



## New Inventions.

### Improved Adjustable Incline Door and Gate Butt.

This is an invention of Mr. Thomas Peck, Syracuse, N. Y., and it is a most excellent one. On the casing of the door is fastened the adjustable incline plane, on which works an anti-friction roller, which roller is fastened on the door, so that there is but little friction. The incline can be altered to any grade so as to suit the weight of the door or gate to which the butt is attached. This is done by a set screw which works in a slot in the incline, so that without altering the hanging of the door, it can be raised to any required height.

These butts make the door or gate to which they may be attached very close when shut, nearly air tight, and by moving the door on an incline, it can be raised over carpets, or if a gate, over snow as deep as the steepness of the incline. Gates on which this butt is attached can be opened the full width so as to allow teams to pass, or other vehicles, a much easier method than by lifting up a ball or chain, as the anti-friction roller rests in a small dentation on the end of the incline to hold the gate or door fast when it is open, and it can be shut just with a touch of the hand. This invention is also good because it is cheaper than any common plan for the same purpose. A model may be seen for a few days at Lovejoy's Hotel in this city, and all communications about sale, or rights, addressed post paid to Geer, Woolson & Brothers, Syracuse, N. Y., the proprietors of this patent for all the United States except this city, Jersey and South Carolina, will be promptly attended to. In our list of patents for April 10th, 1847, a mistake was made in reference to the patent for the above invention, by stating that letters patent were granted to Thomas Peck for improvements in Saw Mill Gearing. It should have read "improvement in devices for closing doors, &c."

### Evaporation Grate.

Mr. D. Bettner of this city, has invented a novel grate which in some cases will be very useful and beneficial.

With the exception of two handsome ornaments in front, it has the same appearance as any other parlor grate, yet by a simple scientific evaporating apparatus, from thirty to sixty gallons of water, if required, can be evaporated during the day. A mild vapour is thrown out, and not a hot steam; the invention appears to control the amount of the vapor, and even the force of the fire which produces it.

### Street Cleaning Machine.

The street cleaning machine, an English invention, which we described in No. 48, vol. 2, Scientific American, was recently tested in a strife with hand labor, in Manchester, and it did better work and as much, with only the attendance of two men, than thirty men sweeping and using hoes and shovels.

### Improvement in the Manufacture of Cotton Cord.

We have lately seen a most beautiful specimen of cotton cord, made in the factory of W. C. Noyes, Esq. of this city, superintended by Mr. T. G. Boone, of Brooklyn. It is equal in appearance to the imported linen cord, is very strong and smooth. We believe that application has been made for a patent for this valuable invention, the process of manufacture being entirely new.

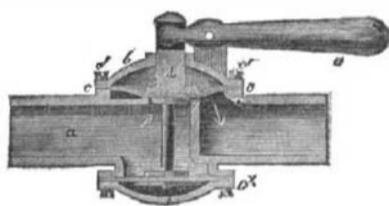
### New Lubricating Compound.

Lewis Kirk, the inventor of the steam hammer, and John Dodsworth, of Reading, Penn. have invented a new compound which they say "experience has proved to be a superior compound for preventing friction. The invention is the union, under a high degree of heat, of oil with asphaltum, or with coal tar, or with both together.

### Method of Preserving the Denominations of a Bank Bill from being Altered.

Messrs., Crane and Co., of Dayton, Massachusetts, manufacturers of bank paper, have invented a very simple and efficient method of preserving the denomination of a bill from alteration. Threads of silk and cotton are so arranged in parallel lines, lengthways with the note, and embodied in the substance of the paper during its manufacture. A one dollar bill has one thread, and one is added for each denomination up to five dollars, then a ten dollar bill has 6, another is added for twenty, fifty, one hundred, five hundred, and one thousand; the last having eleven threads. It must be very difficult, if not impossible to insert another thread after once the note is finished, and as the threads mark its value as distinctly as the figures, the chances of a successful alteration are at least very greatly diminished. The Mechanics' Banking Association of this city, and several of the banks in this state and at the east, have ordered the threaded paper, and it will probably come into general use. It is desirable that something should be hit upon that will prevent the frequent frauds upon the public from the alteration of bank bills.

