



Reported Officially for the Scientific American. LIST OF PATENT CLAIMS Issued from the United States Patent Office FOR THE WEEK ENDING JULY 22, 1856.

REACTING WATER WHEEL—A. Munroe, of Worcester, Mass.: I do not claim the scroll, A, nor the concave buckets, d, when separately considered, for they have been previously used. But I claim:

The scroll, A, having the guide or deflecting plates, a, attached to it, the wheel, B, provided with the concave buckets, d, and the plates, e, attached to its arms, c, the parts being arranged and combined, as shown, for the purpose specified.

TAPPING FLUIDS UNDER PRESSURE—J. P. S. Otter, son of Nashua, N. H.: I claim, first, the employment of a chamber, C', of sufficient capacity to contain the cock, I', together with the necessary tools for inserting the same in any pipe or vessel containing water under pressure.

VALVE FOR TYPE CASTING MACHINES—Edward Pelouze, Jr., of Philadelphia, Pa.: I am aware that a stopper operated by machinery has been used in connection with the nipple of type casting machines. This I do not claim.

SELF RAKER—S. G. Randall, of Rockford, Ill.: I claim the railway carriage, P, when constructed, arranged and operated in respect to the platform, B, substantially as and for the purpose set forth.

REPEATING FIRE ARMS—C. S. Pettengill, of New Haven, Conn.: I claim, first, in combination with the arrangement of the main spring, to work on a pivot, s, as to be capable of relief from all strain, except at the time of firing, I claim the application to the said spring, of a spring, F, operating upon it as described, to draw back and effect the cocking of the hammer, substantially as described.

FIXED CARTRIDGES—George Buckel and Edward Dorsch, of Monroe, Mich.: We do not claim broadly, the use of two or more balls or a tail and shot in the same cartridge.

PERCUSSION TAPE PRIMERS—James Chittaway, of Springfield, Mass.: I claim the improvement of substituting paper, metal, hermetically sealed, and soldered of the continuous band so as to make it impervious to water, weather, or climate.

VIBRATORY STEAM ENGINES—Wm. Darker, Jr., of West Philadelphia, Pa.: I do not claim the interposition of water between the steam and the working parts of a steam engine.

ARTIFICIAL HANDS AND ARMS—John S. Drake, of Boston, Mass.: I claim the ratchet, 3, and pawl, 4, in the elbow joint, to sustain the fore arm at the proper position relatively with the stump, substantially as specified.

SELF-ACTING ELECTRIC TELEGRAPHS—Moses G. Farmer, of Salem, Mass.: I do not claim arresting the motion of the type wheel by a positive stop upon the key which interrupts the motion of the wheel whenever a key is depressed, and at a moment when the circuit is broken as in the telegraph of Siemens and Halske's.

MOLDING AND PRESSING BUILDING BLOCKS FROM CLAY, &c.—Ambrose Foster, of New York City, and George M. Foster, of Fairhaven, Conn.: We do not claim a sliding hopper, nor do we claim a core placed within a press box for the purpose of molding hollow bricks, for these devices have been previously used.

RELIEVING STEAM SLIDE VALVES FROM PRESSURE—H. H. Worthington, of Brooklyn, N. Y.: I claim transferring steam pressure from the back of a steam slide valve to a fixed point, by means of a piston and vibrating link, substantially as described and for the purposes set forth.

VALVES OF ACCORDEONS—C. M. Zimmerman, of Philadelphia, Pa.: I claim the employment of the valves of accordeons in connection with sliding rollers, acted upon by the keys and regulated by stops, substantially in the manner set forth, for the purpose of producing from the actuating of one key, a variety of different tones by the simple pressure of the stops.

FOLDING GUIDES OF SEWING MACHINES—B. C. Boyes, assignor to himself and H. Dercum, of Philadelphia, Pa.: I do not confine myself to the precise shape of the metal plate, B, as shown, to the precise arrangement of the guard, b, b', in respect to the plate, or to the number of helical or slit rings shown.

PLAINING MACHINE—Asahel Lockwood, of Chicago, Ill., assignor to L. B. Flanders, of Cleveland, O.: I claim the support, I, with its circular dovetail grooves, a, a', or their equivalents attached to the bed piece, B, together with the vibrating table, K, turning upon the center pin or king bolt, L, and in combination therewith the adjustable guide, M, and the sliding head, N, so adjusted and combined that a greater or less vibratory motion can be secured to the table, K, by means of the adjustable guide, M, by bringing it out of parallelism with the ways, C, C', and the bed, B, in the manner and for the purpose set forth.

