



## New Inventions.

### New Tonguing and Grooving Machine.

Mr James L. Paige of Rochester, N. Y., has invented a new and beautiful matching machine for tonguing and grooving boards, which is allowed by all those who have seen it operate to be the best ever brought before the public; the work it performs equals hand labor in quality. The common plans for tonguing and grooving, are either saws or revolving cutters, or by the matching planes by hand. Mr. Paige performs the matching by power, on the same principle of operation as the matching plane, but he has a series of chisels moving on a sliding frame in which one after the other cuts out a shaving till the groove is cut out the required depth, and the tongue formed of the exact size. He uses pressure rollers for feeding and a straight edge board set at an angle on the frame in combination with the rollers, whereby the boards are moved perfectly steady from first to last through the whole length of the machine. The combination of the pressure rollers with the sliding planing frame is to keep the boards from being driven from side to side and well does it operate for this purpose.— Measures have been taken to secure a patent.

### New Cooking Range.

Mr. Philip Rollhaus, of this city, has made some very convenient and good improvements on the Cooking Range, which we believe will be found both convenient and good in operation. He has a double oven with flues all around it so that every part will be heated alike, and by the form and construction of the plates, they will, when coal is used, last much longer than others we have seen.

### New Shingle Machine.

Mr. J. D. Guseman, of Shippensburg, Pa., has invented a new shingle machine which by one cutter feathers the shingle, points and butts it, and this with a very small amount of power and by a very simple arrangement of machinery.

### New Bridge.

The Iris of Niagara Falls, says Mr. Walter E. Hulett of that place, has invented an "Arched Key Bridge," a model of which he has been exhibiting. The model is made upon a scale of half an inch to the foot, which makes the present structure equal to 100 feet span. The arch is supported by 18 wedges or keys running perpendicularly through the arch or sides of the bridge. The flooring is attached to these wedges or keys in such a manner that the greater the weight, the firmer the bridge will be drawn. Is this new?

### New Cotton Picker.

By many of our exchanges we perceive that they report on a machine invented down in Tennessee for Picking Cotton. By it a planter is said to be able to pick two thousand pounds of cotton per day from the field doing the work of 20 hands. It is operated by horse power and only designed to gather the upper balls after the lower ones have been picked by hand. We have strong doubts about the possibility of any machine being invented to pick cotton in the field, at least to operate to any advantage.

### A Great Gun.

It is reported that Mr. Milo Cass, of Utica, this state has invented a gun that discharges twenty-six times for one loading, which it does in two minutes, or less—the charges being attached to a endless chain. This beats Colt's revolver, and all the other powder-and-lead weapons we have yet read of.

Various plans are afloat in this city to convey goods and passengers to California, but the most prominent is a new balloon not yet inflated except in prospective, which is to go to San Francisco in four days.

### Smelting of Copper and Zinc Ores.

The following is an improved flux lately discovered and patented by Charles Lowe, Middlesex, England. The flux is composed of oxide of manganese 42 parts, plumbago 8 parts, nitrate of potash, nitrate of soda, or lime 2 parts and 14 parts of charcoal. The ore is roasted and melted in the usual manner and when in this state, the above composition is introduced into the furnace and well mixed and stirred with the melted ore. The composition is best to be introduced in the form of a powder (ground fine) in the proportion of 25 pounds to one ton of the ore. This flux is said to make the slag rise rapidly which must be skimmed off, when a second dose of the same quantity is introduced and the mass again stirred and skimmed, when farther additions of the flux may be added if necessary, which the experienced smelter will be able to tell, until the copper is ready to be removed and operated upon in the manner usually employed in the manufacture. This flux the inventor says operates to separate the metal from the ore more rapidly than any other heretofore known and more metal is produced, as the slag does not take up so much metal as by the old process.

