MY TIME AT THE 'TOYSHOP' By Edward Daily.

Written July 2010 (aged 85).

In January 1941 I had come from Gravesend to visit my grandmother at Oving. Two days before I was due to go home, my aunt, who lived at Whitchurch, came to see us and said that her lodger, a Mr Henderson, who worked at that 'Secret War Office Place', told her that they were looking for a few people and why not go and see them.

The next day I called in, had an interview with a Norman Angier (The senior civilian officer.) explaining my experience so far. The result was that, after a thorough screening (Someone glanced at my birth certificate about a week later.) I started on the following Monday, Jan 1941. I did not realise that they had not been there terribly long but had been evacuated from their bombed premises in London.

The name of the place was M.D.1 and had been set up to get things done quickly bypassing as much red tape as possible. (This of course was achieved.)
The senior officer in charge was Brigadier Millis Jefferies and the second in command, and most involved in the day to day running, was Colonel Macrae. They rose to those ranks during the time that I was there.

The foreman, R.S.M. Tilsley, said that, until he could organise something, would I help the electrician, George Patching, who was still re-wiring the place. I was asked to pull down a lot of the old surface mounted lead cable. He said that it was all dead. As I started, there was a large flash and all the lights went out.
'Oh Dear, that shouldn't have happened' he said.
It seems that the ancient wiring was rather unusual, and poorly labelled.

Most of the staff were from the London area and were billeted in the village. However when they started recruiting, many had been directed there, often against their wishes. For example, a friend of mine, Hector North, was a director of a furniture manufacturer in High Wycombe and another was a jeweller. However, they soon seemed to accept it and fitted in well.

They started up with the original buildings such as the stables, garages, and other outbuildings, even the summerhouse. The house was being used as offices. Building work soon started and extensions built for a start. In the next year or so, several large concrete buildings were erected, mostly to be used for the factory part and a tool room.

The general workshop where I started was quite well equipped even though some machines were a bit ancient. However it wasn't long before new modern machinery arrived. This included a sophisticated milling machine which was operated almost exclusively by Eric Angier, Norman's brother. An important job was the making of the cams to operate the automatic lathes in the factory.

About this time, Messrs Smith and Wilson (Two senior design engineers) were provided with an office/workshop on the first floor above the main workshop. They each then had an assistant. Stewart Paul for Mr Smith and yours truly for Mr Wilson.
It soon became necessary for us to have *our* own place, which was adjoining the original coachman's house.

A radio was installed relaying ‘Music while you work, ‘Worker’s playtime’ etc. to the factory and workshop, where it caused many an argument, as the younger ones wanted only the latest noisy swing.
Stewart and I were not to be outdone. As the wires ran close to our room, we tapped into them and had our own music.

Then quite a lot of building took place. A Canteen with a stage at one end and a projection room at the other, and the necessary kitchen/cookhouse. A metal stores was built and accommodation blocks for those who had previously been billeted in the village.
The one for the men was affectionately known as ‘Bethlehem’ for some reason.

More buildings were completed at the bottom of the gardens in the adjoining field. A stores and a carpenter’s shop. Down the field some way from the house they built a filling shed for filling experimental bombs and devices. Way across the far corner and well away from the road there was a semi underground magazine.

Some of the senior officers who were living in the village needed the telephone. This was not easily done at that time so they ran their own wires up the village and had a reliable connection.

Our own Home Guard was formed in November 1942. It was run by Major Clarke and Major Stribling. Two from the drawing office (Les Harris and Mac Copelin) were made N.C.Os . Unlike most other H.G. units, we were very well equipped. Each man has a rifle, a Sten gun and a couple of Mills grenades. These were kept at home and my Grandmother refused to dust that corner of the bedroom. We also had our own PIAT gun.

Major Stribling had an embarrassment during one exercise. We were doing an exercise on the road to Cublington. John Marston dressed as a woman spy. Major S came down the road in his car (tank) and, seeing this ‘woman’ walking along offered her a lift. She let him take her out of his way then produced a revolver and ordered him to take her to Cublington where we were all waiting. We finished up in the pub and I shall never forget the look on the bar woman’s face when this ‘woman’ lit up a pipe.

We were only called out once at night. We were not told what the alarm was but we spent the night in the old schoolroom in Whitchurch being served with bangers and mash. We were dismissed at about 7am and had to go home and be back at work by 8 o’clock.

