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Wealden Iron Research Group

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Hon. Secretary (until 28th July 1973)
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EDITOR'S NOTES

It is hoped that this issue will be ready for the July meeting, but maintaining this schedule has meant that BULLETIN No. 6 is shorter than the Committee had planned. The Acting Editor (a permanent successor to Henry Cleere is still being sought) asks that local correspondents prepare their material for BULLETIN No. 7 in good time, at the latest by the end of October. The Committee wishes to record the thanks of the Group to those officers who will be retiring at the Annual General Meeting. Mrs D. M. Meades has found that her commitments prevent her from continuing as Hon. Treasurer, and it is with great regret that her resignation is received. She has done a valuable service in establishing the Group's finances on a sound and well-ordered footing, having had to feel her way in starting the accounts from scratch. Mr Philip Willmot has been nominated by the Committee to succeed her.

The resignation of Mr J. Pettitt, from the office of Hon. Secretary, comes as a great shock. It should perhaps have been realised how great a burden it would be for him to manage the Group's affairs from outside the area; Joe Pettitt has insisted on taking a full part in field work and in maintaining contacts in the Weald, and all will be grateful to him for carrying this load so conscientiously through the period of the initial development of W.I.R.G. as a formally-constituted body. The Committee has nominated Mr David Butler as successor to the post of Hon. Secretary. Although this Bulletin may appear before the time of his formal election, it may be expedient to draw members' attention to his address: 63 Mackie Avenue, HASSOCKS, Sussex.

Important note: Safety in the field

It may be useful to quote from the start of the booklet Responsibility and Safeguards in Archaeological Excavations (edited by P. J. Fowler for the Council for British Archaeology, 8 St. Andrews Place, London N.W.1, 1972, Price 15p).

"Archaeological excavation involves risks to persons and property. There can be no excuse for ignorance of these risks or of failure to be prepared for them".

It is, however, remarkable how many excavations, particularly those carried out by small groups, are inadequately protected or insured. In the last two years the C.B.A. has done much to improve the position, not only by the issue of this timely and valuable booklet, but by the arrangement of an Insurance Scheme to cover the activities of these affiliated bodies (of which W.I.R.G. is one) who pay the appropriate premiums.

Local branches of W.I.R.G. should each purchase a copy of the booklet, for while they may not be involved themselves, to any significant extent in excavation, some of their members may be. Also it may draw attention to their responsibilities to Third Parties, whose safety may be hazarded not only by what may appear to be minor test-trenchings, but by normal fieldwork in which others' property could be accidentally damaged. Local secretaries should familiarise themselves with the terms of the C.B.S. insurance scheme, to which W.I.R.G. subscribes, and which covers field surveys as well as excavation. Information is available from the Hon Treasurer.

Any local branch planning even the most minor exploratory excavation should get in touch with a member of the Committee beforehand.

Pushing Back the Frontier Part Two

(The first note appeared in BULLETIN No. 5)

More information is coming in, chiefly from the northern Weald. Mr A. Miles, who discovered slag at Lenham, reports that he has found several scatters in the area and that other investigators have found slag on the Downs above Lenham. The author is in communication with Mr V. J. Newbury, who found the slag at Hollingbourne, and with Dr P. M. Draper, who was associated with finds of slag at Wrotham (scarp-foot?) and Lullingstone. This last is in the Darent Gap, where the river has cut through the Chalk to the Wealden Beds.

In the Dorking Tithe Award[1] Mine Pit Fields are recorded at TQ 184 486; these presumably supplied Ewood Furnace, Newdigate (Straker p.451), or some unknown furnace nearer the source. Slag has been found at Shalford (c.000 480) just south of Guildford. Field names in the Leith Hill area suggest but do not clearly indicate bloomery activity. Only fieldwork or confirmatory documentary evidence will decide.

Straker, working after the publication of Wealden Iron[2] found slag near Ightham Moat, Ightham.[3] The Victoria County History of Kent[4] carries a quotation from a document of 1570: “Sir Richard Sackville intends, as I am credibly informed, in that wood (Longbeach, Westwell) to erect up certain iron-mills which plague, if it come into the country, I fear it will breed much grudge and desolation”. Search in the Westwell Tithe Award[5] yielded no indicative field names — indeed, most of the wood is up on the chalk, though the village is at the scarp-foot at few miles west-north-west of Ashford. However, in the Catalogue of Tufton MSS compiled by Dr Hull, the County Archivist

for Kent, is recorded a document of 1664: it is an Inventory of Goods of John Earl of Thanet (a Sackville);[6] mentioned are Ewhurst Furnace (in Northiam – Straker p.320) and Hammer Forge, Westwell.

Dr Hull informs the author that the document indicates a forge of some importance: its total value was given as £8054, which included £2170 for 181 tons of bar-iron and £4217 in the form of bonds for the purchase of iron. Whether one assumes a continuous use of the forge from c.1570 to c.1664 or not – a survey of Longbeach Wood in 1647 does not mention it – this is an important addition to the list of water-powered forge sites.

Where did pig-iron for conversion come from? Though the Sackville Furnace at Ewhurst is 20 miles away, it is about as near to Westwell as the other two furnaces at Bedgebury and Hawkhurst (Straker pp.282 and 321), neither of which was on Sackville property. We must suppose, until we find a blast-furnace nearer to and clearly connected with Westwell, a long expensive haul of sows.

