THE MEMORIES OF FRANK SENIOR

HIS LIFE IN SALTAIRE AND WORK IN SALTS MILL BETWEEN 1918 and 1983

Frank at 19 years of age

Compiled and produced by Maggie Smith in December 2013, with grateful thanks to Frank for his hours of time so generously given.

Frank Senior's story of life and work in Saltaire, 1918 - 1938.

I was born in 1918 and had a younger sister. I spent my early childhood in Saltaire. My father came from Batley and worked at JT and J Taylors in Batley as a loom tuner. My mother's family, originally from Cleckheaton, moved to Saltaire in 1890. My mother was born there in 1896. My parents were married in 1918 in Saltaire United Reformed Church.

I recall that when I was about 5 years of age my father was still working in Batley and had to leave Shipley at 4.40am to travel to work each day. My father did get very tired and had wanted to transfer his work to the Bradford Area to work on finer looms but struggled to find loom tuning work at this time. He eventually accepted a job at Salt's Mill as a labourer to alleviate the long journeys.

The Problems of finding employment in the 1920's, The **1926 general strike in the United Kingdom** was a general strike that lasted nine days, from 4 May 1926 to 13 May 1926. It was called by the General Council of the Trades Union Congress (TUC) in an unsuccessful attempt to force the British government to act to prevent wage reduction and worsening conditions for **800,000 locked-out coal miners**. Some 1.7 million workers went out, especially in transport and heavy industry.

Amongst the causes were – The First World War: The heavy domestic use of coal in the war meant that rich seams were depleted. Britain exported less coal in the war than it would have done in peacetime, allowing other countries to fill the gap.

Mine owners wanted to normalise profits even during times of economic instability, which often took the form of wage reductions for miners in their employ. Coupled with the prospect of longer working hours, the industry was thrown into disarray. The miners' pay had gone down from £6.00 to £3.90 in the space of seven years. Mine owners announced that their intention was to further reduce miners' wages. They rejected the miners terms - "Not a penny off the pay, not a minute on the day."

The TUC responded to this news by promising to support the miners in their dispute.

My father liked living in Saltaire but was disappointed that he couldn't follow his trade. As a general labourer his work was less stable and my mother had to work as a weaver to help with the family income.

During the general depression and periods of labour strike actions of the 1920's, my dad was out of work for 4 years. In the early 1930's things were very bad and whilst my dad did receive some small welfare benefits (known as transitional benefits) and we rented the house from Salts at 4 shillings a week, we often couldn't afford this amount.

As soon as I was 12 years of age I got applied for and got a licence to work from the Shipley Education Committee and I started delivering morning and evening newspapers which took me about 6 hours a day but each round was worth 6 pence and it helped the family during a depressing time. I found then that

The Great Depression, from 1929 In October 1929, the Stock Market Crash in New York heralded the worldwide Great Depression. John Maynard Keynes, who had not predicted the slump, said, "'There will be no serious direct consequences in London. We find the look ahead decidedly encouraging"

History was to prove him wrong.

The **Great Depression in the United Kingdom**, also known as **the Great Slump**, was a period of national economic downturn in the 1930s, which had its origins in the global Great Depression. It was Britain's largest and most profound economic depression of the 20th century

At the depth in summer 1932, registered **unemployed numbered 3.5 million**, and many more had only part-time employment. Particularly hardest hit by economic problems were the industrial and mining areas in the north of England, Scotland, Northern Ireland and Wales. Unemployment reached 70% in some areas at the start of the 1930s.

In **May 1929**, **a minority Labour government** headed by Ramsay MacDonald came to office with Liberal support. This was only the second time a Labour government had been in office (they had briefly been in office in 1924), and few of the government's members had any deep knowledge of economics or experience of running the economy.

the cinema was a ‘great escape’ for me in any spare time.

In 1931, luxury cinemas began to be built and Bradford had one of the finest, it was called ‘The New Victoria’ – later to become the Gaumont and Saltaire also had a new Gaumont. You could go to either before 6pm and get in for 6 pence and then see a double feature, a cartoon, the news and also have the Wurlitzer playing. You went into another world with thick carpets and comfortable seats and this experience was my main interest in life.

My family lived at 18 Edward Street in the village. From 12 years of age I was earning 8 shillings and sixpence and this was given to my mother. Prior to this money earned from the newspaper rounds, I used to go to the shops for older people and run Saturday errands for 2 shillings – I would walk to Bradford and back to get full value for my

The Saltaire and Bradford Gaumont Picture Houses

The Saltaire cinema building enjoyed a prominent position at the busy junction of Bingley Road and Saltaire Road and opposite the former tram depot. Technically it was not actually in the village of Saltaire but just outside its boundary in Shipley. The Saltaire Picture House Ltd was listed with capital of £20,000 and directors, H. Cottam and J. Read, purchased land to build their new cinema. The Building was designed by a local Bradford Architect and City Alderman, William Illingworth FRIBA, FSA, LRLA of Sunbridge Road, who was also responsible for the design of the *Prince's Hall* in Shipley and his most notable design of the fabulous *New Victoria* Cinema (**later *Gaumont/Odeon 123***) in Bradford city centre.

For Saltaire Illingworth designed an imposing Ashlar stone-built three-storey frontage with square columns supporting a distinctive apex above the projection room. A wrought iron and glass canopy extended the full width of the frontage with a sign proclaiming "Most up to date pictures and best music".

The main entrance to the left of the building had a floor and staircase laid with marble terrazzo. The structure was topped by a golden dome. Its splendid interior with 1500 seats was in Renaissance style with a balcony and a large 30 feet diameter circular dome in the roof setting a new trend for suburban cinema design.

money and use all that I had to buy toys.

I was a member of the Saltaire Congregational Church, being baptised there, and for 15 or 16 years I went to Sunday school on Victoria Road, I enjoyed the bible classes. Apart from my work at this age, the cinema, helping neighbours and Sunday school, I was a bit of a lone wolf. Unfortunately I spent most of my school holidays with my Grandma in Batley so wasn't considered to be a regular attendee at Sunday school.

My mother read a lot of light novels and weekly stories. I was an avid reader but lost my local library when quite young. I wasn't interested in comics or fiction. I liked biographies from my early teens.

My parents were Labour Party supporters and I always was until 7 or 8 Years ago. Despite this I revered Winston Churchill and later,

Saltaire United Reformed Church is truly one of the nation's most precious Victorian architectural gems. The church, built by Sir Titus Salt in 1859 near Bradford, West Yorkshire, is a unique example of Italianate religious architecture. It boasts many architecturally and historically important features and has been described as a classic "Cathedral of Congregationalism".

This Grade 1 Listed Building (in the same category as Hampton Court Palace and Salisbury Cathedral) lies in the valley of the River Aire, at the foot of the Pennine Moors and at the entrance to the Yorkshire Dales. Paid for out of his own pocket by Sir Titus Salt, it is a focal point of the "model" village, Saltaire, that he built for the workers at his huge mill to ensure their spiritual needs were catered for.

Sir Titus Salt commissioned local architects Lockwood and Mawson to design the building, as they had designed a number of other important Italianate buildings in Bradford City centre. The entrance is up six steps under a portico supported by six unfluted Corinthian columns and topped by a fretted tower with cupola. Fittingly, the Mausoleum built onto the church contains the remains of Sir Titus Salt himself.

when I was in the forces, I listened to him on the radio. He was an inspiring leader and I feel that in the post war years, no leader has been inspirational. I like honest, free speaking and I have never voted Conservative. Nevertheless, I have also never liked the extreme left wing or the involvement of Trade Unions in politics.

From 1937, the Nazi Party became prominent in Germany and I heard Hitler whipping people up on my radio. I used to think 'what are we going to do to counter this hysteria'. I didn't want to go to war after hearing from my parents about the horrors of the First World War. It was a frightening thought but I became interested in politics and world affairs.

At that time we had people like Chamberlain waving bits of paper saying 'Peace in our Time' – I like to think that he won us 12 months in which to prepare our forces.

