

CHAPTER 1.

Workers of the land - Gloucestershire Poll Tax 1381 – The Bishop of Bath & Wells - Lord of Chard Manor - Sir William Petre - The open field system – Land share – Enclosure - Wool - Extracted minerals – Transportation - Metal working – Pewter – Ironmasters – Tanning - Ball Clay - Tobacco-pipe manufacture – Mill power - Weaving.

Documents record that Collins is a Norman name, derived from Colin. The family found its way to the West Country in 1381 - the Gloucestershire Poll Tax confirms this, and by the fourteen hundreds, the family became established '*workers of the land*'; bound to the soil within Chard's manor boundary... there they worked looking after the lord's sheep on common land, '*the waste*', [*beath, woodland and marsh*] which encircles Chard, and its sub-manor Tatworth...

Pre-history Iron Age was a period in England of forest clearance and a settled population. The countryside was dotted with settlements made up in the main of extended family units. It is highly likely that Tatworth had a few homesteads for it was surrounded by a rich countryside with ample water. This period lasted from about the middle of the first millennium BC until the time the Romans invaded. Celtic people populated the West Country originally from Ireland and Gaul of the Durotriges Tribe. During the Roman occupation of Central and Eastern Britain, there was a great deal of trade. The Romans left the West Country alone not fearing any attack. [The relative isolation of the West Country, other than coastal trade, continued until after The Dark Ages – almost up to The Hundred Years War and the building of Exeter Cathedral.]

The rural *pagani* worshiped their native gods speaking in the Celtic tongue – gradually adopting Latin closer to the line that separated Roman Britain and the Celtic West Country. The west of England was consolidated into Saxon England proper towards the end of the first millennium, which encompasses The Dark Ages and Aethelred I. Over a hundred years later King William's Domesday survey catalogued in 1086 declared that Chard was owned by the church. The land was taxed so that there was no exemption from paying royal tributes, which included providing armed men. As the land comprised eight hides and one man was to be provided per six hides we will be generous in stating that The Bishop had to provide one armed-man for the king's service. The Bishop had to pay towards the upkeep of bridges and highways... he also had to hand over any fines [fees] from legal jurisdiction. He may have been able to levy fines and receive them instead of the king's sheriff but that privilege was not universal. The first time we come across the name Thatteworhe is about 1320 relating to someone of that name holding land attached to a dwelling house.

Up to the late Middle Ages, the power in the land lay with the king, who owned all the land. The king awarded some of his land to relations and those who helped him – his lords. Both the king and lords gave land to the church so that they might be redeemed.

The result of The Black Death, which reached Chard in the autumn of 1348, was that it gave power to the workers. The population had been reduced in numbers making those left worth a great deal more – they could now demand better conditions – which is what they did. The Bishop's steward, fifty years later, found that low prices and high wages – demesne farming, was no longer profitable. The landowners sustained their position for twenty years after the end of the plague using their powers. However, in the end they could no longer continue to pay the peasants' demands. The Peasants' Revolt in 1381 was the outcome..., which in the end was firmly suppressed.

The Bishop of Bath was the district governor and owner of Chard Manor. He represented the church here and at other manors - in his diocese. He was a member of the king's council and one of the country's leading magnates, and often the holder of high offices of state. To oversee all the

churches property and land he travelled continually accompanied by his secretaries, servants and guards. At each manor he controlled there would be his steward who ran the estate in his absence. Over time - by beneficent work and prayer, the church had been gifted over forty percent of the land. The 'lordship' of land is about its benefit to the lord, '*hide*' refers to an area of land of about 120 acres and *virgate* measures about one quarter of a hide.

The armed man provided by the owner of the land, tenant in chief, to the king's service was not just a swordsman but also 'a man at arms' or knight. The knight also held land which he sublet and lived off the rent, or employed a steward – he usually held the largest free holding in the manor – sometimes he represented his holding as 'his' manor. The steward acted as a local administrator to run the *demesne* of the knight, when he was away serving the king, appointing a *reeve* [magistrate, organized labour and collected rents] and a *beadle* [parish officer, enforced law and order] from names put forward by the villagers.

All the inhabitants of Chard – the Manor, and Tatworth – the sub-Manor, knew their place in society. It was a 'feudal' society, which meant that it was a society based upon families within a community - where each person relied upon the other. Land was owned by the lord in return for 'homage' and 'fealty' – recognising the power and rights of the king, which the land owner had to defend – in reality both protected each other. The land was held on condition and service – a fiefdom. Homage referred to an acceptance by the knight that he recognised and respected the king's position – to which he swore an oath of loyalty.

Over a period of about two hundred years, this tenure changed as much by the increase in population as anything else. Land became transferrable from one generation to another – it became one of inheritance. The land then became enfeoffed by common-law owners.

The lord was most reliant upon his workers who were the villeins. Their sons had to have a house. Itinerate serfs needed a home too. There was ample land and in most part, individuals built their own home, perhaps bartering help from neighbours... It was wise to tell the bailiff and seek his approval which was easy to do labour was sorely needed - if the lord's position was to be maintained. There was not a strict plan to be upheld houses were built close to the areas being worked. It was normal to try to build close to housing materials, fresh water, and ease of cartage, near neighbours and close to the church. The bailiff would advise taking a small parcel of land not occupied on waste ground – which would be close to the forest or wood... This ensured that arable land was not lost.

The main upright structural members, which support the beams and roof would be buried into the ground. Large horizontal timbers called plates would be morticed into the posts. These would stop the posts from sinking and distribute the weight of the building. Depending on the surrounding ground, there may be sunken stones or logs providing a foundation – the posts jointed into the plate, or the walls half built of stone. However, we must not get beyond our self for the serf or villein neither had the time, help, tools and expertise, to form such a structure. Their simple structure was a pole house needing no sawing only the splitting of green timber. Lesser posts were the uprights to support partition rails, which together make up a frame or panel. These wall panels were made up of woven split canes, similar to a hurdle. A mud and dung daub filled the gaps. This would soon become a hovel with a compacted earth floor and a fire burnt upon stones set into the centre of the floor area. Smoke would dissipate through the rather rough thatch... such a hovel would soon deteriorate and the roof to sag. Depending on the character of the man that lived there the place would either fall into total disrepair or it would be maintained, improved and part rebuilt.