On the southern frontier slag has been found in quantity in Cinderfield and Cinderfield Shaw (508 173), East Hoathly. Search of the Tithe Awards[7] for the scarp-foot parishes from Albourne to Hamsey has yielded field names suggesting but not clearly indicating bloomery activity: perhaps the two Blowers Fields in Plumpton are indicative.

With the extension of the frontier a further interesting problem arises: was there a smeltable and smelted ore outside the Weald Clay horseshoe? Little or no evidence is available that carstone (Lower Green and ferruginous sandstone) was ever smelted. Shalford is on an inlier of the Weald Clay; the minepits near Dorking appear at

first sight to be in the line of the Greensand Hills, but here the Greensand has been eroded down to the Weald Clay. The suggestive field names round Leith Hill have to be tested by field work.

The author is in communication with the investigators associated with slag in the parishes of Lenham, Hollingbourne, Wrotham and Lullingstone; Westwell Forge was not a smelting site; so its nearness to the Downs is evidence of nothing about ores. Abinger Hammer (Straker p.445) is also under the North Downs and, though lumps of carstone lie with the forge cinder by the Victorian houses at the site, this is no proof that it was smelted. Where did its pig-iron come from? Ewood? This is on the Weald Clay.

Apparently Cinderberry (Wivelsfield) and Hurstpierpoint Mine Pits (BULLETIN No. 5) lie on the Weald Clay. The ore for Pallingham Furnace from West Chiltington and Nutbourne in the Arun basin (Straker p.425) has been established as coming from the Weald Clay. As near Dorking, this part of bed is south of its general line.[8]

One comes to have a profound respect for the pioneer geologists — those ever-to-be anonymous iron-ore prospectors who scoured the Weald. Did they try carstone and reject it?

Joe Pettitt

1. Copies of the Award are in Guildford, Surrey (Kingston-on-Thames) and Public Record Offices.
2. Ernest Straker, Wealden Iron (1931).
3. Under 'Miscellaneous Notes' in Archaeologia Cantiana, **46** (1934).
4. Victoria County History of Kent, Vol. **3**, p.386.
5. Copies in Kent Archives Office, Maidstone, and the Public Record Office.
6. Kent Archives Office, U455/E1.
7. East Sussex and Public Record Offices.
8. B. Worssam, 'Iron-ore Workings in the Weald Clay of the Western Weald'. in Proceedings of the Geologists' Association, **75**, p.543.

Cuckfield Furnaces – a new discovery

While tracing the descent of the Jenner family of Cuckfield, I came across a Will which indicates the presence of two previously un-noted furnaces. Members of W.I.R.G. will perhaps excuse me for first of all tracing the descent of one of the properties but it may be of future interest in just how long the furnaces were in operation.

According to John Rowe (p.20), a John Jenner was recorded as holding Le Ley or Delye in Cuckfield, in 1506. This property later became Upper Pilsty and John's descendant, Ellis Jenner held it c.1580-1610. Ellis's eldest grandson John Jenner,'who died in 1688, made his Will in 1683, wherein he mentions among other bequests, 'unto my said Sonne Ambrose, Jenner the Plate and Two cast Andirons standing in the Kitchen .... And the furnace there at Pilsty.'

Pilsty lies about 2.25 miles N. of Cuckfield Church. On the Tithe Map is marked an area named Pit Field, just over six acres and containing a pond. This pond had disappeared by 1874 but I feel quite confident that this is the spot where the furnace was situated.

Ambrose Jenner sold Upper Pilsty to the Gatland family before 1705 and they retained it for over a hundred years. Walter Gatland the owner about 1705, also owned Pilsty Farm a little to the south of the Jenner property. (The Gatlands had been settled there since at least 1530).

The second extract from John Jenner's Will reads 'to my Sonne Edward Jenner the Iron Plate in the Kitchen and the furnace at my dwelling House aforesaid called Horse Gate.' This property, now

called Horsgate Farm, lies about a mile N.E. of Cuckfield Church. It is interesting to note that Ellis Jenner's brother Edward was a previous owner, and when Edward's male heirs failed in 1637, it seems likely that the farm passed to Ellis's son and thus came to be possessed by John Jenner in 1683. Although there is no other evidence that the Jenner family was connected with the iron industry, it is surely more than coincidence that they should be holding property whereon furnaces were situated.

I am inclined to think that the Horsgate furnace was about 200 yards north of the farm, where, like Pilsty, there was a pond and depression shown on the Tithe Map of 1842.

Now that these two new sites have been found, I hope that some more enterprising person will positively identify them. My prime interest was in the genealogy of the Jenner family and it was only by sheer chance that I came across mention of them. Incidentally, through this family I can now trace a descent through 10 generations of ancestors who have been connected with the iron industry, ending with my father, Cecil L. Burchall (1908-1963).

Michael J. Burchall

A cautionary rejoinder from the Hon. Secretary

"Furnace" was a name for a domestic oven and frequently appears with this meaning in wills. An ancestor of mine left 'one brass furnace' besides an iron one. "And the furnace there at Pilstye" suggests something more than an oven. The second reference is more ambiguous.

Three points arise: the tantalising nature of documentary evidence; the need for documentary work on the widest and minutest scale; the need to follow up the slightest evidence by fieldwork. Ambiguities should never be dismissed a priori.

The Problem of Bloomery Sites

Firstly I would like to comment on the very great number of new bloomery sites, not known to Straker, found by W.I.R.G. Indeed this has been the main area of discovery by the group. In contrast very few have been dated by documents, pottery or other artifacts. I do not here propose to discuss the question of Carbon 14 dating of bloomeries. I feel that its accuracy is under suspicion. In the only two cases that I know where such dating was done, and pottery was also present, the Carbon 14 date differed quite considerably from that of the well-authenticated pottery.

