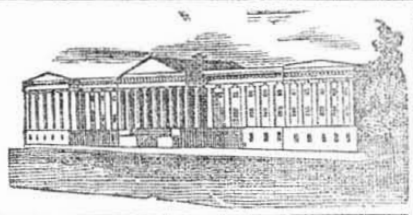

LIST OF PATENTS CLAIMS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending January 22, 1850.

To Wm. R. Battle, of Powelton, Ga., for improvement in Trusses for Hernia.

I claim the peculiar bend of the elliptical springs, as described in the foregoing specification, so as to cross them in front, and make the spinning on one side support the opposite side, thereby giving a better pressure with more ease and comfort to the wearer.

To Hiram Camp, of Dunkirk, N. Y., for Candle Mould Apparatus.

I claim the before described mode of making candles by using the candles previously drawn from the moulds, to hold the wicks for the succeeding candles, in the centres of the moulds, until the latter become sufficiently hard to sustain their own wicks, as described.

Second, I claim the combination of the frames, recesred candle holders, frames, and spools, containing the continuous wicks with the candle moulds, as described.

Third, I claim the employment of the rerevolving platform in combination with the hinged mould, constructed as aforesaid, arranged and operated in the manner and for the purpose set forth.

Fourth, I claim the manner of raising the outer end of the spout of the vat, simultaneously with lowering the gate for the purpose of stopping the dripping of the tallow whilst turning the frame of moulds, by combining the spout with the gate by the stirrup, roller, and lever, as described.

I do not however, intend to confine my claim to the precise construction described, in the foregoing specification, but to use such a form of construction as may be the best adapted to accomplish the desired objects, by means substantially the same.

Neither do I claim any portion of the machine above described, that has been practised successfully by others, prior to its being invented by myself.

David Eberly, of Strasburg, Pa., for improvement in gearing and ungearing seeding apparatus.

I do not claim the four double bevel cog wheels, nor the horizontal bevel cog wheels, as my invention, as they have been heretofore used in machinery, and are old devices, but I claim the devices used herein for gearing and ungearing the seeding apparatus, as described.

To Matthew Elder of Mansfield, Ohio, for improvement in Bedstead Fastenings.

I claim the giving the portion of the fastener that is secured to the ends of a rail, of a tubular shape and of such a size that the portion thereof that projects from the end of a rail will embrace the fastening plate that is secured to the side of a post; when this arrangement is combined with the lugs, projecting inwards from the extremity of the fastener and notches, and inclined planes on the plate, substantially as herein set forth, by means of which the respective parts of the bedstead fastener can be secured to the posts and rails of a bedstead, without forming a mortise in either the one or the other.

To Daniel Hoats, of Milton, Pa., for improvement in the concave of cornshellers.

I claim, first, connecting the opposite sides of the concave, substantially as herein described, whereby they may be moved simultaneously towards or from the cylinder, without changing their relative distances from the same.

Second, I claim the combination of the screen or grate with the punches for freeing its meshes from obstructions, substantially as set forth.

To Wm. W. Hubbard, of Boston, Mass., for improvement in the gridiron slide valve.

I claim the peculiar arrangement of the exhaust mortises or spaces, (six) in the sliding valve, between and around the inducting and educting passages, (4), through said valve, in combination with the elongated side slots or passages, through the valve seat, leading to the exhaust chamber, the whole arrangement and operation being substantially as herein above set forth.

To John Pawling, of Morgantown, Pa., for improved Tuyere.

I claim placing within a chamber, having numerous apertures at the top, and a discharge valve at the bottom, an upright pipe open at beth ends, in the manner described, whereby a blast of the greatest intensity is delivered at the centre of the fire, and the vertical pipe may be readily freed from ashes, cinders, &c.

To M. F. Potter, of Charlemont, Mass., for improvement in Portable Furnaces.

I claim my portable furnace, constructed with a diving flue, open at the bottom, so as to adapt it readily for use to the boiler holes of cooking stoves, in the manner above specified.

To James Radley & J. W. Hunter, of New York, N. Y., for improvement in Spark Arresters.

We claim, first, the arranging of a series of chambers and channels between two conically shaped plates, the channels being so formed as to cause the products of combustion to impinge against that side of each of the dirt chambers, which has the openings and caps, and thereby force the sparks, dirt, &c. &c., into them, in the manner described herein. We also claim he combination of the double conical cap or cover, for the formation of the second series of dirt chambers, with the pipe, the whole being combined and operating substantially as described.

