

## A Picture of the Iron Trade,

(IN THE SEVENTEENTH CENTURY).

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BY SIR GEORGE R. SITWELL, BART.

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AMONGST the MSS. at Renishaw is a letter book kept by George Sitwell, of that place, between July, 1662, and August, 1666, and containing nearly five hundred letters besides accounts. Such of these as relate to domestic life or to public events I hope this winter to print at my press at Scarborough, in a large collection of letters of my own family and of the Sacheverells. But the owner of this book was not only a country gentleman. In company with many squires in the counties of Derby, York, and Nottingham, he added to his fortune, and repaired the breaches in it made by the fines of the civil war, by the manufacture of iron. We have here a complete picture of the iron trade, and so thoroughly has the rather dry and dull subject of the growth of British industry and commerce been neglected by our historians, that I have thought it worth while to gather from this source some of the materials of history. Heavy and technical my article must necessarily be, and it must also be cramped, from the difficulty of forcibly compressing such a mass of material into a narrow and limited space, which forbids the drawing of deductions and of inferences; but it will have served its purpose if it suggests these to some future writer on commercial England.

First, as to the writer. He was born in 1600, and had a minority of about ten years, during which time his mother remarried Henry Wigfall, Esquire, who became his guardian. He was high collector of a subsidy for the hundreds of Scarsdale and

High Peak in 1624. Twice in the reign of Charles the First he was fined in the Star Chamber. His house at Renishaw was, I believe, garrisoned for the hiring; and he had a protection, in 1644, from Ferdinand, Lord Fairfax, to prevent its being pillaged or plundered. He was heavily and repeatedly fined by the rebel party, and had to compound for his Yorkshire estate. He entered his pedigree in the visitations of 1630 and 1662, was High Sheriff in 1653, died in 1667, and was buried at Eckington, where is a monument to his memory, with kneeling figures of himself and his wife in alabaster. Amongst the men of his time, he had a great reputation for shrewdness and success; so much so, that, though completely ignorant of the methods of copper-mining, the Earl of Devonshire insisted upon having his advice, and desired him to "goe a parte" in the charges and rather doubtful profits of the mines at Wotton. His dealings were on the largest scale. By one bargain, he supplied Lionell Copley with 850 tons of sow iron to the value of £4,533, and he was ready to make five thousand pounds worth of iron bullets for the navy, to buy all the trees which the commissioners were about to sell in Sherwood, paying in plank, to take 20,000 cords from the Marquess of Newcastle, or 10,000 cords and all the wood he had at Clipston. His saws, sugar stoves, and rollers for crushing the cane found a market even so far away as at Barbadoes.

I suppose that he first learnt the trade from his step-father, Henry Wigfall, Esquire (a descendant of the Wigfalls of Carter Hall, and ancestor of the Wigfalls of Renishaw), with whom he was at one time in partnership. Amongst other great iron masters, there are frequent notices of Lionell Copley, Esquire, whose name and family are well-known to Yorkshire historians. Paul Fletcher, of Walton, ancestor of the Jenkinsons of Walton, baronets, seems to have been in the trade. Sir Thomas Osborne is once mentioned as having a good supply of iron, which he was holding till Copley's was sold. Mr. Clayton was the great rival of our merchant (though he had been in partnership with him for certain bargains of wood and iron), and derived much advantage from his influence with some grandees, especially with the Duke

of Newcastle, the purchase of whose wood he monopolised. John Magson had also been in partnership with him, and was now reputed to be worth 25,000 or 26,000 pounds. Mr. Jenings (son in-law to Colonel Milward) was at one time reported to have taken Clayton's works, and may well have been nearly related to the founder of the great Jennings' fortune. Captain Mazine, Mr. Westerne, Mr. Blake, Mr. Bullock, and, I think, Mr. Newton, were also manufacturers; but I find no mention of William Simpson, of Renishaw, Francis Barlow, of Sheffield, and Dennis Hayford, of Millington, Co. Chester, whom we know from Hunter to have taken over Copley's ironworks at Wadsley Forge, Rotherham Mill, and Chapeltown Furnace, in the year 1678 or thereabouts.

It was a frequent occurrence for two or more employers to become partners in some big bargain for the purchase of wood or the delivery of iron; and in such cases they conjointly hired or built a furnace or forge, and divided the tools there when the business was finished; or one would contract to supply another with iron or with wood, as, for instance, when the author of these letters undertakes in 1654 to supply Copley with 850 tons, over a period of years.

