly, from the Leeds firm of Stainless Steel Sink Company! Galvanised water tanks could be supplied by Robert Jenkins & Co of the Ivanhoe works, Rotherham, and toilet cisterns from Fordham Pressings of Wolverhampton; bathrooms had Minton tiles from Stoke-on-Trent, and kitchens could both make use of Vitrolite made by Pilkington's of St. Helens as a hard surface; hot water for both kitchens and bathrooms might use Sadia electric water heaters of Northolt, Middlesex, one of the new consumer electronics industries developed along the A4 and A40 west of London. The cabling for these new consumer electrics came through British Insulated Cables Ltd of Prescot, Lancashire. The hardwood and softwood doors and joinery came from Sharp Brothers & Knight of Burton on Trent, their hinges from Evereds of Smethwick. Consumers choosing oak strip flooring could acquire this at the Simplex Floor Co of Bow, London E3. Girlingstone Fireplaces of Rothwell, Leeds and Feltham, Middlesex, appeared in many new suburban dwellings. An alien product for us in the 21st century is the Blue Peter coverings for cold water pipes supplied by the Beldam Asbestos Co of Hounslow. Building trade magazines provide ample examples of these and other products through their advertising.[21]

The final stage would be to have 'fittings' and these again were more than likely to be British, if not especially local to particular UK areas. Here the building trade and architectural publications can be supplemented with more domestic 'lifestyle' magazines such as Homes & Garden or Ideal Home. The carcass with its fixtures was what the new home-owner had bought, albeit through a long mortgage. But the suburban housing, whether flat or bungalow, semi-detached or detached, terraced or maisonette, needed the 1001 items that made each dwelling a home. Furniture and carpets, appliances and cutlery, kitchen goods and bedding, all were needed and period magazines are replete with pages of small and large ads for a wide range of consumer goods. It must be noted that while the new home owners would be seeking all new goods for their dwellings the reality was that there was a steady market for second hand items especially furniture. My grandfather Ernest Henry Mead, for nearly 50 years ran a highly successful business, '*Mead & Co. Brighton's Premier Removers & Auctioneers'* dealing almost exclusively in second-hand goods. Smaller concerns such as Peters in Kensington Gardens, Brighton dealt with a lower end of the market.[22]

Furniture supplied with Revvo Patent Ball Bearing castors had these simple devises supplied from London W11, although more traditional furniture such as those made by Oakland Old-Time Chair Co of Maidenhead was part of the 'Tudor-Bethan' theme of much interwar domestic housing, a trend exemplified by The Tudor Manufacturing Co of Wooburn Green, Bucks, manufacturers of Dolphin electric light brackets. Staybrite steel tableware 'as beautiful as old silver' was made in Bloxwich, Walsall in the heart of

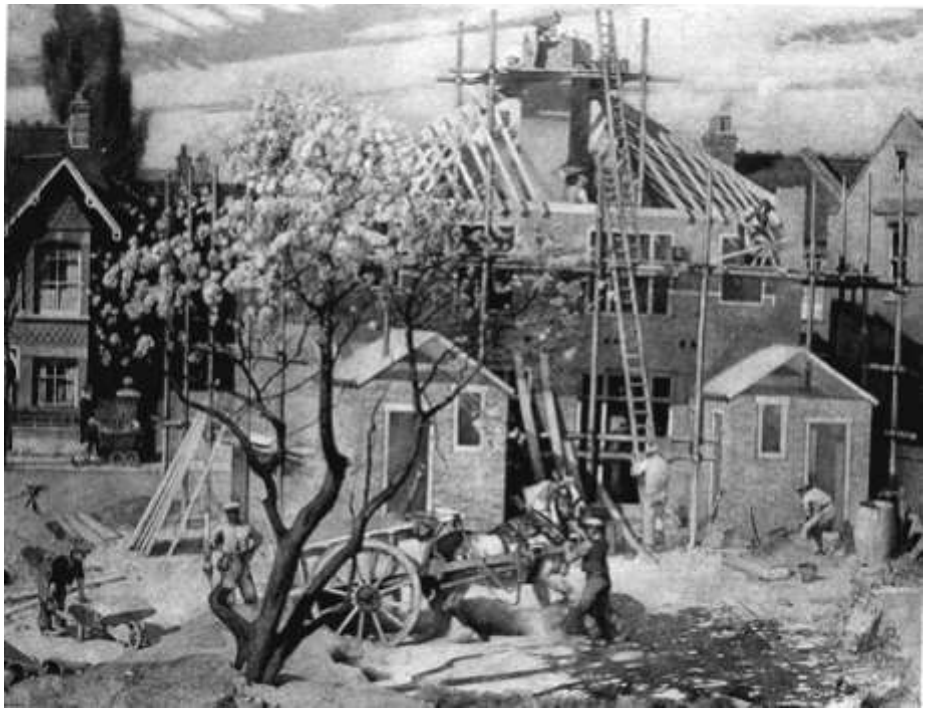

Fig 8. 'The builders' by Harry Bush, c1933
(James Chambers, *The English Hou*se)

the metal-working Black Country. To clean the tableware 'Town Talk silver plate cloth' from Manchester was available. The exterior area of the new housing gave rise to a range of garden goods, Trafford garden pergolas from Manchester, Pratten garden sheds at Midsomer Norton, garden loungers from Greenford, Middlesex, artistic gates from the wonderfully named Somerset Smithy, Willow Vale, Frome. A particular description of garden furniture produced at Blyth, Northumberland is a reminder that the shipbuilding district of the North East had a sideline in recycling, as the teak furniture from Hughes Bolcklow Shipbreaking Co is titled Battleship Teak *'from the famous old warships and liners broken up in our own yards'*.[23]

The building industry during the interwar period was a bright spot in a generally low time for the British economy. The enormous number of houses constructed and the fixtures and fittings that filled them boosted a wide suite of largely British manufacturers, many in the new consumer goods industries developing along the arterial roads of prosperous suburban southern Britain. Albeit in a limited study, a detailed perusal of a copy each of Architects Journal and Ideal Home showed not a single advertisement for domestic interior or exterior consumer goods for any Sussex company. Allen West's switchgear and Cox & Barnard's leaded lights are noted above, but neither firm is found in the advertisements studied in the Architects Journal and Ideal Home.

Local firms in the building sphere which were listed in the Kelly's Directory 1938 for the greater Brighton area were few and far between. The classified index to advertisements shows only two 'builders contractors and decorators', Bradshaw in Elder Place, Brighton and Handleys, in Rottingdean. Cox & Barnard, the noted lead light manufacturers appear also as 'casements-metal'. The Roman Flooring Co at 100a North Street, Brighton notes on its page "in use on the principle estates around Brighton". Bushby of New England Road and Fellingham of Bond Street are the sole listings for heating engineers.[24] In an area of intense building activity throughout the 1930s this appears to be a very limited collection of firms involved in the building sector. Of course some large firms such as TJ Braybon and George Ferguson may not have needed to advertise, but it is indicative of the changes taking place in the industry that such a situation had developed.

There was a steady decline in the usage of local timber, tiles and bricks throughout the interwar period and a picture emerges of a declining application of most forms of vernacular building materials, as well as the almost complete absence of Sussex manufacturers supplying the internal fixtures and fittings. Somewhat ironic, as many of the styles adopted by builders in the interwar were adapted from the vernacular buildings of the South East, the pitched roofs sometimes even thatched! The soft red brick, tile hanging and extensive use of external timbering, all were adapted by architects such as Philip Norman-Shaw and Baillie Scott and further refined, and usually reduced, by builders large and small where the styles appeared in suburban bungalows, semi-detached houses and villa properties.

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20. ESRO SERDC DB/D57 R.Tressell *The Ragged-Trousered Philanthropists* 1914
21. *Architects Journal* 1939
22. *Kelly's Directory* 1934 p1076 p1078
23. *Ideal Home* 1938
24. *Kelly's Directory of Brighton & Hove, Portslade and neighbourhood* 1938

MALTING IN WEST SUSSEX

Peter Holtham

The previous edition of *Sussex Industry History No. 49* covered the maltsters of East Sussex. The malthouses of West Sussex are now listed. The main source of information has been the local trade directories. However, since directories are not usually available for every year the symbols "-" and "+" have been used to mean "before" and "after" the stated date. (B & M) means brewer and maltster. It must be pointed out that many listed maltsters may have been only dealers. Research is ongoing so the author would welcome any comments or corrections.

ADVERSANE

Stane Street

1869 built
-1869/73+ Botting, James
-1874/86 Allen, Dennett
Later converted to a terrace of cottages.

Fig.1 Adversane Malthouse

ARUNDEL

High Street

-1828+ Bidle, Geo.
-1832+ Burnand, M.N.

Maltravers Street

-1828+ Detbick, Clay
-1832/39+ New, Charles

Queen Street

1783/-1803 Picknel, George (GP 1789 on wall)
1803/07 Puttock & Constable
1810/12 Messrs Puttock & Co
-1828+ Puttock, George & Co.

Fig.2 Queen Street, Arundel, Malthouse

1839/72 Duke, William & Osborne, William
1872/78 Harrison, Henry
1878/1897 Lambert, Isaac Cowley & Norris, Edward Thomas
1897/1910 Lambert & Norris Ltd

Malthouse for the Eagle Brewery, Tarrant Street

(Premises subject to multiple ownership)
-1774/1783+ Weller, Henry
-1785+ Smith, Thomas
1803 empty
1806/09 Owned by Messrs Puttock & Constable

South Marshes

Malt house for Swallow Brewery
-1839/43 Constable, George
-1845/89+ Constable, George Sefton
-1890/05 Constable, George & Sons
1905/21 Constable, George S Ltd
1922/24 Henty & Constable (malting ceased?)

