

Creeksea Place Farm Barn, Ferry Road, Creeksea, Essex.
Description and analysis of a timber-framed barn at Creeksea Place Farm.
Surveyed 03 07 2009.



Creeksea Place Farm is situated NE of Creeksea Place. The Barn studied is outlined in red. Google 2006

Location

The Un-named Barn that is the subject of this report is part of a collection of farm buildings at Creeksea Place Farm, Ferry Road, Burnham-on-Crouch, Essex CM0 8PJ. The farm is part of the estate of Creeksea Place, a substantial C16th brick house listed Grade II*. IoE No.116583 - CREEKSEA 5217 Creeksea Place (Formerly listed under Creeksea) TQ 99 NW 2/26 10.11.51.

The Barn, located at 347411.15mE, 5722341.02mN, is not listed and neither are the adjacent buildings. The Barn is connected to a larger, Older Barn to the west and has a later lean-to to the south.

Description



The Barn from the SE. Behind is an earlier timber barn. The Outshot is more modern.

External

General Description

The 5 bayed timber-framed Barn is oriented E-W along its ridgeline and measures 5.50 x 15.8m (18 x 50.8ft or 6 x 17yards approx.) externally. To the west it is connected to a larger, C15th or C16th Older Barn with large iron bolts through the tie-beams and corner posts but both of the stud walls have been removed so the barns run through. However the floor level of the Barn has been raised with C20th shuttered concrete and so the floors are not concurrent. The Older Barn also has a concrete floor.

To the south is an Outshot that runs parallel to the Barn and also extends across the front of the Older Barn to meet the midstrey porch. The roof of the Barn and the Outshot are covered in modern pantiles in very good clean condition and it is evident that both have been re-tiled recently. The Older Barn has a peg-tiled roof. Most of the weather-boarding is C20th, fastened with galvanised French nails and coated with cold brushing tar and now requiring a new application.



Eastern elevation showing the C20th homemade doors. The cladding on the pallet lined the interior.

Eastern Elevation

The eastern elevation comprises the Outshot flank and the gable end of the Barn which has been opened up to accommodate two 3.65m (12ft) tall barn doors made from corrugated iron sheets and marine ply in the past 20 or so years. The weather-boarding has been repaired recently but with only the newer feather-edged boards being cold tarred. The base of the walls has some modern blockwork inserted. The barge boards are C20th softwood.



The southern elevation comprises an Outshot with vertically panelled walls.

Southern Elevation

The entire length of the southern elevation is taken up with a low-eaved Outshot with vertically boarded walls and simple C20th casement windows. The outshot has 7 bays with double doors in Bays 2 and 5 from the west. These are much altered late C19th or early C20th gate and ledger doors which have been dismantled and rehung on C20th door furniture. Bay 1 has a single C20th gate and ledger door that led into the Older Barn through a single bay lobby for which the partition wall has now been removed.

The Outshot was originally open between the posts and has been closed in with C20th timberwork and the vertical boards used as cladding. The guttering is plastic leading into square cast iron downpipes.



Reused doors and plastic C20th guttering with square downpipes on the SW corner of the Outshot.



The northern elevation has been recently reclad in feather edge boarding and the doorways blocked.

Northern Elevation.

The northern elevation has been recently reboarded with new 7in feather-edge boards and cold tarred. On the inside it is more evident where the fresh wood has been left untreated. There is a section in the centre bay which indicates that there was a set of doors which have been removed and the void boarded over.

There are three sets of windows. That to the east is a simple modern effort made of nailed in softwood with plastic sheeting. The other two are made from reused frames from old windows, one of six lights from a casement set on its side and the other of 8 lights from a sash window. They are both set in recent frames.



The western elevation can only be seen from inside the barn and has been largely removed.

Western Elevation.

The western elevation conjoins the Older Barn and the two buildings are bolted together through the tie beams and storey posts with wrought iron screw threaded bolts with flat square nuts typical of the turn of the C19th. Both tie beams have mortices for stud walls but all the timbers have been removed. A pair of steel joists have been inserted beneath the tie-beams. Until very recently the inside was clad with crenellated grain store panels fixed to steel angle irons which closed off the lower part of the barn.