The Rise of the Nazi Party and Hitler in the 1930's:
The rise of the Nazi Party (NSDAP) was swift and far from certain. Support for Hitler and his Nazi Party only took off after the full impact of the Wall Street Crash (October 1929) was felt on Weimar Germany. Up to this point the Nazis had been a noisy but far from important part of the Reichstag that was dominated by the Centre and Socialists parties along with the traditional nationalist parties found in Weimar at the time.

However, the great leap in unemployment throughout Weimar Germany and the seeming inability of the Weimar government to be able to control it mean that those without hope turned to the Nazi Party or to the Communist Party.

It can be argued that without the economic chaos caused by the Wall Street Crash, the Nazis may have remained a small and politically insignificant party. However, Hitler put his case to the German people in very simple terms: other Weimar politicians when given the chance of saving Germany had failed – all he needed was the one chance to prove himself. It was a message that clearly had a marked impact in terms of the support the Nazi Party received at successive elections in Germany until the election of March 1933 when the Nazis received 43.9% of the popular vote and 288 seats in the Reichstag.

My father wasn't a drinker but he liked nothing better that to be a member of the working men's club and to have his membership card. He could go anywhere in the country and find cheap entertainment and take his wife and children. The only times I went to a public house were to take 'the empties' back for some pennies.

I never felt unequal to anyone in the village or that I couldn't make use of the whole village. It was much later that I realised that the village had operated some class distinction in the past (with larger houses for managers). In my time this wasn't obvious. The village had been in business since 1871 but there was no class distinction in my time – I just assumed bigger houses were for larger families.

I went to school at 5 years of age in 1924 and stayed there until 1929. I was at the Albert Road School for Primary Education and at the age of

Working men's clubs are a type of private social club first created in the 19th century in industrial areas of the United Kingdom, particularly the North of England, the Midlands and many parts of the South Wales Valleys, to provide recreation and education for working class men and their families. A working men's club is a non-profit organisation run by members through a committee, usually elected annually. Each club has rules that tend to be vigorously enforced. The committee will discipline members (common punishments being a warning, or a ban for a period) for violations.

Despite the name, women are allowed to be members in many clubs, and virtually all clubs allow entry to women. Non-members are not allowed entry unless signed in by a member.

Most clubs affiliate to the Working Men's Club and Institute Union (commonly known as the CIU or C&IU). The CIU is affiliated to the Committee of Registered Clubs Associations or CORCA. A member of one affiliated club is entitled to use the facilities of other clubs.

The CIU has two purposes: to provide a national voice for clubs, and to provide discounted products and services for clubs. Although they have declined in recent years, they still number around 2,000.

11 years I moved to the Central School down Saltaire Road. In about 1932, the Shipley Education Committee decided to make this a selective school for 'higher stream' pupils that required an entrance exam. I missed the qualifying exam for this because I was ill when the exam took place so I wasn't able to go and had to stay in a secondary form of education.

I was very disappointed that my father and mother didn't argue my case though my dad couldn't afford it any way – he needed me at work. I felt that I had the potential but I didn't feel deprived at that point.

In the 1930's I was lucky enough to get an apprenticeship – in those days there wasn't any support from agencies to help you get the right kind of work. My mum didn't want me to work with machinery because I was small and not very strong.

My mum took me down to the mill (Salts) for a sedentary job and I was

The *1921 Education Act* raised the school leaving age to 14 and consolidated all previous laws relating to education and to the employment of children and young persons. The Act specified which councils would be local education authorities (LEAs), required them to have education committees and laid down rules for their operation. LEAs were to submit schemes to the Board of Education for elementary education and for **continuation schools**. At this time elementary education publicly provided for all was the priority as was teaching reading, writing and arithmetic.

The 1921 Act laid down new powers that included a power to make byelaws for regulating the employment of children and street trading and **the power to issue licences for such employment**

1936 Education Act raised the school leaving age to 15, but empowered LEAs to issue employment certificates to allow 14 year olds to work rather than attend school in certain circumstances - for example, where a family would suffer 'exceptional hardship' if the child did not work

The 1938 Spens Report was very influential in how continuation schools began to develop. It noted that by the late 1930s, about ten per cent of elementary school pupils were being selected to go on to secondary schools. The rest either remained in 'all-age' schools or went on to work. This influential report, despite acknowledging the lower level outcomes for UK children, recommended a divided secondary schools system based on ability.

given a job in the basement, packing. It was a nice, clean and warm place and I enjoyed it. I finished my newspaper rounds on a Saturday night and on that Sunday (1933) there was a heavy snowfall and it was very cold. I much appreciated the new packing work in the Mill basement.

When I had been in the packing area for 2 months I heard that there was a job going in the Gatehouse of the mill and that this was a job that might lead to an apprenticeship in the mill – offering more for the future.

I applied for the job in the Gatehouse and got it. It involved being a general 'dogsbody' – keeping the place clean and tidy, sweeping and cleaning the brasses. In those days, the Labour Exchange used to send unemployed people to the big mills to seek work and, as proof that they had actually been, they were given a green card that

Salts Mill was built by its founder Sir Titus Salt, a wealthy Bradford Mill owner, completed in 1853, Sir Titus went on to build a 'model village' for the mill workers of 800 Houses, a school, technical institute, hospital and almshouses.

Sir Titus Salt sought to improve the living and working condition of textile workers and in this he was influenced by the dreadful conditions that pertained in the Town of Bradford for such workers, where he owned a number of mills.

After his death, **his 5th born son Titus Salt Junior** took on the management of the mill in 1876 with a long standing partner Charles Stead and the mill continued to operate as a 'vertical mill' completing all the processes required to turn raw wool and other animal hair – famously the Alpaca – into woven cloth.

Titus Salt Junior died at the early age of 44 years in 1887. The mill continued to be managed by his partner Charles Stead with George Salt as the only remaining Salt family member but the mill was about to go into administration in 1892.

But in 1893 the business was saved – and the jobs of many of the village residents by a consortium of Bradford Business men – Isaac Smith; John Maddocks; **James Roberts** and John Rhodes.

By 1902 James Roberts became the sole owner of the mill and village. He ran the mill successfully, despite a number of family tragedies, until the combined effect of these and the effect of the 1917 Russian revolution on his supplies of raw materials and an important market for his goods . He sold the business in 1918 to a consortium of Bradford business men.

had to be signed by someone in the company saying that this person is not suitable for work here or otherwise. It was my job to find the appropriate manager to do the signing. This took me all over the mill and it could take me an hour to find the elusive manager. At that time, unemployed people were only allowed to refuse two jobs offers.

The Firm (Salts) had 4,000 staff at that time because it was a 'Vertical Mill' performing every process it took from receiving the raw Australian wool to a length of men's suiting cloth leaving the mill. In the immediate pre-war years we drew a lot of the labour force from the South Yorkshire coal fields – both men and women and often people had had no textile work experience – they were trained on the job.

In May 1933, I started in the Gatehouse and worked there for two years. The Firm considered that I should be looking for an

The new Directors for the mill were Sir James Hill (Bart); his two sons Arthur J Hill and Albert Hill ; Henry Whitehead and Ernest H Gates. A decision was taken in 1923 **to float the company** under the title **Salts (Saltaire) Ltd.** and Sir Henry Whitehead; A.J. Hill and E.H. Gates joined the new board.

There was a short post war boom in textiles and Salts (Saltaire) Ltd. in the 1920s employed around 3,000 workers, operating 100,000 spinning spindles and 700 broad looms but the accidental death of E. H. Gates in 1925 was a severe blow. Sir Henry Whitehead died in 1928, his place on the board taken by **Sir Frank Sanderson** (Bart)

In November 1929, Mr. Robert Whyte Guild, who had originally been E.H. Gates' Scottish agent**, was made Managing Director** of Salts and the H.E. Gates business was amalgamated with that of Salts. **This change came at a time of crisis in Textiles** and the village was sold to a Bradford Estate Agent in 1933 – alleviating Salts (Saltaire) Ltd. of the burden of management and maintenance and Salts (Saltaire) Ltd. entered **a long period of prosperity –** coinciding with Frank's early years of employment. The great depression had taken its toll of the textile Industry throughout Bradford but early in the 1930's some indicators were hopeful – for example the high demand for blue serge suiting; georgettes and wool crepe-de-chine.

apprenticeship after two years and it was ‘make your mind up time’.

