



Reported expressly for the Scientific American, from the Patent Office Records. Patentees will find it for their interest to have their inventions illustrated in the Scientific American, as it has by far a larger circulation than any other journal of its class in America, and is the only source to which the public are accustomed to refer for the latest improvements. No charge is made except for the execution of the engravings, which belong to the patentee after publication.

LIST OF PATENT CLAIMS

Issued from the United States Patent Office FOR THE WEEK ENDING NOVEMBER 18, 1851.

To D. R. Hendrix, of Pottstown, Pa., for improvement in Boot Trees.

I claim the set screws, M and N, and plate, in combination with the screw G, substantially in the manner and for the purpose described.

To Alonzo Bascom, of East Jaffrey, N. H., for improvement in apparatus for Sizing and Dyeing Yarns.

I claim, first, the conducting of yarn or thread, from section or warper beams, directly into and through the size or coloring liquids, to the pressure rollers, by a series of rollers more or less in number, placed as nearly in contact with each other, as the nature of the case will admit—the closer the better—sufficient space being allowed between the fixed rollers, for the passage of the yarns or threads, thus enabling the said rollers to operate as guides to each and all the threads, to prevent them from matting or clinging together, and superseding the otherwise necessary use of reeds, raddles, or other separators.

Second, I claim the taking or making of a weaver's lease or leases, at the commencement of the process of warping, or beaming of yarn, or thread, on section or warper beams, and at proper intervals on the same, to correspond with required lengths of yarns or treads, on weaving beams, and preserving the same throughout the sizing and drying, thus dispensing with the use of hacks or lease takers, in the dresser, and the otherwise necessary stoppage of the dresser or sizer, for the purpose of tying or twisting together each separate thread.

To Thos. H. Dodge, of Nashua, N. H., for improvement in Printing Presses.

I claim, first, hanging the type bed and platen upon cranks on rotating shafts, and arranged and operating in the manner substantially as described.

Second, I claim the spring presser attached to the type bed or platen, for the purpose of pressing the band communicating motion to the sheet, against the opposite surface of the platen, or bed, and causing it to be moved at precisely the same speed as the bed and platen, substantially as described.

Third, I claim the arrangement for carrying and giving motion to the inking rollers, consisting of the barrel, the bals, and the lever, springs, and band, combined together with the above type bed and platen, in the manner substantially as set forth.

[See engraving on page 329, Vol. 6, Sci. Am.]

To S. Curtis, of Newtown, Ct., for improvement in machines for Cutting Combs.

I claim the wheel with the cutters placed on its periphery, as described, said wheel having a rotary motion, and also a vertical reciprocating motion, in a transverse line with its axis, for the purpose of turning or cutting comb teeth, substantially as described, said motions being given the wheel by means of the cams, levers, pawls, or their equivalent, as set forth.

To G. W. Gardner, of Albany, N. Y., for improvement in Stove Grate Bars.

I claim the manner described of forming separate grate bars for vibrating grates, rounded at their end, secured and working in grooves of the frame, as described.

To Henry Golden, of Greensboro', Miss., for improvement in Plows.

I claim a couler scraper, constructed as described, with a share and mould board projecting from the side of the landside opposite to that which the earth is thrown, the landside

thus extending from the point of the scraper to that wing of the mould board opposite the one to which it usually extends; and the several parts being so arranged, that the landside will run deep enough to hold the implement firmly to its work, the share will pare the ground and cut off the weeds near the roots of the plants, and the mould board will conduct the same towards the middle of the space between the rows.

To James Harle, of Victoria, Texas, for improvement in Propellers of Machinery to be used in Currents.

I do not confine myself to the exact mode of gearing described, as many modifications of the same may be used, and answer equally well; but I claim the application, for the purpose specified, of one or more levers, with the floats or blades at their lower ends, against which the current acts, said levers being attached at about their centres, to an adjustable frame, by a universal joint, as described, the upper ends of the levers being attached to cranks, by which, through any suitable gearing, motion is communicated to the shaft, substantially as described.

To Nehemiah Hodge, of Adams, Mass., for improvement in Railroad Car Wheels.

I claim connecting the tread or rim of a car wheel to the hub or central part thereof, by means of india rubber or other analogous elastic material, such elastic material being connected with the outer periphery of the central part of the wheel, by a groove on the latter, or its equivalent, and to the inner periphery of the rim also, by a groove thereon, or its equivalent, the india rubber holding itself in both grooves, by its elasticity, as described.

