



## LIST OF PATENTS.

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending August 7, 1849.

To Thomas Davison, of New York City, for improvement in Salting Meats. Patented August 7, 1849.

To Horatio G. Sickel, of Philadelphia, Pa., for improvement in Gas Lamps. Patented August 7, 1849.

To John G. Webb, of Williamsburg, N. Y. for improvement in Argand Burners for Gas Lamps. Patented August 7, 1849.

To Andrew Walker, jr. of Burke, Vt., for improvement in Gas Apparatus. Patented August 7, 1849.

To Sylvester Billings, of Spring Garden, Pa. for improvement in Blocks for setting Hat Brims. Patented August 7, 1849.

To Charles Atwood, of Derby, Conn., for improvement in securing Hooks and Eyes to Tape and Dresses. Patented August 7, 1849.

To J. H. Robinson, of Charlestown, Mass. for improvement in Pessaries. Patented August 7, 1849.

To Henry Miller, of South Bend, Ind., for improvement in Bedstead Fastenings. Patented August 7, 1849.

To Munson C. Cronk, of Auburn, N. Y. for improvement in cleansing Bottles. Patented August 7, 1849.

To Willard Twitchell, of Syracuse, N. Y. for arrangement of weight and pulley for closing Gates. Patented August 7, 1849.

To John Murphy, of Kensington, Pa., for improved method of regulating the contraction of Car Wheels. Patented August 7, 1849.

To William Van Anden, of Trenton, N. J. for Machine for making Springs of Wire.— Patented August 7, 1849.

To Josiah Hayden, of Williamsburg and Rufus Hyde, of Chesterfield, Mass., for improvement in manufacture of Button Moulds. Patented August 7, 1849.

To Peter H. Niles, of Boston, Mass., for Eccentric Piano Lock. Patented August 7, 1849.

To Josiah F. Flagg, of Boston, Mass., for improvements in Locomotive Spark Arresters and Smoke Conductors. Patented August 7, 1849.

To Nicholas Mason, of Roxbury, Mass., for improvement in Cooking Stoves. Patented August 7, 1849.

To Edward Munson, of Utica, N. Y. for improvement in forming and balancing Millstones. Patented August 7, 1849.

To George P. Tewksbury, of Boston, Mass. for Reversible Life Boat. Patented August 7, 1849.

## RE-ISSUE.

To Henry G. Tyer and John Helm, of New Brunswick, N. J. for improvement in the manufacture of India Rubber Goods by means of Zinc compounds. Patented January 30, 1849. Re-issued August 7, 1849.

## DESIGN.

To Joseph G. Lamb and Conrad Harris, of Cincinnati, Ohio, for Design for Stoves. Patented August 7, 1849.

## Wilson, the Vocalist.

The New York Mirror says that Mr. Wilson, the vocalist, who recently died at Montreal of cholera, was originally compositor in the printing office of Ballantyne & Co., Edinburgh; and in that capacity he put into type some of the earliest novels of the "great Unknown." Having a taste for music and a very fine voice; he became celebrated as a ballad-singer, as well as an operatic performer. He first came to this country with Miss Shirreff and the Seguins, and appeared at the Leonard street Theatre, then under the management of James Wallack. After an absence of several years, he returned to this country last fall, accompanied by one of his daughters who had acted as pianist at his musical entertainments, and who, by this bereavement, is left under peculiarly melancholy circumstances.

Embroidery.—Hand and Power.  
(Concluded.)

The beautiful embroideries on muslin, with cotton, by the Indian and Candian women, are well known. The embroidery practised by the latter is curious enough: they work with their own hair, as well as that of animals, with which they make splendid representations of flowers, foliage, &c.

The negroes of Senegal, before their marriage, embroider the skins of various beasts, representing figures, flowers, and animals, in every variety of colour; and the pictures thus formed, they present as trophies of their skill to their husbands, on the morning (before sunrise) of the ninth day after marriage.

The Georgians and particularly the Turkish women, are renowned for their embroideries on the lightest and most delicate materials, such as crape and gauze, which they ornament with gold thread in a manner unequalled. Their embroideries on morocco leather have long been esteemed, on which they work the smallest objects in gold, passing without fraying the thread. The Greek women of the present day, and the inhabitants of the islands of the Levant, are celebrated for their embroidery, principally of gold and silver. The women of Therapia on the Bosphorus excel in a most beautiful description of work: it can scarcely however, be termed embroidery, being rather a species of exquisitely fine netting. They represent flowers in relief, every petal of which is worked with the utmost exactness. These extraordinary productions of the needle, cannot be sufficiently admired for their extreme delicacy and elaborateness.

