

## New Inventions.

### New Railroad Brake.

Mr. A. McQueen, machinist, of Fall River, Mass. has invented a new kind of Railroad Brake, which it is believed will supersede those now in use. It is simple and safe, and will afford a great saving of repairs. It is immediate in its action, and of sufficient strength to easily withstand and overcome the momentum of a train of cars under a velocity of 30 miles per hour in the almost incredible short distance of forty feet. It can be applied to any of the trucks now used, but were the trucks made according to the directions of the inventor, the cost would be less by 30 or 40 per cent on the whole truck. As the above invention is of the utmost importance with regard to the safety of railway travelling, the inventor says he is now prepared to assign the same to any one now in the business of car and truck building, or any one who may wish to carry it into effect, who will get more information by addressing him, post paid, according to the above direction.

### Ingenious Lock and Key.

The Philadelphia Ledger says: "We yesterday saw exhibited in the Reading Room of the Exchange, by Mr. Evans, a very ingeniously constructed combination door lock, for banks, stores, &c., the invention of a young German. One of the principal peculiarities of the invention is the key, which is so made as to be changed by a gauge belonging to it into a variety of forms, with either one of which the lock may be locked, but can only be unlocked by the key in the same form as that in which it locked it. The invention is an ingenious one, to say the least of it; whether superior to others now in use, we do not consider ourselves qualified to judge."

### The Polishing of Telescopic Specula.

Mr. Lassell, of Liverpool, whose astronomical observations and discoveries have won him a high place amongst British astronomers of the present day, in a letter which is given in the last fasciculus of the Royal Astronomical Society, states that he has at length brought his polishing machine to do all he ever proposed or hoped it would do. He says he is now able to repolish a known good surface without hurting it, and to turn a bad one into a good one with certainty and expedition. By certain rules, varying with the proportion of the focal length to the aperture, he can produce a parabolic surface, which shall have the same focus in every part of its surface, to the hundredth of an inch. He adds that the improvement of regularity of curve is not less than in the truth of its general form.

If this is positively a fact, it is one of the most important discoveries ever made. The parabolic surface is the grand desideratum of astronomers.

### New Electrical Light.

The inventors of a new electrical light, exhibited at the Western Literary Institution, Leicester-square, London, on its recent reopening under the new auspices, expect, it is said, to apply it generally to shop and street illumination; and they state, that while the conveying will cost no more than gas, the expense of illumination will be only one-twelfth of the price of the latter light. The current of electricity in passing through the two pieces of charcoal which form the poles of the circuit, and are excluded from all access of air, gives, in this case, it is said, an intense and beautiful white light; with the effect of daylight to a much greater extent than the lime does, and having this advantage, that it is sustained and continuous. If Messrs. Staitte and Petrie can thus produce a steady and sustained light, they have accomplished what has hitherto been the sole preventative to the substitution of galvanism for gas. The Mechanic's Magazine states that this one light completely eclipsed ten gas lights and an oxy-hy-

drogen! The gas companies had better look out. The dissatisfaction of the public with their mismanagement may have begotten a rival destined to eclipse many more than merely ten of their gas lights.

### Gee's Improved Self-acting Faucett.

We here present two engravings of the self closing Faucett invented by Geo. Gee & Brothers, No. 47 Eldridge st., this city. For domestic purposes, we would say, that this faucet is used with the orifice placed downwards when by pressing with the finger upon the top or cap of C, the water flows out of the faucet, and when it is wanted to be closed, the finger has only to be removed and the power of the water shuts up the opening between the inlet and outlet of the faucet.

FIG. 1.

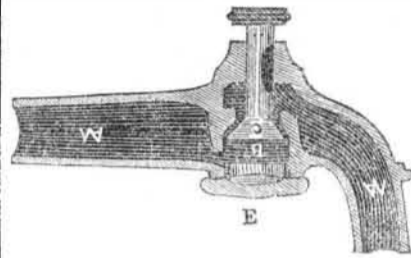
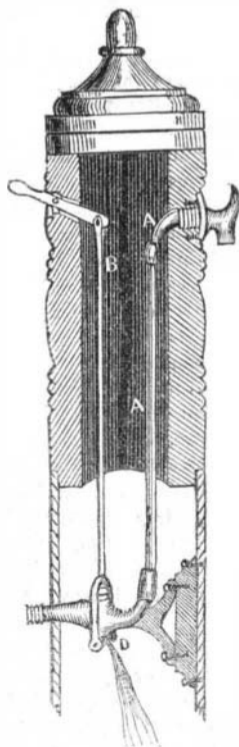


