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Sharpening Edged Tools.

"It has long been known that the simplest method of sharpening a razor is to put it for half an hour in water to which has been added one-twentieth of its weight of muriatic or sulphuric acid, then wipe it off, and after a few hours set it on a hone. The acid here supplies the place of a whetstone, by corroding the whole surface uniformly, so that nothing further but a smooth polish is necessary. The process never injures good blades, while badly hardened ones are frequently improved by it, although the cause of such improvement remains unexplained.

Of late, this process has been applied to many other cutting implements. The workman, at the beginning of his noon spell, or when he leaves off in the evening, moistens the blades of his tools with water acidified as above, the cost of which is almost nothing. This saves the consumption of time and labor in whetting, which moreover speedily wears out the blades. The mode of sharpening here indicated would be found especially advantageous for sickles and scythes."

[The above appeared in the *National Intelligencer*, translated from a German scientific journal. It may be a good recipe, but we cannot, for the life of us, see into its philosophy. We can understand how the dilute sulphuric acid will combine with some of the metal, and reduce it to an oxyd, but as it will seize upon the edge of the tool more readily than any other part, how then can it sharpen the edge by biting or eating it off. Dilute sulphuric acid is used in all our iron foundries for eating off the scale and reducing the metal of castings.

To Extract Grease from Cloth.

The following is infallible:—To sixteen ounces of rectified spirits of wine add ten grains of carbonate of potash (pure), half an ounce of essential oil of bergamot, and one ounce of sulphuric ether; mix, and keep in a glass-stoppered bottle. Apply with a piece of sponge, soaking the cloth thoroughly when the grease is not recent. The mixture emits a peculiarly fragrant odor, and being a fluid soap, chemically composed, will be found a perfect solvent of oily matter.—[Exchange.

[The above is a good receipt for the purpose stated; of this we judge from the nature of the substances of which it is composed. A cheaper fluid for the same purpose, and one that will answer equally as well, may be made of an ounce of liquid ammonia and four ounces of alcohol mixed with an equal quantity of water.

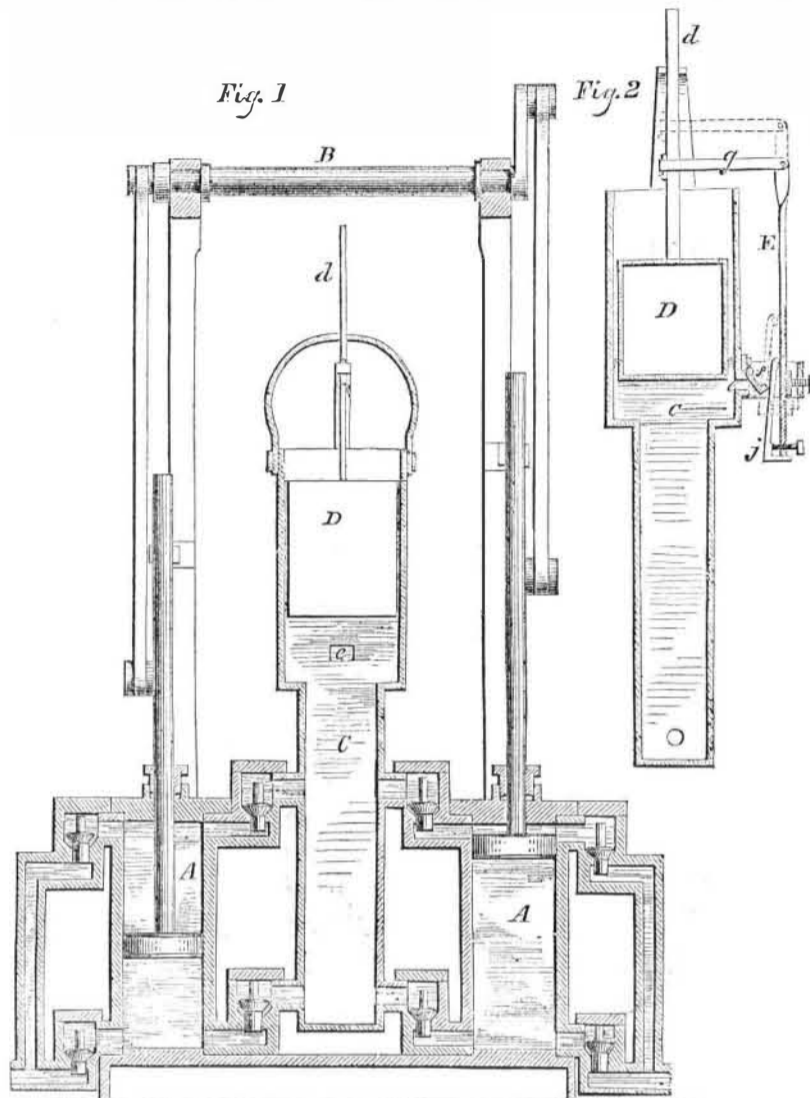
Ballooning Extraordinary.

