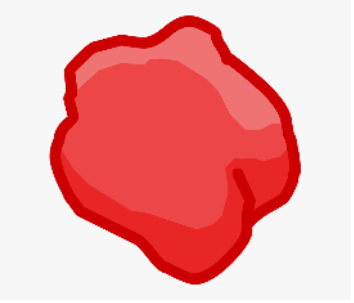
Freshfield Lane Brickworks

- Started in 1899 by Guy Hardy, son of Herbert Carey Hardy of the Danehurst Estate
- In 1899 Riley Sitford and Charlie Elphick were head-hunted from a West Hoathly brickworks,perhaps with the lure of a cottage thrown in.
- Documents written by Charles (Shon) Bennett, a manager from 1926, are important source material for this talk, as are Jill Rolfe's photos and interviews with Laurence and Guy Hardy and Ron Wenham

BRICKYARD WORKERS AT HUDSONS WEST HOATHLY BRICKWORKS
The group includes Mr. Riley Sitford and M.r Charles Elphick.

Left Shon Bennett, general manager, right Charlie Elphick and his wife



to

- Stock bricks are made from clay (60%), ash, chalk??, and combustible material (25%)
- Formula of clay: $SiO_2.Al_2O_3.2H_2O$

Winter jobs when frost likely

- Dig out clay and stack in a ‘curf’, somewhat protected from rainto weather in the frost.
- Pond creation (no water on the site)
- Collect town refuse by cart from Sheffield Park station and large stack in piles to rot.
- Hand sift rotted refuse, the fines to go into the bricks and coarser material saved to be used as fuel
- Collect sand from Cowstocks(pay 5d/cubic yard), gravel from Wild Boar field, Freshfield Crossroads for track maintenance, wood cutting.

- Hand tools only, incredibly hard manual labour

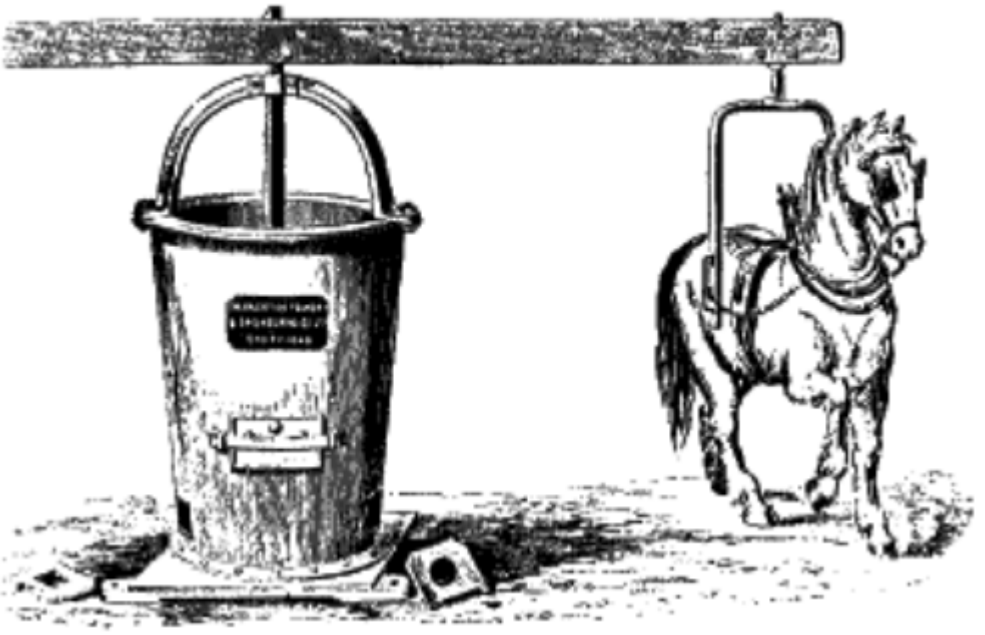
Next Stage

Once frost is unlikely begin brick making.

