



The Prize Essay.

Our friends are not forgetful of the Patent Laws and their revision. We have received quite a number of MSS. on the subject. There is room for more. The Patent Office is becoming more important every day—the business increases in the same ratio as our population. There is a great field for improvement and discovery yet before us, and while this is the case inventors must be protected in their rights. We hope that this will yet be the case. At present this is the case if the inventor has means, or some rich friends, but if not his case is a doubtful one.

Those Steam Engine.

We have two more of those four horse power engines for sale. The price is \$250. They can easily work up to five horse power. They are strong, neat and compact, with considerable brass work, governors and all complete, and well finished by an able engineer. Those who need such engines, and do not need a boiler, will find this an excellent opportunity to get a good bargain. A boiler can be furnished for any person who may want one, in a few weeks after receiving the order. Address Munn & Co.

Notice to Subscribers.

Within a few weeks we have received a number of letters from our new subscribers, stating that when they ordered the Scientific American they expected to receive it from the 1st number of vol. 4. It would save them as well as ourselves much trouble if in future they would be particular in stating the exact time they desire to commence. We hope they will also bear in mind that many times we are obliged to wait for a second letter from some new subscribers, from the fact that the county and State are omitted. Many of the smaller towns in the Southern and Western States, are not familiar to us, which makes it necessary to urge the importance of having the full directions accompany each subscription.

Edward Wesson.

Edward Wesson, whose name is so intimately associated with the perfection of the American Rifle, died at Hartford, Ct., on the 31st ult. His disease was inflammation of the lungs. He was only 37 years of age and bore the character of an honest man and a great mechanic. His fame as a maker of good Rifles "the Patent Loading Muzzle" is world wide—nothing can equal them for accurate shooting. His brother Mr. Daniel Wesson, takes his place and the manufacture of the rifle will still be continued at Hartford with the same perfection as before. Mr Wesson was a correspondent of the Scientific American and was a clear and smooth writer.

Borrowing Inventions.

The Boston Cabinet has found a new Inventor for our Railroad Index No. 1 Vol. 4, and the Traveller finds a New Rock Driller the same as Foster and Bailey's No. 20 Vol. 3 Scientific American. A Mr. Gouch it seems turns out to be the wonderful inventor of this. The crediting of these inventions is something new, but that is all.

Devlan's New Lubricating Oil.

This is a new discovery by P. S. Devlan of Reading, Pa., the patent for which was published in our list two weeks ago. It is a beautiful substance and is not equalled by any other that we have tried. We have a sample of it at this Office which every person admires. It is highly recommended by some of the very best engineers of Pa. It is far cheaper and better than sperm.

Uncultivated Land.

It is stated in the Boston Atlas that of the 4,192,000 acres of land in Massachusetts available for cultivation in some form, only 260,000 acres, or six and a half per cent are under tillage; the remaining ninety three and a half per cent consisting of woodlands, meadows, swamps, pasturage, &c.

LITERARY NOTICES.

Among the many splendid Monthly Magazines that come to us regularly, no one is more welcome than the Pictorial National Library, published by Wm. Simonds & Co. Boston.—The February number has just reached us, glad are we. It contains an excellent likeness of Gov. Briggs, accompanied by a well written biography—also a view of the new Boston Athenaeum, and many other interesting historical and biographical illustrations. A complete volume of it, bound, would make a magnificent work for the table, of nearly 600 pages. Terms \$2 per year. G. W. Adriance agent for New York City.

Fremont's California.

We have received from the Hon. Thomas H. Benton, a Map and Geographical memoir of Oregon and California addressed to the Senate U. S., by the conquerer of California, John Charles Fremont, whose character, without a commission in the army, stands as high as ever, and whose fame as a man of science and an adventurous traveller, is world wide. The map is a splendid one, but it must be seen to be appreciated. The memoir is a very minute and interesting description. The Bay of San Francisco is described as being magnificent beyond description. The entrance to it is through a rocky gap one mile broad at the narrowest part, called the Golden Gate. The valleys of the Sacramento and Joaquin are fertile and lovely, finely sheltered from winds and well adapted for agriculture, able to produce the fruits and flowers of South Italy. This will soon be a great country, as its natural capacities are unequalled by those of any other country on the face of the earth. In a few years at farthest, part of California will be admitted as an independent State into our Union—we hope that it will be under the name of "Fremont."

