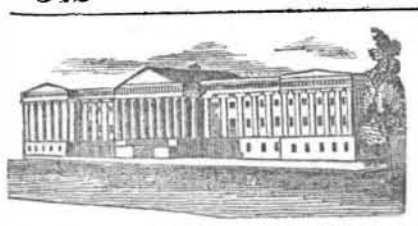

LIST OF PATENTS.

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending July 3, 1849.

To J. E. Serrel and David Smith, for Centripetal Press. Patented July 3, 1849.

To W. E. Bleecker, H. Bleecker, and S. D. Vose, of Albany, N. Y., for improvement in Cooking Stoves. Patented July 3, 1849.

To J. Alley and H. W. Poole, of Worcester, Mass. for improvement in Keyed Musical Instruments. Patented July 3, 1849.

To W. B. Carlock, of New York City, for improved manufacture of Bags and Sacks.—Patented July 3, 1849.

To B. L. Stedman, of Warren, Mass., for improvement in machines for cutting Veneers in cylindrical blocks. Patented July 3, 1849.

To L. S. Chichester, of Troy, N. Y. for improvement in machinery for the Jointing of Staves. Patented July 3, 1849.

To J. W. Fisk, of Rileytown, Ohio, for improvement in Winnowing Machines. Patented July 3, 1849.

To E. C. Langer, of Salem, Mass., for improvement in Regulators for self-acting Mules. Patented July 3, 1849.

To E. & E. Gore, of Charlestown, Iowa, for improvement in Windmills. Patented July 3, 1849.

To William MacLardy and J. Lewis, of Manchester, England, for improvement in Live Spindles and Fliers. Patented in the United States July 3, 1849—In England May 9, 1848.

To William Massey, of Greene Co. Ill., for machine for contracting the circumference of wrought iron bands. Patented July 3, 1849.

To Thomas King, of Westchester Co. N. Y. for improvement in Washing Machines. Patented July 3, 1849.

To John Abernethy, of Woodbury, Conn., for improvement in attaching Buckles to Suspenders, &c. Patented July 3, 1849.

To George Wheeler, of Little Valley, N. Y. for improvement in Bee Hives. Patented July 3, 1849.

To L. W. Colver, of St. Louis, Mo., for improvement in Washing Machines. Patented July 3, 1849.

To J. L. Kingsly, assignee of J. G. Day, of Brooklyn, N. Y., for Rotating Disk, Bolt and Rivet Machine. Patented July 3, 1849.

To Joshua Bailey, of Cohoes, N. Y. for improvement in Machinery for Picking Waste.—Patented July 3, 1849.

To David Philips, of Pittsburg, Pa. for improvement in Circular Saw Mills. Patented July 3, 1849.

Cures for Rheumatism.

The following are said to be good lotions for the evils of rheumatism. As they are simple they can at very little expense be fairly tried by those inflicted with those evils.

INFLAMATORY.

Half an ounce of alum, half an ounce of pulverized saltpetre, put in half a pint of sweet oil. Bathe the parts affected.

COMMON RHEUMATISM.

Take a pint of the spirits of turpentine, to which add half an ounce of camphor. When dissolved, rub it on the part affected, and it will never fail of removing the complaint.—Flannel should be applied after the part is well fomented with turpentine. Repeat the application morning and evening.

Making a Mark.

A captain of a sloop at one of our wharves hired a Yankee, "a green hand," to assist in loading his sloop with corn. Just as the vessel was about to set sail, the Yankee, who was jingling the price of his day's work in his pantaloons, cried out from the wharf,—"Say, yeou capting! I lost yeour shovel overboard, but I cut a big notch on the rail fence around the starn, right over the spot where it whent down, so't you'll find yeour shovel when yeou come back."

For the Scientific American.

The History of Steam Navigation.

OLIVER EVANS, WILLIAM STEVENS AND ROBERT FULTON.

About the year 1789 Oliver Evans, who was undoubtedly the most original steam engine inventor in the United States, the contemporary and equal inventor with Vivian and Trevithick of the high pressure locomotive, also made drawings of the application of his engine to propel steamboats. We may well give him more credit than any other of our steamboat inventors, for inventing a good steam engine and adapting it to all kinds of machinery a steamboat among the rest. To William Stevens of Hoboken, also belongs great credit for his early attempts at steam navigation.—He first tried a rotary engine but it was a failure, yet the first steamboat boiler which Mr. Stevens made to generate steam for his rotary engine steamboat, was a capital invention. It was made of small copper tubes each about 1 inch in diameter and two feet long inserted at each end into a brass plate and the plates were closed at the ends of the pipes by a strong cap of cast iron or brass with the space of an inch or two between the plates. The water was supplied by a forcing pump. Col. Stevens was the first inventor of the all important tubular boiler which he secured by letters patent in England in 1805. In 1804 Mr. Stevens with one of Watts' engines, having a cylinder of 6½ inches diameter and 9 inch stroke propelled a boat on the Hudson at the rate of 8 miles per hour. This steamboat was run for a few weeks and laid aside, after Col. Stevens had spent as he said 20 years of his life and $20,000 without deriving a shillings' worth of benefit. There must however, have been either something faulty about the engine, the build of the vessel or that our country was not ripe to be convinced of its utility at that time, for the steamboat slumbered with us until Robert Fulton took it up in 1806. Before that period however, Fulton had been a sojourner in foreign lands and it has been charged upon him that he derived all his knowledge and ideas of the steamboat from others.