Harvey Moore, of Lawrence Co., Ohio, claims to have discovered a principle by which direction can be given to an air-car, and its speed accelerated or retarded at the will of the engineer or pilot who may take charge of it, and without the use of ballast or waste of gas in the ascent or descent.—[Exc.

[Will he demonstrate his discovery to us ?

24,000 bales of cotton were recently sold in New Orleans in one day.

NEW GOVERNOR FOR MARINE STEAM ENGINES.



Regulators of some sort are considered almost indispensable to the proper working of stationary steam engines. Their office is to graduate the quantity of steam admitted to the cylinder, according to the work required, at each movement, to be done. For example, when an engine is set to driving a number of different machines, some of them, perhaps unexpectedly break down and stop; less power will be required to drive those that remain in operation, and the governor accordingly shuts off a part of the steam; if this were not done the engine would be jerked or strained by the immediate increase in its velocity, and finally become broken. On the other hand, where the work to be done is suddenly increased, more steam will be required, and the governor must instantly open the throttle valve and let it on; otherwise the engine and machinery will come to a dead stop. The governor, in effect, then, is an automatic engineer, having charge of the speed of the machine, under iron bonds, not to allow it to go either too fast or too slow; it exercises an incessant supervision, requires no watching, and never becomes tired or sleepy. Governors are just as necessary for the engines used in sea navigation as for stationary machines, but they have not, as yet, been introduced on steam vessels because no suitable regulating apparatus has been introduced. Marine engines are therefore required to be built excessively strong and massive, in order to withstand the injurious effects of irregular movement; in very rough weather it is generally necessary to run them at a low speed.

The common governor consists of a spindle furnished with swinging weighted balls; its operation is well understood; it must always stand perfectly plumb, else it fails to be of service; therefore it is of no use on board of steamers.

The marine governor herewith illustrated, is intended to supply the want to which we have alluded; it is the invention of Mr. Henry Webster, of Beetown, Wis., and was patented June 5th, 1855.

The nature of the improvement consists in the employment of a water well, which is kept constantly filled with water by means of pumps operated by the engine; said well contains a float, which is connected with the throttle valve; when the water in the well falls or rises beyond a certain level, the float moves accordingly, operates the valve, and lets on or shuts off the steam.

In fig. 1, which is a side sectional view, the pump cylinders are indicated by A; the pumps are of the ordinary construction, and are operated by the rocking shaft, B; C is the water well, and D the float; d is the connecting rod between the float and throttle valve; e is an escape aperture in the well, which determines the water level; when the engine works too quick, the pumps throw up water faster than it can escape through the aperture, e, and consequently the float rises and shuts off steam; when the engine moves too slow, less water is pumped up and the float falls, opens the throttle and lets on steam.

Fig. 2 is a cross section of the water well, and gives a side view of the aperture, e, with other appurtenances; f is a valve covering the aperture, e; j is a wedge attached to the sliding rod, E, which moves up and down with the float, being fastened to the latter by means of the strap, g; when the rod, E, rises, it brings the wedge, j, against valve f, and almost closes the aperture, e; the water escape being thus nearly cut off, the well fills more rapidly, and the rise of the float is hastened; the object of the valve, f, and its immediate connections, are to render the float sensitive and quick in its movements; this is a very excellent feature

of the invention. Set screws are provided which adjust the inclination of wedge, j, and the consequent throw of valve, f.

The subject of marine governors is important. The present improvement is one of simplicity and apparent excellence; we commend it to the careful examination of engineers, and others interested in such matters.

Further information respecting this patent can be had by addressing the inventor.

La Diorophe.

This is the graceful title of a very finely-built and ingeniously arranged carriage manufactured by Rock & Bro., of Hasting, England, and exhibited at the Paris Exhibition.

It combined the advantages of three distinct vehicles, viz., a close carriage, a barouche, or half-headed carriage, and an entirely open carriage, thus adapting it to all climates and seasons.

The principle of its construction is very simple, and there is not much danger of its getting out of order, nor can any mistake be easily made in changing it from one form to another—which operation is accomplished in a few minutes with great ease.

An eye or ring is fixed in the roof of the close carriage, and made to drop into a recess out of sight, when not wanted. When the change is to be made, a hook attached to a cord passing over pulleys fixed to the ceiling of coach-house is passed into the ring, and the head being balanced by a counterpoise at the opposite end of the cord, is raised with the utmost facility, and remains suspended until wanted again. A similar arrangement is used for the barouche head, and thus one person may effect all the changes, however large the carriage may be. Its economy is evident from the fact that it costs but little more than an ordinary carriage, although it possesses so many additional advantages.

