

Welcome to the September/October issue of our newsletter, The Good Oil.

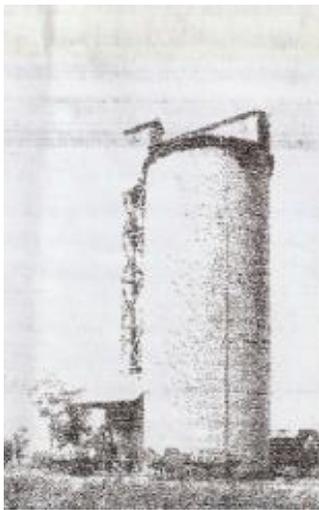


**Happy Birthday** to our September and October born members.  
We hope you all have a beautiful birthday and many happy returns.

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Jed Freeman	11	Meryl Allan-Bain	1
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## Peak Hill, The First Silo In Australia

Thanks Eldred for this item.



Peak Hill a town known as the little town with a heart of gold can also claim fame to another monumental achievement in the past, Peak Hill was the site of the first public wheat silo in Australia. This silo was erected in 1918. It was a single silo, a mere 50,000 bushel bin equipped only with a temporary elevator. The concrete silo is one of many built by John Howie and Sons. Due to Peak Hills central position in the NSW wheat belt, it was selected as the ideal site. On August 1918 a test run was carried out with great excitement creating a great deal of interest from surrounding areas. A report was made in the Sydney Mail on August 14 which read; *“A satisfactory trial was recently made at Peak Hill of the first of the completed silos for the bulk handling of wheat. Many farmers were present from the neighbouring districts as well as the distant parts of the state and from Victoria to witness the demonstration.”* *“Two truck loads of wheat were brought up for the test and about a dozen wheat lumpers were instructed to take bags from the trucks, cut them open and, empty them into what is called the receiving grate of the elevator leg. The machinery was driven by a Ronaldson oil engine. It soon became apparent that, although the men were going as fast as they possibly could go, the receiving grating was eating up the wheat faster than they could put it in, notwithstanding that the engine was only going at a medium rate of speed.”* *“A number of farmers then took a hand in opening the bags with pocket knives. The truck of 200 bags was put through in 18 minutes at the rate of about 2,000 bushels an hour. It was estimated that with a greater engine speed 2,500 bushels per hour could be handled.”*

The first two years of silo operation saw little wheat delivered to Peak Hill, 1918 & 1919 were very dry years, with only 14 & 12 inches of rain. A bumper year in 1920 saw the silo filled for the first time. The government paid a two shilling and six pence bonus on wheat in 1920, because of the shortage brought about by the drought. With this bonus, wheat that year was worth 7/6 bushel or one pound two shillings and sixpence per bag.

The silo still stand today and is still used during harvest contributing to the 35,000t storage capacity at Peak Hill. The silo stands in amongst the many additional storage added, in the 1920's a six bin Metcalf silo was installed at the site, in the 1960's the site capacity was again increased with the addition of shed storage and then bunkers in the 1970's.

## Those Dear Old Engines

Some are red; some are green, some are colors in between.  
Some go “chug” others putter, some just sit and spit and sputter.  
Some shine up fore all to see, some are as rusty as can be.  
Some run smooth with click and clack, some puff smoke rings from the stack.  
Some keep chugging or snap and pop, some just quit: their flywheels stop.  
Some are pains: we hate to move'em, some are friends; we dearly love'em

## **We Should Love Coal-Fired Power Stations by James Reed**

Bruce has given this write-up to be entered into our newsletter.

