



Reported Officially for the Scientific American

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING APRIL 27, 1852

VALVES FOR STEAM ENGINES.—By M. W. Baldwin, of Philadelphia, Pa.: I claim the arrangement in the valve chest of a steam engine, of a duplex valve, one part of which is actuated in the usual manner by valve gear, to admit steam from the boiler, to act directly on the other part and force it to open and close the steam or exhaust passages, substantially as described.

FILE CUTTING MACHINERY.—By John C. Blair, of Pittsburgh, Pa.: I do not claim a pattern for regulating the depth of the cut of the chisels; but I claim the combination of the pattern located between the cam and the chisel carriage, in the manner described, with said cam and carriage and the file carriage by which the pattern is moved, the whole arranged and operating substantially as set forth.

SHUTTLES FOR WEAVING HAIR CLOTH. etc.—By D. L. Dewey, of Hartford, Ct.: I claim the combination of the sliding bar with the springs when used in connection with stops attached to the shuttle boxes, or other convenient fixtures, so that the motion of the shuttle will slide the bar in such a manner that when one of the springs drops one piece of the wool or filling, the other spring will receive and confine another at the other end, so that the pieces may be carried through alternately from each side, and released or dropped in the right position to be beat up, when the whole is constructed and arranged as described.

HOLD-BACKS FOR SLEDS.—By Perry Dickson, of Blooming Valley, Pa.: I do not claim connecting the dogs with, and operating them by the backward pressure of the tongue; but I claim attaching the dogs to the roller rigidly, instead of to the runners, as is usual, and connecting the tongue to the said roller by hinges, or analogous joints, in such a manner that the backward motion of the tongue, in relation to the body of the sled, turns the roller on its axis and forces the points of the dogs so attached to it, into the snow or ice of the road, for the purpose set forth.

SMUT MACHINES.—By John M. Earls, of Troy, N. Y.: I do not claim a perforated case, the same having been heretofore in use; neither do I claim a spike rubber; nor a ventilator with spiral arms; nor scourers made of sheet or other metal. Nor do I claim the oil box at the top of the machine; nor the oil pipe for the lower bearing of the shaft; but I claim, first, the projecting screen chambers, in combination with the arrangements for separating the rubbing chamber from the fan chamber, whereby the grain is prevented from being affected by the blast from the fan chamber, while it is passing through the rubbing chamber; and is only brought in contact with the current of air where it ascends to take away the chaff and other impurities, substantially as set forth. Second, I also claim, in combination with the scouring surfaces, the beating forks, for the purpose of beating the grain and breaking the hulls, while falling from the rubber to the scouers, whereby the berries are more effectually cleaned from adhering impurities, as set forth.

STEERING APPARATUS.—By N. T. Edson, of New Orleans, La.: I do not claim any particular part of the apparatus as new; but I claim the combination of the forked and unforked pawls, with the ratchet, and with rubbers placed face to face and on the same side of the wheel.

Second, I claim the combination of the spring, the arms, and the cap piece with the relieving springs, whereby the pawls are supported with sufficient firmness, but at the same time permitted to have sufficient play to admit of the action of the said relieving springs, all as substantially set forth.

RAILROAD SWITCHES.—By J. F. Klein, of Trenton, N. J.: I claim the bars or shifters, constructed, arranged, and connected to the switches of a railroad, in the manner and for the purpose as described, so that if the train run in either direction, and the rudder be placed in either position, as described, and if the switch or switches are not in a proper position, the rudder will act upon the shifters and move them gradually, as the train approaches, so as to move and place the switches in such a position that the train may pass on unimpeded without the risk of running off the track.

GINNERS FOR LONG STAPLES OF COTTON.—By Calvin Willey, Jr., of Chicago, Ill. (assignor to himself and Uriah Walker, of Babcock's Grove, Ill.): I claim regulating the feed of a cotton gin for ginning sea island cotton, by means of an endless apron, which may be set to or from the feed rollers, to suit the quality of the staple and the quantity to be fed in to be cleaned, and still be driven by the same mechanical movement, as described.

I also claim, in combination with the covered feed rollers which receive the material from the apron, and carries it into the machine, the series of alternate brushes and elastic beaters on the same shaft, for combing out the fibre and knocking off the seed, whilst it is still held by said rollers, as set forth.

