

Messrs. Hecker and others throughout the country, is the acid constituent of Horsford's self-raising bread preparation and of the Rumford Yeast Powders, which have come into such extensive use.

DOUBLE-WALL ICE PITCHERS.

The following letter from Professor S. Dana Hayes, State Assayer of Massachusetts, contains facts that should be read by all persons that have occasion to buy or use double-wall ice pitchers.

STATE ASSAYER'S OFFICE, No. 20 State street, Boston, Jan. 23, 1868.

Messrs. REED & BARTON, Taunton, Mass.: Gentlemen: I have been much interested in investigating the corrosion of linings for ice pitchers, and the consequent poisoning of the water, after standing in them.

The lining, or inner chamber, of the greater part of the ice pitchers in common use is made from two different metals or alloys. As it is necessary that the bottom should be quite strong, to resist the blows from the ice when carelessly thrown in, this part has been made of nickel silver, copper, or other hard metal, while the sides of the chamber are generally made of britannia or "white metal," the two parts being soldered together and then silver-plated.

The corrosion of this lining and solution of the metals in water naturally results from this mode of manufacture; because these different metals, in contact, under water, form a galvanic arrangement. If a silver coin be placed above the tongue, and a piece of zinc below, allowing the edges to come in contact, a metallic taste will be perceived in the mouth, from the galvanic action and solution of one of the metals.

Several of these linings, made as above and in common use, have been examined; some of them are very badly corroded, and it is noticeable that the solder has been first attacked. In one of these a nearly pure water was left for several hours that the effect might be noted.

In 1 hour the water contained traces of lead and copper. In 4 hours the water contained 0.7 grain of lead and copper. In 12 hours the water contained 1.6 grains of lead and copper. In 24 hours the water contained 3 grains of lead and copper.

And, with a natural well water, this action is still more energetic.

It is hardly necessary to tell you, that metallic poisoning is one of the greatest enemies we have to contend with in the struggle for life, and it is common knowledge that lead and copper are highly poisonous and accumulative.

I have also submitted your new patent lining to careful chemical tests. This is formed from one piece of metal, without any seams, or soldering, the bottom being strengthened on the outside. There is no galvanic action here.

Analyses—This lining was nearly filled with the same water as the other, the temperature and all other conditions being the same in both cases. After standing for forty-eight hours the water did not contain a trace of metal. It was then boiled in the lining for an hour, and analyzed twice during that time, but it was still perfectly free from metals of any kind.

It is certainly fortunate that you can make these linings from one piece of metal, to take the place of the others, as a safe ice-pitcher is a great luxury.

Respectfully, S. DANA HAYES, State Assayer of Mass.

Polishing Powder for Gold Articles.

Dr. W. Hofman has analyzed a polishing powder sold by gold workers in Germany, which always commands a very high price, and hence, it may be inferred, is well adapted for the purpose. He found it to be a very simple composition, being a mixture of about 70 per cent of sesquioxide of iron and 30 per cent of sal-ammoniac.

The Steam Man.

This automaton, which has furnished a number of paragraphs for the press, is on exhibition at 538 Broadway, New York city, nearly opposite the site of Barnum's Museum; but owing to some objection on the part of the owner of the hall, he is not permitted to "travel on his muscle," but is hung in slings and merely "marks time," as our military friends would say.

ELECTRICAL JEWELS.—One of the latest Parisian novelties is a scarf pin for gentlemen's wear in which a curious application of electricity is introduced. The pins are finished with imitation human heads the eyes of which are made to open or shut at the will of the owner.

OFFICIAL REPORT OF PATENTS AND CLAIMS

Issued by the United States Patent Office.

FOR THE WEEK ENDING MARCH 10, 1868.

Reported Officially for the Scientific American.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:—

Table with 2 columns: Fee description and Amount. Includes items like 'On filing each caveat', 'On filing each application for a patent', 'On appeal to Commissioner of Patents', etc.

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$50 on application.

Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific American, New York.

75,234.—BOAT DETACHING BLOCK.—Nelson B. Adams, San Francisco, Cal.