Prepare ‘pug’ by mixing clay with refuse ash, and the right amount of water to make a pliable, not sticky mixture

Pug mill originally horse driven

- A horse was employed to mix the pug initially,later to be replaced by a more reliable petrol engine



Innards of a pug mill

The mill bears some resemblance to a food mixer. The blades mix the clay, water and refuse. They are angled to push the mixture downwards. At Freshfield the mill was raised above ground so a barrow could be pushed under for loading.

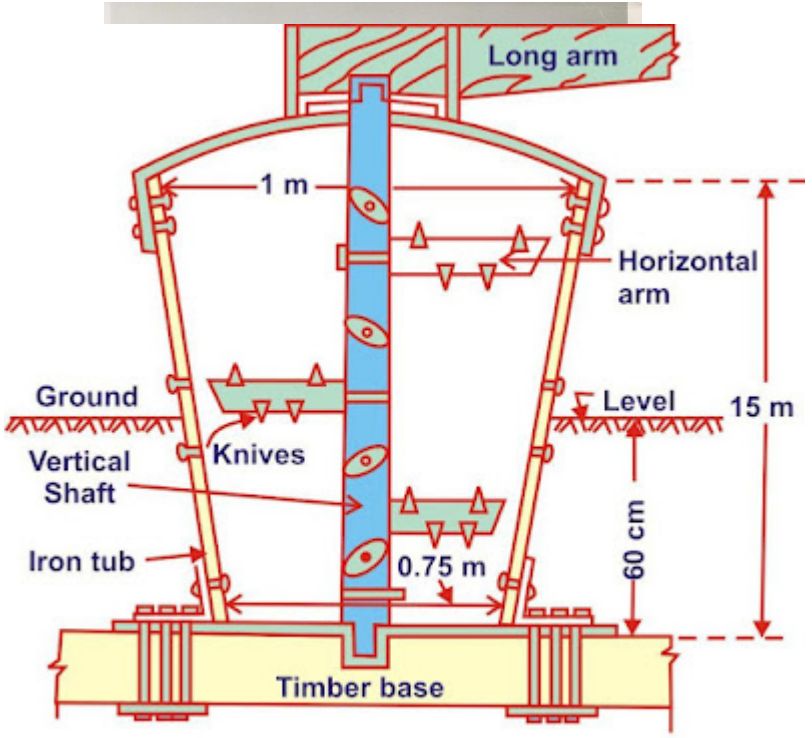
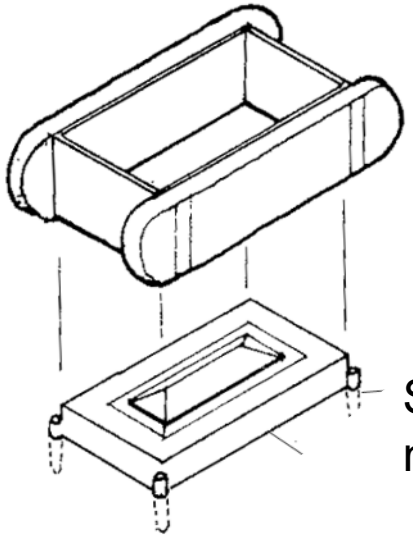


FIG. 2.1. Pug Mill.

Now make your Brick

The stock at the base is raised in the middle to form the frog (dent) in the brick. The pug is forcibly thrown in so no voids are left in the brick. The bricks are very soft so are rested on individual wood pallets and moved out for drying on a ‘bearing-off’ barrow.



Steel or wood mould

Stock which makes the Frog

Firing

There is no brick kiln at FLB. This is because the bricks are fired in a free standing stack called a clamp. The coarse town refuse was in the channels. The land under the clamp was saucer shaped so the stack leaned inwards. Only 60% of the bricks would have been premium quality. Overburnt bricks would be used for jobs like garden walls and the underburnt for internal walls. Firing/cooling could take 2-3 weeks.