My father, a loom tuner and my mother, a weaver, decided I should be apprenticed to weaving over-looking. It didn’t appeal to me in the slightest but reluctantly I agreed. The chief accountant came round and said ‘you have exceeded your time here (the Gatehouse) – what are you going to do?’I told him that my mother and father had arranged for me to be apprenticed to a weaving over-looker but said I was reluctant to do this.

He told me that there was a vacancy in the Enquiry Office – more similar to what I had been doing – and that from there I might get promotion to an office upstairs. So I simply swapped one errand type job for another but it was in a better order to try for promotion. The tasks here were similar, if any commercial traveller came round I took them in and then had to find the person

Salts (Saltaire) Ltd, managed by R.W. Guild began to expand and invest in new machinery in the 1930’s – the business of John Wright (Ingrow, Keighley) was acquired and some of their premises at Harden, Cross Roads and Damens, Keighley would prove to be useful production units for many years. By November 1933 production had doubled in 12 months.

In 1936, the business of **Pepper Lee and Company was acquired** – bringing in mills at Dudley Hill and Wyke and a financial interest in the **Irish Worsted Mills of Portlaoise** – this led in 1937 to the establishment of Salts (Ireland) Ltd. and a pattern of acquisition had begun that was to continue for some 20 years.

Bradford’s Textile Industry in general had begun to recover and although R.W. Guild had taken control at a time of crisis, between 1930 and 1933 he had turned trading losses into profits and Salts had become the largest spinning and weaving company in Britain.

R.W. Guild introduced 2 shift working and with Salts large capacity for the production of men’s suiting, he approached Montague Burtons directly to become a major supplier. By the mid 1930’s Burtons (as they were known on the high street) were turning out 35,000 suits a week requiring 6.5 million yards of cloth each year – Salts became the most important supplier to Burtons for the next 40 years.

Most manufacturers benefitted significantly from the introduction of an import duty of 50% on woollen and worsted cloth which came into effect in November 1931 – though this was reduced to 31% the following April. **Keighley. M, 2007. P 64.65**

they had come to see. I did this for 2 months and when a vacancy occurred in the general office I applied for this. Of course I was at the bottom of the pay scale and this helped me get this job.

My new job was called ‘The Bradford Messenger Job’ where, to save on postage for delivering invoices, I was sent to Bradford by train where I then spent the day delivering invoices by foot. This lasted until about the September of that year (1935). When I came back from Bradford one Saturday morning, the Sergeant Commissioner said ‘you are starting a new job on Sunday – they are wanting someone to learn textile designing and because of your family’s textile background they have chosen you over and above those ready for promotion’.

Frank and his sister when their father worked in Batley as a loom tuner.

Frank and his sister, 2 years later, after his father could no longer work as a loom tuner

Frank aged 13 years beside the Batley relative's car.

Frank aged 19 years when working at Salts

As you can imagine, this annoyed some people but I could only take the chance that this offered me. I was in this job for 5 years and I took the Textile Institute's Ordinary National Course, studying for 5 nights a week and Saturday mornings for four years. The course embraced all the aspects of being a textile designer – textile machinery, textile calculations, textile mechanics, textile weaving, design and colours. I sat the National Ordinary Certificate in June 1939. (as it turned out, that was the last I had to do with textiles until 1946)

Textile design was a very important job and prior to 1920, in order to become articled you had to pay to train. I learnt with all the professional designers. Going in as an apprentice I had to weigh and measure lengths of cloth and then submit them to the chief salesman for dyeing and finishing instructions.

Salts, being a 'vertical mill' carried out most or all the following processes -
Sorting the wool fleece and skin wool manually into defined qualities; Blending Wools of similar qualities but different types to obtain some desired effect and produce a bulk lot for combing. Scouring or washing the wool to remove dirt, natural grease and any other impurities. Carding where wool fibres are disentangled, and made into a twist less rope-like form called a sliver. Backwashing, a light washing of the slivers to remove dirt picked up in carding. Combing to straighten the wool fibres and separate the short wool from the long. Drawing the combed tops until they are reduced from thick slivers of wool to roving from which the yarn is finally spun. Spinning the wool, drawing it out to its final thickness and twist added for strength. Twisting, two or more single spun yarns to produce a yarn of greater strength, for use as warp threads in the weaving process. Reeling- spun yarns are formed into hanks for dyeing. Winding – placing spun yarns onto packages. Warping A large number of ends are wound, side by side, in **predetermined order,** density and width, onto a beam for the loom. Warp Preparation Individual warp threads are drawn through shafts according **to a pattern set by designers!**

Weaving Where a loom is used to produce a piece of cloth by interfacing the warp threads (running the length of the fabric) with the weft threads (passing from side to side). The warp threads by the warping beam and the weft by the shuttle. Perching The woven fabric is inspected for faults and these are marked Burling & Mending any minor faults are rectified by hand. Dyeing A wet process in which raw materials, yarns and fabrics have colour applied. Finishing The fabric is treated by various processes to produce the required effect, feel and handling quality. **The finished product depended on design if it was to be sold easily and meet fashions of the day.**

Then I had to process them through dyeing and finishing.

That was one of the tasks before you started any learning. They were routine jobs but once you had finished those for the day you could go and sit with an experienced designer to learn all about standard weaves and how to create weaves in relation to yarns and about what kind of cloth you were going to make. I was earning 18 shillings and 3 pence a week.

This went on for about 2 years and my father kept asking me 'when are you going to get a rise'. I said that it was up to the manager to give me a rise and I didn't want to ask.

Of course, he gave me an ultimatum and said 'if you don't ask I will do it for you'. The chief accountant was a small chap, very dictatorial and not easy to get on with and his office was in the main accounting room.

I went down there to see him very hesitatingly, knocked on his door

A 1931 UK survey found 10.6 per cent of workers earned £3.5s per week or more BUT this was evident mostly in London where average wages were higher than the rest of the UK. The largest category of workers shown in the schedules were labourers earning **£2.18s.9d per week.** Given this highest level, Frank's 18 shillings would appear meagre even for a young man.

It is also worth remembering that this was a wage when a worker was in work. A lot of workers would experience sporadic, or even extended periods of unemployment. - At its peak 20% of workers in northern Britain were jobless and had to rely on Unemployment Benefits payable for 26 weeks at **seventeen shillings**.

Then 'Transitional Relief' provided by Public Assistance Committees took over with means tested benefits and if a claimant owned more than the very basic necessities of life the means test applied involved selling other goods before assistance was agreed. [In 1932, 35% of miners were unemployed, as were 31% of textile workers, 48% of steelworkers and 62% of shipbuilding workers]

The early 1930's level of unemployment benefit was only a little less than Frank's wages in 1935 so his father would inevitably be concerned about this.

and told him that I hadn't had a rise for 2 years. Without any further conversation, he got hold of my arm and took me out into the main area stating very loudly 'what makes you think you are worth any more?' it was very embarrassing so I told him that my father thought that I was at least entitled to a rise or an explanation and I got a 5 shillings rise.

This was 1937, and then another year went by without a merit award. In about 1938 a man called Sydney Jackson was employed in the sales costing office and he was contemplating moving on. Sydney's superior was concerned to find a suitable replacement. It had to be someone with a design background because if you are costing out cloth you have to know what you are doing.

Sydney had the bright idea that because of my wage dissatisfaction I might be interested, so he came to

As early as the mid 1920's concerns were being expressed in Bradford at the number of textile firms suffering from a shortage of skilled labour and at the time, Trade Unions restricted the number of apprentices in the trades with the proportion of apprenticeships available being small in comparison to the industries' needs.