Though there was much jealousy and ill-feeling between them, yet they were sufficiently alive to their own interest to attempt, with some success, to combine for the purpose of keeping up the price of iron. Prices, indeed, were, during this period, naturally falling from over competition, and I find frequent complaints of the badness of trade. "It proves very sad," writes our merchant, "when iron will not reach £12 p. tunn." This is in July, 1663, and in the same month of the next year he repeats the complaint—"I cannot send any more iron to London this year, it sells pretty well in the country." In December, 1664, Franceys writes from London, that iron is worth £14 per ton, and that he has heard a merchant ask £16. In February, of the next year, George Sitwell says—"I saw a letter yesterday from Mr. Pellett of the rates of iron, wherein he writes some sorts are worth £17, some £16, and that ordinary iron is worth £15 per tunn; truly, I think I shall have

none to send this sumer to London, for now I can sell all I have att £14 10s. od. p. tunn in the Country."

But to get on to the subject of combination. In March, 1663, Copley writes to him, mentioning "the great noise of the cheape rates you sell iron for," and he replies that he thinks of selling no more iron at London till the market mend. In December, of the next year, Copley suggests a meeting, and his correspondent thinks it will be best "to divide the Countrys, and wthall not to undersell such a price as shall be agreed on." An agreement was already in force at this time between them and Clayton, but the latter had broken it, by paying his workmen in iron. In January, 1665, there is a letter to Copley on the same subject: "I heare you doe not like that pposition of selling iron into pticuler Countrys as is expressed in the note, and say it will breed a confusion in the delivery of Iron for that wch shall be sould, because it may not be soe good as the other, to wch I answer if I sell any delivr me the worst Iron you have, pvided it be drawne into ordinary flatt barrs, and I will doe the like to you, and this will be a further meanes to restraine us." In May, he writes again to Mr. Blake:—"Mr. Newton would have us raise our Iron, viz., by the whole sale at 15*li.* p. tunn, and by the retale at 16*li.* p. tunn, if you approve of this, and write to me your concurrence, herein by this bearer my sonn, I doe hereby pmise to observe it, though Mr. Bullock decline it." In the same month he writes to Copley, confirming the proposed agreement as to bar iron; but as concerned rod iron the former agreement was to hold good.

The position of the workmen at this period was much better and much less degraded than it was at the commencement of the "so-called" Nineteenth Century. Charitable feeling, of which there are many evidences in this letter book, is outside the scope of my article, and of course we hear more of the workmen when in trouble than we do when they were quietly satisfying their employers. The crapper, at Staveley, steals a sheep of Mr. Frechville, which his employer has to make good; a charcoal carrier sells part of his burden; iron pots are found at the miller's house,

and "without peradventure he hath partners." A poor fyner is arrested for some dishonesty by Copley, and cast into prison. But the condition of the labourers was not a degraded one, nor was it hopeless of improvement. The work of a good workman commanded a higher price, and there was some, such as sawmakers and potters, who turned out articles which could not be made without them. In consequence, they knew their own value, were able to dictate their own terms, and even from small beginnings to become merchants on their own account. In November, 1664, there is a letter to Mr. Blake complaining that "yor clerke who takes in yor nailes begins very unhandsomely. He was lately at Eckington amongst my sonns workmen, and would have entised some of them away. I suppose it was without yor Maistrs or yor privity." In April, 1665, Copley makes the suggestion that neither he nor Francis Sitwell shall interfere with each other's workmen. These extracts show clearly the competition to secure the services of the best workmen, and that they could make their own terms the following bears witness: "When my workman (now in Staffordshire) that makes them (*i.e.*, sugar stows) comes, that I may know what he will have for his labour." . . . .

It was very common to make bargains by which the workmen received in return for their labour some article of commerce, and thus reaped an extra profit. As an example of this, two charcoal carriers bargain to carry from Bushy Park to Winfield furnace at 10d. per load and 10s. over, to be paid all in iron at 13 *li* per ton. In the same year Geo. and Sam. Row contracted to buy iron at £5 per ton, and to pay for it in charcoal at 18s. per load. George Sitwell makes a bargain with his best sawmaker "to let him have iron at Plesley Forge at £14 10s. per tynn, for every tynn he is to sett in eight dozen of good whipp saws, of which said eight duzen three duzen to be seven foot saws. He is to pay the charge what they shall lye in carrying to London, before he takes them away from the place where they are sett in. I am to send them to my factor in London, and to give him notice that he (the sawmaker) may goe and sell them."