Lubricating Oil.

To the advertisement of Mr. Pease in another column we would refer our readers who have occasion to use oil for machinery. We have seen most flattering certificates from establishments that have used this oil, and it is pronounced by all a valuable lubricator.

Lecture on the Gulf Stream.

Prof. Bache, Superintendent of the Coast Survey, delivered a lecture in the University Chapel, this city, on the evening of the 17th inst., on the above subject. The Chapel was crowded, and the lecture was an able one. In the course of his lecture he said: "The value of the discoveries which had recently been made by Prof. Maury and others, in reference to the current of the Gulf Stream was not to be predicted. It would be estimated shortly in the history of our navigation."

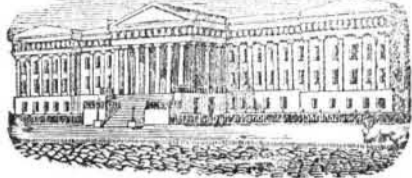
Lecture on Light.

Prof. R. Grant delivered a lecture in the Tabernacle, this city, on the evening of the 17th inst., and exhibited his calcium light for lighthouses. This is an improvement on what is called the "Drummond Light," viz.: the burning of two gases, oxygen and hydrogen, on a piece of lime.

New Use for Gutta Percha.

The model of an ingenious improvement in steam-engines, lately presented at our office to be patented, was composed of gutta percha. The maker informed us that the substance was very easily worked into the desired shape. For many kinds of models it appears to be a very convenient and time-saving material.

It is again reported that coal has been found at San Diego, in California. We hope so; but as such reports have been circulated a number of times, we wait for a sample to convince us of the reality of such a discovery.



[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS

Issued from the United States Patent Office

FOR THE WEEK ENDING JAN. 15, 1856.

STERN PROPELLER—John Beattie, of Liverpool, Eng. Patented in England Sept. 5th, 1850. I claim the construction of an open wrought-iron stern-frame, B, E, E, forming part with the keel, H, of the vessel, and receiving the rudder, substantially as described.

VARIABLE DIAL FOR DIVIDING ENGINES—Wm. H. Brown, of Worcester, Mass. I do not claim the use of gearing as a means of transmitting or varying rotary motion. But I claim causing both the index and dial to rotate at the same time by means substantially the same, and for the purpose set forth.

EXTENSION RAILROAD CAR—Jos. S. Brown, of Lowell, Mass. I claim extending the floor and sides of cars outwardly, laterally, by means of racks and pinions and other machinery connected to them, or otherwise, so as to give a larger area to the floor, and so enlarge the capacity of the car, essentially in the manner and for the purposes set forth.

FEEDING PAPER—Saml. I. Chapman, of Charleston, S. C. I do not claim feeding paper to printing presses by atmospheric pressure, irrespective of the construction and arrangement of parts shown, for various devices have been patented for that purpose. But I claim, 1st, separating and detaching the uppermost sheet of paper on the feed board, R, from those underneath it, and properly presenting said sheet to the fingers, nippers, or other device by which it is conveyed to the printing press or to the form thereon, by means of the box, E, valve, J, holder or lifter H, the above parts being constructed and arranged as shown, and operating in connection with a vacuum produced in the box, E, and a blast through the tube, Q, the vacuum and blast being produced by an air pump, B, or its equivalent.

2d, I claim operating the feed board, R, by means of the cams, u, plate, v, spring, m, and socket, I, and screw rod, S, fitting into said socket, as shown and described, motion being given the socket by means of a collar, X, attached thereto by a feather, r, whereby the feed board is made to rise and fall, to convey the sheets to the holder or lifter, and the diminishing height of the pile of paper compensated for, and also any irregularity in the thickness of the sheets.

3d, I claim the feed-board, R, operated as shown, in combination with the valve, J, holder or lifter, H, and bar, E, operating in connection with the vacuum produced in the box, E, and the blast in the tube, Q, in the manner and for the purpose shown and described.

CURING DISEASES OF THE GENITAL ORGANS—Joseph Cheever, of Boston, Mass. I am aware that there is nothing new in the application of galvanic electricity to the cure of diseases, and that electro-positive and electro-negative metals have been applied in pads, and in various ways, to diseased parts of the human system. I therefore do not claim such, nor do I claim making a scrotum sack of net work. But I claim combining the electric plates of an elastic scrotum sack by chains, or such a series of electrical conductors, extending from one to the other, as described, as will permit the necessary expansion or contraction of the sack to take place, without obstruction therefrom.