Of the wealden bloomery sites that have been dated by pottery most have been of the Roman period. I only know of one possible Saxon site (that at Turners Green, discovered by Mr W. F. Beswick); one early Medieval (Chandlers Farm, Hartfield), three of the 13th or 14th centuries (Etchingwood, Parrock in Hartfield, and Brambletye Manor Farm, East Grinstead), and a possible late Medieval one at Buxted. All of these have been dated by a few Medieval pottery sherds among the slag. It appears, as on other archaeological sites, that people of the Roman period scattered their broken pottery around more freely than those of the Middle Ages. This may be because of differing domestic habits of the iron workers, such as living on the job or going home each night, the greater or lesser use of wood or iron food vessels, or even the average life of a pottery vessel. From all these imponderables one can only derive a negative proposition that a bloomery, where one is able to examine quite a lot of the slag, and no pottery is found, is likely to be Saxon or Medieval. Disappointingly too, in the Medieval period, where most human activities are documented somewhere, almost no references to iron working have been found.

My second comment concerns the location of bloomery sites. From the first Buxted branch of W.I.R.G., in its field work, took to following streams and examining the steep banks and stream beds for signs of slag. A great many bloomery sites were discovered in this way; indeed,as most of the terrain was grassland and there was no other broken ground where slag could be detected in situ. As a result, in time, members began to assume that bloomery sites were always to be found on the banks of streams. It was assumed, almost certainly correctly, that the source of iron ore was discovered by searching where streams had cut deep into the subsoil exposing the ore layers. Quarrying would then begin at the stream side, and smelting nearby. This seems nearly always to have happened in the Roman period (in present knowledge), and sometimes no doubt in the Medieval.

Other archaeological fieldwork, on which I have been engaged in the last two years, had involved close walking over fallow arable fields in a small area of the Weald coinciding with part of that covered by W.I.R.G. fieldwork along streams. In the course of this I came across about a dozen new bloomery sites, often some hundreds of yards from streams, and usually on lynchet-like terraces along valley sides, well above the stream. Three of these I was able to identify, by finding pottery, as Medieval.

The conclusion is a rather disappointing one. It is now certain that bloomery sites, with the possible exception of Roman ones, are not exclusively situated along streams but also occur some distance away where they are difficult to find owing to the predominance of grassland on much of the Weald. Any distribution map made of bloomery sites must therefore be subject to the above limitations.

Finally, I would like to say what a great help it would be to our common study if a Postgraduate Research student, or students, skilled in reading Medieval documents, would take up a project with the specific aim

of extracting information, from documentary sources, on Medieval iron working, if indeed there is any, and I am reluctant to believe that there is not.

C. F. Tebbutt

A Memory of Ernest Straker

I have known Mrs Ruth Sewill, daughter of Ernest Straker, for some time. I thought others might like to share her memories of her father.

Ernest Straker had a bookbinding business but he spent all his spare time for many years in research into the Wealden Iron Industry. When asked by his family what his object was and whether he proposed to write a book he would only smile and say “We’ll see”. He had been short-sighted and very deaf from childhood and this made him somewhat cut off and self-contained, not sharing his interest with others and almost secretive about it. In about 1920 he gave his daughter Ruth a small car, an A.C. and in this she used to drive him all round Surrey, Sussex and Kent to visit places which he hoped would prove to be sites of iron works. He seldom told her where or why they were going but gave his directions en route. On arrival he would hurry off to his investigations and on return would have little to say on what he had discovered. His search on the ground usually started from place names on large scale maps such as Cinderfield, Black Acre or iron this or forge that. He also spent many hours searching records at the British Museum and elsewhere.

In her house Mrs Sewill has early photographs of his father and of his grandparents as well as a large collection of dageurreotypes and ambrotypes of his forebears although he was never anxious to keep in touch with his relatives saying in fun “blood is thicker than water and a great deal nastier”.

He had a great sense of humour. It will have been noticed that in his glossary in Wealden Iron he solemnly classifies “Roman” as “The Sussex term for anything beyond living memory” and she recalled one occasion when he returned from one of his forays jubilantly bearing a large crock which he pronounced to be part of a tuyere. How he laughed when on further investigation it turned out to be nothing more romantic than a Victorian plant pot!

He was a great walker and she remembers how as a child she used to accompany him on walks of 10 or 15 miles. He was knowledgeable on a great variety of subjects and on these occasions they would converse on every subject under the sun from botany to world politics. Looking back on these conversations she realizes how much before his time he was, foreseeing much of what has happened since and in particular the present state of Africa.

I left carrying a picture of a kindly man with a dry sense of humour and a determination to carry through his purpose in the face of physical disadvantages.

Jean Shelley

Shipments of Guns from Newhaven, 1809-1813

It may be possible that the references given below relate to guns cast at wealden furnaces, and the writer passes them on for those more knowledgeable about the industry.

In the Napoleonic wars, Customs officers could not allow guns to be shipped in merchant vessels unless special authorisation was given by the Privy Council. Copies of three such authorisation are in the first surviving volume of orders from the Board of Customs to the Collector at Newhaven (Library of H.M. Customs and Excise, Customs 56/19).

