

**A HORSE DRIVEN GIN PIT, WITH ASSOCIATED
GIN STABLES & FARM IN THE PARISH OF
WORTHINGTON**



BY SAMUEL T STEWART - JANUARY 2022

FRONT COVER MAP

This is an extract from the first edition 1836 O/S map depicting the area of an original horse driven Gin Pit, with associated Gin Stables and Workshops etc., which is outlined in red. The entrance to the site was via a track off Outwood's Lane, which cuts through from Coleorton Lower Moor Road to the Rempstone Road. This was in the parish of Worthington but on land which was part of the Coleorton Beaumont Estate, and therefore tended to be associated with Coleorton.

PREFACE

There is little recorded research information available on this historical site, but it is probable that the horse driven Gin Pit itself would have become worked out by the third quarter of the 18th century.

Although the site ultimately became known as Gin Farm, all evidence of it has now been lost, and a hamlet of new houses have now been built there. As far as the author is aware, no archaeological investigation was carried out prior to this.

There appeared to be an abundance of coal in this area, and the important Paddock Colliery was located not far away in the direction of Coleorton fishpond

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COMPLIMENTARY READING

The author's book entitled "A History of Coal Mining in the Local Area" is free to download and read on the author's website along with numerous other local coal mining publications.

<https://samuelstewart940.wixsite.com/mysite>

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KNOWN HISTORY OF THE SITE

Horse driven winding Gin pits were common in the Coleorton and Swannington areas during the 17th and 18th centuries. Close Inspection of the 1836 front page map clearly shows Gin Pit shafts on this particular site. Horse power enabled deeper mining to take place than could be accomplished by Bell Pits, perhaps to a depth of 50 yards or so.

Swannington Heritage has constructed an example of a Horse Gin on the site of a former Gin Pit there.

In order to try and put things into context, it is clear that without a horse driven Gin Pit, there would not have been a requirement for the Gin Stables on this site.

It is possible that a number of horses in addition to those required for this Gin Pit may well have been bred and kept there and contracted out to other local Gin pits. The horses would have been hired out to various Gin Pit managers on a daily basis together with horse minders. In the higher output mines, they would probably have required four shift changes.

References have been found to a joiners shop and a blacksmiths shop on the site, which would have been a particular requirement in order to make and maintain the horse gin structure and the shoeing of horses etc.

In later years, after the Gin Pit had been exhausted or abandoned, the workshop facilities were used for the Beaumont estate maintenance work, and the following newspaper article from 1860 which refers to men working on the site and requiring a foreman, is confirmation of that. It also clarifies that the site had living accommodation and farming activities were being carried out:-

Derby Mercury - Wednesday 15 August 1860

POISONING AT COLEORTON.

A most melancholy and awful case of poisoning took place here on Friday. Mr. John Middleton, carpenter, and foreman to Sir G. Beaumont, Bart., residing at the Ginn stables, put a period to his existence on the above-named day. The deceased got up at his usual time, about five o'clock, and had milked his cows apparently in his usual health; shortly afterwards he complained of being unwell, and soon got rapidly worse. Dr. Dickens, of Ashby, was sent for, to whom he remarked, " It is no use your coming now, it is too late, I think I have done for myself; I have taken arsenic and am now dying," and so it proved; for the time that had elapsed between his taking the poison and the arrival of the doctor precluded the possibility of anything being done to save him. In answer to questions put to him by the doctor, he said he took the poison shortly after six o'clock, and they would find the remainder wrapped up in a piece of paper in his cupboard, where it was afterwards found; and in answer to why he had done it, he replied great trouble on his mind had driven him to it. The deceased was a very quiet and well conducted man, respected by all who knew him; he was trusted by his employers as a man of confidence. and his quiet demeanour and good conduct gained for him the esteem of all. He was both a ringer and singer in the church choir, and attended the meeting of choirs on Tuesday, the 31st ult. He has for some time been in a low desponding state of mind, but no cause whatever can be assigned for the rash act, the deceased being in comfortable circumstances and on good terms with his wife and family. His accounts have been examined, and

everything found perfectly correct; he had even taken the time of the men going to work, as was his usual custom every Friday morning. An inquest was held on the body on Monday, before Mr. Gregory, and a respectable jury, when, after hearing the above evidence, they returned a verdict of "Temporary insanity." This awful event has caused great sensation throughout the neighbourhood, the deceased being well known both in Ashby and the surrounding district; it has also given rise to many false and absurd rumours. That he was trusted, and deservedly so, as his accounts fully prove; and that he was on good terms both with his employers and family, must be both a satisfaction and consolation to them.