The improvement upon a simple pole house was a post and beam building with rails, rafters and braces, and a crown-post roof. The wattle and daub walls replaced with shuttered cob... better still a stone and flint infill, using a lime mortar. The single large room partitioned and a floor above

with dormer windows... but this was years later after The Black Death when the workers conditions improved - their labours better appreciated.

The villager who wanted a dwelling either negotiated a plot with the bailiff or squatted. There was an excess of waste ground and the village needed labour. It was a do-it-yourself building although there was usually somebody close to superintends the building – either a family member of a close neighbour who had knowledge of such things. The site would be marked out taking regard for access to the site and availability of wood, gravel, sand, mud and lime. A trench dug out to accommodate the foundations, which was filled with stone cleared from the site. There was no need to consider drains for these would be external. Close to the site, a pit would be dug to mix up the daub, cob, plaster, and lime. If this sound rather slap happy it wasn't. All these mixtures had similar components and to some extent worked. The frame of the building was of wood or the walls built of cob blocks, stone, flints, or shuttered cob or a selection of all, perhaps you could lay your hand on some old Roman bricks or stone from a disused house, church, or barn. Once again, this choice relied upon what was on the site - or close to. Cartage was a problem. It was rare for the villager to have his own cart, or the loan of one. Nor did he own a horse. What had to be transported to the site had to be carried? If you had to do this, you made very sure you had enough materials on the site before you began, and the most easily made up compound was a mixture of mud, chalk, flints, stones, straw or chaff and cow dung. If you added stones, sand or flint to the mixture it became hard to mix so that that leaves just a mixture of mud, chalk, clay, dung, chaff and soil. Whether or not you baked the chalk or lime was probably doubtful. The longer the mixture was kept together in the pit with sufficient water to soften it the better. Here I am talking about six months, for all the components had to be fully saturated and rotted to break up into particles. Therefore, you see its best to think about the structure a long time before you begin to build the walls.

The most common method was probably the easiest, which was to build thick walls or stone. The largest stones were reserved for the base, which saved having to lift them up. The stones were assembled very much like dry-stone walling or building with brick or block - to make the inner and outer surfaces' interlock to give rigidity. The mixture of chalk, lime, clay, and mud pushed and placed between and about the stones to give a secure base for the next layer and to stop any draughts blowing through.

In an area providing sufficient stone, much of that picked up off the ground by stone-pickers who were paid a contract rate – so much per cubic yard in preparation for planting, building with stone was the obvious answer. Similarly in areas of slate and flint. In deciduous woodland clearings, the land gave the split green wood to make timber-framed houses associated with the Tudor period and in areas planted with pine, the pole houses the simplest construction method. The relative scarcity of wood dictated the use of cob in Tatworth.

The easiest way to use cob was to make blocks using a mould, allowing the cob to dry in the sun – very much like the original way of making clay bricks. This took longer but in the end was more precise. Constructing wooden shuttering either side of the wall then packing, the cob down inside was perhaps the faster method, but took longer to dry out. For some villagers simply piling up the cob into layers allowing each to partially dry out before the next placed on top was the easiest. Making the sides true and square with axe and saw, trimmed it into shape. The quick, but holding the shortest life span, hurdles, or wattle tied against stakes driven into the ground, daub pressed into it from both sides, and smoothed off. All these methods were used allowing a large overhang of the roof to offer protection to the walls. Giving the inside and outside wall a wash of lime gradually built up a hard rainproof surface. Making sure, the rain drained away from the wall base kept the building relatively damp proof. Ultimately, it was continuous maintenance, which secured the longest lasting building, and having a well founded thatch the key to that.

It must not be thought that cob, timber framed or pole houses, flint, slate, or any of those other building materials were inefficient building materials, which had a short life span. They were used hundred of years ago, are still able to be seen today, and lived in. Nor must one think that the builders in the past were incapable of building attractive long lasting houses that leaked, were damp, and disintegrated.

Research reveals lime and brick kilns operating in Tatworth whilst cob extensively used. Lime burnt, crushed, and mixed with water made an excellent protective coating and many of the houses were thatched. A full range of attractive bricks was made as well as drainage pipes and roof tiles.

The first dwelling construction was of a single room housing the family and its animals. In the centre the fire. This 'hall-house' gave way to the smoke bay house where part of the end of the hall was given a first floor, reached by a ladder. A space was left over the hearth for the smoke to travel up to the roof. In later times, the hearth made into an inglenook open on both sides – this structure becoming a hollow dividing wall – the fire heating both rooms. It was not long before the cooking was done in a separate room either partitioned off or built as a lean-to onto the original structure. The dwellings of the 1600s took the form of a conventional house with two rooms below and a number of bedrooms above. The original rough structures, built before this period were over time, improved, replaced, built onto and refaced... the hovel became the hut, the hut became a cottage and the cottage a farmhouse. A steady improvement over many years made the now quaint farmhouse much sought after - becoming a countryside residence upon the town's main road.

The hovel had no windows relying upon the open door back and front to give air, light and access for humans and animals. A later improvement, which required very little structural alterations, was to put in window slits - to direct light. The huts that came after, in the 12th century, had windows included with bars and shutters for security, and keep the winter draught out. Horn was also pared down to give a sealed light-penetrating cover but these have not survived. An oiled cloth draped over the hole was another method used – as a light emitting barrier. By the 1500s small paned mullioned windows were glazed having the panes tied to the bars. This was before grooved lead glazing bars were introduced - for the insertion of glass a hundred years later. The glass was blown and cut to fit giving at every blowing what is termed a bottle bottom, the rest was cut into very small panes. Later the glass was blown in a tube, removed - unwrapped - opened out, and cut... This latter method continued for decades. All old glass would have distortions created by blowing and are distinct. Whether the bars created a latticed diamond pattern or vertical and horizontal plan was incidental – a design feature.

