



hotley Bridge (or just Shotley) was for a long time a tract of heavily wooded land of no interest to anyone, a nondescript river valley across which someone at some time had thought it worthwhile building a bridge ... until the arrival of the Germans. There seems previously to have been no organised settlement there, no sort of village or even a hamlet, though isolated dwellings were to be found nearby. Perhaps the most notable inhabitants of the area at the time the swordsmiths arrived were the reason for its lack of development.

Living close by was a rich, eccentric landowner called "Mad" Maddison - the foremost of the many local rogues, a known arsonist and scourge of the countryside, finally hanged at Durham in 1694 for murder. Also in the neighbourhood lived the "witch" Jane Frizzle, who cursed anyone that offended her – apparently a very common event! Their presence must initially have made the Germans seriously question the wisdom of remaining at Shotley! But on the other hand, if it was seclusion that they sought, this was definitely the place for them.

The site had the river Derwent to provide waterpower for the hammers, and its bed was a good source of the right sort of material for grindstones¹⁶. In the surrounding woods there was a plentiful supply of fuel for the furnaces, and it had long been suspected, according to Richardson, that untapped veins of iron ore were to be found nearby among the coal seams. (Exactly who had "suspected" this and why they did not put the theory to the test I am unable to discover – but *I* suspect in turn that this was someone's afterthought on the matter.)

On their arrival the Germans may well have found workshops already set up by Sandford and Bell, and homes too. It seems likely that Sandford and Bell would need professional advice as to what they should provide on the site, and evidence suggests that they turned to a Newcastle sword cutler, Thomas Carnforth¹⁹, for help. So, on arrival, all the Germans had to do was to settle in, organise themselves and start work. What they settled into is very much in doubt, as the records of their life in Shotley Bridge between 1687 and 1703 are virtually non-existent²⁰, (understandable, if we accept they sought seclusion and were manual workers, not diarists.)

¹⁹ Many years later Carnforth asserted that he had known and even worked with Hermann Mohll, which does lend credence to the idea of him being an early adviser to the businessmen.

20 Richardson calls these "the shrouded years".

¹⁸ Holes can still be seen in the riverbed where grindstones have obviously been removed.

We must assume that their way of life was based on the "cottage industry" principle, where much of what they needed for daily life (and perhaps for their livelihood) was produced in . their own homes. Whether they grew their own produce, bought it from the locals or bartered with them for it is just not known, and that must hold good for other everyday items such as their clothing and other household articles.

And once again we have to rely on speculation about what their actual homes were like. We just have to assume that Sandford and Bell provided houses for them, but it is equally possible that they had to erect many of them themselves. An argument for this last is the "fact" (though a somewhat uncertain one, as we shall see) that not all those who left Solingen apparently reached Shotley. It can be argued that, as the number of immigrants would always be in doubt until the day they finally arrived, the Tyneside businessmen would not throw away money on cottages that would possibly not be needed. But one way or another homes were built for the immigrants. To judge from those that remained into the 1960s – assuming these were the *origin*al buildings put up - they were sturdy houses of local stone and "... a great deal of good quality oak wood, indeed, of which, the oldest house especially, is mostly built..." 21. And soon they were being decorated in a more German fashion, not only inside but outside as well ... with inscriptions on stone lintels over the doors. (These were the very stones that Surtees claimed as "proof" that the Germans had left Solingen because of religious persecution.) Just how many cottages were adorned in this way we do not know for sure. Certainly there were just two inscriptions - and only one of those in good condition - on record in 1840, when Ryan wrote his book. He does appear, however, to suggest that there were more of them about in 1820, when Surtees wrote his commentary (although if there were more, they are not recorded by Surtees himself).

One of the two inscriptions was very badly decomposed - even in Surtees' time, let alone in Ryan's - and so not a great deal of it was decipherable. The Reverend sets out for us what he believes to be a correct transcription of the fragments of its text, which reads as follows:

DEVTSCHLAND	. VER
VATTERLANDS	MST
DIE STADT GE	
HEER BEHVT	••••
VND EINGAN	

Ryan may well be right in saying that the last two lines are a blessing on all those who enter the household. Richardson states that one historian (is he referring to Ryan?) apparently completed the whole and claimed that the last two lines were taken from Psalm 121, verse 8: *"The Lord shall preserve they going out and thy coming in from this time forth and even for evermore".* That at least seems accurate, for in the German (Lutheran) Bible that particular verse reads: *"Der HERR BEHÜTe deinen Ausgang UND EINGANg von nun an bis in Ewigkeit",* which, as can be seen from the parts in capitals, ties in well with the few words of the inscription that remain. His submission, however, that the first section is about the emigrants having left Germany and founded the village is another matter, as there is too little of the text remaining to reconstruct it with any certainty. (On the other hand, he could be correct in stating that this inscription may have indicated that this was the house of someone of importance in the village.)

