In the 1972 Journal we began to include those parts of Rudder's "Gloucestershire" which seemed relevant to I.A. and in the last two years covered from Abbenhall to Cirencester. Since this Journal is largely concerned with the Forest of Dean, which is included in a general way at the beginning of Rudder's history, where he divides the county into Coteswold, Vale and Forest, excerpts are here made from his introductory section.

OF THE COTESWOLD, OR HILL COUNTRY.

This country was always famous for feeding numerous flocks of sheep..... before the woollen manufactures were brought into England , and from that time 'till the reign of queen Elizabeth, we were supposed to derive great advantages from the sale of unwrought wool to the Flemings; therefore breeding and feeding of sheep was the general practice, and it might perhaps be encouraged by government , for the king had a large revenue arising from the sale of that article.

Mr Camden, who was a diligent inquirer, and faithful historian, takes notice of the wool of this country, for its whiteness and fineness, wherein he has been followed by a great number of writers who had either never seen, or seeing, had no judgment in that article. What kind of wool this may have been four or five hundred years ago, I can have no knowledge of, except from history; but can speak with certainty as to the present condition of it. The sheep of this country incline to the large size.... the farmers have both enlarged their flocks and improved the breed, by introducing the Leicestershire ram..... They are esteemed the stoutest sheep in the kingdom, and bear prodigious fleeces, the hair of which is coarse and long; so the the coteswold wool, which was never fine within the memory of any man I have conversed with on that subject, is now become still coarser, by thus mixing the breed. The longest sort of it is combed for worsted stuffs, whilst the short is wrought up in cloth for the
army, for the East-India company trade, and other coarse goods. Herefordshire, one of the adjoining counties, may justly boast of the finest fleeces in the kingdom. The difference in the quality may in some measure be judged of by their respective prices in the same year. In 1767, the best coteswold fleeces sold for 8d 3qrs. a pound, when the best Herefordshire brought two shillings.

There is no coal-pit in this part of the county; but at Stratton, about a mile from Cirencester, they have often found what the miners call plodding-coal; particularly as the labourers were digging a well, about four years since, a good quantity was taken up there. I have now by me three specimens of different fossil substances found at that time, one of which is the common pit-coal; another is very black, with a grain perfectly resembling a piece of oak, and not so heavy as the first; the third is a piece of iron ore. There is a great probability that a good stratum of coal might be found there, as every appearance seems to indicate it, and I am told that the plodding-coal is a circumstance of the strongest presumption of it.

About twenty years ago, the workmen discovered a small vein of coal, of an inch thick, in one of the fine freestone quarries, in the parish of Barnsley. It lay nine feet below the surface, upon a bed of blue clay. They traced it 'till 'twas imperceptible, and I don't find that circumstances encouraged them to examine further.

Coal has also been found in the parish of Siddington St. Peter, by people that were digging a well there, the water of which was so black and stinking as not to be fit for culinary purposes. Mr Bathurst, who was lord of the manor, was informed of the discovery, and it is astonishing that it was not followed by a strict and careful examination, in order to the opening of a pit, especially as there was a great probability of success. A good coal-mine in either of these places, round which for many miles firing is dear, would be a prodigious treasure to the proprietor, and a great advantage to the country, which is supply'd by land carriage with that necessary article, either from the pits beyond Sodbury, or from Gloucester, both at great distances.

OF THE VALE.

Camden says, the reason why so many places in the county are called vineyards, was, on account of the plenty of wines made here; "and that they yield none now, is rather to be imputed to the sloth of the inhabitants, than the
indisposition of the climate." But with Mr. Camden's leave, the lands are employ'd to better advantage, and it is for that reason that we have no vineyard in the county at present.

In this Vale is made that fine cheese, so deservedly esteemed not only in Great Britain, but in all countries wherever it has been carried. The hundreds of Berkeley, of Thornbury, and the lower division of Grumbald's-ash, produce the best. It is made of various thicknesses, from about ten pounds to a quarter of a hundred weight each. The thick sort is called double Gloucestershire*, and double Berkeley, and usually sells upon the spot at six-pence a pound. It requires to be kept to an age proportionable to its size and richness, to make it ready for the table.