A W Holmes, headmaster of Marshfield Council School, Bradford, told the Bradford Textile Society that 60% to 70% of boys leaving school in Bradford went into the textile trade but by the time they were 15 or 16 years of age only 5% to 10% remained in the trade because many felt they had gone into a blind alley with little chance of promotion. **Keighley, M. 2007 P, 73**

In the 1930's , the industry faced the growing problem of convincing young people that there were good career prospects in **textiles.**

The Yarn Agent, Walter Hodgson, then Mayor of Bradford, Speaking a the Belle Vue Old Boys Association on January 31 1935, remarked that nations as well as individuals wanted security and – as a consequence – the spice and adventure of life was drifting away; 'Bradford' he added 'was not built up by the type of youth who wanted security. All these huge mill chimneys are monuments to adventure and enterprise' ... **Keighley M. 2007 P 73,**

see me one morning and said 'how would you like to come and do my job? – I am leaving and my boss needs a replacement'.

By that time I was beginning to feel that I needed more money. His boss, Mr. Crabtree, asked me how much I was earning (23 shillings a week) and said 'well we could double that'. I didn't need any more encouragement but as a young man, somewhat naïve, I asked him to make it all right with my then boss – who was probably glad to see the back of someone always wanting rises.

So because of that I went into costing and it was a job I was to continue for the rest of my years at Salts Mill – eventually becoming the head of the Costing Department.

The work involved costing out the price of a yard (later a metre) of a piece of cloth. We used to make 700 to 800 different types of cloth each year, mostly worsted. On the

Girls at the time were also seen to be less interested in 'mill work' - Worsted manufacturer, W. H. Suddards, President of the Bradford Chamber of Commerce, commenting on the lack of skilled operatives in the textile industry, observed that girls were deserting the mills for the beauty parlours.

Alert to the problem, **Bradford Technical College**, included in its syllabus, training programmes to meet the industries changing requirements and in the 1930's new courses were devoted to **designing fancy yarns** and training for power loom 'overlookers' and continental methods of wool combing – to address the industry's movement to automated looms and the possible uses of shorter wool.

In May 1936, the announcement of the retirement on medical grounds of **Professor Ebor Midgley** was a matter of regret to thousands of men and women whose lives and careers he had helped to shape.

Ebor Midgley had gained his knowledge of textiles at shop floor level, first as a worsted spinner in his home town of Shipley and eventually as a cloth designer. He was first appointed as chief lecturer in cloth structure and analysis in 1901 and as head of the Textile Department in 1915 and he left a legacy of developing training to meet the changing needs of the industry as well as a number of publications.

Originally founded as **Bradford Mechanics Institute** in 1832, the Institute acquired a School of Design in 1848, a School of Building in 1867, and a Weaving School in 1878. After a new building in 1882 it was renamed **Bradford Technical College.**

‘ladies’ dress side we used a lot of woollen yarn for effect and also some silk yarns. Some yarns we picked up from a well known Bradford Agent – yarns that contained all sorts of matter such as rabbit or skunk hair – and as fashions changed, the yarns had to change.

We made a range of cloth as well as worsted cloth and you had to cost out how much of what yarn you were going to use in the cloth, how the cloth would be set and constructed, how many yards needed from the loom, the dyeing and finishing process times and costs and then work out what the yield would be from those. My four years learning about cloth construction and design were a good fit for this job.

I had realised when apprenticed as a designer that I didn’t have creative potential, I could copy the designs of others but wasn’t

Whilst Education and Training Establishments were shaping up to train young people in the textile industry in the range of processes involved in manufacturing cloth, the Bradford Textile Industry also had to face up to a number of problems of over capacity.

During the first 9 months of 1932, due to the import duty imposed, imports of wool and worsted cloth were negligible amounting to 4.66 million square yards compared to the prior imports of 36.72 million square yards.

So Bradford was more strongly represented at the British Industrial Fair, in London in 1933 than at any previous show.

British men were spending more on clothing and British worsted cloths were very popular in Europe, the USA and British Empire Countries and Pepper Lee and Co. (now owned by Salts (Saltaire) Ltd featured a collection of tropical cloth for warmer climates.

Nevertheless, it was at this point that Bradford’s textile industry began to focus on the fact that the Bradford District had too many combing plants. In 1933 110 companies (including 16 branches of Woolcombers) had chronic over capacity that resulted in intense competition where profit margins were eroded.

Action was clearly needed in the Industry, Keighley, M. 2007 P, 67

creative enough so I had been right to change tack.

It was a very fluctuating trade (Textiles) in respect of changing fashions. Fashion remained more consistent for men with construction remaining very similar but there was a need for a good colour sense using yarns already dyed. There was less to think about as most of the thought was about colour or striping effects, subtle hues and the type of finish. On the other side, women's fashions changed a great deal and it was the 'weave' that gave the effect to the cloth and different yarns created different effects.

It was my job, if a salesman wanted a selling price for one of our quality or new cloths, to go to design and extract the making particulars - the reed width, the picks, the weft count, the warp and the yarn or yarns used – and then find a spinner who could supply the yarn at a

Members of the Woolcombers Employers Federation began to take steps to resolve the problem. Their objective was to purchase obsolete mills with a view to dismantling or turning to account the mill premises, plant and machinery at scrap values.

The Directors of the combing mills purchased were precluded from involvement in any new combing venture for 25 years and covenants precluded the re-use of combing premises for that purpose.

Peter Bell (History of the Woolcombers Association, 2000) notes that Woolcombers Ltd eliminated 2,115 combs between 1933 and 1945 and closed 99 combing mills most of which were in Bradford.

Similarly **A Worsted Spinning Re-organisation Committee** was established in 1938 to resolve the problem of over capacity in spinning mills.

The Committee established that of 3 million spindles, 350,000 were surplus to requirements . They acted to eliminate redundant plants and introduced a minimum yarn price scheme. Many firms also began to pay a half pence levy per spindle to finance the re-organisation.

Salts Mill at this time was enjoying increased profits and retained both combing and spinning processes as part of the 'vertical mill' philosophy that had served it well in the past.

competitive price. Then I had to go to the accounts department to assess the overhead costs. In those days we based overhead costs on the most expensive part of the production line of the manufacture – which was the weaver's wage. This formed the rate worked out by the accountants that had to be recovered. Added to these costs were the costs of storage, making up and carriage – you had to calculate all of these into the price.

Due to the growth of Nazi power in Germany and the increasing certainty of war; the British Government decided to introduce conscription in peace time. They decided that men aged between 20 and 21 years would be called up to do six months training and would be called 'Militia Men'. Men of this age had to register all over the country at local Labour Exchanges on Saturday 3 June 1939.

Nevertheless it is clear from Frank's account that some spinning work was 'out-sourced' to other companies - though these may have been companies that had been acquired by Salts in this period.

Despite the aim to re-organise capacity in spinning in the same way as combing was reduced to the required capacity of the times, the advent of World War II and the flood of Government orders for yarns suitable for military clothing probably caused the demise of this scheme .

Large Government Orders were placed for 'fabric of stout construction' in April and May 1939 and by June 1939 Government had issued orders for 3 million pounds of wool tops of super 50s and 56s quality. The tops were to be bought by tender and Government Departments were organised to supervise the spinning, weaving and dyeing processes.

From this point in time, for the duration of the War, British industrial operations were cloaked in secrecy and Bradfordians as a whole never knew with certainty what local mills were making.

Cloths required by Government had to pass stringent tests with respect to quality, weight, strength and regularity of shade. A system of wool control was set up within days of war being declared and the control offices were based at the Hydro, Ben Rhydding, Ilkley and a Shipley Worsted manufacturer – **Sir Henry Shackleton** – was appointed controller.

The Controller had the authority to control supplies and prices of wool tops, broken tops, noils and combing laps.

I duly registered on that day and I expressed a desire to join the Royal Air Force. Most of my comrades chose the army and a few chose the Royal Navy. These men were called up pretty quickly for those branches of the armed forces. Because I had chosen the RAF, I never heard a word from the authorities until November 1939. I was called for a medical and passed for the RAF. I took the liberty of asking the Squadron Leader – "why the delay"?

