

An Old Patent and an Old Inventor.

The inventor who has received a patent subscribed with the handwriting of Washington, must feel proud indeed in the possession of such an instrument. Such a man is John J. Staples of the city of New York, who is the oldest living inventor holding a patent in the United States, and perhaps the oldest living patentee in the world. We publish the following patent from respect to the memory of the departed great, and the worth and genius of the honored living. Many of our readers will esteem this a great curiosity and valuable relic, and will desire to know something of the inventor himself, whose inventions are associated with the name of "the Father of his Country." Mr. Staples is now about 80 years of age and his head is whitened with the snows of many winters. His eye is still bright and his mental faculties clear. His step to be sure is less firm than of yore but his body is still erect and stately. Mr. Staples is an inventor who has had the honor of securing a patent from every President of the United States, except the lamented Harrison. He has a patent which we have seen, given under the handwriting of President Thomas Jefferson, for a Tidal Wheel to propel machinery, and the first invented in the United States.

This patent is for a Locomotive, but not a steam one, and in comparison with the mode in which specifications have now to be made out, it presents a very great contrast.

THE UNITED STATES OF AMERICA.

To all to whom these Letters Patent shall come Whereas John J. Staples, Junior, a citizen of the State of New York, in the United States, has alleged that he has invented a new and useful improvement in the construction of a Carriage to be propelled by the mechanical Powers, which improvement has not been known or used before his application; has made oath that he does verily believe that he is the true inventor and discoverer of the said improvement; has paid into the Treasury of the United States the sum of thirty dollars, delivered a receipt for the same and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose: These are therefore to grant, according to law, to the said John J. Staples, Junior, his heirs, administrators or assigns, for the term of fourteen years, from the twenty second day of the present month of April, exclusive right and liberty of making, constructing, using, and vending to others to be used the said improvement, a description whereof is given in the words of the said John J. Staples, Junior himself, in the schedule hereunto annexed, and is made a part of these presents.

IN TESTIMONY WHEREOF, I have caused these Letters to be made Patent, and the Seal of the United States to be hereunto affixed.

Given under my hand, at the City of Philadelphia, this twenty-fifth day of April, in the Year of our Lord, one thousand seven hundred and ninety four, and of the Independence of the United States of America the eighteenth.

GO. WASHINGTON.

By the President, EDM. RANDOLPH.

City of Philadelphia, TO WIT:

I DO HEREBY CERTIFY: That the foregoing Letters Patent, were delivered to me on the 25th day of April, in the year of our Lord one thousand seven hundred and ninety four, to be examined; that I have examined the same and find them conformable to law. And I do hereby return the same to the Secretary of State within fifteen days from the date aforesaid, to wit: On the same 25th day of April in the year aforesaid. WM. BRADFORD.

The Schedule referred to in these Letters Patent, and making part of the same, containing a description in the words of the said John J. Staples, Junior, himself of an improvement in the construction of a Carriage to be propelled by the mechanical powers

General description of a travelling Carriage, which is to move without the power of Horses, carrying from 2 to 4 persons, requiring the labor of one of which to regulate its movement—will ascend any hill that is ac-

cessible to common carriages, moving with great rapidity, and is in every respect as manageable as those drawn by horses, its velocity being increased or lessened at pleasure by the application of the five following powers as occasion may require. The first power, which is the greatest, is the weight of the whole carriage with whatever is contained therein, which is raised up by the oval wheels in turning round, and when descending acts on the shortest lever. 2d Power is the weight of the top frame which supports the carriage body with its contents, which being likewise wound up by the said oval wheels at the same or a different time acts in descending on the two next size levers and is the next greatest power. 3d Power is the carriage body which being fixed on 4 friction rollers vibrates as a pendulum acting on the two longest levers. 4th. Is the weight of the person who regulates the motion acting likewise on the ends of the said 2 long levers and is the first motion the carriage receives. 5th. Is an occasional power which is gained when descending a hill by winding up two springs placed under the carriage which also acts with great force on the ends of the aforesaid two long levers when rising a hill.

JNO. J. STAPLES, JR.

Witnesses—SAM'L. FOLWELL,
GEO. TAYLOR.