I also claim extending the connecting chain of the positive and negative plates, into and throughout one of the straps of the scrotum sack, and thence into and through the body belt, substantially in the manner, and so as to protect said chain from injury, as specified.

HEADING BOLTS—H. M. Clark, of New Britain, Conn. I claim first, the arrangement shown and described of the two heading dies, N, N, when operating together in such a manner that while neither die is in motion or at rest without a like action of the other, the one, or internal heading die, n, receives an abrupt accelerated motion towards the close of the joint advance movement of the two dies, by means of the arrangement of the dies in the general slide, o, in combination with the lever, q, or its equivalent, acting in concert therewith, essentially as, and for the purposes set forth.

Second, I claim giving the gauge, f, the several intermittent movements specified, upwards, downwards, and laterally, whereby after performing its office of gauging, it moves away to give room for the heading dies to operate, and afterwards suddenly descends, to detach the bolt from the clamp, and by said action or blow to clear itself of any adhering scale or dirt, as described.

SECURING GLASSES OF LANTERNS—Hezekiah Croul, of Baltimore, Md. I claim the application of the flanged removable bar, for the purpose specified.

HEADING SPIKES—Elisha H. Collier, of Scituate, Mass. I claim hanging the die-plate or anvil upon centers or bearings, in such a manner that it can be reversed, or its under face brought up, to rest, the said die plate or anvil being provided with a double set of die holes, as described, and for the purpose specified.

OPERATING FIRE ENGINES—John P. Philo & George Cowing, of Seneca Falls, N. Y. We claim the arrangement of the toggles, G, G, shaft, D, arm, F, and rods, d, d, for operating the pistons, H, H, substantially as shown and described.

HYDRANT—C. J. Cowperthwaite, of Philadelphia, Pa. I claim the cylinder, F, fitted over the conical projection on the bottom of the case, A, said cylinder having valves, G, O, within it, and an elastic cap or covering, K, through which the valve rod, H, passes, and to which cap said rod is attached, the cylinder being secured on the conical projection by means of the bent rod, M, and cap, N, of the case, A, substantially as shown, for the purpose specified.

GAS BURNERS—Chas. A. Cummings & Cortland Douglass, of New London, Conn. We claim the interposition between two jets or streams of gas issuing from the same burner, of a plate, b, substantially as, and for the purpose set forth.

LOCK GATE VALVES—Dewitt C. Cumings, of Fulton, N. Y. I claim the arrangement and construction of valves or paddle gates for canal locks, substantially as herein described, whereby the sand and grit in the water is washed and settles away from the bearings instead of accumulating.

I also claim the stationary axis of the paddle, so secured to the framing that it may be turned, when it becomes worn, so as to present a different portion of its surface to the bearing of the paddle.

EXTENSION TABLES—Edward A. Curley, of Westport, Conn. I claim having the top, C, of the main or stationary portion, A, of the table, made loose, and arranged upon or suspended by springs, and to move up and down in guides or ways, substantially as and for the purpose set forth.

PRUNING TREES—W. W. Harvey, of Saltville, Va. I claim having the shank or bar, C, of the cutter or chisel, A, fitted within a socket, E, attached to a proper handle, F, the socket being allowed to slide or work on the shank or bar substantially as shown, and for the purpose specified.

COTTON PRESSES—Caleb S. Hunt, of Bridgewater, Mass. I claim the peculiar arrangement of the respective parts of my improved press, by which I am enabled, with a single lever, to impart either a weak and rapid movement, or a slow and powerful movement to the platen of said press, or to any one of similar construction, viz., a non-revolving male screw attached to the platen is embraced by two or more matched and movable concentric screw nuts, whose uniting threads and grooves have a less degree of inclination than the threads upon the said male screw, and which are arranged in such a manner in relation to said male screw and the operating lever, as to produce at will, the desired movements of the platen, substantially as set forth.

REEFFING SAILS—Henry D. P. Cunningham, of Bury Hills, England. Patented in England Nov. 30, 1850. I claim, first, the chains spar applied to the after side of the sail yard for reefing off the sail from the mast or rigging when rolled around the yard, as set forth. Second, I claim the radius bar, D, in combination with the bonnet head, in order to permit the top of the bonnet to blow out in harmony with the belly of the sail, as described.

FIRE ARMS—Joseph C. Day, of Hackettstown, N. J. I claim, first, the improved construction of the cap feeding tube, H, with a slide, H', on one side a row of holes, q, in said slide, and another row of holes, p, in the side opposite, the one for the purpose of moving the follower along, and the other to prevent the follower returning with the slide, substantially as described.

I also claim communicating the motion from the tumbler to the slide, H', by a vibratory arm, i, or its equivalent, and also adding a spring thereto, in combination with the elbow slot, k, whereby said slide may be readily connected and disconnected from the lock and cap tube, substantially as specified.

