

AN EVALUATION OF THE LOSELEY LIST OF IRONWORKS
WITHIN THE WEALD IN THE YEAR 1588

By CHARLES S. CATTELL

A LETTER dated 31st October, 1588, including a list of furnaces and forges in the Weald was published anonymously in 1920 as an extract from the Loseley manuscripts.¹ This letter was addressed to Lord Howard of Effingham, Lord Admiral of England and Her Majesty's Lieutenant of the County of Surrey, and was apparently a result of 'a note of such things to be put in execution for restraint of exportation of cast iron ordnance: the gunfounders not to cast any more pieces without special licence'² dated 30th October, 1588. The first part of this letter indicated that 'an exact view should be taken as well of the no. of furnaces in the countie (whereof we send you a cedull here-inclosed the names of some of the principal ones that have ben delyvered to us) allso of the nos. and severall kindes of peeces of cast Iron ordinance that are in everie of them nowe readie made.' Straker³ believed that the list referred only to Surrey and Sussex and was based upon the 1574 lists. That works mentioned in these lists were omitted in the list of 1588 was not to be taken as evidence of material decay, according to this author. From this evaluation and the numerous references to the list as evidence for the working of individual sites in 1588, contained in his topographical survey, it is apparent that Straker took it to have some value as a testimony of the situation in Sussex and Surrey at that time. In certain instances, Straker was able to show the 1588 list to be in error but, even so, he still attached a measure of value to it.

From a re-examination of the letter of 1588 and an assessment of other contemporary material, it becomes obvious that no longer can any value be attributed to the Loseley 1588 list as evidence of the state of the industry in that year. Firstly, the content of the letter suggests that the list attached to it was not intended to be a description of the ironworks at work at that date, 1588, but was merely to act as a guide to the ironworks that might be found and were to be sought out. It was to be an instrument to guide 'some discreet gent. . . .' in making 'an exact view' of the numbers of furnaces. This is seen in that the list

¹ *Surrey Arch. Coll.*, 33 (1920), p. 124. This transcript was taken from Loseley MS. 994/1 held in the Guildford Museum and Muniment Room.

² Public Record Office (hereafter cited as P.R.O.). Calendar of State Papers Domestic, Eliz. I 1581-1590, SP12/217 no. 66.

³ E. Straker, *Wealden Iron*, 1931, 59.

is described as a 'cedull' (schedule) containing 'the names of some of the principal ones (furnaces) that have ben delyvered to us' and also, in the fact that there is the instruction that the gentleman appointed to make the survey should be from 'withyn that countie dwelling neere the furnaces conteyned in the saide cedull, or *any other newlie erected within the same . . .*'. This phrase clearly implies that the list was not of recent date.

Secondly, inspection of the list will show that it is an exact copy of the 1574 lists (a) and (h)⁴ apart from the usual customary variations in spelling. The sequence of sites remains true to the form of the earlier document. It is significant that the sites specifically listed under Sussex, 'Divers forges and furnaces in Barwashe . . .' were omitted. The entry 'The 1. Montague a furnace called Pophall' was included, whereas the names of owners (seven entries) for which no site was named in list (h) were left out, and the 1588 list continued with the next complete entry which was 'John Lambert a forge in Cranleye'. From thereon, it faithfully repeated the sequence and information of the 1574 list.

Thirdly, it is clear that the list and the instructions of the letter were to have referred only to Surrey. This is seen in that the letter was addressed to Lord Howard of Effingham, Lord Admiral of England and Her Majesty's lieutenant of the county of *Surrey*, and that throughout the letter reference is only to 'countie' or 'that countie' in the singular, and the fact that the list is entitled 'The names of the Iron workes and Furnaces with the places where they are planted in *Surre.*', and that the copy of the 1574 list began part way through list (a) where there is the heading 'Surrey'. The fact that sites which lay within both Kent,⁵ Ashurst (Kent), Bayham (Kent/Sussex) and Cowden (Kent/Sussex) and Sussex were included can be explained as a clerical error. The official who copied the list obviously possessed little local knowledge and, in the absence of a further sub-heading such as 'Sussex' or 'Kent', was unable to distinguish between the ironworks of those counties and those of Surrey. Hence, the remainder of the list was copied to its end. Significantly, however, the 'Sussex. Divers forges and furnaces . .' entry which followed the sites under the heading 'Surrey' was omitted.

