The REDLER Story

Introduction & Setting the Scene

1931/32 At eleven years old I find myself cycling from Nailsworth to Marling (on my Rudge Whitworth bicycle –with of course a Sturmey Archer three speed !!)

I leave behind me H J H King Engineers in Newmarket, Chamberlains leather Board Manufacturers , Walkers Sticks, Newman Henders Valve makers, Workmans Timber Yard, Bentley Pianos of Woodchester, Erinoid Plastics, T H & J Daniels Enginers, Dudbridge Iron Works, and then on the right hand side of the long bend the empty site formerly occupied by Apperly Curtis Textile Mill. - 1

One fine morning I see some activity on that site. Whose moving in ? I make enquiries that evening from my Father who was a staunch NH man – He answered - Well it's a firm from Sharpness known as REDLER. They make Conveyors ,- **but it is said they wont last long !!** - 2

Well here we are – nearly 80 years on and, of all the foregoing list I quoted , Redler is the only one still operating under its name.

The site

First some information about the site which has an interesting History. - 1
My reference is Industrial Gloucestershire 1904
On this 4 Acre site Apperly established a Textile mill in the year 1794 . The business joining up with Curtis to become Apperly Curtis became a prominent name in the manufacture of fine cloth
In 1851 at the London International Exhibition they were awarded a gold medal for the best superfine black cloth woven in the world.
In subsequent exhibitions in London , Brussels, Antwerp, Melbourne, New Orleans and Paris they gained no fewer than 21 Gold medals and high awards. At all these exhibitions their attractive displays did much to promote the excellence of British made goods
Altogether they were a progressive Company, always ready to introduce and develop new techniques and labour saving methods.
In 1891 a destructive fire destroyed the greater part of the plant. This disaster although serious gave the opportunity for rebuilding the works to a higher and more up to date standard and improved layout of production.

The motive power for the new Mill was provided by two 500 hp steam engines designed and built by H J H King's of Nailsworth. . Mechanical stokers fed the boilers and a 50 hp turbine fed by the Mill race supplemented the steam engines.

Of further interest, and here I quote from the survey document Industrial Gloucestershire 1904 – 'Perhaps one of the most obvious, and certainly one of the most commendable

features of the new Dudbridge Mill is the unusual provision which has been made for the health and comfort of the operatives ... the Mill provides in every department and on all floors complete sanitary arrangements, and is well ventilated and lit overall by electricity. The comfort of the workers has been considered in other ways and ovens for warming food and hot water for washing is now provided ! !

The rebuild of the Mill was finally completed with an extension that was opened in 1910 by the Countess Bathurst. An inscription on the south wall of the Mill commemorates the occasion

A further point of historical interest is that Alfred Apperly had an extensive farm at Hyde where he kept a large flock of sheep the fleeces of which went into the mill for weaving a high grade of cloth.

Before leaving the site mention must be made of the Tower Clock This landmark Clock, made and installed in 1892 by the same clock maker, Thwaites and Reed, that made Big Ben , is held to be a quarter replica of that historic and famous time piece. The Clock shows the time on four faces each 4 feet in diameter and chimes the Westminster Quarters on four bells which on the hour ring out Handel's composition and telling the listener –

All through this Hour
Lord be my Guide
And by thy Power
No foot shall Slide

The Clock mechanism , a fine example of Victorian engineering, is weight driven and has to be manually wound once a week. When industry was active on the site the Clock was lovingly maintained. Regularly wound , often by apprentices detailed to do so, it kept exceptionally good time due to it's inbuilt precision and deign featuring a compensated pendulum and unique gravity escapement mechanism. *Sadly today it is not working – give reasons etc*

Arnold Redler – The Man

- 3

Arnold was born in South Moulton in 1875.
His father and Grandfather were flour Millers in Taunton His Mother was a Francis and her forebear was the inventor of the Francis Water Turbine that harnessed much of the water power in the UK and overseas.
He claims his family name was originally Ridler ie to riddle flour
On leaving school he entered his father's Mill where he gained an extensive knowledge of Flour Milling. Due to a head injury when playing Rugby he was rather deaf and had a slight impediment in his speech both of which made him a solitary man. His main relaxation from work was his mammoth chamber organ which he played loud enough to hear himself, much to the discomfort of others

Around the turn of the century Arnold with his elder brother broke away from the family business and set up their own Mill in Worcester under the name of Daniel Redler & Co Ltd

In 1909 they moved to a larger Mill in Sharpness ,which was the furthermost inland port to which ocean going vessels could unload grain. When this operation was up and running brother Daniel left Arnold to it and emigrated to South Africa , there to set up a milling business under the name of Tiger Oats – *more of that later from Ken.*

With the advent of World War 1 there was the inevitable shortage of manpower , partially offset by the use of female labour. This need to reduce labour and hence costs started the process of thought in Arnold which eventually lead to the development of the Redler enmasse conveyor and bulk materials handling by chain conveyor.

