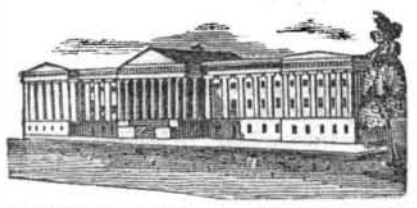

LIST OF PATENTS.

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending June 26, 1849.

To Warren Parker, of Putney, Vt. for improvement in Harness adapted to Horse Rakes. Patented June 26, 1849.

To J. D. Mowry and P. L. Hyde, assignees of A. W. Snow, of Norwich, Conn., for improvement in Seats for Railroad Cars. Patented June 26, 1849.

To Daniel Robb, of Sangamon Co. Ill., for improvement in Hill Side Ploughs. Patented June 25, 1849.

To James Thomas, of West Chester, Pa., for improved adjustable platform animal Trap. Patented June 36, 1849.

To H. C. Jones, assignee of Henry Ritchie, of Newark, N. J. for improvement in the Rotating Permutation Plate Lock. Patented June 26, 1849.

To Z. C. Robbins, of St. Louis, Mo., for improvement in Churns. Patented June 26, 1849.

To T. P. Sherborne, of Philadelphia, Pa. for improvement in Extension Tables. Patented June 26, 1849.

To E. Von Heeringen, of Pickensville, Ala. for improvement in Instruments for teaching Music with the Piano Forte. Patented June 26, 1849.

To J. A. Cutting, of Boston, Mass., or improvement in Spark Arresters. Patented June 26, 1849

To Pells Manny, of Stephenson Co. Ill. for improvement in Harvesters. Patented June 26, 1849.

To Thatcher Perkins, of Baltimore, Md., for improvement in the Boilers and Water Heaters of Locomotive Engines. Patented June 26, 1849.

To Jacob Stroop, of Philadelphia, Pa., for improvement in the attachment of Harrows to Ploughs Patented June 26, 1849.

RE-ISSUE.

To Loring Coes, of Worcester, Mass. for improvement in Screw Wrenches. Patented April 16, 1841. Re-issued June 26, 1849.

DESIGNS.

To A. Quackenboss, assignee of S. W. Gibbs, of Albany N. Y. for Design for Stoves. Patented June 26, 1849.

To C. W. Warnick, of Philadelphia, Pa. for Design for Stoves. Patented June 26, 1849.

To S. H. Ransom, of Albany N. Y., for Designs for Stoves, (2 patents.) Patented June 26, 1849.

Gentle Woman.

The great traveller, John Ledyard, has paid to woman one of the most noble tributes ever uttered. "I have observed that, wherever found, woman are the same kind, civil, obliging humane, tender beings. I never addressed myself in the language of decency and friendship to a woman, whether civilized or savage, without receiving a decent and friendly answer. With man it has often been otherwise. In wandering over the barren plains of inhospitable Denmark, through honest Sweden, frozen Lapland, rude and churlish Finland, unprincipled Russia, and the wide spread regions of the wandering Tartar, if hungry, dry, cold, wet, or sick, woman has ever been friendly to me, and uniformly so, and their actions have been performed in so free and so kind a manner, that if I was dry, I drank the sweet draught, and if hungry, ate the coarse morsel with a double relish."

[Mungo Parke, in nearly the same words, adds the same testimony to woman's kindness, that Ledyard does.

New Calculating Machine.

Two miserable poor young men, residing in an obscure village, in the department of Isere, in France have succeeded, it is said, after ten years' labor, in completing a calculating machine declared to be superior to any yet invented. The Academy of Sciences have issued a most "eulogistic report" on it.

For the Scientific American.

The History of Steam Navigation.

How many strange fancies must float through the mind of the man who is confined to the circumscribed limits of some ocean island.—How many curious visions must be painted on retina of his mental eye as he stands upon the sea shore evening after evening, gazing upon the wide wilderness of waves before him or upon the majestic clouds that skirt the distant horizon. Surely his soul must go out in longing to visit some distant untrodden shore, and perhaps like the enchanted islands seen only by the eye of the seer, he has pictured distant hills and and vast cities in the fantastic forms assumed by the vapors rolled up behind the setting sun. If there was no bark to navigate those troubled waters, the islander would indeed feel, like a prisoner doomed to the narrow precints of his cell. But the art of navigation is coeval with the flood our grandfather Noah being the first navigator. The ancient Phœnicans were the most celebrated of the old navigators—then came the Greeks, and then the less sailor like Romans. When the Romans visited Britain our ancestors used to navigate the straits of the sea in boats made of skins. The old vessels were very rude, but improvement in the art of ship building has been onward since that time.