By the 17th century, most open hall houses were converted to take a staircase and second floor. The buildings structure incorporated a designed series of fireplaces with the flues linked top and bottom – some sharing the same smoke chamber and chimney. It wasn't long before builders and architects became aware that it was best to add a kink in the flue to drawn air through the fire... and to stop smoke being sucked back into the room.

It did not take the government long to tax people on the number of hearths – rooms, the building had. This was the hearth tax of 1689. Parrocks Lodge had about twelve chimneys. Those houses where there were more than half a dozen chimneys could be considered the dwelling of minor gentry... below this number the house of a yeomen, tradesmen or craftsmen, and those with but one homes for husbandmen, shoemakers, labourers and shepherds.

Householders that paid less than 20s for their hearth tax, per annum, were exempt, as long as they did not own another property. This banding applied also to paying church tithes, rents and rates, and to those who were widows; Paupers also did not have to pay or the bedridden.

Chard Manor came about from its geographic position by sitting on a trade route – the main highway between Plymouth and London. When the Domesday survey was made, there were fewer than two hundred persons in the borough. By the time Queen Elizabeth I mounted the throne that number had increased to five hundred... A further two hundred years saw over five times that amount... then becoming an assize town, with buildings to match its importance

The lord's 'manor court', probably held at Chard Church otherwise known as Manor Church, was the place where disputes between all were deliberated and the results declared '*the custom*'. The court was run every three or four weeks by the *court baron*, whose declarations became local law – no appeal even at the king's court were countenanced. Other matters were not the business of the lord but for the *hundred court* to consider, presided over by the sheriff, on behalf of the king. The good behaviour of the citizens maintained by a system of *frankpledge*. These were groups of ten or so households called *tithings*, pledged to be responsible for each other's good behaviour – usually fixed prices of goods and maintained weight and quality. The tithing men and ale-tasters oversaw the assize of ale.

The church was an important part in village life. Many sermons proclaimed the hope of salvation, which had the result of making attendances regular. For the majority this became a habit, celebrating and proclaiming the rites of baptism, marriage, and death... celebrating too the Saint's day, Christmas, Easter, Lent and Whitsun, all helped separate the seasons... the peasant's work on the land - the tilling, sowing, reaping and harvest, given a rightful place in the order of service. All these special occasions drew the congregation together.

Saint Mary's Church, built c1440, in flint and dressings of local Chard stone was given castellations on wall and tower as decoration, was the centrepiece of the local community and provided a meeting place for the village. Bishop Jocelyn's courtroom of c1235, now part of the church structure, suggests that before the church was built the Bishop's Courthouse was part of the Bishop's farmhouse, which is a good deal older than the church. Chard Church has its own cemetery, which was a privilege not a right.

St Margaret's Chapel at South Chard was built in the 1500s served as one of St Mary's chantries – whose priest was given an endowment by the mother church to sing masses for the founder's soul. The chapel made oblations and donations for pious uses to St Mary's Priest. It was also used as neutral ground for local hearings particularly between the various religious bodies.

During the Reformation, Henry VIII made himself Head of the Church of England in 1534 – this was the pre-industrial age of English history. Henry's act abolished control of the English Church from Rome, and as the church was very strong - played an important part in English society, Henry assumed total power over all aspects of the society. This was also a dynamic age regarding the economy, which affected both towns and villages. From this book's point of view, this age set Chard and its satellite villages firmly on the map. As explained, the village of Tatworth functioned using a high degree of democratic control through The Bishops representatives working in conjunction with village-meetings - expressing concerns and electing the population's choice of leaders. The economy was centred on arable farming, the dairy livestock, woodland crafts and smithy.

Research declares that Tatworth was a sub-manor of about five hundred acres producing corn and livestock. The first possessor of the land was Sir William Petre in 1550 as a dependant paying rent to the Bishop of Bath & Welles. He was a tenant of the sub-manor working his service. He had no court for the bishop was the owner. His manor was in effect an agricultural holding.

A butcher of Tatworth, according to the Borough Court records of 1569, overcharged shoppers and was fined... This was not the only case recorded where shop owners tried to extract more for their wares than was acceptable. The manor court or assemblies, called '*Hallmoots*', controlled the actions of the population by the consent of the owner of the land - who had 'right of title'... in effect, the lord of the manor... and to the Bishop, being the representative of the church.

[In the instance of Chard manor and its sub-manor Tatworth the lord of the manor was the Bishop of Wells who was the district governor of The Church].

A manor was a certain amount of land granted by the king to some baron or lord; the king also granted land to the church for absolution. Locally it was in two parts. There was the *demesne*, which the lord retained for his own use and the rest, which was parcelled out to the tenant's *freemen* or *villeins* - held in villeinage, virgate or half-virgate land [A virgate is thirty acres] - in return for services. The land was allotted in hides or carucate, which was an area of land, which could be ploughed by one team in one year...

Each manor was a kingdom within itself... with its own customs... wholly at the mercy of the lord, who held the largest share of common pasture and wasteland. The tenants had certain liabilities besides supplying eggs and chickens... they had to perform *boom-works* at harvest and ploughing time... these duties were not linked to him but to the land he held... he however, was expected to provide '*aids*'.

The legal possessor of the land - who occupies it - as 'something passed down from generation to generation', holds it as his '*demesne*' [di'meen]. In the English village the lord of the manor owns, more often than not, 'home farm'. He also owns a number of strips in each field and sundry other parcels of land.

The lord charged rent for the use of his land that was collected by his steward or bailiff - who also had the task of allocating the land. The Bishop of Bath, being the district governor of the church, received a tithe - a tax of one tenth of annual proceeds of the land worked... collected by the Bishop's bailiff for the church commissioner.

Sir William Petre and his successors - the Barons Petre, were granted the sub-manor... and received, as a due, rent from each villager... This could be cash, produce or service. This 'right' depended on any number of circumstances - good or bad harvest, what work was necessary in the manor and war. Sir William also had to pay rent to the Bishop who was Lord of Chard Manor.

