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LIST OF PATENT CLAIMS

Issued from the United States Patent Office FOR THE WEEK ENDING JUNE 7, 1853.

**CONVERTING ROTARY INTO RECIPROCATING MOTION**—By Henry Baker, of Catskill, N. Y.: I claim the ring, with its sliding pins attached to the object to which reciprocating motion is to be given, in combination with the stud, or its equivalent, attached to the endless chain, the points or ends of the said pin being caused to project through to the interior of the ring, to catch the stud or equivalent, and being withdrawn alternately, to allow it to pass, by springs, levers, and stops, as described. [See description of this invention on page 316, Vol. 7, Sci. Am.]

**WASHING MACHINES**—By T. A. Dugdale, of Richmond, Ind.: I claim combining the wash boards, cords, and floats, as described.

**PROPELLERS**—By Henry W. Hewet, of New York City: I claim giving to the paddles, in their circuit, a greater longitudinal than vertical motion, imparted by a crank motion, as specified, in combination with the vibratory motion of a beam or beams, derived from the same crank motion, for the purpose specified.

Also, in the combination above specified, making the beam or beams, slide on the fulcrum or fulcras, as specified, by means of which additional element, in the combination, I am enabled to impart to the paddle or paddles, the back motion, in the direction of the propelling action, more than the lower half of the crank motion, as set forth.

**COMPOSITIONS FOR TREATING WOOL**—By Wm. S. Hubbell & Amos Barrett, of Kingsville, Ohio: We claim treating wool with a composition of oil and alcohol, to prepare and fit it for the several manufacturing operations, for which oil has been and is now employed.

[See description of this invention on page 65, Vol. 8, Sci. Am.]

**DOOR FASTENER**—By S. P. Kittle, of Buffalo, N. Y.: I claim the construction of the bar, having the edges, with the stop or rest having the lips constructed and arranged as described.

Also, the combination of the cap with the bar, the effect of the cap being to fill up the space between the edge of the door, when closed, and the casing, as described, all for the purpose and manner as set forth.

**BOILERS FOR COOKING STOVES**—By R. W. Belson, of Philadelphia, Pa.: I claim the employment of a valve, in combination with the escape tube of culinary boilers, such valve being controlled by the cover, or in any equivalent manner, as set forth.

**KNOB BOLTS**—By Oliver Ellsworth, of Hartford, Conn.: I claim the bolt, for the purpose of preventing the knob from being forced inward, by means of any instrument from without, as described.

Second, I claim, in combination with the pin and spring, the oblique sides or angles, cavity or opening, made in the side of the case of the lock, for the purpose of converting my lock into a latch, or restoring the connection between the outer knob and spindle, by means of the rod pin coming in contact with the oblique sides, when the inside knob is turned, thereby turning the spindle and causing the rod pin to be moved out, by reason of the friction of said rod pin upon the sides of said cavity, as set forth.

Third, I claim the introduction of a key through a door knob, for the purpose of turning the spindle of the lock, thereby causing a lock to be converted into a latch (from the outside) as described.

Fourth, I claim the thumb pin or disconnecting pin, which passes through the outside knob, and into the spindle, thereby forming a connection with the rod, for the purpose of converting the latch into a latch at pleasure, from the outside of a door, as set forth.

**HOSE COUPLING**—By R. J. Falcouer, of Washington, D. C.: I claim the employment of the slide coupling, in combination with the collars of hose, as set forth, by which I am enabled, in the case of water hose, to effect the coupling with the utmost facility, while the water is flowing through the hose.

**QUARTZ PULVERIZER AND GOLD AMALGAMATOR**—P. G. Gardiner, of New York City: I claim the arrangement of the vibrating, pulverizing basin and amalgamating basin attached thereto, with the screen interposed between the two, said basins being converted to the same shaft, and constructed and operating as described.

[This is believed to be a very valuable invention. Patents have been taken in foreign countries through our Agency.]

**WATER CLOSETS**—By Herman Goldsmith, Jr., of New York City: I claim the annular water chamber at the upper part of the closet, with a valve so arranged as to open when the pan or basin closes, and allow a requisite quantity of water to pass around the sides of the pan or basin, and between the sides of the pan or basin, and the flange of the orifice, thus hermetically sealing the orifice, and preventing the escape of effluvia, said valve also closing, when the pan or basin is opened, and thus preventing the escape of water from the chamber, the valve being constructed of a sphere or ball, working over a circular opening in the bottom of the water chamber, or constructed in any other manner. I do not claim the water chamber independent of its valve, to operate as stated.