Fig. 1 has its opening of discharge placed downwards, but can be applied to a hydrant, the reason of which will be explained hereafter. W, is the inlet passage communicating with a chamber B, and to get out of the outlet, it, (the water) must pass around the solid piston C, which is shaped like the frustum of a cone. Our readers will bear in mind that the form of the faucet is circular, therefore the parts are thus formed to coincide with one another, the chamber, &c. It will be observed that the more C is pressed into the chamber, the larger will be the passage for the water to escape between it and the sides of the chamber B, but when the pressure is removed from the cap of the piston C, the water in the chamber will so press upon the face of C, which by its greater area than that of its sides will and must be pressed tight into its seat and act as a valve to close the passage that otherwise communicates with the outlet. In the stock or shaft of C, there is a small passage indicated by the dark shading. This is an opening in the stock of the piston which communicates with the outside of the faucet when the piston is in its seat and the water shut off.—Its object therefore will at once be appreciated which is to drain off the water left in the curve of the outlet tube and prevent it from freezing in cold weather. The use of this arrangement will be better understood by

FIG. 2.



This is its application to a hydrant. The reader will bear in mind that the faucet is operated as described above, but here we have the cap of the piston of fig. 1, operated by a rod which extends down in the hydrant and is connected with the cap by a bridle which passes around the faucet and pushes, or rather draws up the piston in the chamber, by pressing upon the handle of B, outside. A

A, is the pipe through which the water passes from the faucet at the bottom to the discharging tube near the top of the hydrant.—The piston of the faucet is now firmly pressed to its seat by the water and the communication between the inlet or main pipe and A is closed, and, as we have explained in fig. 1, the small passage in the stock of the piston valve, is now in communication with A A, and the water that would otherwise lodge in the upright tube A A, is discharged out of the said pipe and faucet at D, so as not to freeze therein. Every one acquainted with faucets and those who are not, will at once appreciate the merits of this simple and beautiful invention, which must ultimately be of considerable profit to Messrs. Gee, who have taken measures to secure their invention.

### House for Drying Fruit.

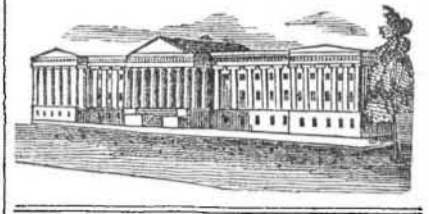
A correspondent (Silas H. Gard) of the Ohio Cultivator, describes as follows, a Kiln which he has constructed for drying fruit, which he says answers a most excellent purpose, and which we believe will be interesting to many of our readers. He says "the kiln is small and compact, is easily managed, and requires less fuel for the work performed than any other kiln I ever saw. If rightly tended it will yield six bushels of dried fruit, each morning—(if made larger of course the quantity will be greater)—it holds eighteen bushels of fresh cut fruit, and only requires the fire to be renewed four or five times in the 24 hours to complete the drying; it also dries all the shelves equally, so that the fruit can be all taken out at one time.

The plan of my house is as follows: Dimensions six feet by ten, (outside the wall,) height of front wall say thirteen feet, of back wall ten feet, with a shed roof. The furnace is fifteen inches in height and width, and extends from the arch in the middle of the end wall the length of the house inside, [built of brick, covered with flat stones we presume, Ed.] and is plastered 1 1-2 inches on top, to prevent danger of fire from cracks. On each side of the furnace a flue returns (horizontally) to the chimney, which is carried up inside the wall directly over the arch. In the side walls of the house nine pairs of cross-pieces, of 2 1-2 by 3 inch scantling, are set three bricks apart, and six inches from the walls, on which the baskets or drawers are to slide. In the upper corner of each gable end wall is a window or opening six inches square, to let the steam pass off. The walls are plastered inside, and also the roof, by lathing the undersides of the rafters. The door way is in the middle of the front wall, and is five feet high by seven feet wide; or rather it has two doors of 3 1-2 by 5 feet. In front of the door way the cross pieces are moveable, (resting on those fixed in the walls,) for the convenience of putting in and taking out the drawers. The drawers or baskets are 4 feet long and two feet wide, so that each tier contains four baskets. They are made of laths 1 1-2 inches wide, nailed on three cross-pieces 1 1-2 inches square, with 4d nails. Outside the door is a platform to stand upon when arranging the fruit, from which the upper shelf can be reached. (If thought best the door way can be made the full height of the range of shelves, then you have a complete bureau kiln, with every drawer accessible with the outside). The materials required for this house, are 3,500 bricks, 12 bushels of lime, (unslacked,) 1000 laths, 125 feet (running measures) scantling, 500 shingles, 8 lbs. 4d nails, 1000 feet of plank and door frame stuff. The whole cost in this place is only 25 or 30 dollars and any farmer of common ingenuity can do all the work except the brick-laying."