²¹ RYAN, p.109. He goes on to claim the Germans could not have had enough money on their arrival to be able to afford such homes and would have had to make do for a while with *"some plainer cottages"*, but it is equally possible that Sandford and Bell felt the venture, with its potentially great profits, was worth the extra initial outlay.

The other inscription, however, was in much better condition and was still completely legible "" when the houses (in Wood Street) were finally demolished in 1961; it was then removed to safety somewhere in Consett, though its exact whereabouts are now unknown²². At the time of writing, the latest "rumour" (passed on to me by the Head Librarian at Consett) is that it is to be incorporated into some building in Castleside (near Consett), but exactly when and where was also unknown. It is a great shame, however, that it could not have been found a more appropriate site in Shotley Bridge.

DES HERREN SEGEN MACHET REICH OHN ALLE SORG WAN DV ZVGLEICH IN DEINEM STAMD TREV VND FLEISIG BIST VND DVEST WAS DIR BEFOHLEN IST 1691

This is a actually a piece of verse and *should* have been laid out like this in lines (and here I have written it in more modern and *correct* German)²³.

DES HERREN SEGEN MACHET REICH OHN ALLE SORG, WANN DU ZUGLEICH IN DEINEM STAND TREU UND FLEISSIG BIST UND TUST WAS DIR BEFOHLEN IST

This at least can be translated without difficulty or speculation, and it says in English:

"The blessing of the Lord makes you rich without all the troubles²⁴, if you are both faithful and diligent in your work and do as you are commanded".

We can be certain from these inscriptions (and from other things that have been said about them) that they were God-fearing people - which would certainly have helped foster the mistaken idea of their being religious refugees - and we know that by the time the last swordmill closed in 1840 they had for the most part become members of the Methodist Church, having even built their own chapel. By then, however, could they be called "the Germans" any longer? Or had they long since come to be regarded by others - and, more importantly, by themselves - as totally English?



²⁴ Proverbs 10, v.22

- 341 1 Si

²² An original door from one of the houses was also saved by a keen local and later donated to Beamish Museum; it can now be found in the wall of a passageway in the Pockerley Manor complex.

²³ One minor point of interest about the original inscription is the rather careless workmanship. All the Ns are back to front, and the final one in "BEFOHLEN" is so squeezed in as to make it nearly illegible. Moreover, the Fs are carefully carved in *upside-down*! And (in line 4) there is an M in STAND!

4. The Settlers





ut who were "the Germans" who came to Shotley in the first place? The names of those working there do not correspond exactly with those in the German indictment, and research in the Solingen archives has not been helpful. Moreover, the lack of uniform spelling in the seventeenth century makes matters only worse. At this time "correct" spelling counted for little. It was, I believe, Samuel Pepys, a contemporary of the sword-makers, who said he thought little of a man who could not spell his own name in at least three different ways. Not until 1755 did Johnson's Dictionary appear; even

so it took many more years before spelling became anything like standardised.

For a start, there is no further mention of Clemens Hohemann, apparent instigator of the move, and we have no idea what became of him. Instead, the leader-ship of the community seems to have devolved immediately on to two men - Adam Ohlig and Herman Mohll.

The name Ohlig (in various spellings) is well documented in Solingen²⁵ and elsewhere in Europe. Richardson cites: Ivan Ollich, who was known to be working in Spain in 1624; Jurgen Ollich, who was making swords in Sweden in 1659; another (or the same?) Jurgen Ollich worked in Arnhem in Holland, at about the same time; and, finally, records show that a Johannes Ollich had swords on exhibition in Stockholm, Paris and Dresden.