When first marked out the greater part of the manor was divided up into strips or balks. These strips were separated from each other by unploughed turf. The strips were not all the same size but measured about an acre... the length being a furlong - 40 poles, and the width, 4 poles. A furlong taken as being a suitable length to drive a plough pulled by oxen to make a furrow. A pole, rod and perch being the same length, the language difference being a purely local patois. Some strips were half-acres having the same length as an acre strip but half the number of rods wide. The strips lay side by side - separated by unploughed furrows, to make a number of separated strips - about a square acre. Each acre square separated by wider balks, which became over time overgrown, making a rough hedge. There was an important downside to this system of land share. The principle was that each year different strips were issued to every villager from the three fields - so that all had an equal chance of receiving the best and worst land. This collective issuing of land meant there was no incentive to treat the land well - knowing that it was to be re-allotted the following year. Another handicap was having to move any tools, hurdles and other farming paraphernalia to the new site wasted time and energy.

All the tenants' *vassals* in the manor were allocated a certain number of strips, in several fields, so that the best and worst evenly shared - some probably held land gained by military service. The head tenant was probably the sheriff, who held a virgate and considered himself a yeoman - a much-respected man in the manor. A lesser holding was the *cotland* holding five acres whose holder did not attend court, paid no rent or relief but provided services. Below the free tenants came the villeins - the baulk of the population - who did the main work. The villeins, customary holdings - tied to the land called *copyhold* land - copied into the rolls. The *waste hold* tenancy held less than an acre in return for a small rent. Sub-tenancies could be granted usually only by the head tenant from his own land, then the rent was due to him. People who owned no land - who rented, did not appear on the

rolls. Below them came the cottagers who might be called allottees and lower still the serfs who were really slaves that could be bought and sold in the market at the lord's pleasure. This became known as the '*open or common field*' system of cultivation. The common land, or waste, was shared too; in a similar manner - for grazing and haymaking... when the harvest on the strips gathered in this too put to graze using hurdles to pen-in the flock.

Where the strips touched head to head a gap was left to become the 'headland' - the place where the plough could be turned round, this area of land could be cultivated, but only after all the strips had been ploughed. If the strips were situated upon a hillside, terracing, or lynchets would occur. If one or a number of tenants worked thirty scattered acres of land this bundle of land was referred to as a *virgate* 'worked by a villein' therefore he became a villein tenant... the highest grade in the village hierarchy and served as jurors in the 'Halimot' - Court of the Manor. Even though a villein owned the land, he still had to pay rent.

Uncultivated land, bearing beech, oak and scrub, was prepared for future cultivation. The felled wood split for building houses, furniture making and fencing, and the better pieces used in the manufacture of wagons and farming implements. This clearance prepared land for the new generation to occupy it also helped develop the basis for new highways. Clearing land exposed rocky outcrops, gravel beds and chalk hills all to be of use building roads and houses of the future old town.

This manorial and monastical system, exacting rents and tithes for the use of the land, was, if fairly operated, for the good of all. The Lord and Bishop guaranteed security and stewardship... they needed the serfs, or villeins - to work the land productively, and ultimately, profitably, to maintain their position. The 'freemen' in the village were not subject to this tax, they owned their own plot of land or had a trade or skill needed by the lord. Unfortunately, none of the landlords were above taking advantage of their position, interpreting 'the king's will' to suit themselves - extracting more and more for their '*rights*'.

This development of the land and the overseeing of best practice in the seasonal production of food was not haphazard. It was about husbandry - cultivation by open-field farming where villagers worked their own strips of land in the company of others all within a large field. The tools, harnesses and heavy equipment shared as were the oxen. After the harvest all, the livestock turned out into the field to manure the land and partake of the feed. All this was done in 'common' - with everyone else - as a communal undertaking. There was no time for disharmony or discussion, the land and weather dictated the course of events. The methods of cultivation and husbandry worked out over the centuries. Everyone had to pull together and make the system work.

The strips of land allotted to each villager were long and thin specially designed for the ox-team to get in and plough. The action of ploughing over the centuries had produced steps, somewhat like terracing, seen today as a series of ridges. The strips grouped together in shots or furlongs and where the heads of the strips touched the unploughed parts were called baulks - over time became paths, tracks and byways.

All villagers held a number of strips in three fields - one of the fields kept in rotation fallow, as pasture for the animals to manure. [Rents were not due for fallow land] The number of strips distributed by rank or standing in the community - allotted by the lord's steward. His job was to see that this distribution of land was fair - according to age old custom and fertility of the soil - sharing good and difficult land. The three-year system worked tolerably well - one year to grow corn or peas, the next corn and beans and the following to lie fallow.

The villein's stint - his allotted amount of work or share of the land, was five sheep for every acre of meadow, this also applied to the number of sheep he could turn out into the field-laying fallow. In the late fifteenth century, fees had to be paid to the Reeve for *pannage* rights - allowing pigs to root among the acorns in Great Chard Wood. *Pasturage*, conferring the right to graze cattle.

Another, entitled the villager to *turbary* – cut turf or dig peat, *estovers* – to gather wood from uprooted trees and *nyndfallen*, gather wood from branches blown off trees. An amount had to be paid for the enclosure for grazing in Chard meadows and on the common land beyond Tatworth Middle Field.

The pig was the primary source of meat for the villager. Once again, pannage had to be paid for letting the swine feed and a strict watch was paid for how many and for how long the pigs ate. Too much rooting disturbed the growth of young trees and the mud baths created barren earth. Although there was clearance of forest, wood and bracken to form arable land it was appreciated that this would detrimentally affect the numbers of wild animals that could be caught and eaten and eventually strip the land of wood for building.

As Tatworth expanded – mostly by births not by an influx of workers, more trades and skills became available that brought prosperity to the village. The baker, butcher, ale sellers, cobbler, smith, carters, drovers, shepherds, shop keeper, tailor and weaver of baskets just a few of the trades that flourished. Whilst they were busy they could not work the land or the land they were allotted. Therefore, there was bartering, agreements and tokens to be exchanged.

Each villager had an entitlement to use the wasteland – meadow, pasture, and wood. Mostly all villagers paid rent and tithes, and carried out some service for the community - threshing, winnowing, gathering, carrying, or stacking. The meadowland down by the river was specially set aside for the small herd of oxen owned by the Bishop - kept to do all the heavy work in the village.

