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### LIST OF PATENT CLAIMS

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FOR THE WEEK ENDING NOVEMBER 9, 1852.

**OIL PRESSES**—By Wm. P. Chadwick, of Edgarton, Mass.: I claim the arrangement of the screw within the body or interior of the box, in combination with a rod so applying it to one head of the box, and to the platen, that, by its revolution in one direction, the platen will be drawn towards the said end of the box, all substantially as specified, not meaning to claim the combination of a screw, platen, and box, but intending to limit my claim as described.

**PRINTING PRESSES**—By Joel Densmore, of Bloomington, Pa.: I claim the combination of the fingers or grippers for seizing the sheets and holding them to the cylinder, and the fingers for throwing the sheets off from the cylinder, said fingers or grippers being attached to shafts arranged longitudinally to the cylinder, and attached thereto, and being turned to give the necessary movements to the fingers, by the revolution or vibration of the cylinder, through the agency of cranks and rods, or their equivalents.

**MARINE SIGNALS**—By T. H. Dodge, of Nashua, N. H.: I claim placing the lamp on a movable pedestal or its equivalent, inside the many sided signal box, and raising and lowering the same from one colored glass to another, by means of the cord and pulley, or their equivalents, the whole being constructed, arranged, and operating in connection with a signal, in the manner and for the purposes, substantially as described.

**TURNING JAW VISES**—By Abijah Hulbert, of Augusta, Ga.: I am aware that the revolving jaw of a vise has been set, and then secured to any desired angle with the fixed jaw, and I do not claim the so doing. But I claim constructing the jaw of a revolving vise, with a flange or projection provided on the edge thereof, with a left-handed screw, in which meshes a screw, or other equivalent, operating on said jaw, in the manner set forth, by which I am enabled both to set and secure the revolving jaw at the same time.

**SADDLES**—By Thos. Mardock, of Cincinnati, Ohio: I claim the construction of a saddle with seat attached to the pommel and cantle, by lips, as described, or in any equivalent manner, so as to be easily removable for the inspection, and, if need be, alteration of any part of the saddle.

**THROWING SHUTTLES IN LOOMS**—By S. C. Mendhall, of Richmond, Ind.: I claim the combination and arrangement of the spring tuggers, cords, and treadles, &c., so that the depression of any one of these treadles shall release the triggers on the forward movement of the lay, and allow the picker staff to actuate the shuttle substantially as set forth.

**IMPROVEMENT IN HAND LOOMS**—By S. C. Mendhall, of Richmond, Ind., & Obed and Ezra King, of Salem, Iowa: We claim the combination of a nerve, operated by lay, inclined plane, and its guides and adjustable pin, or their equivalents, combined and operating as described, so that we can operate and vary the number of heddles, substantially as set forth.

We are aware that the picker staff has been operated by hooks, alternately raised from the shoulders on the picker staff, by pins on a vibrating slide operated by grooves in the treadle cam: this we do not claim. But we claim the combination of the inclined plane on picker staff spring and hooks, for the purpose of sliding the hooks, in the manner specified.

**STEERING SUBMARINE VESSELS**—By L. D. Phillips, of Michigan City, Ind.: I claim the arrangement of the shaft of the propeller, so as to pass through and be guided by the tiller, or the equivalent thereof, mounted on a universal joint, in order that the propeller may be driven by one hand, while the vessel is steered in any direction by the other, substantially as set forth.

I also claim the combination of a universal rudder, with a series of keels arranged on the top, bottom, and sides, of the vessel, to aid in steadying her, and to facilitate the steering of her in various directions, by means of an universal rudder, substantially as set forth.

**HORSE SHOE MACHINERY**—By Solomon Shetter, of Alleghany, Pa.: I claim the arrangement of shift lug dies and adjustable levers and cams, substantially as set forth.

**TWISTING TUBES FOR ROVING**—By Harvey Silver, of Lowell, Mass.: I claim, first, the construction and use of tubes for giving counter twist to roving, by having a slot in the side, in such a manner that the roving can be laid into the tube, without the use of a hook, as described.