**PAINTING ON CLOTH**—By Leon Jarosson, of Jersey City, N. J.: I claim the painting upon cloth previously prepared with the mordant described, that will combine chemically with colors laid on over the other, and blended by means, substantially as described, by which I give great richness to the figures, whilst the tint of each is carefully preserved, and developing and fixing permanently the colors, by steam, and restoring the cloth to its natural pliable state, by washing out the excess of coloring matter, as described.

**PLATFORM FOR FERRY BRIDGES**—By Gerard Sickels, of Brooklyn, N. Y.: I claim applying or attaching to a ferry bridge or other boat landing, a movable platform, so arranged with any suitable

mechanism, as to be operated upon by the boat, as it approaches the bridge, in such a manner, that the boat causes the platform to move inwards and downwards, when the boat is coming into the slip, and the mechanism, or weights described, or their equivalents, cause the platform to follow the boat outwards and upwards, when the boat is leaving the slip.

[We recommend this invention to the consideration of our ferry companies, it is a humane invention, and one that should be introduced on every ferry route.]

**SCREW PRESSES FOR PACKING BOXES**—By Geo. W. Wight, of New York City: I claim bending the upper portion of the arms or levers from a vertical position, and tending towards each other until they reach and are joined to a cross piece or yoke, by joints, at any desired point between the centre of said yoke and the vertical portions of the uprights, thereby giving an oblique or inward direction to the hooks when the yoke is caused to rise, by the operation of a vertical screw.

[See description of this invention on page 116 Vol. 8, Sci. Am.]

**BORING ROCK**—By Ebenezer Talbot, of Windsor, Ct.: I claim the method, as described, of applying a rollet cutter or cutters, for boring or excavating tunnels and other apertures in rocks or other hard substances, by causing the said rollet cutter or cutters, or sets of rollet cutters, to cut segments of circles from the centre, or near the centre, to the periphery of the tunnel, or other excavation, with the concavity towards the machine, in combination with a motion or motions around the centre of said tunnel, to cause the said cutter or cutters to act in succession, on the entire surface to be cut away, as described.

**ARTIFICIAL STONE**—By Julius Hornig & Ludwig Suess, of Union Hill, N. J.: We claim the mode or process of forming artificial stone as described, that is to say, we claim the employment of siliceous, alumina, and salt, mixed and treated as set forth, and in the proportions designated in the manufacture of artificial stone, meaning by salt the chloride of sodium, or its equivalent, as set forth.

**PAPER FILES**—By H. L. Smith, of Cleveland, O., (assignor to H. L. Smith, of Cleveland, O., and Levi Butties & H. A. Swift, of Ravenna, O.): I claim the paper file described, with prepared adhesive leaves or margins, as a new article of manufacture.

**PUMPS**—By L. P. & Wm. F. Dodge, of Newburg, N. Y.: We claim the combination of the cylindrical piston, constructed as described, with its valves and the induction and ejection passages, so that the water, all entering said cylinder, under pressure, alternately, at its ends, and being discharged under pressure, through the opening or openings, at its side.

We also claim the combination of the piston heads without the cylinder, with their valves, and the induction and ejection passages, when these valves are united (to insure simultaneous action), as described, the water entering through the piston heads, into the space between the same, and being discharged therefrom, through a lateral ejection orifice, the whole being arranged as described, thus dispensing with chambers and partitions, in the barrel and valves at the ejection port, preventing leakage, and rendering the pump or engine, more simple and effective, and less liable to derangement.

[See notice of this invention on page 388 Vol. 7, Sci. Am.]

RE-INVENT.

**COOKING RANGE**—By Moses Pond, of Boston, Mass.: I claim the improvements by which the hot water back is connected with the plate, and by means of which said hot water back may be either readily removed, at any time, or applied in such manner that the directions of its water pipes may be disposed, so as to accommodate the bath boiler, into which they are usually led, on whatever side of the range the said bath boiler may be placed; the said improvements consisting, first, in the connecting piece, and the attachments of it, and the hot water back, the whole being made to operate together, as set forth.

Second, in a second set of attachments (fixed on the opposite face of the water back) in combination with the first set thereof, as described.

I also claim the peculiar arrangement of flues, which lead the smoke and volatile products of combustion directly around the oven, the said arrangement of flues causing the heat to course against a portion or one half of the bottom of the oven; next into another flue, which takes it backwards and against the other portion or half of the bottom of the oven, thence up a flue against the side of the oven, thence through a flue extending over and against a portion or half of the top of the oven, thence into and through another flue, which carries it backwards and over and against the top of the oven, and conveys it to the chimney or discharge flue, not meaning to include in such arrangement the radiating chamber or space.