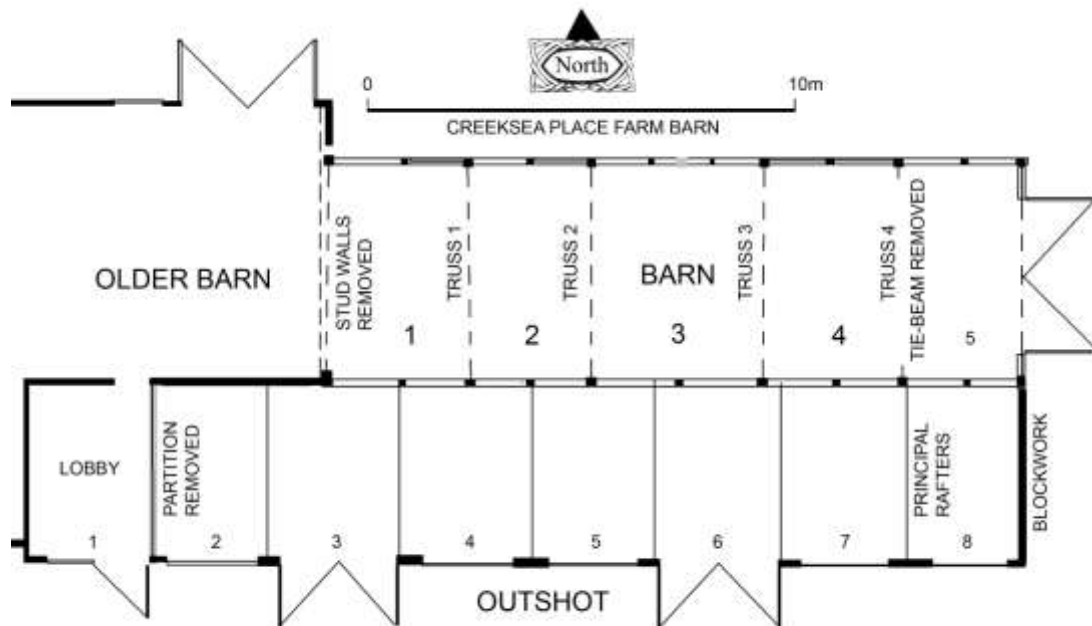
Underside of the tie-beams showing sawn off studs and wrought iron bolt with spacer. Looking W.

Internal

The Barn



The Barn and its disposition to its conjoining buildings.



The Barn and Outshot showing detail of the plan form.

The barn is of five bays. The central one is 4.0m (13ft) wide while the others are 3.9m (9ft 6in) measuring between the centres of the posts which vary from 7-8in wide by 5-6in deep.

The posts support tie-beams spanning the barn at 3.65m (12ft) up, each of which is secured with a hanging knee held in position with very large iron spikes and two or three bolts. Most of the bolts are round headed forelock bolts but to the west there are also square headed screw threaded bolts.



Composite photographs of the internal walls. North above. NTS.

While some of the timber appears to be oak, faded to its characteristic grey colour , none of the knees are and most of the midrails and posts appear to be red softwood.

Each post is connected with a mid-rail to its neighbour and below this all the timber studwork has been removed. In each bay is a single C20th timber nailed in place with galvanised french nails except in the central bay where there are original storey posts to counter the larger span. This bay differs from the others in that there are two diagonal downbraces off the central post.

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The panels above the mid-rails are composed of scantling timber with a single primary brace and 6 nailed in interrupted studs in each bay. The braces all have a slight curve and have been sawn on at least two faces.



Composite photograph of the south side showing the raised midrails in darker coloured timber.

The mid-rail is not contiguous and it can be seen that it has been raised on the southern side in Bays 1-3. The line of the previous rails being demarcated by the original pegholes. As a result the panels above have been modelled with shorter studwork. The newer rails are red softwood and significantly, the mortices are marked out in pencil. In Bay 3 there is a door frame with a pentice board above on the outside of the barn. It is likely this section was once open for a midstrete porch or processing house.