The Solingen archives show an Adam Ollig was a practising swordmaker in 1642; the signature of an Adam Ohlig, dated 19 June 1647, is preserved there also. They show too that in 1645 an Adam Ohlig was made churchwarden; the same year the baptism of Peter, son of Adam Olig was recorded. Finally, they mention that an Adam Olig was 61 years old in 1700.²⁶ Obviously all these entries cannot refer to one and the same man, since, for a start, the practising swordmaker of 1642 could not have been only 61 in 1700. Nor do these facts tie in with the Adam Ohlig who appears in Shotley Bridge, known to have died there in 1726. There is one possible link between the two communities, however, for the 1688 indictment mentions "Adam Ohlig's son" but does not give his first name.

²⁵ The earliest references to the name Ollich also seem to indicate it originated in Solingen.

²⁶ What is at first puzzling is that RYAN (p.110) states : *"...the German name Oley, occurs in the oldest Ebchester register as early as the year 1628, upon the very first legible page: and the first page, headed 1619, not now legible probably contained the same name. The first legible entry, indeed, in the book, is "Eleanor, the daughter of Matthias Wrightson Oley, baptised 1628". But see Chapter 9.*

What we do know about the Adam Ohlig at Shotley is: he was a bladesmith, responsible for forging swordblades; he had a wife, Mary (almost certainly anglicised from Maria); and they had thirteen children altogether, though some of these died in infancy. At least six of them were born in England. Ebchester parish records show that a son, Adam, was baptised on 16 April 1691 – and was then, sadly, buried on 10 June 1694. A daughter, Elizabeth, was baptised on 16 November 1693; and a son, John on 26 July 1695 - recorded in the register as their fourth son. On 20 October 1697 another son, again named Adam, was baptised; followed by William on 10 October 1699 and Nicholas on 17 December 1703.

Adam senior must have proved a totally trustworthy leader of the group from the start, since later he was made responsible for administering the estates of Engel Schimmelbusch, buried on 7 February 1694, and of Peter Tiergarden (Theegarden or Tiegarden), died 5 February 1714. That he became a leader from the first points to him having standing. This may suggest he was that "son" (listed in the indictment) of the Adam Ohlig who we know from other sources was a swordsmith in 1642 and probably the man made churchwarden in 1645. The Shotley Ohlig eventually (and erratically,) anglicised his name to Oley. In 1691 the baptismal record of his son gives the name as Oley, but in a legal contract of 1703 it appears as Olligh.

Hermann Mohll is something of a puzzle. He was obviously respected among the swordsmiths, since he became one of the leaders right from the start; he is also the first person named in the Solingen indictment after Hohemann. Yet he appears not to have been a member of any guild, as far as can be ascertained, and - what is more - he is known to have made at least one trip from the North-East back to Solingen²⁷ ... significantly, with impunity. What is known from local parish records here is that he had a son, James, baptised in 1692 and that he, Hermann, died in 1716. He was also a sword-grinder, responsible for sharpening the blades. The only other family mention comes in July 1700, when one Catherine Mohll was married to John Fose (=Vose?), but as there were two Mohll families it is not certain whether her father was Hermann or Abraham (both listed in the indictment).

Of those named in that document only Ohlig and Mohll appear to have come to Shotley, along with perhaps ten others. The name "Johannes Voes" appears twice, however, which could reduce that to nine - namely: the four surnamed Wupper; Abraham Moll (almost certainly related to Hermann); Voes; Schimmelbusch; Tiergarden; and Hartcop.

As to what happened to the rest, we have no idea. They surely cannot have returned home, since the indictment naming them dates from over a year after their departure. They, like Hohemann, drop out of written history altogether, leaving us with another mystery. (One day, perhaps, further evidence as to their subsequent whereabouts may surface in some archives, by pure luck – or it may just be possible someone somewhere has it already but has not yet made the connection with the North-East. If this is the case, the author would dearly like to know.)

But, right from the start, we see other, new names appearing among the list of workers at Shotley - Bertram, Schaf(f)e, Voose (or Voss) and Vinting (Vintnigs, Vinten or Vintnig).

(Surtees, writing in 1820, adds other names to the list, as well as mentioning what must be the later anglicised versions of some of those already mentioned, all culled, says Ryan, from local records between 1690 and 1725. He lists Woper (i.e. Wupper, also Wooper, Wopper), Oley, Henkels, Moll, Clewer, Faws and Vooz (i.e. Voss), Schindelbach and Bertram. In his 1948 article Aylward very interestingly adds another, already known name, suggesting that a Henry Hooper, who testified on Mohll's behalf in 1703 (see chapter 6), could in fact have been the Henry Hoppie who in 1672 petitioned the king for work (see chapter 2)²⁸.)