"The Wheatsheaf" Maltravers Street

-1812+ Leshley, James (maltster)
-1839+ Leshley, James (brewer and maltster)

ASHINGTON (Washington)

Rock Malthouse

Fig.3 Rock Malthouse. Ashington

1847 Tithe Map Skinner, Jos
-1851/55+ Skinner, Joseph
-1856/59+ Michell, Henry(brewer of Horsham)

BILLINGSHURST

East Street

1737 Longhurst, Walter
1779 Brown, Richard
1782/90 Ireland, Maurice
1795 Evershed, William
1801 Ireland, Maurice
1802/06 Jeffery, John
present site covered by Caffyn Cottages

Clarks Land?

-1832+ Farhall, Maurice

Station Road

-1851+ Knight, Stephen
-1865/83 King, James
1883 Burnt down and rebuilt
-1886/-1921 Constable, George Sefton
-1920s then Whirlwind Carpet Sweepers
present 'Weald Court' covers the site

"Kings Head" High Street

-1779/1804 Knight, James
-1832/51+ Knight, Stephen (aged 74 in 1851)
1953 demolished

BINSTED

-1855/61+ Ellis, Edward (brewer, maltster and farmer), see also at Walberton.

BOGNOR

High Street London Road, malthouse

-1839/55 Turner, Richard William & Nathaniel (brewers & Maltsters)

BOSHAM

-1851/58+ Boorn, T.M.

and:-
-1845/55+ Trevett, John (maltster & grocer)
-1858/65+ Trevett, John & Son (maltster, shopkeeper & coal merchant)
-1869/73+ Trevett, John (maltster & coal merch.)

CHICHESTER

The Globe Brewery, South Street, Southgate

-1846/-51 Purchase, Stephen (brewer & maltster)
-1852/55 Purchase, Thomas
-1869+ Purchase, Thomas
-1873/77+ Purchase, Arthur

The Lion Brewery St Pancras

malthouse on site VR
c1773/1818 Florance, Christopher
1818/45 Florance, Edmund
1845/69 Florance, William Adames

The South Street, Brewery South Street

-1784+ Drew & Frew (maltster in Chapel Street)
c1785 James Drew died?
-1828/31 Gatehouse, George & John Covey (brewer & maltster)

1831/47 Gatehouse, Richard & George
1847/89 Gatehouse, Richard
1889 33 pubs sold to the Westgate Brewery

St Pancras, The Victoria Brewery, Malthouse on site

c1744 original brew house built
-1779 held in trust by William Wooldridge for William Field
-1795/1812 Churcher, Thomas
1818+ Rhoades, Thomas (listed as having Malthouse in St Pancras in 1822)
c1830 (The Deller family who may not have initially brewed?)
-1845+ Deller, Richard
-1849/81+ Deller, William Richard

The Westgate Brewery, Westgate

1751 Brewery founded (by John Dearling?)
-1784/1793+ Dearling, John
-1793/1827 Humphrey, William & Edward (brewers & maltsters)
1827/30 Henty, George. (brewers & maltsters)
1830/55 Henty, George & Robert
1855/74 Henty, George.
1874/89 Henty, George & Son
1889/93 Henty, George & Sons
1893/1921 Henty, George & Sons Ltd
1921/55 Henty & Constable (Brewers) Ltd

Eastgate Brewery, The Hornet

-1811/49 Wooldridge, Stephen (sen.)
1849/58 Wooldridge, Stephen (jun.)
1858/c75 Goldring, John& Co.

The East Walls Brewery, East Walls

1760 malthouse built
-1779 adjacent brewery built by John Dearling
-1832 Atkey, James sen.
1837/8.8.1851 Atkey, James jun.
8.8.1851/25.11.1865 Atkey, James William, exors of Atkey, James jun
25.11.1865/c80 Atkey, Charles John
-1881/89 Royds & Marsden
1889 closed premises auctioned and the 22 pubs bought by Lambert & Norris of Arundel who retained the malthouse in St Pancras.

112/3, St Pancras
VR

Fig.4 Malthouse in Draymans Mews, Chichester

-1793 Wooldridge & Co.
-1795+ Churcher, Thomas (occupier, financial difficulties 1812)
1797/1806 Humphrey, William
1806/20 Humphrey, William & Brothers
-1828+ Combes, George
-1828/49 Wooldridge, Stephen (sen.)
1849/51 Wooldridge, Stephen (jun.)
1851/77+ Atkey, Charles John
1881/11.4.1889 Royds & Marsden
11.4.1889/1935 Lambert & Norris
1935/13.4.1967 Friary Holroyd Healy Breweries Ltd
Present 'Draymans Mews' retirement homes

St Martins Brewery, St Martins Lane, formerly Hog Lane

-1828/32+ Combes, Geo. (B & M)
-1837+ Wares, William (or Warren?) (B & M)
-1839+ Combes & Co.-maltster in West Street (leased by Stephen Wooldridge from 1837)

The Victoria Brewery, St Pancras

c1744 original brew house built
-1779 held in trust by William Wooldridge for William Field
-1795/1812 Churcher, Thomas
1818/+ Rhoades, Thomas (listed as having malthouse in St Pancras in 1822)
c1830 (The Deller family who may not have brewed?)
-1845+ Deller, Richard
-1849/81+Deller, William Richard

Tower Street

-1786/1812 Cobden, William brewery & malthouse

Rumboldswhyke, Hornet

-1784/90 Austen, Stephen

At East Street

-1784/1800+ Dearling, John

Chapel Street

-1828+ Elliot, Obadiah (brewer & maltster Chapel St)
-1855+ Elliot & Son (maltsters East St)

Chapel Street (formerly Upper West Lane)

-1755/82 Drinkwater, Woodruff

Chapel Street

-1784+ Drew & Frew

Crane Street

-1828+ Taylor, T.S.

86, Fishbourne Road West

built c1780, no details but building survives

Broyle Road

-1811/-17 Gatehouse, Thomas & John

Misc. Maltsters in North Street

-1877+ Douglas, Henry (maltster & corn merch.)

and
-1828/39+ Gates, John
-1845/51+ Gates, James (East Street) –maltster & butcher)

and
-1828/32+ Seymour, Geo. (brewer & maltster)

and
-1839+ Cobden, Jno.

CHIDHAM

At A27 junction with Chidham Lane

-1881+ Sutton Bros. –Algernon & Herbert

Fig.5 Chidham Malthouse

COCKING

-1845+ Davies, Thomas (retail brewer & maltster)

and
-1839/45+ Mills, Henry

and
-1904/12 Parker & Co.

Fig.6 Cocking Malthouse

COLDWALTHAM

Watersfield

-1877/89+ Bowler, Thomas

CUCKFIELD

The Dolphin Brewery, High Street

-1839/55 Best, Thomas (at the "Talbot")
-1845+ Best, Thomas maltster
1858/77 Best Thomas William –at new site formerly "Kings Head"
1877/85 leased to Langton, George
1885/95 lease assigned to son Langton, Joseph; brewery named "Dolphin Brewery"
1895 Southdown & East Grinstead Breweries Ltd purchased unexpired portion of lease
1903 premises bought by Southdown & East Grinstead Breweries Ltd

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EAST GRINSTEAD

Station Road

Fig.7 East Grinstead Malthouse

-1889/1924 Dashwood, John of the Hope Brewery
Present— used by the Royal British Legion

32, North End, London Road

-1881/92 Coomber, George of the East Grinstead Brewery

FELPHAM

-1851/55+ Boniface, Richard Loyal
and
-1839+ Cosens, Elizabeth

At the "Thatched House" (?)

-1839+ Prior, William & Charles (maltsters)
-1851/55+ Prior, William (brewer & maltster)

FERNHURST

The Bell (Vale) Brewery, North Ambersham

-1847+ Bates, Jasper (brewhouse)
-1861+ Berry, G (maltster)
-1865/69+ Berry, Mrs Eliza (maltster)
-1873+ Finch, J (maltster)
1887/99 Kiln, Walter (B & M Spt corn & hop merchant)

FINDON

-1845+ Marner, Thomas (brewer & maltster)

FISHER STREET

At Pheasant Court

Fig.8 Fisher Street Malthouse

-1877/81+ Taylor, Matthew

GORING

Malthouse Cottages

1843 Tithe Map Levy Bushby
1880 sold and converted to cottages, VR

Fig.9 Goring Malthouse

GRAFFHAM

-1895+ Nudd, Robert (perhaps only a dealer?)

HAYWARDS HEATH

Boltro Farm

-1832/41 Molineux, Samuel

HENFIELD

The Mockbridge Brewery, Mockbridge, VR

-1828/45+ Hughes, Henry (maltsters)
-1852+ Hughes, John Alfred (maltster)
-1855/58+ Hughes, John Alfred (brewer & maltster)
-1869+ Bowler, William Thomas (brewer & maltster)
-1873/89+ Bowler, Thomas (brewer)
-1894/1914+ Bowler, Frank (brewer)

HORSHAM

The North Brewery, The Bishopric

-1845/58+ Turner, Richard, (maltsters)
1870/1893 King & Son
1893/1906 King & Sons Ltd
1906/21.7.2000_ King & Barnes Ltd, sold to Hall & Woodhouse Ltd, Dorset

The West Street Brewery, Worthing Road

-1784/32+ Rawlinson, John
25.3.41/25.10.74 Michell, Henry (I)
1845 & 1859 opened off site malthouses
25.10.74/1908 Michell, Henry (II)
1908/8.3.1912 (exors of Henry Michell, Michell, Maria (widow); Michell, Guy (son); Dewing, Maurice).
8.3.1912 Taken over by the Rock Brewery, Brighton

The North (Parade) Brewery, North Parade

-1855/58+ Honeywood Drew
-1861+ Satchells
-1861/70 Satchell & King
(1870 Closed and brewing transferred to the Bishopric by King & Son.)