Composite photograph of the north side showing the raised midrail in the midstrete (Bay 3).

The mid-rail is also raised in Bay 3 on the northern side and it seem likely that there were also doors in this section although there is no easy evidence of fixings. This is because in common with all the posts the timbers are reused and have many earlier joints and holes cut in them. The raising of the top-plate indicates an effort to improve head height.



Storey post with pegged birdsmouth and oak beam reduced in section by sawing down.

Several posts are obviously top plates from earlier buildings with dovetails for tie-beams and birdsmouthed and pegged joints for rafters.

There is an interesting conversion of one of the timbers to form a mid-rail in Bay 3 north side. Evidently the oak beam was too thick in section so it has been reduced by sawing down many times at regular intervals and the excess wood chiselled roughly off.

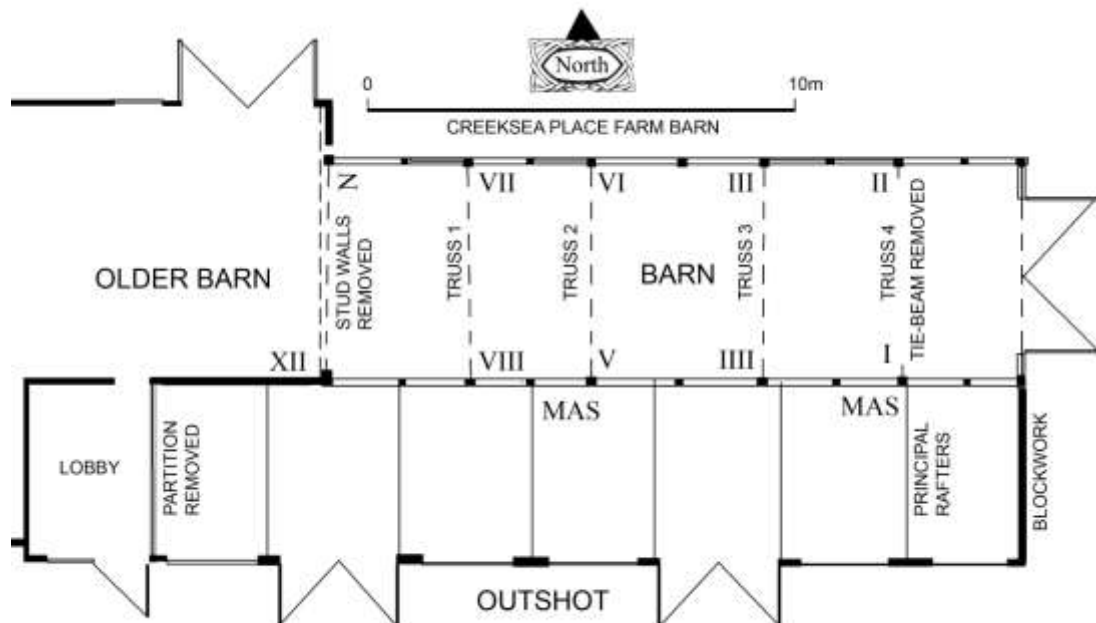


C19th bottle trapped inside the empty mortice (left) and the housing for a door bolt.

The posts in Bay 3 which form the doorframe on the southern side have mortices for the bolt and drop bar. Inside an empty mortice was trapped a late C19th style hexagonal glass medicine bottle with the instructions on the label to take 4 teaspoonfuls. The label was fragmentary so whether it was for human or animal consumption is unknown.

There are face halved and bladed scarfs in the top-plate in Bays 2 and 4. These are very precisely formed in the narrow section timber. The only other scarfs visible are those over the support posts in the outer wall of the Outshot which are simplified Trait de Jupiter and appear nailed through.

Carpentry Marks.



Plan of the barn showing the visible carpenters marks and merchants paint marks (on Outshot).

The hanging knees and posts are numbered from I to N (the mark for X is missing) but curiously they begin from Truss 4 (from the west) and not the end wall as might be expected because the east wall does not have any hanging knees. In Truss 3 the knees have been removed and in Truss 5 they remain but the tie-beam has been sawn off on both sides.