In corroboration of this we sub-join the evidence given at the inquest by Mr. Heward, Sir George's steward. Mr. Heward said: I am steward to Sir George Beaumont, and had known the deceased for the last fifteen years. In consequence of there being reports in circulation that the deceased had been guilty of some nefarious transaction, and dare not face Sir George Beaumont, and had destroyed himself in consequence, I wish to state to the jury out of respect to the deceased, that there is not the slightest foundation for them, because during the time I have known him there have been constant money transactions and other acts of business have been entrusted to him, and he has always executed them honestly and faithfully, He had been employed by the late and the present Sir G. Beaumont and their tenantry for nearly 30 years, and has during that time been esteemed and looked upon as a valuable and honest man. Sir George Beaumont has not only permitted me, but requested me, to say that he fully concurs in the evidence which I have given respecting the deceased. (photograph on next page)



**Time for a glass of Ale and a pipe of baccy
Undated photograph taken outside the Gin Stables entrance**

The Beaumont estate office was located on the site for at least 25 years, and hearsay has it that most of the estate records were lost when a fire was deliberately started in the office which is presumably why so little in the way of records of the estate business has been located. Again, hearsay has it, that this was a deliberate attempt to hide evidence relating to debts the 11th baronet had accrued.

Apparently, during clean up operations following a fire on the site, timber components from an old Horse Gin were discovered, but apparently these were burnt, as they were not considered to be of interest at the time.

This fire described below was two years before the death of Sir George Arthur Hamilton Beaumont, 11th baronet, and could well have been the fire referred to in the preceding paragraph.

Leicester Evening Mail - Thursday 24 September 1931

TWO BRIGADES AT ONE FIRE

*When about 18 tons of hay caught fire at **Gin Farm**, Coleorton. the property of Sir George Beaumont, to-day, the Ashby Miners' Rescue Brigade attended, but had to return to their station after practically extinguishing the outbreak. Loughborough Fire Brigade was called, but could not attend owing to the fire being outside its area. Eventually, the Burton-on-Trent Fire Brigade was secured, and completed the work which the other brigade had began.*

Sir George Arthur Hamilton Beaumont, 11th Baronet of Coleorton Hall, often referred to as "The Sporting Baronet", kept race horses at the Gin Stables which were ridden locally at Uttoxeter and Nottingham. This would have been during the period from 1904 to 1925 when the Abel-Smiths' were leasing and residing at Coleorton Hall, and they were using the stabling facilities there. However, this arrangement apparently continued after Sir George & Lady Beaumont returned to Coleorton Hall to take up residence there in 1925 after residing at "The Gables", Coleorton.



**Sir George Arthur Hamilton Beaumont, 11th Baronet, 1881-1933
Seated on one of his horses (probably "Coleorton") in his racing colours of a
scarlet cap and French grey blouse**

The author understands that Martin Bros c.1934, following the death of the 11th, Baronet, purchased or leased the site, which they continued to run as a farm, namely "Gin Farm". They were well known for breeding race horses there, and could well have purchased Sir George's horses.

There follows a newspaper report confirming that in 1946, the estate office was still located at the Ginn Stables, which seems very strange??