Commerce is one grand means of civilization, it brings distant nations to know one another, and to know one another for the better. Every invention that tends to bring distant nations nearer together, to make the inhabitants thereof exchange their thoughts freely with each other, is one grand means of bringing about that period when man to man the wide world o'er shall "brothers be." Viewing this question in that light, we claim the invention of the Steam Boat as one of the grandest means for spreading civilization, that has yet been discovered. Its history then has many claims upon our attention, and as it is a subject which touches and brings honor to America, we feel a deep interest in it on that account.

The first account which we have of steamboat propulsion was that of a naval officer under Charles the 5th of Spain in 1543, who is stated to have propelled a vessel of 200 tons burden by steam in the harbor of Barcelona, no account of the machinery has been transmitted to us, except that he had a large copper boiler, and that paddle wheels were suspended on the sides of vessel. Like all old inventors, he refused to explain the mechanism. The account of this invention was furnished for publication by the superintendent of the Spanish Royal Archives, but as it did not appear until steam navigation was fully established after 1807, it must be received with all due allowance for originality, but no as detracting one whit from the well earned laurels of our more modern steamboat inventors. The name of the Spanish inventor was *Blasco de Garay* who before the Emperor made a trial of his steamboat in Barcelona harbor on the 17th of June 1543. The invention in all likelihood was the application of Hero's rotary engine to propel the paddle wheel, but whatever it was, it died with the inventor and his claims cannot be allowed to interfere with others, whose inventions in all their parts have been placed on record.

The establishment of a Patent Office if it does no more good than to record inventions is invaluable on that account. The English Patent Office settles the question of the first steamboat inventor. In 1736 Jonathan Hull, (quite a Yankee name indeed) took out a patent for propelling vessels by steam. In 1737 he published a pamphlet wherein he gives a plate representing a boat with the wheel attached to the stern, driven by a steam engine and tugging behind her a vessel of war. This is certainly the first representation of a steamboat on record. Hulls (poor fellow) met with much opposition from prejudice, and as the steam engine was then but a miserable machine, it does not appear that he prosecuted his invention after the time stated, nor could much be expected from it, as the single acting steam engine alone was known at that time, and by it there was no possibility of producing anything like a regular motion by the application of a crank.

After Hulls, the project of propelling vessels by steam appears to have slumbered for a long time—even for half a century, when the marquis de Joffrie in 1782, made a steamboat 140 feet long, and 15 feet wide and tried it on the Loire at Lyons, in France, but it was not successful. In 1788 John Fitch of America made drawings and a model of a steamboat, the first in America undoubtedly, and considering the events of his invention, and the enthusiasm which John Fitch exhibited, his life deserves more than a passing notice. John Fitch was a native of Connecticut, born 1743, and first learned the trade of clock maker, a trade than which, there is not its equal for whetting mechanical genius. After John Fitch was married for some years, he moved from New England to Trenton, New Jersey, and learned the silversmith trade, and became one of the best silversmiths in the Colonies, and was as highly esteemed for his honesty. He was so industrious and did such a good business, that when the revolutionary war broke out, he had a clear property of £800. This was a great sum in those days. After the war broke out the silversmith business was at a discount, but his ingenious mind found a new way of employing his hands and serving his country, in making and repairing muskets.—During the revolution he removed to Bucks County, Pa., in which he continued to reside after the revolution, and where in 1785 he made a model of a boat to be propelled with steam and with paddle wheels like those now in use. The machinery was made of brass and the paddle wheels of wood. This model with suitable drawings was deposited with the American Philosophical Society in Philadelphia in the month of September, 1785. It was removed ultimately to the Patent Office a Washington, but destroyed with that office in 1836. John Fitch was not only the first inventor of the double paddle wheel steamboat, but was a truly original inventor of the steam engine, to him his steam engine was entirely new, he knew of no other and he thought he was the first steam engine inventor in the world until he disclosed his idea to a Mr. Irwin, a Presbyterian clergyman of Neshaming, Pa., and he was much chagrined by being shown drawings and descriptions of steam machinery in the Pastor's Library. In 1788 John Fitch in company with a number of others built his large boat the Perseverance for experiment. This boat was propelled by a newly patented set of paddles invented by Mr. H. Veight a skillful engineer and they were used against the opinion of Fitch. This boat run at the rate of 8 miles an hour on the Deleware, but it was subsequently burned and poor John Fitch never got rich enough to buy another. He died in Kentucky in 1798, and he had a darling wish to be buried on the banks of the beautiful Ohio, where "the song of the boatmen might enliven the stillness of his resting place and the music of the steam engine soothe his troubled spirit."

