*(Part 6 Book2)*

In short a visit was made to this well which was located indoors. The mats were removed and the large slate stone cover was removed from the well top and the safety guard put in place. This was necessary as the well had a reputation of building up dangerous gases so we left the well open for 2 days and returned mid-morning on the third day and lit a candle which was tied to a long pole and lowered into the well to see if the poisonous gas with no oxygen still existed to keep the candle burning continuously. If the flame extinguished it is considered unsafe as no life giving oxygen was present. This last test should always be made when repair to a water well without history is to be made.

In the late 1940s and early 1950s there was a programme which entailed the Compere, Wilfred Pickles asking contestants general knowledge questions and always the one, “Can you tell us the most embarrassing moment of your life?” The lady questioned said, “Yes. My father ran into the farmhouse shouting, “Quick ring the man that puts the ram right.” She did as instructed and the veterinary came to be confronted by an equally embarrassed farmer shouting “No. I need a plumber to repair the water ram!”

Whilst I was travelling around with George I had never encountered the amazing piece of equipment until I was out of my apprenticeship and carrying out every repair needed in agriculture. The boss called me one afternoon and said that he would like me to attend an address between Throwleigh and Chagford and install a complete new pumping system to replace an existing system using a water ram. Evidently it had been overhauled by a specialist using all new rubber washers and diaphragms but since the rebuild had never worked continuously patience had run out thus we had been called in to carry out the major conversion. I set forth armed with a Lister domestic water pump with an electric drive motor, coil of electric power cable and a polythene water pipe. Whilst preparing the pump house for the conversion base I could not help myself but investigate this wonderful piece of equipment. So whilst laying the new foundations I stopped and started the ram using various adjustments to no avail. It was while I was home that evening I remembered a remark from Albert White “They water rams are hard”. They will run for 20 years without stopping but can be stopped to carry out minor repairs, (they are little beggars to deal with) just one little wire to restart and keep going. Sometimes a piece of wire twisted under the diaphragm grid to make the surface uneven works magic. So the next day armed with a piece of galvanised wire I twisted the wire in position and restarted the unit immediately. I could hear a heavy ring to the pulse and it continued all the morning. I was bolting in the new electric pump. I called the owner and explained the situation. We stood and listened to the working unit. It was agreed that I stop work on the replacement. He agreed to pay for all the material and labour provided to date. I packed up and went back to the Depot and having heard nothing more I assumed that things were working in a long monotonous manner. So somewhere on Dartmoor stands a pump house with 2 types of pumps. I often wonder if questions are ever asked. This proves that we should listen to everyone and pick out what you think best.

Earlier I did mention that I was impressed with the long green blacksmith/wheelwright shed. The length of this shed was used on a seasonal basis. The end of April to June would find me as a young apprentice spending many hours grinding combs and cutters for the farmers and shearers that sheared sheep on the farms by contract. August would find me at the far end mending canvas conveyors, a brittle strap of corn binders. The forge area was used all season as some problems were needed to be solved immediately. Some work could be listed and kept over for the cold winter days such as the sharpening of drag tines. It was on such occasions that I received the lesson of my life.

One day the boss, Mr Saunders, said that as we had saved up several units of drags to have pointed and sharpened he felt it was an ideal time to complete the job particularly as the water work team was not busy and he could let one of the men free to attend Whiddon Down and help me by turning the forge handle whilst I carried out the blacksmithing. The man in question was called Bill Allen. Normally with the water team of plumbers he was a ‘Man Friday’ who carried out general labouring work such as digging holes and trenches as required. He tended to be overlooked by his team, probably due to his position with them.

We started the day together as planned – Bill turning the wind vane handle and I heating up and sharpening the multitudes of drag tines and rebuilding the units. With pleasant conversation and a steady work pace we found the day’s labour was nearing an end by 3.30 pm. Suddenly Bill said “Mike would you like me to show you how to forge some metal and stone cutting chisels?” The answer was of course, “Yes”. From that moment of time it was magical to watch as Bill selected some metal from our spare metal stock, selecting particularly old horse rake tines for the high quality steel content. I turned the forge handle while Bill worked his magic in constructing these very fine tools on the anvil. It transpired in the conversation that followed that afternoon that Bill Allen had been a blacksmith in the Plymouth dockyard over the war years carrying out very skilful work as a blacksmith laying the submarine keels and framework. Due to the heavy bombing experience at night his nerve had finally broken and he came out of the dockyard and moved house from Plymouth to Chagford to be in the quiet of the countryside and chose to work for C J Saunders in a non-responsible job. I shall never forget Bill Allen and his quiet kindness to me in demonstrating his very fine blacksmith skills. So never underestimate the man that stands before you. He could have a wonderful story to tell.