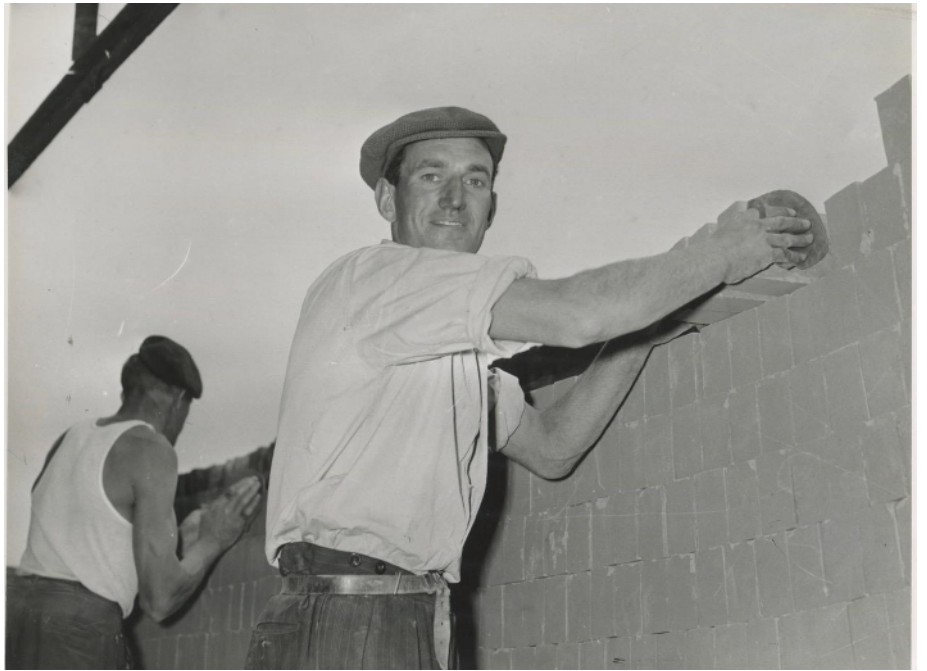
Firing process

- Remember $SiO_2.Al_2O_3.2H_2O$. There 3 are stages:
- 100-150^oC Evaporation of free water
- 149-982^oC Internally bound water ($2H_2O$) evaporates
- 871-1316^oC Vitrification. Silicon oxide and aluminium oxide combine to make a glassy material (aluminium silicate?)that makes the brick strong, but brittle. The combustible material within the brick raises the temperature enough for vitrification.

Loading the Bricks from the Clamp

- Once cool enough bricks were unloaded by hand from the clamp to a cart/lorry.
- Three bricks were picked up together and thrown to the next man who caught and threw them on, singing out the number so that there would be a tally of bricks loaded. Unfortunately chatting instead of singing often lead to disputes. When education at the school improved so all could multiply they counted one row of bricks and multiplied by the number of rows!

Illustrates how the bricks were handled. Some skill would be necessary for the next man to catch the three bricks.



The Early Years

- Riley and Charlie (head-hunted from West Hoathly in 1899) start working with no equipment other than the pug mill, a brick-making table and simple hand tools. NO shelter except for a few sheets of steel above the making table.
- No mains water, buckets from the ponds.
- The Grinstead clay was dug on the site.
- They could only work daylight hours, so much less pay in winter. Poor weather, no pay. Sick-no pay.
- Pay was 5d a cubic yard for digging out sand or gravel and 5d/*hr when making bricks (2.5p/*hr)
- 5d/hr equivalent to only £2.50 an hour today!

- The Danehurst estate was held in a trust. Guy Hardy had died early at 31, so in 1907 the trustees leased the brickworks to Riley Sitford for £27 of which Charlie Elphick paid £5
- In winter work was so scarce that Charlie used to seek employment elsewhere and left Riley to do the winter work
- After a period of illness Charlie asked for his stake in the business to be returned.
- In 1924 Ronald Hardy,who had recently turned 21, bought back the works with Riley Sitford as Manager

The work force in the 1930’s. This shows an older Ronald Hardy, bottom right corner.

Ronald Hardy was scoutmaster and one of his older scouts was a 17 year old called Charles Bennett. At the time Charles (Shon) did not have white hair and worked in the sewers in Haywards Heath. Ronald recognised his talents and offered him a job in the sunshine as lorry driver's mate

In 1926, Shon, later to become manager, was taken on as lorry driver's mate, the driver being the Hardy's Chauffeur, Fred Chantler or William Newnham. Shon took the job despite a 15/- drop in wages.