SEWING PINS UPON PAPER, &c.—E. S. Woodford, of Winchester, Conn., assignor to J. R. Keeler, of New York City: I claim the roller or separator, marked B, made of india rubber or other elastic substance. Also, the turn table, marked C, for receiving and changing the pin from one place or position to another, or their mechanical equivalents.

CHAIRS—James Fernald, of Boston, Mass.: I claim the oval back rest, D, or its equivalent, when made to rotate in manner and for the purpose essentially as described.

CUTTER HEADS FOR PLANING MACHINES—Lewis M. Berry, of Boston, Mass.: I claim the application and use of the pieces, I, and M, substantially in the manner and for the purposes set forth.

ATTACHING SLEIGH BELLS TO STRAPS—Abner G. Bevin, of Chatham, Conn.: I claim making the bells, B, without shanks, and having holes, e, made through them to receive the staples, b, which pass through the strap, A, and cover, c, substantially as described for the purpose set forth.

DOOR KNOBS—Jeremy W. Bliss, of Hartford, Conn.: I claim the employment of the intermediate piece, c, having a cut or rucked surface corresponding to and secured upon the spindle by the set screw, d, at any desired point, in the manner described.

DRIVING CIRCULAR SAWS—John Broughton, of Chicago, Ill.: I claim the sliding frame, C, placed and working between the horizontal and segment guides or ways, b, e, in the frame, A, the frame, C, having the saw, s, placed within it and driven by the belt, f, g, from the shaft, J, arranged relatively with the frame, C, as shown and described, for the purpose specified.

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FELTING HAT BODIES—Lansing E. Hopkins, of Brooklyn, N. Y.: I claim, first, the combination of the beaters, the revolving belt, and the beater heads, operating substantially as described.

HARVESTERS—Stephen Hunter, of Cortlandt, N. Y.: I do not claim the rotary cutters working within or through the slotted fingers, separately, or in themselves considered, for they have been previously used.

CUTTER STOCK FOR METAL PLANERS—Joshua Mason, of Paterson, N. J.: I do not claim a swinging or adjustable cutter stock, irrespective of the arrangement of the same, as shown and described.

SAWING STONE OR MARBLE—Matthew J. McBird, of Logansport, Ind.: I claim the combination of the turn table, D, and the lateral moving platform or bed, E, when connected and arranged substantially as shown, so that when the turn table, D, is revolved, the stone or marble, F, will be brought in oblique position under parallel moving saws, h, while the platform or bed, E, when that is given a lateral transverse movement to the parallel position of screws, h, the stone or marble, F, is given a corresponding movement and brought to the position required, for the purposes set forth.

POLISHING MACHINES—John Moore, of Gardiner, Me.: I claim the general construction of the machine substantially as described, having a rubber, R, revolving by power, and so constructed as to be readily applied whilst in motion to all parts of the work as required.

MARBLE SAWING MACHINE—John M. Mott Jr., of Lansingburgh, N. Y.: I do not claim the manner of suspending and driving the saw gate, nor the method used for raising the same, nor the mode of supplying water to the saws, nor the use of adjustable guide bars, guide rods, and slides, for these have been long known and much used.

COTTON GINS—James B. Miles, of Chicot, Ark.: I claim the arrangement of the swing board, L, in combination with the mechanism described, so that the varying size of the roll of cotton in the gin shall govern the feed and keep it uniform, or nearly so.

RE-ISSUES. METALLIC PEN—A. W. Rapp, of Philadelphia, Pa.: Patented Jan. 6, 1852. I claim reducing or thinning the sides of the pen at a, between the shoulder, A, and split, c, whereby the advantages stated are free y attained, and the metallic pen made to possess the qualities of the quill pen.

RAKING AND LOADING HAY—Joseph Smith, of Concord, Ohio. Patented June 3, 1856. I claim the combination of rake, S, with spring guard plate, S', and fork, P, the whole being arranged and operated in the manner and for the purpose set forth.

ADDITIONAL IMPROVEMENT. GAS HEATER—Wm. F. Shaw, of Boston, Mass. Patented Jan. 23, 1855. I do not claim the application of a boiling chamber, to a heating apparatus, but as an improvement on the peculiar gas heater, patented by me as specified, I claim the arrangement therein in manner, as described, of a separate or boiling chamber, G, that is attached to or between the fue pipe, E, and the reverberating dome or space, F, substantially as described, in order that the apparatus may be made to perform functions, as stated.

THE POISON STRYCHNINE. This drug, which has lately become so notorious for destroying the lives of human beings—as in the case of the infamous Dr. Palmer, recently executed in England—is a most deadly organic poison. A dog has been killed with the sixth part of a grain of it, and a human being with less.