Nature over power and manmade equipment. Charlie Endacott and I were charged to investigate and prepare a water turbine unit located in its turbine house near the River Teign in a valley under Castle Drogo in the parish of Drewsteignton. Charlie Endacott was a lad 12 months older than I and had joined C J Saunders the same time as myself and had served the term of apprenticeship to the end of his time. So we both must have been active and experienced lads. I use the term ‘must have been’ as if not it would have been ‘up the road’.

The water turbine unit was bolted to a long face plate bolted with a series of moveable turbine speed controls with a 4 inch second shaft coming through a gland packing to a sturdy pedestal carrying the overheating bearing, then attached next to the bearing was a 3 ton flywheel keyed to the shaft which coupled to a 15 kw generator and continued through a glass covered governing system manufactured by David Brown, the well-known tractor manufacturer, to monitor the speed vein and finished with an identical bearing pedestal. In total the length from the turbine wall face to the outer pedestal was approximately 9 feet. It was acknowledged that as this unit had been running without stopping for year after year the complete turbine component should be dismantled and cleaned free of rotting leaves that had passed through the many water filters and form a very hard unshapely surface which would cause a reduction of performance. In respect of the overheating pedestal bearing it was noticed that the tiled floor was breaking up and distorting caused by an external tree root that had been growing for decades and had expanded and lifted the drive shaft electric alternator and a 3 ton flywheel out of alignment. One must wonder at the power of nature as this needed immense power to lift the total weight of equipment together while ripping out the securing bolts from the floor. The problems were corrected by digging a trench from the offending tree, under the house foundations to the end of the expanding root that finished some 2 feet past the lifted bearing block refilling with ballast and re-tiling the floor. The operation was completed by dismantling the water turbines and laboriously removing the build up of solid leaf mould. We left the equipment working and from that day I have heard no adverse report.

In the season following the agricultural world took on an adventurous roll. In my earlier years I had been involved with the old standard Fordson. Everything was basic but practical – multi plate metal clutch plates that acted as a clutch and brake combined, white metal Ford main bearings, a conrod bearing that required the skill of scraping with white metal scraping knife and final fitment with skims, gearbox and transmission filled with SAE 140 gear oil requiring the warming of the 5 gallon can on the workshop stove to enable the content to commence to flow and normally if Wellworthy cord piston rings were installed as that was the popular request in those days. With too snug a fitting of the white metal main and connecting rod bearings and Wellworthy piston it was the normal practice to use 2 men with both hands on a length of off cut galvanised water pipe to keep the engine rotating whilst it coughed and spluttered life into what appeared to be a lifeless lump of cast iron. In more extreme measures were sometimes put into action when a spare tractor in the yard and was driven in line and a spare threshing belt was connected to each tractor threshing pulley pulling the yard tractor or power tractor engine at a steady slow speed with both threshing pulleys engaged and the main clutch of the power tractor gingerly engaged. This condition had its advantages for should the rebuild start up and then falter the drive tractor would keep up engine speed and momentum. It must be remembered that very few old Fordson tractors would have a temperature gauge so working temperature and overheating was total guesswork and if you had just rebuilt the engine yourself, perhaps it was not unusual practice to fill the radiator run the engine at a third speed then install the filler water hose in the radiator filler, undo the water drain and adjust the filler hose to match the drain flow. This practice is not compatible with today’s engineering and technology but there twas! It got the job done.

Some workshop practices were trial and error and would leave one like a 007 drink stirred and shaken. One particular incident came to mind which left me in this condition. Geoff the main workshop mechanic was attempting to carry out a repeat soldering repair to a Fordson Major fuel tank of twin fuels one main TVO tank and one small petrol tank combined. I was working on another repair in the same little workshop when Mr Saunders came through and in his endeavours to help took the blow torch from Geoff’s hands and said with authority, at the same time turning up the heat of the torch, “We need to get this solder to run on the very hot parent metal”. Suddenly there was a massive boom in our working area became filled with a swirling yellow flame. I stood in shock but was able to see 2 figures running through the open door with their heads about 2 feet off the ground. Their body actions mirrored the escaping method of a headmaster running from angry bees mentioned earlier in this story. I grabbed and extinguished the burning wreckage to just steaming metal. Mr Saunders and Geoff gingerly looked through the door expecting me to look like an old burnt out church candle. Thankfully all was well. I did feel shaky and my hair had been singed. Something good had revealed itself after this dangerous accident that the internal construction of the fuel tank was not like our imagination had envisaged. To correct this type of fault would result in a radical change of approach. Extra labour needed and extra steam cleaning for safety.

I am not saying the repair is impossible but to accomplish a guaranteed satisfactory repair a very high cost of preparation would result in a heavy repair cost to an old fuel tank.