By this time the staff had risen to 8 men. The following shows an early photo of the brick lorry. The guy with a mysterious brick on his head may be William or Fred, the first drivers.

The lorry carried 1500 bricks and typically a load would be taken to Brighton, returning with a load of sand. The trip would take all day. The Dennis lorry with solid tyres would not have been a comfortable, quiet ride.


F L B

By 1928 Shon had proved his usefulness and was no longer driver’s mate.

A large coal-powered steam boiler was installed to heat new brick drying sheds and could handle 30 000 bricks/week

The clamp site was covered over with a corrugated steel roof supported by larch tree trunks, though the wood was rapidly replaced with a larger all steel building.

About the same time a new diesel powered, Norris Brickmaking machine was installed which replaced the pug mill and passed the pug into a moulding machine that could fill three brick moulds at a time.

Production increased to 3million/annum from less than 500 000/annum.

- In 1930 a crime shaped future events The Hardy's chauffeur, Fred Chantler, noticed that petrol was being used up too quickly. Fred and the local bobby hid close to the pump and apprehended the villain.

- The culprit was prosecuted. This precipitated Riley, who had been struggling with the new mechanisation, to resign.

- Shon, now around 21, put himself forward, but a Mr Berry, who wanted to move back to the area and had managerial experience was hired.

- In 1932 Mr Berry moved on and recommended that Shon should take over.

- In June1932 Shon moves into the Work's cottage, taking a pay cut from £4/10s to £2/15s plus 2% of profits bonus. However he also had to agree to live on site in the Work's Cottage and get married!

1936 an Unexpected Discovery

- When digging out foundations for a new brick-making shed the men found pieces of old pot.

- Ronald realised that this could be an important find and initially offered 2/- for any piece found. The generous offer was short-lived when Ronald realised the pieces coming in were much smaller!

- A fairly long trench revealed a lot of tile suggesting pots had been manufactured at scale there around 50BC.

- The most important find was a group of fragments that could be pieced together.

The pot is now in the Barbican Museum at Lewes, though Jill Rolfe was told it was too fragile to move when she asked if she could photograph it.

The ‘Founded 50BC’ claim, which appears on the FLB logo seems a stretch of the truth, but made for good marketing.

1930s

More mechanisation brought in

Steam dryers, new drying sheds, railway trucks, larger clamp shed

Production rose from 3 million to 6 million bricks/annum

Workers paid in 5p/week to a fund topped up by Mr Hardy to allow for 1 weeks annual holiday and sick pay. This was still unusual at this time and would have been considered generous.

Chauffeur, Fred Chantler, was put in charge of laying a water main. There seems to be no end to this man’s talents as driver, sleuth and hydro engineer. Today a small army of consultants and specialist companies would have to be enlisted.