Leicester Evening Mail - Wednesday 27 March 1946

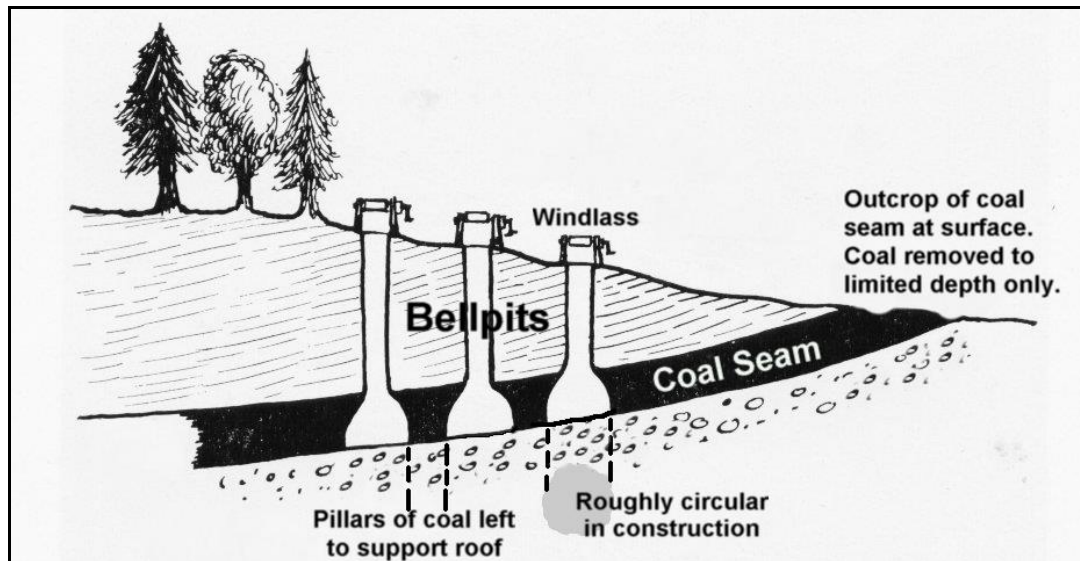
By direction of the personal representatives of the late Sir George Beaumont, Bart. NEWBOLD AND COLEORTON, Leicestershire. Outlying Portions of the COLEORTON ESTATE. including, FREEHOLD FARM SMALL HOLDINGS 3 COTTAGES and GARDENS. Total Area: 79 Acres. Gross Rents: £300. TO BE OFFERED FOR SALE BY AUCTION in 14 Lots by JOHN GERMAN & SON, FRI., at The Council Chamber, Town Hall, Ashby-de-la-Zouch, ON MONDAY. APRIL 15th, 1946, at 3.30 o'clock in the Afternoon. A plan may be inspected at the Auctioneers' Office or at **The estate Office. The Gin Stables.** Coleorton. Further particulars may be obtained from the Auctioneers or Messrs. Fishers. Solicitors, Ashbyde-la-Zouch (Tel. 167). Auctioneers' Offices: 84 Burton-on-Trent (Tel: 3001): and at Ashby-de-la-Zouch and Derby.

Mr. Herbert Martin whose address was given as Ginn Stables, Coleorton died in June 1958 which suggests that the Martins had been there for over 30 years.

The Gin Stables were eventually converted into Studios for Keith Moseley's card design business c.1968.

EARLY METHODS OF COAL MINING

It is clear that the earliest centres of coal mining activities in the country were those areas where coal measures lay on the surface with outcropping seams of coal.



An illustration of a coal seam exiting at the surface where outcropping of the coal was carried out prior to Bell Pit workings being developed

Settlements were usually sited on or around the better agricultural land, which also carried the best timber – a commodity which in medieval times was carefully husbanded and jealously guarded. So, it would be scrub or poor quality ground that would have been used by the peasantry for fuel and building purposes.

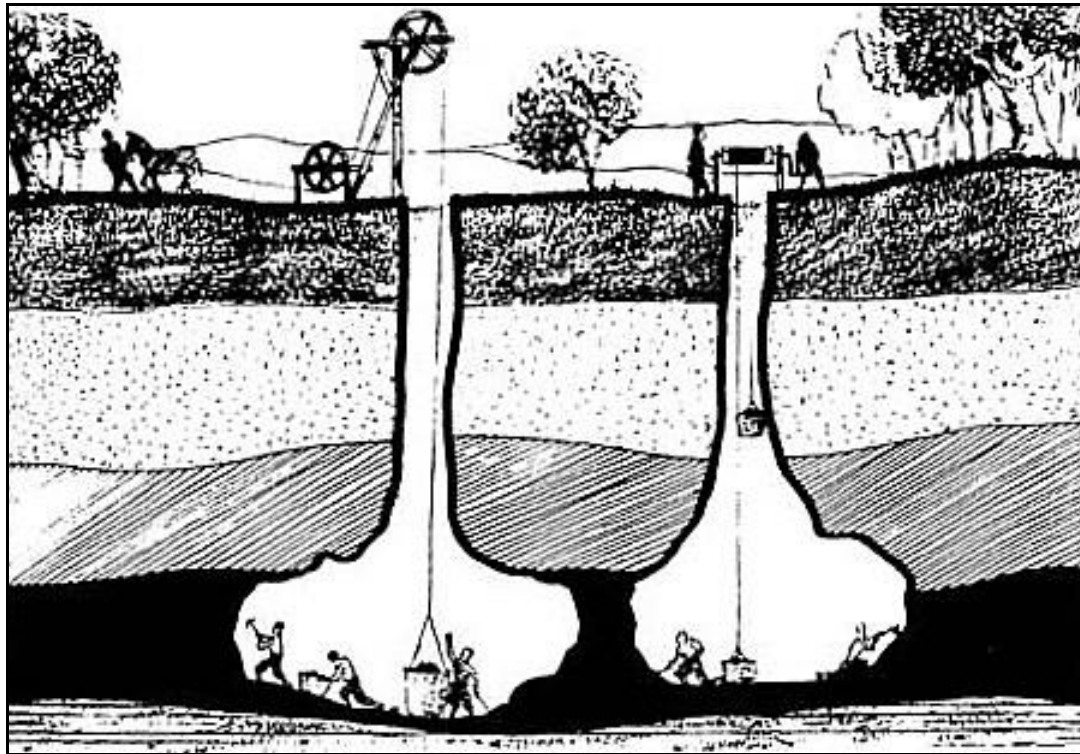
Subsequently, overgrazing by commoner's stock prevented re-generation of tree cover, and extensive wastelands were created. Newbold Common, Gelsmoor, Swannington Common and Coleorton Moor must have been such places, and it was fortuitous for those who first realised how extensive the outcrops of coal were in these places. An alternative fuel to the traditional, but scarce firewood was there for the picking.