Cider is another production of this Vale, in which I believe no county in the kingdom can rival it. There is a great variety of it, which I shall divide into three classes: 1. The stout-bodied, rough, masculine cider, made of Longney-russet, Hagley-crab, Winter-pippin, &c. 2. The fullbodied, rich, pleasant cider, of the Harvey-russet, woodcock, golden-pippin, winter-quinning, &c. and 3. A sort made of the Bodnam apple, foxwhelp, and various species of kernel fruit; which, tho' I have placed last in order, might perhaps have stood with more propriety in the second class, being of a middle nature between the other two, as partaking of the properties of both. There is also some styre made in the vale, but not in that perfection as in the forest of Dean.

Perry being a liquor of a distinct species, must not be omitted. The best of the produce of this country is made of Tainton squash pear, the Barland pear, and the mad pear. His late Royal Highness the prince of Wales, father of his present Majesty, on his tour through this country in 1750, gave it the name of La Champaigne d'Angleterre. It is a delicious, sprightly liquor, when in perfection; but a person when hot should never drink of it freely.

Most places in Gloucestershire, within ten or twelve miles east and north-east of Bristol, abound in coal mines, some of them of prodigious depth, and are therefore greatly incommoded with water, which is taken off by means of fire-engines.

* For the making of Single and Double Gloucester cheese see "Cheese making and cheese chambers in Gloucestershire" by V.C. Nielsen, Gloucestershire Historical Studies 1967.
The coal is something of the nature of that of Newcastle; about one half of it rising in large lumps, the rest about the size of gravel, but when thrown upon a good fire, it melts, forms itself into one mass, and is very durable. The upper part of the county is supply'd with coal out of Shropshire, down the river Severn, which burns quick and lively, but is not so durable as our own.

OF THE FOREST OF DEAN. OF ROYAL and other GRANTS, &c.

HENRY II. granted to the abbey of Flaxley two oaks out of this forest every seven days, for the maintenance of a forge there.

HENRY III. It was found by inquisition that the monks of Flaxley had a forge for making of iron there 4° regni; The same year the judges itinerant ordered that none should have an iron forge in the forest, without special licence from the king. - Walter de Aure, and Maud de Cantelupe, had each of them an iron forge 5° regni. -... Henry earl of Warwick had a forge in his woods at Lidney, and other iron forges in the forest 10° regni. -... The king finding the grant of the two oaks every week, which the abbat of Flaxley had obtained of his grandfather, so injurious and destructive to the forest, granted the monks a wood, in recompense for the said two oaks 42° regni.

EDW. I. Henry de Chauworth had a forge here 2° regni. -

EDW. II. Henry de Chaworth had a forge here. 2° regni. -

EDW. III. Tythes of the iron-mimes were granted to the bishop of Landaff 6° regni. -

HENRY VII. The king by letters patents 24 Sept. 1° regni, granted the mines of Newland to Thomas Motten for his life, without rent. - And by like letters patents, 1 Feb. 1° regni, he also granted the mines beneath the wood vocat. Le Gawle, to John Motten for his life, without rent.

JAMES I. The king by letters patents, 7 Feb. 9° regni, granted to the earl of Pembroke a lease of the forest of Dean, together with the iron-ore, cinders, coal, and wood for making charcoal, with many other extensive liberties and privileges, for 21 years, at the rent of 2433L 6s. 8d. - The king by his letters patents, 30 June 16° regni, granted to William Wintour, esq; and William Bell, at the nomination of divers persons therein men-
tioned purchasers, in consideration of 1074£. 8s. several messuages, lands and tenements, called assart lands, purp-
restures, and other lands and tenements belonging to the crown, lying in the forest of Dean, at the rent of 5s.
saving to himself and his successors, all mines, quarries of sea-coal, & c. And Wintour and Bell covenanted that the lands should remain under the forest laws.