36/8, West Street

-1869/1910+ Agate, Alfred & Sons

26, Worthing Road

-1784+ Rowland & Stephens
-1828+ Rowland, Daniel
-1839/61+ Rowland, Robert (sen.)
-1865/73+ Rowland, Robert (jun.)
-1877/86+ Rowland, Robert (exors)
-1889/1923+ Stanford, George Francis

15, Carfax, Fountain Brewery

-c1781/1823 Thornton, Richard
1824 Coppard, Thomas & Dawson, John – trustees
-1825/39 (Gates, John & Coppard, Thomas—trustees T/A Gates & Co.)
1839+ Rawlinson & Gates B & M)
-1845/51+ Gates, Richard & Co. (B & M),
24.8.1852 — offered for sale
22.7.1853 — again offered for sale, (bought by W Holden a wine & spirit merchant).
c1890 (King & Son)

Springfield Road

1833/57 Allen, Alfred maltster
31.3.1857 fled the country following a raid by the Excise when undeclared produce had been discovered

The Bishopric

-1845/58+ Turner, Richard

Gorsedean Mills, Crabtree

-1894+ Killick, Mrs Mary H

HURSTPIERPOINT

The Sussex Brewery, Hurst Brewery,
The Brewery 23/5, Cuckfield Road, VR

Fig.10 Hurstpierpoint Malthouse

at Cuckfield Road

-1855/58 King, William
-1865+ Smith, Philip
-1866+ Smith, & Son
-1869+ Smith, Thomas & Son
Smith, Philip
-1873+ Smith, Philip & Son
-1877+ King & Taylor
-1881+ Saltmarsh, George Thomas
-1883/1911+ Couchman, John Edwin
1912 t.o.b. West Street Brewery, Brighton

and
-1839+ Chandler, William
-1839+ Spratley, John

KIRDFORD

-1845/51+ Downer, Thomas
-1856/65+ Welland, George
-1866/73+ Taylor, Matthew James
c1890 closed

LANCING

-1798+ Feard, John (maltster)

and North Lancing

-1839+ Street, James
-1845/55+ Kidd, James

LINDFIELD

High Street

-1855/73+ Jeffery, John
-1877+ Jeffery, John (exors)
-1881+ Jeffery, Mrs Ann

-1839 Baber, Henry

LITTLEHAMPTON

The Anchor Brewery, High Street, Had Malthouse on site

c1816/32+ Corfe, James
-1839+ Constable, G.S.
-1845+ Constable, George
-1851/58+ Puttock, George Bowden
-1861/85 Constable, Thomas
1885/1896 Constable, George Sefton
1896/1904 Constable, George Sefton & Sons
(Archibald Constable).)
1904/1917 Constable, George Sefton & Sons Ltd
(Archibald Constable).
1917 - Beer Brewing transferred to Swallow Brewery, Arundel.

LODSWORTH

-1845/55+ Capron, John

LOXWOOD

The "Onslow Arms", Guildford Road

-1845+ Hawkins, Jesse (brewer & maltster)
-1858+ Sopp, John
-1877+ Knowles, Robert

LURGASHALL

"The Noahs Ark" incorporated a malthouse

-1845+ Challen, William (maltster)
-1858/69+ Cooper, Edward (miller & maltster)
-1873+ Payne, George (maltster)
-1881+ Callingham, Sidney (maltster) probably brewing only took place in the 1870s

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MIDHURST

North Street

-1861+ Holt, Thomas

Church Street

-1839+ Mills, Henry

North Street, (Misc)

-1832+ Sanders, Ralph
-1839/55+ Naish, John Ford
-1856/58+ Woolferstan, George
-1861+ Woolferstan, Mrs M.A.
-1869/81+ Woolferstan, George Dacre
-1886/94+ Gosden, William G.
-1898+ Funnell, Clement

and

in West Street:-

-1839/45+ Peat, George Jun. (B & M)
-1851/1858+ Peat, Mary (B & M)
-1861/66+ Peat, William (B & M)
-1873/98+ Lewis, Alfred

location unknown:-

-1828+ White, John maltster
-1832+ White, John (brewer & maltster)

-1858+ Billinghurst, Jack

-1784+ Cobden, William
-1794+ Cobden, Richard -maltster & Miller

-1855+ Smith, John

-1784/94+ Stubbington, William (brewer & maltster)
-1784+ Upperton, Adams (brewer & maltster)
-1794+ Upperton, Adams (brewer)

-1828+ Greenhill, Jos (brewer & maltster)

NUTBOURNE

-1881+ Walling, Henry

PETWORTH

The "Angel" Angel Street

-1784/98+ Hampton, Thomas (maltster)
-1828+ Wild & Greenfield (maltsters)
Wild, Wm (brewer)
-1832+ Wild & Greenfield (maltsters)
Greenfield, John Osborn (brewer)
-1839+ Greenfield. John Osborn (brewer)

at Golden Square

-1828+ Challen, Benjamin & Stephen (maltsters)
-1832+ Challen, Benjamin (brewers & maltsters)
-1845/51+ Challen, Benjamin (maltster)
-1858/65+ Challen, Benjamin (M)
-1869+ Challen, Mrs Ann Maria (M)
-1873/81+ Challen Bros
[-1886+ Challen, James maltster at Walberton?]

The "Swan" & "Half Moon" Market Place

-1855+ Dempster, Charles (B & M)
-1861/73+ Dempster, Charles (B & M)
-1877/81+ Pyecroft, Thomas (B & M)

North Street

-1858+ Burgess, James

Angel Street

-1828+ Elliot, William
-1832+ Elliot,& Green
-1845/51+ Elliot, William
-1855+ Elliot, Mrs Frances & Son
-1858+ Elliot & Son
-1861+ Elliot, A.T.
-1873+ Milton, James George (for Stag brewery)

New Street:-

c1800 Hurst, James
-1841 Scott, William

and:-
-1798+ Puttick, Edward

-1828+ Livesque, John

-1832/39+ Welsh, Joseph

-1798+ Hoad, William

-1828+ Pratt, George
-1832+ Pratt, James

PULBOROUGH

Lower Street

1720 built
-1755 Raynsford
1755+ Comper, Mary
-1832/94+ Cheasmar, James

adjacent Swan Bridge

-1839/45+ Trower, Joseph (or to the west of the "Red Lion"?
-1851+ Heather, James (or to the west of the "Red Lion")
-1853 Gates, Richard
1853+ Bannerman, Thomas Granger

Mulsey Farm

-1832/39+ Allen, Alfred
1839+ Allen, William
-1845/51+ Allen, Mrs sarah
-1855/57 Allen, Alfred
31.3.57 Fled the country following raid by Excise
-1869/86+ Keatley, William Reeves
1889 no trace

Heath Mill

-1889+ Reed & Stilllwell
-1894/1904+ Stillwell, Harry

and:-
-1839/58+ Berry, Henry Ebenezer

-1861/69+ Chambers, Richard

SELHAM

Malthouse farm

-1851/55+ Ewens, Mrs E.
-1858+ Ewens, Mortimer
-1861/65+ Otway, John
-1869/81+ Parker, John

SELSEY

-1839+ Copus, George -miller & maltster

-1851/97+ Stubington, Lambert -M & farmer

SHOREHAM

Fig.11 Kingston Malthouse, Shoreham

Kingston Malthouse, Brighton Road

1844/49 Vallance, Edmund & Catt, William
1849/89 Vallance, Catt & Co.,
1890/94 1890/94 Vallance, Catt & Co., The West Street Brewery
1895/1913 The West Street Brewery Co.,
1913/31 West St Brewery amalgamated with Smithers & Sons Ltd
1931/33 Abbey's Kemptown Brewery
1933/54 The Kemptown Brewery (Brighton) Ltd
1954/69 Bass Charrington

Old Shoreham

-1796/1828+ Sayers, Samuel

SIDLESHAM

Fig.12 Sidlesham Malthouse

-1851+ Stevens, William
-1855/66+ Stevens, William & Sons
-1869/77+ Stevens, George & Walter
-1881/94+ Stevens, Walter & Herbert (grocers & brewers

SINGLETON

-1846+ Leamon, Joseph (B)
-1862+ Leamon, Henry (B
-1865/66+ Humphrey, George (B) at West Dean
The malthouse was 8 yards square and had a tall chimney. It was demolished in the 1950s.

SLINDON

-1845+ Willshear, Charles
-1855/58+ Willshear,John

SOUTH HARTING

-1894/1902+ Taylor, Charles (M) also grocer, baker, wine and spirit dealer , draper and outfitter.

SOUTHWICK

Malthouse on north side of harbour

1816+ Messrs John, Philip & James Vallance
1845/51+ Hardwick, William Hamshar
1855+ Longhurst, Richard (jun)

Fig.13 Southwick Malthouse

1881 census Nye, Thomas Southwick malthouse present -Sussex Yacht Club

and:-
-1851+ Smith, W. (brewer & maltster
-1855+ Smith, W (maltster)

-1793+ Burton, Richard

-1793+ Smith, John

STEDHAM

-1861+ Gale, Samuel -farmer and maltster

STEYNING

Michells Brewery, High Street
malthouse Chantry Green, Church Street

1772/1822 Stoveld, John
30.9.1822/-51 Michell, Edward (M & B)
-1851 Michell, Edward & George
1851/57 Michell, George & Mark
1857/61+ Michell, George & Mrs Harriet
-1865/73+ Michell, Edward & Sons
-1877/98 Michell, George & Edward.
1.7.1898 Merged with George Gates' "Three Tuns Brewery"
1902 demolished

The Three Tuns Brewery, (Gates' Brewery)
High Street, malthouse in Jarvis Lane

-1828/45+ Gates, George
-1851/95+ Gates, George (junior)

-1899/1915+ The Steyning Breweries Ltd
1917 brewing ceased, damaged by fire
1919 company t.o.b. Rock Brewery of Brighton
c1928 brewery tower demolished

at Bineham Bridge

Bowler, Frank of Mockbridge (no details)

and:-
-1779/84+ Peto, Jeremy (B & M)

and:-

-8.7.1832+ Keeping, John & Co. (M & B)
-1832+ Keeping & Jones
(may have owned the Three Tuns Brewery?)

