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LIST OF PATENT CLAIMS

Issued from the United States Patent Office FOR THE WEEK ENDING FEBRUARY, 10, 1852

SHOE BRUSHES—By J. J. Adams, of Boston, Mass.: I claim the brush as constructed, substantially as described, with its polishing and blacking bristles arranged essentially as exhibited and explained.

WATCH-CHAIN SWIVELS—By J. Y. D. Arrowsmith, of New York City: I claim, first, the making swivels with a central spring to operate at both its ends against the knuckles of the joints, and for closing the opening, substantially as described. Second, in combination with the swivel so made, I claim the swivel joint, made substantially as described.

HOSE COUPLING—By A. W. Cary, of Brockport, N. Y.: I claim the clasp of the particular form above described, having a part of one or both ends extended beyond both places of fastening, so as to extend the contracting pressure directly around the entire circumference of an inserted tube.

HORSE POWERS—By M. H. Cornell, of Feasterville, Pa.: I claim the method of regulating the motion by means of a brake worked by a governor, constructed substantially as described, so as to operate the brake with a force which increases with the velocity of the machine, until the motion is checked, and then instantly release the brake, so that no unnecessary labor may be imposed upon the animals, when working at the proper speed.

MILL FOR GRINDING QUARTZ—By Smith Cram, of New York City: I claim the crushing and grinding mill described, consisting of a trough, and one or more rotating wheels, the acting surfaces of both the wheels and trough being formed as set forth, so that the former will run in the latter, without tendency to run over its edges, except as it may be influenced by centrifugal force.

I also claim the combination of a double ridged wheel rim, with a trough of corresponding form, whereby the lumps of quartz or other substance being ground, are grasped by the wheel in its rolling, between the angular groove or furrow contained between the two ridges, and being thus prevented from escaping laterally, are crushed upon the ridge of the trough, with much less force and greater effect than if the angular action of the ridges was contracted by the embedding of the lumps to be crushed among smaller granular and pulverized particles, which is always the case when the concave or inner angle is below, and the convex or outer angle above, which is the converse of the combination to which this claim refers.

I also claim the method of constructing the wheels of a crushing and grinding mill, of removable sections, substantially in the manner and for the purpose set forth.

PREVENTING COLLISIONS ON RAILROADS—By T. A. Davies, of New York City: I claim the application of a sound-gatherer with an ear-piece to a locomotive engine, or train of cars, arranged as described, so that the engineer, or another, can ascertain, by sound, the approach of a locomotive, or train, in time to prevent collision.

GRAIN HARVESTERS—By Byron Densmore, of Sweden, N. Y.: I claim, first, the combination of the grooved cam and reciprocating lever, so arranged with each other as to give the rake, while in the act of clearing the platform of grain, an increased rapidity of motion, as compared with its backward movement.

Second, controlling the motion of the rake, by means of the combined action of the hand, ratchet, and lever, as set forth.

Third, the arrangement of the double eccentric for equalizing the power of the spring on the lever, as described.

Fourth, forming supports for the vibrating blade or sickle, by the plates, in sections separate from the fingers, to prevent choking, as described.

SHOVEL PLOWS—By James H. Forman, of Sharon, Ala.: I claim the use of the fulcrum pin and adjusting arrangement of the pin, D, in combination with the beam and stock of a plow, for the purpose of regulating the dip of the plowshare, substantially as set forth.

RAILROAD SWITCHES—By Amos Hodge, of Adams: I claim the system of levers, lock bolt and springs, arranged substantially as described, in such manner that the switches are always locked securely in the proper position for the direct passage of a train along the main track, unless intentionally unlocked and shifted, as described, and when shifted are automatically returned to their position in the line of the main track, and locked there, as soon as the force by which they were shifted is withdrawn.

In combination with the above, I claim the system of jointed levers, wedge blocks, sliding bars, dogs, dog lever, and hook-ended bar, or their equivalents, acting substantially as described, in such manner that the switch is shifted automatically, to permit a train to pass from a branch to the main track, and is maintained in such position until the last car has passed off it, when it returns, automatically to restore the continuity of the main track.