CHAR. I. The king by letters patents, 28 May 1° regni, granted to Sir Edward Villiers, knight, and to his heirs, a part of the waste soil of the forest, called Malyscott, together with all woods growing thereon, and all mines, &c.- The king, 16° regni, disafforested the whole waste soil, and by his letters patents dated March 31, the same year, in consideration of 10,000 £ then paid, and of 16,000 £ more to be paid in six years, and of a fee-farm rent of 1950 £ 6s 8d to be paid for ever, granted to Sir John Wintour, and to his heirs and assigns, the chestnut wood or coppice, in lease to Richard Brayne, and the Snead and Kidnals, in lease to Tristram Flower, and others; and all those his majesty's coppices, woods, lands, and waste soil in the forest.... and all the mines of iron, tin, lead and coals therein..... and power to make salteries in his own lands of Lidney, &c. all royal mines excepted.

The foresters, as such, had long enjoyed many considerable privileges and advantages, and tho' generally well affected to the king, could not with indifference see them granted away to a favourite with this prodigious estate, which Sir John began to inclose. Therefore in the great rebell-
ion, the inclosures were broken down, and the forest was almost totally destroyed.

CHAR. II After the restoration, Sir John would have repaired the mounds, but was opposed by the whole country round about; upon which a commission issued out of the exchequer to Henry lord Herbert, to inquire into the condition of the forest &c............ Sir John Wintour, in obedience to his majesty, by indenture dated 28 July, 14° regni, in consideration that he should have the Snead and Kidnals, containing 280 acres to himself and to his heirs forever; and also in consideration of 30,000 £ then due to him, on account of his patent, surrendered and yielded up to his majesty all the particulars granted to him by the late king, except the Snead and Kidnals, and except the authority of free warren, and of making salteries in his own lands. And an act passed 20°c.2.c.3. which made the disafforesting of those lands, by the late king, null and void.

By this act, the waste lands of the forest were reafforested, ..... And all future grants of the wastes, or inclosures, or of mines, or quarries, are made void. The king is
impowered to inclose 11,000 acres, to remain in severalty
in the actual possession of the crown for ever, as a
nursery for wood and timber only. There is the proviso,
that all leases made, or to be made, by the king, his
heirs or successors, to any person, for a term not exceed-
ing thirty-one years, of the coal-mines and quarries of
grindstone, in the forest, shall be of like force as if
this act had never been made, except of such coal-mines,
&c. as are, or shall be in any part of the 11,000 acres
alotted for inclosing, whilst they shall continue inclosed.

OF THE COURTS OF THIS FOREST

....Another court, called the mine-law, is held before the
constable of St. Briavel's, as steward of the court, or
his deputy, for the trial of all causes arising between
the miners, &c concerning the mines, &c. . . . . . . . . . At this court,
one are to be present but the constable, or his deputy,
the gaveller, castle-clerk, and free miners, who must be
natives of the hundred of St. Briavel's, and have worked
in some of the mines at least a year and a day.

In the act of parliament 20° 0.2. concerning this forest,
is a clause, wherein the lawful rights and privileges in
all lands and grounds lying within the perambulation and
regard of the forest, are saved to the miners, and persons
using the trade of digging for iron ore, coal, and ochre.

Before the passing of this act, many disputes had arisen
between the miners and others, concerning rights and
customs, which remained unsettled; but now the miners,
considering the forementioned clause as a confirmation of
their antient privileges, began to call themselves the
free-miners, and the king's miners; and their court a
court of record.

At a court, holden the 16th of Jan 28° C. 2...... an order
was made to raise the price of coals, from 4d to 6d the
horseload, and another order was confirmed, for taxing
every miner and carrier, with a quarterly sum* (They
are said to be able to raise about 40 £ at 6d per head),
to defend themselves in all suits that should be brought
against them...... From this time the court proceeded
with greater freedom; and I find of no opposition made
to it 'till the year 1752, when its authority was put to
the test.

Causes tried at this court are not determined by the
forest laws, or by any written laws of the realm, but by
such are peculiar to the court itself. The miners exer-
cise the legislatlive power, and make new laws for their
convenience, as often as they see occasion.
PRIVILEGES OF THE FORESTERS.