The SW corner post has the number XII chiselled into it on its exterior face and it is likely that the frame is numbered throughout on the outside in common with the practice of the C18th and C19th. In which case the 12 posts will be numbered I to XII.

There was also a chiselled number IIII on the base of the mid post in Bay 3 north side but this does not relate to the building and must indicate a previous use.

Fixtures.

The Barn has no internal fixtures for machinery present. There are wooden ladders french nailed to the studwork either side of Bay 5 which are C20th. Just below there is a large dovetail in the storey post to take a cross-beam for an inserted platform and it is likely that there were some grain processing machines here in the C20th.

The Older Barn has two such structures still with a Boby Dresser and another grain cleaning machine in place. This all dates to post WW2.

The Outshot

The Outshot is entirely later C19th and was built as an open-side shelter, probably for cattle. The principal posts are pegged into short plates which are then attached to the top-plate with square headed coach screws. The tie-beams are sawn softwood 3x8in (76x203mm) and are nailed to the barn walls with wrought iron nails and secured with wrought iron L-ties to the top-plate.



Roof structure of the Outshot looking west. Tie-beams support the simple purlin roof.

There are seven rafters in each of the eight bays measuring 2x4in (50 x 100mm) with the central ones being 3x4in (76 x 100mm). They rest on a central purlin 3x5in (76 x 127mm) which is held in position by short raking struts off the tie-beams.

Two of the tie-beams have merchants marks 'MAS' made in red paint visible on their northernmost ends. All the timbers including the internal weatherboarding have been limewashed several times.

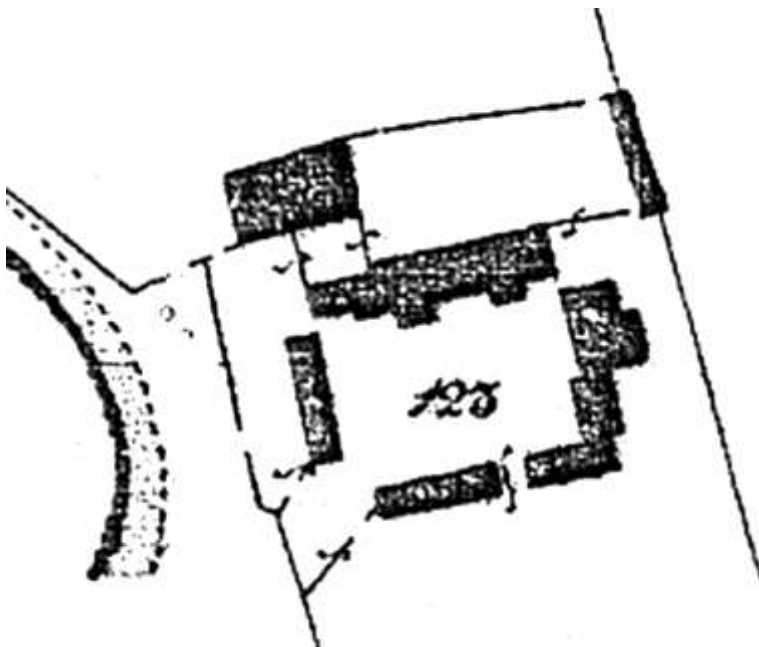
The infill panels are C20th and made of softwood, mostly 2x2in (50 x 50mm), nailed in with french nails. A further inner skin of blockwork has been applied and skimmed over. The floor was rough poured concrete but has been removed. There is a heavy poured concrete beam in the floor the entire length of the Outshot and it is believed this was support the milking machinery.

Topographical Survey from Maps.