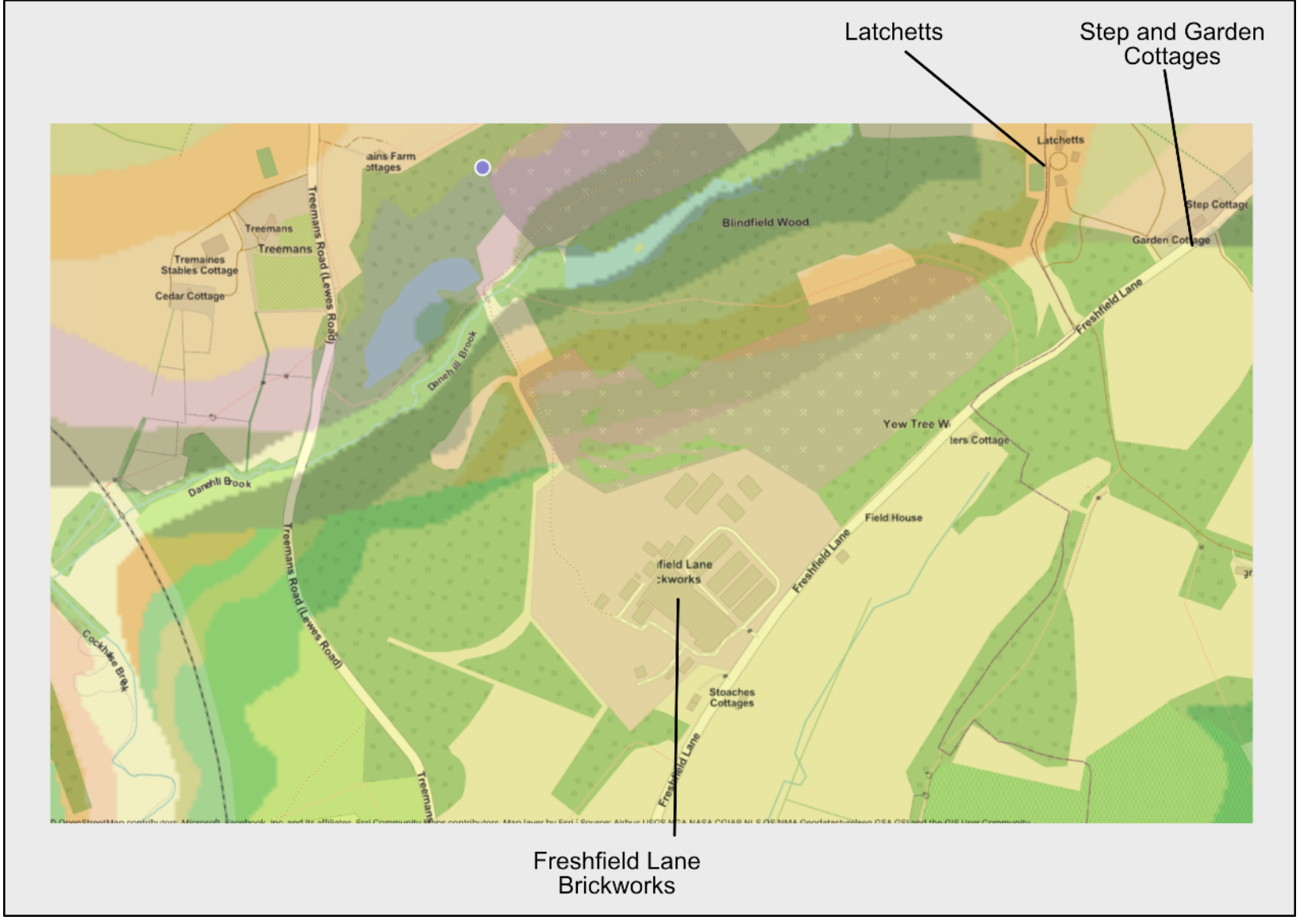
Water

Springs at Latchetts were used to power a RAM pump to pump water to a newly dug reservoir, to Latchetts and to stand pipes at the Step and Garden Cottages. This was done by Fred and a couple of brickworks employees. A RAM pump uses the water pressure of a large body of water to pump a small amount of water uphill with no fuel required.

A second RAM pump powered by lake water filled the tanks for the works

BUT by 1943 the iron pipes were blocking up, the local water was so acidic the iron pipes had corroded badly.

Map shows how the cottages and the brickworks lie compared with the springs at Latchetts.



1939
Sales dropped dramatically as the only requirement for bricks was for bomb shelters. Several men were called up to the pre war militia and by 1941 the brickworks was largely closed. The only demand for bricks being for military use.

A Canadian transport unit housed on site, who managed to set fire to the mess room roof when lighting the fire with the aid of petrol. (they were required to rebuild it). The Canadians were interested in the water chute into Keysford pond on the FLB site. This pond was warm in summer and was used for swimming by local children. Dilys Messenger can remember coming out of the water with a yellow tinge because of the clay.

Frank Chilman encouraged the Canadians to try the chute, suggesting 5 men in the boat was best for speed. Needless to say the boat sank immediately to the amusement of the locals.