When introduced into the stomach it acts with fearful energy, causing lock-jaw immediately, violent spasms, and death in a few minutes. It is odorless, but so intensely bitter as to be perceptible to the taste when one part is diluted in a million parts of water. The composition of strychnia is carbon 44, hydrogen 24, oxygen 4, nitrogen 2 equivalents. It is colorless, and forms soluble crystallizable salts. It is an alkaline base, and is extracted principally from the *Strychnos nux vomica*. The tree from which it is obtained is of moderate size, and grows in several parts of the East Indies and the island of Ceylon.

Its fruit are large orange-colored berries, the pulp of which is the favorite of many birds. The seeds contain the deadly poison. They are flat and round, about an inch in diameter, and gray in color. These seeds were used as a medicine, and as a poison, by the Hindoos, long before they were known in Europe. Many of the natives of Hindostan often use it as people use opium.

They commence with taking the eighth of a nut a day, and gradually increase their allowance to an entire nut, which would be about twenty grains. If they eat it directly before or after food, no unpleasant effects are produced; but if they neglect this precaution, spasms are the result.

The bark of the tree is also poisonous, and from its resemblance to Angustura or Cusparia bark, a tonic medicine imported from South America, caused a great deal of alarm and excitement in Germany, in the early part of this century, by being mixed with that bark. No sure antidote has yet been discovered for this

poison, but some chemists have attained to great skill in detecting it, when administered as a poison. The following is Dr. Thompson's method of detecting the one-thousandth part of a grain:—

Having placed a drop of strong sulphuric acid on a piece of glass, add to it a small quantity of the suspected substance, and stir the whole together, so as to favor solution; then sprinkle over the mixture a little powdered bichromate of potash, and gently move a glass rod through the fluid. If strychnia be present, a violet color of considerable beauty will be almost immediately produced which, after a few minutes, will fade into a reddish yellow, but may be renewed by the addition of more bichromate, so long as any strychnia remains undestroyed in the mixture. In this way the thousandth part of a grain of that alkaloid may be made to yield a very decisive indication. The points to be noticed are, that sulphuric acid alone produces no apparent effect, and that the action begins at once round each particle of the bichromate, so that if the glass be held in a vertical position, streams of a violet colored fluid may be seen to flow from each particle; and if at this time the whole be slowly stirred, the entire bulk of the fluid will speedily assume the same characteristic tint.

Railroad Accident.—The Verdict. The Coroner's Jury, in the case of the terrible railroad accident on the North Pennsylvania Railroad, mentioned by us last week, is, that "the collision was caused by the criminal negligence of Alfred Hoppel, the conductor of the excursion train, who carelessly and negligently run his train beyond the siding at Edgemoor."

This conductor is now in jail. The total number of the dead by this accident is 66; wounded, over a hundred. Will any person be punished for the criminal negligence which caused this accident? Let the people of Pennsylvania answer.

More American Printing Presses for England. The Illustrated London News announces that it has contracted for one of Hoe's printing presses, and the London Times has also ordered a very large one.

At the Complimentary Supper given by the proprietor of the New York Sun, a few years ago, to Col. Hoe, when the first large press was put up in the Sun Establishment, James, the Novelist, who was present, said, "Westward Hoe" had become a byword, but "Eastward Hoe" would soon supersede it. He said this in reference to a demand that would yet arise for such presses in Europe. His prediction is now fulfilling.

Recovery of the Lost Telegraph Cable. About 50 miles of the above cable has been recovered by the Telegraph Co. They fitted out a brig from Cape Breton, with fifty men and a powerful capstan, and they have fished up the above length of it, leaving thirty miles lying in the ocean. With \$50,000 of insurance recd on it in London, the Company have recovered nearly all they had paid out for it.

Bust of Columbus. Mr. A. Herbemont, U. S. Consul at Genoa, Italy, possesses the only bust of Columbus now in the native city of the great discoverer. Mr. Herbemont found a bust in the Campidoglio, at Rome, which was the only one in Italy, except one at Naples. From the former he procured two casts, one of which was sent to the South Carolina College Library, at Columbia, and the other is in the U. S. Consulate Office at Genoa.

Death of an Artist. Thomas Doughty, a distinguished American landscape painter, died in this city on the 23rd inst. His last days were passed in comparative poverty, and he has left a destitute family.

A portion of the rock over which the water falls at the Falls of St. Anthony, gave way for a distance of about fourteen feet from the Minneapolis side, on the 6th July. The break does not diminish the height of the fall any, but removes that portion of it some distance further up stream.