I claim in combination with a block the jaws, E E, with the long arms, F F, the short levers, H H, with shoulders, A A, and a knee joint, the operating lever, J, having its fulcrum at G, and pivoted to the knee joint, I, the whole constructed, combined and operating as a detaching apparatus, substantially as and for the purposes herein described.

75,235.—LEAKAGE MEASURE, ALARM, AND INDICATOR.—Thomas P. Akers, New York city.

I claim, 1st, Providing for indicating the height of leakage water in the hold of a vessel by means of weights of greater specific gravity than water, suspended from a pulley, so that one of the weights shall rise and descend with the rise and fall of the water, and the other make similar movements, but in a reverse manner, and by its movements communicate motion to registering, indicating, and alarm mechanism, substantially as described.

2d, The combination of a leakage measure which consists of two weights, and a chain, which is arranged to unwind from a pulley as fast as it winds upon the same, with an alarm, or with an indicator, or with a combined alarm and indicator, substantially as described.

3d, The combination of the wheels, L, L', chain, F, weights, G, G', pulley F, and disks, C, C', substantially as and for the purpose described.

4th, The combination of a leakage measure, operating substantially as described, with the figured disks, the alarm devices, and gearing, L L' and M, substantially in the manner and for the purpose described.

5th, The curved piece, B, constructed and applied to the hammer arm substantially in the manner and for the purpose described.

6th, The combination of the weight, G, cylinder, H, pendulum, K, and double-acting poppet valve, substantially as and for the purpose described.

7th, Arranging all the gearing, the alarm devices, the indicating disks, and the pulley of the weight chain or cord, upon a frame or spider of the case, A, substantially as described.

75,236.—FLOOR CLEANER.—Abraham Armstrong, Newburg, Ohio.

I claim in a floor cleaner, as described, adjusting the rubber and intervening plates by means of the set screws, for the purpose set forth.

75,237.—COLTER HOLDER.—Jefferson Aughe, Dayton, Ohio.

I claim the combination of the plates or disks, C, colter, B, beam, A, and bolt, e, substantially as described and for the purpose specified.

75,238.—APPARATUS FOR BURNING CRUDE PETROLEUM.—Henry Baldwin, Titusville, Pa.

I claim, 1st, A reflector, e, as arranged to surround the supply pipes and a portion of the heater, and used in combination with the same, substantially as and for the purposes set forth.

2d, The reflector, f, as arranged with relation to the heater, when used in conjunction with the same, substantially as and for the purposes set forth.

3d, The supplementary reflector, g, and blow pipe, h, as arranged with relation to the reflector, f, and heater, a, substantially as and for the purposes set forth.

75,239.—BOLT THREADING MACHINE.—Wm. B. Bement, Philadelphia, Pa.

I claim, 1st, For opening and closing the dies while the machine is in motion, two or more cranked or eccentric spindles, f, each carrying a toothed segment or pinion, adapted to internal teeth in a loose disk, which is controlled partly by a spring, d, and partly by the friction clamp herein described, or any equivalent to the same, the whole being combined with the spindle of a screwing machine substantially as specified.

2d, The cutting die, l, secured to the blocks, n, n, but admitting of an adjustment independently of the latter, substantially as specified.

3d, The pump, with its piston and spring, in combination with the spindle, B, and its eccentric or cam, substantially as and for the purpose herein set forth.

4th, The within-described lever, spring pawl, i, and rack, arranged for operating the sliding head or plate, substantially as set forth.

75,240.—PROCESS OF PURIFYING IRON AND STEEL.—John F. Bennett, Pittsburg, Pa. Antedated Feb. 28, 1868.

I claim a process of purifying iron, steel, or other metal, by introducing atmospheric air, or other gases or vapors, when introduced into the body of molten iron or other metal, in combination with or immediately following the pneumatic process, for the purpose of removing sulphur, phosphorus, and any other impurities which will form chemical combinations with the oxygen of the carbonic acid, and deposit the carbon substantially as hereinbefore described.

75,241.—METRONOME.—Hiram S. Blunt, New York city.