1) 11 February 1809, James Rands, merchant of Portsmouth may ship ten 4lb guns from Newhaven to Portsmouth.
2) 4 February 1812, Messrs Flewenden, Grassam & Co., on behalf of James Rands, may ship from Newhaven to Portsmouth twenty 31lb, twenty 4lb, thirty 6lb, thirty 9lb, thirty 12lb and thirty 18lb guns, and 600 shot, in all 59 tons, plus carriages, etc.
3) 23 March 1813, Flowerdon & Davidson, on behalf of Thomas and James Mannington, merchants of Hastings, may ship 41 carronades and slides from Newhaven to London.

John Farrant

Heathfield Old Furnace

Much is known about the ‘New’ Furnace at Heathfield, because the Fuller documents have survived in quantity. But where was the ‘Old’ Furnace? The Lists of 1574 show a William Relfe holding a furnace in Heathfield. Where was it? Some of the Lists indicate that there were other water-powered sites in Heathfield held by Sir Richard Baker and by Thomas Stollion. Is there a detective in the area?

Just by chance I came across the will of ‘Thomas Cavie .. of Heathfield, Gunfounder.’ This was dated 1767. A trustee was ‘John Thomas ... of Westfield Gunmoulder.’ One of the witnesses was Rose Fuller, the last of the Fuller ironmasters: the Heathfield Furnace ceased to blow by about 1787 (Straker, 376). There was no furnace at Westfield (Straker names a hammer-forge, 338).

Another witness was a Thomas Relfe: was he a descendant of the William Relfe who worked the (unidentified) furnace in Heathfield as shown in The Lists of 1574?

J. P.

Interim Report

Moot Hall, 103 High Street, Crawley. (TQ 268 368)

The granting of the Commission for the New Towns' application to demolish the "barn" at 103 High Street, Crawley, resulted in a survey to record the building, which was thought to contain the core of a Mediaeval house. However, this examination revealed that the timber-frame structure was in fact a Moot Hall. Good examples of this type of building are quite rare south of the Thames and this alone was sufficient grounds for preservation. Since it was not possible to leave the building in situ, it was dismantled and transported to the Open Air Museum, Singleton, Chichester, Sussex, where it awaits reconstruction.

Experts who were involved in the project thought that the building could have been moved to 103 High Street from an earlier site, because the timber frame had been shortened to two and a half bays and various other structural alterations had been carried out.

During the excavation of the foundations we were able to confirm that the building had originally consisted of three equal-sized bays, approximately 3.69 m, (13 feet) x 4.27 m (14 feet). The timber-framed superstructure appears to have rested on a small wall of sandstone blocks and large slag lumps. In its original state it had been a two-storey jettied building. The first floor was thought to have served as a meeting of "council" chamber, while the ground floor was metalled with slag from which we were able to obtain pottery dating to the early 14th Century. Below the floor we located two groups of post-holes which probably represent earlier structures on this site. Limited by time to trial sections, we were unable to examine the features thoroughly but we were able to explain their importance to the developers, who have agreed to alter their plans thereby preserving these features in situ.

While working to the east of the building, we located an arched tunnel which appears to have been used as a water system. This was constructed from local sandstone, the internal measurements of which were 76.20 cm (2ft 6in) wide and 66.04 cm (2ft 2in) high.

During its long life the building had served many uses, not all of which were as glamorous as its primary purpose. Carved on one of the boards dividing it into a cart shed and loft, were the initials A.M., 1772 A.D. A search of the old Parish records shows that a sixteen-year-old girl named Ann Mitchell was living at this time. It is interesting to note that the premises now known as the National Westminster Bank, only 45.72 m (50 yards) away was once called Mitchell's Farm.

Forthcoming Excavations

Broadfields Crawley (TQ 258 353)

This, the final year's rescue excavations on the Iron Age and Romano-British iron-working settlement at Broadfields, will commence on 1st May 1973 and continue until the excavations are completed. Work will be organized on a full-time basis (subject to availability of volunteers) by a resident team. There will be an intensive period of excavation to coincide with the opening of our new pottery processing unit, during this period there will also be staff available to train inexperienced volunteers, the dates for this are 28th July to 18th August. For further details, contact Miss J. Hubble, c/o 48 Paddockhurst Road, Gossops Green, Crawley, Sussex, Crawley 36018.

Excavation dates: 1st May to 10th October (approx.)
Pippingford Park: early 18th century blast furnace. July 22nd to August 18th.
Details from the Editor.

Periodical Literature

H. F. Cleere, "The Classification of Early Iron-Smelting Furnaces", Antiquaries Journal, 52 (1972), pp.8-23.

This article is important for the field-worker in districts where iron was made during the bloomery period. In a new attempt to classify bloomery furnaces the author questions the validity of the division between bowl hearths, domed furnaces and shaft furnaces. He puts the case for a classification depending on the presence or otherwise of facility for tapping molten slag. He divides the non-tapping furnaces between those without a superstructure (bowl furnaces) and those with cones or shafts (typified by the Schlackenklotz found in eastern Europe). Where provision for tapping is present he distinguishes between those with and without bellows, sub-dividing each into shaft furnaces and dome furnaces. While this is a useful suggestion, it does leave open the question why in each of the main divisions there are shafts and domes, and whether the differences in function between the two types of superstructure were sufficiently consistent to be given more attention.