I also claim, in combination with the inclined chamber, through which the material is driven by the blast from the wings of the beaters, the inclined chamber having a cross blast through it, from the fan blower, to complete the entire separation of the fibre and the seed, both chambers being provided with screens, for the purpose set forth.

WARM AIR FURNACES.—By Alex. Kelsey, of Rochester, N. Y. (assignor to James Cowles): I claim the use of an equalizing flange, with the tubes attached, by which the air on each side of the radiating cylinder is warmed to about the same temperature, before entering the warm air-condensing flues.

MACHINES FOR PRESSING TOBACCO.—By Ephraim Parker, of Rock Island, Ill. (assignor to Alfred A. Parker, of St. Louis, Mo.): I claim the use of the revolving mould disc, combined with its revolving bed plate, with the scraper and roller, or their equivalents, for keeping the moulds free from the liquorice or juice of the tobacco, as described.

I also claim the use of revolving sinkers, constructed substantially as described, combined with the pan and cushion, or their equivalents, for keeping the same clean, and the combination therewith of mechanism for moving the sinkers a quarter of a revolution at every eight (more or less) number of pressings, as described.

I also claim the conductor, formed of endless aprons or belts, or their equivalents, for confining and retaining the plugs and pressure, until they are thoroughly consolidated, in the manner and for the purpose set forth.

STUD BRACE FOR BOILER FLUES.—By Andrew Lamb & Wm. A. Summers, of Hants Co., England; patented in England, Dec. 9, 1848: we claim the stud brace for bracing the flat surfaces of steam boilers, as described.

BRUSHES.—By Freeman Murrow, of Williamsburgh, N. Y.: I claim the double adjustability of the brush by means of the combination of the ball and socket joint and the sliding joint, or their equivalents, as set forth.

FLOAT GAUGES FOR STEAM BOILERS. etc.—By T. J. Sloan, of New York City: I am aware that a float placed within a boiler, or within a vessel communicating with a boiler, has been employed to regulate the position of ratchet hands, operated by an independent mechanism, to open and close a valve cock, or regulate the motion of a pump, the said float being employed, simply to engage or disengage the said ratchet hands; but when so employed, the said float has been so arranged as to act on the said mechanism outside the boiler, etc., and hence subjected to the difficulties above pointed out.

I do not, therefore claim the employment of a float to regulate the action of an independent mechanism as a means of indicating the height of water, and regulating the supply thereof, when such float acts upon such mechanism outside of the boiler; but what I claim is the employment, substantially as described, of an independent float, within a steam or other boiler, or other vessel, which, as its position is varied by the change of level of the water, shall act as a check or stop to the motion of a mechanism combined therewith, and operated by an independent motive force, outside of and passing through to the inside of the boiler, substantially as described, to determine the supply of water to be given, or to give the required indication or alarm, as specified.

I also claim the method described of preventing the action of the mechanism outside, which is actuated by an independent force, from re-acting on and changing the position of the float, that it, the float, may be free to follow the varying level of the water, as specified.

SELF-LOADING AND DUMPING CARTS.—By E. T. Stowell, of Wadham's Grove, Ill.: I claim the manner of opening and closing the slatted bottom of the cart body by means of a bar which is jointed to the rear edge of the foremost slat, and which, when its rear end is unfastened, descends vertically and allows the whole series of slats to be operated simultaneously by the action of the weight within the cart body pressing upon the same; and when the rear end of the said bar is drawn rearwards and upwards simultaneously actuates the whole series of slats, and thereby closes the bottom of the cart body.

STEERING APPARATUS.—By A. Swingle & N. Hunt, of Boston, Mass.: We are aware that the steering gear and rudder head have been connected together and the tiller made to rise and fall with them, and therefore do not claim such an arrangement. But we claim the construction and arrangement of the tiller and rudder head, as described, in combination with steering gear entirely separate from the rudder head, the tiller being connected with the latter and attached to the former, in such manner that when the rudder is unshipped or raised unusually high by striking the bottom, the tiller will be disconnected therefrom, without danger of breaking either the steering gear or the rudder head, or being itself broken.