Thus, the Loseley letter was only one of three similar communications for the period. The intention of the Privy Council, after the emergency created by the Armada had passed, was to restrict ordnance production in the fear that guns might be sold to England's enemies. Important dignitaries within each of the three Wealden counties were

⁴ P.R.O. State Papers Domestic SP/12/95, folio 48, list (a), folio 49, list (h). These two lists were written in the same hand and are strictly one list, being separated out merely for the purposes of discussion.

⁵ E. Straker, *op. cit.*, 59, stated incorrectly that Kent was omitted from the 1588 Loseley list.

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appointed to supervise the drawing up of an inventory of the furnaces, particularly those which cast ordnance, and to order the iron-masters not to cast any more. Lord Howard of Effingham was to perform this task for Surrey,⁶ Lord Cobham for Kent⁷ and Lord Buckhurst for Sussex.⁸ Documents in the Sutherland manuscripts record the steps by which the orders of the Privy Council were put into operation so far as Kent was concerned. By a letter of 31st October, 1588,⁹ the Privy Council ordered William, Lord Cobham to cause an inventory to be made of all the owners of furnaces and their chief workmen and to take bonds from them not to cast any more iron cannon without the Privy Council's orders. One Robert Byng and William Clarke were appointed to make an inventory of all cannon at ironworks in Kent by a letter dated 6th August, 1589, from Lord Cobham, which also stated that the Privy Council was aware that gun-casters had little regard for the needs of the state and were liable to furnish the Queen's enemies with cannon, while leaving England unprovided.¹⁰ The list relating to the position in November 1588 was the outcome.¹¹ In October 1590, a letter from the Privy Council to William, Lord Cobham, ordered him to take bonds from all owners of newly-erected furnaces that they would observe the orders of the Privy Council concerning the making of ordnance.¹² Subsequently, Cobham ordered Sir John Leveson to take bonds from the iron-masters with the aid of Mr. Byng.¹³ Leveson complied by sending a letter to the owners of the ironworks, requesting them to give bonds to observe the Privy Council's order.¹⁴ Letters of reply were subsequently received by Sir John Leveson from Ballard,

⁶ Guildford Museum and Muniment Room. Loseley MS. 994/1.

⁷ Staffordshire County Record Office (hereafter cited as Staffs. C.R.O.) Sutherland MS. D593/S/4/28/1, a letter dated 31st October, 1588 to William, Lord Cobham from the Privy Council.

⁸ P.R.O. Calendar of Acts of Privy Council, 1590-1591, p. 5, 3rd October, 1590 indicates that Sussex prior to this date had been exempt from such legislation 'and not bound as the rest' and that Lord Buckhurst 'is required to take bonds of all such as had furnaces or hereafter should create any in the county of Sussex' that they no longer make ordnance. This source also stated that 'two letters of lyke tenor' were to be written to Lord Admiral, Lieutenant of Surrey, and Lord Cobham, Lieutenant of Kent.

⁹ Staffs. C.R.O. Sutherland MS. D593/S/4/28/1.

¹⁰ Staffs. C.R.O. Sutherland MS. D593/S/4/28/5.

¹¹ Staffs. C.R.O. Sutherland MS. D593/S/4/28/3. This is 'an exacte vew and Inventorie aswell of the numbers of yron workes Called furnaces in ye Countie of Kent wt the names of th' owners and occupiers of everie of them, as also of the numbers and severall kinde of peeces of caste yron ordnance yt are in any of them now readie made taken by Robt. Binge and Will. Clarke . . .' Compare the similarity of wording of this document with that of the instructions contained in the Loseley document.

¹² Staffs. C.R.O. Sutherland MS. D593/S/4/28/7.

¹³ Staffs. C.R.O. Sutherland MS. D593/S/4/28/8, a letter dated 4th October, 1590.