STORRINGTON

Brewers Yard (VR)

19th century Hugh & Co.,
Gravely
Constable, J.
No details—possibly 1811 Hughs, John or Gravely, Harry?
-1839+ Linfield, Messrs (M & B)
-1845+ Linfield, William

Monastery Lane, Lady Lodge—Malthouse

-1839/61+ Gilbert, Thomas
-1865/69+ Battcock, George
-1873+ Reed, Walter
-1877+ Reed, Wlter Bartlett

Chantry Mills

-1839+ Wilmar, Edward

Back Lane

-1894+ Joyes, Johu

UPPER BEEDING

High Street, now malthouse cottage

-1842+ Michell, E
-1.7.1898 Michell, George Burges & Edward

Field Meadow

1832+/1842+ Vallance & Catt
-1861+ Patching, John

WALBERTON

The Street, brewery with nearby malthouse

Fig.14 Walberton Malthouse

-1828+ Ellis, William
-1832/39+ Ellis, Edward & Mr Farnden,
-1845/69 Ellis, Edward (died 1869)
1869/77+ Ellis, Mrs Matilda
-1881/1922 Ellis, Matilda & Son
19.4.1922 Taken over by Rock brewery, Brighton, brewery and four pubs later purchased by Hoare & Co. London

-1886+ Challen, James (St Elm Villa)

-1861/69+ Suter, Richard

WALDERTON

Stoughton

-1855+ Davis, William (B & M)
-1858+ Davis, William (maltster only)
-1861+ Scovell, W (maltster)
1865/86+ Dawkins, Charles Edward (M)

WEST ASHLING

Funtington

-1845/58+ Smith, George (Farmer & Maltster)
-1881/86+ Hancock, Benjamin

WEST CHILTINGTON

Fig.15 West Chiltington Malthouse

<-1851/555 Hart, J farmer& Maltster
-1858+ Lefford, John
-1865+ Lefford, Miss Frances

Gay Street, Colliers Farm

-1835+ occupied by Michell, Henry of West Street Brewery Horsham
-1851/57 Allen, Dennett
1857 Allen brothers fled the country following raid by Excise
1868/65 Keatly, William Reeves

WEST GRINSTEAD

Dial Post

-1894+ Songhurst, Edward (M & grocer)

Post Office

-1894+ Mitchell, Frederick (M)

WESTHAMPNETT

1866/1908+ Sadler, Henry

WEST TARRING

1721/+ Sayers, Edmund
-1798/1801 Sayers, John
1801/77+ Barker, John

WESTBOURNE

Gosden Green

-1865/66+ Hatch, Andrew Bone (B & M)
-1869+ Hatch, Andrew Bone (maltster only)

Lumley Mill

1801/15 Tollervey, Edward
-1830/60 Shean, William
1860/73+ Terry, James
-1877/06 Terry, James
1906/15 Terry, Alfred
1929 demolished

WISBOROUGH GREEN

The "Fox & Hounds" Round Street Common

-1855+ Hawkins, Jesse (maltster)
-1858+ Hawkins, Messrs E & G (maltster & brewer)
-1861+ Hawkins, Enoch (maltster)
-1865/66+ Hawkins, James (brewer & maltster)
-1869+ Knowles, Robert (brewer only)

1869+ Burberry, James (M)

WORTHING

Broadwater

-1818/29.10.1828+ Tribe, William

33, Chapel Street The Albion Steam

-1850/69 Russell, Thomas
1870 Craston, Thomas

North Street, The Railway Brewery

-1820/22+ Carter, Charles (sen.) (B)
-1836/48+ Mitchell, Henry (maltster)

Then on the opposite side of North Street at 112, Chapel Road:-

1821 Mr Mitchell of Heene
1822/1828 James Mitchell
1829/35 ?
1836/51 Henry Mitchell
-1851 Frances Mitchell
1851 Acquired by Allen brothers
1854 severely damaged by fire and rebuilt
31.3.1957 Allen brothers fled the country following a raid by the Excise when undeclared produce had been discovered
-1861 Allen, Dennett (maltster, at Victoria Cottage)
1862/66 Allen, Dennett (brewer & maltster)
1866+ occupied by Greenfield, Walter but owned by the Allens
8.6.1870 Malthouse sold
-1876+ William Wenban Smith as workshops
1928 Became Messrs Bunce's hardware store.
2019 closed and demolished

Cooks Row

-1824+ Tamplin & Co. (B & M)
-1826/28+ Tamplin, Richard

North Street/High Street/Chapel Road

-1828+ Michell, Henry (maltster, North Street)
-1832+ Michell, Henry (brewer, High Street)
-1839+ Michell, Henry (brewer, Chapel Road}
-1838/46+ Mitchell, Henry (maltster, North Street)

Park Road (formerly East Street)
1836 built ("C.C.1836" on wall)
1836/38+ Owned by Carter, Charles
-1842+ Tithe Carter, James & Richard
-1846+ Carter, James
-1856+ Carter, James & Richard
-1866 occupied by Gould (*sic*)
1866+ occupied by Allen, Dennett
1875 Builder's store

Fig.16 Malthouse in Park Road, Worthing

Warwick Road The Egremont Brewery, aka The Tower Brewery, nearby malthouse at 3 then 1, Alfred Place

1835 brewery built
-1846/56 malthouse prob built
1835/61 Greenfield, George (B & M)
1862/79+ Greenfield, Walter
1880/1917+ Chapman, Harry
-1920/23+ Adams, Ernest (B only)
1924 t.o.b. Kemp Town Brewery of Brighton

Steine

-30.4.1824+ Parsons, George (B & M)
-2.1.1826+ Walker, Richard Watt

1 & 2, Brewery Place

-1824+ Tamplin, Richard (B & M)

Acknowledgements

Sources of information include:-

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The main source, however, has been the County and Town Trade Directories found in the various reference libraries.

All photographs have been taken by the author.

TURNPIKE SURVEY – DEVELOPMENT AND ADDITIONS: PART TWO

Brian Austen

In *Sussex Industrial History 49* (2019) the first part of this article was published, but lack of space meant that this was confined to the part of the county to the west of the main London to Brighton turnpike trusts. As with the previous part John Blackwell has provided valuable additional information researched from turnpike advertisements in contemporary local newsletters. This article covers the eastern part of Sussex with the exception of further information regarding one milestone originally flanking the Cowfold and Horsham Trust which is listed below.

MILESTONES

Cowfold and Horsham Trust

SIH 40 p 30

A correspondent, Jim Parsons, reports that he and a friend have recently visited the milestone in the graveyard at St. Paul's Church, Langleybury, Hertfordshire, and have tried to decipher the very worn numerals. A considerable number of photographs were taken from various angles and they also experimented with different tints using PC software. The numbers were also traced with fingers enabling the feeling of parts of the edging of the numbers. All of this enabled him to draw the conclusion that the distances shown were 7 miles to Horsham and 15 miles to Brighton. The 25" OS map, revised 1909 and published 1911, shows a milestone that matches at Cowfold, on the east side of the road a few yards north of Bull's Bridge with a track leading west below the Noah's Ark (TQ 213222).

TURNPIKES ,TOLL HOUSES AND MILESTONES

Hodges and Cuckfield Trust

SIH 42 pp 38-40

Tony Turk of Newick has shared with me a detailed study that he has undertaken on this Trust and in particular on Newick toll house. I summarise the new content not in the *SIH* published article. The initial meeting of those interested was held at the Chequers Inn in Maresfield on 19 October 1770, at which a resolution was passed to apply for parliamentary powers, and a Mr Dunsgate, an Attorney from Newick, was authorised to collect subscriptions. Amongst the subscribers was John Baker Holroyd (Lord Sheffield) of Sheffield Park. Users of the road included in 1796 a carrier operating from Lewes to Southwark with a weekly service. Turnpike tolls were auctioned and a notice placed in the *Sussex Weekly Advertiser* of 21 April 1816 showed a previous rental as £90 for the Broad Street, Cuckfield Gate, £60 for Scaynes Hill, £39 for Newick and £130 for Buxted. Broad Street Gate was probably near its commencement where the road into Cuckfield from the east narrowed and Old London Lane provided the means of joining the turnpike and bypassing the town. The use by the Brighton & Lovell Trust of Isaacs Lane to reach Cuckfield led to the movement of the Cuckfield Gate further east in 1818 to Butlers Green (also known as Wigperry). Railway development initially brought additional revenue for, on 10 July 1841, a coach was set up from the Maiden's Head, Uckfield, to the recently-opened railway station at Haywards Heath departing at 6.50 a.m. and taking two hours to reach Haywards Heath with an arrival time in London of 11 a.m. The Trust was already in financial difficulty by May 1839, with an estimated cost of road maintenance of £340 for the year ahead and funds for only £150.