I also claim extending the lower part of the main spring, from its pivot to, and causing it to rest upon the seat at a point very nearly over its center, in order to dispense with a separate supporting stud and seat spring, and also to enable the lower part of said main spring to be made nearly equal in length and strength to the upper part, substantially as described.

ATTACHING THILLS TO AXLES—Allen Greene, of Providence, R. I. I claim the use of the leather, gutta percha, or other similar substance in attaching the thill or shaft to the axle.

REGULATING SPEED OF WINDMILLS—Frank G. Johnson, of Brooklyn, N. Y. I do not claim the general principle of regulating windmills by the use of weights or governors revolving with, or by means of the wind wheel, and controlling the sails thereof, through the intervention of levers and rods.

But I claim, first, the method, substantially as herein set forth, of regulating the velocity of the windmill, and controlling the position of its fans by the use of the weights, D, D, with the springs, E, E, E, adjusted to slide from and towards the center of the wheel upon the spokes, B, B, B, and connected to the fans, A, A, A, by means of the rods, G, G, G, or their equivalents.

Second, I claim the combination together of the brake wheel, I, and arms, z, z, z, for the purpose of setting the fans edgewise to the wind whenever desired, said arms and brake wheel being formed and adjusted substantially in the manner set forth.

BRICK MACHINES—Richard W. Jones, of Green Castle, Ind. I do not claim the pug mill, or mode of tempering the clay, for that has been previously used. Neither do I claim the reciprocating carriage, J, in itself considered.

But I claim feeding the molds, N, underneath the grate, E, and pressing roller, C, and discharging them therefrom by means of the reciprocating carriage, J, springs, I, catch spring, M, and roller, K, as combined, arranged, and operated as shown and described.

[Engravings illustrative of the operation of the above invention, are being prepared, and will shortly appear in the Sci. Am.]

SHINGLE MACHINE—A. Kendall, of Cleveland, O. I claim, first, the described arrangement of devices for operating the approximating knives, whereby the shingles are shaved to the desired taper, according to the length of the shingle.

Second, the manner of raising the driver, E, from the slide, N, to the slide, N', by means of the carriage acting on the arm, R, in combination with the lever, R', and arm, r, and the action of the arm, D'', on the end of W'', of the lever, H, as described.

Third, the tumbler, P', as combined with the springs, Q', Q', operating in the manner and for the purpose set forth.

GRAIN AND GRASS HARVESTERS—Wm. F. Ketchum of Buffalo, N. Y. I claim supporting the cutter bar, E, and platform, H, when the implement is used as a grain harvester, by the bar or rod, G, in addition to the bar D, said bar or rod being arranged or attached to the cutter bar, E, and frame, A, as shown and described, for the purpose set forth.

SHINGLE MACHINE—Saml. M. King, of Lancaster, Pa. I claim the combination of cast-iron boxes with adjustable bottoms and sliding lids, operating with the knives in front alternately, by connecting rods, so as to cut and regulate the size and taper of the shingle, substantially as described.

STEERING WHEEL STOPPER—Wm. R. Lavender and Atkins Smith, of Provincetown, Mass. I claim constructing a wheel stopper and applying it so as to operate with the wheel and filler, substantially as specified, viz., so that it may turn up to level the wheel, and when down embrace the wheel handle, and be supported laterally under the strain of the wheel by devices essentially as described.

BIT FOR BORING FELLIES AND TURNING SPOKES—Horatio McGeith, of Meriden, Conn. I claim the shank twist auger with a tapering shell pod, for the purpose of boring and tapering a mortise at one operation, as described.

I also claim the tenon auger, constructed as described, with its auxiliary adjustable cutter to reduce the superfluous timber, and with a finishing bit arranged to cut a tapering tenon, with a shoulder at right angles to its axis.

MORTISING MACHINE—J. A. Merriman, of Hinsdale, Mass. I do not claim mortising by means of two chisels, P, P, and a horizontal reciprocating cutter, K', irrespective of the peculiar means employed for operating said chisels and cutter, for they have been previously used.

But I claim operating the chisels, P, P, and cutter, K', by means of the reciprocating plates, O, attached to a plate, and connected to a knife, and when down embrace a pin, attached to the wrist, M, of a shaft, N, works, substantially as shown for the purpose specified.

SAFETY COAL HOLE COVERS—F. H. Moore, of Boston, Mass. I claim the combination of the grating, E, and rods, g, with the cover, D, operating in the manner substantially as set forth.

DRESSING MILL STONES—R. D. Nesmith, of Lake Village, N. H. I do not claim the method shown, for adjusting the machine radially or tangentially with the arbor, E; neither do I claim the method of operating the pick arm, G', for these devices have been previously used.