First, coal-fired power stations do not send 60 - 70% of the energy up the chimney. The boilers of modern power stations are 96% efficient and the exhaust heat is captured by the economisers and reheaters that heat the air and water before entering the boilers. The very slight amount exiting the stack is moist as in condensation and CO<sub>2</sub>. There is virtually no fly ash because this is removed by the precipitators or bagging plant that are 99.98% efficient. The 4% lost is heat through boiler wall convection. Coal-fired power stations are highly efficient with very little heat loss and can generate a massive amount of energy for our needs. They can generate power at efficiency of less than 10,000 b.t.u. per kilowatt and cost-wise that is very low. The percentage cost of mining and freight is very low. The total cost of fuel is 8% of total generation cost and does not constitute a major production cost. As for being laughed out of this country, China is building multitudes of coal-fired power stations because they are the most efficient for bulk power generation. We have, like the USA, coal-fired power stations because we have the raw materials and are very fortunate to have them. Believe me no one is laughing at Australia- exactly the reverse, they are very envious of our raw materials and independence. The major percentage of power in Europe and UK is nuclear because they don't have the coal supply for the future. Yes it would be very nice to have clean, quiet, cheap energy in bulk supply. Everyone agrees that it would be ideal. But there is only one problem.. It doesn't exist. Yes-there are wind and solar generators being built all over the world but they only add a small amount to the overall power demand. The maximum size wind generator is 3 Megawatts, which can rarely be attained on a continuous basis because it requires substantial forces of wind. And for the same reason only generate when there is sufficient wind to drive them. This of course depends where they are located but usually they are only run for 45% - 65% of the time, mostly well below maximum capacity. They cannot be relied on for the 'base load' because they are too variable. And they certainly could not be used for load control. The peak load demand for electricity in Australia is approximately 50,000 Megawatts and only small part of this comes from the Snowy Hydro Electric System because it is only available when water is there from snow melt or rain. And yes, they can pump it back but it costs to do that. Tasmania is very fortunate in that they have mostly hydro-electric generation because of their high amounts of snow and rainfall. They also have wind generators but that is only a small amount of total power generated. Based on an average generating output of 1.5 megawatts (of unreliable power) you would require over 33,300 wind generators. As for solar power generation much research has been done over the decades and there are two types. Solar thermal generation and solar electric generation but in each case they cannot generate large amounts of electricity. Any cheap, clean energy is obviously welcomed but they would never have the capacity of replacing Thermal Power Generation. Here are some facts that will show how ridiculous this financial madness is that the government is following. According to the believers the CO<sub>2</sub> in air has risen from .034% to .038% in air over the last 50 years. To put the percentage of Carbon Dioxide in air in a clearer perspective; if you had a room 3.7 x 3.7 x 2.1 metres the area carbon dioxide would occupy in that room would be .25 x .25 x .17m or the size of a large packet of cereal. Australia emits 1% of the world's total carbon dioxide and the government wants to reduce this by 20% or reduce emissions by 0.2% of the world's total CO<sub>2</sub> emissions. What effect will this have on existing CO<sub>2</sub> levels? By their own figure they state the CO<sub>2</sub> in the air has risen from .034% to .038% in 50 years. Assuming this is correct, the world CO<sub>2</sub> has increased in 50 years by ...004% per year. That is 004 divided by 50 = ...000008%. Of that because we only contribute 1% our emissions would cause CO<sub>2</sub> to rise 00008 divided by 100 = ...0000008%. Of that 1%, we supposedly emit, the government wants to reduce it by 20% which is 1/5<sup>th</sup> of 0000008=...00000016% effect per year they would have on the world CO<sub>2</sub> emissions based on their own figures. That would equate to an area in the same room, as the size of a small pin. For that they have gone crazy with the ridiculous trading schemes, solar and roofing installations, clean coal technology renewable energy, etc. The cost to the general public and industry will be enormous. Cripple and even closing some smaller business.

## **Interesting Places to Visit**

The Henry Parkes Museum is a must see if you are in the NSW area of Parkes as they have a great antique machinery collection along with other attractions of 35 tractors, restored and in working order, harvesters and agricultural equipment, stationery engines, trucks, over 10,000 household items, blacksmith shop, school house and a couple of old churches. They have over 20,000 items in their collection for you to see. The 7.5 acre museum site houses a collection of historic buildings along with many other items of historical significance. Once a year many of the restored tractors and engines are brought out and started up during the day, including the Sunshine harvester, Fowler Reins Drive tractor and the Big 4. It is a great day for tractor enthusiast to see the machinery in action. The museum houses a permanent display of many items relating to Sir Henry Parkes, the Father of Federation, after whom the town of Parkes was named. The museum is owned by the Parkes & District historical society and it opens daily from 9am to 3.45pm and only cost \$5 per adult for entry.

And while in the area, the Gilgandra Rural Museum is also a great place to visit. They have many outdoor attractions including old buildings, farm machinery, windmills and a big shed that houses about 30 tractors, 14 engines and 2 steam engines along with other interesting bits and pieces of old machinery and equipment. This museum is also open 7 days a week and is \$5 per adult entry fee.

While you are stopped at Gilgandra, drop into the Heritage and visitors centre. This building houses several different galleries, one of which is the Coo-ee march gallery. In here you can relive the story of the original Coo-ee march depicting the journey of 35 men who marched from Gilgandra to Sydney in 1915 to attract recruits for service in WW1. This gallery includes artefacts of national significance including the Union Jack flag carried by the marchers.