BOXES FOR JOURNALS.—By Henry Turner, of Charlestown, N. H.: I claim making the cap box in the manner described, that is to say, of alternate pieces of hard and soft metal, arranged in a helical position, by which, together with the circular end pieces, the soft metal is kept in place, and friction and injury to the axle prevented, substantially as described.

CULTIVATORS.—By T. J. Ball & J. Post, of Pittsfield, Mich.: We claim the construction of the long metallic inclined blades, on the after part of the machine for cutting the sods and lumps, and pulverizing the ground, as set forth.

COOKING STOVES.—By S. H. Sailor (assignor to North, Harrison & Chase), of Philadelphia

PORTABLE FURNACE.—By James G. Abbott & A. Lawrence, of Philadelphia, Pa.

Patent Law Reform.

MESSRS. EDITORS.—The remarks in your paper of the 17th inst., referring to the 8th and 12th sections of the proposed Bill for the amendment of the Patent Laws, direct attention to matter of considerable importance. Extending, or varying the subject of reform, as regards these laws, I would intrude upon your valuable space by offering a few observations on the present rules and provisions relating to the filing, &c., of Caveats. What a chapter of disappointments could the confidential archives of the Patent Office disclose, were the veil of secrecy withdrawn and all the embryo bantlings of inventive genius made bare! How many a novel but impracticable idea should we find! And yet, new or old, practicable or impossible, the requirements of the law are the same. An inventor has conceived, in general outline, what he believes to be a new and useful mechanical device; he obtains the protection of the law afforded him by caveat; proceeds, free from the dread of piracy, to experiment, and finds—alas, poor Yorick!—that practice fails to establish what theory had promised. This caveat, he has been told, was gratuitous protection. (What a utopian fallacy is law "for nothing.") The twenty dollars paid were simply two-thirds the application fee in advance; but the bubble having burst—the imaginary invention having proved itself a "gay deceiver," two courses of procedure alone are left, which are, either to sacrifice the twenty dollars paid; or, for the recovery of that, become cent-wise and

dollar-foolish, by submitting to furnish the office with a model of a device that won't act and a specification of a "new and useful (?) improvement descriptive of the same. Ten more dollars having been paid, a withdrawal of the twenty may then be made, and the scientific or mechanical idiot made a sentinel in the "tombs," to scate away more successful applicants or weaken the claims of perfected discoveries.

Messrs. Editors, I would respectfully inquire from you, is there no room for reform in the law relating to Caveats? G.

Washington, D. C., April 24.

[The reform for a Caveat, is to require good drawings for the invention, so far as it is completed, with a particular description and claims. The caveat, then, would be like a patent specification in contested cases—is all we can suggest at present—Ed.

The Lakes and Salmon.

MESSRS. EDITORS.—I am somewhat surprised to see in your paper of the 24th inst., the article headed "Mystery of the American Lakes," from the "Welland (C. W.) Advocate;" you so seldom err on subjects of philosophy, that we might indulge an occasional hoax, if we could feel sure you did not believe in it yourselves; but to tell about a "subterranean passage between the upper lakes and the ocean," through which salmon and herring can pass, is starting a fish story that the famous captain of a whale ship, who held the sea serpent at the bottom of the ocean fifteen hours, would hardly endorse. Having spent forty years of my life along the shores of those upper lakes, and having never found a man old enough, or cunning enough to have caught a salmon (of the lower lake species) in any of the upper lakes, before the opening of the Welland Canal, I am willing to believe that through this canal their first entrance was effected,—but had they been plenty as cat-fish and sheep's heads, I should have been satisfied to consider their existence in those waters, as dating back to the time when the ridge that forms the Falls of Niagara was ocean's shore; or, that an Indian or a fish-hawk had accidentally deposited, above the Falls, booty from the lakes below, rather than suppose an under-ground tunnel some two or three hundred miles long, and sufficiently large to admit the passage of the unaccounted flow of water which the writer seems to think is not evaporated and "does not pass through Detroit river." As Lake Huron is at least 280 feet above Lake Ontario, no large body of water could pass from one to the other without occasioning a vast whirlpool at one end of the passage, and an immense boiling jet at the other; and any periodical passage of herring and salmon would be less likely to account for the flux and reflux of the lakes, than the increased amount of snows and rain that fall some years contrasted with others.

