



## LIST OF PATENTS CLAIMS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending January 8, 1850.

To John Bell, of Harlem, in the City and County of New York, N. Y., for improvement in Printer's Type cases.

I confine my claim to grooving the bottoms of type cases for the reception of the lower edges of the partitions and securing these in them by glue, in the manner herein set forth and of modes substantially the same.

To James Black, of Philadelphia, Pa., for improvements in Engines operated by Steam and Water.

I claim the manner of combining steam and air for the purpose of giving motive power to the wheel, consisting in a jet of the former being thrown from the nozzle of the pipe into the pipe, simultaneously introducing therein a quantity of the latter, which together are discharged through the lower orifice of said pipe, into the buckets of the wheel, and displacing the water therein, causing said wheel to revolve, in combination with the pipe through which the hot air is drawn from the top of the box or reservoir into the pipe and re-introduced with the steam into the box at its bottom, thus using it repeatedly over again. The apparatus, by means of which the above is accomplished, is constructed and arranged substantially in the manner described in the foregoing specification.

To William Bullock, of Philadelphia, Pa., for improvement in Grain Drills. Ante-dated Oct. 29, 1849.

I claim, first, the rollers which serve to clear the teeth from rubbish and govern the depth of the teeth.

Second, the spring in combination with the sheaves and teeth by which arrangement the whole or a part of the teeth can be held by a spring of the same power and range of movement that it would require for a single tooth.

Third, the moveable bar to which the team is attached, in combination with the mode of hanging the teeth by means of sheaves or other similar device, by which arrangement the teeth will pass over obstructions in which the action of the team in hauling the Drill or Cultivator will bring the teeth forward to their proper places as soon as they pass over the obstructions.

And fourth, the feeding band, substantially in the manner and for the purpose set forth.

To Ashley Crafts and Ebenezer Weeks, of Auburn, Ohio, for improvement in Cultivators.

We do not claim to be the original inventors of any of the individual parts of this wheeled rotary cylindrical Cultivator, but what we do claim is the combination of the levers, roller and driving wheel, in the manner and for the purpose set forth.

To John Du Bois, of Greensboro', Ala, for improvement in Cotton Gins.

I claim the back ribs in combination with the front ribs, they (the ribs) being constructed with a horn or projection on each, behind which they curve downwards, to allow the saws to pass twice between the ribs, to remove the motes and other impurities, in the manner substantially as described.—[See Engraving in No. 51, Vol. 4.]

To G. W. Eddy, of Waterford, N. Y., for improvement in Car Wheels.

I claim the combination of the rods which connect the hub and rim with the plate or plates are protected against fracture from any sudden jar, and the hub prevented from being separated from the rim should the plate or plates break, as herein described.

To J. G. Goshon, of Shirleysburg, Pa., for improvement in Smit Machines.

What I claim is constructing the shoe [having the perforated plate for separating large extraneous matter from the grain] with a screw for separating the cockle and cheat from the grain, and an imperforated plate and spout for conducting the same to the outside of the machine as described.

To Thos. Hoyt, of New York, N. Y., for improvement in Curing Tobacco stems.

What I claim is the process of curing stem or other parts of tobacco with charcoal by combining or mixing the two together, substantially in the manner and for the purpose herein set forth.

To W. M. Hughes, of Howard Co., Mo., for improved Ore Washer.

What I claim is separating substances differing in specific gravity or washing metallic ores by means of oblique currents of water and a horizontal one passing over the same in a reverse direction, substantially in the manner herein described. The oblique currents being produced by inclined surfaces or their equivalents.

To Wm. Maguire, of Cincinnati, Ohio, for method of counterbalancing Sash by means of a heavy weight.

What I claim is counterbalancing the sash, (and consequently enabling it to be suspended at any desired point) by means of metallic racks within the window frame, these racks being operated by pinions rotating on fixed shafts within the window frame and these pinions being driven by other racks attached to the sides of the sashes throughout their entire length, the whole being constructed and arranged in the manner and for the purpose set forth.

To L. W. Miller, of Mesopotamia, Ohio, for improvement in connecting cutters to shafts of boring instruments.

What I claim is the fastening, by which the knives are affixed to the mandrel, being a keyed ring to sustain the shank of the knives firmly, in adjusting slots in the mandrel, substantially as above described.