The free miners claim a right by prescription of digging iron ore, and coal in the forest, and of carrying their coal works, begun there, into the inclosed lands adjoining. They also prescribe to cut timber out of the forest, necessary for carrying on their works, as well in the lands of private persons, as in the king's soil. These are very extensive privileges; and as it may be entertaining to some of my readers, I shall endeavour to trace out the gradual progress of their claim.

Very antiently, the crown erected works to manufacture the vast abundance of iron-ore, found in the forest; and generally, the works and mines of ore have been let to farm; and it appears that the miners had a penny a horse-load paid them, for supplying the king's works with ore. At the same... some of the keepers of the balliwicks claimed iron-ore and sea-coal, (dead and dry wood and windfalls) and had their claims allowed.....

That the chief property of the mines was antiently in the crown, seems evident from the above inquisitions; and also from an antient grant which the abbat of Flaxley obtained 42° H.3. of a large portion of the forest, wherein the mines are excepted and reserved to the king. It is equally evident, that they were claimed by the crown, in James the First's time, from the grant of the forest of Dean, made to the earl of Pembroke 9 regni, already noticed, wherein the ore, cinders and coal, &c. are expressly mentioned...... In several leases and grants made to others in the same reign, the mines are reserved.

Soon after this grant to the earl of Pembroke, the miners began to dig ore without the earl's consent; and claiming a right of so doing, the attorney-general, at the earl's instance, filed an information in the exchequer against several of them. The court, upon submission of the defendants, acknowledging the soil to be the king's, and that they had no interest therein; and representing that they had been used to mining only, and had no other way to support themselves and families, made an order that the inhabitants of the said forest, who had been used before that time to dig and carry mine, ore, and cinders, should be permitted, of favour and grace, and not of right, to continue the same until the hearing of the cause, so that they carry them to his majesty's works; and if there refused at the usual prices, that they be permitted to carry them elsewhere. This seems to be the foundation of the miners claim, as probably at that time all parties acquiesced.*

Sir Richard Catchmaid farming some lands in the forest,
19° Jac. the miners dug, and claimed a right to dig, grindstone on his farm, without Sir Richard's leave; for which the attorney-general filed an information in the exchequer, against some of them. The court, without decreeing concerning the right, on account of their poverty, recommended it to Sir Richard, not to oppress them for so trifling an article, the stones not being worth more than the labour of raising them; and it seems they paid 3s 4d each, as an acknowledgement for digging.

About 27° C.2. they first carried their coal works, which had begun in the forest, into the inclosed lands adjoining, which occasioned several contests at law, between the freeholders and miners. And in 1752, the governors and company of copper-miners, in England, commenced an action against one Phillips and others, for breaking and entering their close. The defendants justifying, pleaded the custom of the free-miners entering the lands of all other persons, as well as of the king, within the hundred of St. Briavel's, by the licence of the king's gaoler, entered, &c. and paying the king certain dues. Issue was joined and the custom found by the jury, before Mr Justice Birch, at Gloucester assizes.

During king William's reign, and the latter part of queen Anne's, the miners were allowed to take wood, but not timber.

SOIL, PRODUCE, MANUFACTURE, &c. OF THE FOREST.

Our enemies have always been sensible of the great advantage we derive from the oak timber of Dean forest, which is perhaps the best in the world for ship-building, being extremely tough and hard when dry, and not so apt to splinter as that of the growth of other countries.

The soil of the forest is also particularly agreeable to the cyder-apple. Styre cyder is almost peculiar to this district, and yields a most extraordinary price. But besides this particular sort, it is the opinion of very competent judges, that the foresters make the best cyder in the kingdom. In the year 1763, was such a plentiful crop of apples, that great quantities of them were suffered to rot, for want of casks to put the cyder in; yet even in that year, the best old styre sold at fifteen guineas the hogshead, and is since advanced to twenty. In deed there is no fixing the price of it, being chiefly purchased by persons of fortune.....

The forest is full of iron-cre, coal, and ochre, and the waters of many of the springs and rivulets, as they run
along, tinge the stones and other substances, lying in their courses, with a reddish brown colour, received from the iron-mine, and ochre, thro' whose beds they pass.... (Mr Worrall's iron ore specimens.)....

