the backs or inner sides of the rollers at top or bottom, in such a manner that any strain brought to bear on the outside of the rollers is sustained by said flanges and the gudgeons of the rollers are entirely relieved and not liable to get injured by shot or shell which may strike said rollers. The invention consists, finally, in the employment of india-rubber or other suitable packing inserted into the faces and backs of the rollers, in such a manner that said rollers will close perfectly water-tight and prevent the water from entering the ports or embrasures. W. S. Auchincloss, of New York city, is the inventor of this improvement, which has also been secured by foreign patents.

*Valve Gear of Steam Engines.*—This invention relates more especially to valve gear which is permanently and positively connected both with the induction or cut-off valves of the same and with a regulator, but which is yet variable under the control of the regulator to regulate the velocity of the engine by means of those valves. The principal object of the invention is so to connect the regulator with the valve gear, that a slight force only need be exerted by the regulator to materially alter the admission of steam to the cylinder, and by that means make the cut-off sensitive to slight variations in speed ; and to this end it consists in a novel system of right and left-hand screws, racks and pinions, combined with the regulator and with the levers or their equivalents, with which the valves are connected, whereby friction rollers or other devices attached to the said levers are shifted upon the varying face or between the varying faces of a cam by which the operation of the valve is produced, and thereby obtain the necessary variations in the operation of the valves to regulate the velocity of the engine. Tisdale Carpenter, of Providence, R. I., is the inventor of this improvement.


ISSUED FROM THE UNITED STATES PATENT-OFFICE

FOR THE WEEK ENDING DECEMBER 15, 1863.

*Reported Officially for the Scientific American.*

☞ 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.

### 40,892.—Printing Press.—John F. Allen & R. W. McGowan, New York City:

I claim the cylinders, B F F′ F″, in combination with the reciprocating form bed, H, all arranged to operate in the manner substantially as and for the purpose herein set forth.

[This invention relates to a new and improved printing press for printing with a plurality of colors simultaneously or at one operation, the sheet to be thus printed upon being required to pass but once through the press. The invention consists in the employment or use of a rotary cylinder, in combination with a series of cylindrical forms or type-cylinders, and a reciprocating form or type bed; all arranged to effect the desired end.]

### 40,893.—Operating Gun Carriage.—S. J. Ashley, San Francisco, Cal.:

I claim the gearing together of the front and back traverse wheels by means of a system of gearing in such manner that the power is applied to produce the motion of both sets of wheels simultaneously by power applied through a crank shaft or its equivalent at or near the rear end of the chassis, or in such position as may be most convenient, substantially as and for the purpose herein specified.

### 40,894.—Apparatus for Amalgamating Precious Metals.—J. B. Attwater, Chicago, Ill.:

I claim the employment or use of one or more reciprocating frames, H, provided with arms or leaders, f, having bars, h, or their equivalents attached to form elevators, in connection with the tray or box, A, all arranged to operate in the manner substantially as and for the purpose herein set forth.

[This invention consists in the employment or use of one or more reciprocating frames composed of a series of bars constructed in such a manner and arranged in connection with a tray or vessel to hold the quicksilver and "tailings," that both the small and large particles of metal contained in the tailings will be brought in contact with the quicksilver, and a thorough amalgamation effected.]

### 40,895.—Port Closer for Vessels of War.—Wm. Stuart Auchincloss, New York City:

I claim first, The employment or use for a port hole closer of two rollers, A A, each being made to rotate ndependently of the other and provided with a cavity, b, as described, so that by turning the rollers to the proper position an opening is obtained which allows of giving to the gun any desired elevation, or of training the same to an angle of 45° or more, substantially as set forth.

Second, The combination of the flanges, E, with the rollers, A A, constructed and operating substantially as and for the purpose herein shown and described.

### 40,896.—Paddle Wheel.—E. H. Bailey, Philadelphia, Pa.:

I claim the two sets of inclined floats, D and D′ and E and E′, in combination with the annular plates, G and G′, when the two sets of floats and the whole of the parts are constructed and arranged as set forth for the purpose specified.

### 40,897.—Corrugating Machine.—John G. Baker, Washington, D. C., assignor to Samuel J. Seely, New York City. Ante-dated Dec. 6, 1863:

I claim, first, Corrugating sheet metals, &c., between alternating die-jaws (or their equivalents), in such a manner as to form but one bend or angle in the sheet at a time.

Second, The die-jaws, 1, 2, 3, and 4, constructed and operating substantially as described.

Third, The dogs, I, and J, constructed and operating substantially as described.

Fourth, Feeding the sheet of metal by its own gravity in combination with the corrugating jaws (or their equivalents), substantially as described.

Fifth, The shoes, O, constructed and operating substantially as described for the purpose of making either waved or ridged corrugations with the same set of dies or die jaws.

### 40,898.—Signal Switch for Railroads.—Horace H. Barnes, Mexico, N. Y.:

I claim the arrangement of the segment rack, F, pinion, I, shaft, G, lantern, J, and box, K, with the switch lever, C, and frame, D, in the manner herein shown and described.