After the War

- A second brick making plant was installed
- Mains water and electricity now available
- BUT, Grinstead clay seam running out!!!
- What could be done?

Geological Formations laid in Cretacious period in the Area

Weald Clay (youngest)

Upper Tunbridge Wells Sand

Grinstead Clay

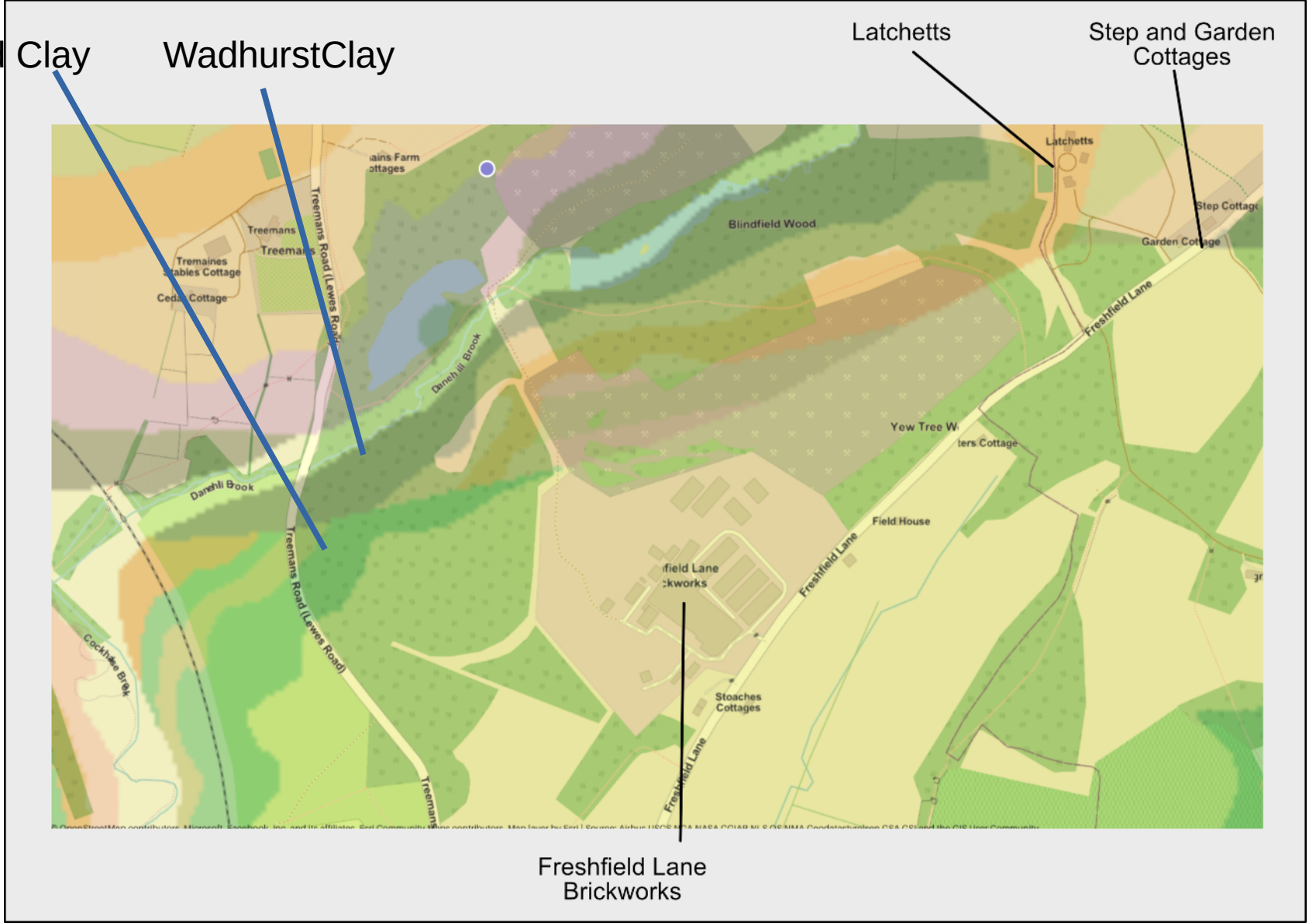
Lower Tunbridge Wells Sand

Wadhurst Clay. This layer was exposed further down the valley on FLB land.