I find mention of the following furnaces and forges. Foxbrooke

Furnace, near Renishaw, was built in 1652. The ironstone for its use was fetched from Staveley, and large quantities of saw iron were sold from it to Lionel Copley, Esquire, and pots, mortars, and pans cast there. Staveley Furnace and Forge were hired from John Freshville, but the lessee was much troubled by want of wood for fuel. North Winfield Furnace was supplied with charcoal from Bushy Park, and I find 409 tons of saw iron turned out there in May, 1662, and in May, 1666, 120 tons sold at £5 3s. 4d. per ton. The Upper and the Nether Forges at Pleasley were being worked before 1655. In 1662 they were presented as a nuisance at Nottingham Assizes, by reason of the stopping of the river. Saws and brewers' squares were made here; and at one time our writer was sub-letting these forges to another ironmaster, Mr. Clayton. Lionel Copley, Esq., was renting Wadsley Forge from George Sitwell, in May, 1660, at £8 6s. 8d per month. Carberton Forge was hired by our writer from John Moseley. In May, 1662, there were 193 tons of sow iron here, and this and the tools were divided between the lessee and Mr. Clayton, they having been partners in some bargain for wood and iron. In April, 1663, the former was threatened with a fine by the Court of Justice in Eyre for the forest; but feared nothing, as no work had been done at the forge since the Act of Oblivion. Cuckney Forge was built by him in 1662, and on the abandonment of the Carberton Forge, the sow iron there was conveyed to it. The ground landlord was the Marquess of Dorchester, and it was taken for four years at a rent of £72 10s. od. per annum, and compensation at the end of the term for building and repairs.

Clipston Forges, Stanley Forge, and the Stone Forge are also mentioned, but I do not know by whom they were held. The slitting mill at Renishaw was sub-let to Isaac Fentham, a servant or clerk.

At the furnaces the iron ore was reduced, and cast-iron goods, such as chimney plates, mortars, and sugar rollers were made. I find a payment of £127 10s. od. to the ironstone getters at Staveley, for 300 tons of sow iron, at 8s. 6d. per ton, and another for 36 dozen of ironstone brought to Foxbrooke Furnace at

7s. 6d. per dozen. Pitt coals are once mentioned, and, indeed, I am at a loss to explain the presence of three loads of pitt coles at Renishaw slitting mill in 1662; but I believe that wood charcoal was always the fuel used at furnaces, as well as at forges. A bargain for standing timber was made, and it was felled, wheeled together, and turned into charcoal on the spot; and thence carried by hand, probably in baskets, to its destination. Coles that were coled and left in the forest are mentioned in 1663, and the payment of £13 for the coleing of 130 loads of coles. On January the 19th, 1662, John Barlow, the elder and younger, were hired to carry charcoal to be made that summer, in Bushy Parke, to Winfield Furnace, at 10d. per load, and 10s. over, and to the same place from a wood called Broome Ridding, at 1s. per load; all to be paid in iron at Plesley Forge. In June, 1662, George and Sam Row engage to sell charcoal at 18s. per load, to be paid in sow iron at £5 per ton. In one case a charcoal carrier dishonestly sold some of his burden, and was not detected till long afterwards.

Since writing the above, I have found a note in an earlier account, which I append in full. "1649. Paid for sawing wood for 5 char-cole waines, 8s. Paid for makeing 5 char-cole waines, £1 10s od. I had two charcole waines wch I made before, besides those wch formerly belonged to Staly." The cost of carriage was the greatest item, for in the same year, 1649, I find £25 paid for coleing 240 loads of coles, and £60 paid for carrying them from the Reidfield to Staveley.

Work at the furnaces was, of course, only done in the winter. In February, 1662, our iron master had made 300 tons at the furnace he was then working at, but would continue to blow a good while. On the 13th of October, 1662, he began to blow at Foxbrooke Furnace, and blew out the 6th of April, 1663, and made at this blast 358 tons and 5 stone. There are several complete lists of tools at the furnaces, comprising all the parts of the bellows and weighing machine, besides barrows, for myne, sinders, and cole; many baskets in which I suppose charcoal or ironstone had been carried: moulds, limestone hammers, lime-

stone plates, and plates to blend sand upon. On one occasion the furnace dam broke and drowned a neighbour's land, increasing its fertility, but giving occasion for a large claim for damages.