Second, the construction, arrangement, and use of tubes for giving counter twist to roving, in such a manner that without disengaging the driving apparatus, the tube can be so turned on its support, that a hook can be passed between the bosses of the rolls through the revolving tube, to draw the roving into the tube, without stopping the parts, as described.

Third, the construction and use of tubes for giving counter twist to roving, by making them in two parts, into one of which the roving can be adjusted and then dropped into the other, giving it the necessary rotary motion to form the twist.

**MACHINERY FOR CRIMPING METAL BARS**—By Giles Slocum & M. T. Sayles, of Lansingburgh, N. Y.: We do not claim the flexible die, nor the combination of the permanent and flexible dies, as they have been previously used; but we claim the peculiar manner of operating said dies, as described, viz., by means of pressure rollers, being fixed permanently in the frame, and the upper rollers arranged so as to yield to the die, when necessary; the movable bed being attached by a cord or chain to a roller, by turning which the bed is drawn between the upper rollers and the lower rollers, the upper roller forcing or compressing the flexible die upon the permanent die, and bending or crimping the bar, as set forth.

**COOKING RANGE**—By G. S. G. Spencer, of Boston, Mass.: I claim the combination of a heat radiating chamber, applied to the rear end, and two draft flues applied to each of the four faces at top, bottom, and two sides of an elevated oven of a cooking range; said combination of flues causing the smoke and other volatile products of combustion to pass from

the back of the flue space under the boiling chamber into a flue leading under the rear part of the oven, and transversely across or from side to side of the oven, thence up a flue leading against such side of the oven, thence down a flue leading against such side of the oven, thence into a reservoir flue leading transversely across, and under and against the bottom of the oven, thence upwards into a flue leading horizontally and along the other side of the oven, and from front to rear of it; thence into and through a flue leading horizontally against such second or other side of the oven, thence into a flue leading across the top of the oven, and from side to side of it, thence into and through another flue leading over and against the said top, and in an opposite direction to the last-mentioned, and thence into the chimney or discharge flue.

**BRICK MACHINES**—By Henry H. Strawbridge, of New Orleans, La., and Daniel Tyson, of Covington, La.: We claim the roller, in combination with a reciprocating series of moulds, for the purpose of gauging the quantity of clay to be compressed into the said moulds, the several parts being arranged and operating as described.

We also claim the method of finishing the surface of dry clay bricks in moulds, by first shaving off the surplus material, and then smoothing the shaved surface, by rubbing it under heavy pressure, while confined in the moulds, to prevent it from breaking under the operation, as it would do if not so confined.

**AUTOMATIC FANS**—By Seth E. Winslow, of Kensington, Pa.: I claim the mode of operating the fan, by means of the rod impinging upon the floor, and made to re-act by means of a spring, substantially as set forth.

**GAS BURNERS**—By A. H. Wood, of Boston, Mass.: I claim the use, in a gas burner, of a distributor, constructed for the purpose of producing a steady jet or flame, and for preventing the blowing and waste of gas in the burner.

**RECIPROCATING DIE SPIKE MACHINERY**—By M. Belknap (assignor to M. Belknap & Lyman Kinsley), of Canton, Mass.: I do not claim a series of two or more gripping or holding dies made to rotate around one common axis or shaft; nor do I claim reciprocating dies, each provided with its own gripping die; but I claim combining the two reciprocating bed dies (affixed to a carriage having a horizontal movement, as stated) with the gripping lever, as the upper die for both, so as to operate therewith, substantially as described.

#### DESIGNS.

**PARLOR STOVE**—By Washburn Race (assignor to H. C. Silsby, W. Race & Birdsall Holly), of Seneca Falls, N. Y.

**PEDESTAL AND COLUMN**—By Thos. Law (assignor to Levi Chapman), of New York City.

**PARLOR STOVE**—By S. H. Sailor (assignor to J. G. Abbott & Archibald Lawrence), of Philadelphia.

**CANNON STOVE**—By S. H. Sailor (assignor to Jas. G. Abbott & A. Lawrence), of Philadelphia.

**STOVE**—By S. H. Sailor (assignor to J. G. Abbott & A. Lawrence), of Philadelphia.

**STOVE PLATES**—By S. H. Sailor (assignor to J. G. Abbott & A. Lawrence), of Philadelphia.

#### Recent Foreign Inventions.

**PAINTING**—Wm. Fregoot of Manchester, Eng., patentee. To produce a plain, white, polished surface, the patentee takes carbonate of lead or zinc white, which he grinds up with turpentine and partially dries, and then mixes with copal varnish. This compound is then laid on the surface to be covered until the requisite number of coatings have been given; in each successive coating the varnish should be increased. When dry, the surface is rubbed smooth with pumice dust or rotten stone.