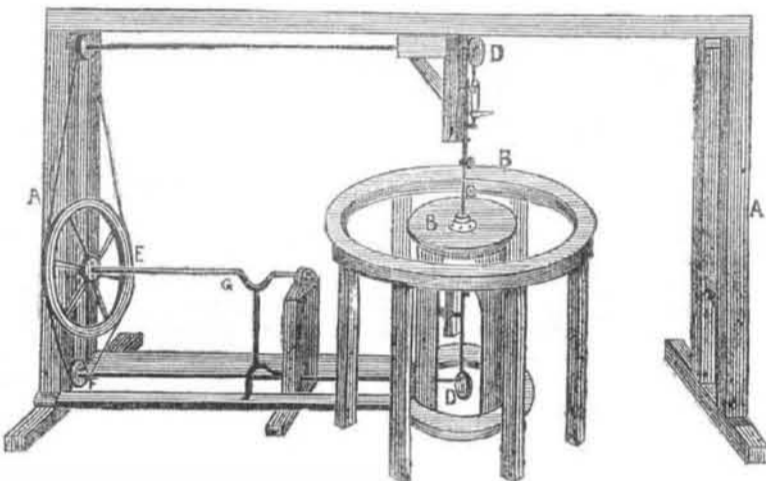
### Wool Testing Machine.

Col. Peter A. Brown, of Philadelphia (says the Ledger,) has invented a beautiful little machine for the purpose of testing the elasticity, tenacity and fineness of the wool of different kinds of sheep, a very ingenious contrivance, well calculated to save time and labor in the process of ascertaining the best sorts adapted to various manufacturing purposes. It is purely scientific, and unailing in its principle as a test of the quality of the wool, and therefore indicates the best breed of sheep to be cultivated by the farmer, and as the best are always the most profitable, it points directly to the interest of all who deal in sheep or wool, either as breeders or manufacturers.

### Prevention of Steam Boiler Explosions.

The editor of the Dollar Newspaper says that Mr. R. L. Loyd, of Philadelphia, has applied for a patent to draw off the electricity, as he denominates the explosive agent generated in steam boilers, leaving the active and motive qualities of the steam unimpaired; and even in the total exhaustion of the water in the boiler the machinery is rendered entirely harmless.

## PORTABLE AND CONVENIENT SAWING MACHINE.



This is a very neat and convenient arrangement of a small upright saw whereby it can be regulated to operate very conveniently, to cut out curved pieces and a great number of different kinds of wood work.

A A, is a common small frame built to suit the fancy, and to support the shaft. B, is a table, on which a scale may be laid out. C, is a small saw working freely through a collar in the middle of the table. This saw is attached by a screw to a vertical rod above and a like one below, which rods slide in guide eyes as represented above the table and partly seen below. By the way in which the saw is connected to the slides it can be set at various angles as the ends of the saw fit into slits of the slide rods and they can be turned round. The saw is moved by being connected with eccentrics D D on a revolving shaft

below and one above, but one revolving shaft will do, if a coiled spring is attached to the upper end of the upper slide. The way in which motion is represented to be communicated here to the main shaft G, is by a stirrup attached to a treddle below to be operated by foot like a hand lathe, the band E passing over the pulleys F F, to move the shafts of the eccentrics D D. There are two or three different ways of arranging the motion gear, and those who are familiar with a lathe will see this at once. But for a mechanic who needs to saw considerable knicknacks of wood and has no power to drive a circular saw, here is an arrangement to work by foot and by which a very rapid motion may be given to the saw, which he may find very convenient to use either as represented or modified to suit circumstances.

### Parachutes for Deep Mines.

To descend into mines and coal pits, and to ascend by means of vertical ladders, are operations so fatiguing that the pitmen prefer, in spite of the regulations which forbid it, to expose their lives to the risk of the strength of a rope, which, unfortunately, often breaks and precipitates them to the bottom. Some experiments have lately been made in Belgium on a large scale to remedy the evil and prevent the danger.

By means of a very simple apparatus, if the rope breaks, the basket, or cuffat, springs out and remains suspended in the middle of the shaft. It is well known that there is always considerable of a current in coal pits, owing to the temperature below being higher than the temperature above. The Brussels Herald states that trials have been made by means of a working model in a pit of some depth; the apparatus was worked by men who remained suspended in the well when the rope broke short off. The effect of this apparatus was shown before a numerous company, comprised of men of information, the greater part familiar with the working of mines. Their satisfaction was so great that they spontaneously offered to the inventor to make affidavit on the spot of the facts to which they had been wit-

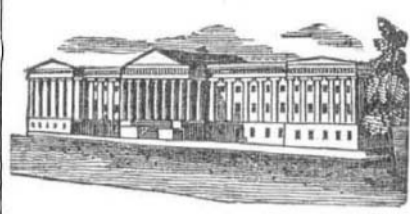
nesses. Among the party was a gentleman who wished the experiment to be tried upon himself; the rope having snapped, he and the workman accompanying him, were spontaneously stayed without feeling the slightest injury or shock.