Vegetable Physiology.

We have received two pamphlets from D. Vaughan Esq. Cincinnati, designed to account for the phenomenon which takes place in the vegetable kingdom.

The *New England Farmer* for February, is a splendid number, full of sound practical information.

The *Genesee Farmer* is rich as usual with useful information well and happily illustrated.

Oliver Evans's.

We may consider Oliver Evans, of Philadelphia, as the inventor of the High-pressure Engine. Before 1786, he had contrived and made experiments upon a high-pressure engine, which seems to have been in all essential respects similar to that known in England at a later period.

The Americans have taken the form and arrangement of their engines from Evans as implicitly as the English have adopted those of Watt. Evans, sanguine, energetic and persevering, was continually encountering difficulties only to overcome them; and to encounter renewed disasters and disappointments, till he at length died of a broken heart.—*Notes of American Condensing Steam Engine for River Boats.*

Safety from Lightning.

Mr. Isham Baggs, in the course of his lectures upon the phenomenon of lightning at the Royal Polytechnic Institution, London, said those "who don't mind being drenched by rain, may effectually screen themselves from the possibility of danger, when walking through a town or city in a thunder-storm by catching hold of a lamp-post, as the pipes running under ground must necessarily carry off the electricity, and thereby save passers by from destruction. He challenged any scientific man to deny the accuracy of this suggestion.

Indian Antiquity.

The Houston Telegraph speaks of huge limestone rocks near the South Fork of the Liand, which are covered with rude paintings representing Indians Chiefs in their war costumes, horses, mules, and other animals; also, a variety of hieroglyphical figures. They are executed chiefly with vermilion and charcoal. These paintings are much venerated by the Camanches.

Launch of the Steamers Atlantic and Pacific.

These two splendid ships about which so much has been said in praise of their construction, and regarding which so many hopes are raised as to their future triumphs, were launched last week on Thursday, at the ship yards of Jacob Bell, Esq. and W. H. Brown, Esq. They are noble specimens of naval architecture, and cannot fail of reflecting the greatest credit on our ship builders. They have been built under the superintendence of E. K. Collins, Esq. whose abilities are sufficient guaranty for the perfection of the work. To Messrs. Bell and Brown belong the honor and credit of their construction, and Messrs. Stillman & Allen have obtained the contract for the machinery. We may look forward with confidence to the career of these new steamers, satisfied that no fault will be detected in their construction. The floors are solid and the frames crossed in the firmest manner and fastened together with iron braces. They will be worked by engines each having a 95 inch cylinder and 9 feet stroke. The boilers are tubular and of wrought iron framing;—wheels also of wrought iron, diameter 35 feet and 12½ feet face. Measurement of the two vessels 6000 tons; length from stem to stern 290 feet; breadth over all, 46 feet; depth of hold, 35 feet. They are intended for E. K. Collins's "United States Mail Steamer Company's New York and Liverpool Line."

Terrible Explosion of a Locomotive.

On the first inst. the steam arch of a locomotive at the Canton Station on the Providence R. I. Railroad exploded, instantly killing the engineman, Mr. Lucius Cummings. Mr. Cummings' head was blown to pieces, separating it from his shoulders. The fireman received no material injury. The locomotive was detached from the cars by the concussion and ran over a half a mile, when the fireman succeeded in stopping it by means of the breaks. The escape of the fireman was most miraculous, as the forward part of the engine, where he was standing, was completely destroyed, pieces of the boiler being thrown a great distance.

The firemen was stunned by the explosion, and when his senses returned, he found that he was lying on the wood of the tender, with everything in ruins around him. He jumped to the brakes and stopped the engine. At the time of the accident the train was going about 30 miles an hour. The cause of the accident will probably be investigated. They had taken in water a short time previous. The explosion was heard at a distance of miles.

Falling of a Bell.