## **New Member**

I would like to welcome, Alf Brasher, who is the newest member to join our club, Alf is no stranger to Kyabram as he has been attending our rally and truck muster for quite a few years. Not only does Alf love the trucks, but he is also interested in vintage engines. You may have even sat along side Alf in the engine compounds of our rally.

Welcome Alf, we look forward to getting to know you.

## **Congratulations**

Congratulations to Bonnie Fletcher on her recent marriage to Damien Cassidy. What a lucky bloke Damien is. Not only does he now have a gorgeous wife but he also has an awesome mother and father in-law. I bet it won't long before Damien gets that old putt putt bug as well. May you both have a life time of love and happiness.

## **Condolences**

Our sympathy to Laura, Adam, Mia and Cooper Thomson on the passing of Laura's grandfather, Rodger Pate. Rodger and his wife, Marg, have enjoyed many of our rallies over the years. RIP Poppy.

Condolences to the Lee family on the passing of Ian. Ian was without doubt one of this country's most well known and loved truck restorers. Ian was a great fan of the big American marques, Mack, Diamond T and Caterpillar. His legendary Lady Di Diamond T was a regular sight at our truck musters. He also had a heritage collection in Tyledon where he was from. He was a great man, with a heart of gold, and a great friend to the historical truck movement. Ian has left his mark and will be missed.

## **Invention of The Cream Separator**

By far the most important invention to revolutionise dairying in Australia, to increase dairy returns, and to reduce labour on the farms, was the invention of the cream separator. The ability of centrifugal force to separate two separate substances of different specific gravity from each other was first discovered by the Chinese, and was primitive in form. A strong string was fastened to a calabash-gourd, which was then swung round by hand at the greatest possible speed, and in that way juice, oil etc., was separated from fruits, pith and the like.

After the invention of the 'slinging machine' used in the extraction of sugar and honey, experiments gradually began to bade in the way of centrifugal apparatus for separation of other liquids, the first experimenter being Albert Fesca, of Berlin, a manufacturer of centrifugal machines for making sugar. About this time it was discovered that the cream which rose on the milk was nothing else but diminutive fat-globules, which had floated up to the surface because they were lighter than the other constituent parts of the milk.

One of the first to advocate the idea of separating cream from milk by means of centrifugal force, it is claimed, was Prof. C.J. Fuchs, of Karlsruhe. He made a small cream testing centrifugal machine in 1859. In 1864, A. Prandtl, of Muchen, hit upon the idea of skimming milk with a centrifugal machine which, in simplicity, nearly approached to the Chinese centrifugal calabash-gourd. The shaft (axle) was given a rotating speed of 400 revolutions per minute, and after half an hours run, a thick cream was obtained almost of the consistency of butter. The inventor found that the power consumption and the trouble connected with this process was too great, so he gave up the experiment.

In 1872, at an Exposition in Vienna, Prof. Moser demonstrated a model resembling Prandtl's.

In the Spring of 1877, Lefeld's invention was first brought under the notice of De Laval who thereupon expressed the intention of inventing a centrifugal machine which would separate the cream from the milk without the necessity of hand-skimming, as was necessary on Lefeld's machine. By October 1877, he had advanced so far that he was able to demonstrate a milk separator at work. This demonstration took the following form --- About six gallons of milk were poured into a bowl, and after a short run a sufficient amount was added to force up the cream into the upper chamber of the bowl, which was then stopped, the skim milk was let out through a valve in the bottom, and the cream was emptied into another vessel. The bowl was then filled again, and a new skimming was begun. This, and even a later machine of 35 gallon capacity, was considered too small, and the inventor was informed that since it was obvious that it was absolutely impossible to construct a machine that could continuously separate cream from milk, without it being necessary to stop it frequently and empty it, the whole idea must be abandoned.

Later, after much thought, De Laval invented the first 'continuous centrifugal machine', which, he felt, would revolutionise the dairying industry. In 1878, his first machine was tested and proved that the idea was a good one. As the bowl, however, was made in two parts, held together by screws, it was impossible to make the joint tight. After the bowl had been rotating a little while, and had reached full speed, no matter how tight the screws were set, the centrifugal pressure on so great a bowl (24 inches in diameter) forced the milk out through the joint, so that there was a milky spray around the machine.

The inventor then conceived the idea of having two receiving vessels ---one for the cream and one for the skim milk --- whereby the bowl could be made whole in one piece.

