

The Cast Iron Plow.

A bill has recently passed the Senate of the United States, and is now pending in the House of Representatives, to extend the patent of Jethro Wood for seven years, which he obtained in 1814, and renewed in 1819, claiming to have invented the cast iron Plow-share. This bill proposes to grant to the heirs of Jethro Wood, the privilege of exacting fifty cents from the manufacturer for every Cast Iron Plow made in the United States for seven years after the passage of the said bill.

As there are about four millions of farmers and planters at present in the United States, and as each would require on an average at least one plow every four years, this privilege would be worth half a million of dollars annually, all of which would be taken from the hard earnings of the farmer and planters. And what makes the matter more unjust is, that the interest of the heirs of Wood have been purchased for a mere song; thus nearly the whole benefit of it will inure to a company of greedy speculators.

But Jethro Wood, as I shall proceed to show, was not the original inventor of the Cast Iron Plow-share, nor did he ever improve the Plow in the slightest degree; he was consequently entitled to no merit in this thing, and much less to a patent: and had the fact been known by the Commissioner of Patents, in 1814, he would not have granted him one, or renewed it in 1819 neither would the United States Court have confirmed him in it after it had been granted.

The Cast Iron Plowshare was invented by Robert Ransom, of Ipswich, England, and he obtained a patent for it in 1785, twenty-nine years before Jethro Wood obtained his. The Cast Iron Plow, with the share and mould-board in two parts, was kept for sale by Peter T. Curtenius in this city, as early as 1800; and in use in this neighborhood. Jethro Wood undoubtedly obtained his knowledge of the cast iron share, from one or the other of these for the Cast Iron Plow as a whole, and in separate parts, will be found figured and described in almost every Encyclopaedia, and work on agricultural implements, published in Great Britain, since 1790. These works soon found their way into the United States, and it can be proved by the testimony of the intimate friends of Jethro Wood, that he was familiar with these publications.

The history of the Cast Iron Plow and improvements are simply this.

James Small, a Scotchman, constructed a Cast Iron Plow on true mechanical principles as early as 1740, and was the first inventor of the cast iron mould board. Robert Ransom, of England, invented the cast-iron share in 1785. An English farmer in the County of Suffolk, invented the cast iron land side shortly after, so that as early as 1790, the Cast Iron Plow complete, in three distinct parts, was well known and in use in Great Britain, and figured and described in nearly every work of any value since published on the subject of plows and agricultural implements.

Without any knowledge of these improvements of the Cast Iron Plow in England, Charles Newbold of New-Jersey, about the year 1790, took up the plow with a view of improving it in the United States. On the 17th of June 1797, he obtained a patent for the Cast Iron Plow skeleton, in one piece complete. Subsequently he made his plows with a cast-iron mould board and land-side, and attached a wrought iron share to it. Shortly after this, he still often spoke of farther improving his plow, by substituting the cast-iron share. But having spent upwards of \$30,000 in his improvements and efforts to introduce it into use in the United States and elsewhere, he got discouraged and gave up the business.

Peter T. Curtenius, as stated above, kept the Cast Iron Plow for sale in this City, the share and mould boards in separate parts, as early as 1800. Who was the manufacturer of these I am unable to learn.

In 1804, I think David Peacock, of New-Jersey, obtained a patent for a plow, the mould board and land-side of cast iron and in separate parts, the share of wrought iron steel-edged. He copied Mr. Newbold's plow in part, and for the privilege of which he paid him \$1,000.

In 1814 Jethro Wood obtained a patent for a plow, the mould-board land-side and share in three parts and of cast iron. He was familiar with Newbold's and Peacock's plows, and his was a bungling imitation of theirs, and not near so perfect in form and construction as the old Rotherham plow, which had been in use in Great Britain upwards of seventy years before ever Wood obtained his patent.

It is said that the Cast Iron Plow, in three parts, viz; mould board, land side and share was in use in Virginia previous to 1814, and that Wood was aware of it.

With these facts before them, the public will now see how great an injustice it would be for Congress to extend the patent of Jethro Wood, and give his heirs or rather a company of greedy speculators, the privilege for seven years, of exacting fifty cents per plow from every one engaged in their manufacture.

I hope these facts will be widely disseminated by the press throughout the United States; for the hard working farmers and planters ought to be immediately apprized of what so vitally concerns them. As the bill is still pending before the house of Representatives let all those opposed to injustice and special privileges take pains to call the attention of every member to the subject, so that the iniquitous measure may be defeated.