Coal was not a popular fuel, and only those living near the coal workings burnt it; but since their crofts and hovels had no chimneys, noxious fumes from open coal fires must have been a major problem. Wood was used only by people who were able to afford it, and were able to trade off goods or services for this commodity.

The importance of coal did not become established until the 16th century, when output expanded rapidly until it was curtailed by events surrounding the Civil Wars. Afterwards, there was a steady rise in output until the middle of the 18th century, when production rose dramatically to meet the needs of the steam age and a rapidly increasing population of domestic and industrial users.

In the earliest mines, coal was relatively simple to extract. Coal was no doubt quarried at first, by removing the immediate overburden (outcrop on the surface – see previous illustration) until this became impractical. The seam would be followed down from the outcrop in tunnels, perhaps for about twenty feet or so until it was unsafe to work, and then the "Bell Pit" system of mining the coal was employed; this is shown in the previous and next illustration. A series of Bell Pits were then opened to follow the vein of coal until it became too deep to excavate by this method; the principle is well known. A shaft is sunk from the surface until it reached the seam of coal which was then extracted in all directions until the roof threatened to collapse.

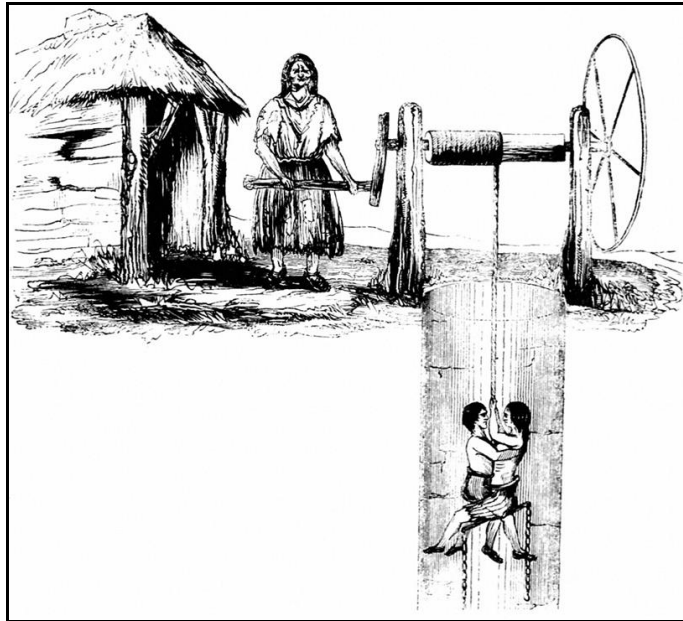
Then it is abandoned and another pit opened up alongside; spoil from the new excavation being thrown into the old workings. In this way, a large area was covered, but at a great cost in physical effort.



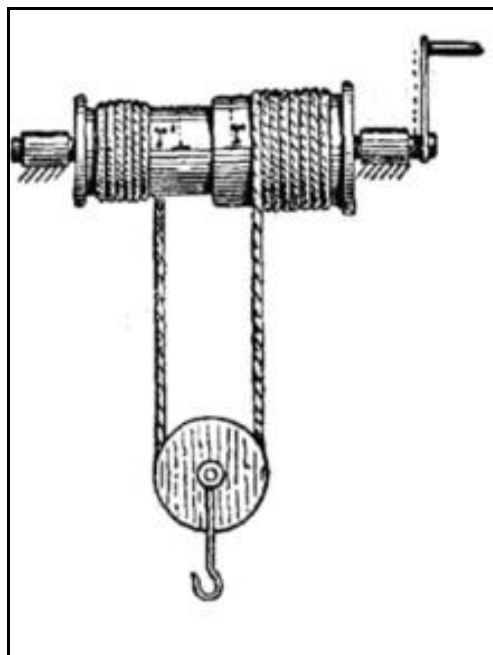
As the seam dipped away from the outcrop, the need to maximise the advantages of access to the coal against the effort put into digging the shaft would dictate some form of support for the shaft-bottom, and it is conceivable that radiating tunnels would be driven into the coal, and these excavations would be joined up as the diggers retreated back into the shaft.