For the building of a forge a considerable capital was required. George Sitwell, in February, 1664, writes to the Marquess of Newcastle that if he may have a lease of 21 years of the land and water course necessary, he will build, at his own expense, the forge workmen's houses, with dams, goyts, and ways (Mr. Clayton saith his cost £800), pay two years' rent for a fine, and leave all standing at the end of the term. I find a list of building and repairs at Cuckney Forge in 1662 and 1663, which gives a good picture of it. Forty-seven pounds, ten shillings was spent on carpenters work, and 3s. 6d. to the labourers at the iron house; 10s. for broom for thatch, and 12s. 6d. to the thatcher for 12½ days' work; 3s. 4d. for leading clay; £3 6s. 8d., and 14s. 6d. more for repairing the workmen's houses and coal place, and for stoops and reakes for it. There is a complete list of the tools in the upper and nether forge at Plesley in 1665, amongst which I notice the fynery bellows and wheels, a weigh beam to weigh sows, the hammer wheel and anvil, chafery bellows and wheels, a loop hammer, shingling tongs, morriss bars, hirsts on the helves, breys, brasses, sledges, ringers, quasses, maundrells, a kaywedge, and a furgon hammer. At each forge there was a clerk's chamber. At one deserted forge, perhaps at Carberton, the forebays and damhead were left standing at the command of the Marquess of Newcastle, who intended to make a fishpool there. The work at the forges was done in the early part of the year, in order that the goods might go to the water in summer, for it was very difficult to carry them in winter, even at a double charge.

According to Hunter, the historian of Hallamshire and South Yorkshire, who took much of his information on this subject from Evelyn, the devastation of the English forests in the latter half of the seventeenth century, was due to the needs of the iron manufacturers. However, I find that the largest and finest trees in Sherwood were devoted to the furnishing planks for the navy; and, indeed, in all, or nearly all, sales of standing timber the best



trees were reserved. For coleing, the cordwood offal wood, topps and lopps were made use of, and the giants of Sherwood and the Rivelin were rather sacrificed to repair the great losses in the Dutch war, or to supply timbers for building purposes.

In February, 1664, it is the intention to cut down 2000 trees in Sherwood, and all that are useful (*i.e.* will make planks) for the navy, possibly 3000 in all, the tops, lops, and offal may be worth £500 or near it. Our iron merchant was anxious to buy these trees, and would pay in planks if necessary; and a tedious course of bargaining, lasting from January, 1663, to May, 1665, or even longer, commences, and throws much light on the waste of the public service, and the extreme corruption and venality of the officials of the period, every one of whom had his price. The author of these letters was engaged in a quarrel with the Marquis of Newcastle over the woods at Clipston, which had been confirmed to him, Paul Fletcher and others, by Lord Mansfield on the 13th September, 1656; and in consequence his rival, Mr. Clayton, was able to purchase all the wood sold from the Newcastle estates, though at a lower price. In January, 1664, George Sitwell wrote to offer Newcastle £2000 for 10,000 cords of wood, saying that Clayton had had as much for only half that sum; or he would take 20,000 cords and pay £500 yearly till all was paid for. Evelyn once mentions him as buying wood in Hallamshire. "In Sheffield Parke, two years since, Mr. Sitwell with Jo. Magson did choose a tree, which, after it was cut, and laid aside flat upon level ground, Samuel Stainforth, a keeper, and Edmund Murphy, both on horseback, could not see over the tree one another's hat crowns. This tree was afterwards sold for twenty pounds." There is also an original letter, dated 10th March, 1656, from H. Howard (Duke of Norfolk) ordering George Markham to close with Mr. Sitwell's offer, and "thatt at Mr. Sitwell's calling or sending for it, a doe be kild and delivered him, wch custome I would have him take notice yt I meane to continue every winter this seven yeares at least." He had other means of supply in the park and woods of the manor of Eckington, and I find him buying wood of Captain Barber at Barlow Lees and of

Lord Scarsdale. Of the latter he had  $397\frac{1}{2}$  cords on the third August, 1660, and  $502\frac{1}{2}$  cords in July, 1662. Cordwood was worth from 4s. to 4s. 6d. per cord, which I suppose included the cutting at 15d. per cord, and good trees were valued at ten shillings, or above.

In 1648 wood was dearer, and I find five or six shillings per cord paid, out of which eighteenpence represented the cost of cutting, and sixpence the payment for cording it.