For coachmakers' work much time will be saved by mixing the different colors required (ground up with the turpentine) with the white body varnish above described, a fewer number of coatings will be required than when the varnish is laid on over paint, as is now the case.

Ornamental devices, such as scrolls, flowers, &c., may be produced on polished surfaces obtained as above, by cutting out the ornament paper and pinning it on the surface, and then stippling over the whole with any suitable paint by which a dead ground can be produced. When the stippling is dry and the paper removed, the ornament will be left in high and bright relief. Another method consists in painting the ornament with a solution of sugar starch, gelatine, or gum, then stippling over the whole surface, and when dry washing with water, by which that portion of the stippling by which the ornament is covered will be removed, together with the gum, starch, or sugar used in stippling it out, and the ornament will be left in bright relief.

**STEEL**—Wm. W. Collins, London, patentee.—The puddling furnace is to be charged with 4 cwt. of grey pig iron and a large proportionate quantity of silicate of iron or other metallic oxide. The first stage of the boiling in furnace is conducted as usual, except that the mass is not raked nor stirred. After the boiling has continued 30 minutes, the mass will exhibit a tendency to rise, and the puddler must then begin to work vigorously until the iron is ready for the balling and putting through the squeezers. The product of the above is a fine, close-grained iron, which possesses the property of combining readily with carbon.

To convert the finished bar into steel they

are placed into crucibles without previous cementation, together with pounded charcoal, and melted therewith.

**TURKEY RED COLOR**—John Mercer and John Greenwood, patentees.—This patent is simply for wetting pieces of cotton by a padding machine before it is passed through the oil solution. We believe there are no Turkey reds dyed in the United States, but the time will come when this beautiful color will be dyed here as well as it is in England or Switzerland. It will interest some of our readers who are practical chemists in our calico print-works, to know that the patentees run their cloth through the olive oil bath, heated to near the boiling point, then press it between rollers and dry in a store-room at 180° Fah., after which it is next passed through an alkaline solution of pearl ash and soda, then washed, dried, and is prepared for the sumac or galls, prior to getting the alum, which is the mordant preparatory to dyeing in the madder bath.

#### The Caloric Steamship.

The "New York Daily Times" of last Friday contains an article on the caloric steamship, and states that it will soon be ready for trial. It is only intended, it seems, for carrying freight, and is not expected to make the passage in less than 14 or 15 days, between New York and Liverpool. Well, after all, we are not to have a fair trial of superiority, so as to enable us to judge of its economy in running with the regular mail steamers. It is asserted that it will use less fuel, and be far more economical than a steamship. It must be understood that it uses heated air in place of steam as a propelling force. We have seen articles in the "Merchants' Magazine," and in many other papers, holding forth the great advantages and economy in employing heated air as a substitute for steam, but we have not read a solitary statement how this was to be done upon philosophical principles. Some have got the idea from the name of an apparatus connected with the air engine, named a "regenerator," that no heat will be lost, that the same heated air will be used by some *hocus pocus* process over and over again to drive the engine without extra combustion. It is just about as scientific thus to talk of using heated air as to expect water to run down hill to drive one water wheel, and then up another to leap down a second fall to drive a second wheel. Steam is more economical than heated air, but great improvements have yet to be made in the construction of furnaces of boilers and the economizing of the heat to prevent so much of it passing away up the smoke pipe.

#### The Beardslee Planing Machine Case.

The Planing Machine controversy, which has been so long pending between Wilson and Gibson, complainants, and George W. Beardslee, defendant, and in relation to which a mass of testimony (some 400 printed pages) has been taken, before a United States Judge, has finally been adjusted, the testimony adduced by the defendants being so conclusive that the application for an injunction to restrain the use of Beardslee's machines has been abandoned. Mr. Wilson has also stipulated and agreed to let Beardslee's machines run forever unmolested.