Ashdown Beds

Upper Purbeck (oldest)

The Geological map shows that the Wadhurst clay was plentiful, but further down a steep sided valley next to Danehill Brook. Transporting the clay up the steep slope was a major problem.



Slurry

The solution that was tried was to purchase a heavy duty pump. Convert the clay into a slurry by mixing with water and pump the slurry to the brick making area, where it was drained and dried.

Unfortunately this lead to gross pollution of Danehill Brook and neighbours complained. At the time Guy Hardy’s earthmoving business was heading for bankruptcy. The brickworks was doing well so it made sense to join forces to excavate an easier route to carry the Wadhurst clay to where it was needed.

This proved to be successful solution for both businesses.

Setbacks

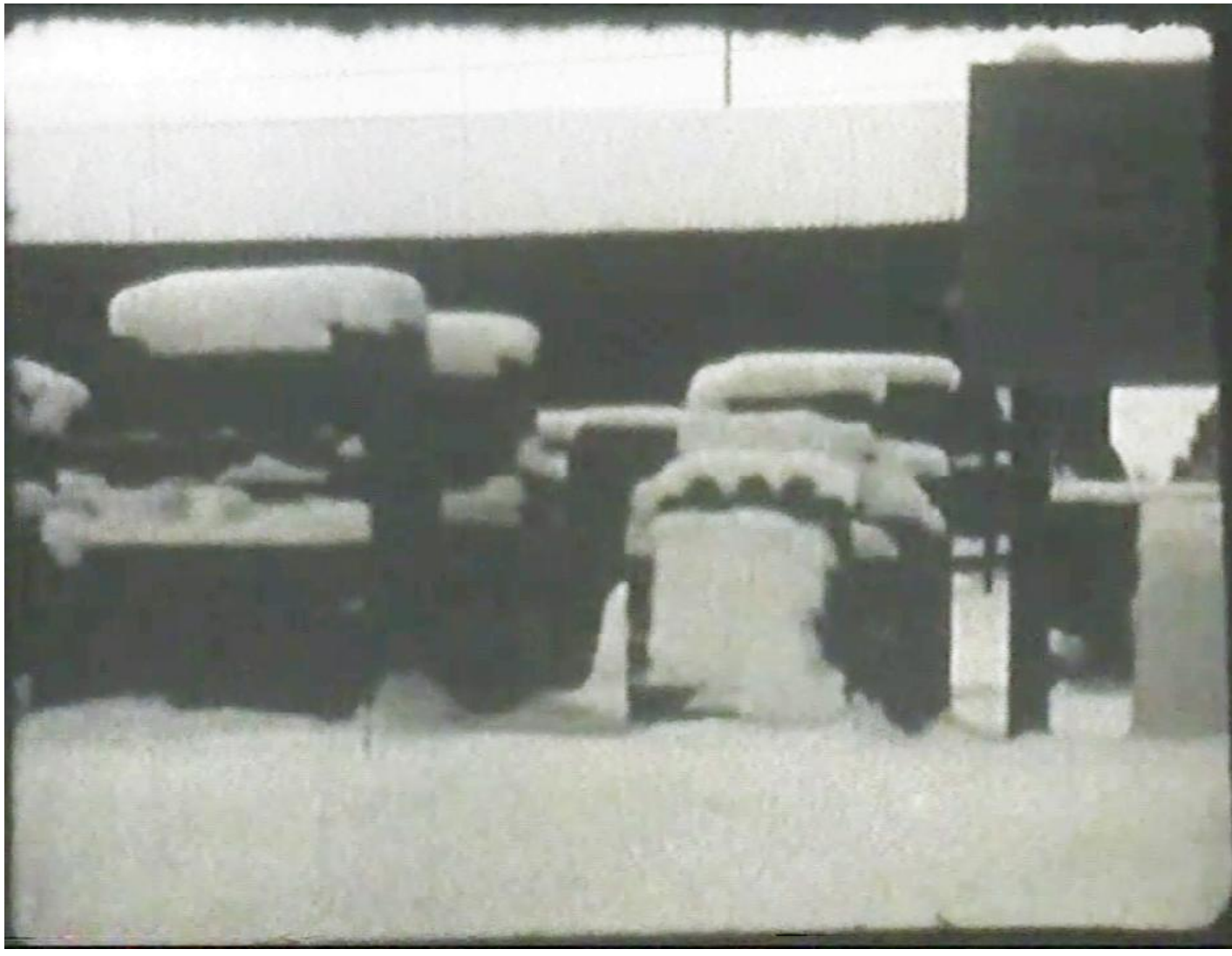
- A very nasty accident happened to Bill Daniels, a hommicker who came in twice daily to throw
- the off cuts over the shafting and gears of the Norris machine back into the rotary mixer. He was standing on the stone trap weights taking lumps of pug from his mate below when his loose shirt sleeve (belt?) caught up in some horizontal shafting winding him over the crown wheel and pinion of the Norris into the rotary mixer beneath the pan. He had the good sense to spread his arms and legs out to avoid getting chewed up by the mixer knives. Chuckles Penny heard him yell and saw him disappear and raced round to stop the lay shaft that drove the plant. We fished Bill Daniels out of the mixer minus everything but his thick leather belt, boots and socks. He was covered from head to toe with bruises, apparent when we washed some of the pug off him. (Shon Bennett Account)