The answer was that we were still building aerodromes. The Squadron Leader suggested that I return to my employment at Salts Mill and said that I would hear from the Squadron in due course. I had already met the woman who was to become my wife but did not know this at the time. I first met Ilma when she was 15 years of age and she joined the Company – she had started work at the Mill as a temporary worker in Burling and

Whilst the Textile Industry in the area began its 'war work' many individual employees in the trade, such as Frank, joined up.

During the 1930s some men still chose to enter the armed forces after leaving school and in 1937 there were 200,000 soldiers in the British Army.

When war broke out in September 1939, some men volunteered to join the armed services, but Britain could still only raise 875,000 men. In October 1939 the British Government announced that all men aged between 18 and 41 who were not working in 'reserved occupations' could be called to join the armed services if required. Conscription was by age and in October 1939 men aged between 20 and 23 were required to register to serve in one of the armed forces. They were allowed to choose between the army, the navy and the air force

Men aged 20 to 23 were required to register on 21 October 1939 - the start of a long and drawn-out process of registration by age group, which only saw 40-year-olds registering in June 1941.By the end of 1939 more than 1.5 million men had been conscripted to join the British armed forces. Of those, just over 1.1 million went to the British Army and the rest were split between the Royal Navy and the RAF.

Mending before she got an office job. When I went to work for Mr. Crabtree she was there and although I was very attracted to her we did not begin a courtship.

It was a further 6 months before I had to report for duty on the 23 May 1940. I went to Padgate in Chesire for Basic Training. Unknown to me, the French Government was seeking peace with Germany and its army had capitulated and the British Army were in retreat.

After basic training (and when the war against Germany had been declared) I went on to serve for 4 years and 2 months of continuous service with the RAF in Egypt. I was posted to a new unit – a movement control unit – and served out the whole of the war with this unit. I left home on Saturday 9 November 1940 and didn't return until Friday 12 January 1945. I served the remainder of my war service at an

Padgate originally was a village on the edge of Warrington, England, and today it is a large residential part of the town. During World War II it had a small RAF Station.

RAF Padgate will be well-remembered by thousands of young men who were selected for RAF national service and on this site received their first taste of military discipline, ill-fitting uniforms and a severe haircut.

Many new recruits travelled by train to Warrington, where, on arrival, they were met by RAF Sergeants and escorted to Padgate, a basic training camp, It was a big new camp and the buildings were of wood construction. Accommodation was some wooden huts set out in neat rows with nearby ablutions. In each hut was a round heating stove and the floors and everything else highly polished and spick and span. There was more than one cookhouse and dining hall and several squares for drilling.

Recruits were allocated huts and issued with a knife, fork and spoon and a large white china mug. There were men from every corner of the British Isles and the biggest percentage were training as flight mechanics and flight riggers, although there were a good many training for other trades.

From basic training Frank was deployed to North Africa to provide support to the Allied Armies through sustaining the Air Force Squadrons based there.

RAF station in East Yorkshire, finally being demobbed on 31 March 1946.

My unit dealt with the receipt of personnel from the United Kingdom, pilots and their crew, shipping them off to their various units for action. Some personnel arrived at my unit from Africa. This movement of pilots and crew was only part of my job. My unit worked in conjunction with the Royal Engineers who served in Egypt as docks operating companies. When I worked on the docks I had to be on the quayside when ships came in, check the equipment and get this transported into the desert.

I was a non-combatant throughout the war but the conditions were hot and harsh and diseases were rife. Many personnel were lost through smallpox, typhoid and similar diseases – one member of staff contracted Bubonic Plague. I became ill in the desert and I had to be moved to the southern end of

The **Desert Air Force** (DAF), also known chronologically as **Air Headquarters Western Desert**, **Air Headquarters Libya**, the **Western Desert Air Force**, and the **First Tactical Air Force** (1TAF), was an Allied tactical air force initially created from No. 204 Group under RAF Middle East Command in North Africa, in 1940, to provide close air support to the British Eighth Army. Throughout World War II, DAF was made up of squadrons from the British Royal Air Force (RAF), the South African Air Force (SAAF), the Royal Australian Air Force (RAAF), the United States Army Air Forces (USAAF), and other Allied air forces.

In '***Supplying War: Logistics From Wallenstein to Patton'***, the noted historian Martin Van Creveld (1977) comments on this predicament, "Operating in the desert, neither the British nor their German opponents had the slightest hope of finding anything useful but camel dung, and while the former did at least possess a base of some considerable size in Egypt, the latter were entirely dependent on sea-transport even for their most elementary requirements.' Disease was an ever present problem'.

Dependence on sea lines of communication, in turn, required adequate port facilities to receive materiel, as well as ground lines of communication (road or rail) to distribute it from the ports to the fighting forces. Tripoli was the main Axis supply port for forces operating in North Africa., with a capacity of 1,500 tons of goods per day.

the Suez Canal where conditions were a little better.

On demobilisation, the government guaranteed service men and women at least 6 months employment and I returned to Salts Mill. Salts were good to their word and retained returning service personnel in their employment. Mr. Crabtree was still head of the costing department and I settled back into this work.

Throughout the war years Ilma had written to me, despite the fact that she had become engaged to a soldier from Derbyshire who was stationed temporarily in Shipley. I had also had a romance with someone. My romance started in 1940 , after leaving Saltaire, when I had joined a hiking group and met a young woman and struck up a romance. I became engaged to her in the summer of 1941 but it had been too rapid a romance with no depth to the relationship and it

With World War II coming to an end an election took place in July 1945. Labour won overwhelming support . The Labour Party ran on promises to create full employment, and a 'cradle to grave' welfare state.

By 1942, all male British subjects between 18 to 51 years old, as well as all females 20 to 30 years old resident in Britain, were liable to be called. Only a few categories were exempted including married women and women who had one or more children 14 years old, or younger living with them. Pregnant women were theoretically liable to be called up but in practice were not called up.

Prior to World War II**, a woman's place** generally was in the home, a man's place was out at work. It was acceptable for women to work outside the home if they had no family to look after, but they were paid less than men were - even when doing the same jobs. Before the war, nearly five million women in the United Kingdom had paid employment, but most would have expected to leave as soon as they married, or when they had their first child. With the onset of war, everything changed.

The practical demands of wartime **changed social customs beyond all recognition.** People enjoyed far greater social freedom than before, with more opportunities for encounters with members of the opposite sex, and a sense that normal rules did not apply with the same rigour in the face of so much imminent danger.

ended when she got fed up of waiting for me to return.

Ilma had also joined the forces, being conscripted in 1942 and becoming a staff sergeant in the Army Service Corps, based in Newcastle. Her letters had been constant throughout the war years and towards the end of the war she wrote to ask me to let her know when I got home. She said that she would get a week-end pass and that we could celebrate my return.

I let her know the date of my return and we met in Leeds Station on the Friday night and were together the whole week-end until I saw her back to the train for Newcastle on the Sunday evening. I wrote to her on the Monday morning, thanking her for a lovely week-end and asked her if I might have misread the signals from her over the week-end – had I imagined these.

From spring 1941, every woman in Britain aged 18-60 had to be registered, and their family occupations were recorded. Each was interviewed, and required to choose from a range of jobs, although it was emphasised that women would not be required to bear arms. Many women, however, were eventually to work - and die - under fire.

In December 1941, the National Service Act (no 2) made the conscription of women legal. At first, only single women aged 20-30 were called up, but by mid-1943, almost 90 per cent of single women and 80 per cent of married women were employed in essential work for the war effort.

The **Royal Army Service Corps** (**RASC**) was a corps of the British Army. It was responsible for land, coastal and lake transport, air dispatch, supply of food, water, fuel, and general domestic stores such as clothing, furniture and stationery (but not ammunition and military and technical equipment, which were the responsibility of the Royal Army Ordnance Corps), administration of barracks, the Army Fire Service, and provision of staff clerks to headquarters units.

As women's war service ended it was seen as normal that women would return to home roles and that men would return to the jobs that women had filled and had been capable to do so.

Frank in training at RAF Cranwell, June 1940, middle row, third from the right.