### Improvement in Water Taps, Cistern Valves, &c.



This is a new description of tap, which is not only far more safe, but can be constructed at less cost than the common description of cocks. This is effected by a novel and ingenious application of two flexible diaphragms—the upper of which, being acted upon by the lower, is pulled down on its seat, and forms a perfectly leakless joint. The above engraving represents a longitudinal section of a tap for ordinary purposes as closed—*a*, is the barrel; *b*, the cover; *c* and *ex* are two flexible diaphragms of vulcanised caoutchouc, fastened by screws as represented; the top one is acted on by the spindle and disc *d*, moved by the lever *e*; the lower diaphragm forms a surface to be pressed upon by the column of water above the tap, which pressure by means of the upright spindle connecting it with *d*, pulls down the upper diaphragm, and forms a perfect valve and stuffing box, whereby the escape of the liquid is entirely prevented. The arrows indicate the course of the liquid; and the pressure may be regulated by adapting the areas of the two to the degree of tightness required, it being in proportion as the bottom one exceeds the top in area. It will be observed, that its motion is almost void of friction; and we consider it a beautiful application, which may in time supersede the old form of tap. For cistern valves, they are well adapted—opening the full area upon the least descent of the ball, and are not liable to be set fast.

### Improved Rock Drill.

P. Wightman and Horace Vaughan, of East Greenwich, Rhode Island, have made an important improvement in combining the drill with a wheel and an inclined block, by which the drill is elevated, turned and dropped by a cord working on the block. It will be recollected that we published an account taken from one of our English exchanges, of an American Rock Drill which is now used on the Caledonian Railway, and which far surpasses any thing of the kind in Britain, a fact which is candidly acknowledged by the English engineers.

### New Railway Signal.

A signal of a novel description has recently been fixed to the guards' carriages, on the South-Western line, England, consisting of an enormous bell, and a red flag. Upon the guard discovering anything wrong in the train he can by merely pulling a wire, cause the bell to ring very loud, and at the same time a red flag flies up, as a signal that the engine driver is immediately to stop the train.

### Washing Machine.

Numerous washing machines have been invented to save the fair sex from the severe labors of the Wash-board. Yet for all the inventions relating to the saving of female labor, it is a fact that washing machines are used to a very limited extent. Some washing machines are worse than useless, others again are very good, but, unless in the saving of severe labor, we have not seen one that equals a good pair of hands. We hope yet to see a machine of this kind that will prove to be the grand female friend, for why should not washing machines be made like other kinds of machines, both to accomplish more labor and do it as well as it can be done by hand.

Mr. W. Younger, of Huntington, Tenn., has invented a new washing machine, which by a rotary motion of a driving roller, he has combined a toothed roller and a fluted one and a rubbing board. The rubbing board rubs the clothing and the fluted roller, by the motion of the others, presses the clothes, squeezing them and by its rotary motion turns them at the same time.

### Another Washing Machine.

Mr. Joseph Hall, of Otsfield, Maine, has invented a washing machine whereby he has an endless belt which works in a rotary manner fluted rollers pressing as they revolve upon the clothes, changing their position and rubbing them, it may be said, in this manner, as the clothes are pressed, or are changed in the washing box which is also fluted, (blunt grooves.)

### Swimming Skate.

This is the name of an English invention, intended to facilitate swimming, and which we should think might prove useful, in places where bridges and boats are scarce. It is a piece of wood furnished with two parallel rows of plates, folding over each other, so as to resemble, in some degree, the laths of a blind. They open or shut, according as the foot to which the skate is attached moves downwards or upwards and the swimmer advances by the alternate motion of his limbs, as in mounting a stair, keeping the body and head inclined a little forward, as in skating.—By the aid of this instrument the skater can turn in any direction he pleases, raise himself out of the water as high as the girdle, and continue the exercise almost as long as that of walking. In order to plunge to the bottom he has only to raise himself, by quick motions of his limbs, as high above the surface as possible, and then point the toes downwards.

### Coming the Dodge over the Fowls.

The Perry, Ohio, Democrat, has the following invention, which for productiveness in the egg line, hoes out Aladin's lamp as easy as Saladin's blade divided the silken cushion.