What is particularly valuable is the author's reminder to archaeologists to question assumptions about furnace fragments found in the field. He shows how shaft furnaces, severely damaged either in antiquity or by modern land use, can present the appearance of bowl furnaces. Also he asks how many furnaces could really have operated with induced rather than forced draught. In particular he suggests that a domed furnace with a single wind hole could hardly function without bellows. Having made this point, drawing on the evidence of modern experiments, the author should perhaps have stressed in his diagrams and classification (pp.22-3) that his Type B/2/ii(Slag tapping/Hemispherical natural draught) could only be expected to work with multiple wind holes, a point which emerges in the early part of the article.

Inventory of Iron Sites Visited by W.I.R.G.

Starting with this Bulletin it is proposed to start publishing a list of sites visited by foray teams or individual members, recording all relevant details, and, if they refer to sites already published by E. Straker in Wealden Iron, how they now appear since he saw them, over 40 years ago. A few water-powered sites, not mentioned in Wealden Iron have been found, and many new bloomery sites. In contrast to water-powered sites, where there is usually documentary evidence, these latter present the greatest difficulty in dating owing to the absence, in most cases, of datable evidence associated with them. In a few cases Roman pottery has been found, and in still fewer, Medieval. Possible dating of the slag by metallurgists is still in the early experimental stage.

There is a long list of foray and individual reports with which it is hoped to catch up in subsequent Bulletins. The editor would be glad to have reports on sites visited by individual members to add to the inventory. The actual site reports, which in some cases give fuller details, are of course being kept.

Bloomeries

Whillets Bridge: East Grinstead. Cinder Bank Field TQ 383 344

The E. side of this promontory, when ploughed, is contrastingly dark in colour and was thought to relate to the nearby Stone Furnace, now under Weir Wood reservoir. However over all the dark area, at least an acre, is scattered tap slag and very little blast furnace slag. This must therefore relate to quite a large bloomery site. Careful search over the field surface produced no pottery, which makes it more likely that it is not of Roman date. The Wadhurst clay is near but the large pit in the

triangular plantation at the NW end of the field may have been dug to provide mine for Stone Furnace. Samples were taken. Scattered tap slag also occurs on the opposite side of the Medway around TQ 381343.

Walesbeech, East Grinstead TQ 395 345. *Wealden Iron* pp.239-40.

This large Roman bloomery was dated to the 2nd century by Straker's excavation, but quite unreasonably identified by him as the famous, but mysterious, East Grinstead Domesday "ferraria". A large mound of cinder still remains, but lapped on one side, by the water of Weir Wood reservoir when it is full. This has formed a vertical section through part of the mound. As is usual with Roman iron sites there is a small stream nearby, on the E. side.

Just to the SW, in the grounds of Charlwood House, at TQ 393 341, are several large deep mine pits at the edge of the Wadhurst clay on the North Charlwood fault.

Brambletye Manor Farm: East Grinstead TQ 420 358, 412 354, 415 351, 416 351.

At many places on this farm, which spans both sides of the Medway, there is a scatter of bloomery slag, but the above references relate to greater concentrations. In the case of the last two, large black patches show up from a distance on the ploughed soil. On them a few small sherds of 13th/14th century pottery were found. Samples of slag were taken. The Wadhurst clay occurs on both sides of the valley about 1 mile from the river.

Pippingford: Hartfield TQ 4457 3126.

This small bloomery, with its furnace, has now been excavated and found to date back to the 1st century A.D., probably between A.D. 43 and 70, and thus may be connected with the nearby 1st century Garden Hill Roman site. It will be fully described in the forthcoming Sussex Arch. Collections Vol. 111 (1973).

Parrock: Hartfield TQ 446 348.

When this field, just W. of Lines Farm, was ploughed in 1971 bloomery tap slag appeared scattered widely over it, but with three concentrations. At the site of one of these, sherds of 13th/14th century pottery were found. In 1972 the adjoining field to the S. was ploughed. Here again was scattered tap slag and at TQ 446345 a concentration of 13th/14th to 16th century pottery was found. It seems likely that there were living several families of mediaeval iron workers, drawing mine from some of the many pits in the Wadhurst clay a few 100 yards away. Samples were taken.

Great Cansiron: Holtye TQ 448 382.

This large Roman site has been fully described in Sussex Arch. Collections, Vol. 110 (1972) p.10-13.

Strickedridge Gill: Hartfield TQ 456 317.

This site is on the E. of a small tributary of the Mill brook, Nutley to Newbridge stream, and the above name (now obsolete) is used in the Parliamentary Survey of Ashdown Forest in 1658 (see Sussex Arch. Collections, Vol. 23, p.252). Slag is falling into the stream from the bank but it is now difficult to see, as recently a large number of trees and tree roots have been dumped over the site. Slag also occurs in the bank about 60 yards downstream. Nearby, on the opposite bank, is a quarry, cut back from stream level into the gill side. This is likely to be the source of the ore. It seems probable that this bloomery is of 1st century Roman date and connected with the nearby Garden Hill 1st century site. Just below, in the same gill, are two small bays across the gill to form quite small ponds. Unless they had some unknown use in connection with the bloomery they are probably pen pounds for Newbridge furnace.

Harts Lane, Hartfield TQ 459 336.

Here on adjoining fields occurs a fair concentration of bloomery slag, in an area near the lane. The N. field is known as Cinder Field. There is also a small amount of similar slag to be found in the ditch at the corner of Paradise Wood, at TQ 457340. The Wadhurst clay, with many pits, is in the vicinity of Paternoster Wood, about one-third mile to the N. Samples were taken.

Chandlers Farm: Hartfield TQ 471 387. Sussex Notes and Queries, Vol. 17, p.167.