From the forges and fuel, I pass to the articles manufactured. When anything of a strange or new pattern was ordered, pack threads of the height and compass were sent by post, and "models" or "characters" upon paper. Specimens were sent from London by sea, via Hull, or a workman was sent up to London to view them. For the satisfaction of having a servant sent down to view the first that were made, the manufacturer was willing to let him lie at his house, and to pay half the costs of the journey, which indeed only amounted to thirty shillings for travelling down and up again. In one case moulds for chimney plates came down from town by Nottingham wagon.

SOW IRON was made in very large quantities, and ought to be of a good grey colour, and malleable to cut or drill. If it was necessary to make it tougher, the amount of "myne" was abated. By a bargain of the 28th October, 1654, our merchant contracted to sell to Lionel Copley, Esquire, 850 tons of sow iron for £5 6s. 8d. per ton, to be delivered and paid for over a period of six years, namely, from the 1st May, 1660, to the 1st May, 1666. It was made chiefly at Foxbrooke. In May, 1666, he sells to Mr. Ralph Smith 120 tons at £5 3s. 4d. A sow weighed from one ton two stone to one ton one cwt. one stone.

CHIMNEY PLATES, or chimney backs, were an important item of manufacture at the furnaces. Mr. Trubshaw, of Birmingham, and his brother, an ironmonger, of London, contracted to buy 30 ton weight in October, 1664, at £7 5s. od. per cwt. Three moulds, the king's arms, the flower pot, and the Phoenix, were sent down from London, and the work was turned out as light as could be, considering the deep cutting of the moulds. The

manufacturer writes "I stood by whilst some were cast and call'd of the ffounder to make them thin and light soe that one or two had holes in the worke, and not fitt to be sent." This bargain led to others, for, in April, 1666, 362 back plates were sent to the Trubshaws. A few were also sent into Lincolnshire. I find a list also of plates made in the blast, which began the 6th November, 1661, and given away to friends, namely, one each to Mr. Poole, Mr. Wright, Mr. Bradshaw, my son Francis, Mrs. Jardien, and two for the maker's own use. In his letter to Mr. Marriott of the 28th November, 1664, he writes "I heare you are a builder, so that I purpose to send your wife a chimney back as soon as our Derbyshire ways are passable."

SUGAR CANE ROLLERS, for grinding sugar canes, were made round and hollow like a drum, and were usually sold at £27 per set of three and weighed 18 cwt. They had to be wedged hard, so that they might be tough. In September, 1663, a specimen roller of every sort was sent from London, and a packthread of the height and compass.

SUGAR STOWS OR STOVES. In December, 1662, our merchant is bargaining to make £500 or £600 worth of stows for boiling sugar, and sends up to London a character or model upon paper of his design. They are to be 2 feet 10 inches high, 2 feet 8 inches long, 20 inches wide, 1 inch thick, and every one to weigh about 10 cwt. One side and one end is to be open. The letter is worth quoting in full.

Sr, I hope you have mine of ye 13 instant, this is cheifly to bring a Character of ye stowes, how they are to be made as I apprehend, and it is y<sup>e</sup> enclosed paper, wch is a fourth pte of ye compass of ym. y<sup>e</sup> height is 8 inches &  $\frac{1}{2}$ , ye lenth 8 inches, and ye breath 5 inches. I neither know nor can imagine wt use is to be made of ym, for nothing can be boyled in ym because one end is open, and if they were to make a fire in, and soe another vessell to be set upon ym to boyle suger, they might as well be made in severall plates, w<sup>ch</sup> would be much easier to be dune; however, if they must be of yt fashion, this I say is little or nothing to purpose if I be well paid, notwithstanding I desire to be informed how they are to be used. For they seeme such uselesse things, yt if they should not bee taken when they are made I should be a vast looser in making ym, therefore I thinke it necessaire ye Gent. should give bond to take ym when they are made well and marchantable

without crackes: and it will be requisite to article yt ye Gent. send one downe to see ym when we begine to make ym, yt they be right and such as he would have, wch will a voyd disputes and differences when they are to be delivered, ye charge up and downe cannot be greate, and whilst he is in ye country he shall lye at my house; ye charge up and downe cannot be above thirty shill: I will be content to leave one half of it rather then not to have one to come.

I marvaile why they should be higher then long, pray you aske whether it would not be as well to make them two foote 8 inches high, and two foote 10 inches long, wch is ye same compasse. I suppose you take ye measure within ye vessell, and yt an inch difference in ye measure anyway would make no difference, at present no more, but yt I am

yo: freind to serve you,

*Renishaw, ye 16. xber 1662.*

G. S.

In February, 1663, the bargain is made for 40 tons weight of them at £16 per ton. The buyer is a sugar baker.