²⁷ see Chapter 6.

²⁸ Unfortunately for him, all other sources state that it was Henry Wooper (=Wopper).

The name Vinting appears in parish registers here *before* 1687. William, son of John and "" Margaret Vinting, was baptised on 14 November 1685 at nearby Ebchester church, and another son in 1688. According to Richardson, parish records link them with several places fairly close to Shotley but not with the village itself. He concludes that they may not have been German swordmakers at all but Dutch, or even Huguenot ironmasters associated with forges further down the Derwent. Alternatively he suggests that, if they were German, they may have been linked in some way with one of the groups of German workers that had been brought over earlier in the century to help develop the lead or the copper mines in Cumbria. There were also leadmines at nearby Ryton, which could provide the link.

Bertram (or Bartram), whose first name - slightly surprisingly - is unknown, was a blast furnace expert, and later the possible owner of furnaces and smelt mills (in 1719 smelt mills and furnaces at Shotley were certainly owned by one William Bertram, but this could equally have been his son or another relative). We know he lived in a cottage to which he gave the name *The Old Forge*. He is supposed to be one of the immigrants, and his name is linked with Oley and Mohll as the three main *German* families of Shotley, yet no evidence has been found yet to support this. Indeed, the name Bertram does not appear to be typically German at all, and there are several sound historical examples of Bertram as a good (Northern) English name. So it could well be that he was a skilled Englishman brought in by Sandford and Bell to supervise the ore-smelting furnaces and processes. Atkinson suggests he may even have been one of the Huguenot ironmasters who escaped from France upon the repeal of the Edict of Nantes in 1685- which is also a possibility, but again without evidence to support it.

The name Voose (or Vooze) *could* be the anglicised form of Voes (or should it be Voess?), one of the original "miscreants" – although, confusingly, we also find the names Vose and Voss appearing later in the records at Shotley²⁹. Another Voose also seems to have been known as a trader in swordblades in Germany, but there is again no proven connection between him and Shotley. (Once again, however, this possibility cannot be totally ruled out, for it may just be that he had a role similar to that of Hermann Mohll, to be looked at in a later chapter.) There are only two more definite mentions of the family in the records of the Shotley.Bridge area. As we have seen, a John Fose or Vose married Catherine Mohll in 1700; then on 9 August 1701 the death is recorded of Elizabeth, daughter of John Voss – the first child of that marriage, we must sadly conclude. Yet again, however, we have to make the assumption that the first John Fose/Vose is the same person as this last-named John Voss.

That the rest of those cited in the indictment do not appear in the records at Shotley Bridge ³⁰ does not necessarily mean that they did not work there. Richardson suggests that some of them may have worked "as non-entities" at Shotley, again a vague possibility – or that they changed their names, using a nickname instead of their normal surname. He cites Schaf(f)e as an example, claiming he might well be Knechtgen, since both have the same first name, Clemens. The same reasoning, however, could be used to even greater purpose ... to explain the disappearance of Clemens Hohemann. This would at least seem slightly less far-fetched, since Hohemann was after all Number One on the German court's "hit list" and so perhaps had most to gain by adopting an alias. Yet why only some should choose this course and not others is hard to explain satisfactorily, especially when we consider that it is certain that Hermann Mohll later returned to Germany under his own name with no problems.

²⁹ This is an excellent example of how non-standard spelling can cloud the issue, for it is impossible to tell whether these names refer to the same family or to different branches; nor can we be sure by any means if two similarly spelt names actually refer to one individual or to several.

³⁰ Just one parish register entry from before 1704 mentions someone other than a Mohli, Oley or Voss. This is the baptism of John, son of Henry Wopper (or Wooper) in April 1692.

Over the years still other names - more and more of them being English-sounding if not true English - are mentioned in connection with the swordmaking trade. We shall see in due course how at least some of them became involved, and we shall certainly come to know a bit more about them.

To conclude this chapter, which was *supposed* to be about the real-life people who came over from Germany, then; we know the names of *some* of those who settled at Shotley Bridge, but next to nothing of the events in their lives – and nothing whatsoever about their personalities, their daily life, their hopes, their joys and their problems. Archive material almost totally fails us in this respect. What little we have has been gleaned solely from parish registers and has already been mentioned, but it is a mere nothing – a few basic facts - which is infinitely sad. They would have been most interesting people to get to know, I am sure, and could have told us much in the end.