A. R. ALLEN.

Geology.

The explorations of Geology have brought to light wonders scarcely exceeded by those of Astronomy. While many fanciful theories have no doubt originated, the facts which are constantly developed are adapted at once to gratify and stimulate the friend of science:

"Mr. Lyell travelled across Sweden from the east to the west coast, on the summit-level and found everywhere the same appearance as on the coast. The whole country affords incontestible appearance of upheaval, but varying in different districts, being greatest towards the north, where the rise has been found from 600 and 700 feet, near Christiana 400 feet, and at Uddevalla 200 feet. The elevation, however, has been found neither uniform nor continuous; what is now rising was once sinking, interrupted by long intervals of rest. Near Uddevalla on the western coast, on removing a shelly stratum from a mass of gneiss more than one hundred and fifty feet above the sea level, barnacles were found clinging so closely to the surface that portions of the newly exposed rock came away on detaching them. Other zoophytes were also met with in considerable numbers, of the same peculiar dwarfish structure as those at present existing in the gulf of Bothnia. The finding of similar shells at places seventy miles from the sea, in the interior of the country, divests the instance here referred to of anything like an accidental character; and proves most satisfactorily that this part of the continent has lain for a long time below the sea, while accumulations have formed above it.

Perhaps the most interesting fact noticed by Mr. Lyell is the discovery of a wooden fishing hut, at a depth of sixty feet beneath the surface of the soil, during the excavations for a canal to unite lake Malar with an inlet of the Baltic. The structure was about 8 feet square; the walls crumbled away on exposure to the air, but the floor timbers remained sound. There was a rude stone fire-place in the centre, with fragments of half-burnt wood, and outside a heap of wood piled up for fuel; not a particle of iron appeared to be used in the construction of this singular building. It was compactly buried in fire sand, on which coarse gravel and large boulders in wavy strata were super-imposed. It has been shown that the submergence if caused by a sudden inundation, would have left the boulders, as the heaviest portion of the materials at the bottom, instead of where they are now found at the surface—a position in which they have been deposited by floating ice. And we learn from this remarkable fact, that since the building of fishing huts in Sweden, the land where the canal is dug, has sunk during a period long enough for the deposition of strata sixty-four feet in thickness by the sea, and has subsequently been raised to its present elevation.

Expansive Action of Steam.

The usual method of computing this effect neglects the influence of the variation of temperature, which always accompanies change of density, and which has been shown to modify considerably the corresponding pressure. M. de Pambour, however, has, by combining Guy Lussac's formula for the relation between temperature and density under uniform pressure, with that of Boyle for the relation between density and pressure under uniform temperature, from which any two being given, the third may be deduced.

By combining this formula with one by Mr. Scott Russell, expressing the relation between the pressure and temperature, and by this means to eliminate the latter, and obtain a formula containing only the pressure and density. From this formula another was easily obtained, showing the total dynamical action developed during expansion from one pressure to another, and the results have been given exhibiting—

1. The pressure in lbs. per square inch.
2. The relative volume, or ratio of the volume of steam, to that of the water which produced it.
3. The dynamical effect before expansion, or the number of lbs. raised one inch by the evaporation of each cubic inch of water.
4. The dynamical effect during expansion or the number of pounds raised one inch by the steam produced from one cubic inch of water in expanding from a pressure of 100 lbs per square inch to the particular corresponding pressure. The dynamical effect in expanding from any one pressure to another, must be clearly expressed by the difference of corresponding numbers.

The results as above ascertained, should not fall far short in the case of engines of good construction.—J. M. Hepp, C. E.

Illustrious Mechanics.

Zeno, the famous Bishop of Constantine, who had the largest diocese of that country, was a weaver. He directed his attention to the habits both of soul and body.

Stephen Tudiner a hatter in upper Austria was made general, and commanded sixty thousand of an army. He made hats for others but preferred himself a chapeau.

Walmer, a shoemaker, succeeded him in command but was slain by Count Papenheim. He converted his awl into a sword, "and his last state was worse than the first."

Mr. Edmund a baker of Sterling in Scotland, showed such unparalleled bravery, in the Swedish wars, under that thunderbolt of war, Gustavus Adolphus, that he was made General. A maker of bread might be supposed to know how to rise.

Peter the Great, Emperor of Russia, worked at ship-building. He learned the Russian Boor how to manage a boat.