I claim the adjustable rings or plates, A A' A'', separated or united, in the form of a drum, with pins or stops, n n n, secured to and forming a part of the movable shaft, C and B, in combination with the index or hand, d, and with or without the dial, D, for the purpose of indicating the number of beats in a bar of music, in the manner substantially as described and shown in the drawings.

75,242.—MODE OF PRESERVING EGGS.—Joseph Brakeley, Hordentown, N. Y.

I claim the preservation of eggs of hens or other fowls in the manner substantially as set forth above, that is to say, by drying them within their natural integument.

75,243.—BRICK CARRYING CAR.—John K. Caldwell, Pittsburg, Pa.

I claim, 1st, A series of tables, b, resting and turning on recesses in the supports, a, in a brick drying car, substantially as and for the purposes set forth.

2d, A brick drying and bearing car, the supports, a, having ledges, e, incline, c', and tenons, e, constructed and used substantially as and for the purposes set forth.

3d, The combination of the tables, b, supports, a, ledges, c, inclines, c', and tenons, e, in a brick drying car, when constructed and arranged as and for the purpose specified.

75,244.—LETTER BALANCE.—Benjamin Chambers, Jr., Washington, D. C.

I claim the knife edges in holes passing through the lugs, as herein described, and covered, the covering plate at one end being fixed, whereby the knife edges are kept in place, and can be readily removed when it is required to remove them.

75,245.—PROCESS OF DEODORIZING AND REFINING SACCHARINE AND OTHER FLUIDS.—William Clough, Cincinnati, Ohio.

I claim the process of refining and deodorizing saccharine and other fluids herein specified.

75,246.—ROCKING CHAIR.—C. W. Conant, Gardner, Mass.

I claim the arrangement as well as the combination of the spring, D, and the arch piece, C, with the chair seat, A, the rockers, c, c, and the supporting frame, B, thereof, the whole being to operate substantially as described.

75,252.—MACHINE FOR DISTRIBUTING FERTILIZERS.—Jesse Edwards, Medford, N. J.

I claim the arrangement of the hopper, A, distributing shaft, G, wheels, C and D, and plows, B, as and for the purpose specified.

75,253.—MOP HEAD.—Richard W. English, Buffalo, N. Y.

I claim, 1st, The cross head, E, and shank, B, in combination with a screw ferrule, K, provided with a slot, R, as and for the purposes substantially described.

2d, The thumb nut, C, in combination with the parts, E E, and collar, D, substantially as and for the purposes described.

3d, The employment of the binding wire, for holding the collar, D, and parts, E E, together, as herein shown and set forth.

75,254.—BEDSTEAD FASTENING.—Bartholome Essig, Sacramento, Cal.

I claim the plate, C, for attaching the side rail of a bedstead to the post, having an arm, c, an oblique lug, b, so as to be firmly secured to the post by the tension on the end rail, substantially as described.

And in combination with the plate, C, the plate D, fastened to the side rail, having a lug or key, g, fitting into a slot or groove on the plate, C, substantially as and for the purposes described.

75,255.—HAY KNIFE.—Green Fenton, Streetsboro, Ohio.

I claim the handle, A, spring, C, pin, a, arm, c, and blade B, all constructed and arranged in the manner as and for the purpose specified.

75,256.—LAMP BRACKET.—E. L. Ferguson (assignor to himself and Charles B. Clark), Buffalo, N. Y.

I claim, 1st, The combination of the two jointed arms, A' A'', provided with suitable jaws for holding lamps of different sizes.

2d, The india-rubber ring, E, in combination with the said arms, arranged substantially in the manner set forth.

3d, The combination of the arms, A' A'', ring, E, and cam, f, or equivalent, for clamping the jaws of the clamp, substantially as set forth.

4th, The peculiar construction of the jaws, D D, provided with shoulder, m, flange, n, and contracted bottom, as shown and described, for holding lamps and lanterns of different forms and sizes.

5th, The peculiarly formed casting, C, constructed and arranged with the plate, B, and bracket arm, A, so as to secure the latter in its socket, and also form a receptacle for matches, in the manner shown and described.

75,257.—HARNESS TRIMMING.—Milton A. Fisk (assignor to Edward M. Wesson), Springfield, Mass.