In 1788 Mr. Miller a Scottish gentleman propelled a small steamboat on Dalswinton Lake and the engine that propelled that boat is still in existence. Mr. Miller's invention was certainly very successful, but it cost him £30,000 and he never realized a penny for it. It has been asserted by some that Fulton was a witness to Miller's experiments and from them derived his knowledge of the steamboat, but this we believe to be without foundation, for although Stewart says that "he visited Scotland and examined Mr. Miller's boat," yet it is well known that Fulton only arrived in London in 1786 and it is not likely that a stranger like him and an artist could have heard of Miller's invention which had not become much known. In 1793 Fulton made known to the Earl Stanhope his plan for propelling boats by steam and in 1796, he published a book in England on the subject, which was illustrated with some very good engravings. In 1796 he went to France and tried to get that government to adopt and provide means for the construction of his boat, but he was refused by the Minister of Marine. After this he went to Holland and made several trials with a boat, the means for which were paid by a Mr. Vanstaphet but they all proved failures. In 1801 Fulton invented his nautilus, to sail under water and to sink and float at pleasure, Napoleon gave him some money to try an experiment on a large scale at Havre. Fulton came near destroying an English Man of War in Brest Harbor, but it escaped, and after that Napoleon would advance no more money. Many have endeavored to rob Fulton of an original and inventive mechanical mind, but his nautilus condemns all detractors.—There can be no doubt but Fulton was a keen observer and wherever he saw a good thing, he was not the man to forget it, this itself, is the sign of a great mind. When Fulton was in Paris he communicated to Mr. Robert Livingston his plan for propelling vessels by steam, and Livingston being a man of a comprehensive mind saw the utility of such a mode of navigation. An agreement was made between them to embark in the enterprise, and to Fulton was left the direction of the experiments. Among the schemes which Fulton thought of for propulsion and discarded, says his biographer, was that of Fitch and Rumsey, but Fitch by the testimony of Nathaniel Boileau who made his paddles, and who was Secretary of State in Pa., after the Revolution, used two paddle wheels on his first model. Fulton however, did not know this. Fulton at one time thought of employing duck foot paddles, and at another time he thought of using paddles on an endless chain, but as Monsier Der Blancs had a patent for paddles on an endless chain and a horizontal cylinder, he warned Fulton not to infringe on the same. Fulton then replied that his boat was to be propelled by paddle wheels, which by experiment he found to be the best system. In August 1803 he tried an experiment on a boat 66 feet long and 8 feet wide, on the Seine. It was very successful considering all things and gave him perfect confidence in its power and so it did to Livingston. Instructions were then given to Watt and Bolton to prepare a steam engine which was to be sent to New York, in order to introduce his invention into his native country, and Livingston and Fulton got a grant by this State, New York, for the exclusive navigation of her waters for 20 years.—Fulton then went to England and remained there till 1806 when he left for New York and arrived here in December. In the Spring of 1807, after much perseverance and difficulty, he had completed his vessel and had it launched on the East River. At this time the engine from James Watt had arrived with engineers to put it up in his boat, and in August 1807 he had the satisfaction of seeing his far famed vessel named the Clermont walk the water to the Jersey shore. There were very many sceptics converted from doubt to admiration before she moved 100 yards, and while the shores were lined with multitudes, one loud shout of triumph from the incredulous multitude, shook the welkin.

To be continued.

Chlorine Gas.—Muriatic Acid.

