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### LIST OF PATENT CLAIMS

Issued from the United States Patent Office FOR THE WEEK ENDING NOVEMBER 4, 1851.

To John Ericsson, of New York City, for improvement in Air Engines. Patented in England Dec. 26, 1850.

I claim the working cylinder and piston, and the supply cylinder and piston, of less piston surface; the two pistons being connected with each other and working together substantially as specified, in combination with the regenerator and heater, so that the air, or other circulating medium shall pass from the supply cylinder to the working cylinder, through the regenerator, substantially as specified, and give motion to the engine through the difference of area of the pistons; and this I claim, whether the air or other circulating medium be made to pass on the return stroke from the regenerator to the supply cylinder, or any other receiver, or into the atmosphere.

I also claim, in connection with the working cylinder, the employment of two regenerators, substantially as specified, in combination with the valves, or their equivalents, for the purpose of causing the air, or other circulating medium, to pass during a series of strokes through one of the regenerators to the working cylinder, and back from the working cylinder, through the other regenerators and then reversing the action, substantially as specified.

I also claim interposing the heater between the regenerator and working cylinder, substantially as specified, to heat the air, or other circulating medium, as it passes from the regenerator to the working cylinder, as specified, to supply the heat required.

And, finally, I claim, communicating the power of the engine to the working beam, or its equivalent, by the attachment thereof, to one of the pistons, or piston rods between the open ends of the two cylinders; said pistons being connected or braced to each other, substantially as specified, whereby I am enabled to render the engine compact and effectually to brace and connect the two pistons and avoid undue strain, as specified.

[See engraving in last No. of the Sci. Am.]

To Isaac Davis, of Mechanicsburgh, Ohio, for improvement in machines for Forming Horse Collars.

I claim the combination of the moving tapering block, with the adjustable stationary dies; the two being constructed and arranged substantially as set forth.

To Isaac Constant, of Buffalo Heart Grove, Ill., for improvement in Cultivators.

I claim the intermediate jointed plows, in combination with the main cultivating plows, as described, for enabling the plowman to plow nearer to or further from the rows, at will.

To N. Foster, G. J. H. & C. P. Brown, of Palmyra, N. Y., for improvement in Seed Planters.

What we claim is, in combination with the seed box and cap, arranging the rotating disc vertically, and providing it with the projections and the stationary vertical dies, provided with an opening, for receiving the grain and the flanches, between which the said projections rotate, and by which the grain is carried from the seed box to the cap and thence to the seeding tube; the whole being arranged in the manner and for the purpose set forth.

To L. B. Griffith, of Honeybrook, Pa., for machine for Measuring and Cutting iron.

I claim the measuring wheel, placed in any suitable position, in combination with the cutter, bed-plate, and spring, or its equivalent, the whole being arranged and combined substantially as described for the purpose set forth.

To J. T. Hammitt, of Philadelphia, Pa., for improvement in Desks.

I claim the raising of a horizontal surface at the back part of the desk, or table, when the front part is being raised, to form an inclined plane, by means of the arrangement of the screw and lever, or any analogous device, the front part being hinged to the elevating frame, the same to be applied to standing or sitting desks, or tables, substantially in the manner and for the purpose set forth.

To J. K. Ingalls, of Bushwick, N. Y., for improvement in Radiating Surfaces.

I claim the application of the tapering form to radiating surfaces, constructed in the compact and available manner described.

To L. S. Robbins, of New York City, for improvement in Tanner's Oil from Rosin.

I claim the new and original product or manufacture which I denominate Robbins' Tanners' Oil, or Robbins' Currier's Oil; the process of producing which I have fully set forth. I also claim every use and application of my said oil.

To L. S. Robbins, of New York City, for improvement in Distilling Naptha from Rosin.

First, the process of separating the acid and water arising from the decomposition of rosin, at the temperature of 325 degrees, Fahrenheit, or thereabout, by means of fire heat, substantially in the manner set forth.

I also claim, in combination with the above, the process of separating the naptha from the other component parts of the rosin, by preserving the temperature of the liquid mass within the still, at about the range of 325 degrees, as stated, and injecting steam into the same, by which I am enabled to throw off the naptha at the same temperature employed for throwing off the acid.

I do not intend to limit my improved process of distillation, as before described, to the production of oil from rosin, but shall employ it for re-distilling the crude article known as rosin oil.