To Ann F. Stiles, of Southbury, Conn., for improvement in cases for daguerreotype pictures.

I claim the new manufacture of daguerreotype cases, to wit, securing the pictures in a glass tube or case provided with a magnifying lens, said tube being blackened on part of its inner surface, and admitting the light through another part, to the plate in the manner herein described.

To Geo. Welsh, of Washington, D. C., for chain and flange apparatus for opening and closing window shutters.

I claim the combination of links and a centre nut with a stationary curved flange, exterior to the chain, to guide the links in such a manner that they may be operated to turn the centre pulley or nut, either by pushing or pulling as herein set forth.

I also claim, in combination with the sliding bar and links, herein set forth, the arm on the centre nut, and the notch on the bar for locking the shutter and taking the pressure off of the links when the bar is pushed in and the shutter fastened, as described.

To Wm. B. Willis, of near Charlestown, Va., for improvement in Seed Planters.

I do not claim the frame, hopper, stirrer, slide, drills, nor any of the parts heretofore used in seeding machines. I only claim the employment of the flanged, supporting, conveying, cleaning and covering wheels, made as described, in combination with the rest of the machine, when made in the manner as above set forth, for planting cotton and other seeds, and for other purposes.

To E. K. Wisell, of Warren, O., for improvements in chucks for boring and mortising machines.

I claim the self-centering chuck, constructed substantially as herein set forth.

To J. Young, of West Galway, N. Y., for improvement in Atmospheric Churns.

I claim the combination of the inverted vessel, and the disc on the stem of the dashers to prevent the splashing out of the cream at the churn lid.

To A. D. Brown, of Clinton, Ga., for improvement in the Cotton Press.

I claim the pulley, with its axis eccentric to its centre, in combination with the stock or follower of the pressure block, to compress cotton, &c., in the bale box, in the manner substantially as herein described.

RE-ISSUES.

To James Root, of Cincinnati, Ohio, for improvement in Cooking Stoves. First patented July 18th, 1848.

I claim the movable back plate for contracting the fire and protecting the oven plates, as herein set forth; and I wish it to be undertood that I do not claim the employment of double plates at the back of the fire, when such plates are stationary, but only when made movable, so that the front and top plates of the oven are always protected back as far as the flanch on the moveable plate extends.

I also claim, in combination with the elevated fire chamber and projecting oven under a part of said fire chamber, the ash pit, formed by projecting the bottom and sides of the stove under the sunk hearth, which is level with the bottom of said fire chamber.

For the Scientific American.

The Electric, and Artificial Light.

Good and cheap artificial light is one of our greatest social blessings. Discoveries in science and art enable the masses of the present day to enjoy luxuries of artificial light, that were denied to Princes, no farther back than 1558. At that period the courts of the Kings of France were illuminated with vases containing pitch, tar, and such like substances—a mode of illumination that would now be despised by the humblest retailers of fruit at the corners of our streets. Our city is now lighted with a subtle, invisible fluid, which courses through its secret channels like the life-blood through our veins. By a touch of the hand we can command a light of dazzling brilliancy, or reduce it to a feeble glimmer—languid as a dying smile. We have lights without smoke, and lamps that need no watcher, like the ancient Magi, to feed the sacred flame. Oil lamps are of great antiquity, being used by the children of Israel, and the Romans used, (in cases of festivals,) to illumine their streets with resinous wood ignited in chaffing vases. London and Paris contend for the honor of introducing street lighting, but to an humble engineer, Mr. Murdock, belongs the high honor of first successfully introducing it into public use on a large scale, at Soho, England, in the shape of gas light. When this was first done it created as great astonishment among the masses, as the electric telegraph at a later day. Since Mr. Murdock first introduced coal gas, its use has been gradually extending, and now it may be said to embrace the whole world. It is employed even in the Wild Island of New Zealand, as well as in the Metropolis of this Republic. As artificial light consumes a vast amount of capital every year, various plans have been proposed, and various discoveries asserted to have been made, to supersede it, by providing a cheaper and as good a substitute. Solar gas companies (making gas from oil) were organized in Britain, but were unable to compete with coal gas. Where coal is cheap the gas is cheap, but in some countries oil gas might be made cheaper. When the oxy-hydrogen light was discovered, many prophecied the death of all the gas companies, but instead of any substitute being yet discovered to supersede coal gas, its sway is extending rapidly. Since the discovery was made that water was a compound of two gases, various alledged discoveries have been brought forward from time to time, to use it as an illuminating power. The power of the galvanic current in giving the brilliant Electro Carbon light, has been frequently trumpeted before the world, as a cheap substitute for coal gas; and recently in our own land the water gas light, as a cheap substitute for *all lights*, has been heralded to the world by the pen of the discoverer, and more recently by that of Mr. R. Porter.