I also claim the grooved segments, constructed substantially as described, and interposed between the india rubber and the rim, for the purpose of facilitating the insertion of the india rubber into the space between the rim and central part of the wheel and its removal therefrom, as set forth.

To Jehu Hollingsworth, of Zanesville, O., for improvements in Mill for Grinding and Bolting.

I claim, first, the grinding of grain or other matter, by means of a revolving stone or metallic roller, and one, two, or more separately adjustable concaves, whereby high and low grinding may be performed simultaneously, and bolting the same the instant that any particles are ground fine enough, in combination with the returning on to the roller again all particles too coarse to be bolted, through the bolting concave, so that they may be ground over again and again, until they are fine enough to be discharged; and this I claim, whether it is done by means of the revolving beaters and brushes, which throw it up and through the pipe, or by any other means essentially the same.

Second, I claim the guides or partitions in the pipe, as described, to prevent meal from scattering endwise, in its transit from the bolting concave to the roller, in combination with the adjustable aprons, on which it falls, and which distribute and govern it in its passage to the discharging end, as described and set forth.

To Adam Lemmer, of Newark, N. J., for improvement in Cannon for throwing Chain-Shot.

I claim, in combination with the revolving head and the bores, diverging as described, the rack attached to the gun, and the worm wheel hung on the shaft, by which the gun is made to revolve or return to the desired position, so that the chain-shot may be thrown, either in a horizontal or vertical line.

To Gaspard Malo, of Dunkirk, France, for improved Screw Propeller.

I claim arranging two or more series of narrow blades, such as described, each series on a separate shaft and the shafts one within the other, and provided with keys or other equivalent means of securing them to each other, substantially as specified, so that the two or more shafts may be turned on each other and re-secured, to place the series of vanes directly behind each other, for sailing purposes, and at different points of the circle, for propelling.

To Isaac H. Morris & David Flanders, of Parishville, N. Y., for improvement in Desks.

We claim, first, forming the desk top in boxes, parts, or pieces, each of which may be separately raised or lowered, as required, through appropriate mechanical devices, substantially in the manner and for the purposes set forth.

Second, the employment of hinged double

leaves in the front of the desk, the same, when extended, forming a rest for the hand, and being made capable of closing down or in, essentially as described.

[See Eng. on page 12; this Vol. Sci. Am.]

To David F. Phillips, of Republic, O., for improvements in Railroad Switch.

I am aware that the relative position of the switch with the main track, or turn-out, or sliding track, has been changed by the action of mechanism attached to the cars, as well as by devices attached to the locomotive in various ways, and therefore I do not claim changing the switch by apparatus, or devices, actuated by the cars or locomotive. Nor do I claim constructing and operating a switch composed of a single movable section of the main rail. But what I claim is the employment of the additional movable sections, D D, in combination with the sections C C, forming the switch, whereby the lateral movement of each is halved or divided in opposite directions, and a more regular curve is produced than that resulting from the use of the single movable section or switch, and thereby insuring safety, the weight of the train of cars on one section of the switch forming a lock to the other section, as one section cannot move without the other, till the train of cars shall have passed therefrom, as set forth.

I also claim the combination of the double central lever bars, with the central connecting rock shaft, having two cranks projecting in opposite directions, to which are attached the cross-bars for uniting the double sections, whereby the switch is adjusted, as fully set forth.

To Wm. Redick, of Uniontown, Pa., for improvement in Seed Planters.

I claim the combination of the slides with the grooves (which "drill" in the grain) and the cells, so that by moving the slats towards the centre of the hopper, to close the communication with the grooves and open it with the cells, for planting in "check rows," or by moving both the slats towards the centre of the hopper, to close the communication between said hopper and the grooves and cells, and open it with the cells for planting in "step rows," the whole being arranged in the manner and for the purpose set forth.

To Wm. W. Riley, of Columbus, O., for improvement in inserting Porcelain Teeth.

I claim the mode of inserting teeth by forming the concave base, and of inserting the platina surface of the teeth in an oblique direction, and attaching them to the gum plate without stays.

To Hale R. Rose, of Guilford, Vt., for improvement in Stoves.

I claim placing the damper between the fire and hot-air flues, so as to control the amount of opening in each, respectively, and governing the same by expansion of the rod, substantially as described, for the purpose of regulating the heat of the oven.

I do not claim the expanding rod irrespective of its connection with the damper, placed as described.

[This improvement will, no doubt, soon come into general use.]