[This invention consists in a novel application of a lantern or lamp to the lever of a switch, as hereinafter shown and described, whereby the lantern or lamp will be turned automatically as the switch is moved or adjusted, and different colored lights exposed to show the position of the switch during the night.]

### 40,899.—Machine for bending Angle Iron.—David Bell, Buffalo, N. Y.:

I claim shaping angle cars for iron ship building by means of the table, A, (including the adjustable pins, G), and sliding pressure bar, B, and jaws, C, operated by a screw, substantially as described.

### 40,900.—Corn Planter.—Wm. F. Blandin, Macomb, Ill.:

I claim, first, The adjustable shares, i i, constructed, arranged and operating as and for the purposes herein specified.

Second, I claim the combination and arrangement of the crank shaft, O, provided with the arms, n, the lever, b, and connecting rod, m, for the purposes shown and set forth.

Third, I claim the removable combined tube and drill point, e, provided with the pin, p, in combination with the hopper of a corn planter, substantially as herein shown and described.

Fourth, I claim the combination and arrangement of the roller, C, provided with the pins, d, the crank shafts, h and c, the connecting bar, a, seed cylinders, L L, and combined tube and drill point, e, constructed and operating as and for the purposes herein described.

### 40,901.—Gaiter Boot Protector.—Frank M. Blodgett, Boston, Mass.:

I claim the combination of the anklet or leglet, A, and the frontlet gaiter, B, the same being arranged and applied together substantially as specified.

I also claim the combination and arrangement of the leg band or back piece, C, with the frontlet gaiter, B.

I also claim the combination of the anklet, A, the frontlet, B, and the back band, C, the whole being made, arranged and applied together, substantially as specified.

### 40,902.—Gate.—Franklin F. Blood, Janesville, Wis.:

I claim a gate balanced by a weight, B, or by a box cased up on the standards, C, and filled with sand or other substance, when combined with a friction roller, b, and hanging shives, D, and used for the purposes as herein described and set forth.

### 40,903.—Washing Machine.—I. J. K. Boyce, Napoleon, Ohio:

I claim the inwardly inclined presser board, B, attached to curved rods, C, which extend through slots in the top of the box, A, and are operated by pendulum arms, D, in combination with the outwardly inclined end, g, and curved corner, h, of said box, all constructed and operating in the manner and for the purpose herein shown and described.

[This invention relates to an improvement in that class of washing machines, in which the clothes are exposed to the action of a reciprocating pressure by placing them between said presser and the end of the box or tub.]

### 40,904.—Protecting Lead Pipe against the action of Water.—Leopold Brandeis, Brooklyn, N. Y.:

I claim the production of sanitary pipe by the application at 212° Fah., of a strong solution of a sulphide of an alkali to the inside of lead pipe or lead cisterns or leaden vessels for the purpose of forming a sulphide of lead, so that water will afterward not act on the pipe or vessel and cannot get contaminated by running through or by remaining standing in such pipe or vessel.

### 40,905.—Valve Gear for Steam Engines.—Tisdale Carpenter, Providence, R. I.:

I claim the employment in a steam or other engine of one or more right and left-hand screws, f f′, pinions h h, and racks, i i, combined with each other with the regulator and with the induction valve operating mechanism, and co-operating substantially as described to produce the necessary variations in the operation of the valves for the regulation of the engine.

### 40,906.—Balance.—H. W. Catlin, Burlington, Vt.:

I claim, first, The plunger, J, connected to the scale beam, E, and immersed in quicksilver or other fluid or semi-fluid contained in a proper vessel, K, to operate as and for the purpose specified.

Second, The weight indicator formed of the **diagonally-graduated** plate, M, connected to the beam, E, as shown in **connection with one** or two stationary index plates, O O, arranged substantially as set forth.

### 40,907.—Corset.—L. L. Chapman, Camden, N. J.:

I claim in ladies corsets, constructed to have the breast puffs, elastic shoulder-brace straps, and stay-pieces, as described and set forth, the employment of the short, straight clasping steel springs, arranged in front so as to be entirely below and free from the puffs, B B, as herein described and set forth, in combination with the single cord lacing, D D, in the back of the corset and adjustable in front as described, the said springs and lacing operating together in the said shoulder-brace corset combination, substantially in the manner described for the purposes specified.

### 40,908.—Evaporator for Saccharine Liquids.—J. C. Chesney, Abingdon, Ill.:

I claim the employment or use of a furnace, A, with two or more fire-places, B C, one above the other, in combination with a vertical flue, E, two or more horizontal flues, B′ C′, and suitable pans, B* C*, and dampers, b′ c′, all constructed and operating in the manner and for the purpose substantially as shown and described.

### 40,909.—Cultivator.—Marcus Milton Clark, Industry, Ill.:

I claim the vertically-adjustable stirrups, f, and hinged plow beams, F, in combination with the frame, A, running on wheels, B, which can be turned in either direction by a hand lever, D; all constructed and operating in the manner and for the purpose herein shown and described.