Spoil from the sinking, and then coal, was carried up ladders to the surface in back packs, and later was hauled up in baskets.

The hand windlass was used from a very early date for winding coal, and some had a handle at each end so that two people could operate them. They were also used to wind people into and out of the pit, as the following illustration from the "Children's Employment Commission Report" of 1842 shows, however, most miners preferred ladders, which they considered a safer means of travelling the shaft.



Children being winched down a shaft. Taken from the 1842 report for The Royal commission on Employment of Children in Mines and manufactories.



The “Differential Windlass” was a further development which incorporated a gear ratio to increase the speed at which people, buckets, baskets etc could be drawn up the shaft.

These primitive methods would have been used extensively in the area, and over several hundred years was the only form of coal-mining. In 1520, it was recorded that there were 5 pits working in a small field in Swannington Parish, and these were almost certainly of the “Bell Pit” variety. Whilst these old methods were continued where outcropping presented itself, the introduction of new techniques in the 16th century enabled the exploitation of deeper veins of coal, where shafts were lined with timber and a more advanced system of heading out was employed, and known as

“pillar and bord” or “stall and pillar”. Professional sinkers were employed and headings were taken out from the pit bottom for considerable distances and in more than one direction before the pits were fully operational. Timber was used in large quantities, probably for shaft lining and roadway supports.

THE DEVELOPMENT OF WATER & HORSE GINS

In relatively shallow mines, like those at Coleorton in the 1570's, coal was hauled up the shaft by a hand-operated windlass, but from the mid sixteenth century, various kinds of “Horse Gins” were employed, such as the “whim gin” employed at Swannington in the 1720's. Underground haulage was originally by means of manpowered sledges pulled along on wooden rails. By the 1780's, the output from the largest collieries demanded the introduction of more powerful winding devices using steam power. Horse powered winding devices were widely used in the 17th and 18th century, and

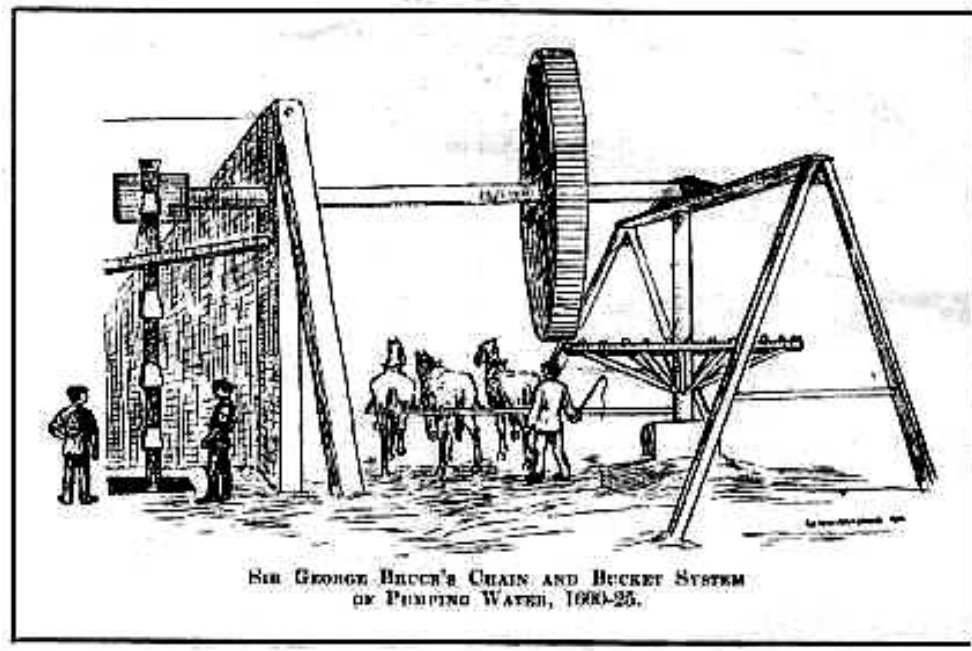


Illustration of coal being pulled along in Corves (hazel twig baskets) on sleds or sledges by a woman and child

Water was a constant problem, and Thomas Beaumont for example was forced to abandon his Measham mine in the early 1620's for want of an answer to drainage problems there. Towards the end of the century, flooded workings at Coleorton Colliery – despite extensive southing (drainage) – brought about its closure.