IRON BULLETS.—In October, 1665, some on behalf of the Navy are “tampering” with him, offering £8 10s. per ton for 200 or 300 tons of shot. In return he makes a definite offer to supply 300 or 400 tons of iron bullets at £10 per ton, delivered at Hull, and when the letter book ends he is in hope of selling 500 tons.

POTS, MORTARS, AND PANS were also cast in large quantities at the furnaces. In November, 1664, sixty pounds worth of pots and pans were sold at Foxbrooke, besides a few waster (*i.e.* defective) pots. In the same year Will Langley, the potter, cast there pots and pans to the weight of 2 tons 18 cwt. 6 stone 12 lbs., which, at £13 per ton, comes to £38 5s. 3d. A few days after 221 pots and two mortars are sent to London.

In June, 1664, 9 tons 17 cwt. of weights were sent to London, and 1 cwt. 2 stone of rings to fit them with. The price to be paid was £8 per ton. I find also a few tons of share moulds and sow mettle brushes sold into Lincolnshire.

I now come to the product of the forges.

BAR IRON was made in large quantities, sometimes out of old hammered iron guns. In September, 1662, 1,529 bars were sent to London, and weighed nearly thirty-two tons. Clout iron

was, I suppose, a variety of bar iron ; it was 4 or 5 inches broad, and thin.

**SLITT IRON.**—In March, 1663, John Finch, of Dudley, in the County of Worcester, bought ten tons of slitt iron, to be delivered at Nottingham Bridge, by the long weight, at £14 8s. per ton. In April of the next year he bought fourscore ton at £14 10s.

**FLAT IRON** was sent to London in small quantities ; fifteen tons in August, 1662, and ten tons in September, at £12 per ton, and discount for six months. In January, 1663, our merchant offered to sell Mr. Pellet thirty tons of broad flat iron at £11 cash. In March of the same year ten tons are sold to him, two to Mr. Steel, and five to Mr. Western, at £11 per ton and one month's discount.

**IRON PLATES** of two kinds were manufactured, namely, thin broads and short broads. The latter were 4 feet long, and 10, 12, or 14 inches broad. Twenty tons of short broads were ordered for London, in February, 1662, of fourteen inches breadth, at fourteen pounds per ton. A year later five tons were sold in London, and in December, 1664, six tons went to Lincolnshire.

**BREWER'S SQUARES.**—In August, 1662, fifteen tons were sent to London, to be sold at £12 10s. or £12 per ton, and three months' discount. In September, 1663, Mr. Westerne ordered six tons of brewer's squares, some six, some seven, and some eight feet long.

**SAWS**, which were of many kinds, such as long saws, ordinary and block saws, whip saws, pegg saws, cross cast saws, were perhaps the most important product of the forges, and found a market in the colonies as well as at London. They were marked with letters, and as one or two workmen were more successful than the rest in making them, their saws commanded a higher price, and in consequence buyers chose by the mark and not by the goodness.

In August, 1662, six dozen of long saws were sent to London, but did not sell readily. However, on the 20th of October,

twelve dozen more (seven long and five ordinary) were despatched, and had not arrived by the 14th of March. In June, 1663, sixteen dozen were sent of large, ordinary, and block, all marked F. F., and in August thirteen dozen of the same kinds. In December twenty-nine dozen, and in June of the next year twenty-two dozen, besides three dozen of short saws, marked T. C. In the next month, twenty-eight dozen and nine dozen more "bound up with hay ropes and sallow twigs in the topp of them." In October, 1664, three dozen, and in December thirty-seven dozen. In the following year a smaller quantity was sold. Long saws were at least six feet long, perhaps longer, and I find that they sold at £2 18s. or £3 per dozen. Ordinary ones fetched £2 7s. or £2 8s.

It is of more interest to follow the saws that emigrated to Barbadoes. In 1660, George, the son of our merchant, despatched twenty-seven dozen of 6-foot whip saws, consigned to Mr. John Searle, a merchant there, and paid for freight of them £5 10s., and for "portidge and wharfidge" 7s. In May, 1663, nothing had been heard of them, and exactly a year later the father writes to Mr. Searle and Mr. Newton (who were merchants, and had furnaces for boiling sugar) hoping that they have arrived safely, and that the saws are disposed of. In November, 1664, fourteen dozen and four saws came back from Barbadoes, and as they would no doubt be very rusty, a smith was to be got to black them. Fourteen hundred weight of sugar came at the same time in payment for those that were sold; for at this time, in the absence of exchanges and foreign investments, imports and exports really balanced each other. In July, 1665, nine dozen of "those old wandering saws" were disposed of, and in August the remainder.