But I claim setting up the lever on the shaft, arm, C, to a head, F', attached to a sliding plate, G', the head being allowed to turn on the sliding plate, whereby the length of the pick arm may be increased or diminished, as desired, and also the position of the pick arm varied in the machine, as set forth.

MAKING CLOTHES PINS—Ephraim Parker, of Burlington, Iowa. I claim attaching to a common lathe a cutter, working parallel with the mandrel in connection with a spout, the same motion operating both the cutter and spout.

I also claim, in connection with the above, a wheel and saw, the whole being a self-acting machine, taking square pieces of timber from the spout, and converting them into cylinders and clothes pins, at a single operation.

I claim the combination as described, or any other combination, substantially equivalent thereto.

WASHBOARD—Ira S. Parker, of Sharon, Vt. I claim constructing the washboard of a series of cylindrical beaded bars, A, the ends of which are secured to boards, B, C, the beads, a, of the bars, being side by side in horizontal rows, so as to leave spaces, c, between them, substantially as shown and described.

DOOR FASTENINGS—Reed Peck, of Cortlandville, N. Y. I do not claim to have invented any of the parts that make up my self-fastening door standards, as separately each is well known.

But I claim the combination of the spring with the gearing, by which the standard is rendered self-fastening, substantially as described.

CASTING METALS—Ezra Ripley, of Troy, N. Y. I do not broadly claim exhausting the mold of air, previous to or while running in the melted metal; nor the use of molds having vents arranged for the escape of confined or compressed air; nor do I claim the substitution of a simple expansive air chamber for an air pump, in casting metals by atmospheric pressure.

I claim instantaneously removing the air which ordinarily fills the mold, into an air-tight expansive chamber, through crevice-like air passages arranged for the purpose, immediately after the openmouth of the mold is immersed in the fluid metal, all as described and specified, whereby the advantages set forth are attained.

CARGO PORTS FOR SHIPS—Charles Perley, of New York City. I claim the rim, 7, around the flange, 6, that receives the bolts, 8, to secure the frame, 5, to the vessel, said rim, 7, receiving a caulking on both sides, one against the vessel and the other against the shutter, 9, thereby effectually preventing leakage, in the manner and as specified.

RE-MELTING IRON SCRAPS—Abiel Pevey, of Lowell, Mass. I claim the described cast-iron retaining vessel, with one or more perforations through it, or otherwise formed, the vessel being for receiving and retaining the iron dust, and then be enclosed on all sides, so that both the vessel and the cast-iron dust it contains, will be remelted together, essentially in the manner and for the purposes set forth.

STRAW CUTTERS—S. T. Sharp, of Danville, Mo. I claim arranging a circular knife, and a circular guard upon a common pivot, so that they will revolve one towards the other until they meet, each traveling the same distance, or the arranging two knives, circular, upon a common pivot, so that they will revolve towards each other until they meet.

DITCHING MACHINES—T. J. Stratton, of Waterloo, N. Y. I do not claim the excavating wheel, as such has been used before for like purposes.

But I claim the secondary frame, movable about the main axle, and constituting the support of the excavating wheel, and the earth conveyors, for adjusting the wheel to the required depth of excavation, and causing the conveyors to conform to each new position of the wheel, substantially as specified.

REVOLVING FIRE ARMS—Eben T. Starr, of New York City. I do not claim the cartridge cutters on the breech plate, nor any of the separate parts of which my improvement is composed.

I claim the series of barrels on a central rotating spindle or arbor, provided with a breech plate, so that it can slide thereon, substantially as described, to be moved forward to receive the charges, and then pushed back and locked, to inclose the charge, as set forth.

I also claim the method of elevating the cock by the finger lever until it is engaged and held by a spring latch, substantially as described, in combination with the trigger, so arranged, that it can be operated by the continued pull of the finger lever, to effect the discharge, substantially as described.

I also claim in combination with the finger lever and trigger, arranged and combined substantially as specified, the employment of the shifting stop on the finger lever, so that it can be set either to effect the discharge, by the continued pull of the finger lever, or by touching the trigger with the finger after the cock has been elevated, as described.

PLATFORM SCALES—F. M. Strong and Thos. Ross, of Weymouth, Vt. I do not claim operating the beam by means of the bent levers, connected with the steelyard rod, through an intermediate lever.

But we claim, first, the use of corresponding concavities and balls, in combination with the proximate face of the intermediate bearing pieces, h, and the shoe, g, substantially as described, and for the purposes specified.

Second, the adjustable bearings, i, in combination with the pivots, c, substantially as described and for the purposes specified.