The Collins, and the rest of the inhabitants, remained closely tied to the land - to the manorial system. The dissolution of the monasteries by King Henry saw two-thirds of ex-monastic land sold. The redistribution of land meant a change of ownership not ‘change of use’. The system of paying rents and tithes did not alter - only now there were more owners. However, before the new order was established there was disruption and confusion – rents not paid - land becoming overgrown. Eventually, some of the church lands were returned to their original owners... and order restored...

This harmony was soon dashed by tenant eviction. The ‘open field system’ was changed to one of ‘enclosure’. The object was to make the land more productive, especially for the grazing of sheep... this in turn gave an opportunity to advance a new farming technique - controlled dunging of arable land.

The effects that came from the dissolution of the monasteries on the citizens of Tatworth were small. Henry’s commissioners found nothing in St Margaret’s chantry or any guild funds to lay their hands on. The Abbey at Forde closed becoming a private home. Those in the village who were staunch Catholics kept a low profile, moved away or emigrated. For the labouring tenants nothing altered their way of life. Having the Chantry and guilds abolished and their plate melted down meant little to them.

In 1546, peace was restored between England and France. Mary I followed by restoring the Catholic faith in England nine years later, then it was the turn of the Protestants to hide. From this time the non-conformists began to form groups lead by dedicated missionaries. The dissenting chapels started being raised over the next three hundred years: The Baptists, Mission Halls, Methodists, and Wesleyans, The Independents and the Congregationalists and others. This move away from the established religious institutions marks out Tatworth and the area around.

The church was not the only institution going through social and economic changes. The expanding population that was ‘on the move’ was undermining the manorial system. It was a time of recession after a period of growth. The government brought about controls through Justices of the Peace who had the authority to impose fund-raising to relieve poverty. The administration ordered the Parish of Chard carry out legislation with a constable of its own. Gradually the manor lost its relevance.

The importance of wool is recorded in 1586 as a commodity, as well as for local bartering and weaving - no longer thought of just as a by-product. Gradually the purely rural cultivation of land

promoted ancillary trades which eventually developed more profitable skills – the wagon maker turned his hand to making more practical farming machines, the millwright devised machinery for cutting wood and the blacksmith produced cooking implements and furniture for doors and windows. It wasn't long before these skilful adaptors became organized by entrepreneurs, adding yet another strata to the society. These new tradesmen maintained their position by organizing themselves into guilds - societies for mutual benefit controlled by a council.

The domination of the underclass, by those who owned the land, was not seriously questioned – it was an accepted fact, and only worked when for most of the time a sort of fairness existed – some individuals changed their class through hard work, opportunism and good fortune.

Those who held freehold land were guaranteed the right to vote for Parliament. The yeomen were the baulk of the lesser landowners – they could be tenant farmers if prosperous. They served as jurors, constables, churchwardens and bailiffs. In a village such as Tatworth there were but few, perhaps three or four. It was to them that any credit goes if the village was run well. Husbandmen rarely owned land but had smallholdings with long-term leases, which were renewed. They either bought spare land to make theirs more profitable or became wage labourers for others whilst maintaining theirs.

As families grew, larger and mechanical devices became available to increase farm production spare labour had to be found work. To start a cottage industry adapting skills and applying new ones small businesses began. Shoes, pots and pans, basket weaving, straw dollies, leather goods all gave a basis for work. The carter transported the work to market and local shops and did a door-to-door service. These industries included 'putting out cloth'. Whole families combined to weave and spin, crochet and knit – children carding wool, women spinning it into yarn, and men weaving the thread. Cottages would be altered to accommodate the industry and families cooperated to form a production line.

The Tatworth watermill sold meal and flour both for the local farmer and from further afield. He also provided the results of his labour to a mealman who was the middleman in the transaction. The grinding of corn continued until it proved to be uneconomic.

The lord of the manor, who may also be the squire and magistrate, exercised justice and good government. The squire, usually the largest landowner, was the senior landed gentleman and managed the day to day running of the manor. It was a handed down, hierarchical existence, based on the gentry. This was not always the case if there was an aristocrat or Bishop in the manor who may have been in a higher class. However, neither of these tended to interfere in the running of the manor. Following on under the squire was the parson, then, the largest tenant farmer running the manor farm, the apothecary, the miller, the bailiff, the wheelwright, publican, postman and then the smallholders. At the bottom, the shoemaker and below him the agricultural labourer. Each member of the community dressed according to their station, affording those above him due regard. Within this social system, the Collins prospered...

By about 1650, some yeomen were letting their houses to people outside the borough boundaries. We can make a judgement that this was the last century that yeomen farmers farmed their own land that includes copyhold or freehold land. Their status gave them automatic rights to pronounce on village matters, run the lord's farms and to be the leaders in the community. Gradually outsiders replaced them some selling their holdings and others renting out. Their time was waning and so was the influence of the manor court. The medieval system with its emphasis on residence and inheritance lost out to new owners looking on their holdings as investments. They were not interested in maintaining the manor, the lord or his rights. It was the foundation being laid for industrialization. The agricultural sector was operating at a time of low prices, in a society, which was vibrant and expanding. Machines were needed to provide greater productivity. The Commonwealth passed and the House of Stuart restored. In a lifetime Darby's coke, smelting process revolutionized

the iron industry and Watt's steam engines did the same for mining, weaving and lace making. Meanwhile the fashion was flippancy and lace.

The new charter granted to the borough by Charles II in 1661, restored old liberties and rights. The Tory party lead by Earl Poulett stood shoulder to shoulder behind the new charter but it was too late. The Poulett family obtained a rent from the church for stewardship of the estate. There was a deduction from their rent for their undertaking. This agreement continued until the confiscation of the estate by the Cromwellian government – giving it to Colonel Nathaniel Whetham for services rendered eventually the estate was granted back by Charles II and the Colonel recompensed. By judicious handling, the Pouletts gained much of the freehold land and buildings. Their manipulation of the leases allowing them to let the land out to tender. A managerial control not well received by the farmers.