¹⁴ Staffs. C.R.O. Sutherland MS. D593/S/4/28/10, a letter dated 8th October, 1590.

Anthony Culpeper and Henry Darell.¹⁵ The lists of those that were bound in 1590¹⁶ and of those that appeared in October of the same year¹⁷ were the final product of these exchanges.

The outcome of the surveys made for Surrey and Sussex has not as yet come to light for this period, 1588-1590. It is fortunate that the results of the Kentish survey for 1588 are available in the Sutherland manuscripts. From them, it is learned that there were thirteen iron-works in operation in 1588, counting Chiddingstone furnace and forge as two works.¹⁸

Related to these proceedings are further documents in the Sutherland collection. The list for 1590 referred to iron-masters who were bound for the furnaces of Bedgebury, Cowden, Barden, Ashurst, Horsemonden or Sherndene, Scarlets, Chiddingstone and a furnace at Hernden of Sir Richard Baker. Seven sites at least were mentioned and ten iron-masters were bound. Some difficulty in interpretation arises in that there were three entries relating to Cowden: 'John Swayselande of Cowdene in Kent yeom. Occupier of the ffurnace at Cowdene', 'Thoms. Burre of Cowedeene aforesayed yeoman Occupier of the upper furnace in the saide parish of Cowdene', and 'Francis Johnson aforesayed Occupier of the ffurnace called Skarlets at Cowden'. Does this indicate three separate furnaces, a Cowden, Upper Cowden and a Scarlets furnace? In the further list of those that appeared, next to one of the Sutton-at-Hone entries, it is indicated that both Swayeslande and Johnson appeared and this seems to imply that they held an interest in the same furnace. For the second Sutton-at-Hone entry, Knight of Cowden appeared and it was stated that he 'half lett his furnace to

¹⁵ Staffs. C.R.O. Sutherland MS. D593/S/4/28/11, /12, /13.

¹⁶ Staffs. C.R.O. Sutherland MS. D593/S/4/28/17.

¹⁷ Staffs. C.R.O. Sutherland MS. D593/S/4/28/16.

¹⁸ From the 1588 list in the Sutherland MSS., it is learned that Chiddingstone furnace and forge were owned by Thomas Willoughbie and that he had let the furnace to Thomas Browne of Chiddingstone. The 1590 list of those that were bound stated that Thomas Browne was occupier of the furnace. The exact location and identity of this furnace and forge site has still to be positively established. H. R. Schubert, *History of the British Iron and Steel Industry*, 1957, 368, in connection with Bough Beech furnace in the parish of Hever, stated that 'a furnace is first mentioned in 1589 when it was sold to Thomas Browne, forgemaster of Chiddingstone, in Kent, by Thomas Wiloughby'. The fact that the details are similar to those given in the Sutherland Manuscripts and that Bough Beech furnace lay on the boundary between Hever and Chiddingstone parishes suggests that this could be the Chiddingstone furnace of 1588-1590. Straker's remarks concerning a Thomas Browne (Straker, *op. cit.*, 231, repeated by Schubert, *op. cit.*, 366) who supplied ordnance from 1591 to 1610 may relate to this furnace site. The same Thomas Browne of Chiddingstone was to have supplied Richard Snelling of Lewes, in 1595, with fifteen tons of iron at £10 per ton (the price indicates that it must have been forge bar iron) perhaps from this forge. P.R.O. Court of Requests 32/67. Exactly where the 'Chiddingstone forge' site was located remains uncertain. The evidence gained from an inspection of the slag found at Bough Beech furnace (N.G.R. TQ 482475) indicates that this has only ever been a blast-furnace site, and not a double site of a furnace and forge.

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Thos. Burr of the same parishe'. Thus, entry '2', John Swayesland occupier of the furnace at Cowden and entry '8', 'Francis Johnson aforesayde Occupier of the ffurnace called Skarlets at Cowden', of the 1590 list of those that were bound, seems to refer to the same site, Scarlets furnace. If both Swayesland and Johnson were connected with Scarlets, and Burre and Knight held the Upper Furnace (taken by Straker¹⁹ to be synonymous with Scarlets) was there in fact a third furnace, a 'lower furnace' at Cowden? Since Swayesland's entry in the list of those that were bound was only to 'Cowdene' and not more specifically to Scarlets, could it be that he in fact held a separate site from that of Johnson, a 'Lower Furnace' at Cowden? Two years before, Francis Johnson had been the founder at Swayesland's Cowden furnace and both were stated to have been bound. The evidence seems to be against them holding two separate sites.