To H. J. Ruggles, of West Poutney, Vt., for improvement in Stove Grates.

I claim the inclined elevator for raising the back grate and coupling it with the front grate, and in combination the connecting the front and back grates with hooks or catches, constructed and arranged substantially as specified.

To John C. Fr. Salomon, of Cincinnati, O., for improvement in Spring Saddles.

I claim the movable pommel, the spiral spring or springs connecting the pommel and cantle, and the rawhide seat, all combined substantially in the manner set forth, making a spring-seat saddle tree.

To Vine B. Starr, of East Hampton, Ct., for improvement in Gongs.

I claim making gongs of sheet or plate iron or steel, with a rim all round, strengthened by a ring or band, the whole being coated and having the crevices, interstices, and all unsound parts filled with an alloy of copper and tin, or any alloy of a similar nature, or composed of similar metals to what is called bell-metal, substantially as set forth.

To Geo. Todd, of St. Louis, Mo., for improvement in finishing and balancing Millstones.

I claim inserting the balance rine in the eye

of a millstone, in the early stage of its construction, and then making use of the said balance rine, in conjunction with a chuck combined with a spindle, in completing the stone, substantially as set forth.

DESIGNS.

To Charles Muller, of Tompkinsville, N. Y., for Design for a Hat Stand.

I claim the design and configuration of a hat stand, representing a Triton, or similar figure, holding up the branches of a plant, in the manner aforesaid, with the basin lying in a bed of leaves or flowers, all arranged substantially as set forth.

To Frederick Fitzgerald, (assignor to S. C. Herring & John Ryer), of New York City, for Design for Iron Railing.

To Apollon Richmond, (assignor to A. C. Barstow & Co.), of Providence, R. I., for Design for Parlor Stove Grates.

Funnels of Steamships Affecting Compasses.

Capt. Johnson, R. N., has given considerable attention to the effect of telescopic funnels of steamships. In a letter to Col. Sabine, he says:—

"I wish you to bring under notice the following results which I obtained with reference to the effect of hollow iron cylinders upon the compass, when placed inside each other, the object being to ascertain whether the whole difference of deviation, under the two conditions of these telescopic funnels was due to the difference of their elevation and depression only, or whether a portion of the said differences was attributable to the induced magnetism of the separate parts of the funnel, when lowered, acting upon each other. As it would have required more time than could be afforded to hoist the parts of those huge funnels in and out of the ship, while the requisite succession of observations were made, I procured three hollow iron cylinders of smaller dimensions, their several diameters being such as to admit of one cylinder being placed inside of another, and leaving a space of about one-eighth of an inch between their surfaces. Having placed a standard compass on one of the pedestals in the observatory, and ascertained the magnetic meridian for the moment by the collimator, the largest or external iron cylinder (No. 1) was brought in and placed to the eastward of the compass, the principal mass of the cylinder being below the level of the needle and card, and its upper end being 2½ inches above that level. By this means a deflexion or deviation of 10° 10' was produced, the north end of the needle being drawn that amount to the eastward of the correct magnetic north. Cylinder No. 2 was next placed inside of No. 1, when the deviation was increased to 12° 15'. Cylinder No. 3 was then placed inside of No. 2, and the deviation was again increased to 14° 15', the north end of the needle being drawn to the eastward in each case. Hansteen's Magnetic Intensity instrument was then placed with the centre of its needle (as nearly as I could adjust it) in a similar position to that which the course of the compass had occupied, and the following results were obtained:—Time of 100 vibrations, starting from an arc of 18°—

Previous to the cylinders being brought into the observatory 6' 57"
No. 1 cylinder in place 6' 51"
No. 2 cylinder in place inside of No. 1 6' 47"
No. 3 cylinder in place inside of No. 2 6' 45"
The intensity instrument being removed, a dipping needle was then employed, and the following are the results of the observations:—

Dip.
Previous to the cylinders being brought into the observatory 68° 37'
No. 1 cylinder placed to the south of the instrument 70° 10'
No. 2 cylinder in place inside of No. 1 70° 27'
No. 3 cylinder in place inside of No. 2 70° 37'

The conclusion to be deduced from all these observations appears to be, that to the deduced magnetism of the surfaces of the cylinders acting upon each other is due a portion of the deviation; and reasoning by analogy, a similar deduction is applicable to the telescopic funnels of steamships."

It is said that a perpendicular waterfall has been discovered on the Sonomas river, Oregon, some distance above where it empties into Puget's Sound, of 260 feet.