Frank met his cousin unexpectedly in Suez 1941

Frank and Ilma's Wedding, 11 June 1945

She replied straight away and said ‘my answer would definitely not be no’. We were married in the June of that year.

Meanwhile, back at work, I learnt that during the war Salts Mill had worked on Government contracts for cloth and had ceased making any cloth for public use. My boss, Mr. Crabtree, had been given the role of communications and had to oversee cables and letters from all over the world. Getting back to the work of making cloth for the public was very gradual but the mill slowly returned to normal over the next two years and the return to making cloth for export took even longer – to get permission for this we had to have an order from someone and then seek permission.

My boss, Mr. Crabtree, maintained both the communication role he had acquired during the war and the work of the costing department for some time after my return. It

Government war contracts slowly came to an end and the controls set up by government ceased. Commercial practices began to re-emerge. For this reason, the methods of international communication became increasingly important.

Cable Communications had been dominated by British submarine cable systems from the 1850’s until the First World War. They were still very important to trading companies as they allowed owners of ships to communicate with captains when they reached their destination on the other side of the ocean and to give directions as to where to go next to pick up more cargo, based on reported pricing and supply information.

From early in the 20th Century however**,** the near-monopoly on international communications enjoyed by the cable companies came under threat from the development of wireless radio technology. Marconi's Wireless Telegraph Company gradually developed a chain of ships using short-wave radio communications which could commercially compete with undersea cables.

The 1928 Imperial Wireless & Cable Conference was convened to establish the best way to manage these two technologies and protect British interests. This led to a decision to merge the communications methods of the British Empire into one operating company, initially known as the *Imperial and International Communications Ltd*, and changed to ***Cable and Wireless Limited*** **in 1934.**

was difficult to do both and I used to ask him why he didn't stop the communications work but he felt he could not do so and I also became involved in that work.

The telephone would ring and it would be up to 5 cables and, as an example, one could be from Geelong in Australia and have 35 words in code. We had to take down all the words in longhand and then repeat them to check accuracy in recording the 5 letter code. The code was designed for the wool department and they were the only ones with the information to decipher the code.

My team had to type up 12 copies of the message in code and take these around to the various units. The wool department would then bring back their response and we then had to send their coded responses back by cable. This work typically took up to 2 hours each morning in the wool sales season

Trade Secrets In Commonwealth common law jurisdictions, confidentiality and secrets are regarded as an equitable right rather than a property right .The test for a cause of action for breach of confidence in the common law world is set out in the case of *Coco v. A.N. Clark (Engineers) Ltd*: namely 1)the information itself must have the necessary quality of confidence about it; 2) that information must have been imparted in circumstances imparting an obligation of confidence and 3) there must be an unauthorized use of that information to the detriment of the party communicating it.

The "quality of confidence" highlights that **trade secrets are a legal concept**. With sufficient effort or through illegal acts (such as break and enter), competitors can usually obtain trade secrets. However, so long as the owner of the trade secret can prove that reasonable efforts have been made to keep the information confidential, the information remains a trade secret and generally remains legally protected. It is not clear whether the elaborate coding used at this time by Salts was to protect such 'secrets' that could have given their competitors an advantage.

At the end of the Second World War **the stock** of Australian, New Zealand and South African wool in the ownership of the United Kingdom Government **was 10.4 million bales**.

before costing work could begin and we eventually took on a young female worker to help with the communications work.

The Managing Director at this time was Mr. R.W. Guild and he had appointed his son, Mr. Park Guild as Deputy Managing Director of Salts. Mr. R.W. Guild had been brought into the company by Mr. E. H. Gates – he had been Mr. Gates' agent in Glasgow prior to this and always took his holidays in his native Scotland.

During the war, his son, Mr. Park Guild, was part of the observation corps, spotting enemy aircraft, but the authorities did call him up after a time, to serve in Burma. He had begun the process of serving in the forces but his father argued strongly for his release due to his important role in this large textile company employed on government contracts.

At a meeting of officials from each country held in London in April-May of 1945, the four governments formed a joint organisation called**, U.K. Dominion Wool Disposals Limited,** to market and sell the stockpile, together with future clips, in an orderly fashion to ensure the stability of wool prices. By the end of 1951 all of the stockpile had been sold, as well as the wool bought in by the organisation at the floor price. On 22 January 1952, the joint organisation was voluntarily liquidated.

Despite the importance of Mr. R. W. Guild's stewardship of production at Salts Mill, little is documented about his personal life in archives accessed for the period.

The size of Bradford and its importance to the war effort did not result in the wide scale damage by German air raids that other northern cities experienced.

Denis Upton, in his paper, 'Enemy Air Activity over Bradford', for the Bradford Antiquary, noted that Bradford Air Raid sirens sounded the first genuine air raid on June 18 , 1940 and that the first bombs on Bradford fell harmlessly in Heaton Woods in the early hours of August 23 that year. The most damaging raid he records, occurred a week later on the night of August 23 that year and lasted for more than 4 hours causing extensive damage to Lingards, Rawson Market, and a range of other premises .

At the time, R.W. Guild had a very influential Chairman who was a Conservative Member of Parliament, Sir Frank Sanderson and the argument prevailed, so, although Park Guild flew to Burma, he had just disembarked when he was allowed to return home.

When my wife Ilma was called up the company tried to get her out of the draft as she was very skilled and much needed but the effort in her case failed.

Salts had always been a 'vertical mill' and trade did fluctuate and was always difficult. R.W. was against using synthetic fibres which were then beginning to be blended with wool. ICI had invented Terylene and R.W. took months in considering whether to use this.

Also, all the mill machinery had always been built locally, at Hattersley's Keighley or Dobcross near Huddersfield. These machines allowed 1 weaver to cover a multi-

Sir Frank Sanderson was the founder of Wray, Sanderson & Co Ltd., which became the nucleus of The United Premier Oil and Cake Company in 1919. In 1940 he was elected as the Chairman of the latter, with which he had remained associated throughout, in succession to Herbert Guedalla, its founder Chairman, and he conducted its activities throughout the war years. As a result of its activities, he had a continuing interest in trade with Egypt, joined the Council of the Anglo-Egyptian Chamber of Commerce in 1940 and subsequently chaired it from 1949 until 1954. He was known to claim that he was one of the first, if not the first, to import the soya bean into Britain.

He was also the Chairman of Humber Fishing Co Ltd from 1924 until his death **and the Chairman of Salts (Saltaire) Ltd, worsted spinners and manufacturers, and a director of its subsidiary company, J & J Crombie Ltd,** whose Board he chaired from 1923 until 1958. He was responsible for the reconstruction of Salts in the early 1930s and determined that the village of Saltaire should be sold to those who lived there. In addition he was a member of Lloyds. (**Barnes, 2010)**

He was elected to the Commons in 1922 as the MP for Darwen but lost to a free trade Liberal in December 1923. He stayed as candidate, regaining the seat in 1924, he later sought a safer seat and was elected for East Ealing in 1931.

box and a single box loom each. Sulzer had brought out new automated looms, costing £5,000 per machine and one weaver could then cover many more looms. Illingworth Morris invested heavily in these machines and weaving changed from then on.

Prior to this point, I had lost my manager Mr. Geoffrey Crabtree who had been ill for a year (during 1957) prior to his death, a year when I had had to manage the department. It had been a difficult year for the business because the wool markets in Australia and New Zealand went haywire with prices fluctuating rapidly and prices having to be re-calculated many times. Mr. Crabtree had not had a correct diagnosis for most of the time he was ill but on the Friday night that he left work for the last time I could see how ill he was and it was an inoperable brain tumour that killed him shortly afterwards.

From the start of the 1950s, new inventions and research had commenced locally in combing and spinning machinery. Electricity became the favoured method of transmitting power and W. J. Whitehead, R. Gaunt and Amblers were leading the way in research and development in the effort to modernise the textile industry with more effective woolcombing processes.

