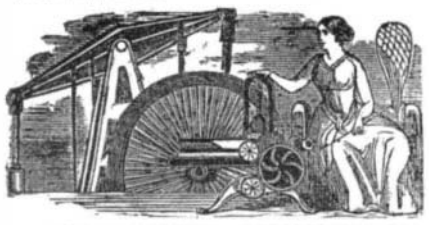


New Inventions.

Air Engine for Railroads and Common Roads.

Mr. Evan J. Purser, of Philadelphia, proposes to construct an engine to be propelled by heated air so as to combine a greater amount of power with more speed, having less weight, and therefore less resistance than the common engines, and which, as he says, can be applied successfully to railroads and common highways. He should like to have assistance in the construction of his engine, as he is but a working mechanic. Here is an opportunity for some of the Inventors' Institutes to do a good turn and exhibit a true philanthropic spirit. Let any of the Secretaries of said associations direct a communication to Mr. Purser, No. 184 Chesnut street, Philadelphia, and they will obtain all the desired information.

New Foul Air Burner.

Mr. Charles Clinton, of Middletown, Orange Co. N. Y., has invented a Stove which feeds combustion only by the most rarified air in a room, instead of the most condensed strata of cold air and thereby a great saving in fuel is effected and health promoted, as it acts as a ventillator. An elevated pipe is added to the stove, which feeds combustion by a current descending through it under the bed plate of the stove by a flat conduit and entering in front of the stove, by an opening below the slide of the ash pit.

Portable Flouring Mill.

We see it stated in one of our exchanges that a Mr. Freligh, of St. Louis, Missouri, has invented a Flouring Mill to be worked on board of steam boats. This machine is said to adapt itself to any angle of the boat, and the burrs and hoppers suspended like a ship's compass. This is all we can say about it and it is inexplicable enough.

New Method of Propelling Vessels.

We understand that Mr. A. Taylor, of this city, is about bringing before the public a new method of propelling steamboats, on what he designates, the wind-mill principle, in contradistinction to the undershot wheel, as now generally in use. He confidently expresses his opinion that a greater speed may be given to the same vessels with much less power and expense of construction by this new application than can be obtained by paddles or floats on the periphery of the wheels. In connection with this invention he intends bringing forward another important improvement in the steam wheel.

New Rail Car Spring.

Mr. H. T. Hyde, of Troy, N. Y., has invented a new spring to be connected with the axles of the wheels of locomotives and cars so as to enable them to move with greater ease in turning curves. The spring is made of one piece of fine flat steel folded or bent waving up and down, which being connected with the axle allows a sufficient play to the outside wheels by extension, while the inside wheel by the contraction of the spring on that side, although it may thereby slide somewhat yet there is less friction than biting on the rim of the wheel and less liability of running off the track.

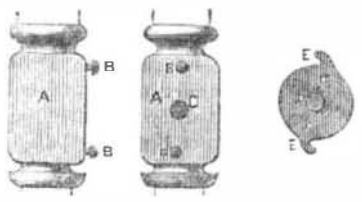
Improved Foot Stove.

Messrs. White and Walbridge, of Barre, Mass, are the inventors of a very neat, safe, and economical foot stove. It is simply a tin box filled with boiling water and corked tight. It will keep the feet warm for a whole day's ride. The bottom is of pine wood and the whole covered with very handsome carpet, stuffed with cotton, good non-conductors, so that it retains its heat for a long time. They are oval shaped, very convenient, and easily carried, and sold only for $12 per dozen, and an inferior kind at $10.

An Air Bed.

Mr. A. J. Goodenough, of Yorkshire, Cattaraugus Co. N. Y., has invented a new kind of bed to supersede the use of feathers entirely, and is somewhat peculiar. He unites two boards the length of the bed by a strip of leather so as to fold on the top of one another and unites these boards to iron legs which have hinges for the purpose of clasping the boards and are braced together by portable slender iron rods. He uses double sheets of india rubber air tight for a bed extended and fastened to the boards described, by loops over pins. By a tube communicating with the inside of the india rubber bag bed it can be filled with air and expanded, buoyant and soft as Russia down. The material of which the bed is composed is made strong enough to stand considerable atmospheric pressure, not even fearing the gravity of the Kentucky giant. This bed, for which the inventor has taken measures to secure a patent, has some other peculiarities for the regulation of pressure on the surface. It has at least one grand advantage in economy and health, viz. no bad smell from impure feathers and it can be emptied and filled with little expense.