Mount Pleasant Toll Bar

Exact location not known but must have been close to the entrance to the Princess Royal Hospital in Haywards Heath. Not recorded until 1861 when reports appeared in the *Surrey Gazette* of a meeting of the trustees which discussed the "erecting of a toll gate or toll bar upon or by or across or at the side of the Road near to a cottage occupied by one Mrs Eade situate at Mount Pleasant in the parish of Wivelsfield". A notice regarding the letting of tolls on this Turnpike, in the *Sussex Agricultural Express* of 23 November of the same year, included this gate. No evidence can, however, be found on maps of such a gate. The Hodges and Cuckfield Trust at this period had a substantial financial deficit of £3,000 and was faced with the imminent need for an extension to powers by Act of Parliament. Cuckfield Parish Council meeting in 1862 indicated that they were

unprepared to find the funds, and voted to oppose renewal because of local discontent with the payment of tolls at the Butler's Green gate to access the railway station at Haywards Heath in their parish. A resolution was arrived at in 1866 when funds were provided to pay off the mortgage holders in return for the winding up of the Trust and the removal of the gates. It is likely that at Mount Pleasant no toll house was contemplated or built but merely a gate erected to raise additional revenue, which could be used to help pay off the mortgage holders when the Trust was eliminated. There was no existing gate on the road to the east until that at Scaynes Hill, and Haywards Heath was expanding because of the rise in population following the provision of the railway station and the establishment of the Sussex County Lunatic Asylum in 1854 with its associated building works and provision for the staff and inmates on a previously isolated site outside the limits of existing urban settlement, in Wivelsfield parish. A similar gate designed to raise revenue from an isolated site near to a new railway station can be found at Buck Barn on the West Grinstead branch of the Brighton & Lovell Heath Trust. This was opened to raise revenue from passengers travelling eastwards to join trains at West Grinstead station (see *SIH 41* p48).

p39 Newick Toll House TQ 420213

Immediately on the passing of the Act, gates were set up including Newick Green, using an existing cottage. It is shown on a large scale map of the Allingham Manor Estate in 1829 [1] and on the Tithe Award Map of 1839/40 [2] where it is shown situated on a plot of 16 perches with a garden to the rear. At the time of the 1841 census the occupier was Thomas Sharp, an agricultural labourer. In 1842 it was rated at 4½d (2p) in the Church Warden's books based on a valuation of £2 10s (£2.50) [3]. In 1866, on the closure of the Trust, the house and garden were sold to James Henry Scalater of Newick Park. The earliest known photograph, thought to be c1908, shows a three-bay frontage with a lean-to to the west (fig 1). By c1925 this extension had been replaced to provide a four-bay frontage to the road, with a tile-hung west end (fig 2). Subsequently the road frontage was also tile-hung, as was also the east end elevation. The building was listed grade 2 in 1979.

Fig.1 Newick toll gate cottage c1908

Fig.2 Newick toll gate cottage 1920s

Offam and Wych Cross Turnpike

SIH 42 p34

Furners Green

The *Sussex Advertiser* of 7 April 1823 mentions a new gate to be "erected at or near Furners Green".

Lewes to Brighton Trust (1770)

SIH 42 pp 36-37

A meeting of the Trustees was held on 11 November 1851 "to consider taking down, removing and discontinuing the Toll Gate at Ashcombe."[4] Both this gate and that at Preston Barracks gate were also advertised for letting in the following year. Closure, however, appears to have taken place at Ashcombe in 1852 and the gate entirely removed, but not at Preston Barracks which was still active in 1867.[5] One can only conclude that the profitability of the Trust was such that any attempt to extend its powers by a renewal act would have been opposed. The Trust was wound up in 1871.

Ditchling & Offham Trust (1812)

SIH 42 p41

Westmeston Toll Gate

Although Court House Gate was set up when the Trust was formed in 1812, plans for an additional gate at Westmeston were rejected on the basis of cost. This omission enabled travellers to use Underhill Lane from this point to access two turnpikes further west leading to Brighton, avoiding a further toll. To rectify this position, a side bar was proposed across Wick (Underhill) Lane in 1838. This was clearly in place by 1840 when a parliamentary return indicated that the Trust maintained a side bar. This would have been across Wick Lane and probably at the point where it commenced, immediately west of Wesmeston church. It is, however, not marked on the Westmeston tithe map. This map does, however, show plot 7, tenements and gardens, near the turnpike. Martin Snow had undertaken research to try to confirm the presence of a gate at this point (TQ 339137). The toll collector was probably a local cottager, as the Trust did not have the funds to erect a purpose-built house, merely building a gate across the road.

Both Court House Gate and Westmeston Gate were in place before 18 March 1823 when they were advertised for letting. The last recorded meeting of the Trustees was at Lewes on 14 November 1865 and the insolvent Trust was wound up.[6]

Bow Bell Milestones

SIH 42 – pp 30-31, 33, *SIH 45* (2015) pp 6-7

This is the name given to the mile posts beside the London to Eastbourne road and the branch from Union Point to Lewes, because of their attractive design and appearance. They were first surveyed by the Society and published in *SIH 5* (Winter 1972/73) with additional information in *SIH 7* (1976). They were revisited in *SIH 42* (2012) for the London to Lewes section and *SIH 45* (2015) for the road from Uckfield to Eastbourne via Hailsham. Glenda Law of the Milestone Society has also produced a useful pamphlet with the title *Follow the Bow Bells Toll* (2016), which not only lists the markers and provides locations, but also individual photographs.

A member of the SIAS has informed me that, for the section from Hailsham to Langney, the only one to be found was 56 outside Hailsham Cemetery. This was the only one surviving when surveyed in 1972/73 and the correspondent claimed that the East Sussex County never replaced the other five missing plates. This information is incorrect. Not only are they recorded as being replaced by 1973, but Glenda Law, in an addition to her booklet, records seeing 57, 58 and 59. They may not be there now, and are part of a continuing story of the theft of milestones. We have recently been informed by Peter Gillies that the Bow Bell milestone 47 situated beside the A22 between East Hoathly and Halland disappeared in January 2020. East Sussex Highways and the Sussex Police have been informed.

***SIH 43* – Ringmer to Hurst Green Trust**

Fig.3 Swife Toll House, 1970

p35 Fig. 4 Swife Toll House TQ 616228

This is of stone and brick construction and similar to Amberstone when built. It originally had two windows facing the road but was later extended. It was situated on a garden plot of 17 perches.[7] In May 1970 it was known as "Pay Gate Cottage". It is about half a mile to the east of Broad Oak, but is now fenced off from the road and less easy to view, but appears present in a recent aerial photograph. The *Sussex Weekly Advertiser* of 26 May 1817 included a notice that the toll was available for farming with Blackboys and Cross-in-Hand gates, and that £384 was currently being received for the three. By 1854 the three gates were still being let together.[8] The Swife gate house and plot was sold on 18 December 1866 to Joseph Colling of Islington after the winding up of the Trust.

p35 Burwash – Church Gate TQ 678248

Although no toll house is identified on the tithe award map or schedules a small structure built into the road appears to be marked on the map.

p35 Etchingham Toll House TQ 709259

The house was placed at the junction of the A265 and an unclassified road leading south to Robertsbridge. The toll house was placed into the road with gates across both roads, three in all. Although there was no ground around the toll house, a garden plot was provided close at hand to the west of the Robertsbridge road. The gate continued to operate until the closure of the Trust in 1866, and on 18 December 1866 the toll house, then unoccupied, together with land, was sold to the Rev. R.G. Barton of Etchingham for £61 15s (£61.75).[9] It was subsequently occupied, and reported to have survived until the 1960s though no longer used for toll collection.

p35 Burghill Toll TQ 718265

It was about a half a mile east of the railway station, which was opened on 1 September 1851 for the South Eastern Railway's new London to Hastings line. A new road alignment to the south of the existing Hurst Green road had been opened, which provided easier gradients, though the existing line of road was left open. The new road was closer to Haremere Hall, a Jacobean house which from 1860 was being remodelled. At the junction of the old and new roads a gate was set up, the toll house being in the fork formed by the two roads. A photograph of this cottage, named "Tollgate Cottage", appeared in an article titled "Old Toll Houses of East Sussex" in *Sussex Life* in Vol 8. No. 2 (April 1972). At the time we were conducting the survey, lacking other evidence, it was regarded as being too late in date and too elaborate in style to be a toll house. With new information to hand however, it seems likely. The *Sussex Advertiser* of 11 Sept 1855 included it in the list of gates offered for farming, effective from 1 January 1856 and named it "Church now removed to Burghill". The two-storied cottage that exists in the fork between the two roads is tile-hung with a porch facing the new road to Hurst Green. It is in an early seventeenth-century revival vernacular style (fig 4). No toll house at this point appears in the list of assets sold by the Trust in 1866 and was probably never its property. When sold in 1928 it was owned by the Haremere Estate.[10]

Fig.4 Burghill tollhouse

***SIH 43* Wadhurst and West Farleigh Trust pp 32-33**

Sussex Toll Houses

This turnpike was mainly in Kent, with only the southern two gates within Sussex when built. One of these, after county boundaries were changed in 1894, was then in Kent. The names given for the gates in Kent in the advertisements for toll letting between 1847 and 1867 were Horsmonden, Ramshill, Clay, Crow Plain, Benover and Yalding but Horsmonden was not included 1858-1865.

***SIH 43* Tunbridge Wells and Uckfield Trust pp 38-40**

p39 Ropers Gate TQ 575386

The ill-defined boundary of the growing town of Tunbridge Wells, coupled with the extensive commons surrounding it, clearly provided problems in defining suitable locations for toll collection gates. Thus, in the original Act of Parliament setting up the Trust, some form of gate existed at its commencement, named Coopers Gate, and it is also shown on the map in C*olbran's Tunbridge Wells Guide* of 1840. It is not named in the advertisement for the letting of tolls in the *Sussex Weekly Advertiser* of 31 July 1820. The Trustees did, however, agree on 30 July 1825 to the consideration of a possible erection of a gate at this point, reported in the 8 August issue of the same paper. The gate was approved in November and the tolls let from 1 July 1826.[11] The Tunbridge Wells Town Improvement Act in 1846 contained a clause forbidding the collection of road tolls within the Town, and Ropers Gate was obliged to close. A replacement gate was approved at Sprats Brook TQ 568370. A further alteration on 17 November 1858 suggested the removal of the two toll houses and gates at Sprats Brook and Eridge Green and merger into a single house and gate at the top of Sprats Brook Hill (TQ 566368). The toll house and garden in the north-east corner of the cross roads appear on the 1874 25" OS map.

p40 Pound Gate TQ 485285 (also known as Handel Gate)

The Trustees consulted about the erection of a toll gate between "Hendall Farm and Crowborough Gate in the parish of Buxted", which was reported in the *Sussex Weekly Advertiser* of 27 November 1826. The letting of the tolls at Pound Gate was advertised in the same newspaper on 7 April 1828. A plan to remove the gate was discussed in October 1850 and it was no longer listed when the leasing of the tolls was advertised in September 1853.[12]