Had the writer contrasted the steady and uninterrupted flow of the Detroit river, with the gushing and diminished flow of the fitful streams which feed the lakes, and then deducted for evaporation on the liberal scale of Nature's works, he would probably have found the under-ground passage between Lakes Huron and Ontario too small for an old salmon to swim up. J. E. HOLMES. Holyoke, Mass., 1852.

[To friend Holmes, we must say, this is not a question of philosophy, but one of fact, like the statement of a witness. We made no remarks upon the probability or improbability of a subterranean communication between the lakes, apart from the statement "are herring and salmon found in lakes and rivers above the Falls?" We are now informed that salmon pass up through the Welland Canal, and the herring must also pass through the same source if found above the Falls. Subterranean rivers are not wonders; but if salmon were found in the upper lakes, and they having no communication with the ocean, this would be a wonder—such an one as our faith would be too weak to embrace, for the salmon only comes to fresh water to spawn.

Editors.

The life of an editor is comparatively short. He wears out before his time. The exacting toil he pursues, which is rarely, or never broken by a solitary day of relaxation, shatters his nerves, exhausts his vital energies, and

makes him gray-haired almost in middle age. To him the course of nature is reversed, and night is turned into day. He labors when other men sleep. Nothing tells sooner on the constitution than this. The close room in which he usually sits, the stifling odors of damp newspapers from the mail, and the blinding glare of the gas-lights increase the wear and tear upon his system, so that he is a fortunate member of his profession if he does not give out entirely before he is fifty years old. Nothing but distinguished success and the consequent ability to lighten his toil by employing substitutes, can save him from this irresistible doom.

[The above, taken from the Boston Museum, is a true picture of an editors life. Who coveys it?

Remington's Bridge.

Some few years ago the Remington Bridge was spoken of all over the country as a mechanical wonder, and the model excited much attention in London. One was built at Montgomery, Alabama, of which the State Register gives the following account:—

"Remington's Bridge, after standing for months in a very tottering condition, has now broken in two about the middle, and fallen into the ravine. Soon after its completion it was tilted to one side by the wind and its own weight, and never righted—the slope being too great to allow the passage of vehicles. It stood unused, a monument of humbuggery, for more than a year; and we presume that its destruction will convince even the most decided believers in Remington's theory, that his plan will not answer for long and heavy structures, which, as in the case of the bridge here, will break with their own weight, after losing their original balance, by the action of the weather. The bridge, we believe, was never accepted by the Council, and the city, therefore, loses nothing by its unfitness and demolition. It was built under the supervision of Remington himself, and must have been a costly work."

Iron Flags.

There is no end to the new purposes for which iron is beginning to be used. At Cincinnati, they are taking up the broad flag stones, which are laid down for foot passengers at the crossings of the streets and substituting iron plates. The Cincinnati Commercial says:—

"The broad iron plates, which are laid from the sidewalk over the intersections of many of our streets, is one of the best investments the city ever made. If physicians and others, who have much driving to do about town, do not appreciate the comfort of these plates, the springs of their wagons and carriages do.

[If these plates are not very rough on the surface, they will soon wear slippery; in that case, pedestrians must look well to their feet in wet and sloppy weather, or down they will go. Foot passengers wear out cast-iron plates faster than carriages and horses.

A New Clock for the City Hall.

We notice, by the late proceedings of the Common Council that arrangements have been made with Messrs. Sherry & Byram, of Sag Harbor, L. I., to place one of their high-grade clocks in the cupola of the City Hall. Our city has always needed a general "Regulator," and from the high reputation of those gentlemen, our citizens may soon expect to possess the great desideratum—a universal standard of time, as a guide for one railroads, steamboats, &c., as well as for all branches of business is what we all devoutly wish for.

By private letters from Nineveh, we learn that Colonel Rawlinson, who is now conducting the excavations abandoned by Mr. Layard, "has opened out the entire place of sculpture of the Kings and Queens of Assyria." "There they lie," we are told, "in huge stone sarcophagi, with ponderous lids, just as they were deposited more than 3,000 years ago."

A physician of Prague has just died a real "martyr of science." He had been in the habit of taking strong doses of poison, after swallowing an antidote, in order to note the effects. On the 23d ult., he took so large a quantity of morphine that all the efforts of some medical friends present at the exhibition could not save him.