From its pottery, dated l2th/13th century, one of the earliest Medieval sites in the Weald. The small stream appears only to cut into the E. side of the slag heap which extends into the adjoining grass field. It is on the Wadhurst clay.

Oldlands: Buxted c.TQ 476 268. *Wealden Iron*, p.395-7.

Almost nothing now remains to mark this historic Roman site. There is however some bloomery slag on the W. bank of the stream at TQ 476268, and some has been used to make up the approaches to the field bridge over the stream W. of Oldlands Farm. There is also slag in a ditch to the S. at TQ 475 267. For a possible source of ore see Oldlands Furnace.

Kings Standing Farm: Ashdown Forest TQ 477 306

At the higher end of a small wood large lumps of cinder and tap slag were found being unearthed by pigs. The site is on Ashdown sand, a long way from the iron bearing clays.

Shadwell Farm: Buxted TQ 4905 2633 and 4918 2640

These two sites, comprising a concentration of slag on an open field, showed up in contrasting colour when it lay fallow. They are about 75 feet above the stream.

Buxted TQ 494 231.

On a terrace, about 100 feet above the stream, are at least two concentrations of bloomery slag, besides much scatter, which can be seen at a distance as contrasting patches of colour on the ploughed field. With the slag was found a number of 16th century pottery sherds. This may indicate that this is a late bloomery site. The field is on the edge of the Wadhurst clay. Samples were taken.

Morphews Bloomery: Buxted TQ 509 255. *Wealden Iron* p.389.

Here much slag can be seen in the stream bed and banks, and can be found by probing on the grass field to the N. over an area of about 80 x 40 yards. A small test trench dug from stream level at right angles into the left bank produced, from among the slag, a number of sherds of Romano-British pottery, while part of a Roman hypocaust tile was picked up in the stream. The site is on Wadhurst clay.

Howbourne: Hadlow Down TQ 517 249. *Wealden Iron* p.390.

This bloomery, represented by slag heaps in the shaw alongside the stream, is almost certainly of Roman date, probably 2nd century, in view of the Roman finds, which included bloomery slag, 100 yards away on the E edge of the adjoining field. The finds included part of a stone wall, fine and coarse pottery, and vessel and window glass. This all seems to indicate a house of some quality connected with the iron industry.

A full account of the site is expected to be published in Sussex Arch. Collections Vol. 111 (1973). The site is on the Greenhurst fault at the edge of the Wadhurst clay.

Poundsley: Framfield TQ 525222

Here bloomery slag and cinder can be found for some distance along the bank of the stream at the junction of two fields and can be traced, by probing, back into the fields. Two small trenches, dug near the stream, produced two sherds of Roman pottery, including one of a Samian vessel, probably Form 30, of the 2nd century AD. The site is on Ashdown sand but ½ mile to the N. is Wadhurst clay and the Crowpits Fault, where there are mine pits. However, as with other Roman sites, one suspects that ore was dug in the vicinity of the stream on which they are situated.

Limney: Rotherfield TQ 540 271 and 540 272. *Wealden Iron* p.387

In a grass field on the E. edge of the stream, and quite near it, are two low mounds found, by probing, to contain bloomery slag. A little also occurs in the stream nearby, and the site has all the appearance of being Roman. The site is on the Burnt Oak fault at the edge of the Wadhurst clay.

Smith Field Shaw: Mayfield TQ 556 264.

Here slag, in some quantity, was found in the N. bank of the stream.

Tilsmore Wood, Cross-in-Hand: Heathfield TQ 576 218

A considerable bed occurs here between 2 small streams near their junction. It is difficult to estimate the size of the site as the whole area is planted with young conifers. It is on Ashdown sand.

Water-powered Sites

Blackfold Furnace: Handcross TQ 274 294. *Wealden Iron* p.404.

This is the property of the National Trust. The bay and existing lake are in good condition and were probably restored when the lake was refilled. The weir and spillway is all done in stone and leads over the bay, descends by steps and then turns sharply to the E. to follow, for a short distance, the line of the back of the bay at its base. The bay is wide enough to take a cart and at its E. end widens out to double width at what must be the charging place for the furnace. Indeed just below this is a mound from which furnace lining clay and burnt bricks protrude, and which must be the site of the furnace. Probing here encountered a solid base at about 12 inches below the surface. A short distance E. of this mound is a round hollow that probably represents the wheel pit. Just S. of these features a mound of charcoal waste, containing much black blast furnace slag, has been cut through by another, perhaps more recent, spillway stream at the E. end of the bay. In a side valley, to the W., along which runs the footpath to Handcross, are two small pen ponds.

Stone Furnace: East Grinstead TQ 382 343. *Wealden Iron* p.238.

The site of this furnace is now covered by Weir Wood reservoir but at the time of recent low water levels the full length of the bay could be clearly seen,cut through by the Medway, together with, at its E. side, some heaps of stone or slag. At TQ 382345, just to the N. a triangular wood contains a large mine pit in the Wadhurst clay, which may have served the furnace. Very scattered amounts of blast furnace slag occur on the field between the pit and the bay, named Cinder Bank, but this name probably originates from the large bloomery site situated here which gives a contrasting colour to the field surface when ploughed.

Brambletye Forge: East Grinstead TQ 417 353. *Wealden Iron* p.241.