### Experimental Vessel.

A vessel for experiment has lately been constructed in Sunderland, England, which is a novelty there. She has no keel, but is flat bottomed. Neither is she caulked—the seams are lined with felt. She is 224 tons register, and carries 4,000 yards of canvass when in full sail; she draws only 9½ feet of water. On the run down, with a N. N. W. wind, she outstripped ten colliers.

With the exception of being lined with felt, she would be no novelty on the Hudson River.



## LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE.

For the week ending Nov. 21, 1848.

To A. Goodman, of Dana, Mass., joint inventor with and assignee of W. Gibbs, of Prescott, Mass., for improvement in Planing Irregular Forms. Patented Nov. 21, 1848.

To M. W. Fisher, of Washington, D. C. for self-feeding machine for charging percussion caps. Patented Nov. 21, 1848.

To C. Reiffell and N. Thorn, of New York City, for improvement in Dividers or Measuring Compasses. Patented Nov. 21, 1848.

To Oliver Clark, of Brunswick, Ohio, for improvement in Scythe Fastenings. Patented Nov. 21, 1848.

To William Boone, of New Hope, Mo., for improvement in Grass Cutting Machines.—Patented Nov. 21, 1848.

To David W. Seeley, assignee of George Brown, of Carlisle, N. Y. for improvement in Couplings for Axles and Bolsters. Patented Nov. 21, 1848.

To U. H. Goble and A. Stuart, of Urbana, for improvement in Harvesters. Patented Nov. 21, 1848.

To John Lightner, of Roxbury, Mass., for improvement in Axle Boxes. Patented Nov. 21, 1848.

To Nathan Chapin, of Cortlandville, N. Y. for improvement in Cider Mills. Patented Nov. 21, 1848.

For the week ending Nov. 28, 1848.

To Henry Kelley, of Manayunk, Pa., for improvements in the Jacquard. Patented Nov. 28, 1848.

To Charles L. Fowle, of Boston, Mass. for improvement in Razor Strops. Patented Nov. 28, 1848.

To William K. Greene, jr. of Schenectady, N. Y. for improvement in the Jacquard. Patented Nov. 28, 1848.

To E. M. Gordon, J. S. Gordon, and W. H. Gordon, of Woodstock, N. H., for improvement in the manufacture of Potatoe Starch.—Patented Nov. 28, 1848.

To Reuben Shaler, of Madison, Conn. for improvement in Knife Polishers. Patented Nov. 28, 1848.

To John A. Bradshaw, of Lowell, Mass., for improvement in Sewing Machines. Patented Nov. 28, 1848.

To Leonard H. Field, of West Sparta, N. Y. for improvement in Cooking Stoves. Patented Nov. 28, 1848.

To David Paddach, of Pontiac, Michigan, for improvement in Mills for Grinding. Patented Nov. 28, 1848.

To Seneca S. Jones, of Leicester, N. Y. for improvement in Sausage Stuffers. Patented Nov. 28, 1848.

To Henry P. Westcott, of Seneca Falls, N. Y. for improvement in machines for making Wooden Pegs. Patented Nov. 28, 1848.

To William Savery, joint inventor with and assignee of James H. Conklin, of New York City, for Design for Stove Plate. Patented Nov. 28, 1848.

## INVENTOR'S CLAIMS.

### Ploughs.

Iram Brewster, Stamford, N. Y. for improvement in hill-side ploughs. Patented Nov. 14th, 1848. I do not claim the revolving mould board as a new invention as that has been known before; but what I claim is, 1st, the hollow-mould board and its combination with the standard and the spiral spring. 2nd, the combination of the hollow plough point with the mould board so as to make the upper and lower sides of the mould board alike.

### Roller Gins.

Jno. Schley, Columbus, Ga., for improvement in roller gins. Patented Nov. 14th 1848. What I claim is the combination of the ginning rollers and shell with the tooth feeders, constructed and operating as set forth.