Elsewhere, at Oakthorpe, water was being raised by means of a “Water Gin” with assistance from a “Windmill Gin”, and coal was raised by “Horse Gin”, probably of the cog-and-rung type. These techniques became widely used, and the necessity of employing the latest methods would quickly have spread to and from the neighbouring coal fields.

A “Water Gin” was said to have been used at a pit in the vicinity of the “Woolrooms”, in Worthington parish, but no actual records of this have been located.



The principle of how the “Water Gin” (Egyptian Wheel) based on the “Cog-and-Rung”, worked. As described below, the chain and buckets could be replaced by a rope and a Corve (wicker basket) to raise coal from the pit bottom.

The cog-and-rung (Egyptian Wheel) gins were a development of the hand operated windlass, and had a continuous rotating chain drum or leather strap suspended over the pit shaft, which went down to a sump at the bottom. A series of leather buckets, called dippers, were attached to the continuous chain or strap, and worked with a dredger action to scoop water up as they rotated around the return drum at the bottom. Their contents were discharged onto an inclined board at the top of the shaft and then into a wooden trough. The water was then discharged into a nearby stream or watercourse. The horses harnesses were attached to a stout lever bolted to the vertical cog-wheel pivot shaft, and were driven around in a clockwise or anti-clockwise direction. This caused the rotation of a wooden horizontal rung-wheel pivot shaft and chain / strap drum via the engagement of the rung wheel with the cog wheel. This method of raising water from wells had been used by the Egyptians hundreds of years prior to it being employed in the coal mines in Great Britain.

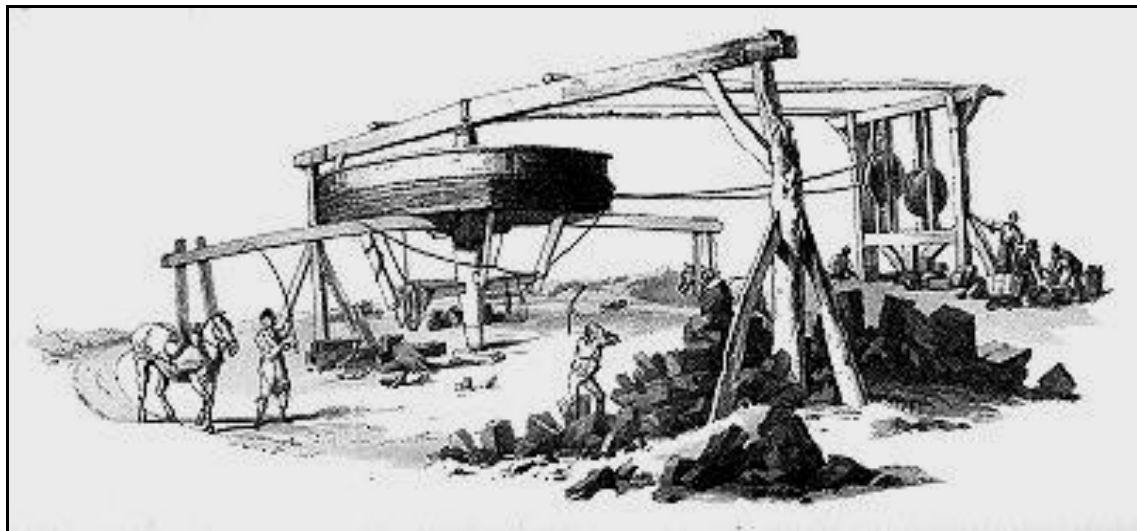
Over a period, the limitation of the chain of buckets method was soon found to be inadequate to meet the ever-increasing wants of the coal miners. The wear and tear was excessive, and due to the vibration of the chain and leakage, much of the contents of the buckets were spilled before they even reached the surface, and water was continually pouring down the pit in a deluge. If a bolt broke, then the whole set of chains and buckets would fall to the bottom of the pit, with dire consequences. The buckets were made out of leather or carved out of solid logs of wood. Wooden barrels were also known to have been used also.