A very complicated site that is worth further study; Straker obviously failed to understand it. Here has been a Domesday mill, a Medieval moated house, a 16th century forge, a 17th century mansion (now in ruins), and a later mill. An ancient road that appears to have served the moated site, and was cut off by the railway, approaches it at 415 355. What looks like a pond area includes the moat and has an artificial bank and outside ditch along its N. side, joining up with what appears to be a bay on the E. (see 6-inch Ordnance map TQ 43 NW.). There is forge cinder in the farm road running parallel to, and N. of, the above-mentioned bank. What looks like the buried timbers of a water powered mill of some sort can be seen exposed by recent dredging in a nearby tributary of the Medway, near its junction, at TQ 4115 3536.

Langleys Furnace and Forge: Maresfield TQ 451 239. *Wealden Iron* (Lower Marshalls) p.400.

Although Straker gives the correct position for this site he does not appear to have found the very well preserved bay just inside a thicket on the E. side of the stream. In heaps behind, and incorporated into the bay, is much blast furnace aid forge cinder. The name “Langleys” appears in Ralph Hogge’s accounts of 1577 (Dulwich College Library), and this site has been identified by the name “Langley” in adjoining field names. Its use as a forge also is attested by the nearby Forge Brook, Forge Land, and Hammer Pond, as field names.

On the E. side of the former pond, in a wood at TQ 453 243 is a large pit dug in the Grinstead clay. There are two possible pond bays in a riverside meadow above Marshalls lake at TQ 457 253 and 457 254.

Newbridge Furnace: Hartfield TQ 456 325. *Wealden Iron* p.248.

From the road leading S. from Colemans Hatch to Ashdown Forest part of the bay can be seen on the W., but it has been destroyed where it crossed the present road. It can be picked up again in the same line on the E. of the road across a small artificial stream cut last century. When the furnace was in operation the road must have gone up Kids Hill from further E., probably after crossing the present ford (the Splash) to avoid the furnace pond. Further W. the existing bay, at its W. end, curves round in a bastion-like way to form a half circle. Through this are signs of two cuttings, one deep, leading to what looks like a wheel pit. From this runs a ditch which enters a culvert (in local dialect a "buster") and runs underground across a small meadow attached to Moss Cottage, on the N. This meadow, one is told, used to contain large heaps of blast furnace slag, now all carted away. Now only a few lumps can be found there and in the stream on its W. side. There is a local tradition that Moss Cottage was once an inn (or the site of one possibly called Half Way House) at which iron masters and buyers sought refreshment.

Incorporated in some sections of the bay is much bloomery tap slag and some furnace or forge bottoms have been found. This

was probably brought here for road and yard surfacing. The nearest source of mine would seem to be the Wadhurst Clay at Upper Parrock, about a mile away to the N. where, in the vicinity of Paternoster Wood, there are large pits.

Boring Wheel Mill: Maresfield TQ 457 264. *Wealden Iron*, p.398

Although the flour mill was reported as derelict by Straker the pond was then, and now is, in good condition, as is the bay. It is now a trout fishery. The situation of the mill, and the now silted-up leat that served it, suggest a secondary use of the pond. There are now two weirs, one at each end of the bay, but a careful search of the shallow streams below them failed to produce a single piece of slag of any sort. Waste from a boring mill operations would probably have corroded away.

Parrock Furnace and Forge: Hartfield TQ 458 357. *Wealden Iron* p.241.

Here is a long low bay on the left side of the road as one approaches Lower Parrock house. There is much large cinder, probably forge cinder, in the bay and in the field and stream to the E. The present owner of the house has found in his garden pottery sherds dating back to the 16th century. Fields to the N., running up to Wick Wood, have much scattered bloomery slag along their E. sides, probably from the surface of a track. Wick Wood contains many pits, including bell pits, on its S. side. Possible pen pounds for this site occur on the SW. at TQ 453 348 and TQ 455 351. The former still has water and the latter a bay, adjoining both are named “Pen” fields.

Old Forge: Maresfield Furnace and Forge TQ 459 258. *Wealden Iron.* p.398

The bay is still apparent here when looked at from the former pond side, but its back is incorporated into houses and house gardens. Blast furnace slag can be found in the house gardens and around a

field gateway on the pond side. A forge bottom was found in the stream at the roadside at TQ 459 258. Local information was that the hammer was on the site of the present cottage called Burnside, and the tail race ran under its garage. There are minepits at TQ 458 263, and 455 261.

Cotchford Forge: Hartfield TQ 4704 3386. *Wealden Iron* p.251.

A narrow hollow way approaches the site from the N. and the track crosses the stream by a bridge, thence a public footpath continues on top of the bay through Posingford Wood. Behind the bay is swamp. In the wood on the N. side of stream (TQ 4705 3390) are heaps of charcoal waste containing forge cinder. In the stream, under the bridge, is more forge cinder and also blast furnace slag. However the latter can be seen to have come from a metalled surface of the hollow way to the N. and fallen into the stream. This may be what Straker saw, as no other furnace slag could be found. It seems very probable that this was the forge for Newbridge Furnace (Site 4, above) further upstream.

Hendall Furnace: Maresfield and Buxted TQ 4710 2593. *Wealden Iron* p.397.

Here a high bay, spanning an unusually steep gill is cut through the middle by the stream. This must have produced a narrow but very deep pond. On the lower side, in the stream and along the banks on both sides, is much black furnace slag, cinder, and charcoal waste. There is also some tap slag. In the stream, under water and pointing down stream, is what appears to be a wooden trough, square in section and hewn from the solid. It is possible that it once had a fourth upper side to form a pipe, now missing. its purpose in its present position is obscure but it could be a displaced runway to an overshoot wheel.