I claim as a new article of manufacture, a rosette or harness trimming, when constructed as herein described and for the purpose specified.

75,258.—PLATING SPOONS AND OTHER ARTICLES.—Marshall L. Forbes (assignor to the Meriden Britannia Co.), West Meriden, Conn.

I claim the mode, substantially as before set forth, of coating spoons and similar articles with a regulated unequal thickness of the plating metal by immersing different portions of the article for different periods in the bath of the electroplating apparatus with which the article is connected.

Also the combination of a holder, adapted to confine the article to be coated, with regulating mechanism to hold the articles partially immersed to the required extent in the depositing bath, substantially as before set forth.

Also the combination of a holder, adapted to confine articles, with mechanism for tilting the article, so as to vary the extent of immersion in the depositing bath, substantially as before set forth.

75,259.—MACHINERY FOR PRINTING YARN.—John Forrest (assignor to himself, John Archibald, and John Taylor), Lawrence, Mass.

I claim the combination, as well as the arrangement of the two carriers for carrying skeins of yarn, in the manner described, with one or two series of printing wheels, composed of annular disks, their color rollers and cellular troughs, the whole being provided with mechanism to operate them substantially as and for the purpose specified.

Also the combination of the drying cylinder or apparatus, the two carriers as above, one or two series of printing wheels, their color rollers and cellular troughs, the whole being provided with mechanism to operate them, substantially as and for the purpose specified.

75,260.—KNITTING MACHINE.—Guy P. Fuller, Adrian, Mich.

I claim the combination of the finger, A, the disk or dial plate, B, the geared wheel, C, the pinion, D, or their equivalents, the frame E, the ratchet F, the lever, G, the friction wheel, H, the nut, I, the shaft, J, the plate, K, when constructed substantially as described, for the purposes herein set forth.

75,261.—MILKING MACHINE.—B. F. Graves, Groton, Mass.

I claim the arrangement of the pump, with the flexible tubes, teat cups, glass tubes, stop cocks, devices for adjusting the teat cups to the udder of the cow, all constructed and arranged substantially as described and for the purpose specified.

75,262.—MODE OF ATTACHING ANIMALS TO CARRIAGES.—Henry B. Hale and Thomas Flagler, Grass Lake, Mich.

We claim the construction of a draft or extension bar, with or without joints, in connection with pulleys, straps, chains, and rods, arranged in the manner and for the purposes specified.

75,263.—HARVESTER RAKE.—Thos. Harding, Springfield, O.

I claim an automatic device which opens the switch, g, at each revolution of the rake and reel, and at the same time is under the control of the driver to make the raking only when it is necessary, in combination with a revolving reel and rake on a harvester, substantially as set forth and described.

The collar, O, provided with the clutch pin, n, and lug, o, in combination with the tripper, l, clutch, e, and switch, g, whereby the driver while seated may depress said collar, and throw the clutch pin, n, out of connection with the head, L, to stop the rake from sweeping the grain from the platform, as desired.

Working the switch, g, automatically by means of the tripper lever, j, and a lug attached to a collar surrounding and revolved by the rake shaft, substantially as set forth.

Arranging the tripper, l, between the guide way and the rake arm head upon the box or bearing of the rake shaft, substantially as set forth.

The combination and arrangement of the switch, g, provided with the arm j, and spring, k, with the tripper, l, and lug, o, or its equivalent.

75,264.—COMPOSITION FOR STUFFING LEATHER.—John Hallett, Warren, N. H., assignor to himself and Peron Noyes, Lowell, Mass.

I claim the combination of the herein-described ingredients in about the proportion specified, for the purpose and in the manner substantially as described.

75,265.—INVALID BEDSTEAD.—Wm. Heath, Bath, Me.

I claim the combination of the recesses, W K L, or their equivalents, with the frame, A, the two frames, D E, and mechanism for moving and depressing or operating the back frame, E, substantially in manner described.

Also, the combination of the folding legs, M M, the toothed sectors, and their arms, f, f, the frame, A, and the parts, B C D and E, arranged and connected substantially as specified.

75,266.—SHANK SPRING.—Ed. Heaton, New Haven, Conn.