John Fitch was esteemed by many to be a monomaniac, but he foretold that he would not be in his grave more than 20 years till some more fortunate man would receive the honor due to him and that the ocean would yet be navigated by steam's magic power.

To be continued.

Pressure of the Atmosphere.

Galileo discovered that air was a ponderable body, by weighing a copper globe, open to the atmosphere, and then condensing or pumping more air into it, and weighing it again, when he found the weight increased. Torricelli, however, was the first to apply the discovery to any practical purpose. He observed, one day a well-digger attempting in vain to draw water by means of a common pump, from a well more than 34 feet deep; and it struck him that this failure was not owing to nature's abhorrence of a vacuum, but to the fact that the weight of the atmosphere was equal to a column of water about 34 feet in height, or to a column of mercury 30 inches in height. This discovery was made in 1642; and as the construction of the common pump, and the atmospheric engine, and the principle of the barometer are all practical applications of the discovery, we will endeavor, by pointing out a simple experiment, to render the principle clear to all. If a glass tube, about eight feet in length, be bent in the middle ot the form of the letter V, and filled with mercury, and a piston, fitting air-tight, be forced down one leg of the tube to the depth of about three feet, the mercury will flow over at the other leg; and it will be found that a pressure of about 16½ pounds to the inch of surface (not considering friction) will be required to keep the piston in this position: now, if, while the piston is thus depressed 36 inches, and the other leg of the bent tube is quite filled with mercury, an air-tight stopper be inserted in that leg which is filled with mercury, nearly the whole of the weight necessary to keep the piston in its plaoe before the insertion of the stopper, may be removed; and if the piston be lifted, the mercury will follow it till it stands at the same height in both legs, but no farther; if the piston be entirely removed, the mercury will immediately rise in the stoppered leg until the difference of level in the two legs be equal to about 30 inches. The explanation of this is very simple. We find, that to raise the mercury in one leg, say, 30 inches above the level of the mercury in the other, we must employ a force equal to 15 pounds on the square inch; therefore, whatever raises the mercury to the same height in one leg above the level in the other, must exert the same force, *i. e.*—15 pounds to the square inch. Again, we find that when the stopper is inserted, and the piston partly withdrawn, the mercury immediately returns to same level in both legs,—this is because there is a vacuum produced in both legs; but when the piston is entirely withdrawn, the mercury instantly rises in the stoppered leg of the tube until the difference of level is about 30 inches; this must be owing to the pressure of the atmosphere upon the surface of the mercury in the open leg *only*; and, it having been shown that a pressure equal to 15 pounds on the square inch was required to cause the same difference in level, it is evident that the weight of the atmosphere is equal to 15 pounds on the square inch of surface. From this demonstration we at once perceive that the barometer merely points out a change in the weight of the atmosphere in the particular locality in which it is suspended; if a barometer be carried up a mountain, the higher it is carried up the lower the mercury falls, owing to there being less weight of atmosphere above it, or acting on the surface of the mercury at the open end of the tube: thus, suppose, on a certain day, when the mercury stands at 30 inches in one place, it were found to stand at 28.91 on a hill in the neighborhood, this would show that the difference of level in these two barometers was equal to 1,000 feet. The following table expresses the height above the level of the sea, corresponding with the different heights of the mercury in the barometer, when the barometer at the surface of the sea indicates 30 inches:—

At 1000 ft. above the surface of the sea	28.91
2000 " : : :	27.86
3000 " : : :	26.85
4000 " : : :	25.87
5000 " : : :	24.93
1 mile : : :	24.67
2 " : : :	20.29
3 " : : :	16.68
4 " : : :	13.72
5 " : : :	11.28
10 " : : :	4 24
15 " : : :	1.60
50 " : : :	0.95

From this table it may be perceived, that at the height of little more than three miles we should have but one half the weight of the atmosphere above us; and, as water may be raised by the pressure of the atmosphere, as in the common pump, to about 33 or 34 feet at the surface of the sea, a little more than three miles high on a mountain a pump would only lift water to the height of half that, or about 17 feet.

The decay of manufactures in Dublin has been the subject of much irrelevant discussion. The truth is, that it has no single requisite for their successful prosecution, being without coal, and without the command of water power.

"It is very curious," said an old gentleman to his friend, "that a watch should be perfectly dry when it has a *running spring* inside."