It should be appreciated that a flour mill must be kept running 24hrs a day. The old practice was for the finished flour to flow continuously down a chute there to be bagged off by manual labour. The difficulty of using female labour at night forced a change. The problem was partly was overcome by directing the milled and finished flour into a bulk bin constructed on the bagging –off floor. Day labour was then employed to bag up this flour from Bulk on a lower floor..
Here explain the difficulty of flow from bulk

This problem set Arnold thinking how best to mechanize this vital part of flour production. It lead him into many experiments using multiple chains running across the floor of the Bulk Bin which in turn discharged into a collecting conveyor set at right angles to the main flow. His thoughts were also conditioned by the need to discharge the bin on a 'first in first out' principle. After many prototypes he eventually succeeded with chains with 'flight ' attachments at right angles even finding that he could convey flour up a slope near to its angle of repose in a boxed conveyor using an endless chain with flights.

Whilst engaged in this development Arnold had the foresight in 1919 to register his ideas and designs with Patent agents leading him to have patent rights world wide for his registered designs and inventions -4

Having succeeded with his refined design of a working Bulk Bin Discharger, he set about experimenting further with the use of endless chain and flight running in enclosed boxed sections, first for conveying flour, grain and similar derivatives over long distances and then by using different designs of flight attachment he found he could move these and similar materials up slopes greater than their angle of repose and even vertically. -5 -6

Thus was born the Redler System of materials handling in bulk with his patented chain and flights inducing a wide range of bulk materials to 'flow like a fluid'

With this success he gradually switched his full attention from milling into engineering and circa 1923/4 the Sharpness Flour Mill was eventually put into voluntary liquidation allowing him to concentrate on his material handling developments all of which were carried out in his millwrights shop on the Sharpness site He also began advertising his conveying system in the trade magazine MILLING which had a wide publication. The system had the advantage of compactness over the then much used screw conveyor and conventional chain and Bucket Elevator. Furthermore it was a cleaner system because the enclosed Redler enmasse comveyor was much more self cleaning being swept internally and contiuously by the full moving mass of material.

In 1924/5 he exhibited at the British Empire Exhibition at Wembly and booked a number of orders . That occasion also lead to a term agreement with Buhler Bros, Milling Engineers of Uzwil in Switzerland giving them license to manufacture and supply his system in certain scheduled territories in Europe.in return for royalties

This proved to be profitable to both parties and the royalties financed Redler's further operation and development.

In 1930 he exhibited at the British Industries Fair at Castle Bromwich and also at the Toronto Exhibition in Canada. This lead to a financial agreement with the engineering company Stephens – Adamson of Illinois USA to manufacture and sell in the States and Canada. -7

With the finanacial gain from both these deals he was able to sell his Sharpness works and buy up and move his expanding operation to the Dudbridge site which had come up sale .

Arnold lived alone at the Lawn by the Lake at Cainscross with his organ built into one of the rooms. The house was demolished some years ago when the round-a-bout was built in Cainscross

Moving into these much larger works Arnold realized he must now engage professional engineers to introduce more orthodox methods of production and works organization Having done so his next step was to float the Redler Company on the Stock Market .he, Redler, being of course the major shareholder.. Gradually Arnold withdrew his day to day involvement and watched the Company expand into the Bulk Handling business that was hungry for labour saving handling methods

This brings us up to the beginning of the War years, but meanswhile Arnold did'nt sit back for long.

Whilst the company Redler with it's World Patents was expanding into the heavier industrial field, with each installation tailor made for the job, and the name Redler becoming known throughout the world, Arnold felt certain there was still an untapped

market in the Milling and Grain handling field for a more standardized range of conveyors and elevators built using his enmasse system.
Hence in the early 40's he set up entirely with his own capital a new and independent Company namely – Conveyors (Ready Built) Ltd.

That company ran and expanded successfully in this market for many years but after the death of Arnold it was decided by the managements of both companies to integrate both operations under one management. By this time the enlarged company was confident in it's capacity and ability to take on and execute turnkey handling projects , taking on the design , manufacture , installation and commissioning of plants.

About this time the opportunity arose for the acquisition of the engineering company of H J H King . the attraction being that that company had built up valuable knowledge in the Malting Industry that serviced the Brewing and Distilling industries. The Malting business was also a good market for materials handling systems and often presented the opportunity to win contracts for building complete new and progressive process plants. -8
Explain the Malting process – now computerised process ! -9

Much attention was given to overseas markets which lead in 1968 to the establishment of Redler Southern Africa pty with the facility of local manufacture and giving an improved penetration of that developing market. ***Over to Ken's experiences***

With it's strong attention to overseas markets the Company in the late 70's was proud to receive The Queen's Award for Export. The Award was presented to us at an assembly of the whole of the employess – some 500 + strong, by the Lord Lieutenant and later three delegates went to the Palace !

Our Markets

The movement of any powedered, granulated, flaky or small lumpy materials in a wide range of industries many having household names to quote a few examples -eg: Flour Milling Hovis McDougal, Ranks, Country Mills throughout the land, Brewers – Guinness, Bass, Scotish & Newcastle , Whitbread and all the rest - Household names like Kellogs, Industial names like ICI , pharmaceuticals like Aspro. Grain Terminals in many ports and inland sites throughout the UK and overseas. Wood Chips for Partical Board like Weyroc and now BioMass for Power Station fuel. Coal Handling for the NCB and Coal fired Power Stations BISTO, CEREBOS SALT, WEETABIX, -1

In working out the best solutions we got close to our customers both at the outset and finally in the installation and commissioning stages. These contacts gave to all a great interest and much job satisfaction. It is often said that a Redler man becomes inoculated with a Redler link and so can never give it up !!!

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