To E. G. Pomeroy, of St. Louis, Mo., for improvement in coating iron with copper or its alloy.

What I claim, is, first, the before described process of coating and impregnating iron in all useful shapes and forms with copper or any alloy of which copper forms a part, the said process consisting of cleansing with sulphuric acid, defending the cleansed surface with a coating of clay or other aluminous earth—drying the same, and then plunging the article thus coated into a melted copper, or some alloy of that metal.

Second, I also claim the use of the clay paste to protect the metal from oxidating during the process of alloying or coating the metal plates, or pieces of iron, as herein set forth.

To Z. C. Robbins, of St. Louis, Mo., for improvement in Churns.

What we claim is the placing the inner surfaces of the series of outer blades, in positions tangential, or nearly so, to their circle of rotation, when they are combined with the inclined inner series of blades, substantially in the manner and for the purpose as herein set forth. Not intending, however, to limit myself to the exact number, proportions, positions, and arrangement of the dasher blades, as herein described and represented, but shall vary them to suit the different sizes of churns required for operating upon cream, whilst I attain the same results by means substantially the same as those herein particularly set forth.

To F. Slaughter & D. Perry, of Fredericksburgh, Va., for improvement in machinery for making Cotton Cordage.

What we claim is the constructing the nipper springs of parallel bars, (one or both of which may be made elastic,) having series of holes (or slots) formed in them for the reception of the connecting and adjusting screw bolts, for the purpose of enabling us to cause the several nippers to press with the same amount of power and elasticity upon the slivers during their passage through the nipper heads; and also to vary the elasticity of the springs as circumstances may require, substantially as herein set forth.

To James Spratt, of Cincinnati, Ohio, for improvement in alloys for points of lightning rods.

What I claim is the formation of an alloy, composed of English black tin, oxide of tin, antimony, bismuth, refined silver, platinum, and silic. In proportions as shown in the specifications, and for the purpose of being manufactured into lightning rod points.

To A. Welch and R. Walker, of Bennington, Ind., for improvement in Machinery for Dressing Shingles.

What we claim is the combination of two planes guided and moved to and fro in the

straight converging grooves with the spring-plates in front of the plane-irons for holding the slab, and those behind the plane-irons for discharging the finished shingle from the machine, the whole being arranged and operating as herein set forth.

To Wm. Wood, of Westport, Conn., for improvement in machines for cutting shingles.

What I claim is the mode of moving the carriage sideways, and forcing the same toward the knife, alternately, by means of the cams moving over the grooved shaft, by means of the bar and groove operating on the curved bars, cams, inclined bars, and bolts, arranged in the tubes, and pressed against the notches of the slotted bars by the spiral and other springs, the whole arranged and operated substantially in the manner and for the purpose herein set forth.

To O. Wright, of Rochester, N. Y., for improvement in Mills for sawing irregular forms.

I claim the mode of raising and lowering the table or platform on the segmental plates or bars for adapting the same to any thickness of timber to be cut, and keeping the middle of the timber, between its top and bottom, always in a line with the centre of which the segmental plates or bars form arcs of circles, through which (the centre) the saw passes, to prevent it from bending in the timber when sawing a curvilinear surface, by means of the ribs having slots near their ends, through which the screws which enter the segmental plates or bars, pass in the manner herein described.—[See Engraving in No. 3, Vol. 5, Sci. Am.]

## DESIGNS.

To H. L. Shepherd, of Dayton, Ohio, for Design for Stoves.

## RENEWAL.

To A. Morse, Jr., of Boston, Mass., for improvement in Capstans. Patented March 12, 1846.

The invention here claimed is the improvement of the ships or vessels' capstans, so that increased power may be obtained at pleasure as above made known, with the arrangement, application and adaptation of the several parts as described.

## Singular Electrical Phenomenon.

Messrs. Editors—In the fore part of the month of December last my attention was called by my wife to a piece of brown new silk folded up in a bureau drawer. On approaching it with a lighted candle, it being night, I observed it shining and sparkling with minute particles or atoms of various colors, some golden hue, others green, and some the colors of brilliant stars. When a hand was gently rubbed or drawn over its surface these sparkles vanished with a crepitating noise, and when another fold was opened the same phenomenon occurred. I wondered at the time whether these could be electrical atoms, but knowing that silk was a good retainer of electricity, and its fibres being brilliant, I was inclined to an opinion that the sparkling atoms were silk fibres.