But now let us turn our attention to the actual trade these men plied - the manufacture of the famous "hollow sword blade".



One of the swordmakers' houses in Wood Street (1960)

5. The Hollow Blades





he year 1687 was an interesting time for the swordmakers to arrive. Just as they were settling down peacefully in their little corner of England, the rest of the country was doing the exact opposite. Matters were coming to a head as King James II tried to maintain himself as a Catholic monarch over a Protestant people. Having raised an army in 1686, he then had to set about arming it - perhaps why Sandford and Bell were given permission to bring over their swordsmiths, especially as they were promising supplies of the

latest "super-weapon", the hollow sword. The application for a patent (see chapter 2) was the next step, but events seem to have overtaken it. James may well have had just too little time to give it any consideration at all, since his position was becoming more precarious by the day.

In 1688 came the "Glorious Revolution". James fled, leaving the throne to his Protestant daughter, Mary, and her husband, William of Orange. Parliament took the opportunity to bring in the "Bill of Rights", which, as well as ensuring that this country would never again have a Catholic monarch, abrogated much of the running of the country from the king to itself. This included control of the army, presumably ending royal patronage for such things as swords; there would doubtless be a hard look too by government at military expenditure on such items. This may be why the swordmakers did not receive their patent, although Richardson suggests another reason, to which we shall return later. But sword production started, and in the *London Gazette* in August 1690 there appeared this advertisement:

"Whereas great industry hath been used for erecting a Manufactory for making sword blades at Newcastle³¹ by several able working men brought over from Germany which being now brought to perfection the undertakers thereof have thought fit to settle a warehouse at M^c Isaac Hadley's at the Five Beds in New Street near Shoe Lane where callers may be furnished with all sorts of Sword Blades at reasonable rates."

No mention of hollow blades. Things, however, were obviously improving, since about the same time a somewhat altered board of directors presented another petition, this time for a Royal Charter. The group still included John Sandford and Peter Justice, but there were now new partners.

³¹Was this true at that time (there is - of course - no evidence), or just a geographical generalisation?

At their head was a Sir Stephen Evance (born in New England), an influential goldsmith and banker (the two trades usually went together) in London. He was knighted in 1690 and appointed Commissioner of Excise in 1691. In 1720, however, he shot himself, believing himself insolvent as a result of his involvement in the *South Sea Bubble* affair, to which we shall return in due course. Sadly for him, his fears had been groundless, as his affairs subsequently showed.

This time, though, the petition was not ignored and duly, on 15 September 1691, the Charter was granted to *"The Governor & Company for Making Hollow Sword Blades in England"*.

The preamble to the Charter restates the basic information contained in the 1688 petition - about persons "imported from foreign parts" and "at great expense" for the making of "hollow sword blades" using "newly invented engines and mills and instruments". It does however include another interesting section: "[The sword-makers...] have been prevailed upon to expose themselves even to the hazard of their lives to impart to our said subjects the knowledge of their art and mystery". This must have been inserted far more in the hope of helping the petition's cause than as a statement of intent - especially since a later clause (no. 16) in the Charter forbade anyone from divulging their secrets, thus cancelling out that "promise"! (And in any case, anyone who could still remember the Hounslow Group would be very sceptical indeed about such a statement.), The phrase "even to the hazard of their lives" was, I rather think, inserted as an extra "persuader", to ensure the swordmakers were favourably considered as highly vulnerable political or religious refugees³². And, says Aylward³³, the talk of "newly invented engines and mills and instruments" may have been no more than propaganda designed to mislead competitors. He suggests the real secret lay either in the steel they used or in the subsequent processes.

So now the production of the "hollow sword blades" had been given official sanction, and it is time to examine exactly what is meant and *not* meant by that term.

First let us look at an example of the most common delusion about this wonder weapon. It was the poet Southey who in 1821 wrote to a friend to ask if he had ever seen a sword "of *Cromwell's time having the back of the blade hollow and the hilt loaded with quicksilver*". It seems quite a common belief that these swords had a hollow tube in the blade in which an amount of mercury could move freely, so that its momentum would give added weight to the force of a forward lunge. That the mercury, by the same token, would also cause the blade to become very unwieldy in any other movement does not seem to have come in for any consideration! (Yet this fantasy apparently resurfaced as recently as 1893, in *Notes & Queries* (July 1st, p.15), as an "informed" response to a reader's query.) There was even a wonderfully imaginative variation; the tube held a poison that would be transferred via the thrust to the victim! It was never explained how the poison was held in the blade and released *only* at the critical moment.