A second difficulty arises with the entry '9' 'Sr. Richard Baker knight occupier of the ffurnace at Hernden in Kent'. Since his Hawkhurst furnace (mentioned in the 1588 list) does not appear in this document, it is probable that this name refers to this site. Again, in the 1590 list of those who appeared, he was down for Cranbrook (Biddenden Hammer Mill or Sissinghurst forge) and Hawkhurst (Hawkhurst furnace) only, suggesting that this must have been the case. The latter list also indicated that Chingley forge and Durndale forge continued to operate in 1590.

A comparison (summarized in Table 1) between the position of the

TABLE 1
SUMMARY OF EVIDENCE FROM THE 1574 LISTS AND THOSE OF 1588 AND 1590 AS THEY RELATE TO THE IRONWORKS OF KENT

A Summary of the Information relating to the Iron Industry in Kent in 1574

	No. of Forges		No. of Furnaces		Total no. of sites	
	Min.	Max.	Min.	Max.	Min.	Max.
Ashurst	1	1	1	1	2	2
Tonbridge ph. .. .	1	2	3	4	4	6
Bayham	1	1	—	—	1	1
Cowden ph. .. .	—	—	2	2	2	2
Cranbrook/Biddenden phs. .. .	1	1	—	1	1	2
Horsmonden	—	—	1	1	1	1
Chingley	—	—	1	1	1	1
Bedgebury	—	—	1	1	1	1
Hawkhurst	—	—	1	1	1	1
Durndale	1	1	—	—	1	1
Totals	5	6	10	12	15	18

¹⁹ E. Straker, *op. cit.*, 225.

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A Summary of the Information relating to the Iron Industry in Kent in 1588

	No. of Forges	No. of Furnaces	Total no. of sites
Ashurst	no mention*	1	1
Tonbridge ph. Barden†	—	1 } 1 }	2
Bournemill	—	—	
Bayham	no mention*	—	—
Cowden ph.	—	2	2
Cranbrook/Biddenden phs.	1	no mention	1
Horsmonden	—	1	1
Chingley	1	decayed‡	1
Bedgebury	—	1	1
Hawkhurst	—	1	1
Durndale	1	—	1
Chiddingstone ph.	1	1	2
Totals	4	9	13

A Summary of the Information relating to the Iron Industry in Kent in 1590

Sites mentioned for which owners appeared in 1590	x indicates sites mentioned for which owners were bound in 1590
Ashurst furnace	x
Barden furnace	x
Bournemill furnace	
Lower Cowden furnace?	x
Scarlets furnace	x
Upper Cowden furnace	x
Biddenden forge	x
Horsmonden furnace.. .. .	x
Chingley forge	
Bedgebury furnace	x
Hawkhurst furnace	x
Durndale forge	
Chiddingstone furnace	x
Chiddingstone forge	

* See footnote 21 of the text.

† Barden, H. R. Schubert, *op. cit.*, 367, believed that at first this site was only a forge, citing references to a hammerman at Barden from the Parish Registers of Ashburnham for 1599 and 1602. The 1588 and 1590 evidence clearly indicates that a furnace existed on the site at an earlier date. Though no mention was made of a forge at Barden in the Sutherland MSS. this does not exclude the possibility that one existed since, as before stated, the 1588 data was to have referred solely to furnaces.