The forest coal crackles much when first thrown on the fire, and burns very bright.... The pits are not deep, for when the miners find themselves much incommoded with water, they sink a new one, rather than erect a fire-engine, which might answer the expence very well, yet there is not one of them in all this division. They have indeed two or three pumps worked by cranks, that in some measure answer the intention.

Great quantities of iron cinders are found in all parts where blomaries were formerly erected. Some of them are very rich and valuable, and being mixed with ore, not only help to flux it, but render the metal tougher, and of better temper.

The furnaces for melting the ore are built of a gritty stone, dug out of the forest, that will endure a fire intense enough to melt or break down almost any other material. The grains of this stone, says Dr. Grew, must therefore be insuperable, yet not so united but that the stone is somewhat soft and crumbly, of a dirty colour, like fuller's earth.

Some furnaces are between twenty and thirty feet high. The cavity is in the shape of a crucible, and about seven or eight feet in diameter, at the mouth. They are generally built against a bank, or at least one is thrown up against them, that the workmen may ascend by a spiral kind of path, to throw in the materials at the mouth; first ten baskets of charcoal, then ten of cinders, and lastly the same quantity of ore; which is repeated every half hour. The blast is made at a hole about three inches diameter, towards the bottom of the furnace, by two vast bellows near thirty feet long, which are driven by water, and work alternately. There is a hole still lower, to which a plug is well adjusted, where they let out the dross, which by the violent action of the bellows, is separated from the metal in fusion, and being the lightest, lies at the top. Quite at the bottom of the furnace is another hole, with its plug, which is drawn out once in twenty-four hours, when the iron runs upon a bed of sand, laid upon the earthen floor, from the furnace to the length of thirty feet. There is a large groove impressed in the sand, from one end of the floor to the other, and short ones all along the sides of it, one end of each of which enters into the large one, that serves as a common conveyance to carry the metal into the short ones, where the pigs are cast. That which fills the large groove is called the sow, and is broken into convenient lengths for working.
From the furnace the sows and pigs of iron are carried to the forges, which are of two sorts, one of which is called the finery, the other the chafery. On the hearth of the finery, is a large charcoal fire, excited by bellows like those at the furnace, but not so large. They put the ends of two or three pigs or sows into the finery together, where softening gradually, they stir and work them 'till the metal runs together into one mass or lump, which they call a half bloom. This they take out, and giving it a few strokes with their sledges, they carry it to a great weighty hammer, raised likewise by the motion of a water-wheel, where it is presently beaten out into a thick, short, square figure. This is put into the finery again, and being made red hot, is worked under the same hammer, to the shape of a bar in the middle, with a square knob at each end. Lastly, they give it another heating in the chafery, and more workings under the hammer, 'till they have brought the iron into bars of the required shape and size.

About six years ago, an experiment was tried at Lidney to make iron with pit-coal, charred to discharge it of the sulphur, which renders the metal friable; but it was not found to answer, otherwise it would have been a prodigious saving to the iron-master, as wood gets dearer almost every season, but the coal-mines are inexhaustible.

The large iron furnaces now in use, were first erected by the crown, not long before 1617, as appears by the return to a commission issued out of the exchequer in that year. The sort in use 16 E.1. was called forgeam errantem. I conclude this sort was carried from place to place, and worked by hand. It was certainly owing to their using machines of little power, that our ancestors left the cinders so rich and full of metal.

* (page 47) Rudder cannot be correct in this supposition, since as early as 1300 the Forest of Dean miners already enjoyed their privileges. (H.G.Nicholls, The Forest of Dean. Page 15)

** Coke for smelting did not come into use in the forest until the late 18th century, when it was used at Coleford in 1795, Parkend in 1799. Charcoal continued to be used at Flaxley furnace until 1802 and at Redbrook probably until 1816. (Dr. C.Hart. H.M.G. Vol.2. No.1) Hard coking coal was not present in the forest, as at Blaenavon or Merthyr, otherwise the Forest of Dean could well have become pre-eminent in the coke blast furnace industry. (H.M.G. Vol 2. No.l.)