Our hours were quite long. Often 8am to 8pm plus Saturday mornings so social life was very restricted.

One day a belt broke on an automatic lathe and I was dispatched up the road to the local saddler, Mynotts. He said that the repair would have to take its turn with other customers. I reported back to the officer who I think dealt with purchasing, Leslie Knight. He went back to the saddler and said ‘Will you be willing to explain to Mr. Churchill why his tests could not be completed?’ It was ready an hour or so later.

Winston Churchill did not often come to the Firs in person and we usually heard about it afterwards. Where we saw him most was at the Kimble rifle range near to Chequers. I remember at one demonstration two of us were walking along the outskirts and he, with two others was standing on a bank. We gave him a ‘salute’ and were rewarded with the V sign. The main go-between was Professor Lindemann, later Lord Cherwell who came quite often.

One thing produced was the K bomb – a jumping bomb. One of the K bomb tests was at Aldermaston. They had an explosive charge to make them jump up and then the main charge. For the demonstration they had a flash charge in place of the main explosive but were still quite dangerous. They were dropped by a low-flying aircraft. There were quite a few that misfired and laid buried a few inches in the ground. Next day I had to go with two army fellows to retrieve them. I had two tools with about 8ft long handles so that I could remove the fuses. As long as you were not in line with them you were fairly safe. At that time, Aldermaston was just a field with a few Nissan huts etc. When we arrived we couldn't find the bombs although we had marked the positions. A soldier sauntered up. "Looking for your bombs mate? I've piled them up over there." We thought that they had had enough banging around so we loaded them up.

Larger things were produced such as the 'Great Eastern', a tank with a bridge mounted on top which was deployed using rockets. This was for bridging obstacles or ditches. Then there were tanks for mine clearing with either a plough or a flail on the front.

There were two places where dropping tests could be carried out.
Down the field they erected a very tall pole two or three times the height of a telegraph pole with a platform on the top. I suppose one of the sailors had the job of climbing up there but I never saw it in use.
The other one was a dropping rig going from Smith and Wilson's workshop to the floor below. It consisted of a circle of steel rods to guide the falling object. The anvil at the bottom was enclosed as a protection from detonators etc that were being tested. If something came hurtling down as you were passing, you got quite a shock.
There was also a centrifuge. This was frightening. It was surrounded by a circle of sandbags and things were rotated at enormous speed, often to destruction.

An important device which was produced there was the L delay. A time delay fuse, which depended on the 'creep' of lead under tension.
The test rig consisted of a drum about 2ft long and 9" dia. Graph paper was wrapped around it and it was rotated by a small geared motor at one rev. per day. The delays were mounted in a row with the detonators nearly touching the paper. When it fired, it made a black mark on the graph. The leads were turned on a special lathe to various diameters according to the time delay required.
The cross-slide of the lathe was connected to a cam which was rotated by a hand operated gearbox, taking the tool in for the first cut then retracting and bringing the diamond tool in upside-down for the final cut. These diamond tools had to be in first class condition otherwise the tool would rub and work-harden the lead. I'm not aware of any precautions health & safety wise for the girls working with the lead.

Special micrometers had to be adapted for the precision measurement. I made the first dials for these micrometers. They were brass, about 4" dia. And 3/8" wide. I engraved the markings on them by rotating them on a dividing head and tracking a pointed tool across to engrave a line. A tedious operation!

With the detonators used, there was a risk of detonator failure through moisture, so each tiny detonator had to have a spot of rubberized paint applied. Another boring job for the girls. When you went into the 'Det room' the smell of paint and solvent was very strong. (Health & Safety would have had a field day.)

I was very involved with the A switch from the start. They were devised to make contact at a certain height when concealed on an aircraft.

.I made the first ones from 1 3/8" brass tubing. I cut bayonet slots in one end and made the end cap from Tufnol.
They had to be carefully calibrated by using up to date barometric pressure readings from R.A.F. Halton. For a short while, I was 'on loan' to Leslie Gouldstone in the factory to help setting up production.

Most of the development work on the PIAT anti-tank gun and the fuse for the projectile was done at Whitchurch.
It was fired from the shoulder lying down. The recoil was used to re-cock it for the next time but it was still very uncomfortable to fire. It also had a very high detonation noise that made your ears ring for hours. In service, they had to use ear defenders. I fired it a few times in our Home Guard, but I preferred to be loader for Cpl.Les Harris.