I also claim the two recesses and two flue plates applied to another plate, in combination with the two valve openings, their damper and cover plate, as applied to the top plate of the oven frame, and used under an arrangement of oven flues, substantially as described, the same allowing of the adaptation of the oven, to either side of the fire place, or the use of two such ovens and their frame, in connection with the fire place, as stated.

I also claim the improvement by which the oven can be raised and readily removed and by which the smoke is prevented from passing underneath the partition which separates the flues on top of the oven, the same consisting in the sliding or gravitating plate affixed to the partition and made to operate, as specified.

[NOTE—Seven of the patents embraced in this week's issue were secured through the Scientific American Patent Agency.]

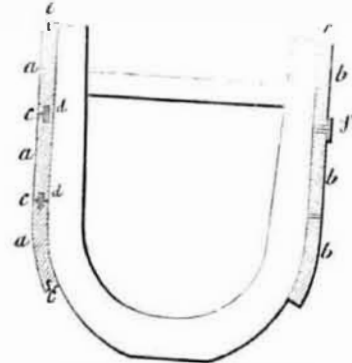
Manufacture of Bohemian Glass.

A French company, of ample means, have purchased a tract of land at a short distance east of the Crystal Lake, near New Rochelle, where they have commenced the erection of a magnificent establishment for carrying on the manufacture of Bohemian Glass Ware.—The "Westchester News" states that the buildings will be of brick and stone, and put up in the most substantial manner. The principal building fronting the turnpike road, will be upward of 300 feet long, and four or five stories high; while in the rear there will be several other buildings of smaller dimensions, adapted to the wants of the various branches of the business. One furnace alone

will occupy a space of fifty feet square. The whole work is to be pushed most vigorously; as soon as finished quite a colony of workmen and their families are to be brought from France to carry on the business, which is expected to be very extensive. For the accommodation of the French families who are expected to be employed in the establishment, about fifty dwellings will be erected by the company. New streets are being laid out around the works.

B. F. Cooke's Mode of Calking Vessels.

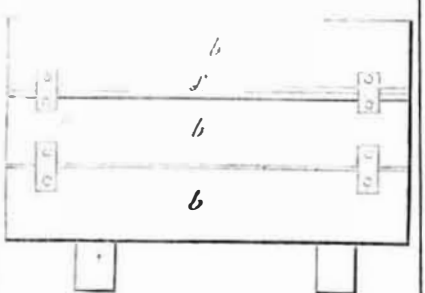
FIG. 1



In the construction of vessels the process of calking the seams so as to exclude the water, forms an important part of the operation. This has heretofore been done by chamfering the outer edges of the planks, and then driving oakum or other similar material between them. An objection to this mode of calking is the well-known fact that the working and straining of the vessel has a tendency to throw the oakum out, and render re-calking necessary, while, at the same time, as the planks are not driven so close together, and consequently cannot form a close joint; the hull will be less stiff and rigid than is desirable.

The improvements represented in the annexed engravings obviate these objections, and consist in rendering the seams watertight by placing between the edges of the planks some adhesive elastic substance or material, such as india rubber, gutta percha, or compound of both. This may be done by cutting a groove in the edge of each plank, and placing in the said groove a strip of india rubber, gutta percha or other elastic material, and then driving the planks

FIG. 2.



closely together, the edges of the planks not being bevelled but square, so that they will form a close rigid joint. If desirable, it may be coated with a rubber cement, or compound.

In the engravings, fig. 1 represents a side elevation of a portion of the hull of the boat, and figure 2 a transverse section, representing two methods of introducing the elastic calking above named, a different method being shown upon each side of the boat.

*b b* are the planks upon one side of the vessel, and *a a* those upon the opposite side; *c c* are the joints which are calked by grooves, *e*, plowed in the edges of the plank, as shown, into which the long strip of elastic calking is introduced. This strip of calking may be round and tubular, or of any other required form, so as to fill the channel, which may also be of any shape desired—the planks thus grooved or plowed are then driven together, with a coat of elastic cement between them if it is thought advisable. The calking introduced between the planks, *b b*, as at *f*, is of a different form from that at *d d*; in this place the planks are not grooved as in the other instance, but are planed square, and a flat piece of the elastic calking doubled and placed between the edges, thus inlaying all the joints by the elastic material. The edges of this calking may overlap the external corner of the plank, as shown in fig. 2 at *f*, and connected to the plank upon the outside, or the joints