- Fire! The Guv'nor was with me down at the newly-worked bottom pit by the lake. Johnny Johnson came running down the hill shouting, "The dryer's alight, sir!" Fortunately, a bright boy who had been on fire service during the war, had quickly organised other chaps to help him remove a wider section of the dryer roof thus preventing the flames reaching the wooden exhaust shaft and making shed. The office girls had called the Haywards Heath Fire Brigade, who in turn called up two more when they saw the size of the fire.
(Shon Bennett account)

- The fire caused extensive damage. An idea of the extent can be gleaned from the next photograph:

The hard winter of 1947 stopped work for 15 weeks.

During this time Ronald Hardy paid his workforce and kept them busy with repairs and tidying up. His workers were luckier than many others.



In 1954,the Guv’nr dies at a fairly early age. Mrs Hardy, Auntie, to the men stepped in as Chair and successfully continued the business until her death in 1985. According to Ron Wenham’s account she seems to have been well liked by the workforce. She knew the name of each employee and enrolled everyone in a pension plan, again a relatively early innovation.

The photo shows Ms Hardy with white-haired Shon Bennett

Endgame

- Mrs Hardy dies in 1985 and soon afterwards Shon
- Laurence Hardy takes over as Chairman, with Alan,his son, as MD
- 1970 severe recession threatens the company

  Resolved by recruiting a sales force headed up by Frank Hanna and increasing production to lower costs. Increasing production when the price of bricks had more than halved seems risky, but worked!

- Hardy’s sell the business in 2010 to Michelmersh and an era comes to an end.
- Photos of the workforce follow. Many names are not known. The first photo from Dilys Messenger has some names on the next page.

1 Charles (Shon) Bennet
2 Doreen.
3 Marjory Keeble.
4 Titch Bartholomew.
5 Alexander
6
7 Tim Weeding
8
9
10. Bates.
11. Cole.
12 MR ~~[illegible]~~ Frank Manning
13
14 Peter Wells
15
16 Jim Cundy
17 Bill Richardson
18
19
20 ? Jakes Baker
21
22 Norman (Willie) Wilson.
23 MR Dale.
24
25
26
27 Charles Elphick
28
29 Bert Turner
30
31 ! Ron Wenham.
32
33

34
35 Henry Wood
36
37 ~~Albert Bates~~ Frank May
38
39 Bill Rose
40
41
42
43 !! Bates.
44 Ronald Handy.

FRESHFIELD LANE BRICKWORKS

Outing Bosham 1932

Charlie Elphick from Dilys Messenger