

## New Inventions.

### Lead Pipe Machines.

One of our foreign exchanges, the Renfrewshire Advertiser, thus describes a new machine for making lead pipe, invented by a Mr. Young, of Paisley, Scotland. "The machine which he has constructed is in every respect fitted for the work for which it is intended, and is a triumph of skill on the part of Mr. Young of no ordinary character. There is, we believe, a machine of Mr. Young's construction in operation at present in Glasgow, made from the materials of one of a somewhat different make, which was first of all constructed. Mr. Young, however, has got one entirely constructed of new materials upon his own premises, and this machine we had the satisfaction of seeing first put in motion. Its first fruits were of such a character as to afford the greatest satisfaction to those parties who were present, and to convince all that the invention would amply reward the ingenious contriver. By this method pipes can be made of any length and any thickness, without a join. The lead is run from a boiler into a cylinder, and the pipe comes out perfectly formed, and ready for use, at the lower part of the machine. We may, on some future occasion, give a more minute description of it. In the meantime, we may observe that it is of the most compact appearance, stands ten feet high, is driven by a horizontal engine, and occupies an area of only one or two square yards. In the making of pipes for electric telegraphs it will be of signal advantage. The invention is patented."

Machines for making lead pipe of any desired length have been for a number of years employed in this country, and a few weeks ago a patent was granted to Mr. S. Parks, late of Brooklyn, now of Hartford, Conn., for a new lead pipe machine, upon the Archimedean screw principle. The invention is a very beautiful and ingenious one. The molten lead is admitted into a cylinder in which there is a smoothly polished steel screw, which is set in motion whenever the lead is admitted, and which by its motion forces down the lead in a curved pipe form upon a core at the bottom of the cylinder, which forms the hollow of the pipe, while two metallic cheeks on the outside of the core straighten out the pipe in the most beautiful manner. This is perhaps the easiest operated machine for making continuous pipes, that was ever invented.

### Ray's India Rubber Railroad Springs.

The springs for carriages, railroad cars and locomotives, made of Goodyear's metallic India rubber in combination with a metallic spiral spring, is now in use on almost all the railroads in the United States. The inventor is Mr. F. M. Ray, No. 100 Broadway this city, who has manufactured since the 1st of May the astonishing number of about thirty tons weight of the prepared India rubber. One pound is calculated to be as tenacious for a spring as twelve pounds of steel and it thus effects a great saving in weight as well as money retained at home, which would have to be sent abroad to purchase the steel.

### New Invention for Pegging Boots.

The Lawrence Mass. Messenger, says that Mr. J. Robinson of that place, has invented a Patent Machine for pegging boots and shoes, with which one man can drive 100 pegs in a minute. At every revolution it cuts pegs from the sheet, makes the holes, and leaves them neatly and firmly set in the leather."

It is not long since a writer in the Tribune proposed a plan to take away the boot and shoe trade from our Yankee friends. The plan was to employ German shoemakers in this city who would work cheap and thus make work that could be sold for less than yankee peg work, so as to undersell old Lynn in the market, but here comes a Yankee invention to knock that scheme not into the middle of next week, but a great deal farther.

### Improved Rat Trap.

Rats are not like our neighbors the Mexicans, to be vanquished either in fair fight or in one or two campaigns, neither is the same mode of warfare to be pursued to insure victory. But for all this as enemies they are not to be despised, as we are positive that "a little more grape Captain Bragg," will have but little effect to insure a route in their ranks as was the case with Santa Anna's lancers at Buena Vista. Well although we cannot brag of the grape, we can brag of this invention. It is a trap that can take a rat alive, and no such a word as *fail* about it. It was sent to us by one of our subscribers, Mr. John Siddell, and the first time he put it in operation he caught 16 in a few hours.

FIG. 1.