**SCIENTIFIC MEMORANDA.
India Rubber.**

The India Rubber Factory at Harlem, this city, is making daily about 700 pounds of india rubber springs for railroad cars. In combination with the india rubber a portion of white or black lead is used which must make a superior composition, to what is called curing, alone. Vulcanized india rubber is simply sulphur combined with the india rubber at a great temperature. Sulphurous gasses we believe answers nearly the same purpose. Gutta percha is vulcanized by the same process.

Electric Light Again.

By late foreign papers we learn that experiments have been made in France for throwing an electric light upon the railroad in front of the cars. The experiments have been partially successful.

The Bosphorus.

From the late extensive observations of M. Hommaire de Heil, it appears that there is no appreciable difference of level between the Black Sea and the Sea of Marmora; and consequently there is no real current flowing out of the Black Sea through the Bosphorus. He attributes all apparent currents to the winds, which being mostly from the North, produces generally a flow from the South. This is compensated for by the strong currents flowing to the North during the Southerly winds.

A Reform in Locomotive Fuel Wanted.

It has been stated that the Reading Railroad Penn., during the year 1847 consumed by its locomotives \$0,746 cords of wood. The consumption of wood on all our railroads is enormous and must soon thin our country, woody though it be, of its vast primeval forests. Hitherto, the motion, by shaking the coals into a solid mass, has prevented the use of coal.

Why do they not use coke made of bituminous coal? No wood is used on the English Railways.

Emery in Asia Minor.

M. Tchihatcheff, in his recent explorations in Asia Minor, says Silliman's Journal, has brought to light extensive beds of Emery in the Western portions of this country, particularly between the ruins of Stratonicea in Caria and Smyrna. This substance is indispensable in polishing minerals and all hard stones, as well as for the lapidary's use generally, and by these new discoveries, it is evident the necessary supply will suffer no diminution.

Height of the Atmosphere.

Sir John W. Lubbock, according to the hypothesis, adopted by him in his Treatise on Heat of Vapors, shows the density and temperature for a given height above the earth's surface. According to the hypothesis, at a height of fifteen miles the temperature is 240° Far. below zero; the density is .03573; and the atmosphere ceases altogether at a height of 22.35 miles. M. Biot has verified a calculation of Lambert, who found, from the phenomena of twilight, the altitude of the atmosphere to be about eighteen miles. The con-

dition of the higher regions of the atmosphere, according to the hypothesis adopted by Ivory, is very different, and extends to a much greater height.

The Sufferings, Perseverance, and Triumph of Genius.

There is at present in England an American who went to that country to endeavor to interest the capitalists in a new bridge which he has constructed. His name is Remington, a native of Virginia. An account of his progress is given by himself in a letter to Dixon H. Lewis, and published in Hunt's Merchant's Magazine. When he arrived in England in January 1847, he was without money, and spent the first five months vainly looking for somebody with enterprise enough to encourage his plan, living all the time on less than three pence per day. He slept upon straw, for which he paid a half penny per night. His limbs became distorted with rheumatism, and he was literally covered with rags and vermin, consorting as he had to do, with the lowest beggars in London. Still he did not despair. His sufferings were so great that his head turned grey. He had to pay to usurers £10 for admittance to the Royal Zoological Gardens, where he succeeded, after much mortification in getting a model made of the bridge. The model although a bad one astonished every body. Every engineer of celebrity in London was called in to decide whether it was practicable to throw it across the lake. Four or five of them at the final decision declared that the model before them was passing strange, but that it could not be carried to a much greater length than the length of the model. This was the point of life or death with the inventor. He says;—

"I was standing amidst men of the supposed greatest talent as civil engineers that the world could produce, and the point decided against me. This one time alone were my whole energies ever aroused. I never talked before—I was haggard and faint for want of food—my spirit sunk in sorrow in view of my mournful prospects—clothes I had none—yet, standing over this model did I battle with those men. Every word I uttered came from my inmost soul and was big with truth—every argument carried conviction. The effect on these men was like magic—indeed, they must have been devils not to have believed under the circumstances. I succeeded. My agreement with the proprietor was that I should superintend the construction of the bridge without any pay whatever, but during the time of the building I might sleep in the Gardens, and if the bridge should succeed, it should be called 'Remington's Bridge.' I lodged in an old lion's cage not strong enough for a lion, but by putting some straw on the floor, held me very well, and indeed was a greater luxury than I had for many months. The carpenters that worked on the bridge sometimes gave me part of their dinner. On this I lived and was comparatively happy. It was a little novel however, to see a man in rags directing gentlemanly looking head carpenters. The bridge triumphed, and it cost £8, and was the greatest hit ever made in London. The money made by it was astonishingly great, thousands and tens of thousands crossing it paying toll, besides being the great attraction to the Gardens. Not a publication in London but what has written largely upon it, although I have never received a penny nor ever will for building the bridge. The success of his invention gave him, however, celebrity, and he says it also gave him credit with a tailor.