Improvement in Bedsteads.



The above engraving represents an improved method of joining the rails with the posts of bedsteads. It is well known that it is of the utmost importance to have close joints in all bedsteads and it is equally important and desirable that bedsteads should be so constructed, as to be easily and speedily put together in all their parts, and if possible by one person. The bedsteads that are in common use and which are allowed to have the closest joints, are made by a screw on the rail and a thread in the post and the rails screwed into the posts. The joint is undoubtedly close but the screws often get out of gear and when this is the case the bedstead becomes useless. By this plan there is a more close joint than by the screw, while it can be put up by one person, and it never gets out of order. The round piece on the right is a small iron shield attached to the rail by screws, the end of the rail represented as passing through the opening in the centre to enter opening C, in the bed post A of the middle figure. E E, are two cleets which, when the rail enters C, catch B B, and hold tightly the rail and post together, while the shield is squeezed as close to the post as if it were united to it, and in this manner there is not the least space left open between the rail and the post. B B, is a side view of the pins or knobs, made of iron, that E E, catch into. A small clamp can be made to brace the back of E, so that by the greatest pressure, the cleets E E, never will be moved out of place.

Mr. C. B. Morse, of Rhinebeck, Dutchess Co. N. Y., is the inventor, who is going to secure the same by application for a patent. He is now manufacturing them at the above place and they can be made cheaper than the screw kind, an important consideration. He is also the inventor of another kind of joint for bedsteads, but as the one in the engraving is the cheapest and as we think, the best, it will interest the greatest number.

New Invention—Electro Magnetic Engine.

Mr. James P. Egan, of Dresden, Muskingum Co., Ohio, has just invented an Electro-Magnetic Machine, which consists of series of magnetized plates, of the requisite diameter. which are connected together by screws, and so constructed as to allow the plates to be contracted into an almost solid mass, or to be drawn out to a given length. These plates are called a "*Contracting Magnet*." The alternate with solid metal, and form a sort of *piston*, which is worked in a *helix*, answering to a cylinder, and which, being duly charged with the electric fluid, forces out the piston, which shoots itself back again by its own magnetic contracting power, thus giving motion to the machinery, which can be built of sufficient force for any of the purposes to which steam is now applied. Mr. Egan's machine requires no boilers, no fuel, and but little attendance, and it is said can be built at a cost, and worked at an expense very far below any steam engine.

Mr. Egan also writes to us that upon the principle of his contracting magnet, he can construct a perpetual motion, at least the most perfect and durable machine deserving such a title.

Locomotive Improvement.

Mr. William G. Hennies of Pottsville, Pa., has invented a new kind of grate for locomotives which has received the commendations of several scientific gentlemen connected with locomotive operations. An endless grate passes over rollers at each end of the fire box, and ratchet wheels affixed to them enables the firemen to make the grate revolve at will, either way. By a simple arrangement of a lever, one of the grates may be raised or depressed, so as to give greater space and facility for throwing the clinker out upon the track. The adjustment of the parts is very simple, and they cannot be thrown out of proper working order.

The great difficulty hitherto experienced in burning coal in locomotives, is that the great draft ignites the coal too rapidly and melts it into a mass of clinker on the grate, by which all the draft is soon excluded. The intense heat is expended on the sides of the fire box, and causes its speedy destruction. By this invention the coal may be distributed at will and freed from clinker, while by the forward movement of the grate it has a tendency to throw the body of the coal into a triangular form and permit the fresh coal at the top to find its way down toward the grate. The grate bars too may be kept comparatively cool by the change of surface effected by their rotary motion.

New Topsail Reefer.

A model of an invention for reefing topsails was exhibited last week at the Exchange Reading Room, Boston. By it the sail is clewed nearly as close upon the yard as if it was reefed. The halyards are worked by the crew from the deck. If not too complicated, it may be very useful in squalls and be a labor saver for Jack.

Tribute to American Mechanical Skill.

The following is the Report of the Austrian Institute, made upon the Combination Lock of Messrs. Day & Newell, of this city :

The President of the National Mechanics Institute of Lower Austria, to Mr. Newell, of New York :—

SIR—The Institute of Lower Austria, at its last monthly session, has passed the unanimous resolution to award to you its gold medal as an acknowledgment of the uncommon superiority of the combination lock of your invention ; and this resolution was ratified in its general convention held on the 10th inst.