Another of the larger devices was known to us as the 'Bobber' as it did just that when dropped in the sea.
For some reason the fuses had to be tested in sugar solution to get the correct S.G. At the end of the tests, there was a very welcome share out of the remaining stock.

A lot of work was done on the sticky bomb. The adhesive was made by fly paper manufacturers. Kay Brothers of Stockport.
When being demonstrated, Colonel Macrae would walk up to a steel plate, smack the bomb on to it, turn his back and walk nonchalantly away.

In the garden was a summerhouse. This was used for handling small explosives, detonators etc. It should never have been allowed. It only stayed in one piece thanks to the extreme care and safety consciousness of Arthur Bridle.
One day, Leslie Gouldstone went there and found a naval officer smoking. He was not necessarily handling anything dangerous himself, but that was not the point. He refused to stop or get out, so Leslie evacuated the girls from the factory. He then told Col. Macrae what he had done. I doubt whether the officer smoked there again!

The custom built replacement was very different. It was isolated down the field and you couldn't enter without observing all the regulations. This replaced the earlier Nissen huts.
I was working in there one Easter Monday. (Not my usual job.) I was pouring molten explosive from a steamer into a mould when something slipped and the warm explosive went over me and in my hair. I was imagining static sparks flying around as I combed it out although of course it couldn't really be set off easily.

In the same building there was a Chronoscope. This chronoscope was rack mounted and stood about 5ft tall. It had row upon row of valves and a row of dials. Cables connected it to two 'cameras' at a known distance (say 20ft) apart and the time was recorded for a missile to cross the path. This was checked by firing a Winchester rifle across the cameras.

One day, about the middle of my time there, I was checking the circuit of a batch of devices that had been made by a sub-contractor. I came across one that had been wrongly assembled and the current from the Avo was sufficient to fire the electric detonator, which set off the flash charge. I was quite badly burnt but my glasses saved my eyesight.
I think that some people thought that we had a cushy job away from the war but it was not without its risks. There were a few accidents mainly because we were dealing with untested devices. Safety was always a top consideration and where possible things were made to be safe until after they had actually been fired or dropped. A bomb for example arming itself on the way down.

A near accident happened near the magazine, which was in the far corner of the site. It was half underground and surrounded by thick concrete walls and sloping banked earth. It had massive steel doors and locking handles like a strong room. One day I went in there to collect some detonators or something. When I came out, I was walking up the path at the side of the field when there was an almighty explosion and a hole was blasted in an armoured plate some 15ft away. It was actually safer than it looked, as it was a 'focused' charge that just went straight through the plate. An officer was really ticked off for not checking that anybody was around.

There was not a lot of security at The Firs compared to nowadays. There were military police on the gate and we had passes but I can't remember showing them. It was all relatively open at the back. The field gate would be locked and that was about all. Whitchurch was a very closely knit community and any stranger would really stand out. They all knew that some sort of secret work was being carried out but I never remember being asked what was being done there.
The only complaint from the villagers was about the bangs. I recall reading an article entitled 'Life in bang village' but that must have been just after the war.

There was every effort put onto keeping on good terms with the locals and they were often invited to social events. Perhaps as guests of an employee.
Cinema shows. Originally they had 16mm shows in the house operated by the drawing office staff. When the canteen was built it had a stage, and a projection room at the other where we installed a 35mm Projector. Oswald Bussell got us on the forces entertainment circuit for films, which were collected from the station once a week. I would prepare them and join them into a programme on large reels. From then on, Charles Wilson and myself were the main projectionists but when he was away, I would do it with Colonel Macrae as my assistant.
Oswald Bussell used to devote quite a lot of his time to social activities and was very professional There were also dances, socials and an amateur dramatic group to put on the occasional play.
The dance music was often provided by 'The Oving Blue Rhythm Novelty Band.'

Quite a bit of 'trading' was carried out in the lunch break. You never knew what someone would come in with. Once there was a consignment of lightweight boots, one man had a regular supply of 'Fry's Cream' bars, and you could even order sausages.
No one ever queried the origin.

Because of the long working hours, they realized that it was not always easy to get a haircut, and as we had a hairdresser in our midst (Arthur Bridle), they turned a blind eye to him cutting our hair in the evenings. When I left and was in Germany, he wrote to me asking if I could find out any information about 'Cold Perms', which were something new.