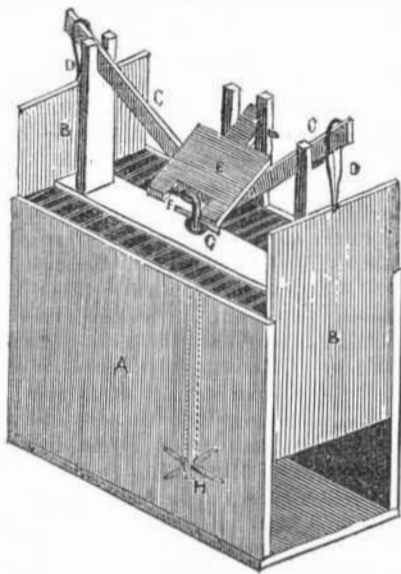
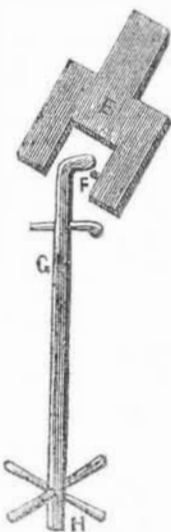


Fig. 1 is a perspective view and fig. 2 a section—the same letters indicate like parts. A is a square box like some in common use. B B are two doors that slide up and down in grooves in the side of the box. These doors are hung by straps D D, on spring levers C C. When the extreme ends of the levers are kept down,

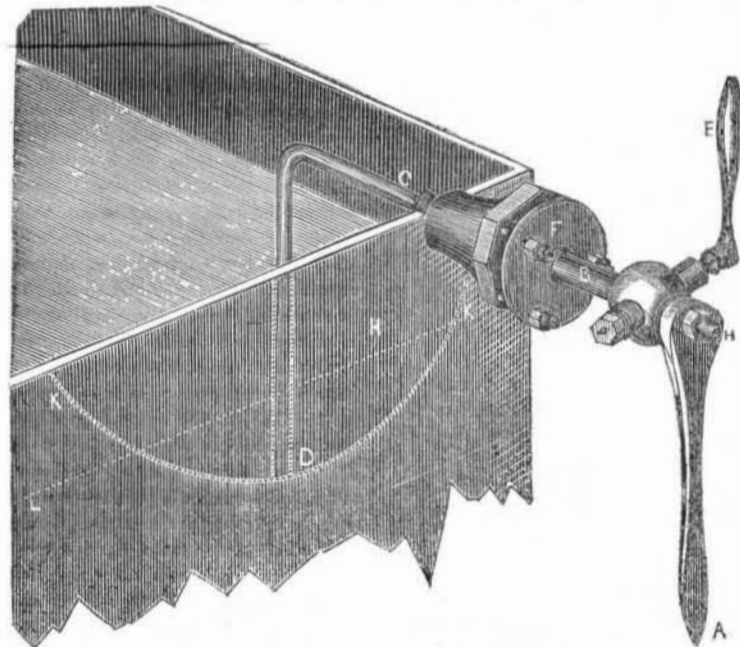
these doors are kept open, but when the levers are released these doors drop down in a twinkling. These levers are kept down by a spring board E, which has a small catch F in it that hooks under the top of the rod G, and thus holds the spring board down with the levers under it to keep open the doors B B.—

FIG. 2.



The rod G, passes down the inside of the box to the bottom, as seen by the dotted lines fig. 1, and it has four small arms or projections H, near its lower part. This rod can be easily turned round but no other way; hence it holds E down firmly, but being easily turned round it may be set free from its catch with a very slight touch. No bait need be used on the arms and only a little flour has to be sprinkled within the range of the four arms. The rat enters by the door and approaches the food for his repast. No polished hook on the arms attracts his crafty eye, but four quiet looking projections, which rather favor the operation, for the sagacious *rat*, perhaps imagining that he smelt a *rat*, touches one of the arms with his nose, when off goes the catch F, up fly the levers C C, and the scene is closed.

### ADAMS' IMPROVED GAUGE COCK.



This is a new and improved Gauge Cock for steam boilers, invented by Mr. John Adams, of Rochester, N. Y., a practical mechanic, and who has in this simple invention—in one single faucet, superseded the necessity of using three gauge cocks, which is now the case in steam boilers, to ascertain the quantity of water in them.