I suppose the sale of the sugar was profitable, as in September, 1665, 7,232 pounds weight (that is, three punches) of Muscavados sugar arrived, and six bags of cotton wool. This was a fresh deal, and I do not know with what article of commerce it was eventually paid for. One hundred weight of the sugar was to have been sent down to Renishaw, but it proved too coarse, and

though it could have been better sold at Hull, was eventually all disposed of to a grocer in London.

Of smaller articles, I find that hammers were sold at £7 per ton, and a few smoothing irons were made.

NAILS were made on a large scale by Francis Sitwell, the eldest son, at Gainsborough, and he had workmen in Eckington also. Between May, 1665, and October, 1666, his father sent iron to Bawtry for him to the value of £830; this was almost entirely slit iron, which I suppose was the raw material for nailmaking. The trade, under the management of agents, was for many years afterwards a large source of revenue to his widow and family. He sent a large consignment of nails to Barbadoes, and in May, 1666, had sugar and cotton wool in return to the value of £40 16s. 10d. This was very probably the three punches and six bags mentioned above.

GUNS were also made in Derbyshire. In February, 1662, Mr. Clayton was making guns which report said were to be sent into Holland: "Wherein its said Sir Sachevile Crew is instrumentall to him by vertue of a patent he hath from his Matie."

The iron goods, turned out by forge and by furnace, were first carried over land to Mr. Jerome Phillips, the agent at Bawtry, and this had to be in summer, for in winter it was difficult even at a double charge. I find £1 2s. paid for the carriage of ten tons of iron pots to that place. Phillips consigned them to Tomson, the agent at Hull. In September, 1662, the former is paid eight guineas for the freight of 1,529 bars and six bundles of saws (in all thirty-two tons) from Bawtry to Hull. In January following, twelve dozen saws which ought to have been delivered at Gainsborough are lost, and the sender writes, "I have a jealousy of him who receaves it and sends it from Bawtry, he is growne a careless fellow, soe that I am resolved to have noe more to doe with him." To Phillips succeeded Matthew Lambe, and in July, 1663, he is blamed for having sent iron to Hull in "open catches to the great hazard of loosing it," for, as Leonard Cowley writes, "one was run upon ground, and had continued so for four dayes,

and whether it be now gotten off or noe I know not." Robert Steele, in consequence, takes his place, and has orders to send all the iron to Mr. Tomson, at Hull, in keels, and not in open catches. In February, 1665, George Sitwell writes—"I will send one to Bawtry to hasten away the plates, but know not how longe it may be before a vessell come thither wch goes through to Hull, for usually they are smaller vessels, and unlade at Stockwith into greater, wch is about seven miles from Bawtry." In January, 1662, saws which had been long since sent from Bawtry cannot be heard of, but are lying frost bound by the way: "Its not amiss they were not at Hull, for there is a shipp cast away wherin its pbable they might have beene." The freight of saws from Bawtry to Hull was sixpence per dozen, but on another occasion 5s. 3d. for a ton containing sixteen dozen; 12s. 3d. was paid for the carriage of two ton of pots over the same route.

The iron, upon arriving at Hull, was forwarded by Tomson to Ralph Franceys at the White Hart, Fryday Street, London, a cousin of our merchant's. The Dover dues being paid, it was landed at Porter's Quay, the porters informed Franceys, and his man came and weighed it. I find that the freight of saws from Hull to London was one shilling per dozen, the wharfage and portage came to threepence per dozen; and Franceys or the man who procured them to be sold had the usual commission of £1 10s. per cent. for factorage, and sixpence per dozen in addition.

The ironmongers who bought were Westerne and Charles Harvey, near the Dice Key, in Thames Street; Brice, of the same street; John Roper, at the King's Arms, in the little Minorities; Thomas Cooper, a quaker, at the Dripping Pan, in Great Wood Street; Andrew Trubshaw, of Cole Harber, and his brother James Trubshaw, of Birmingham; Mr. Sled, of Southwark; Pellet and Collier, Haver and Ingram, Thomas Pemberton and his partner John Finch; Nunn and Salter, Hugh Mason, James Clarke, Spencer, Strickland, Billing, Tyler, and Cromwell. I find so many tradesmen with families located at Inns in London,



that I am inclined to suspect that these were rather used as coffee houses or clubs than as residences.