Yet the idea of the "hollow blade", invented in Solingen some time during the seventeenth century, is quite straightforward. The new blade was triangular in section, tapering to a point, but each of the three faces was hollowed out ("hollow-ground", rather like cut-throat razors) giving it exceptional lightness and flexibility and strength. The boast was that, if such a blade were fully bent until the tip touched the hilt, it would spring back to its original shape with no distortion whatsoever. When at some time a blade-finisher invented a machine to shape the blade quickly and efficiently, doing away with much of the time and effort needed for hand-finishing, it made this blade even cheaper and so more popular.

³² It is quite instructive to find so many possible parallels between the legal and business machinations of today and those of three hundred years ago!

³³AYLWARD

Almost certainly the Shotley men would simply follow this basic process, since it was the same one they had used in Solingen. Then, to finish the whole, they stamped each blade with SHOTLEY on the one side and BRIDG³⁴ on the other and rounded it off by adding the "Flying Fox" trademark. This was perhaps justified, for they were after all Solingen craftsmen by origin - but one does wonder what Archduke Albert of Passau would have thought of it, not to mention the guild-masters back in Solingen. And that was all there was to it.

Or was it? Following the transcription of Jenkins' address³⁵ there is "Discussion", in which are recorded comments from the floor. A Mr C E Greener "...confessed to being mystified by the inference in the paper that a hollow sword blade was anything new in 1688. It might be an improvement to the slashing sword with one cutting edge, but there was no question that fluted double-edged and thrusting swords were made in the fifteenth century and probably earlier, as an examination of any sword collection would show". Aylward does say the "fluted" blade fits the description of one common in the eighteenth century, of triangular section with recesses in each face – the "small sword". He refers to Diderot's book³⁶, which contains "a plate showing the varieties of blade mounted in small swords about 1755; the explanatory text describing the triangular fluted blades as "lames creusées en cannelures rondes"³⁷. But these two bits of "evidence" fail immediately, since Mr Greener's point seems only about double edged blades – not triple, whilst Aylward is citing examples from the eighteenth century, not the seventeenth. It has to be said, their arguments do not help clarify the picture one bit.

Of course, the steel had to be of the highest quality, and certainly the swordsmiths would try to ensure this, by overseeing the various processes rigorously. In the beginning the Germans seem personally to have sought out and extracted the ore from sites along the Derwent and in the surrounding countryside. One area where they almost certainly dug (or delved) was later known as the Delfts; later still this gave rise to the name of the road leading to the site (now part of Consett) - Delves Lane, at that time of course open land. Local lore also said there was a seam near Hownes Gill, known as the German Bands Seam, worked by the Oleys³⁹.

The ironstone would be then transported by packhorse to a site fairly close to Shotley Bridge, or else to one on the north bank of the river nearer to Allensford, where the ore was processed and turned into steel. On the latter site were three roasting kilns, - round in section, the inside tapering towards the bottom - where the ironstone was first reduced; and a roasting furnace - hexagonal in plan and tapering towards the top - where the iron was finally extracted. There were other furnaces further away, at Blackhall Mill and at nearby Derwentcote. On this latter site still stand the remains of the rare cementation steel furnace which produced what is claimed to be the first "shear" steel in the North. (However, another writer³⁹ puts forward the suggestion that it was Ambrose Crowley who introduced it.) This has recently been restored as a tourist attraction, but whether or not the Germans actually used it is (of course) not known.

³⁴ For some reason the final Y and E were omitted. AYLWARD maintains they also used a stamp with a representation of a bridge instead of the word. Another, connected puzzle came to light during the renovation of Cutlers Hall, when the stencil of what appears to be a "running fox" was found on the wooden *ceiling* of one room; no-one can understand why it should be there.

³⁵ JENKINS

³⁶ DIDEROT

³⁷ "blades recessed in the form of rounded channels".

³⁸ In JENKINS, under "Discussion", a Dr A Raistrick states that near the old furnace at Allensford were "... clayband outcrops" still to be seen "...in the foot of the cliff on the riverbank". He went on to say that: "the outcrop is mentioned in Mem. Geol. Surv. Min. Res. XIII, p.36, as 'associated with the German Bands coal", and there is still a strong local tradition that two of these bands had been worked by German miners, the name German Bands' still being retained for the ironstone."