The above illustration shows an Egyptian Wheel developed by the famed colliery engineer Sir George Bruce in order to re-open the colliery at Culross, in Perthshire. A disadvantage to this system was that it needed to be placed near to the pit mouth, due to the limitations in the strength of the components like the rung wheel shaft whose length would be limited.

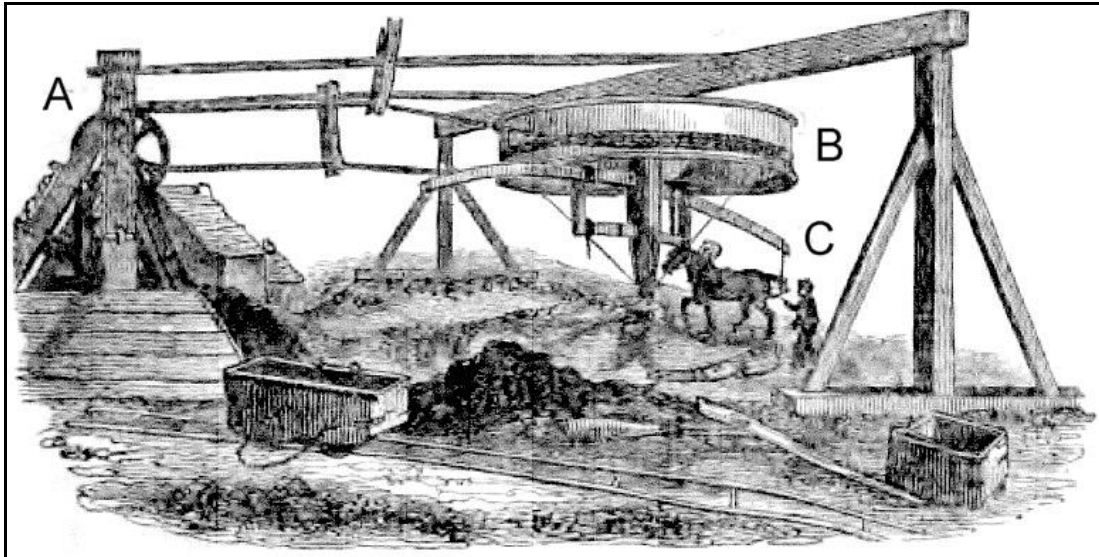
A development of the "Water Gin" system was also used for hauling coal to the surface. In this, the chain drum was basically replaced by a rope drum. The ropes were made of hemp, and were about one inch in diameter. A corve (hazel basket) was attached to the end of the rope.

When this system was used for hauling coal from the pit bottom, each corve (basket) contained about 4½ cwt of coal. For the deeper pits, an output of twenty-one scores of such baskets, or about 90 tons was considered to be a good day's work. A gin was worked by one or two horses at a time, and four shifts or relays of horses were required to carry out the day's work. These figures are taken from "A History of Coal Mining in Great Britain", but they seem rather high.

A further development of the cog-and-rung coal hauling gin was the "Whim / Whimsy Gin", introduced towards the end of the 17th century, and again worked by horses. The drum was sited some distance from the mouth of the pit, with the winding rope taken over pulleys suspended over the shaft. **This gave uninterrupted access to the pit top.** This was a major step forward in hauling coal up the shafts. As well as the pit mouth being left free from obstruction, the diameter of the drum could be enlarged without inconvenience, and the number of horses applied to the levers increased as required. The direction of the horses was reversed dependant on whether the baskets were being raised or lowered in the shaft. At this time of course, the miners were also lowered and raised in the baskets.