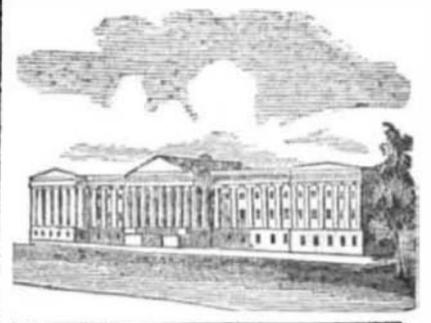
"Mr. J. N. S., in this village, claims to possess letters patent for an ingenious "Hen's Nest," which he thus describes: The bottom of the nest is so constructed as to let the egg through, and out of sight; when the hen turns round to view her production, cackling her delight the while, she is astonished to find her nest empty!—so naturally supposing herself mistaken, she again sits down and lays another egg;—and so on, until the necessary number of eggs required are obtained. Mr. S. does not manufacture the nest, but offers "rights" for sale. This nest would be an excellent accompaniment to the "Steam Egg Hatching Machine."

### Veneering Metal Plates.

An ingenious mechanic in Manchester, England, has taken out a patent for making thin metallic plates as substitutes for mahogany and other veneers of wood. He fastens his plates by fine screws in any waving or curving lines, and then japans them in all the most varied and beautiful shades. In fact, it is said to be a wonderful improvement, as the fineness of the surface cannot be equalled by wood, as the variety of blendings by the japan opens up a field for artistical display in colors.

### Improvement in Roving Cans.

Mr. J. W. Strange, of Taunton, Mass., has invented an improved method of laying roving in cans. He combines with the coiling apparatus his machinery so that a rotary motion is imparted to the vertical axis of the can into which the roving is coiled, so as to produce a twist in the roving.



### LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE.

For the week ending Nov. 13, 1847.

To Philip Pitts Read, of Durham, Mass., for improvement in Horse Shoe Machines.—Patented Nov. 13, 1847.

To A. Gould and William T. G. Morton, of Boston, Mass., for improvement in apparatus for inhaling ether; &c., (said Gould having assigned to the said Morton.) Patented Nov. 13, 1847.

To Stephen H. Long, of Louisville, Ky., for improvement in Bridges. Patented Nov. 13, 1847.

To George Escol Sellers, of Pittsfield, Ohio, for improvement in machinery for ascending and descending incline planes. Patented Nov. 13, 1847.

To Richard F. Loper, of Philadelphia, Penn., for improvement in Ship Building.—Patented Nov. 13, 1847.

To John Wind, of Thomasville, Ga., for improvement in Cotton Cleaners. Patented Nov. 13, 1847.

To H. B. Fernald, of Boston, Mass., for improvement in Alarms for Steam Boilers. Patented Nov. 13, 1847.

### INVENTOR'S CLAIMS.

#### Packing and Pressing Cotton.

Mary Ann Mead (executor of James Mead deceased,) of Aurora, Ia., for improvements in packing and pressing cotton.—Patented 14 August, 1847. Claim—What I claim therein as new, and desire to be secured by Letters Patent is the within described apparatus for forming a bale of cotton under pressure on a spindle or revolving rod, but I do not intend by this specification to limit myself to the precise arrangement herein described, so long as I attain the same end by equivalent means. For instance, the pressure of the roller may be increased by the aid of levers or the hydraulic cylinder, and gearing by a pair of conical pulleys may be applied to adapt the power to the increased size of the bale, &c. Also the rod may be of several pieces to facilitate its withdrawal, and an endless apron may be applied to the table.

#### Winnowing Machines.

By Jacob Behl, of Mifflintown, Pa.,—Improvement in winnowing Machines, Patented August 21, 1847. Claim—Having thus fully described my improved winnowing machine, what I claim therein as new, and desire to secure by Letters Patent is the forming of a series of shoulders one above another on the inclined board, forming the bottom of the hopper, in combination with the reciprocating longitudinal movement of the same, for the purpose of regulating the feed from the hopper, substantially as herein set forth. I also claim the combination of the separator shaft with the shoe, and with the pitman, for the purpose of imparting to it a reciprocating horizontal movement, and a vibratory movement on its axis at the same time, substantially in the manner and for the purpose set forth. I also claim the combination of the screen and the slate with the apron, substantially in the manner and for the purpose set forth.

#### Decorations in Leather.

This beautiful discovery is now coming into general use. The process is simple; the leather is first subjected to the action of steam in a metal trough, which renders it susceptible of very minute impressions. The design it is to assume is formed in a metal mould, and into this the leather, in its pliant state is forced by a hydraulic power.

A merchant has been convicted in Glasgow for adulterating the meal to the Highland poor.