In 1877, Von Bechtolsheim attempted to invent a cheap little centrifugal separator which would be suitable for farmers. He observed in his work that better clean-skimming could be obtained if the interior of the bowl was divided up into small chambers by means of partitions. His first separator was furnished with a device consisting of spiral shaped discs, but soon he discarded these in favour of ordinary conical discs which, however, were considerably lower than those now used. This patent, when introduced into the centrifugal machines then in use gave a clean skimming never dreamed of.

In 1879, two sizes of machines were marketed, one skimming 80 gallons per hour and the other 25 gallons per hour, this latter separator being capable of being turned by two men. The test of the skim milk showed 3/10<sup>th</sup> per cent fat, which was a vast improvement on hand skimming.

The evolution of the separator into its present form, in which perfection seems to have been reached by steady experimentation, has been a continuous process. Many types and models have been put on the market until gradually the most serviceable have been developed and the others have disappeared.

Engineer Lefeld, who was present at the Vienna Exposition, took up the idea, and constructed a centrifugal machine, in which the rotating arms were substituted by a disc, in whose periphery a number of equally large vessels could be secured simultaneously. A centrifugal apparatus of this kind was exhibited in Bremen in 1874. It made 600 revolutions per minute, and skimmed 12 litres (about 2 ½ gallons) in half an hour. From the tests made, it was obvious that no practical results could be won on these lines, and the idea of a centrifugal machine with several vessels was abandoned, and the sugar centrifugal machine type was resorted to, in which one vessel rotates around its own axle.

As early as 1874, La Compagnie de Fives, Lille, obtained in France a patent on a continuous centrifugal machine. It is true that this machine was intended for clarifying wine etc., but it was also quite well adapted for separating milk, although at that time no one in France thought of it, and since at the first test the only centrifugal machine of this kind ever manufactured exploded and killed the inventor; the whole enterprise came to naught.

Meanwhile, Engineer Lefeld had continued his experiments based on centrifugal machine for sugar-making, and at the end of the year 1876 he announced that he could skim milk in a rotating vessel. This machine did not, however, work continuously, and the bowl was of gigantic dimensions, and held 100 kilograms (about 22 gallons) of milk at a time, which was skimmed in an hour, if the speed of the bowl was 850 revolutions per minute. The clean skimming was not much better than skimming by hand, and the great trouble connected with skimming and emptying the bowl, which was done partly by hand and partly by means of a syphon, took too much time. In 1877, however, the inventor found that this difficulty could be improved upon, namely, by letting more milk into the bowl while it was running, the cream was driven out over the edge, so that only the skim milk had to be emptied when the bowl stopped. Owing to the small skimming capacity and the great power needed, together with the fact that the machine was unable to skim much cleaner than ordinary hand skimming, these inventions were considered more as interesting scientific experiments than as a practical solution of the problem of skimming milk by centrifugal force.

These experiments, however, were the stepping-stone to the correct solution, and led to the invention of a fully serviceable milk-skimming centrifugal machine.

### For Sale

If you are interested in starting up, or adding to, your vintage tractor collection, give Andrew Freeman a ring. Andrew has a few of his old tractors for sale. They include:-

- Allis Chalmers model ED 45 – original, runs well \$3,000 ono
- McCormick Deering WD40 1937 original condition and runs well \$12,000 ONO
- Allis Chalmers model U runs very well \$3,500 ONO

Andrew can assist with delivery.

Phone 0428 671226

Buzacotte 6HP – goes - \$450

Phone Evan Foley, Dunolly 0468 313432

Dennis Rodgers of Inglewood has the following items for sale. Phone 58 210115

These items are remnants of a now defunct museum.

- Rosebery type A open crank 2hp complete \$700
- Two – 3HP Rosebery complete – 1 tank & 1 hopper \$250 each
- Howard Rotary hoe early flat belt model (with attachments)
- Bayvue spray pump and motor, on transport, restored \$1,500
- Ronaldson & Tippett orchard spray pump
- Forward reverse gear box
- Small JAP and Villiers motors – 4 and 2 stroke
- Line marker
- Lots more individual items
- Robinson seconds elevator
- Reduction gear box – 25-1
- Numerous pumps – including Eureka
- Line marker eraser (Victa powered vacuum)
- Some maggys

Engines for sale – Brian Smedley phone 58 253997

- Southern Cross Farm Pumper
- 2HP Ronaldson Tippett
- Billabong pump
- Plus other engines

### Words of wisdom

Never laugh at your wife's choices..... You're one of them