Charles II of England, was a turner in ivory nor could the affairs of State divert him from his morning task at the lathe. He turned his mind however to other amusements which tasked his health and pared away his reputation.

Louis, XIV. of France, was one of the best watchmakers of his reign. He forgot the burdens of power in following the light footsteps of time, and escaped the flutterings of parasites on the pinions of chronometers.

William IV. of England was a sailor, and rose from the fore-castle to the throne; he managed the ship of State with nautical address, and beat her a considerable way up the harbor of Reform.

Benjamin Franklin was a printer, philosopher and statesman. He drew lightning from Heaven, and left his name in large caps upon the annals of his country. His spirit is among the *****

Ancient Paintings.

A magnificent painting representing Generals Washington and Greene at the death bed of General Rahle, has been suspended at the east end of the Senate Chamber, of the New Jersey Legislature, by Joseph C. Potts, Esq. with the consent of the Senate. The colors are life-like, and the figures expressive and well proportioned. The scene is the interior of the building now occupied by Nicholas Bendle, in Warren street; and known as the city hotel—the Headquarters of Gen. Rahle at the battle of Trenton.

The Fate of Genius.

Robert Page the once celebrated engraver in London has just met with a most melancholy end. He died in the great metropolis at the age of sixty, of starvation. He lived in a miserable room at Bethnal Green. The only furniture in it consisted of a broken chair and an old bed, on which lay the skeleton frame of Page. A policeman was passing the house and heard the cry of "murder." He entered and found Page in a frantic state. He said to the policeman, "I am a poor man, I am starved; I have had no animal food to eat for three months." The policeman went for a surgeon, and when he returned, Page was dead. One of Page's relations keeps a carriage, and his sister is a partner in a banking establishment, yet this old man who had gained celebrity in his profession, is permitted to die of starvation. It is almost incredible but such is the awful fact.

A Young Artist.

Mr. J. C. King of Boston, a young Scottish artist, has executed a bust of Dr. Woodward, so much respected by the citizens of Worcester, Mass., who ordered the bust. It is cut from a beautiful block of the finest Carrara marble, and, aside from the admirable likeness and fine and truthful expression of countenance, is well worthy of examination, merely on account of its excellent mechanical execution. The bust has been exhibited for three or four weeks past, in Boston, and has been visited by great numbers of people, and among those best qualified to judge of works of art, there has been no diversity of opinion as to its merits as one of the most successful efforts of the kind yet attempted in this country. The artist has for some time been distinguished for his skill in cutting cameos, a branch of art of comparatively recent introduction in this country, but which has already been brought to a high state of perfection.

May young King's fate be sunny and bright and may we never have the pages of our history darkened with the records of such scenes as that described in the preceding article.

A Marvellous Gourmand.

A most remarkable case of gourmandizing occurred in the city of Augusta, Geo. The subject was a middling age and sized negro man weighing about 150 lbs., who in the short space of two hours ate and drank at the usual hour for breakfast, the enormous quantity of provisions comprised in the following list, viz; 13 cat fish, 2 shad, 18 biscuit, 40 flat cakes, 1 1-2 lbs. butter, 6 links sausages, 23 eggs, 30 ears of corn, 2 slices beef steak, and two of liver, 1 gallon back-bone stew, 1 large plate of rice, 19 cups of coffee, and one pint of brandy. The inconvenience attending this experiment was so trifling that he immediately walked to another part of the city and ate 17 water melons, expressing a desire to partake of more could they have been found. It may be proper to add in connection with the above, and it would seem strange, too, that as regards his ordinary habits of eating and drinking, he is remarkably abstemious.—Ex.

The strangest part of the story is, how the fellow came to be able to eat more than he weighed himself, a circumstance easily discovered by calculating the probable weight of the articles devoured. But mammoth hogs and mammoth gourmands are peculiar critics.

Idols Made in England.

"I have been informed," says a missionary to India, "that some merchants in Birmingham have made a good speculation lately, in manufacturing idols of brass for the India market, for which they found a ready sale. It was mentioned to me as a fact last year, that two missionaries were embarking for Calcutta on board the same ship which carried several chests filled with idols."

The Maid of Orleans.

An equestrian statue of Joan of Arc, by Foyatier, is being erected on the place Maitris at Orleans. Joan is seated on horse-back, clad in complete armor, a helmet upon her brow, and her hair falling on her shoulders, the moment is, when the English fled before her.

The number of copies of the Bible and Testament which have been issued by the Bible Societies is about thirty millions.