To Louis S. Robbins, of New York City, for improvement in Paint Oil from Rosin.

I claim the new and original product, or manufacture, which I denominate Robbins' Patent Oil, the process of producing which I have fully set forth. I also claim every use and application of my said oil.

To Wm. P. McConnell of Washington, D. C., for improvement in the manufacture of Charcoal.

I claim the iron cylinder with a double bottom, the upper one being perforated, and these combined with several flues, covered at the top with dampers and protected within with iron rings, the whole so constructed, that the fire may be applied either on the top, under the bottom, or in all together, at pleasure, and the whole adapted, as described, to the uses and purposes specified and these only.

To James Root, of Cincinnati, O., for improvement in Folding Doors of Stoves.

I claim the sliding and folding doors, in combination with pilasters, by which I prevent the heating of the doors and warping consequent thereon, and admit a free radiation of heat from the side of the stove substantially in the manner and for the purposes set forth.

To Edward Swiney, of Andover, Mass., for improvement in processes for Dyeing Blue.

I claim a mode of producing a dark blue or color, to take the place of indigo, which color can be produced at a very great saving of expense in comparison to that incurred by the employment of indigo in the usual way.

I do not mean to claim the use of a prussiate of potash dye alone, but do claim the employment of such dye, in combination with either one or more of the above-named woods, substantially in the manner specified.

[If he uses logwood then his invention is old. How is that, Examiner?]

To Joshua Upham, of Salem, Mass., for improvement in Compounds for Extinguishing Fires.

I am aware that it is known that sulphurous acid gas will extinguish the flame of a taper, or any such like small flame. I therefore do not claim such as my invention or discovery, but I claim the application of a compound of sulphur and nitre in a state of combustion, within a room or apartment on fire, for the purpose of extinguishing the fire tending to destroy the said room or building.

[Another Fire Annihilator. Why did he not add a little charcoal to make it more effective].

To James Webster, of Leicester, England, for improvement in Springs. Patented in England, February 11, 1851.

I claim the specified mode of arranging or combining springs and inclined planes or surfaces, curved or plane, so that the point or arms of the springs may be applied to or press against the inclines or inclined planes, for the purpose of thereby obtaining the action of such springs, in the manner described.

To Geo. W. Beardlee, of Albany, N. Y., for improvements in Planing Machines.

I claim the application of springs or weights to cutter stocks, both at their point in line with the cutting edge of the knife, and also to the heel, by which a double action is given to the stock, both at the heel and edge, allowing it to rise and oscillate to the inequalities of boards or plank, substantially as described and for the purpose set forth.

To Levi Bissell, of New York City, (assignor to himself and Lyman Kinsley, of Canton, Mass., for improvement in Carriage Springs.

My improvement claimed consists in combining two buttress blocks with the wood bar and the metallic strap bar, in the manner substantially as specified, so that such blocks, when the spring is in use, shall act as levers to compress the wood and counteract the tendency of the fibres to be elongated and ruptured by the downward strain.

To L. S. Chichester, of Williamsburgh, N. Y., for improvement in machine for Dressing Staves.

I claim dressing staves by means of stationary knives, in combination with a pressure roller directly over the cut, when this is combined with the bed constructed with a raised portion where the cutting is done for the purpose of allowing a crooked or bent stave, freedom of motion while being dressed, substantially as described.

To W. B. Mulligan, of Edinburgh, Va., for improvement in Bating and Tanning Hides.

I claim the method described of bating hides and other skins, in the process of tanning, by subjecting them to a vapor bath applied substantially in the manner described.

I also claim the combination of the rocking frame and the shaft above, the two being connected as set forth, in such a manner that the shaft may be used either to rock the frame or to raise it from the vat.

#### ADDITIONAL IMPROVEMENT.

To Henry Pace, Sen., of Cincinnati, O., for improvement in Bedsteads. Originally patented Dec. 10, 1846.

I claim the mode of jointing the head and foot rails, and of reversing the arm of the winch, as described.