In the last and preceding centuries, when embroidery, as an article of dress both for men and women, was an object of considerable importance, the Germans, but more particularly those of Vienna, disputed the palm of excellence with the French. At the same period, Milan and Venice were also celebrated for their embroidery.

The art of embroidery seems to have attained a higher degree of perfection in France, than in any other country:—it is not, however, so much practised now. Embroiderers formerly composed a great portion of the working population of the largest towns; laws were specially framed for their protection.

It would have been supposed, that embroidery could never have been worked with profit by machinery; yet, such is the case. But a few years since, M. Josue Heilmann, of Mulhausen, France, invented a machine by which a female, with the assistance of two children, could turn off daily as much work as 20 expert hand embroiderers employed upon the common frame.

Within a few years, a number of machines for embroidering and sewing, have been invented, but nothing in the embroidery line, has as yet been able to compete with hand labor. In the North of Ireland and the West of Scotland, the females are celebrated for their skill in embroidery. The French perform finer work, but are very slow in comparison with their Island rivals. In Paisley a celebrated manufacturing town in the West of Scotland, the females are unrivalled for skill in embroidery. Many articles of dress purporting to be pure Chinese, are produced there, and surely, it is to be expected, for civilization should bring skill to the hand along with knowledge to the head, and in that manufacturing place, the skill of the needle is highly cultivated, and so is the knowledge of the head, by a fine school of design, where drawing of the highest style is taught, and a very pure taste cultivated.

## Starch in Fern Plants.

Ferns (bracken) the *cryptogamous* of botanists have long been known as possessing excellent properties for a litter, or in many instances for all the purposes of straw especially among the poor in wild regions. It grows abundantly in half cleared woodlands in our country and apparently where nothing else can grow. In Lapland the deers feed on a kind of moss which is very nutritive and in many parts of the world the inhabitants make food out of plants, which with us, are allowed "to waste their fragrance on the desert air." In no country however, is there use made of the fern plant, as an article of food, and indeed, there is no plant so unprepossess-

ing in every way, to deceive mankind in this respect, yet in the hands of science, it can be made to yield food to man in no inconsiderable quantity.

Some years ago M. Morin analyzed the fern plant and found the root to contain a fatty substance of a nauseous odour and disagreeable taste, heavier than water; gallic and acetic acids, uncrystallizable sugar, starch, tannin, and a variety of gelatine insoluble in water and alcohol. He also found in it, subcarbonate, sulphate and hydrochlorate of potassa, carbonate and phosphate of lime, alumine, silica and oxide of iron. Since that time it has been further analyzed and found to contain principally out of 7000 parts of roots and stems, starch 760, gallic acid 30, tannin 50 parts. If a quantity of the stems or roots of the fern are grated down and diffused in water, and then placed upon a thin cloth filter and washed well with water, the fluid passing through the filter, will contain the whole of the available starch of the plant. If this solution is permitted to stand undisturbed for some time, the starch will be precipitated to the bottom of the containing vessel; when washed and well dried, this forms pure starch.

If a small portion of the starch is mixed in water in a test glass, and a solution of iodine poured into it, a fine blue color, the characteristic test of starch, will be produced.

The addition of a solution of the persulphate of iron, to the liquid poured from the starch, produces a black color, indicating the presence of gallic acid in the liquid, forming gall of iron. Crystals of gallic acid may also be produced by evaporating the waste liquid to a third or fourth of its original quantity, and allowing it to stand for two or three weeks.