Third, the combination of the projections on the bearings, i, with the notches in the pivots, c, constructed as described, for the purpose specified.

YARN DRESSING FRAMES—A. J. Sutherland, of Lowell, Mass. I claim the use and application of a lever, or its equivalent, one end of which presses on the surface of the yarn wound about the beam, and to the other end of which the friction spring is attached for the purpose, substantially as described.

I also claim James and John Haworth obtained a patent in 1845, for a contrivance acting on the same principle as that described, but that contrivance was applicable only to looms, and could not, without material modification, be applied to dressers. I do not claim the use of my let-off motion as applied to looms, but only as applied to dressers and similar machines, excepting looms.

I do not claim the friction strap nor the spiral spring, as they have been used before.

FELTING HATS—J. S. Taylor, of Danbury, Conn. I do not claim a series of rollers placed within a vat or frame, independent of giving two or more of said rollers a lateral vibrating motion, for they have been previously used.

Neither do I claim giving the hats a rubbing or vibrating motion, as that is a motion indispensable in all machinery for felting hats.

Nor do I claim the contrivance set forth, as an independent invention, but merely as an improvement on my hat felting machine, patented May 3rd, 1853, and the patent, obtained with it, subordinate to the present patent, and cannot be used without a license from the legal owner of the patent of 1853.

But I claim the combination of machinery, operating in the manner substantially as set forth, for the purpose of giving the hat a rotary longitudinal and vibratory motion, at one and the same time, thereby subjecting the hats, as they pass along the chamber, a, between the rollers, B, B, B, to a kind of rubbing or friction, similar to the rubbing performed by hand, and therefore causing the hats to be felted in a more perfect and expeditious manner than by the combination of any machinery ever before used.

COATING DAGUERRETYPE PLATES—J. H. Tompkins, of Buffalo, N. Y. I do not claim the box containing the jar, as that has long been in use.

But I claim the construction and use, in combination with the common coating box of the jar, J, with the porous diaphragm, D, and the orifice, C, in connection with the tube, E, and flask, F, together with the compress, K, L, and its application, for the purpose of impregnating the lime or any other substance from retaining chemical vapors in the coating box with the vapor of bromine; and for the further purpose of continuously furnishing the chambers of the coating box, with a more regular, uniform, and constant supply of the vapor of bromine, or any other sensitizing chemical, substantially in the manner set forth.

CURTAIN FIGURES—Lewis White, of Hartford, Ct. I claim the lever pawl, c, in combination with the ratchet, b, and cord, e, so constructed and arranged that by pulling the cord, which operates the roller to wind the curtain, in different directions, or different angles, it will vibrate the lever pawl, so as to hold or release the ratchet substantially as described.

OSCILLATING ENGINES—Hugh Wightman and William Warden, of Allegheny, Pa. We claim the arrangement of the plunger block, I, in correspondence with the steam openings of the hollow trunnion of an oscillating steam engine, and the steam openings of a suitable valve, so that the plunger-block lies continuously between the trunnion and the valve, and furnishes a seal or seat, respectively, for the trunnion and the valve, substantially as described and for the purpose specified.

STEAM VALVES AS CUT-OFFS—C. H. Brown and Chas. Burleigh (assignors to the Putnam Machine Co.) of Fitchburg, Mass. We claim operating the valves by means of the revolving cams, h, in combination with the bent levers, d, and their combination with the governor, in the manner and for the purpose substantially as set forth.

LATH MACHINE—J. L. Brown (assignor to himself and Chas. Learned,) of Indianapolis, Ind. I disclaim reciprocating knives for cutting laths, without regard to number and direction of movement.

I claim the vertical guide frame, F, in combination with the adjustable reciprocating rest, m, constructed, arranged and operating substantially as and for the purposes specified.

GRAIN AND GRASS HARVESTERS—Geston Santord & Thomas and Stephen Hull, of Poughkeepsie, N. Y. I claim placing or hanging the axis, D, of the driving wheel, B, in bearings, h, b, which are allowed to turn in eyes or straps, a, attached to the frame, A, the axis being placed eccentrically or out of center, in the bearings, h, substantially as shown and for the purpose specified.

HANGING MILL STONES—David Marsh, of Bridgeport, Ct. (assignor to Thos. B. Stout, of N. J., J. A. Cady, of Ohio, and David Marsh, of Conn.) I claim the mode of securing the carrier to the spindle, by means of the vibrating feather, inserted in the spindle, it admitting of being secured by keying in a recess in the cup, substantially as set forth.