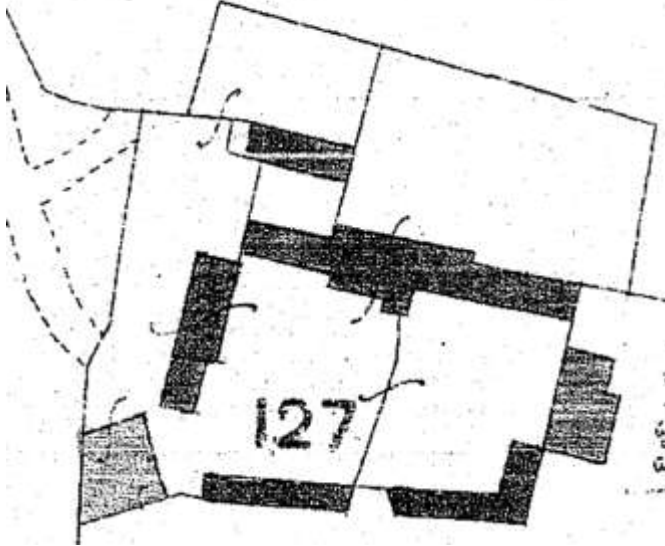
Chapman & Andre 1777.

Chapman & Andre's map of Essex published in 1777 serves to confirm the existence of 'Cricksey Place' but the level of detail is poor. There are several blocks north of the main enclosure which could represent the Older Barn.



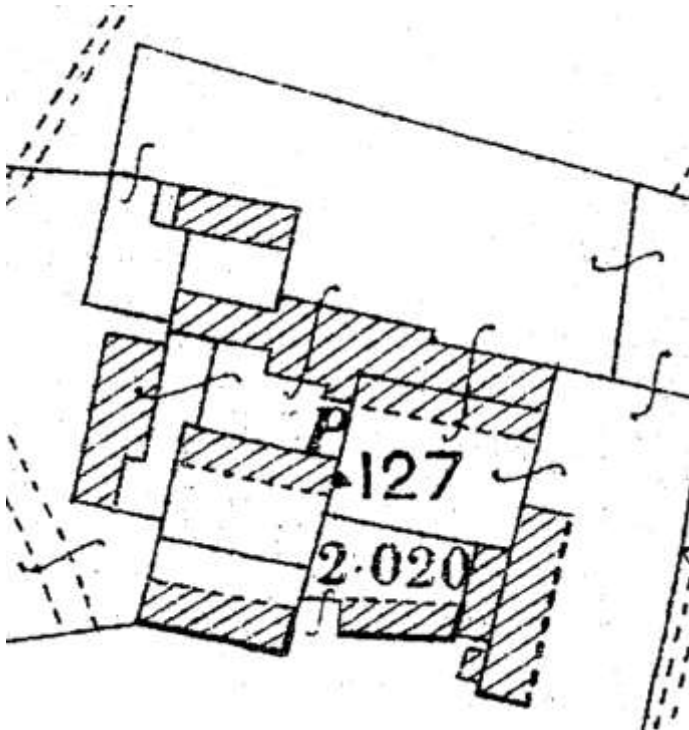
Tithe Map of 1844.

The Tithe Map of 1844 gives a clear and well scaled layout of the farmyard and shows the Barn to be in existence and to have an outshot to the south.



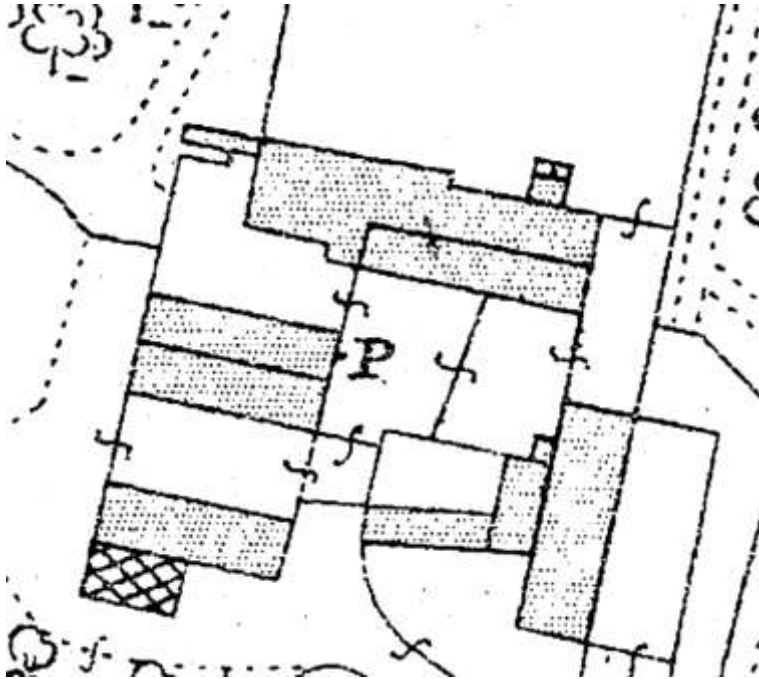
1873 OS Map.