## Arab Women and Arab Workmen.

When I first employed the Arabs, (says Layard, in his "Nineveh and its Remains,") the women were sorely ill-treated and subjected to great hardships. I endeavored to introduce some reform in their domestic arrangements, and punished severely those who inflicted corporal punishment on their wives. In a short time the number of domestic quarrels was greatly reduced, and the women, who were at first afraid to complain of their husbands now boldly appealed to my protection. They had however, some misgivings as to the future, which were thus expressed by a deputation: "O, Bey! we are your sacrifice. May God reward you. Have we not eaten wheat bread, and even meal and butter, since we have been under thy shadow? Is there one of us that has not a colored handkerchief for her head, bracelets and ankle rings, and a striped cloak? But what shall we do when you leave us?" These poor creatures, like all Arab women, were exposed to constant hardships. They were obliged to look after the children, to make the bread, to fetch water, and cut wood, which they brought home from afar on their heads. Moreover, they were intrusted with all the domestic duties, wove their wool and goat's hair into clothes, carpets, and tent canvass; and were left to strike and raise tents, and to load and unload the beasts of burden, when they change their camping ground. If their husbands possessed sheep or cows, they had to drive them to the pastures, and to milk them at night. When moving, they carried their children at their backs during the march, and were even troubled with this burden when employed in their domestic occupations, if the children were too young to be left alone. The men sat indolently by, smoking their pipes, or listening to a trifling story from some stray Arab of the desert who was always there to collect a group around him. At first, the women, whose husbands encamped on the mound, brought water from the river; but I released them from this labor, by employing horses and donkeys in the work. The weight of a large sheep or goat's skin filled with water is not inconsiderable. This is hung on the back by cords strapped over the shoulders, and upon it, in addition, was frequently seated the child, who could not be left in the tent, or was unable to follow its mother on foot. The bundles of firewood brought from a considerable distance were enormous, completely concealed the head and shoulders of those who tottered beneath them. And yet the women worked cheerfully, and it was seldom that their hus-

bands had to complain of their idleness. Some were more active than others. There was a young girl named Hadla who particularly distinguished herself, and was consequently sought in marriage by all the men. Her features were handsome, and her form erect and exceedingly graceful. She carried the largest burdens, was never unemployed, and was accustomed, when she had finished the work imposed upon her by her mother, to assist her neighbors in completing theirs.

## Form and Density of the Globe.

Mathematical calculation and actual admeasurement both give us this testimony that it is not a perfect sphere, but flattened at the Poles, so as to constitute an oblate spheroid.—The history of the sciences, says Humboldt, presents us with no problem second in importance to that which seeks to discover the figure of the earth. The results of the different plans employed, differ to some extent, but the circumference measured round the poles is usually stated as one-299th less than that measured round the equator, in other words the earth bulges at the equator to something like 4½ times the height of Mount Blanc. If this globe were a mass of water, the figure impressed upon it by rotation round an axis would be a regular oblate spheroid, but though the original fluidity of our planet is shown by its oblate figure, (oblateness resulting from the operation of a centrifugal force on a rotating mass,) yet the true shape stands in the same relation to a regular figure as the uneven surface of ruffled stands to the even surface of unruffled water. Our earth has not only been measured, it has been weighed also. The latest researches give its mean density 5.44, that is, the earth is very nearly 5½ times denser than pure water. Now, as the mean density of the mineral matter constituting the crust is only 2.7; and the mean density of that crust and the ocean, is no more than 1.6, we see at once how vastly the density of the interior must be increased by pressure or some other cause. We have penetrated no further than 2000 feet below the sea's level, or one 9800th of the distance between the surface and the centre. No doubt our knowledge of the contents of the earth extends to a much greater depth, for some of the chrysaline matters thrown up by volcanoes come from a depth many times greater than that which man has reached; and by the contortions of strata we are made acquainted with substances which, if no throes had disturbed their repose, would have been lying at least 12,000 feet beneath our feet. There is a regularly progressive increase of temperature with an increase of depth, and the discharge of molten minerals through gaps in the surface, declare plainly that there is an enormous heat kept alive below. The warmth of the sun is communicated at a slow rate, and to a short depth only to the earth, and there are points where the temperature is always the same. Between the parallels of 48° and 52°, on the continent of Europe the stratum of invariable temperature occurs at from 55 to 60 feet deep, whilst in tropical climates it is found at no more than a foot below the surface.

## The Habit of Reading.

The young should always cultivate a habit of reading, for it may be to them, not only the means of information, but the perennial source of many of the finest enjoyments of life. They who make good books their constant companions, will never want good and faithful friends in their prosperous days, or those who will sympathise in the seasons of reverse. There can be no blank in the lives of those persons, who, from active love, hold daily fellowship with the wisest and best of their race. We think we could hardly be tempted to exchange our habit of reading for any other friend it may be our fortune to find on earth. And we are sure that any who will make this habit a friend, will ever esteem it among the wisest steps of their lives and so we counsel the young, from our own experience, among all their gettings in this world, to getting the habit, the love of reading—and always to have at hand a good book with which to fill up every leisure hour. In this way they may come to know that the gems of life are found in its waste places.