#### The London Patent Journal on the Scientific American.

There is no greater blessing secured to our people than our untaxed literature. It is no doubt true that in reference to the matter contained in newspapers, the press is no more trammelled in Great Britain than it is in America; but yet for all this, ours is the only country in the world where "freedom of the press"—that "palladium of our liberties," as Edmund Burke has it, is fully secured. In every country in Europe but England, the press is fettered to the will of the government as to what it must and can say; in England it is not fettered with the despotism of government will, but it is with a government tax. This much may be said in palliation of it; the enormous outlay of that government demands an immense income, and a tax on the press can only be justified as a duty. In our opinion, this tax works injuriously to the people of England, and this we think is quite clear, especially in respect to the tax upon periodicals devoted to science and the useful arts. Our people possess advantages over the mechanics of Great Britain in this respect, of no ordinary kind, and the testimony of our worthy cotemporary, the "London Patent Journal," which we here quote, will at once set this matter in a clear light before our people.

"THE SCIENTIFIC AMERICAN.—Our cotemporary enters upon its eighth volume with increased talent and energy. New type and a better paper go far to improve its outward appearance, while the greater number of wood engravings, and the increased quantity of original matter, attest the desire of the conductors to render the work worthy of the American public. We may be allowed to say, from our knowledge of American literature, that the Scientific American is excelled by

few periodicals, and to us Englishmen, taxed as we are from the cradle to the grave, in everything and for everything, more especially in all that relates to knowledge, it is a marvel that a large sheet, well printed on good paper, illustrated with a host of engravings, and furnished with articles on science of no mean order, can be sold for 2 dollars a year, or not quite 2d. a number. The tax in this country of 2d. per lb. on paper, and the advertisement duty of 1s. 6d., would effectually prevent such a periodical being published here, except at an immense loss. If we had any right to call upon the conductors of the Scientific American to render a service to this nation, we would ask them to send a copy of their journal to all the ministers and members of the House of Commons. Perhaps it might then occur to some of these men, to inquire whether it be patriotic or advantageous in any point of view to put a ban on the publication of cheap literature; and to consider that, while American artisans have the opportunity of improving their minds, of enlarging their ideas, and of exercising the inventive faculties which England feels at the present moment they so largely possess, English artisans are left to the brutalizing beer-shop, as in Manchester at the present day, to wallow in every imaginable vice, with no other literature at their command than the penny pandering trash which emanates from Holy-well street. It is a scandal to this enlightened country, but it is a truth, that in Manchester, Birmingham, Leeds, Glasgow, and Bradford, the working classes care only for that species of reading which some mildly call "light;" and that the works which sell the best are those which should not be sold at all. And until this evil be abated by offering literature of merit equally cheap (and this cannot be done with the present taxes), it is vain to talk of levying an education rate (another tax), or of the voluntary or any other system of bettering the morals of the lower classes.

#### The Wheeling Bridge.

"Six great railroad lines will soon meet on the banks of the Ohio river at Wheeling.—The first and most important of these, is our own great line leading from Alton through Terre Haute and Columbus, to Wheeling.—The second, that from Cincinnati, leading to Wheeling by the way of Marietta: The third is a line projected from Sandusky, on Lake Erie, by Louisville and Cadiz, we believe, to Wheeling: The fourth which is a road partly constructed, and of which the extension on to Wheeling is now seriously agitated at Pittsburg—follows the bends of the Ohio river. The fifth is the Hempfield road, by which we of the West are to obtain the shortest possible line to Philadelphia and New York: The sixth, is the Baltimore and Ohio road which is now rapidly drawing to completion, and by which the Western people north of the Ohio can best proceed to the Southern cities.

But it appears that while there will soon be six railroads needing this bridge to cross the Ohio at Wheeling, there are six steamboats owned at Pittsburg, having excessively long pipes, which the proprietors declare they will neither shorten nor lower in times of high water for the benefit of the cross travel. This question, involving the relative rights of these six punctilious boat owners on the one side, and those of the people of the United States on the other, is presently to be decided by the Supreme Court. We shall look with interest for the decree. If the people of this country cannot have continuous railroads across the great rivers, they ought to know it soon."

[The above is from the Alton Telegraph, Ill., and is worthy of attention. It is to be regretted that this noble bridge should be assailed by Pennsylvania, especially when we consider that in every important point she will be the gainer by its use.

#### Hussey and McCormick's Reaper.

We have seen some statements in our exchanges respecting a recent trial between the Hussey and McCormick's American Reaping Machines, in the presence of a large agricultural assemblage in England, in which the Hussey Reaper was declared on all important points to be superior. This judgment is exactly the reverse of that given by the Exhibition Jurors, and is also different from ours.