

INDUSTRIAL ARCHAEOLOGY AND MY FAMILY

J.W. Gardner Young

Many members of my family have been involved in various industries, both local and in other parts of the country.

Both my grandfathers' and grandmothers' ancestors were dyers to the cloth industry around Leeds. When the Coronation of William IV and Queen Adelaide was approaching (1830), a nation-wide competition was held amongst the Master Dyers of the period and one of my grandmothers' ancestors John Austin won first prize and his colour was called Royal Blue. Tom Young's ancestor took second prize and his colour, used inside the Crown, was called Adelaide Puce.

Some of my ancestors were called Davis and ran a silk mill in Nailsworth.

My grandfather, Tom Young, had a dye works at Bridgend, Stonehouse. Only the cart shed now remains. He used to supply dye to Marling and Evans at King Stanley for the manufacture of billiard cloth. Until the end of the Second World War, my grandfather had a dye works off Verney road in Stonehouse and when he retired my uncle John Young moved to new premises at Bridgend acting as an agent for the Sandoz Company of Switzerland. My grandfather was the first dyer to produce Rifle Green as worn by the Gurkas. He once told me that a carter arrived one morning to be loaded with plywood kegs of Royal Blue dye destined for the cloth mill at Cam. On the journey there was a heavy shower of rain. When the cart pulled by a white horse arrived in Cam, it had turned Royal Blue.

My father, Geoffrey Austin Young was educated at Kidderminster Grammar School and it soon became apparent that he was a brilliant chemist. At the age of 19 he was appointed manager of a creamery just outside the town of Tipperary in Ireland. While he was there he carried out research into the chemistry of milk. One Saturday afternoon he was alone in the cheese and butter factory with his foreman when the latter cut his hand rather badly between his thumb and forefinger. My father rushed towards the office to fetch the First Aid Kit but the foreman told him not to bother and went over to a cheese vat where he wiped his hand in some mould and tied it up with a clean handkerchief. To my father's surprise the wound healed very rapidly without leaving a scar. After a few weeks of growing cheese cultures and trying them on cuts to his own hands he developed a strain of cheese mould that had very great healing quality. He was invited to use his invention at the local hospital where wounded men were coming back from France. So great was his success with his Penicillin-like culture that when he volunteered to join the army they would not let him.

Other inventions and discoveries followed such as the fact that when milk is pasteurised, not only are vitamins destroyed but the molecular structure is altered so that the Calcium Phosphate becomes INSOLUBLE in human blood. He produced a whey powder that was fed with water to delicate babies that could not take human milk. Many children pronounced incurable by doctors were saved with this food. The powdered milk produced at that time was unfit for babies. A hot roller touched the surface of a vat of milk. As the roller rotated, milk adhered to its surface but as it dried the milk sugar content caramelised and this upset any child that ate it. My father squirted a fine jet of milk into a hot air chamber and produced pure dried milk. He sold this technique to Nestle for a few pounds! Finally he found that by using rennet as a catalyst and subjecting the dry casin to heat and pressure a new type of plastic was produced. This soft material was hung in vats of formaldehyde to harden thus producing artificial horn that could be turned on a lathe.

Sir Charles Mackintosh had been experimenting in order to try to produce a type of plastic. When he heard of my father's success he asked him to work for him in Warminster to produce his new plastic in a factory. All went well until Sir Charles sold his business interests to Dunlop. Dunlop tried to acquire my father's secret formula without paying for it. Eventually my father resigned his position, borrowing £100 from his father and moved to premises in Cashes Green where he set up in business on his own. At about the same time, Erinoid started to make a similar material. My father had invented the process in Ireland and the rival company called itself "Erinoid". Their sales manger was a man called Wolfe. My father persuaded him to change sides and Young and Wolfe Ltd was founded, later with borrowed capital from a Mr Carpenter, they moved to new premises at Bridgend, Stonehouse. They made buttons and knitting needles on the site of the old manorial mill. The waterwheel went for scrap during the Second World War but the old driving rods are still there.

The bridge to the island at Bridgend used to be made of wood. In about 1932 my father bought a very heavy hydraulic press from Germany to compress small pieces of casein into multi-coloured sheets. The press arrived on Brunsdon's low loader pulled by Foden steam tractors. Two steel girders were winched across the river on top of the bridge. Steel rods were used as rollers and by using a pulley secured to a beam across a doorway, the press was winched over the river by a tractor on the near side. The press was then turned through a right angle and winched towards the waterwheel. It was then pulled through two more right angles into a stone floored room and erected in a vertical position and secured to rag bolts. Even today that operation would be very difficult with very few machines available to do the job. In 1932 three men using wires, winches, jacks and snatch blocks did it in one day!

I used to live in Verney Road and I can remember the time when some large elms were felled in order to extend the road northwards. Brunsdons used Foden steam tractors with pole wagons. All went well until the roots were dug out. They were eight feet in diameter and consisted of solid balls of clay, stone and roots. They were loaded onto the pole wagons and set off for Workman's sawmill at Ryeford. As they slowly progressed along the straight stretch approaching Ryeford pitch, the wheels of the pole wagons (solid tyred) sank up to the axles through the tarmac.

Brunsdons did all the timber hauling for Workman's. In the early 1930s they used Morris Commercials that had a winch centrally mounted under the loading area and the winch wire pulled at right angles to the vehicle but could also be used via fairleads to back and front. After the steam wagons they used Foden diesel lorries. They also hauled bricks and the Mighty Atom, the pride of the fleet could carry 3000 bricks. During the war Workman's at Woodchester used horses to haul timber. I have seen as many as twenty shire horses pulling three pole wagons past Marling school.

The father of my first wife was Jack Moore of Ebley. His father, who outlived him, eventually dying at 96 at Cashes Green, carved by hand the original mould in wood of the first BSA gearbox. Jack Moore's wife Clarice once told me that her people owned Dudbridge Iron Works and one day a large flywheel driven by a steam engine, became separated from its spindle. It sliced a path right through the factory and killed a man.

Angus McLellan was a porter at Stonehouse GWR when I first met him. He loved steam and helped my brother to drive a traction engine that I believe was owned by Richard Willcox. Angus left the railway to take charge of the steam engine at the brickworks. It was kept in beautiful condition and provided steam for heating the drying sheds where bricks went before going to the fire kilns.

Billy Shill worked all his life at the brickworks after the First World War. He was in charge of all the hand-making of decorative and architectural bricks. When an English architect designed a tall chimney which was to be built in South America, all the bricks had to interlock. Billy made them all.