HYDRO-CARBON VAPOR APPARATUS—Ari and Asahel Davis, of Lowell, Mass., and Charles Cunningham, of Nashua, N. H., assignors to A. W. Adams, of Lowell, Mass., J. B. Richardson, and Geo. W. Pettes, of Boston, Mass., and S. T. Sanborn, of Winchester, Mass. We claim employing the heat set free by the generation of the hydrogen, to heat the hydro-carbon, used to impregnate the nascent gas, as set forth.

STEAM STOP VALVES—James McNab and Adam Carr, of New York City. We claim the attachment of the outer shell, B, to the valve spindle, A, A, in such a way that it can be removed at pleasure to repair the valve.

RE-ISSUES.

THRASHING AND WINNOWER GRAIN—Andrew Ralston, of Middletown, Pa. Originally dated Feb. 21, 1842; I claim, first, the peculiar construction of the chaff screen, Q, which consists of a thin plate of metal punched with a semicircular instrument, for the purpose of producing semicircular apertures, and at the same time leave the parts of the metal thus partly punched from said plate, overhanging said apertures, at an angle of 30 or 40 degs., or at any suitable angle greater than that of the plate, for the purpose of allowing the grain to pass through said apertures, and at the same time prevent the chaff and straw entering them, and thereby preventing choking.

And, secondly, the combination of the system of screens, the blower, and the elevators, X, for cleaning and conveying the cleaned grain, to the granary, or other suitable place of deposit, substantially as set forth and represented.

SEWING MACHINES—Thos. J. W. Robertson, of New York City. Dated originally March 20, 1855; I do not claim, in itself, the arrangement of the feeding dog and spring clamp separately operating upon the cloth on its one or outside surface, as such has before been done by the alternate action of these devices. Neither do I claim of itself a separate and constant spring pressure applied to the outside surface of the cloth when the feeding bar or dog is otherwise arranged to operate in connection with the spring clamp or hold, as specified.

But I claim, first, the combination of the spring clamp, D, with the feeding bar or dog, f, constructed, arranged, and operating together against the cloth on its one side or surface, substantially as set forth.

Second, the arrangement for effecting the feed; that is to say, setting the arm, F, of the feed finger at such angle to the table that the diagonal direction of the thrust will cause the reciprocating motion imparted to the upper end to produce, in combination with the table, a lateral motion thereon of the feed finger, as well as the requisite pressure for gripping and feeding the cloth, as set forth.

[NOTE.—The list of patents published this week is quite large. It is indicative of an activity among inventors, and also among the examining officers at the Washington Patent Office, that we are always glad to notice. About one-third of all the patents granted as above, were, as usual, obtained through the Scientific American Patent Office.

Omitting this week our customary explanatory comments upon the claims, we have made selections from the most interesting subjects among them, notices of which will be found in another column, under the heading of "Recent American Patents."

Great Patent Case of Reapers.

McCORMICK AGAINST MANNY—In the month of January, last year, a suit was brought by McCormick, in the U. S. Dist. Cour. Washington, to obtain an injunction against J. H. Manny, of Illinois, for infringement of the plaintiff's patent. The place of trial was changed to Chicago, where a final hearing was ordered to take place; and again, the final hearing was ordered to take place at Cincinnati, where the case was fully tried last June, and occupied the Court about three weeks. It was considered a most important trial with regard to several devices connected with reaping machines, and great interests were therefore at stake. Immense efforts were made in collecting testimony for both sides, and both parties employed very eminent counsel—the Hon. Reverdy Johnson and E. N. Dickerson by the plaintiff, and E. M. Stanton and George Harding by the defendant.

The Court, after hearing the testimony, and the elaborate arguments of counsel, deferred its decision until the 16th inst., when it was delivered by Justice McLean, in Washington, where the application for injunction was first made, and is in favor of the defendant, and is reported to be as follows:—

"First, That Manny's Reaping Machine does not infringe any of the patents of Mr. McCormick.

Second, That the leveler and reel-post used in Manny's machines are not the same, in form or principle, as the improvements patented by Mr. McCormick, in 1845, and are no infringement.

Third, That several useful improvements invented and patented by John H. Manny, are not covered by McCormick's patent, but are different in form and principle, and consequently no infringement.

The injunction was refused, and the bill dismissed at cost of complainant.

The Court fully sustains the validity of McCormick's patents, and pays a high compliment to the patentee.

An appeal has been taken to the United States Supreme Court."

The decision, as quoted, was reported by telegraph to this city, but we are of opinion that there must be some mistake connected with that report, because the points which the Court is stated to have decided are clearly such as are provided for by a trial at common law, and the decision of a jury.

Coals for London.

This city requires about three millions of tons per annum. More than a thousand vessels averaging about 400 tons burden are employed in carrying these coals.

Last Christmas Day is stated, in some of our exchanges, to have been the coldest ever experienced in Texas. Great damage has been done to fruit trees.