From the site, on the left bank, a terraced cartway ascends the steep gill side at an easy gradient but disappears on reaching the flatter cultivated land above. A number of forge or furnace bottoms have been taken from the site and others still remain there. From the Dulwich College MS. we know that Ralph Hogge was using the furnace in 1577. The nearest Wadhurst Clay is about ½ mile to the NE.

Hartfield Forge TQ 475 363(?). *Wealden Iron* pp.244-5.

This site is as puzzling to us as it was to Straker. The mound of red earth, about 150 feet across and 6 feet high, is still there just N. of the Medway, at the above reference, but may well be of natural formation. However, along the SW. side of the field in which it occurs is a slightly raised wide track which could conceivably be the remains of a much eroded, or much silted up, bay. From this a footpath does run towards Hartfield Church.

Oldlands Furnace: Buxted TQ 477 272. *Wealden Iron* p.394.

Here are three filled ponds but only below the middle one is there any evidence of smelting. The upper pond is probably part of a landscaping scheme and has an artificial waterfall, and the lower is where Straker says large quantities of slag had been removed. The bay of the middle pond, presumably the original one, has been strengthened in concrete but has a very fine stone spillway which may be original. Between the overflow stream and the dry leat to the W. leading from a brick culvert, is a high spoil bank with typical blast furnace slag, of which samples were taken. To the SE., at TQ 480 268, is Mine Pitt Wood, on the Wadhurst clay, which probably supplied the ore.

Crowborough Warren Furnace: Ashdown Forest TQ 496 322. *Wealden Iron* p.252

Straker seems to have missed this furnace and placed it at the mill site higher up the stream. There is a well preserved bay, rising about 20 feet above the stream. This also served as a trackway for

where the stream cuts it, at its W. end is a picturesque single span stone foot or pack horse bridge which may well have been built with stones from the furnace. Towards the W. end of the bay a bank runs at right angles to it downstream, as at Pippingford and Oldlands furnaces. Perhaps this is designed to divert water, coming over a weir, away from the working area. Up on the right bank of the stream, about 40 feet below the bridge and 22 feet up from the stream, can be seen masonry stone blocks in position forming a side and corner of what must be the furnace foundation, together with burnt clay. The W. side of the furnace would appear to have collapsed into the stream. Further down the stream, on the right bank, are heaps of charcoal dust mixed with very black blast furnace slag, and there are lumps of cinder in the stream. Samples have been taken. The nearest source of mine would appear to be in the Wadhurst clay about a mile to the NE. Here in Morris's Wood (TQ 504 330) are some very large pits, probably also dug for marl, and iron ore is present.

Crowborough Forge: Crowborough TQ 497 326.

Straker has not recorded this site although he mentions Grub's Bloomery a little further down the stream. The bay can be seen about 25 yards N. of the bridge at Friars Gate and is about 100 yards long and 16-18 feet above stream level. In a section cut through it by the stream, near its W. end, can be seen evidence of several periods when its height was raised. No blast furnace slag could be found but there is forge cinder in quantity both in the stream and in the bank of a small stream joining the main stream from the E. about 10-15 yards from the junction. It would seem logical that this was the forge for Crowborough Furnace, about one-third mile up stream at TQ 496 322, and for this reason it has been named Crowborough Forge.

Iron Plat Furnace: Buxted TQ 499 242. *Wealden Iron* p.390.

This site is more impressive than would appear from Straker's description. There is a good bay running across the meadow to the stream at its NW. end, although it is cut through to form a farm gateway at about 3/4 way along its length towards the SE. Quite near this gateway, on the S. side, is a deep hollow that might have been a wheel pit, and there is also a depression suggesting a leat. Blast furnace slag can be found along the bay and also in the stream, with what could possibly be forge cinder, just below where the bay ends.

The pond must have been a large one and there are at least two possible pond bays across the valley of a tributary stream that runs from Queenstock bridge (TQ 498 250). This site may have been Ralph Hogge's "Buxted Furnace".

Tickerage Furnace and Forge: Framfield TQ 515 211. *Wealden Iron* p.392.

Here is still a pond and the remains of a mill. Although the records only refer to a forge, Straker found blast furnace slag and surmised that there had been a furnace also. We confirmed this. On the road surface over the bay is much black blast furnace slag, that might have come from elsewhere, but it also occurs 80 yards away in the mill house garden, in some quantity, and in the stream and meadow further downstream. Forge cinder was also found in the stream just below the bay.

Cowford Furnace: Rotherfield TQ 559 319. *Wealden Iron* p.256.

Here is a well preserved high bay, about 60 yards long, with one slight break, and the stream cutting through its E. end. A small amount of dark green blast furnace slag was found in the bay and along the stream, and samples taken.

Mayfield Furnace TQ 592 280. *Wealden Iron* pp.293-3.

Straker's topography of this site is rather difficult to follow. From his account it would appear that there were three ponds, the bay of one formed by the present road at TQ 590 283, and another at 593 282 where the old Tunbridge Wells road, now a lane, used it as a causeway over the valley. Straker calls this lower pond 'the great hammer pond', but we found, below the bay in the wood at about 592 280, heaps of blast furnace slag. We found no slag below the present road bridge at 590 283, but Straker does say that it was all carted away for road making. The third bay, high and well preserved, is at 588 284. Here again no slag could be found and it probably supported a pen pond.