The religious non-conformists insisted upon having a mayor or officer answerable to the community... they won the day a portreeve was installed. [Today Chard is lead by the Town Clerk]. The Dissenters were not averse to using the church for baptisms and burials... at times they attended with everyone else on Sundays ever bearing their responsibilities becoming churchwardens or trustees. Church rates provided the money to look after the church fabric. There were a number of householders who paid rent for church lands and a number of non-residents. Burials inside and outside could be bought and kept over if not used. The Parish outgoing covered the repair of the roof, keeping the graveyard tidy and maintaining the tower. Gravediggers were provided from the populace, as were mourners and headstone carvers. From Reformation times the care of the poor and needy became the duty of the parish and a number of bequests were made to help provide clothes and sustenance.

The court leet was to be held annually, to deal with town nuisances, drunks, highwaymen, field regulations, assizes of bread and ale. Gradually these concerns fell away leaving land registry their main consideration. The town's budget rested on rents taken from 'capital burgesses' properties. Although there were seventy-five tenancies including by then shops, alehouses, businesses, and arable land etc., it was not always a fair levy. 'High rents' due to the Lord of the Manor, who at this time was Lord Poulett, the income was not enough to maintain the town's services.

The shops paying rent to the portreeve are difficult to research. The court only occasionally fined shops and then mostly those selling bread or ale. This was to do with the contents and weight. The production of saleable goods – made in one place and sold in another, was allowed by statute but only then to badgers or kidders who were licensed by the county court. The rapid rise in the number of shops took business away from the established markets. The innkeeper did not just sell ale. Food in the form of bread, vegetables, and fruit was also sold. Only later, the village victualler or grocer became the badger and he sold by license all the common goods. These shopkeepers were from yeoman families. By the end of the 17th century, the badger became the grocer or chandler... In some places, the chandler was originally the tallow-chandler - the candlestick maker and seller. Having a reliable outlet he also sold provisions... such as twine, string, rope, belts, nails and all manner of metal and wooden goods – to become the hardware store. In other towns provided linen and woollen goods, lace, and knitwear. Having a general store came from the entrepreneurial spirit of the owner who traded in anything that would provide an income.

The Enclosure Act 1760 – 1844, saw the removal of the balks and the fields divided into blocks, hedges planted and greater consideration made to drain and fertilize the fields. Up to 1844 in some areas the open-field - three-field system, was still working. Enclosure was not just a matter of individuals putting up fences around their strips in the common-field. That is far too simple and almost reasonable. No, it was about the removal of everybody's rights in the field and with those stolen rights the reallocation of the land to another. The 'Act of Parliament for the Inclosing of the Open and Common Fields, Commons and Waste Grounds within the Parish of Chard', went ahead.

There were 1,611 Enclosure Acts between 1760-93. It was done to make better use of the land - which could not be disputed. It was to whom it was allocated was the rub. The land was to go to those claimants who could use it properly... persons who already had land under cultivation - land that they owned. The lord of the manor and the Bishop, who already owned the largest land areas, had in proportion the largest share, commensurate with their holdings. This occurred down the hierarchy – those who had the most got the most but they had to give up the right to allocate the waste, lost the tithes. We do not know how the Commissioners measured those rights, what weighting given to common field land, pasture rights, existing enclosed land and house plots. We do not know about the deduction of corn rent, land usage, mineral rights, wasteland or spoils of the forest were. In fact, the new owners should have made some sort of payment to those who did not retain any land. The suppression of common and grazing rights caused hardship and often riots.

Chard, and its satellite villages, was fortunate: they were close to commercial trade routes. Both the town's rivers provided substantial amounts of water for industrial use. The local watermills gave power... the rich pastureland provided food for the cows, and the sheep supplied wool for weaving and hides. Above all, the farmers tilled the soil that provided harvests to feed the population... and the land gave yet more...

The extraction of stone, gravel, clay and lime from rocky outcrops, quarries, opencast and underground mines kept pace with house and road building and allied trades – it was an expanding business through the centuries, although influenced by fashions and foreign competition. The wealth of the land was recognised in the Iron and Bronze Age. The Romans, who further developed the industry, knew about its potential well before setting out across the channel.

Traders from Europe and from further afield, dealt in extracted minerals and the smelted ore. The quarrying of stone, recorded in 1235, was used for building. Both dressed and hewed stone and knapped flints- seen on buildings today.

In Tatworth, the extracted stone was a slightly different colour recorded in the field survey of 1599. The relatively small clay pit in Perry Street close to the brickworks suggests that local building materials were manufactured and used in the area. The Romans first introduced brick making to Britain in 43AD. The techniques they used were developed from brickworks in the Mediterranean.

The term 'brick' was not used until the middle of the 1400s. Previously it was difficult to differentiate between descriptive words for tile or brick, the word *tegula* does for both. The nearest recorded word is 'brick stone' used in 1483 and 'brickstonys' in 1670. Buildings for the wealthy have always been made to be long lasting and secure. Homes for the lower classes were constructed to last 'their lifetime'. The cost dictated style, endurance and comfort. The poor had their huts and hovels, which with a bit of work and a call for more space became a cottage that eventually became upgraded to a house...

At first, all dwellings were made out of wood – as pole and timber framed houses, with wattle and daub as an infill. To ensure a more substantial structure a base of stone was used, perhaps, up to the first floor. When the hall-house had the central fire enclosed and the space partitioned into separate rooms load bearing walls were built. The expense of carting stone suggested a cheaper product. Cob took the place of stone, which was made out of a compacted mixture of clay, mud, limestone, and sand to make blocks, or the mixture tamped down between shuttering. A longer lasting item were bricks bedded in mortar. All these building materials were found on-site or close-to. When bricks were used, these too were fashioned on-site especially if the building large or a number of houses built in the same place. Making bricks was not an unusual practice. Many villages and towns had their own brickworks in the 1700s and later.