SIH 43 Tunbridge Wells & Sleeches Cross Trust pp 40-42

p41 Tunbridge Wells Gate TQ 582375

The exact position of the original gate is unknown, but was probably that specified as its commencement in the Turnpike Act of 1767 and set up soon thereafter. It was close to the boundary of the built-up area of Tunbridge Wells, which before the town Improvement Act of 1846, was unclear. There were also side gates on other roads where tolls would be collected either in person or by means of collecting boxes. Apart from the main gate across the road to Frant there were gates at Frant Bottom (TQ 585367), a side bar existed across the road leading to Halls Hole (probably TQ 582376) and Rumber Hill. These were advertised for leasing as a package at £300 in July 1836.[13] The Tunbridge Wells Town Improvement Act forced the Trustees to consider all the toll collection points on the Trust near the town. One of the toll houses was sold to the Earl of Abergavenny on 28 May 1847,[14] and in 1853 the toll bar at Frant Bottom was discontinued.[15]

p42 Ticehurst –Upper Gate TQ 685304

This was situated just before the western extremity of the village on the north side of the turnpike. John Blackwell has carried out further research using the Ticehurst tithe and other contemporary maps and it is now clear that the existing toll house, described and illustrated on p 43 as fig 8 and the back cover of *SIH 43*, is the Upper Gate and not Burnt Lane Gate. (See fig. 5). The unclassified road leading north is now called Cross Lane. It was John Noakes, described as "gentleman", who purchased this house and plot on which it stood in 1877 for £50.

Fig. 5 Ticehurst Upper Gate

p42 Ticehurst Vineyard Gate

Description correct, but operated in conjunction with Ticehurst Upper Gate.

p42 Ticehurst – Burnt Lodge Gate TQ 675302

The toll bar is shown a few yards north of the junction of Burnt Lodge Lane with the Turnpike. On the 1874 O.S. map it is shown with a side bar. It was sold in November 1877 to John Brissenden of Ticehurst, farmer, who owned the adjoining land.

p46 Stonegate Trust

Although this Trust reported to Parliament in 1833, 1852 and 1852 that the Trust maintained only one gate, this information was not entirely correct and another existed.

Stonebank TQ 648264

The rental of tolls at this gate were advertised in 1820 and 1830.[16] The tithe award map shows the toll house on the western side of the turnpike (Witherden Hill and Witherden Road), with a garden plot, at its junction with a parish road leading west to Mayfield. Revenue from this gate was quite small, and between 16 November 1829 and 30 March 1830 was only £2 18s (£2.90) above the cost of collection, and as a result the gate was thrown open for the remaining part of the year. When the Stonegate Trust was wound up in 1852 the house, stated to have been recently demolished, and the garden plot on which it formerly stood, were sold to Alfred Beale of Hawkhurst for £5.

Milestones

Bromley & Hartfield Trust 1767 and Tunbridge Wells & Maresfield Trust 1766

London Swirl Milestones pp 45-46

This is the name adopted by the Milestone Society to describe this series from Fairwarp to Crookham Hill just to the south of Westerham in Kent. They were first recorded by the SIAS in the 1972/73 survey published in *SIH 5* and the update published in *SIH*

7 (1976), when the provision of replacement posts up to the Kent border was confirmed. The next information came in July 2010 when Alan Rosevear of the Milestone Society reported that two of these posts had been placed on sale on ebay. The East Sussex County Highway Department and the police were contacted. They were removed from sale and taken into County care. In 2011 the SIAS contacted East Sussex County Council to enquire if they intended replacing them beside the road. Their reply indicated that they had no funds to undertake this but would place them back if the Society was prepared to fund the work involved (then £500). Since then Alan has been in touch with the Council. It would appear that the plates removed from the auction were taken to the Ringmer Highways Depot, but at the date of contact could not be located. The plates involved were 33 and 31, but 31 is different in pattern from that recorded by the SIAS in 1972-73, having the numbers within the frame in sans-serif font. Was this one of the replacements provided by the council? It was certainly not the mile plate in place at the time of the original SIAS survey in 1972-73. This is not the end of the story, because two further mile markers were found to be for sale at a Rotherfield antique dealer in 2016. One of these was a Bow Bell, 34 miles to London. The other was London swirl pattern numbered 33 to London. Was this the same one that was known to have been at the Ringmer Depot and photographed there in 2010? Further efforts by the Milestone Society had by August 2017 proved unproductive, apart from their recovery by the police.[17]

p44 Sleeches Cross to Cross in Hand Turnpike.

Keith Sharp has alerted us to a milestone at Five Ashes (TQ 559249) not previously recorded in the SIAS survey (fig 6). This is in the east bank facing the Church of England Primary School. The stone is of local sandstone, 9" wide and 7" deep and stands 24" from the ground level. The inscription on the soft sandstone is now missing but it is just five miles south of the one near Mark Cross on the same Trust which gives distances to Tunbridge Wells and Lewes.

Fig. 6 Five Ashes milestone

***SIH 45* Broyle Park to Battle Trust pp 2-16**

p9 Boreham Bridge Toll House TQ 677119

This toll house ceased to be used for toll collection in 1828.[18]

***SIH 45* Union Point (Uckfield) to Langney Trust**

p5 Stone Cross toll house TQ 614044

The toll house and the public house were on the south-west corner (behind the pub). The Westham tithe apportionment refers to it as the "old turnpike house". It ceased to be used for toll collection between 1789 and 1811 and does not appear in the list of gates to let in 1812.[19]

***SIH 46* Flimwell & Hastings Trust pp28-33**

p32 John's Cross Gate TQ 743212

When the line of the Flimwell & Hastings Trust was diverted east through Whatlington to reach Battle this gate was closed. Toll revenue is last recorded in the accounts of the Trust for this gate in the year 1786-1787.[20] When in 1838 the section of road through Whatlington passed under the control of the St Leonards and Sedlescombe Trust they took a decision "not to place a side bar across the old road at St John's Cross".[21]

p33 Hollington Lane and Harrow Lane Gates

The Hastings & Flimwell Trust in July 1825 investigated the erection of a side gate across Hollington Lane at a point three miles south of Battle at the bottom of Glaziers Hill "leading to Hastings past Silverhill Farm near a public house called The Harrow". The gate was swiftly put in place and it was agreed that it would be let with the Hastings Gate.[22] These gates and associated toll houses were removed in 1840, in an agreement with the newly formed St. Leonards and Sedlescombe Trust and with the opening of the Hollington and Hastings Trust of 1838. [23]

p. 33 Ore Toll Gate TQ 836114

A late addition set up opposite Christ Church, Ore. A new route had been opened (present Ashburnham Road), between Springfield Nursery and the Hare and Hounds Public House, by which the Hastings Hill Gate could be avoided. The new Ore Gate and the original gate at Hastings Hill were to be free to each other by ticket.[24] Effective from 1 November 1875, gates within the boundary of the borough of Hastings were closed and the gate across the old London Road was moved 500 yards to ensure that it was beyond the

Borough boundary. This freed the drive to Fairlight of toll.[25] This would place the new gate near the junction of the turnpike with the then road to Rye (now Winchelsea Road). Since the opening of the repositioned gate on 1 November 1875 toll income for the next eight months was £196 12s 5d (£196.62) and £299 per annum up to the date of the expiry of the Trust in 1880.

James Blackford, the Ore gate keeper, claiming that the accommodation at the gate was insufficient for a family, attempted to rectify the situation by adding the top half of a gipsy caravan at the side of the road. He was summoned, for this addition reduced the width of the highway to less than that required by statute. The Chairman of the Magistrates was, however, of the opinion that this addition was "not such an obstruction as the toll gate itself".[26]

p33 Hastings Toll Houses

The urban expansion of Hastings in the nineteenth century, and the proliferation of gates following the rivalry between the original Flimwell and Hastings and the developments supported by this Trust, and the new St Leonards and Sedlescombe Trust in the late 1830s produced considerable complexity. Because of this, and destruction of the toll houses, the following location details of their sites are provided:

p37	St. Leonards Green	Filsham Road/The Green TQ 795099
p37	Old Tower Gate	Tower Road/London Road
p38	Silverhill	Sedlescombe Road North/ Harrow Road
p40	Tivoli	Battle Road south of Paynton Road
p40	Hollington	Battle Road/ Telford Road

SIH 48 2018

The Flimwell and Rye Trust pp 22-25

Route of the Turnpike.

p22 column 1 para 2 line 2

Number of the road is incorrectly shown as A286. It should be A268.

The original route of the turnpike of 1762 from Newenden was through Nothiam (present A28) and then east (near Beckley Windmill, TQ 839 234) to Four Oaks where it joined the present A268. This is confirmed by the milestones. The renewal act of 1782 took over Whitebread Lane, providing the Turnpike with powers to widen it, which enabled it to adopt a more direct route from Newenden bypassing Northiam and Beckley. It had no gates on the former route and therefore lost no toll revenue. The Act of 1872 which wound up the Turnpike confirmed that both routes were at that date still its responsibility. Further confirmation came in 1875 when the Rye Highways Board took legal advice which was that "Whitebread Lane was under the circumstance a turnpike road within the meaning of certain acts".[27]

p23 Beckley Toll

A notice in the *Kentish Gazette* of 7 October 1775 indicates that the Trustees were considering taking away the turnpike gate and side gate then standing at Beckley, Four Oaks. This seems to suggest that the gate was at TQ 861242 where Whitebread Lane then commenced, and replacing it with a new gate and a side gate across Kitchener Lane, i.e., at TQ 866236. The actual date of the move is unknown, but it appears to have been made by 1809 when in an advertisement in the same paper of 7 November for the sale of "underwood" from Burnt Wood, stated that it was the part nearest Beckley turnpike gate. The last year for which toll revenue is known is 1824 when it was £212 8s (£212.40). The gate was removed and the house was purchased from the Trust in 1829, and ten years later was being used for a dwelling for an agricultural labourer and his family. The 1841 census thus records both "Old Gate" and "Old Toll Gate Cottage", neither being used for toll collection. The later building, named "Toll Cottage", survived until c2009. It was then in a dilapidated state and

Fig. 7 Beckley tollhouse, 2009

soon thereafter was demolished (fig 7).

p24 Rye Toll House

William Holloway in his book *The History &*

Antiquities of the Ancient Town and Port of Rye (1849) states that the original gate and toll house were situated at the foot of the hill south of Deadman's Lane. By an Act of 1825 the control of the Flimwell and Rye Trust was extended a short distance to the Land Gate at Rye. From here connection was possible by means of the Vinehall Trust along Rope Walk Road to Taylors Corner (see *SIH* 48 p28).