‡ See footnote 25 of the text.

iron industry in Kent during the period 1588–1590 with that of 1574 can be made provided that the limitations of the information available are realized. Firstly, the interpretation of the 1574 lists is in itself a

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difficult task.²⁰ For instance, the 1574 evidence for the parish of Tonbridge is particularly confused, suggesting a minimum of four sites in operation, with a possible maximum of six. Secondly, although the 1588 list recorded forges at Biddenden, Chingley, and Chiddingstone, it was specifically to have referred to furnaces and hence, the absence of any mention of the forge or forges that Davy Willard had held in 1574, and of Ashurst forge and Bayham Forge, both working at the earlier date, cannot be taken as evidence that they had fallen into disuse in the intervening period. Indeed, evidence external to the lists indicates that some of them probably continued to work in 1588–1590.²¹ Despite these limitations of the evidence, however, some positive statements can be made.

Working both in 1574 and 1588 were two furnaces in Cowden parish, Ashurst furnace, Durndale forge, the furnaces at Horsemonden, Bedgebury, and Hawkhurst and Biddenden Hammer Mill forge. Barden and Bournemill furnaces,²² both in Tonbridge, were also probably working at the earlier date as well as in 1588.²³ The absence of the one or possibly two additional furnaces working in this parish in 1574 may indicate a decline in activity, as may the absence of any reference to the tentatively suggested furnace site of Sir Richard Baker in Cranbrook or Biddenden parishes.²⁴ Decay is clearly indicated by the 1588 reference that Chingley furnace (working in 1574) had 'thear

²⁰ The present author has made a detailed investigation of the original 1574 lists and has undertaken a fresh appraisal of E. Straker's interpretation of them. (Forthcoming.)

²¹ *Ashurst forge*. Though not mentioned in the 1588 or 1590 lists, it was probably working then, as in addition to the reference to a forge in the 1574 lists, a deed of 1592 exists which shows that a 'Pilbeams' forge, in Chiddingstone and Withyham, was leased by George Stace to Richard Streatfield at £25 *per annum*. (Kent Archives Office, hereafter cited as K.A.O., U908 T218.) Further references to Pilbeams Hammer occur for 1601 (K.A.O. T303/3) and to a John Stace, perhaps a relation of the earlier Stace, who was to have delivered bar iron, possibly from this forge, in 1597. (P.R.O. Court of Requests 115/25.) The location of Pilbeams Forge on the boundary of Chiddingstone and Withyham parishes and the connection with the name Stace, a John or Thomas Stacie held a furnace and forge at Ashurst in 1574, points to its being synonymous with Ashurst Forge.

Bayham forge, listed in 1574, probably also worked over the period 1588–1590, as there is evidence for its survival to 1607, 1654, 1665, 1667 (E. Straker, *op. cit.*, 268) and to 1668 and 1670 (K.A.O. U609 T3 and U38 T1, respectively). It had disappeared by 1695 (K.A.O. TR/1295/6).

Rats Castle forge, working in 1574, seems to be referred to in 1586 (K.A.O. U38 M1), a Rental of the Manor of Tonbridge and Hadlow. This forge had ceased working by 1698 when there is reference to land called 'Sinderplott whereon one Iron Forge formerly stood' and probably even before 1679 and 1677, when the deeds describe lands called an Old Forge House and an old pond bay.

²² The name Bournemill furnace seems to correspond in location with the site designated, Vauxhall furnace by E. Straker, *op. cit.*, 222. The site of the furnace, with the bay (dam) in a fairly good state of preservation, is found at N.G.R. TQ 593440. Bournemill Farm lies 850 yards (c. 765 m.) to the north east.

²³ C. S. Cattell, *op. cit.* See note 20.

²⁴ C. S. Cattell, *op. cit.* See note 20.

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fallen downe and utterlie decayed'.²⁵ On the other hand, by 1588, a Chingley forge had been built and a furnace and forge erected in the parish of Chiddingstone, both apparently new developments since 1574. On balance, then, the state of the industry would appear to have been roughly the same in 1588 as it was at the time of the earlier survey.

Quarry Wood Camp, Loose: A Belgic Oppidum

²⁵ Chingley furnace was referred to in a deed of 1597, when it was leased to Richard Ballard of Wadhurst (occupier of Chingley forge in 1588) together with woods and underwoods. No indication is given in the deed of its state of repair or future use. It may be that it was revived to serve the forge with sows. No later evidence is at present available to substantiate this conjecture.