By the time the 1873 OS map had been published the southern outshot shown previously had been removed.



1897 OS Map

The open-sided Outshot is clearly depicted on the 1897 OS map. There are now five open-sided buildings probably for livestock shelter.



1922 OS Map.

By 1922 the Outshot is shown stylistically to be a closed building but this cannot be relied upon. There is a small outshot to the north with a little pen attached.

Phasing the development of the buildings.

1. Turn of the C19th.

There is nothing in the carpentry of the Barn to suggest that it was built much before AD1800. The primary bracing with nailed in interrupted studs combined with the narrow section posts and mid-rails are almost all made from re-used timber and are typical of this time. There is no indication that the building has been anything other than weather-boarded from its inception.

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Although most of the bolts are forelock bolts, several are square headed, screw threaded bolts which became commonly used in the late C18th in vernacular repairs. The forelock bolts are likely re-used as they are old fashioned in comparison.

The Tithe Map of 1844 indicates that there was a smaller outshot in the middle of the barn to the south. The remaining structure has been modified in the central, wider bay and it is most likely that there was a midstrey with either a porch or an attached processing house to thresh the grain in. By 1800 the threshing would have been mechanised using horse powered machinery.

At this time there was a great and immediate demand for grain barns. See Discussion.

2. 1844 to 1873.

Between these dates the southern outshot was dismantled probably because its function was no longer required. This is the epoch of 'Victorian High Farming' when farmers looked more to scientific practices to maximise their yields. As there is little activity exhibited in the development of the farmyard it may be that Creeksea was behind the times.

It may be that the studwalls between the two barns were dismantled at this time. It is not a recent intervention as the sawn off stubs of the studs have had time to weather down to a light grey colour.

3. 1873 to 1897.

Sometime between these two maps being made the current Outshot was built along the southern elevation of the Barn. It is shown as being open-sided and the carpentry confirms this to be so. It is likely that the barn was given a thorough overhaul resulting in the remodelling of the upper panels and the insertion of new ones in place of the old barn doors.



The pencil marks on the mid-rails marking the mortices are typical of this period and could not have been much earlier as pencils were not generally available or used by craftsmen until the later C19th.

The weather boarding on the southern side of the Barn and the pentice board over the smaller door frame all date stylistically to this period.

4. 1897 to 1922.

The 1922 OS shows the Outshot to be closed in but experience shows that these stylistic conventions are not always accurate. However, the straight regular 2in square timber and the inserted timber studwork in the Outshot which is skew nailed with french nails which are not universally popular until the early C20th, indicates that the work was done around this time.

5. 1922 to present day.

There are a number of blockwork walls of the type of cement block available in the later C20th which have been added in to strengthen the walls and underpin the structure. These appear to have been implemented when the building was used as a milking shed. The Barn and Outshot have concrete floors.

The lower panels of the Barn were removed recently (last 10-20 years) and the interior lined with crenellated grain bin sheeting fastened to steel angle irons screwed to the timbers. It is also likely that the corrugated barn doors were inserted into the end of the barn at the same time to allow access for modern large tractors.

The roof has been completely replaced with modern softwood, the original design incorporating principal rafters has been abandoned and a number of extra tie-beams inserted.

The weather boarding has been repaired and replaced very recently.



Discussion.

After the French Revolution of 1789 there was a long period of instability culminating in the Napoleonic Wars of 1799 to 1815. Britain and France declared outright war in 1803. England also went to war with the USA who in 1807 declared the Embargo Act preventing European vessels from trading with America. War was declared in 1812 and ceased in 1815.