This is a semi-section and perspective view with the top of the boiler removed to show the line at which the gauge cock enters the boiler. The interior end of the gauge cock has a screw upon it which screws into a bent tube having a sweep in the boiler equal to the whole distance at which the faucets are placed from one another as they are at present used, or it may be made to sweep through a far greater distance. H, is the water line in the boiler. D, is the end of the bent tube, and K K, represents the sweep of the tube which has just as much sweep above as below. B, is the faucet tube, and E is the handle of the stop to open and close the passage of B. The interior end of B, as we said be-

fore, is screwed to C, the bent tube. H, is the mouth of B. A, is the handle, secured on the outer end of B by a nut. The handle A, turns round the bent tube and therefore it is not screwed into the boiler, or it could not be turned round to gauge the water. It therefore passes through a small stuffing box which is screwed into the plate of the boiler and is attached to it by a small moveable plate F, in which are holes through which run three screws that are fixed in the small stuffing box. This, however, could not make B fast in the stuffing box without something to keep the tube B, which moves round, from moving out and in. This is done by having a small circular shoulder turned on B in the inside of the stuffing box, while the orifice of F, is a sleeve of anti-friction metal that slips into the stuffing box against the interior shoulder of B, and by the plate F, being screwed to the stuffing box, the tube B can be moved freely round, and it is held snugly and steam tight in the boiler at the same time. Every engineer will immediately perceive the importance of this really

beautiful invention. It has been highly recommended by able engineers who have used it—men whom we know to be well qualified to judge of its merits, such as Mr. Isaac Van Kuren, Superintendent of the Rochester and Auburn Railroad Machine Shop, where the inventor is employed as an Engineer—and next week we shall publish the testimony of other engineers who have expressed their opinions respecting its value.

### Alpaca Umbrella.

A patent has been taken out in England for what is called an alpaca umbrella. The material which forms the screen in this umbrella is composed of fine wool, a material as elegant as silk, at least equally impervious to rain; it is unnecessary to add, that no comparison whatever can be made between it and cotton. The forms have been, as far as possible, attended to.

Although the screen of alpaca, must look better than cotton and will not be so apt to fade in color, still the price must be more. But as it cannot be much greater, we trust that some of our makers here will not forget to try a sample. If the warp of the cloth was linen and the weft alpaca, a most durable screen would be produced and one that we would almost prefer to silk, for appearance.

### New Stove.

Mr. J. K. Latrobe, of Baltimore, has made a very simple and beautiful improvement on the old Franklin—whereby it is well adapted to the burning of coal. It is set in the fire place and it has an air chamber below from which a constant stream of fresh air is supplied which is thrown out by the radiator through the room.

The great difficulty with stoves as they are now constructed, is, that they do not heat the room uniformly, and another great evil lies in people (especially those engaged in sedentary occupations), hugging the stove too much. No person should be ignorant of Dr. Arnold's work upon radiation and ventilation.

### INVENTOR'S CLAIMS.

#### Wheels for Spinning.

Jacob Shaw Jr. Hinckly, Ohio, for improvement in wheels for spinning. Patented Oct. 10, 1848. Claims the construction and the combination of the vibrating frame with the accelerating wheel and bench by means of hollow rods constituting an axis for the vibrating frame and boxes or bearings for the axle of the accelerating wheel in such a manner that the motion of the vibrating frame and the motion of the accelerating bands retain the same degree of tension, in whatever position the vibrating frame may be placed, or whether in motion or at rest. The combination of the treadle with the vibrating frame and the bench and the combination of the parts composing the axis of the vibrating frame with the frame.

#### Lead Pipe.

Stephen Parks, Jr. Brooklyn, N. Y. for Archimedean Lead Pipe Machine. Patented Oct. 17, 1848. Having thus fully described the construction and operation of my Archimedean Pipe making machine, what I claim therein as new, and desire to secure by Letters Patent, is the combination, arrangement, and operation with each other of the hollow cylinder A, the tube B, having a screw formed in a portion of its periphery, the shaft H, the core or mandril I, and the die F, substantially as herein set forth not intending to limit myself by this claim to the particular form or number of the parts as herein described and represented, or the material of which they are composed; but to vary them as I may deem expedient whilst I attain the same end by means substantially the same. [The letters refer to parts of the drawings.]

#### Administering Ether.

Lewis Roper, Philadelphia, Pa. for improvement in apparatus for administering Ether. Patented Oct. 10, 1848. Claims the mouth-piece on the peculiar formation of the upper part of the instrument or vessel above described fitting closely over the mouth and nose so as to administer the vapour of ether through these two organs simultaneously and in combination therewith, the arrangement of the air tube and perforated plate.