I claim the construction of shank springs, when cut or stamped out of the sheet without scrapper waste, substantially as specified.

75,267.—COTTON-BALE TIE.—John W. Hedenberg, Chicago, Ill.

I claim a cotton-tie buckle, made and constructed substantially in the manner described.

75,268.—GANG PLOW.—Chas. Hess, Lyons City, Iowa.

I claim, 1st, The slot, T, in the end piece, and axle to adjust the tongue.

2d, The iron beams, when used in a gang plow.

3d, The combination and arrangement of the parts, when constructed and used as above set forth.

75,269.—STRAW CUTTER.—L. B. Hoyt, Cedar Falls, Iowa.

I claim, 1st, The balance wheel, B, when provided with recessed and beveled arms, F F, and curved knives, E, attached thereto, in combination with the lower gears, e, f, the interchangeable feed rollers, C C D, and crank, g, as and for the purpose specified.

2d, The within-described arrangement of the intermediate spokes, r, of the balance wheel, with reference to the knife-carrying spokes, r, thereof, and the interchangeable feed rollers, C C, substantially as and for the purpose specified.

3d, The method, herein-described, of graduating the feed by the detachable or interchangeable rolls, C, of different sizes, arranged to operate underneath the yielding roll, D, and operated by the crank, g.

75,270.—CAR COUPLING.—Winfield H. Hoover, North Benton, Ohio.

I claim the combination of the pivoted drop, E, link, D, pin, C, and draw-head, B, when operated by the bar, F, with its side lever, H H, all constructed and used substantially as and for the purposes set forth.

75,271.—PREPARATION OF ACID PHOSPHATE OF LIME.—E. N. Horsford, Cambridge, Mass.

I claim, 1st, The method of producing a pulverulent acid phosphate of lime, substantially as and for the purposes above set forth.

2d, The product obtained by the process, substantially as and for the purposes above described.

75,272.—MANUFACTURE OF ACID PHOSPHATE TO BE USED IN FOOD.—E. N. Horsford, Cambridge, Mass.

I claim the manufacture of liquid acid phosphate of lime, for use as a condiment or article of diet, or ingredient to be employed in beverages or food, substantially as and for the purposes herein set forth.

75,273.—GRINDING MILL.—G. W. Hubbard and S. A. Smith, (assignors to Cresson & Smith), Philadelphia, Pa.

We claim, 1st, The lever, B, combined with and trued by the disk, a, substantially as described.

2d, The shell, D, with its inclined edge adapted to the plate, E, substantially as set forth.

3d, The spindle, A, with its burr, when confined in its place within the shell by adjustable collars arranged upon the spindle, as specified.

75,274.—BABY CREEPER OR WALKER.—P. H. Hurd (assignor to Clara Hurd and E. D. Horton), Croton, Mich.

I claim, 1st, Frame, A, chair, B, and rollers, C, in combination, substantially as described.

2d, Revolving chair, B, with flexible seat, D, and strap, E, in combination with frame, A, substantially as and for the purpose described.

75,275.—CLOSING FRUIT JARS.—William M. Inlay, Philadelphia, Pa.

I claim, 1st, Making and adapting the neck of a fruit-jar so as to be used for a spiral wire coil, substantially as and for the purposes set forth.

2d, A wire coil, arranged and used about or around the neck of a fruit jar, so as to make a fastening for fruit jars, substantially as set forth.

3d, The arrangement and construction of a wire coil about the neck of a fruit jar, so as to make an elastic pressure on the cover, as described.

4d, The broad-seated ring or gasket, H, when retained in place by the beveled or inclined top, I, substantially as and for the purposes specified.

75,276.—GATE.—J. L. Janewa, Flemington, N. J.

I claim the continued arrangement of ornamental or garden gate, B, with the stationary posts, A, A, and casters, C, C, and gate bar, C, C, and roller, C, C, the whole constructed and operating as described for the purposes set forth.

75,277.—GRAIN DRIER.—J. B. Johnson, Indianapolis, Ind., assignor to himself, T. E. Johnson, and B. F. Johnson.

I claim, 1st, Making the top of the furnace of drying kilns of cobblestones