Whilst I, as President of this Institute, rejoice in seeing the services which, by this invention, you have rendered to the locksmith's art, thus appreciated and recognized, I transmit to you, inclosed, the said medal, together with the documents relating to it, at the same time availing myself of this opportunity to assure you of my esteem.

COLLORADO MANSFIELD.

Vienna, May 31, 1847.

Substitute for Ether.

Dr. Simpson of Edinburg has discovered a new substance named chlorophine, which has all the good qualities of ether and none of its evil. It has been used very successfully in England.

Some interesting experiments have been made with this substance at the Baltimore, Md. College of Dental Surgery which have given great satisfaction.

A company is about to be formed in this City, for an air-tube to be laid between this City and Boston, for the transportation of messages and parcels, in connection with the Air line Railroad. The air is exhausted out of the pipe and the parcel to be sent either to New York or Boston is fitted close in the tube and the air let in behind, when away through the region of vacuo the parcel wings its onward way.

INVENTOR'S CLAIMS.

Corn Cob Mills.

By Amory Fisher of Tuscaloosa, Ala. Improvement in Mills for grinding Corn in the Cob. Patented, 28th August, 1847. Claim.—Having thus fully described the manner, in which I construct, array, and combine the respective parts of my mill, what I claim therein as new, and as an improvement on that patented by James M. Miller, is the combining of the knives, or crushers, with the mill stones in the manner set forth, the upper stone being stationary, and being provided with a feeding opening, or openings B, and a cutter or crusher D, situated in the cavity A, made in said stone to admit the revolving knives affixed in the stationary stone. These parts being combined, arranged and operating in the manner and for the purpose set forth. I also claim the manner of arranging the hoop in such a mill, in order to insure the ready delivery of the ground stuff. I do not claim either of the devices in my first claim individually, but I do claim them in their combination as producing the usual results herein made known.

Tanning.

By Alexander Turnbull, of Rouel House Tannery, Blue Anchor Road, Bermondsey, in London, in the county of Surrey and kingdom of Great Britain. Improvement in Tanning. Patented in England, 26th of Sept. 1844—in the United States 28th of August '47. Claim—I think it necessary here to state that I do not claim the principle of tanning Hides and Skins by sewing them into bags, nor by simply filling them with liquor; but, what I do claim as of my invention, and desire to secure by Letters Patent, is, First—the discovery of the means of extracting the lime with which the hides or skins are impregnated in removing the hair by the use of sugar or any other sacharine substance, whether obtained from the sugar cane, honey, beet roots, turnips, potatoes, the maple tree, or other vegetable substances; all of which is fuly set forth and described in the specification. Second—I claim the discovery of the law of Endosmosis and Exosmosis to the purposes of tanning with the materials and in the manner before described in the specification, and shown in the drawing, or in any way wherein the hide or skin can be placed between the fluids containing tanin or tanic acid of different specific gravity.

Fountain Pens.

By Moses F. Hait, of Livingston, Alabama. "Improvement in Fountain Pens." Patented September 11th, 1847. Claim.—What I do claim as my invention and desire to secure by letters patent, is the combination of the pen with the fountain in such a manner that the tapering part of the nibs, of the pen serve as as valve or valves to the orifice or orifices, which being opened by the downward pressure in writing, allows the ink to flow which at the same time the ink is prevented by the depression from being drawn up between the pen and the tube as is above substantially described.

Scrubbing Brushes.

By Robert M. Bicknell & Charles J. Abel, of Philadelphia, Penn. Improvement in the Scrubbing Brushes. Patented, 5th September 1847. Claim.—What we claim as our invention, and desire to secure by Letters Patent, is the manner of manufacturing the fibres of the piassaba, into brushes, viz: Softening the same until they can be bent double without breaking, folding the branches thereof at their centres, and inserting and securing the same, while in a wet or moist state, in the respective holes in the brush stocks by means of a card manufactured and prepared substantially in the manner and for the purpose herein set forth. We also claim the manner of manufacturing and preparing the card substantially as herein described, for the purpose of enabling us to work the bunches of piassaba in a wet or moist state as hereinbefore set forth.

A smooth sea never made a skillful mariner, neither do uninterrupted prosperity and success qualify man for usefulness or happiness. The storms of adversity, like the storm of the ocean, rouse the faculties, and excite the invention, prudence, skill and fortitude of the voyager.