A satisfactory composition for brick making is clay and sand. The term clay refers to fine-textured, silky material with a high alumina content with a consistency when wet of plasticene. This material mixed with a suitable silicate makes when fired bricks, tiles, drainpipes and domestic pottery. In general, brickyards are placed where there is suitable bed of loam, the clay, and sand carted from a local site. On three adjoining fields there may be three distinct types of clay, each composition suitable for a different job.

In the 18th century local bricks were kiln-burnt. The kilns were built in a similar style to those used by the Romans - straight sided, open-topped and, similar to lime kilns, built into the side of an earth bank or outcrop. Building into a bank gave the structure substance and insulation. Two tunnels were made at the base to set the fire in and the bricks for firing placed opposite at a higher level above vents, which extended the whole width of the kiln. The bricks for firing stacked in a manner to allow hot gasses to circulate. When the kiln was full a layer of burnt bricks placed over the top to form a roof. The faggots pushed down the firing tunnels to reach the back and lit allowing a gentle heat at first to dissipate the excess moisture in the bricks. Gradually the heat is raised and maintained for at least forty-eight hours.

Brick making was a seasonal activity. Brick earth was dug in the autumn and left standing to 'temper' in the wind, rain and frosts. Moulding could only begin when there was no danger from freezing weather damaging the drying bricks. The baking of bricks took place after mid-summer until the autumn when the whole operation started again. There was much to do to stack and care for the bricks, rebuild the kiln, gather wood and order in other materials. It was not unusual to have in the same yard a limekiln. Chalk was either extracted at the site or carted in.

As wood became scarce and the transport of coal made easier wood kilns were adapted to use a different material for firing. Conical extensions were built to regulate the draught. The manufacture of bricks, tiles and pipes often coinciding with the burning of lime formed an easy alliance. The transport of materials by road, canal and rail stimulated trade and ancillary businesses. Extracting unused minerals gave the road maker an easy source of ballast and surface grade materials.

According to records, a number of Collins was found in other West Country towns... becoming associated with the mining industry. Since early times men have used local materials for weapons, farming implements and building. The smelting of minerals was one of those important discoveries, which advanced man's development... the records of Crown Mines, produced in the tin traders cost books of 1680, give reference to a John Collins of Truro, who traded in tin at Newham Smelters... We can deduce from this that there were and had been several Collins who were licensed tin workers based in the West Country. The cost books, also records John's wife Barbara took over the business when he died.

The industrialization of those mines in the early 1700s, by pumps and winding gear, improved productivity. Later that century, another Collins family was recorded as being involved in the business... In 1712, Thomas Newcomen invented the atmospheric steam engine, widely used in the mining industry. Only fourteen years previously, another Thomas, Thomas Savery, invented the steam vacuum pump... both these inventions allowed deeper and safer underground mines to extract more ore. The new pumping engines introduced in about 1720 gave the industry longer life stimulating further advances in ancillary businesses. By 1780, steam locomotives changed Britain's transport system and industrialization began. No longer, was water and wind power the only means of propulsion.

James and John Collins worked at Fowey Consols in 1841. It is clear from this connection that a 'tribute team' - an extended family unit, had strong links in the industry.

The mining industry involved a number of stages: extraction, grading, storage and shipment within these basic parts the production of power, the removal of water and development of the necessary winding gear, essential for the working of the mine.

The Tatworth Middle Field Report shows five land survey maps through the ages. Not only was stone quarried in and around Chard, but flints, sand, lime and clay. In the 1700s, it is recorded that a brick kiln built and clay pit dug - for the manufacture of bricks. There was reputed to be a similar construction in Perry Street, a little later that same century. It is interesting to speculate what quality this clay was and if it used purely for brick making.

From previous records, it seems that few brick makers served an apprenticeship, which suggests that these places were family run affairs. By the late 1700s, the first mechanical method to come into general use was the pug mill for mixing the clay. This consisted of a vertical shaft with several blades attached, which revolves inside a drum. The wet clay, ash, breeze or sand fed into the top, churned and extruded from the bottom. The vertical shaft turned by a beam harnessed to a horse. Previously this mixing was done by hand, using a spade or treading with bare feet. Later, the wooden barrel replaced by metal and the horse by steam engine. To make drainpipes extruded pugged clay through a die to produce a ready shaped pipe

The 1800 – 1840 Field Patterns clearly identify the considerable lime workings north of Church Path or Chard Road - up from the A358 to Witney Lane, an area previously known as Church Lane furlong. In 1898, there was an extraction of chalk in the eastern section and thirty years later an enlargement northwards. Both these quarries had attendant limekilns.

Builders use lime on its own and in conjunction with other materials to make cob, daub, external coating, and infill, and as a pointing material and mortar... it was an improvement on mud, sand and clay. Lime is a caustic solid of calcium made into a dry white powder by baking chalk to a high temperature then crushing. Close to the extraction point, the kiln worker would construct an oven and bake the chalkstone, which would, when crushed to produce caustic lime.

Farmers had known since the middle of the eighteenth century that an application of lime to the soil improved its fertility – replacing minerals washed out of the soil and over production. Just digging out chalk and spreading it onto fields was not sufficient... it had to be crushed –to a powdered form, spread onto the soil and left - to be taken into the soil by wind and rain, before ploughing.

Another product of mining was the extraction of clay. As for lime, clay has many uses other than as a building material... pottery, papermaking, electrical insulators and clay tobacco pipes. Clay pipe making started in the 1500s when Sir Walter Raleigh introduced tobacco to England. The clay necessary to make successful castings is easily mouldable white clay, which has a large proportion of kaolinite. This clay was described as Ball Clay.

Previous clay extractors - usually farmers, were not aware of the finer qualities of the material. They dug the clay out of pits with a spade and the result used for any number of projects. Most of these pits were centred on Newton Abbot working clay that had been eroded from Dartmoor. In transportation, the dug out blocks or cubes lost their edges - becoming a lump of clay, further handling turned the lumps into a rough ball. Clay tobacco pipe producers wanted this fine clay from Newton Abbot - for its known fired strength. This particular clay was identified as 'ball' clay - and it came from pits centred on Devon and Dorset.