A regular visitor was Dr Ryder Richardson, the local GP. He was a real extrovert and quite a character. Most of the locals had their favorite 'Dr Dick' story.

The arrival of a contingent of Welsh girls in 1943 caused quite a stir. They were initially billeted in surrounding villages. My grandmother had one. This employment was compulsory for them and at first they were not too happy about it, but soon settled down. They were often singing, (*sometimes* quite good!) Three of us went out with three of them but only as a group of friends, nothing serious.

They were chaperoned by Miss 'Fairy' Wond. She was the welfare officer. A tall lady who was not to be messed with but who was a very nice kind person.
When the girls were moved into their new accommodation it was placed strictly out of bounds. We were only allowed into their common room once, for a 21st birthday party.

If we wanted to talk to them, it had to be through the window from the adjoining lane.

There were of course lighter moments like the time that lower of two pools in the garden went dry. It was fed from the upper pool, so they put a thread on the outlet pipe and connected a compressed air cylinder to it. They gradually increased the pressure until there was a bang like a shotgun and out of the bottom pipe shot a greatly inflated frog. Another success for the Boffins!

Another story that I like to recall concerns the little room where Stewart and myself worked. One day we began to notice a most unpleasant smell, worse than drains. It got so bad that we called in maintenance. We traced the smell to a corner of the ceiling so they cut a hole in the plasterboard. Sure enough, they found a dead, well decomposed rat. This was removed, the space disinfected and the panel screwed back up.
Some time after, it was the first general election after the war. Stewart's father used to work in a Glasgow shipyard so, obviously he was a very strong socialist. His son had followed him in this, so one day he turned up with lots of Labour posters and leaflets. In his lunchtime and evenings he started to put them up and distribute leaflets. This however was Whitchurch.!! They were not having any of that and as fast as he put them up they were ripping them down and leaflets were being thrown back at him.
He soon realized that this was not going to work and gave up.
After the election he wondered what to do with them all. He looked up at the panel in the ceiling, unscrewed it and they were safely stowed away.

Now fast-forward about fifty-five years. I was at some function and the person that I was talking to mentioned Whitchurch. I said that I knew Whitchurch well. He said ' A funny thing happened at work the other day. I am an electrician at The Firs. We were having our tea break and wondering why there was a panel cut out in the ceiling. We got a screwdriver and removed it. You will never guess what we found.' 'Would it be a bundle of Labour election posters?' I asked.
I will never forget that look of amazement on his face.

On the 8Th May 1945 it was V.E. day. There was much rejoicing, photographs of all departments were taken and in the evening we put on a firework display. Many had been made that day.
(I understand that they even drove a tank around the village but I did not see that.)

Everything carried on as normal for a time but in September 1945 I was called up for the RAF having been deferred twice before. A few days after I arrived at Padgate near Warrington I was called back to The Firs for an important job. Three days later, Smith and Wilson's workshop burnt down. During the fire there was a big explosion and a hole was blown in the end wall.
In a cupboard, they had had an assortment of detonators, percussion caps, bullets, cordite, C.E. pellets, safety fuse, gunpowder, flash powder etc. all in an ammunition box. All relatively small quantities and harmless but when all combined – Whoosh!
I spent the rest of my special leave salvaging what we could from the rubble.

When it finally closed down, some were given jobs at Wescott rocket establishment; some went to Fort Halstead near Sevenoaks. Norman Angier and factory manager Leslie Gouldstone left and started up Oriole Records at Aston Clinton under a Maurice Levy. Several joined them there.

When I left the RAF, after a short spell elsewhere, I joined the other ex-Firs people at Oriole, later to become CBS Records in Aylesbury.

There was a re-union in London to celebrate the launch of Colonel Macrae's book 'Winston Churchill's Toyshop.' It was on 8th May 1971 at the RAC Club in Pall Mall. I was invited along

with Leslie Gouldstone. This book is a very interesting and accurate account of M.D.1. It is interesting to read of what was going on behind the scenes that we were not aware of. Inter-departmental rivalry, claims and counter claims about who invented what and some of the ways that supplies were obtained bypassing red tape.

My next visit to The Firs was in 2010 when the present owner, Christopher Mann, arranged a meeting of interested people. This was the scene of a most remarkable co-incidence. In the middle of the meeting a visitor arrived asking if it would be possible to have a look round. It was Colonel Macrae's son John, who was passing through the village.

A fitting end to the story.