PORTABLE SHOWER BATHS—By Ferdinand Holm, of Brooklyn, N. Y.: I claim the use of the box or tub for a portable shower bath, made in two halves, in combination with the slide, leaves, and slides, G, &c., substantially as set forth.

GRASS HARVESTERS—By Wm. F. Ketchum, of Buffalo, N. Y.: I claim, first, sustaining the rack piece in the manner set forth, by projecting a beam from the frame above the grass and behind it, to which it is connected by the rods, as set forth.

And in combination therewith, I claim the shield plate in connection with the beam for sustaining the rack piece, substantially in the manner and for the purpose described.

APPARATUS FOR REGULATING AND MEASURING THE FLOW OF GAS—By Wm. B. Leonard, of New York City: I do not claim the indicating apparatus for showing the quantity of gas or fluid consumed in a given time; nor do I confine myself to the use of any particular mode of indicating it, as it may be performed in various ways. Neither do I confine myself to the peculiar form of clock movement or mechanism, for giving motion to the disc.

But I claim, first, the employment for the purpose of registering the flow of gases and fluids, through

an aperture of a disc receiving a constant rotary motion, at a uniform speed, and giving motion to a wheel, in connection with the indicating apparatus and the cock, or its equivalent, in the manner described, to wit, the wheel, being moved farther from or nearer to the centre of the disc, as the cock is opened or closed, so as to govern the speed of the wheel, and, consequently, the indicators, according to the area of the passage through which the gases or fluids are passing.

Second, the manner of stopping the clock movement, when the cock or faucet is shut by the arm on the spindle, being operated by the wheel, and the lever, substantially as shewn.

Third, the manner of closing the valve, and shutting off the gas, or fluid, when the clock is run down, by an arm on a spindle, operated by a spring, and held back by a lever, stopped by suitable catches and released by the unwinding of the main spring, substantially as specified.

GOVERNORS—By Ephraim Morris, of New York City: I claim an incline, or inclines, between a hub and cylinder on a shaft, in combination with a resisting spring, or its equivalent, whereby the motion of the parts due to the compression of the spring, or its equivalent, by the incline, produces motion to regulate the power in proportion to the resistance, as described.

QUARTZ CRUSHER—By James H. Swett, of Boston, Mass.: I claim, in combination with a cylinder containing the quartz, &c., and rotating in one direction, for the purpose of loosening up the material to be ground or crushed, the curved arms arranged upon a shaft therein, rotating in a contrary direction for the purpose of catching, carrying up, and throwing over the balls, by which said material is ground or crushed, the whole being arranged and combined in the manner set forth.

SEED PLANTERS—By Edward Wicks, of Bart, Pa.: I do not claim, exclusively, causing the distributing wheel (constructed with cogs or teeth, as described) to enter the body of the hopper, as such has already been done. But I claim the employment of a slide or its equivalent, through which the distributing wheel works, and that by being movable, operates to avoid friction of the wheel upon the sides of the aperture, communicating with the hopper, as liable to be produced by the play of the shaft upon which the distributing wheel is hung, essentially as specified.

DISSOLVING GOLD—By C. F. Spieker, of New York City; ante-dated Aug. 10, 1851: I claim the separating of gold from its ores, sands, or mixtures, in suitable apparatus, by the use of free chlorine gas, when absorbed by water alone, or by water in combination with an alkali, or an alkaline earthy or metallic chloride, containing an excess of chlorine, as set forth.

RAILROAD CAR BRAKES—By Birdsall Holly, assignor to S. Hewitt, E. S. Latham, J. Hooley, and A. Down, of Seneca Falls, N. Y.: I claim the fixed and sliding rubbers upon the adjacent axle of a railroad car, in combination with the intermediate cog-wheels, the whole arranged and operating substantially as set forth.

EXCAVATING AND DREDGING MACHINES—By Calvin Willey, Jr., of Chicago, Ill., (assignor to C. Willey, Jr., and Uriah Walker, of Babcock's Grove, Ill.): I claim, first, so arranging the frame upon which the endless chains, carrying the plows and buckets, are supported and carried, as to allow said plows and buckets to work outside of the line of said frame, and thereby to sink to any desired depth, without liability of the frame resting upon the bank to be removed, and limiting the depth to which the cutters may sink, as described.