On the 8th of the present month my attention was again called to this same piece of silk, which had been deposited in the same place. This time, it was in the day time, between 11 and 12 o'clock. I ordered it to be brought down stairs into my room, as gently as possible. Here I laid it in the light of a window, and I observed the shining atoms vanishing from its surface—much like the disappearance of fine dew drops. I raised another fold of the silk and passed my hand close to its surface, when the particles discharged with crepitating reports in the character of a *feu de joie*. As the folds were opened, these particles would vanish without the proximity of conducting substances, and peculiarly fast in the light. It appears to me that what I have only heretofore known to exist, I have now seen to exist. And I believe these particles were electrical matter. What think you of it, gentlemen? JOHN WISE.

Lancaster, Pa., Jan. 10, 1850.

N. B.—The other silk about the house did not exhibit the same phenomenon.

[These particles were, without doubt, electrical sparks. There are some colors more electrical than others; although we cannot say that they contain more electricity, but in certain conditions give it out. Thus, if red or

yellow silk is dried at a temperature of 300°, and taken immediately out of an apartment of that heat, long sparks of electricity will be given out by drawing the hand over it. We have often seen this phenomenon. Cotton yarn impregnated with alum, and dried at 300° Fahr., exhibits the same phenomenon. When either the silk or cotton becomes cold, the electrical phenomenon disappears. Brown silk is prepared with alum as a basis for the color, and both yellow and red dye are employed in the coloring of it. We have never seen a notice of the facts we state in any work on electricity, nor do we know if philosophers generally are aware of the same.—[EDS.]

## Great Meeting of Gas Consumers.—Prof. Grant's Light.

A very large meeting of gas consumers, was held in this city on last Wednesday, and a committee appointed to draft resolutions requesting the Legislature to investigate the affairs of the Gas Co. of the city. It seems that while these Companies furnish light to the inhabitants, their affairs are kept greatly in the dark.

Professor Grant explained a plan by which the City could be lighted at a five thousandth part of the expense now incurred. The light is of his own discovery, and the principal ingredient is nitrate of soda, which can be had in inexhaustible quantities in South America. The residuum of the soda after being used, would be more valuable than the article in its crude state. One of those lights placed in Broadway corner of Canal-st. on the top of a house, would enable a person to read throughout the whole of that street and neighborhood. He has one of them in use on the locomotive "Rough and Ready," on the Philadelphia Railroad line. By it the engineer can see three-quarters of a mile ahead, and is enabled to observe the switch-pole for half a mile.—The expense of that light for four nights was only 25 cents.

A committee of three were appointed to examine this new discovery and report upon it.

## The Importance of Conversation.

Daniel Webster said in the course of a speech at Dedham, Massachusetts, before the Norfolk County Agricultural Society, that "Every man obtained a great part of whatever knowledge he might possess by conversation and communication with others. Books indeed might do something in this respect, but nothing in comparison with free communication. If we should deduct from the aggregate of each man's knowledge, whatever he had learned by communication and conversation with his fellow-man, very little would be left and that little not worth much at best. It was intercourse with each other that made men sharp, and active, and enterprising."

Daniel Webster is right in his estimate of the value of conversation, but were there no books to read there would be very little conversation worth listening to, in our estimate of things. Books are the things that furnish texts for conversation, and we never knew any man whose conversation was very gifted, who was not a reader; every one knows this to be true.

## British India.

It contains 100,000,000 of people: is provided with an army of 300,000 men, who support costs \$70,000,000 per annum, the whole public revenue of India being only twice \$70,000,000. There are thousands of military officers brought from Europe, whose appointments are a source of patronage in the hands of influential men. In 1846, the public debt of India (apart from that of England) was \$187,000,000, the annual interest on which was nearly \$9,000,000.

## The Ocean Steam Navigation Company.

The proprietors of the New York, Southampton and Bremen line of steamships, have decided to resume the monthly communication between this city and Bremen, on the 20th proximo, instead of waiting until March as before announced. The Washington will sail first, and the Hermann on the succeeding month.

A piece of Lead Ore, weighing 1,500 pounds, was recently received at New Orleans from Arkansas. The ore is said to yield 120 ounces of silver to the ton.