#### Patents in England.

No less than 146 patents were entered on the 1st day of last month (October,) under the provisional protection of the new English Patent Law. The London Mechanics' Magazine says, our patent fees should be reduced for foreigners to the same as for our own citizens. Our fees to foreigners are no higher than those they pay in their own countries. We are not prepared to advocate a reduction of those fees at present.

#### Illustrated Newspaper.

P. T. Barnum and H. D. Beach have associated themselves together with a cash capital of \$40,000 for the purpose of publishing an illustrated newspaper. The well-known energy of Barnum, added to the experience of Mr. Beach will, we have no doubt, bring forth the most magnificent pictorial ever attempted in this country. The paper is to commence about the first of January. We wonder where Barnum will turn up next.

#### Suspension Bridges.

The subject of oscillations in chains suspended at two points, has recently been discussed in a paper by J. H. Rohrs, published in the Philosophical Magazine. The object is to explain the causes of fracture in suspension bridges arising from the tramping of troops, gusts of wind, etc. The following are the principal conclusions arrived at:—

1st. That if the tension at the ends of the chain where it is suspended be kept constant by allowing play at those points, the variation of tension due to vibration at any other point of the chain will be but small.

2nd. That if the chain be tied at the points of suspension so that it can have no motion there, a slight extent of vibration will produce comparatively a great increase of tension.

3d. That periodic forces, such as may be taken, for instance, to represent the effect of tramping in time of troops moving across the bridge, are dangerous in the extreme, as if they happen to coincide in period with any of the possible types of vibration, the extent of vibration will increase continuously, till it ceases to be represented approximately by a linear or even an equation of the second order; in this case, the chain will be divided by nodal points where there is no vertical motion.

4th. That the mere transit without tramping, of ordinary loads at an ordinary pace would not cause sensible vibration in a bridge of wide span; but that terms not periodic might be introduced by the variable pressure of wind sweeping in rapid gusts along the platform.

#### The Cotton Crop.

The Savannah Courier of the 27th inst., says:—"During the recent Agricultural Fair in Macon, we conversed with hundreds of planters in regard to the prospects and probable extent of the cotton crop. Their opinions varied according to locality, and the influence of seasons and storms. In sections the yield will unquestionably be short, while in others it will be nearly double that of last year. One planter from Putnam, for instance informed us that he last year made 70 bales. This year he has already saved 120 bales, and has a prospect of 50 bales more. He stated however, that his was an extraordinary crop, and that his neighbors were not doing so well. Nearly every man we spoke with expected to do as well as last year, while three fourths said they were making more. From these conversations we have arrived at the conclusion that the cry of "short crop" in Georgia is likely to prove a delusion. If we are not greatly mistaken, the receipts at ports will show an increase of 50,000 bales over those of last year.

The Dry Dock at Chicago is finished. It is situated between Van Buren and Harrison streets, on the west side, near Scammon and Haven's oil mill. It is built at right angles to the river, a very substantial lock similar to a canal lock opening into it. Length 236 feet—width 56 feet at the top and 37 feet at the bottom—depth of water above the blocks 8½ feet—and it has a capacity sufficient to admit and repair the largest sized sail vessels and propellers upon the lake. The dock is emptied by an engine of twenty horse-power, attached to a lifting water-wheel capable of throwing out 850 cubic feet of water per minute. The whole of the machinery is exceedingly simple. The dock was emptied on Tuesday in 2 3-4 hours, and can be filled in 3-4 of an hour.

#### Rewards to one Inventor.

We see in the list of awards at the exhibition of the Southern Central Agricultural Society, and the State Mechanical Institute, Georgia, held on the 22nd of last month, that our friend, A. D. Brown, of Opelika, Ga., was awarded three prizes, one a silver cup for the best cotton press; a silver cup for the best horse power, and a silver cup for the best bookbinders' presses.

A solution of shellac (which can be made by dissolving the shellac in alcohol) applied to joints affected with rheumatism, it is said will allay the acute pain and afford prompt relief.