I got a suit of clothes and some shirts—a clean shirt—O God, what a luxury! Thousands of cards were left for me at the Gardens, and men came to the bridge from all parts of the kingdom. I first built the mill, which is the most popular patent ever taken in England. The coffee pot and many other small patents take exceedingly well. The drainage of Tixall Meadows is the greatest triumph I have yet had in England. The carriage bridge for Earl Talbot is a most majestic and wonderfully beautiful thing. Dukes, marquises, earls, lords, &c., and their ladies are coming to see it from all parts. I have now more orders for bridges from the aristocracy than I can execute in ten years, if I would do them. Indeed, I

have been so much among the aristocracy of late that what with high living, being so sudden a transition from starving, I have been compelled to go through a course of medicine and am just now convalescent. Of course anything once built precludes the possibility of taking a patent in England, but its merits and value are beyond all calculation. A permanent, beautiful and steady bridge may be thrown across a river half a mile wide out of the reach of floods, and without anything touching the water, at a most inconsiderable expense. The American patent is well secured at home I know. I shall continue to build a few more bridges of larger and larger spans and one of them a railroad bridge, in order that I may perfect myself in them so as to commence fair when I reach America. I have a great many more accounts of my exploits since I came to Stafford, but must defer sending them until next time. I beg you will write me, for now, since a correspondence is opened, I shall be able to tell you something about England. I know it well. I have dined with earls, and from that down—down to where the knives, forks and plates are chained to the table for fear they should be stolen."

Jeffery the able Editor of the Edinburg Review once said. Offer a prize of a thousand pounds for the best Essay on Greek and ten chances to one if a yankee don't win it, and some fellow who could not read a word of it before he saw the offer of the prize. The case of Mr. Remington exhibits a heroism of a far more elevated and ennobling character than the triumph of valor on the battle field.

Respect for Art.

A nobleman having called on Holbein while he was engaged in drawing a figure from life, was told that he could not see him but must call another day. Foolishly taking this answer as an affront, he very rudely rushed up stairs to the painter's studio. Hearing a noise Holbein opened his door; feeling enraged at his lordship's assumption and intrusion he pushed him backwards from the top of the stairs to the bottom. However, reflecting immediately on what he had done he repaired to the king. The nobleman, who pretended to be very much hurt, was there soon after him and having stated his complaint, would be satisfied with nothing less than the artist's life: upon which the king firmly replied—'My lord, you have not now to do with Holbein, but with me; whatever punishment you may contrive by way of revenge against him shall assuredly be inflicted upon yourself.—Remember, pray, my lord, that I can, whenever I please, make seven lords of seven ploughmen, but I cannot make one Holbein of even seven lords.'

The African Rhinoceros.

The Black Rhinoceros, whose domains we seem now to have invaded, resembles in general appearance an immense hog; 12½ feet long, 6½ feet high, girth eight feet and a half, and of the weight of half a dozen bullocks; its body smooth, and there is no hair seen except at the tips of the ears and the extremity of the tail. The horns of conereted hair, the foremost curved like a sabre, and the second resembling a flattened cone, stand on the nose and above the eyes; in the young animals the foremost horn is the longest, whilst in the old ones they are of an equal length, namely, a foot and a half or more; though the older the rhinoceros the shorter are its horns, as they wear them by sharpening them against the trees, and by rooting up the ground with them when in a passion.

When the rhinoceros is quietly pursuing his way in glades of Mimosa bushes, (which his hooked upper lip enables him readily to seize, and his powerful grinders to masticate,) his horns, fixed loosely in his skin make a clapping noise by striking one against the other, but on the approach of danger, if his quick ear or keen scent make him aware of the vicinity of a hunter, the head is quickly raised, and the horns stand stiff and ready for combat on his terrible front. The rhinoceros is often accompanied by a sentinel to give him warning, a beautiful green backed, and blue winged bird, about the size of a jay, which sits on one of its horns.