The development of an entirely new type of loom by **the Swiss firm, Sulzer** , was a topic of much discussion. By 1958, two colour pick and pick Sulzer weaving machines, that replaced shuttle mechanisms with a gripper projectile, were being operated throughout Bradford at approximately twice the speed of conventional looms. (**Keighley, 2007, p 126)**

Sulzer Ltd. is a Swiss industrial engineering and manufacturing firm, founded by Salomon Sulzer-Bernet in 1775 and established as Sulzer Brothers Ltd. in 1834 in Winterthur, Switzerland.. Sulzer Brothers helped develop shuttle-less weaving, and their core business was loom manufacture. The Sulzer loom is an advanced textile loom and it was manufactured by Sulzer brothers and available in various models in the past and to the present day.

The outbreak of hostilities in Korea in 1950 and the fear in many countries that there would be insufficient wool to meet military and civilian demand caused prices to go through the roof. By January 1951 wool was costing more than 10 times the costs in 1938 and 1939. Followed by a collapse in prices, after the Korean War.

I was asked to take on the role of Head of the Costing Department - Mr. R. W. Guild was still managing director at the time – and I agreed to take this on. The costing department were still undertaking telecommunications work (which continued until 1971). The codes were designed to prevent international competitors knowing what we were paying for wool. When Mr. Crabtree died in 1957 and I was appointed as the Head of Department for costing, I suggested that we rent a telex machine from the General Post Office (GPO) and this was agreed. I was sent to the GPO in Leeds to see a demonstration and arrange for the machine to be fitted.

By this time I had 3 female staff, one of whom volunteered to operate the telex and she did this well, keeping a record of all incoming and outgoing calls and

Telex: The **telex** network is a switched network of tele-printers similar to a telephone network, for the purposes of sending text-based messages. This network provided the first common medium for international record communications using standard signalling techniques and operating criteria as specified by the International Telecommunication Union.

A major advantage of telex is that the receipt of the message by the recipient could be confirmed with a high degree of certainty by the 'answerback'. At the beginning of the message, the sender would transmit a WRU (Who aRe yoU) code, and the recipient machine would automatically initiate a response which was usually encoded in a rotating drum with pegs, much like a music box.

The position of the pegs sent an unambiguous identifying code to the sender, so the sender could verify connection to the correct recipient. The WRU code would also be sent at the end of the message, so a correct response would confirm that the connection had remained unbroken during the message transmission. This gave telex a major advantage over less verifiable forms of communications such as telephone and fax.

Costing the price of different cloth types depended on a range of factors such as which yarn or yarns were involved, their cost(s), any pre-processing (such as combing and spinning), the weaving costs, dyeing and finishing - plus the costs of storage and other overheads.

enabling me to get on with costing work.

But things were about to change in the costing work also. Illingworth Morris, from gaining control of the Company in 1958, insisted that the firm brought costing (or pricing) cloth into a modern accountancy basis.

The method of costing in use, from my starting work in costing, was an Ernest H. Gates system which had been adapted to take on a John 'Wrights' and a 'Salts' (Saltaire) System. For some cloths we would use a specific weaving company – for example men's suiting was woven at Salts Mill and ladies cloth was woven by John Wrights or Ernest H. Gates at Crossroads, Keighley.

Sometimes the textile trade unions would say 'the weavers aren't earning enough from this work', (it was piece work) but if the cloth was of the type that was slower to

Under the Stewardship of R.W. Guild and Sir Frank Sanderson, Salts had prospered in the 1950s. The company delighted shareholders by paying dividends of 12.5% and 15% in 1956 and 1957 respectively and recording the biggest turnover in their history. The success had not gone unnoticed and in **October 1958,** the London Merchant Bankers Singer and Friedlander, acting on behalf of the worsted spinners **Illingworth, Morris and Co., made a surprise bid for 4 million of Salt's ordinary shares.**

The transaction marked the end of an era at Salts. The company originally founded by Sir Titus Salt, had remained a private company until July 1923 and from then, had a long stewardship by R.W. Guild and Sir Frank Sanderson.

The Origins of Illingworth, Morris - The company began life as Amalgamated Textiles in 1920 when London based Merchant Bankers, financed its flotation and shortly afterwards adopted the name of Illingworth Morris. By 1923 the newly named company had become the largest group of coloured worsted spinners.

Isidore Ostrer began work as a stockbroker's clerk in the City of London. On 31 March 1914 he married Helen Dorothy, daughter of Lloyd Spear-Morgan, a solicitor, and granddaughter of the high sheriff of Carmarthenshire. The couple had six children.

(His first marriage having ended in divorce, on 27 April 1933 **Isidore** later married Marjorie, daughter of John William Ernest Roach).

weave, this had to be recompensed in some way. It was a complex job!

Having decided which companies weaving costs we were going to use, the next question was how do we get a standard for other overheads (dyeing, finishing, warehousing and so on). Every year the accounts department decided on the overheads required which was decided at 4 times the weavers' wage.

Whilst in the RAF, the warrant officer lost the man who had been responsible for recoding modifications to aircraft and other vital machinery and the Squadron Leader asked me if I would be prepared to undergo a qualification and take on this work. I was keen to do this but unfortunately fell ill and the medics reported that I must get out of the desert, so I was transferred to dock work. I did feel that my aptitude for this kind of

The Ostrers (continued)

In the 1920s **Isidore** Ostrer and his brothers were responsible for a number of company flotations, the most important of which were Amalgamated Textiles in 1920 (shortly after re-named as Illingworth Morris) and the Gaumont-British Picture Corporation in 1927.

The prospects opened up by the first Cinematograph Films Act and the coming of the 'talkies' encouraged **Isidore** to assume direct control of Gaumont-British. In August 1929 he became chairman, with his brothers **Mark** as vice-chairman and **Maurice** joint managing director. Having created a circuit of over 350 cinemas, **Isidore** turned his hand to film production.

In October 1941 **Isidore** Ostrer sold his shares to J. Arthur Rank, though it was not until 1944 that the conflicting interests in the corporation were sufficiently reconciled for Rank to assume complete control. Although **Isidore** had divested himself of his film interests, he was not ready to retire, and he re-involved himself with the textile industry.

Since the launch of **Illingworth, Morris in 1920** he and his brothers had retained a twenty-three per cent stake in the company. They quickly built this up to over fifty per cent and took control of the company, attempting over the next twenty four years to make it the dominant force in the wool textiles industry. Guided by **Isidore's** economic theories, **Illingworth,Morris** used its profits to expand by buying up its rivals. (***Murphy R, 2004).***

work helped me when I returned to work at Salts.

From this work on costing cloth and calculating changes to cost from modifications, I could give a price to the sales people. They would often argue the price but it was not based on their view. For years we had some semi-automatic looms in New Mill at Salts which were less expensive and this point was sometimes used in the sales people's argument but R.W. Guild always refuted this argument knowing the differentials according to the cloth and weavers chosen in terms of quality.

When the cloth was going out to Burtons (one of our largest customers) it was essential to get the price right because at the time other countries such as China and India were 'buying our brains' and creating their own textile industries. I remember one occasion very well when R.W. asked his son Park 'how

Salts (Saltaire) Ltd had been outsourcing work and acquiring other companies - In 1936 the business of Pepper, Lee and Company was acquired - involving mills at Dudley Hill and Wyke and a financial interest secured in Irish Worsted Mills of Portlaoise, County Offaly. This led in 1937 to the establishment of Salts (Ireland) Ltd. The activities of Salts (Saltaire) Ltd. were more diverse that they had ever been by the onset of Worl War II.

After WW2 The pattern of acquisition was varied. John Mitton and Sons, Cleckheaton and W M Rennie and Company, Stanningley – both spinners – were acquired in 1951 and 1953 respectively. Josiah France, Honley and James Sykes, Milnsbridge, manufacturers, were acquired in 1954 and 1957 respectively. Similarly the Scottish branch at Uddington was augmented by an addition at Airdrie, whilst in Settle and Hellifield, Burling and Mending rooms were in operation.

At the end of the 1950s, all Bradford textile companies were achieving record production figures and when the Minister of Labour, Edward Heath, made a 2 day tour of Yorkshire in April 1960, he found the West Riding textile area and Bradford in particular to have near full employment and to be very prosperous, but this was not to last.