Second, I claim so connecting the machinery for raising and lowering the frames carrying the plows and buckets, with the driving power of the machine, that the buckets may be lowered automatically, in such proportion to the motions of the other parts of the machine, as the character of the bottom to be excavated may demand, in the manner and for the purpose as described.

STOVES—By Conrad Harris & Paul W. Zoener, of Cincinnati, O.

Fishes of Northern New York—Frozen Fish, &c.—Conclusion.

ADIRONDAC IRON WORKS, ESSEX CO., N. Y.

MESSRS. EDITORS—Our lakes and streams,

which, I believe, are the highest fishing waters in the State, and perhaps in the United States, were originally well stocked with the lake and brook or spotted trout. We have yet good fishing in all except lakes Sandford and Henderson, whose waters have been raised from their former level by the construction of dams, thereby destroying their spawning beds. Besides the trout, we have pickerel, perch, and a variety of smaller fish. The pickerel were introduced into Lake Sandford from Schroon Lake, five years ago. The stock originally came from Lake Champlain, though now our pickerel are quite different in appearance, and far superior, both in flesh and flavor, to the Lake Champlain pickerel: perhaps on account of the purity of water here. They have so multiplied in Lake Sandford, that upwards of three hundred have been caught through the ice, this winter, weighing from two to fourteen pounds each.

But to the point. I have witnessed, repeatedly, the two winters I have been here, the resuscitation of frozen trout, pickerel, and perch on thawing them out in fresh running water, even after they had been carried for miles.

It is only under certain circumstances, however, that they will revive. If caught on a day when it is cloudy and freezing hard, and if not hurt with the hook, and they freeze immediately on being thrown on the ice, they will revive on being thawed out. But if allowed to toss about in the sun, on a clear day, and probably not freeze for an hour or two after they are caught, then they will never revive.

It is such a common thing, that I have only to go back to the last day I was fishing for an example of it. I went down to Lake Sandford with one of our men, on the 29th ult., and at night we carried home in our packs eleven pickerel, all frozen hard and bent and curved, just as they happened to twist themselves before freezing. We put them into a trough of running spring water, and when thawed out found six of them alive. The others had probably been caught in the warmest part of the day, and died before they froze. The same day fifteen fine brook trout were brought from Lake Andrew, five miles distant, in a pack, and on being thawed out several of them revived; though I did not notice how many. They are, however, a much more delicate fish than either the pickerel or perch, and more easily hurt and killed than either of them.

On the afternoon of the 24th ult. I had fished faithfully for pickerel till sundown, without even getting an encouraging nibble; tired at last, of that fun, I took out a small hook and line, and soon had twenty-five perch; they froze almost instantly; I strung them on a crotched twig, carried them so for two miles, and when thawed out, found fourteen of them alive, the rest having been hurt either by the hook or the twig.

The pond behind the village, formed by the damming of the river, is full of young pickerel; they are all from three fish put in there last winter—one male and two females; every one of them were brought from Lake Sandford frozen, and were put into the pond after they had been thawed out in a trough. The male one I caught, it lay on the ice, frozen, for three hours, and then not finding a mate for him, I run a stick through his gills and dragged him home on the snow, two miles, threw him into the trough, and thought no more of him till next morning, when I found him alive and seemingly enjoying himself as well as his narrow limits would permit him. I took pity on the poor fellow, carried him down to the pond, and he went off with a dart.

These are but a few instances of what occurs here almost every day the winter through. The fact of their resuscitation, after being frozen as I have described, is known to every one here who is in the habit of fishing in winter, and cannot escape being noticed, as the weather here is cold enough almost all the time to freeze them, and they have to be thawed out before they can be cleaned.

I have heard some say that they have taken trout when frozen and whittled the fins and tail off, and on being thawed, found them alive; but I have never tried this nor any other experiment with them, and would not vouch for the truth of it. ROBERT CLARKE.

[We have received a great number of communications on this subject, for which we are very much obliged to our correspondents. We have never requested information on any subject from our readers that we did not receive kindly, freely, and promptly. No paper in the world has such a number of obliging readers: for which we are indeed thankful.]