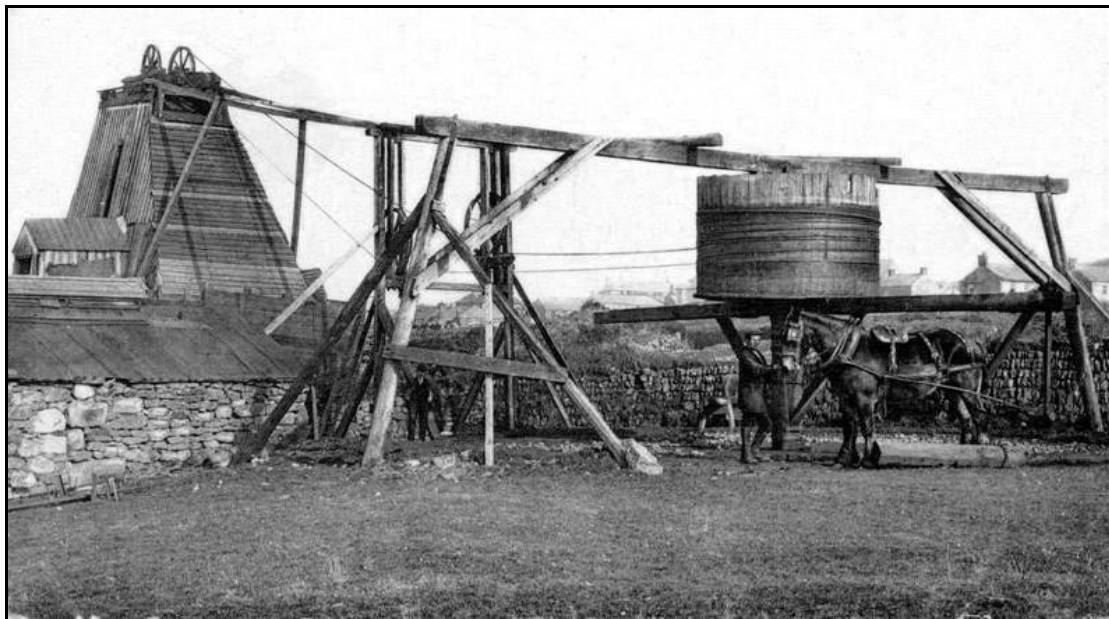
Whim or Whimsy Gin (Horse powered winding wheel)



A - Mine shaft head frame and pulley

B - The hoisting rope is taken up on the reel

C - Horse operating the Gin



An old photograph of a working “horse powered Gin” at a Cornish mine.

Note that this was situated at a distance from the pit head, thereby freeing up the space around it.



Illustration of corves (baskets of coal) being winched up the mine shaft.
Note - the corves are now being transported in a tram on rails instead of on a sled

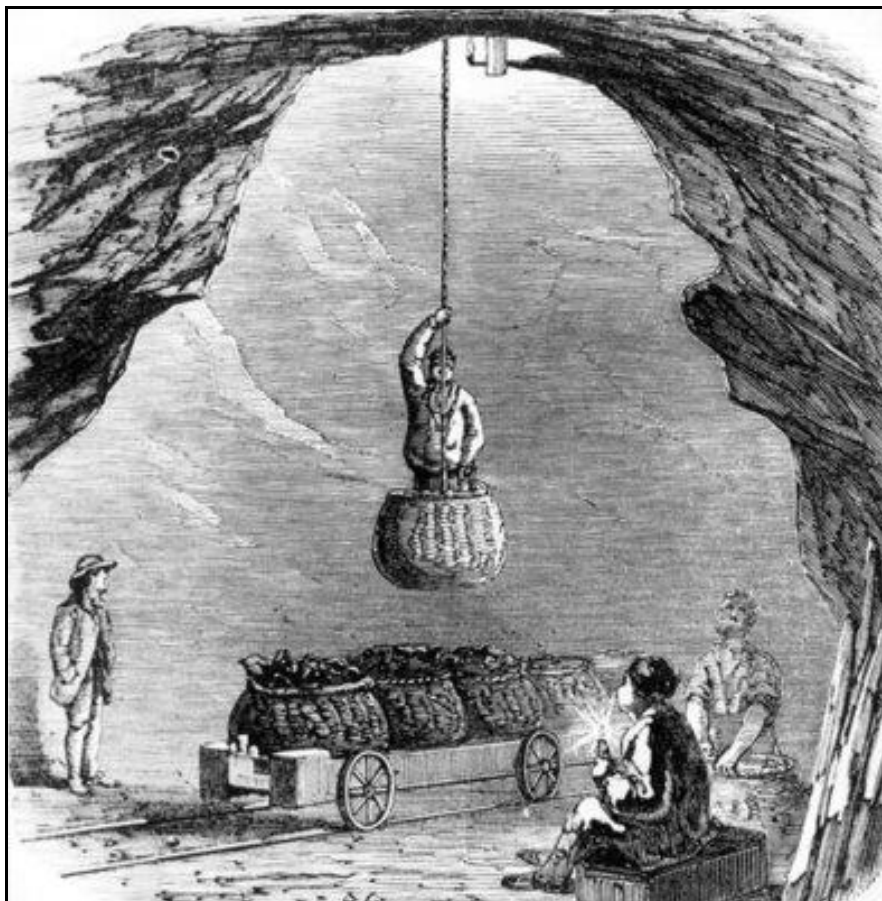


Illustration of descent down the pit shaft in a corve