Vinehall Trust (pp 25-28)

Dumb Woman's Lane side gate TQ 896194

A side gate across the entrance to the lane leading, like the Udimore Green side gate, to the ferry, and later bridge, over the River Brede. Neither of the gates collected much in revenue and in 1866 the two were leased for a mere £7 5s (£7.25). The ferry and bridge tolls were collected at a toll house at TQ 903179 on the Winchelsea side of the River Brede (see figs. 8a & 8b, which were illustrated on *SIH 48* p28) now renamed Station Lane and accounted for separately.

Fig. 8a Dumb Woman's Lane, prior to 1876

Fig. 8b Dumb Woman's Lane, Winchelsea (today - house enlarged by one bay)

Staplecross Turnpike

p28 No. 1. The road from Staplecross connected with the Vinehall Trust at Clayhills on the original line of the Flimwell & Rye Trust which was retained after the main line of the Trust was diverted north using Whitebread Lane in 1782.

No. 2. From Horns Cross the Turnpike used the line of the present A28 road to connect with the original line of the Flimwell & Rye Turnpike near Brickwall House.

p30 Springates Hill and sidegate TQ 781258

The toll house was removed on 1 January 1839. From 1832 the side gate was stated to be "across Higham Lane".

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SOUTHERHAM CEMENT WORKS 1948-1971

Fred Roberton

This article was produced from a recording made with Fred and has been compiled by John Blackwell.

Introduction

The site at Lewes, TQ 425092 to TQ 426098, had produced grey and white lime since the late eighteenth century, operating from quarries on the east side of the River Ouse. This is now the A26 that runs from the Cuilfail Tunnel to the Southerham roundabout on the Lewes bypass. The works closed in 1981, the site was then cleared and is currently known as the Cliffe Industrial Estate.

Fig. 1 Southerham Cement Works, 1964

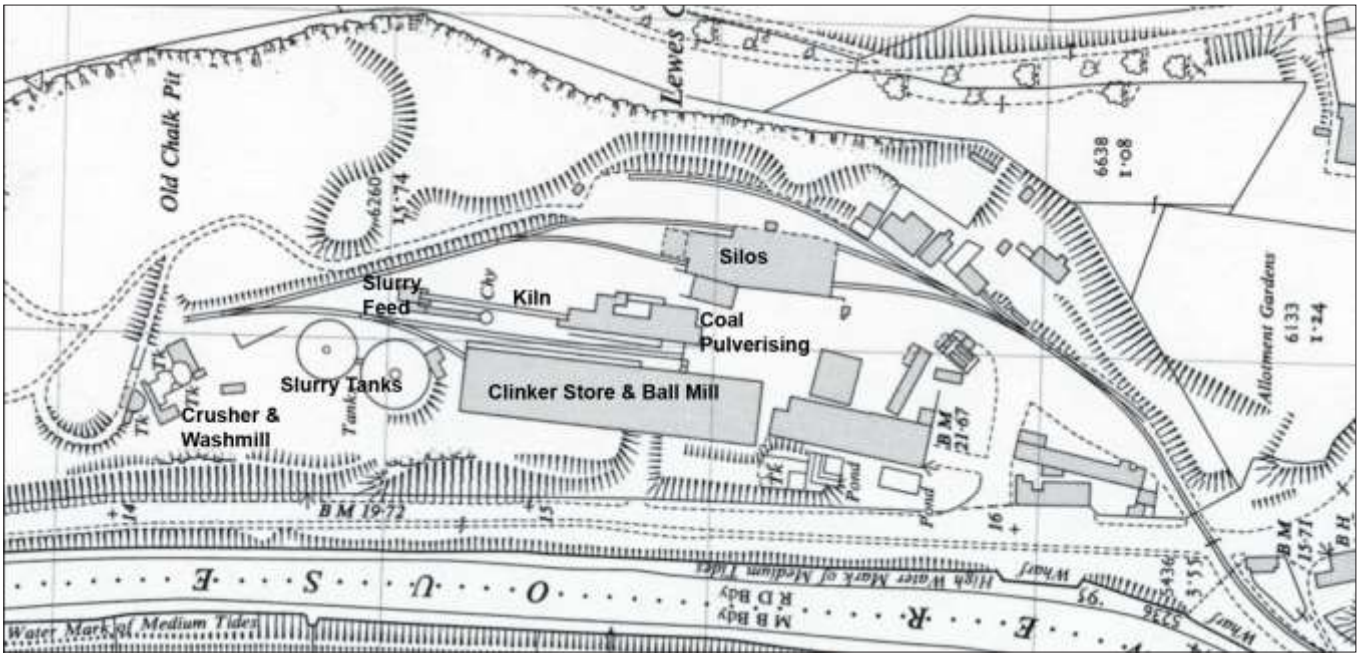

Fig. 2 Southerham Pit, 1955

Cement manufacture began in 1903 at the more northerly site, Navigation Pit, immediately outside the present day south entrance to the Cuilfail Tunnel, using chamber kilns and becoming the Lewes Portland Cement and Lime Co. Ltd in 1906. In 1929 the Eastwoods Group bought the company and changed the name to Eastwoods (Lewes) Cement Ltd. The chamber kilns were abandoned following the installation of the rotary kiln in 1928 to the south of the original works. In 1963 Eastwoods was acquired by the Rugby Portland Cement Co. Ltd who continued cement production until closure in 1981. The plant was the smallest in the UK from the 1960s onwards.

Fred's Story

I joined the workforce at Southerham Cement works in 1948. At this time the works were owned by Eastwoods. I was employed as a 'greaser'; the job was really an assistant to the 'burner' who was the operator of the rotary kiln, the piece of equipment at the heart of the cement production process. My tasks were to ensure that all the moving parts were lubricated — a dirty, noisy, very hot and dusty job with a huge rotating steel cylinder above my head weighing over a thousand tonnes when loaded. It also provided an opportunity to understand the workings of the kiln and the production process, and when the 'burner' left I was appointed to his position.

Description of the Kiln

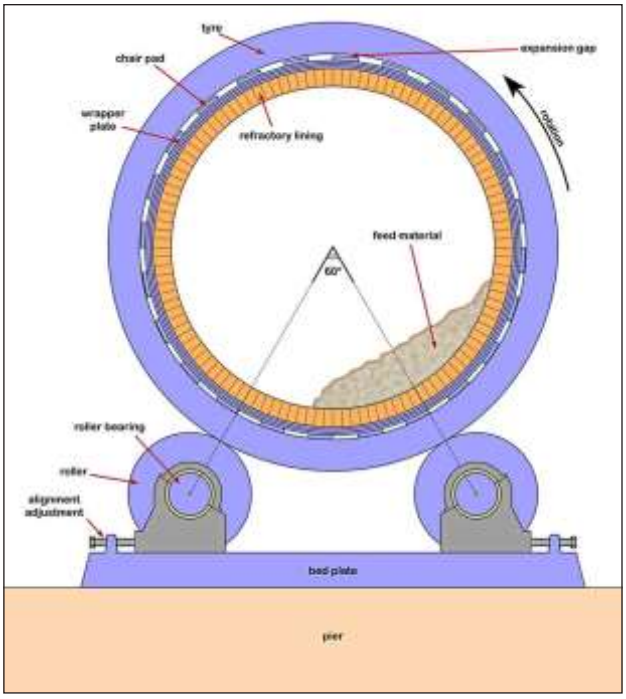

Fig. 3 Kiln tyre (*www.cementkilns.co.uk)*

Fig. 4 Kiln showing tyres, clinker store to right, coal mill far structure in centre

A rotary kiln in essence is a long steel tube lined with refractory bricks, tapered to fit the curvature of the shell, with a burner at one end and a slurry feed at the opposite. When in operation it rotates slowly, one to two revolutions per minute, and slopes from the cold, feed, end to the hot, burner, end in the ratio of one to twenty five. The kiln was supplied by F. L. Smidth of Copenhagen in 1928. It was constructed from semi-circular mild steel plates butt-jointed together with the joins being covered by steel straps riveted to the plates, forming a cylinder 2.3m (7ft 6in) internal diameter and 76m (250ft) in length. Cast -steel tyres riding on pairs of steel rollers, one on each side of the kiln and mounted on piers, support the weight of the kiln. The tyres were a loose fit on the kiln's shell to allow rotation and were held in position by a ring of chairs attached to the shell. The weight of the kiln bears down on the lower chair pads creating a gap for expansion between the upper chair pads and at the inside of the tyre at the top of the kiln. The rollers are wider than the tyre allowing for longitudinal expansion and contraction and there were several tyre assemblies along the length of the kiln; at Southerham there were five as I recall. The kiln was driven by a single gear ring meshing with a pinion driven by a variable speed motor and was

positioned near the centre of the kiln. The ring was not directly mounted on the kiln shell but held in place by flexible plates, one end being riveted to the shell tangentially, the other being fixed to the gear ring through a flexible coupling, allowing expansion of the shell to take place.