We have published information on the subject of the resuscitation of frozen fishes that sets the matter forever at rest, and will be news to many of our readers, who live South. In the foregoing letter it will be observed that a certain fact is stated, which militates against a statement made in our last week's number, viz., that all resuscitated fishes were rendered blind. We have evidence here that frozen fish, transported a number of miles, have become the parents of a numerous progeny—they retain all their functions, even after being frozen. We do not intend to publish any more on the subject at present; we have received a great many well written letters on it, and being so numerous we could not publish but a very few.—[E.D.]

Strike of the English Engineers.

The great strike of the working engineers continues to engross more of public attention than would be easily believed by those at a distance. The quarrel remains without even a prospect of accommodation, both parties being equally opposed to submission. One feature of the strike is remarkable, and we believe unprecedented; we mean the resolve of the men, as far as practicable, to set up for them-

selves, and execute orders on their own account. This is a much more sensible course than that of distributing their funds in the shape of relief albeit the probability of ultimate success is but small, judging from the fate of former co-operative experiments. Several of these are now in the course of trial by tailors, bakers, printers, and others in the metropolis, but though they have received much extraneous aid from well-wishers in the principle involved, we do not hear of one unequivocal case of success. Some thousands of engineers are now unemployed in London, Manchester, and other places, owing to their resolve to "organize labor," and dictate terms to their employers. The struggle will be of no common kind, and promises to be a lasting one.

Improvement of the Ohio River.

A large meeting was held at Pittsburg, Pa., on Monday, the 9th inst., relative to the obstruction to navigation by the falls of the Ohio at Louisville. The object of it was to memorialize Congress to construct an additional canal around the falls at Louisville. It was suggested that the new canal should be constructed with locks, 400 feet long on either side of the river, so as to prevent the present great amount of navigation being obstructed. Elwood Morris, the well known civil engineer, addressed the meeting, and alluded to the magnificent scheme of Mr. Ellett, C. E., which we have spoken of more than once in the Scientific American, viz., the improvement of the Ohio River by making artificial reservoirs near its sources, so as to retain as much water as will supply the river with a certain quantity during the dry weather, and maintain its depth, at a specific line, at all times, for steamboats and other vessels. The Ohio River is too shallow during a part of the dry summer weather, to allow vessels to pass up or down; this improvement would do away with the evil complained of. The cost for the construction of suitable reservoirs, it is estimated, would be about \$1,500,000.

Meteorological Observations.

A pamphlet has been received from Washington, containing a correspondence in relation to a universal system of meteorological observations for sea and land. It is by Lieut. Maury, U. S. Navy, the able officer who is at the head of the National Observatory, and who has done and is doing so much for the spread of nautical knowledge in our country.

OBSERVATORY, WASHINGTON, 1852.

The Government of Great Britain having greatly enlarged its system of meteorological observations, and wishing to extend it still further, invited the co-operation of the Government of the United States therein; the Government of the United States, appreciating the importance of the subject, and desiring to make the system of observations universal, suggested the propriety of including the sea as well as the land, and of enlisting in the meteorological field the voluntary co-operation of the commercial as well as the aid of the naval marines, not only of England and the United States, but of all other maritime nations.

For more detailed information on the subject, I refer to the accompanying pamphlet. By it, it will be observed that I am authorized to confer with individuals, societies, corporations, &c., "at home and abroad," upon the subject, and in concert with them to agree upon such general system.

Therefore, I have the pleasure of inviting your attention to the subject, and of soliciting such assistance in devising, and such co-operation as may be convenient and proper for giving effect to the undertaking. Respectfully, &c. M. F. MAURY.

Upas Tree on the Isthmus.

The Panama Star states that a man named James Linn, while hunting on the Gorgona Road, grew tired and lay down to sleep under a tree. On waking he found his limbs and body swelling, and death soon ensued. The Star says that a tree grows on the Isthmus under which cattle avoid eating or ruminating.

The tobacco crop of Missouri, for 1851, is estimated at from 14,000 to 15,000 hhd., against 12,000 to 13,000 the preceding year. The quality is said to be good.