### Collecting the Sewer Water.

The following mode of obtaining "liquid manure" is now resorted to by the London Sewerage Manure Company:—A barge of peculiar construction, fitted with enormous tanks and a powerful steam engine pumping apparatus, is moored on the north bank of the Thames, near the foot of Hungerford bridge, and immediately contiguous to the great sewer that here discharges itself into the river.—At low water the people on board pump the sewer water into the tanks, which are capable of holding about fifty tons. This water possesses greater irrigating power than more solid manure, and is said to be worth to the agriculturist about \$50 per ton.

### Fragrant Odor for Sick Rooms.

A few drops of oil of sandal wood, which though not in general use, may be easily obtained, when dropped on a hot shovel will diffuse a most agreeable balsamic perfume throughout the atmosphere of sick rooms or other confined apartments.



## LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending February 6, 1849.

To James White, of Milton, Penn., for improvement in Cooking Stoves. Patented Feb. 6, 1849.

To John A. Roebing, of Saxonburg, Penn. for improvement in tops for Wire Ropes. Patented Feb. 6, 1849.

To G. B. Whiteside of Brockport, N. J., for improvement in Cooking Stoves. Patented Feb. 6, 1849.

To William Pedrick and T. M. Melvin, of Charlestown, Mass., for improvement in machinery for Spinning Hemp. Patented Feb. 6, 1849.

To Elijah Learned, of Boston, Mass. for improvement in Hoisting Apparatus. Patented Feb. 6, 1849.

To Elisha Vance, of Wilmington, Ohio, for improvement in Cooking Stoves. Patented Feb. 6, 1849.

To John B. Chollar, of West Troy, N. Y., for improvement in plates for boiler holes and tops of Stoves. Patented Feb. 6, 1849.

To Henry Peeler, of Boston, Mass., for improved method of Boring Gun Barrels. Patented Feb. 6, 1849.

To William Cobb, of Albany, N. Y., for improvement in Cooking Stoves. Patented Feb. 6, 1849.

To Jesse Fitzgerald, of New York, N. Y., for Bolt and Disk Sectional Cannon. Patented Feb. 6, 1849.

To Thomas J. Tuthill, of Elmira, N. Y., for improvement in Rotary Cutter Ploughs.— Patented Feb. 6, 1849.

To Horatio Allen, of New York City, for Adjustable Lever Cut-off with secondary Toe (2 patents.) Patented Feb. 6, 1849.

To Henry W. Holly, of Stamford, Conn., for improvement in Music Stands. Patented Feb. 6, 1849.

To Philander Shaw, of Abingdon, Mass. for improvement in Cutting Boot Heels. Patented Feb. 6, 1849.

To Isaac L. Bennet, of Westerlow, N. Y. for Piston Valve enclosed in the Steam Cylinder. Patented Feb. 6, 1849.

To Elliot & Abbott, of Philadelphia, Pa., for improved Lever Scale for Canals, Railroads, &c. Patented Feb. 6, 1849.

To William H. Start, of Smyrna, Del., for improvement in Dumping Wagons. Patented Feb. 6, 1849.

To Morey & Johnson, of Boston, Mass. for improvement in Sewing Machines. Patented Feb. 6, 1849.

To Jos. S. Cloud, of May's Landing, N. J. for improvement in Ploughs. Patented Feb. 6, 1849.

To Lansing Kellogg, of Ravenna, Ohio, for improvement in Cheese Presses. Patented Feb. 6, 1849.

To Cyrus P. Doty, of Courtland, N. Y. for improvement in coloring Bricks. Patented Feb. 6, 1849.

To Edwin B. Horn, of Boston, Mass. for improvement in Camphene Lamps. Patented Feb. 6, 1849.

To William Jewell, jr. of Williamsburg, N. Y. for apparatus for ascertaining by inspection the saltiness of water in Steam Boilers.— Patented Feb. 6, 1849.

To Warren S. Bartle, of Newark, N. J. for method of regulating the supply of water to Steam Boilers. Patented Feb. 6, 1849.

### Horse Skates.

A writer in the National Intelligencer mentions the invention of Horse Skates by means of which, in the cold latitudes, an ordinary horse has been known to travel as much as an hundred miles in the short space of three hours without apparent fatigue. A full set (he says) of these marvellous skates, bedecked in the Norwegian style, has been deposited in the Patent Office.