But iron was sold in the country as well as at London. Large quantities were bought at the furnaces. Bar iron was sent to Sheffield, and to Boston, in Lincolnshire, and in greater amounts was delivered at Nottingham Bridge, and at Derby. The smaller articles, such as saws, were sent occasionally by wagon, in one instance from Bredsall to London.

There were no country bankers in those days, and the work which they now undertake had to be performed by every man for himself. Money was sometimes sent by the carrier, for I find fifty pounds in one journey, and nearly as much in two others, brought from London by Hemingway, the Chesterfield carrier: but bills of exchange or returns were invariably made use of. Returns from London could easily be obtained at Chesterfield or Sheffield by anyone well-known in those towns, but a comparative stranger would get a friend to send his servant to direct him to the likely people. Occasionally, however, we find someone "labouring" to get a bill without success. In order to make the process clear, I give a few extracts.

G. S. to Mr. Copley, febr: 1: 1663.

S<sup>r</sup>, I have yours of this date wherin was this enclosed bill, wch I send you back, for I have none occation for mony at London, but have some there wch I would gett returned for my more then ordinary occations at prsent for mony here; yf you please to lett your servants looke about they may finde returns:

G. S. to Lionell Copley, March 16: 1665.

"You talke of 200 li you have att London which will be due before the 24<sup>th</sup> of this moneth, why doe you not looke about to get it returnd. if you will send Tho: Blake to Chesterfield the next Saturday Tho: Starky shall goe alonge with him to assist him."

G. S. to Cosen ffranceys August 27 1664.

"This day fortnight John Finch the Ironmonger will be with you, and hath faithfully pmised to pay six hundred pounds to you, for iron wch he bought of me; I have contrived it soe that it will be noe trouble to you, but onely to goe into Paules Churchyard to one M<sup>r</sup> Joseph Sheldon who lives at the Golden Kay there, and tell him you have order from me to see soe much paid to him for my Cosen Jnr. Roger Allestreys use. M<sup>r</sup> Jeremie Halfhid

Mr Porter's ptner at the Naked Boy in Paternoster Row hath entreated me to accept of a Bill from my Lord Scarsdale for an hundred pounds to be pd to M<sup>r</sup> Halfhid, wch I entreat you to doe when you have soe much of myne : he tells me my Lord ougut it him a great while ; he hath laboured a long time to gett a bill, & now at length hath prvaild."

Occasionally the bills were not accepted ; the person upon whom they were drawn was out of town ; and when, after some delay, he returned did not find the money, though frequently called upon for it. They were usually payable at seven, eight, or fourteen days sight.

The rate of interest for borrowed money was at this time artificially kept down by legislation to 5 per cent., a figure unnaturally low for a country in which commerce and wealth were rapidly increasing. By an Act passed shortly before December, 1665, all persons who should furnish his Majesty with goods or necessaries for the navy were to receive 6 per cent per annum on the value until the account were paid, an indication that the lawful rate of interest was below this figure. But economic laws, or, as we now more truly term them, economic tendencies, when banished to the planetary system have a way of returning with meteoric violence ; and we accordingly find that, in addition to this 5 per cent., a mysterious gratuity was often expected or paid. Twice I find it paid without remark, and once a borrower returns the loan, as he has heard that the lender expects something beyond the interest. Money, which was easily lent, was not, however, in general so easily recovered, as witness a shoal of letters to Lionell Copley, who invariably defaulted at the last moment, after the most convincing promises. When a lucky and experienced creditor received back the amount of his loan he returned to the bearer the purses in which it was contained.

Land was the only investment for trade profits which were not required for the enlargement of business, or for the advancement in life of a merchant's sons, and twice in the course of these letters there is a reference to the purchase of land. It is possible, however, that a large amount of ready money was kept in the curious oaken chest which has just been discovered

at Renishaw, unless this was intended for the concealment of arms in the Civil War, or of title deeds. This chest is evidently later in date than 1600, because it is an insertion between the joists of the floor, and not part of the original design. It is clamped together and to the joists on either side by strong bands of iron fastened by very ancient nails, and was probably covered by a sliding board. I have sent a short account and measurements of it to the *Reliquary*.