The result was a grain embargo and English farmers realised that here was a captive market and turned their farms to grain production.

At this time there is a rush to build grain barns to the new pattern and these 'Napoleonic Barns' spring up all over Essex. They are built to a pattern, one that does not reflect the earlier barns and their intrinsic dimensions based on rods. It is significant that the Barn is much narrower than the Older Barn it is connected to.

Napoleonic Barns are often built using reused timbers from buildings dismantled on site or close-by and set into simple frames using primary bracing with nailed in interrupted studs. This is a departure from the quality of the early barns where craftsmen were required to design, cut and fabricate all the joints and timbers. Now the fabrication could be done by far less skilled labour.

However the understanding of the limitations of the timber was far greater by now (Joseph Bramah was stress testing timber at Deptford using his newly invented hydraulic press) and the barn builders knew that they could use more slender timbers than previously and reduce the complexity of the joints, especially at the post heads. The strength of the building was transferred from the frame to the armature of its cladding.

At the same time wrought iron fixings, in the form of forelock and screw threaded bolts and the traditional 'blacksmith's joints' were being incorporated in the build as part of the original design and removed the need for heavy jowled posts. Spandrels were replaced with hanging knees bolted into place which were economic on space as well as materials.

Of course the wars came to an end, Napoleon was captured, escaped and captured again and trade resumed its old pattern which was disastrous for the newly improved farmsteads. Not only that there was an exceptional harvest in 1813 which drove the prices down due to over-supply. The farmers had borrowed heavily to build their new buildings and the resulting decline in prices led to a recession.

Parliament, which was riddled with self-interested farmers enacted the Corn Laws in the Importation Act of 1815 which were essentially tariffs on imported grain designed to keep the domestic prices high. However this made poor people even



poorer, particularly those working on the land and led to rioting in London and the infamous Peterloo massacre. It was not until 1846 that the law was repealed.

The economic climate would have been reflected in the farm buildings whose function may have been changed when the farmers used increasing mechanisation in the production of grain to reduce their labour costs. The midstrey with its porch or processing house for threshing corn was possibly no longer needed and at Creeksea Farm Barn it disappears between 1844 and 1873.

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During this period emerged the concept of Victorian High Farming. Rowland Prothero, Lord Ernle described the concept in his book 'English Farming Past and Present' in 1912 but the title had been adopted in the 1840's by agricultural writers such as Philip Pusey, Wren Hoskyns and James Caird as a given concept without explanation.

According to G.E Mingay in Victorian Countryside (2000) High Farming ' was the achievement of high production by the widespread application of new knowledge and equipment. Land was drained to grow more grain and other food for more and fatter stock, yielding in turn more manure and heavier crops.'

More importantly however when considering the development of this particular Barn - 'To house valuable stock, preserve its manure and promote greater efficiency in the working of the greater complexities of the system, new buildings in new configurations were required. Implements of unprecedented complexity and dedication to single tasks became increasingly common and steam power invaded, first the barn and eventually the field.' There are no traces of these early implements, chimneys or engines in the Barn now.

However, the constant battle with cheap imports was lost and grain production was lessened in favour of cattle and sheep farming.

Lord Ernle wrote that, "Land deteriorated in condition. The counties which suffered most were the corn-growing districts, in which high farming had won its most signal triumphs. On the heavy clays of Essex, for example, thousands of acres which had formerly yielded great crops and had paid high rents, had passed out of cultivation into ranches of cattle or temporary sheep-runs"

Between 1873 and 1897 the Outshot was constructed as an open sided animal shelter and the OS map shows four other open sided building implying strongly the farm had gone over to wholesale animal husbandry. This continued into the C20th and the Outshot was boarded in to create a milking parlour. The Barn was likely used for grain storage and processing and the scars of where the platform for machinery reached by ladders can be seen. The mid C20th machinery is still in the Older Barn but the Boby Dresser is now somewhat anachronistic even though it still works.



Acknowledgements.

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