However, Industrial disputes and increased international competition were just two factors that were to become increasingly threatening to the textile industry in the late 1960s and 1970s.

many thousand yards do they want' and Park's reply was 'if we price anything above 20 shillings a yard we won't get their order', at this R.W. did compromise.

Unfortunately, this made our work look foolish and we were then asked what we could eliminate in our overheads and Illingworth Morris introduced 'budgetary control costing' and did away with our 'plus four formula'.

For the new system, there had to be more staff and all the separate processes were given their specific budgetary controls – for example spinning cost controls and manufacturing cost controls – and each cost control unit had to provide a monthly profit statement from their department. If the cloth was in a 'grey state' i.e. not finished, a notional finishing cost was added on.

R. W. himself had to keep a record of all wool bought, what was in

Scientific management was one of the first attempts to systematically treat management and process improvement as a scientific problem. It was probably the first to do so in a 'bottom-up' way, which is a concept that remains useful even today, in concert with other concepts. Two corollaries of this primacy are that (1) scientific management became famous and (2) it was merely the first iteration of a long-developing way of thinking, and many iterations have come since.

Nevertheless, common elements unite them. With the advancement of statistical methods, quality assurance and quality control could begin in the 1920s and 1930s. During the 1940s and 1950s, the body of knowledge for doing scientific management evolved into operations management, operations research, and management cybernetics.

Peter Drucker saw Frederick Taylor as the creator of knowledge management, because the aim of scientific management was to produce knowledge about how to improve work processes.

Scientific management's application was contingent on a high level of managerial control over employee work practices. This necessitated a higher ratio of managerial workers to labourers than previous management methods. The great difficulty in accurately differentiating any such intelligent, detail-oriented management from mere misguided management also caused interpersonal friction between workers and managers.

stock and what current prices were and provide details of what then was the average raw material price.

Overall, the new system brought in 20 new staff. For example stock taking had occurred once each year but Illingworth Morris wanted a stock take each month. In 1971 the managing director of Salts came to see me and said, 'Frank, I want you to move to the bottom of the office and get rid of the female staff'. I replied by asking who would do the telecommunications work and at this he was silent. We did manage to keep the telex operator but she was moved shortly after this to the accounts department.

The company Pepper Lee had been acquired by Salts (Saltaire) Ltd. prior to Illingworth Morris gaining control and their processes had been brought into New Mill. When Mr. Park Guild resigned in 1962, the board appointed Mr. Geoffrey Pepper as managing director at

Textile Decline - The Wool Textile Industry in West Yorkshire, had at its heart some great towns and cities and **Saltaire, the Headquarters of Illingworth, Morris**, lay in the Bradford area, Bradford being often described as the home of worsted manufacture. At the time of the 1901 snapshot of Bradford presented in the Cities Outlook report, Bradford was seen as the wool capital of the world, in terms of not only trading in wool, but the manufacture of wool products, being involved in the combing, scouring, spinning, weaving and dyeing of wool.

Wool was at the centre of Bradford, and Bradford was, for a time, at the centre of the world that required wool goods. Far flung Nations, such as Australia and New Zealand, sent their wool to be treated in Bradford. A huge number of industries built up around wool. Textile firms manufactured wool goods. Machines that were used in the wool industry were built in the Bradford District. Imports and exports required shipping companies and forwarding agents. There was a requirement for transport companies to bring the wool in and get goods out to the docks. Everything revolved around wool, worsted and other cloth treatments and manufacture.

Bradford's grip on the global textile trade was a vice-like one, and that made a lot of people very rich in the first half of the 20th Century. It is unsurprising then that the rest of the world wanted to benefit too and a **decline in the areas textile trade began in the post- World War II years.**

Salts and he retained that position until 1971, when he died.

His right hand man was called Mr. Viney and in the five years from 1970 to 1975 the Salts (Saltaire) company died. Illingworth Morris got rid of Mr. Viney in 1975 (he just disappeared). The only communication with staff was a notice on the notice board stating that 'Mr. Viney, lately MD of this company, has now left the services of the company'.

After I retired Illingworth Morris brought in two new people for the board.

On a personal note, after marrying Ilma and the birth of our son, Geoffrey, Ilma stayed at home to care for him and she didn't return to work until 1962. A friend of hers, who wanted part-time work, was nervous about trying for a job at Salts and she asked Ilma to apply with her, saying she only felt able to go if Ilma did also. Our son was 16

The main competition to Bradford in wool production and manufacture came from Japan and Italy. Other countries, such as Australia, established their own wool businesses – with their realisation that it cost a lot less to produce your own wool at source rather than sending it across the world to Bradford.

With the shift of wool production came a loosening of Bradford's hold on associated businesses, such as the industrial manufacture of the machinery for the trade, and countries such as Germany and Italy began to become the dominant forces in the 1950s and 1960s. **Dr Paul Jennings of the University of Bradford,** who has a special interest in the social and industrial history of Bradford, noted that an old Shell Guide indicated that - 'Even then Bradford was still being sold as the wool capital of the world……'. 'In a sense the decline had begun as far back of the 1870s but there was a huge swathe of the 20th century when it (the city) was still regarded this way'.

Changing fashions, as well, sounded the death knell of the wool industry. At one time everyone's clothes were wool-based, then with the rise of synthetic materials and the cultural shifts toward personal freedoms of choice and a desire for greater informality, people stopped dressing so formally, they didn't wear suits all the time or woollen overcoats.

After the war, there was a gradual shift also to countries that could manufacture cloth in far more inexpensive terms **and the wool business that was the lifeblood of Bradford in the past is now largely the preserve of the Far East, with most of the world's wool being processed in China.**

years of age by this time and Ilma needed to have some personal stimulation so she agreed to go and was taken on in stock control.

In 1965 however, Ilma's mother had a slight stroke whilst we were on holiday and we came home and brought her mother to our house in order to care for her. Ilma cared for her from the summer of 1965 until the December of that year when she died. Ilma then went back to work at Salts with the cost control teams.

PostScript:

Frank retired in 1983, a few years before the mill ceased operating as a textile manufacturing concern in 1986 – selling its order books to Drummonds, Bradford.

Illingworth, Morris had worsted manufacturing companies in the South East, the North West of England, Scotland and Ireland.

Isidore Ostrer's economic philosophy – outlined in his three published works - A New International Currency (1921, The Conquest of Gold (1932) and Modern Money and Unemployment (1964) - displayed an idiosyncratic but strikingly progressive approach similar in spirit to that of J. M. Keynes. (He also published two books of poetry). His Economic Philosophy highlighted a strong social conscience. **In Modern Money and Unemployment** he argues that the 'flaw' in money is that it does not follow the rule of 'barter' and that when production is not balanced with the ability to purchase the goods people need, the consequence is unemployment and all its evils.

Illingworth, Morris as a company was therefore guided by a policy of investing capital widely and borrowing on a large scale to increase the growth of the company. This policy was misguided, and by the time of Isidore and Maurice Ostrer's deaths (1975) the company had become an unwieldy giant, supplying vestments to the papacy and tennis-ball cloth to Dunlop, but ill-equipped to withstand the harsh economic climate of the late 1970s and early 1980s. Isidore Ostrer's daughter **Pamela Mason,** the film actress, inherited his dominant shareholding in the company.

Mason's famous attempt to 'sack' her fellow (Yorkshire) directors of Illingworth Morris failed when she and her son were removed in 1981. She later sold her shares more cheaply than the price offered by Illingworth Morris' board, to a Manx based company, Abele, controlled by Alan Lewis. For a time the company revived and is still trading successfully today **but Salts mill was ultimately sold as an empty property in 1987, to a young entrepreneur called Jonathan Silver – a new era began!**

Frank with his first car – a Jowett Javelin – 1960

Frank and Ilma being presented with a silver tea set, by Edward Stanners,
on his retirement from Salts in 1983.

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I am most grateful to Mark Keighley for granting me permission to use large amounts of his work in 'Wool City', 2007. This book has been invaluable for historical facts about the Bradford area textile industry, particularly from the 1930's to 1950's.

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