The bulk of clay production, for making building products, porcelain, paper and textile finishes, began in the late 1700s – about the same time that mechanical pumping gear was installed in the mines - which brought the clay to the surface with the water... The pumped water had the metal impurities separated in 'settling pits', allowing the pure clay to continue to pore into drying pans, to be left to settle. The water was left to evaporate naturally over a period of six months. The

resulting solidified clay - still with large water content, was cut into blocks... allowed to further dry out in the open air, or in sheds, then dressed, and stacked. Then, before being sold and shipped, the outsides of the blocks scrapped clean... and finally packaged. The material most suitable to achieve these aims was clay with a large component of decomposed feldspar – aluminium silicates, plus other rock particles - clay that was finely grained, even sized and uncontaminated. The difference between the clay used by ceramic producers and pipe manufacturers is particle size not necessarily component mineral. Both the pipe maker and potter used a quantity of the other's material. Around 1770, Wedgwood needed an equal amount of ball clay and china clay to make his 'cream ware'. The prepared clay is placed in the mould to be fired...

The separation of clay from the pumped water and the working of kilns for the extracted lime provided additional profitable lines for the mining operation. Having the means to transport the ore and other extracts needed a linked transport system – using packhorses, wagons, canals and railways. The closer these could be brought to the mineshaft, the better. For transportation to inland industrial sites and for export, barges and ships were used – requiring quays, ports or a shelving beach. Lyme Bay became the nearest port of call for south Somerset, Dorset and Devon. Records from the census give the 1860s as the peak for production... thereafter, a slow decline to almost extinction.

The earliest documented Collins, with a trade, was Edward Collins, and his son Trustrum, who produced tobacco pipes, (bowl heel impressed, E.C., about the same time as one other pipe producer named George Webb). Both these pipe manufacturers worked out of Chard, in the 1650s. It is agreed by experts that clay pipe manufacture began in the late sixteenth century and became popular over the next hundred years. Pipe smokers could use and discard half a dozen pipes a day. This suggests the need for large manufacturing industry - to keep pace.

This recorded industry, believed to be situated towards the southeast end of Fore Street had links to the manufacture of pewter and the skills necessary for the manufacture of moulds for pipe bowls and stems. The Collins team developed a range of bowl designs unusual to clay pipe manufacture. Having the knowledge how to make a suitable mould for pipe manufacture was essential and pewter was the ideal metal to use for making the mould.

Edward Collins received his clay by the same route as that taken by lace and wool traders. The extraction of clay – a by-product of the many mines in and around Devon and Cornwall, became an industrial partnership between the miner, industrialist, lime producer and potter and had been going on for years. The mechanization of the mining industry spilled over to the needs of other industries.

The extracted clay was transported to suitable beaches and port quays, perhaps, Lyme Bay, Morwellham, or Totnes... then by packhorse to neighbouring villages and towns being by far the most convenient and cheapest method.

On receipt, he submerged the balls of clay in water - awaiting attention by the plug mill – mixed by beating and pummelling to remove excess water, air pockets, and lumps - ensuring consistency of material before cut into pieces - suitable to be shaped into rolls - thick one end - for the bowl, and thin the other for the stem. A needle, inserted - by pulling the clay over the needle - gave an airway. The roughly shaped clay pipe, with threaded stem, then covered in oil, to allow easy extraction – placed into the mould.

The potter, clay pipe maker and kiln operator, needed the material to hold its shape when left in the sun or taken out of the kiln. For the manufacture of tobacco pipes, the moulded article had to be capable of sustaining its shape - whilst drying out, prior to firing, and when fired, the pipe should display its original moulded shape... The product also had to be strong enough to stand reasonable

handling and attractive enough - in colour and design, to be sellable, and presentable when used in public.

The Collins' manner of production, whether in the firing or in the use of a special coating, made the pipes more resistant to decay... fortunately allowing their existence to be visible today.

In the West Country, the mining of tin and lead and their smelting developed pewter for plates and mugs. The skill of setting molten metal into prepared shapes was suitable for all manner of everyday items... This use of local minerals by the Collins was opportune. They had the knowledge and foresight to adapt those materials, which were on hand, to produce a much-needed item. They knew that pewter was an alloy of mainly tin and lead, and other minerals – tin always being the greater component, and was an ideal material for making moulds.

Tin was, and is mined, mainly in Cornwall and west Devon; there are also mines on the nearby continent... All their production was transported to English manufacturing areas by sea, to the nearest port - closest to the point of manufacture.

Tin has always been a prized metal, the addition of copper instead of lead - produces bronze. It is recorded, that there was a manufacturer of pewter working in Chard between the dates 1635-41. Pewterers set up shop in mainly market towns close to water, wood and other industrial necessities. The pewter industry suffered a decline from 1740 onwards because of the production of porcelain – the use of clay as a cheap plentiful product promoted the popularity of pottery ware, rather than pewter...

In 1828 John Wightman, a farmer who understood the need for metal farm implements started an iron moulding business, he was later joined by ironmonger Charles Denning in 1842. In 1883, they employed fifty-three workers - demonstrating that this was no small concern but a thriving industry, which continued until after The Second World War. Their yard was packed with all kinds of agricultural machinery and implements – cultivators, horse-ploughs, reapers and binders, threshing machines all sorts of drills, harrows, horse-rakes and tucked into a corner massive elevators, wagons, tractors, and combines.

The discarded scrap found its way into the furnace to be made into ingots and the cast iron reworked by the smithy. The foundry staffs who work in close harmony with the smith adapted, devised, reshaped and reworked to save as much material and time as possible... mainly to forge iron tools for farming, iron and brass mouldings for engines and turning and fittings for pipes and rods... work that needed the skills of white and coppersmiths, blacksmiths and engineers.

Another - John Smith soon joined these Ironmasters, in 1839, which expanded the industry into brass and iron foundry work, which became the Phoenix Engineering Company and still operates today. Concerns that deal with everyday farm machinery know that the work has to be carried out quickly and cheaply. The throughput of work is great, relying on a storeroom carrying all manner of spares and ancillary items. Increasingly it was found, after the age of the horse, that a qualified agricultural engineer and motor fitter were necessary skills to offer to the farming industry.