Whenever an alledged discovery is brought before the public, it then becomes a sort of public property—a fair subject of criticism.

I have seen an article in the Philadelphia Ledger, copied from the Washington Union, under the signature of R. Porter, lauding the wonderful discovery of Mr. Paine. Mr. Porter says: "I am authorized to announce the discovery and practical test of the most important scientific invention ever yet produced or brought to light, since the world has been inhabited by man." This invention is nothing less than that already heralded by Mr. Paine, *the* discoverer, in the columns of the Scientific American. Mr. Porter says that it will "revolutionize commercial intercourse, break down monopolies, and contribute hundreds of millions to the benefit of mankind." He farther states, that "without the use of acids, batteries, or the application of anything but a mechanical power of less than 1-300 part of a horse power, Mr. Paine's machine will decompose water and produce 200 cubic feet of hydrogen gas, and 100 cubic feet of oxygen gas per hour, at an actual cost of less than one cent, and that this will furnish as much heat as the combustion of 2,000 feet of coal gas, and sufficient to supply light equal to 300 common lamps for ten hours." Now the great beauty of all this extravagant communication to the *Union*, lies in this, that after stating he was authorized to announce this wonderful discovery, Mr. Paine, in an article to one of the Boston papers, says that Mr. Porter makes this statement, so far as it relates to the application of the gases, "on his own authority." There is a wide breach between the statements of these two gentlemen. If it is really a fact that such a great amount of water can be decomposed at so little expense, the discovery is a wonderful and a valuable one. Mr. Paine built a tower in Worcester, and burned his light, it seems, till last September, when an explosion took place. The light is a *Drummond Light*, judging from Mr. Paine's statements. The combustion of the elementary gases of water, must be managed with great care, or they will explode like gunpowder. Mix hydrogen and oxygen in a bladder, in the proportions, bulk 2H+1O., puncture the bladder with a needle, put a match to it, and it goes off like a *shot*, tearing the bladder in fragments. Mr. Porter states, in the Union, that "a steam engine furnace, and a parlor stove have been invented to burn these gases." What a very foolish thing to invent a parlor stove at all, when a few jets is quite sufficient both to heat and illuminate any parlor, according to his story.

The combustion of these gases will not produce a good white light, but of this Mr. Porter seems ignorant. The proper proportions, for the best kind of light yet discovered to be burned in the open air, are carbon and hydrogen, of an equal number of equivalents, H+C. Long practice and many experiments have demonstrated this. That some other combination may prove better, I will not deny, but the public has yet to be enlightened upon the subject, to judge of the same. And why is the public not? In the month of November, 1848, Mr. Paine published a circular, announcing his discovery to the different scientific bodies of America and Europe, in which he stated that he would exhibit his apparatus one year, at the termination of which he "would make public the mechanism of the Generator." Has that promise been kept? Why in New York? Why in Boston? Why in Washington, is the public yet to be informed of this discovery, which is to annihilate all the wealth of the Pennsylania coal fields, and all the camphene trade of North Carolina? All that he cared for at that time was the honor of the discovery.

There is one application of this discovery which is really a good one, as Mr. Porter states in his Washington letter. It is no less than "the removal of the only obstacles which have hitherto existed to ærial navigation—the difficulty of procuring hydrogen gas and carrying a cheap supply of fuel;" and he says, "it may be considered a matter of certainty that men will be seen swiftly and safely soaring in various directions before the first of May next." This gentleman found no such obstacle to his navigating the air during the California fever last winter. He was to make a passage from New York to California in three days. Passengers were invited by handbills to take their tickets for seats in his balloon. He asserted that "200 passage tickets, at $50 each, had been engaged prior to February 15th." His balloon was to start for California about the first of April, "cruising along by the steep and rugged sides of the rocky mountains, astonishing the grisly bear, frightening the antelope and terrifying hordes of buffaloes." After the failure of that æriform enterprise, it will require more than mere assertion to warrant the reposing of any confidence in any project got up by such a savan. If this Electric Light is so cheap, why not bring it to New York at once. The inhabitants here are aroused against the present gas companies, and would at once patronize any other cheaper mode of illumination.

I have not said any thing reflecting personally; my object was to deal with public things, and I have so confined myself.

CARBURETTED HYDROGEN.

New York.