The Process

Grey chalk, whose composition is 80-95% calcium carbonate and therefore does not need mixing with clay to make cement, was obtained from the Southerham Grey Pit (TQ 432092) to the south-east of the works alongside the Lewes to Hastings railway line. Blasting took place weekly and the chalk was transported by lorry to the north end of the site where it was crushed and then mixed with water in a washmill to produce a slurry. This gravitated to either of two storage mixers some 12 and 18m (40 and 60ft) in diameter and 3.6m (12ft) deep. These were concrete tanks with a central pier on which was mounted a steel lattice girder spanning the full diameter of the tank and free to revolve about the centre pier. Suspended from this girder were four paddles, made to revolve by bevel gearing mounted on a shaft running the length of the girder and rotated by an electric motor. When in motion the reaction of the stirrers in the slurry cause the lattice girder to rotate and the contents of the tank are kept in constant agitation, preventing any settlement.

Fig. 5 Slurry storage tank

From the storage tank, slurry is pumped up to the slurry house at the cold end of the kiln and into a tank or reservoir. Revolving in this tank was a vertical 'spoon feed' mechanism with buckets which dip down beneath the surface of the slurry. These buckets, as they revolve, pick up slurry and drain it into a trough that runs into the kiln feed pipe. The 'spoon feed' is driven by an electric motor, the speed

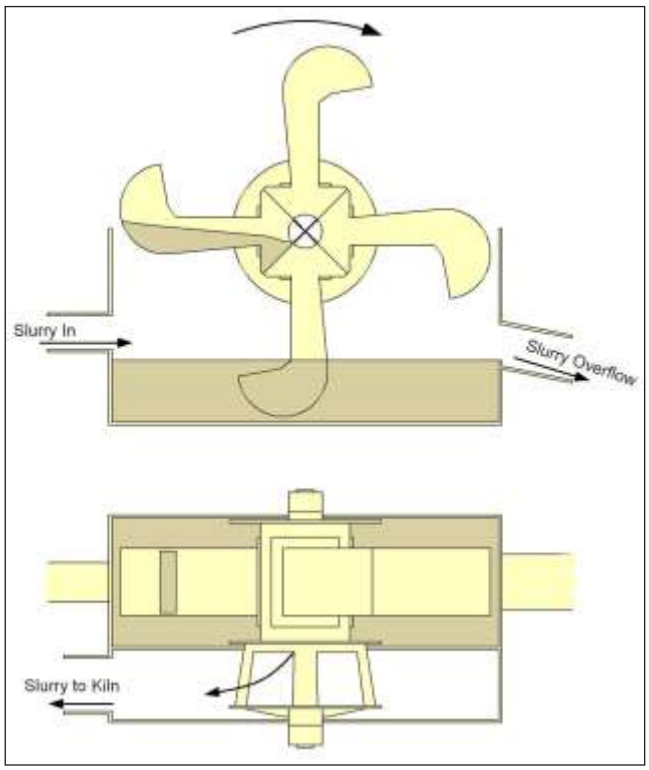

Fig. 6 Slurry spoon feed (*www.cementkilns.co.uk)*

of which, and hence the quantity lifted by the buckets in a given time and fed into the kiln, the slurry feed rate, is controlled from the hot end of the kiln. The level of the slurry in the tank is kept constant, the excess flowing back through an overflow into the storage mixers.

To fire up the kiln we used old railway sleepers and jute cement sacks soaked with kerosene and lit with an oily rag on a stick. The door at the burner end of the kiln was closed and air was drawn through the kiln by an induced draught (ID) fan at the chimney end. As the temperature rises pulverised coal is gradually added to the air stream and self ignites. Finally slurry is slowly admitted to the kiln.

The coal was delivered by rail to Southerham sidings to the south of the works and the loaded trucks were drawn into the works by an industrial steam locomotive named *Atlas* built in 1902 by Hawthorn Leslie & Co. (later replaced by a Drewry diesel shunter). It was heat dried and crushed to dust in a coal mill and blown into the kiln by a powerful fan.

Once up to operating temperature the process was continuous 24 hours a day, 7 days a week, and was only ever stopped for maintenance. We worked a three-shift day running from 6 a.m. to 2 p.m., 2 p.m. to 10 p.m. and 10 p.m. to 6 a.m. I cycled to and from Newhaven, but when a shift roster changed from finishing at 10 p.m. to starting the next morning at 6

a.m. I slept at the works on a makeshift bed. The total workforce would have been about 80 people; I was number 76.

The ID fan draws the exhaust gases from the chemical reaction in the kiln, mainly carbon dioxide and fuel combustion gases, through a dust extractor and into the kiln's chimney. At the feed end of the kiln were chains forming a hanging curtain which acted as a heat exchanger and warmed the slurry. As this slowly travelled along the kiln the temperature increased, firstly evaporating the water content until at the hottest part of the kiln — the burning zone, where the temperature reached over 1,350°C — a chemical reaction occurred and nodules of cement clinker were formed. This hot clinker needed to be cooled.

Fig. 7 Fred standing with cooler behind

At Lewes we had a 'planetary' cooler, which consisted of eight cooling cylinders that were attached to the circumference at the hot end of the kiln and rotated with it. Each cylinder was about one metre (3ft) in diameter and some four metres (14ft) feet long, as I recall. Eight openings in the shell of the kiln allowed the hot clinker to fall into a cooler tube. Cold air from the atmosphere entered through openings in the cooler end plates, and also circulated around the outside of the tubes. Each tube was divided longitudinally into four interconnected compartments furnished with chains which tumbled and cooled the clinker in the air flow as it passed through the cooler. The cooled clinker was finally discharged from the endplates as they successively passed through their lowermost position, onto a shaker (see below). The cold air not only cools the clinker to just below 100°C. but some of the now heated air is drawn or fed into the kiln to support self -combustion of the pulverised fuel. An extension to the kiln formed a hood allowing the clinker to cool somewhat before entering the cooler. This was closed off by a two-part steel door which allowed the feed pipe to the burner to pass through and into the kiln. Both extension and door were lined with refractory material.

A peephole in the door allowed me to view the burning zone of the kiln by means of a hand-held frame containing a piece of dark blue glass. It was down to me to control what was happening in the kiln by observing the colour and brightness of the clinker, the distance it climbs the wall of the kiln (which is related to the stickiness caused by the amount of liquid present) and the positions where clinkering starts and finishes. Adjustments could be made by controls operated from the hot end of the kiln, namely to the:

Kiln rotational speed – which controls the rate at which the feed advances down the kiln.

Slurry feed-rate – which for a given kiln speed controls the depth of the bed of feed in the kiln by adjusting the speed of the 'spoons'.

Kiln draught – which controls the rate of heat transfer from the hot to the cold end.

Fuel flow-rate – which controls the rate at which heat is placed in the hot end of the kiln.

Daily the kiln produced some 200 tonnes of clinker.

Rotary kilns were dependent on the knowledge and experience of the operator.

At times — not too often I am glad to say — a red hot spot appeared on the shell of the kiln and we knew one or more of the refractory bricks forming the lining had fallen off. The burner was extinguished and the kiln stopped from rotating. A stream of cold air was drawn through the kiln and we donned the only protective clothing we were issued with — an asbestos hood and a pair of clogs, opened the door and stepped into the kiln to do the repair. You could feel the hot clinker sticking to the clogs and if that air flow had stopped, well that would have been curtains!

The cooled clinker fell on to a shaker (or vibratory conveyor) that moved it along an underground

Fig. 8 Clinker store

tunnel to an elevator which raised and dropped it into the clinker store. Coal, clinker and gypsum were stored in this building constructed of corrugated iron with cross divisions to separate the various materials. The building, which was 15m (50ft) wide and 91m (300ft) long, was served by an overhead crane running the full length of the building.

Production of cement

A cement grinding mill was used to grind the hard nodular clinker into a fine grey powder. A quantity of gypsum, 2-3%, was added to control the setting of the cement. If none was added the cement would set immediately after the addition of water. The grinding or ball mill consists of a cylinder some fifteen metres (50ft) in length and five metres (16ft) diameter rotated at about 14 r.p.m. and divided into two chambers separated by a diaphragm. The cylinder rotated in trunnion bearings mounted on concrete bases. An overhead hopper fed clinker into the first chamber which contained steel balls between 60mm (2⅜in) and 80mm (3¼in) in diameter and when reduced in size the clinker passed through the perforated diaphragm into the second chamber containing balls of 20mm (¾in) to 40mm (1½in) in diameter which produced the finished product. A continuous stream of cold air passed through the mill to keep it cool. From the mill an underground conveyor system carried the cement to the base of the six concrete storage silos. Here a bucket elevator lifted the cement to the top where a screw feed carried it to the relevant silo. On the ground floor of the silos were chutes for bagging and blowers for bulk distribution. Despatch was by road and rail.

In 1971 I was offered a position of supervisor at Southam Cement Works in Warwickshire (demolished 2011-2012) and found the process there was more sophisticated and that instrumentation had replaced the vigilance and experience of the burner. I spent a further twelve years there before retiring and returning south.

Fig. 9 Cement silos

Postscript

What changes have taken place in the cement industry since Fred left Southerham? The wet process where liquid slurry enters the kiln has been replaced by the dry process where the blended raw materials enter the kiln at 900° C via a pre-heater tower. The industry in the mid nineteenth century had its origins in the south east of England and was based on chalk as a raw material. The later introduction of more efficient grinding mills led to the use of the harder limestone causing a marked decrease in the use of chalk from ten million tonnes in 1980 to less than two million today. This caused a shift of production northwards leading to the closure of the Kentish cement plants, the last, Northfleet, closing in 2008. Looking to the future it is claimed that Ground Granulated Blast-furnace Slag (GGBS), a cement substitute and environmentally friendly product, can replace 70% of Portland cement in a concrete mix.

Acknowledgements

Cementkilns.co.uk for additional information.

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Hurstpierpoint Malthouse, 2007 (Photo: Peter Holtham)

Southerham Cement Works, 1964