The large bell of Saint Patrick's Cathedral, at New Orleans, having become cracked, it was found necessary to have it recast. A solid piece of scaffolding was projected from the side under the belfry from which the bell was precipitated into the yard below, a distance of 100 feet. It came down top first, and mouth up, passing through the brick pavement, and burying itself up to the rim in the earth, without sustaining the least injury. The bell weighs two tons.

Singular Fact.

The ship Alexander, of Dundee, left Calcutta in April last for London. When about a month at sea, Mr. Latta, the chief officer of the ship, while on duty one evening caught an eagle. After keeping the bird two days he proposed to Captain Inglis, the commander of the ship, that the bird should be released.—This was accordingly done. A small piece of leather with the name of the ship, with latitude and longitude, was tied to the bird's neck, and the bird took its flight. Strange to say, this same bird was caught by an American whaler 2200 miles distance from the place it left the ship Alexander. The news came to London by a ship from the Island of Ceylon, who spoke the whaler and saw the bird.

Progress of the Exemption.

A homestead bill has been introduced into the Legislature of New Jersey, and there seems to be a disposition to pass it.

Gutta Percha is becoming very common for boot and shoe soles. They are not so good as leather.

Death of Mrs. Niles.

The Paris papers announce the recent death of Mrs. Niles, wife of the American Charge d'Affaires at Turin. This lady was born in France, and married as her first husband, Doctor Sue, formerly physician to King Louis XVIII. and father of the celebrated Eugene Sue. The funeral of this lady was attended at Turin, with every mark of respect from the diplomatic corps and others. She has left twin daughters about 14 years old, on the model of whom Eugene Sue is said to have formed the characters of Rose and Blanche, in one of his most celebrated romances, the Wandering Jew.

A Texas hunter has discovered a new mountain pass between the vast ranges of the Anahuac and Rocky Mountains. He says the ascent to the summit of the Table Lands of Mexico is there so gradual that it appears like an extended plain and carriages and loaded wagons can pass from the valley of the Rio Grande to the valley of the Hiaqui as easily as they can pass over the undulating prairies of Western Texas.

The adaptation of the region about Mobile to the orange and grape culture, is indicated by acknowledgments in the Mobile papers of the receipt, from Mr. Thomas S. James, on Christmas day, of parcels of superb oranges, grown in his garden; also, a bottle of scuppernon wine, the pure juice of grape.

Two evenings ago the flying machine was heard to flap its wings. This was in preparation of its flight for the gold regions. It is our intention to go in the second trip, but if all the seats be spoken, as we are not very flighty, we can patiently wait till the third trip.

A meeting of the Journeymen Mechanics of Petersburg, Virginia, was held on the 20th ult., the object of which was to oppose the competition brought about by the employment of negro mechanics.

The gold fever has reached England. Quite a number of vessels are bound from London and other parts to Francisco. They had better stay at home, they will have no chance to dig with the Yankees.

The ship Levant to leave Philadelphia next week is going to carry out 300 tons of anthracite coal as ballast.

The last news from Europe brings intelligence of the Roman Chambers having passed a decree for Constituent Assembly of 200 members to be elected by ballot.

The laborers on the Hartford and Providence Railroad, on the Hartford side of the river, refused on Thursday last to work ten hours a day for sixty cents, and were all discharged.

The Quebec Gazette of January 22d, says that during the latter part of the previous week the thermometer fell to 22 degrees below zero.

We see it stated that a young man was recently bitten by a mad calf in one of the country towns of Massachusetts. He is now in Boston under medical treatment.

Remington has been building a bridge of 150 feet span, over the Trent in Staffordshire, for Earl Talbot. It has no intermediate supports.

What is the principle of Artesian Wells? How is it that the water rises from such great depths—such as 300 and 400 feet? Who will answer?

A new wrench is on our list of patents this week, invented by Andrew Hay of Newark, N. J. It is considered to be an excellent tool.

The Philadelphia Ledger recommends fine circular saws driven at a great speed, for surgical operations. A good idea.

The cholera has disappeared at New Orleans.

Jared Sparks, LL.D. has been confirmed for President of the Harvard University.

There are oaks in California which are ever green. The Indians thrive on the acorns.

Ex. Gov. Seward of N. Y. is nominated for United States Senator.