may be simply inlaid without the overlapping, as may be required. It will also be seen that the ends of the planks and the seams of the upper works, or other parts of the vessel, may be calked in the same manner. By the above method of calking a vessel, it will be seen that the necessity for chamfering the edges of the plank is entirely obviated, and by cutting the edges square, and placing between them an adhesive elastic substance, the joint will be impervious to water, and at the same time the hull remain extremely stiff and firm, while the calking cannot be worked out by the straining or working of the vessel, as frequently occurs in the method of calking heretofore practiced. Further information may be obtained by letters addressed to the inventor, B. F. Cooke, of Boston, Mass. Mr. C. has taken the necessary measures to secure a patent.

By the latest news from Europe, it appears that the celebrated city of Nankin had been captured by a powerful army of revolutionists who will, to all appearances, soon overthrow the present Dynasty.

TO CORRESPONDENTS.

S. B. B., of Vt.—The mere application of any well known substance to a new purpose is not patentable, and your invention is simply one of adaptation.

E. W. S., of Mass.—The Patent Office Reports for so many years back could not be obtained for any price.

S. G. C., of Pa.—We do not see the least advantage that you can obtain by using the carbonic acid gas from the fire, mixed with the steam, to operate your engine.

J. H. F., of Vt.—We should be pleased to have you form a club of subscribers for the Scientific American, but we cannot offer you other inducements than those laid down in the prospectus.

P., of Mass.—Yours has been received and will meet with attention.

W. P., of Pa.—Your deductions appear plausible, but they will not account for all the phenomena we observe; how does it account for the various colored grains? have you tried the effect of preventing the pollen from falling upon the staminate at all. Experiments alone will determine the true theory.

L. P., of Pa.—Your argument is ingenious, but it is founded upon an erroneous view of the effects of heated air; we refer you to the views embraced in the prospectus by the Scientific American; the truth is mighty, and our views will be found to be correct; we are nowise uneasy about the future, it will, and is, developing the sound doctrines promulgated in the Scientific American respecting Pulley, Static Pressure and Caloric Engines, Water Gas, Fire Annihilators, etc.; we mean to protect our own readers: for them we devote our energies; we are satisfied with our past labors. You find fault with our plainness; we care not for this, we expect it.

S. L. B., of Mich.—You are correct, compressed air passing into water will absorb a portion of caloric from the water and render it cool; for an application of this principle see the air-cooling apparatus in No. 38, this Vol. Sci. Am.

S. L. H., of Ill.—Yours is not "a worthless fancy," as you state, but very ingenious; you must, however, see "House's Telegraph," when you will be convinced that he has produced a machine carrying out the same idea.

A. C. S., of N. Y.—Different gases have different specific gravities: air is 0.9038, carbonic acid 1.383; air is 815 times lighter than water; a cubic foot of carbonic acid gas is therefore 532 times lighter than a cubic foot of water, which weighs 62.5 lbs.

J. B. C., of Ohio.—We do not see any chance for you to get a patent on the head rest for cars. The same thing, substantially, has been long known and used. You had better not apply.

A. H., of Pa.—We have examined the sketch of your improved compound car axle, it contains no new or patentable feature, and you are advised to drop it; several pertinent references could be given.

D. P. Z., of Ct.—You do not appear to be aware of the fact that dry meters are well known, also the use of bellows as an attachment thereto; yours is differently arranged from any other known to us, but the water meter is superior to any other. If yours is useful it is patentable, we think.

Money received on account of Patent Office business for the week ending Saturday, June 11:—

J. E. A., of N. Y., \$30; E. P., of Ill., \$10; S. B. & Co., of Mass., \$25; W. W., of N. Y., \$30; W. S., of Pa., \$35; W. G. M., of N. Y., \$25; S. & K., of Mass., \$30; J. H., of N. H., \$15; V. S. (assignees), Belgium, \$342; J. P., of Ky., \$60; A. A., of N. Y., \$55; W. A. H., of Canada, \$500; J. S., of Va., \$20; J. S. B., of Pa., \$50; T. H. T., of N. Y., \$10; J. McG., of O., \$20; G. & B., of N. Y., \$50; A. D. G., of L. I., \$22; C. M., of N. Y., \$50

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday June 11:—

W. C., of Ga.; R. S. T., of N. C.; J. H., of N. H.; S. & K., of Mass.; W. G. M., of N. Y.; A. R., of L. I.; J. E. A., of N. Y.; J. H., Jr., of Wis.; J. T. D., of N. Y.; W. G. M., of N. Y.