Chlorine is a gas of a greenish colour, and derives its name from *Chloros* a Greek word signifying "greenish." This gas is very dangerous to the lungs if inhaled, hence its employment in every case should be a work of caution and prudence. Many people have lost their lives while engaged at the occupation of discharging Adrianople red handkerchiefs, a style of work associated with the name of Sir Henry Monteith who carried it to the highest style of perfection. Chlorine may be obtained by mixing one part by weight of the black oxide of manganese in powder with two parts of common muriatic acid in a flask, and then applying the spirit lamp, when the gas is immediately evolved, and it may be collected over water. Chlorine acts with great energy on all metals, even platinum. Chlorine is a great bleaching agent. It acts directly upon colored vegetable fibres, and is therefor now exclusively used for making green linen and cotton goods white. It must be carefully managed however, or it will act upon and destroy the vegetable fibres as well as the colored fibres. Many pieces of calico are rendered quite rotten through the ignorance of the bleacher. In bleaching linen or cotton sheeting white, there is generally a Turkey red, or a blue thread woven in with the cloth, at the end of each piece, as a guide for the bleacher. Whenever this thread loses much of its color, it is a sign that too much chlorine has been used. Sometimes chlorine is required to bleach the whole surface of goods and sometimes only to a portion of the surface. We will describe the former process at some other time; Chlorine unites with Hydrogen, and forms an acid compound, known by several different names, as Muriatic Acid, Spirits of Salts, and Hydrochloric Acid. The first of these names is perhaps the most common even among chemists, but hydrochloric acid is the most appropriate as it expresses the composition of the acid. When equal volumes of these two gases are mixed together, and exposed to the diffused light of day, they slowly combine, but if exposed to the direct solar rays, an explosion takes place, and the acid compound is instantaneously formed. The acid thus formed is a gas, but water absorbs 480 times its volume of this gas, and, as the liquid form is more convenient, this solution of the acid gas in water is generally employed, instead of making use of the acid in the dry or gaseous state. As the liquid hydrochloric acid is merely a solution of the acid gas in water.

Hydrochloric acid gas is perfectly unrespirable; it extinguishes the flame of a taper, and is itself inflammable; it acts violently on the skin; it possesses a strong attraction for water. Hydrochloric acid is always procured (except for purposes of experiment) from common salt, in the manufacture of soda ash, by the action of sulphuric acid. It is not generally manufactured for itself, but is a waste product; and large quantities of it were formerly suffered to escape into the atmosphere, where it acted so injuriously on vegetation, that nearly every soda ash manufacturer has, in his turn, been prosecuted by the neighbouring farmers. Such are its injurious effects on vegetables, that even when mixed with 20,000 times its volume of atmospheric air, it shrivels and kills all the leaves in twenty-four hours. Many different processes have been adopted for preventing the escape of this acid gas into the atmosphere in the manufacture of soda ash; all of them, however, are based on the fact of the great attraction of this gas for water. This acid is very impure, but, if distilled into a receiver containing water, the impurities are nearly all separated. The impure acid is of a yellow colour, the pure acid is colourless.

England as it will Be.

It is now the fashion says Macauley, to place the golden age of England in times when noblemen were destitute of comforts, the want of which would be intolerable to a modern footman; when farmers and shopkeepers breakfasted on loaves the very sight of which would raise a riot in a modern workhouse; and when men died faster in the purest country air than they now die in the most pestilential lanes of our towns or than they now die on the coast of Guinea. We too, in our turn will be envied. It may be in the twentieth century, that the peasant of Dorsetshire may think himself miserably paid with 15s. a week; that the carpenter of Greenwich may receive 10s. a day; the laboring men may be as little used to dine without meat as they now are to eat rye bread; that sanitory police and medical discoveries may have added several more years to the average length of human life; that numerous comforts and luxuries which are now unknown, or confined to a few, may be within the reach of every diligent and thrifty-working man.

"British National" Debt.

The London Standard of Freedom says that the constant course of the government to style the public debt "National" is an exception to their mode of nomenclature for everything else of a public nature. The Army and Navy are the Queen's. The Church is a State Church. The Courts of Justice are all Regal. Down to the very constable, every officer is the Queen's officer; nay, the peace of the nation is the Queen's peace. The Debt alone has, ever since its commencement, in the year 1694, been deemed solely the People's concern. The part of the government was to borrow and spend it. It was the People's part to pay it.

Superlative Unconcern.

The tranquility and phlegm of the Scotch in most extraordinary circumstances, "brings to mind," says Colman, in his "Random Records," the incredible tale of the Scotchman tumbling from one of the loftiest houses in the old town of Edinburgh. He slipped, says the legend, off the roof of a habitation sixteen stories high; and when midway in his descent through the air, he arrived at a lodger looking out a window of the eighth floor, to whom (as he was an acquaintance) he observed, en passant, "Eh, Saundy, man, sic a fa' as I shall hae!"

Blowing Furnaces on Sunday.

The Pittsburg American says that the yield of metal from the Pine Grove Furnace of Messrs. Hamilton & Co., which is stopped on Sundays, is on an average of 10 tons per day, *producing as much* as those of equal size that work the seven days. When the furnace is not blowing, it is stopped tight below and above, hermetically, and thus but little heat is lost.