[This invention relates to an improvement in that class of cultivators which straddle one row and pass over the growing plants, and the principal object of the improvement is to enable the driver to govern the motion of the cultivator so that the same follows the sinuosities of the rows with care and facility.]

### 40,910.—Hauling or Driving Chains or Belts.—Wm. Clissold, Dudbridge, England:

I claim the compound links, a, with the wood-filling pieces, d d, in combination with the coupling plates, b, or their equivalent, substantially as described.

### 40,911.—Clasp for Harness Tugs.—L. D. Cowles, Armada, Mich.:

I claim the box, C, in combination with the crimped or corrugated plate, B, and strap, A, and the plate or lever, D, one or more, provided with the clamps formed of the projections, b b, and roller, c, or their equivalents, all arranged to operate as herein set forth.

[The object of this invention is to obtain a simple and efficient device which will supersede the ordinary tug buckle, and is an improvement on a clasp for the same purpose, for which Letters Patent were granted to this invention, bearing date Feb. 17, 1863. This invention consists in the employment or use of a box provided with a lever and clamp, in connection with a corrugated plate and strap.]

### 40,912.—Clasp for Harness Tugs.—L. D. Cowles, Armada, Mich.:

I claim the box composed of two parts, A B, connected together by the pins, e, on the part, B, fitted in eccentric slots, f f, in plates, C C, pivoted to the part, A, substantially as shown to form a new and improved clasp for harness tugs as set forth.

[This invention relates to a new and improved clasp to supersede the ordinary tug buckle for harness, and it consists in the employment or use of what may be termed a box formed of two parts connected together by means of pins and eccentrics arranged in such a manner that the two parts may be opened and closed with the greatest facility, and one strap firmly secured in the box and connected with the other strap which is permanently secured to the box, and the strap first named readily released so as to be "taken up" or "let out" when necessary.]

### 40,913.—Apparatus for lifting and removing Wheel Tires.—George W. Creamer, Fillmore, Pa.:

I claim, first, The tongs, A A′ a2, checks, a3, rod, C, arm, D, handle, E, and bar or ear, F, employed in the manner described to elevate and convey wheel tire.

Second, In combination with two pairs of tongs, I claim the rigid rod, B, operating as described to adapt the tongs to act in conjunction, and either grasp or release the tire.

[This is a very useful invention for the purpose of taking the tire from the fire in which it is heated and setting it upon the wheel without exposing the operators to heat or smoke, or compelling them to support the weight in a constrained posture.]

### 40,914.—Washing Fluid.—Parmer R. Cross, Lowell, Ind.:

I claim the washing fluid, composed of the herein described ingredients, in the proportions specified, substantially as and for the purposes set forth and described.

### 40,915.—Cultivator.—John R. Davis, Bloomfield, Iowa:

I claim in combination with the pivoted cultivator frames, I J J′ K L, also the hooked foot levers, N N′ n′, rods, P, and staples, Q, all constructed, arranged, and operating as specified, so that either or both the frames may be readily raised by the feet of the driver and retained by hooking the treadles into the staples, Q, as explained.

[By means of this invention the plow on both sides may be raised either separately or simultaneously by the feet of the operator, and retained at any desired height.]

### 40,916.—Skate Fastening.—C. T. Day, Newark, N. J.:

I claim the bars, F F I I, constructed, arranged, and applied to the skate, substantially as shown, so as to be capable of being moved in a longitudinal and lateral direction and clamp or grasp the sole of the boot or shoe, in the manner and for the purpose specified.

I further claim the screw rod, J, and nut, H, applied to the bars, F F I I, to operate in the manner and for the purpose set forth.

[This invention relates to a new and improved mode of attaching the skate to the boot or shoe and it consists in the employment or use of clamps arranged and applied to the skate in such a manner that a combined lateral and longitudinal adjusting movement is given them for the purpose of grasping the sole of the boot or shoe and firmly securing the skate to the same. The invention further consists in operating the clamps by means of a screw-rod and nut, arranged with the clamps in such a manner that all of the latter will be operated or moved simultaneously in securing the skate to the boot or shoe.]

### 40,917.—Machine for Polishing Rice.—Silas Dodson, Bloomsburg, Pa

I claim the employment of the rings, n, in combination with the screen, H, and the bars, i, in the manner and for the purpose herein shown and described.

In combination with the inclined adjustable rotating polisher, I, I claim giving an independent rotary motion to the inclined screen, H, as and for the purpose herein shown and described.

### 40,918.—Hair Dye.—Dominique Duprat, New York City:

I claim a hair dye composed of the ingredients herein specified and mixed together, substantially in the manner and about in the proportion set forth.

[This invention consists in a composition of pomade or fat scented with some perfume, nitrate of silver and gallic acid mixed together so as to produce a hair dye capable of restoring the original color to hairs of all shades.]

### 40,919.—Operating Gun Carriage.—John Ericsson, New York City:

I claim, first, The employment for controlling and checking the recoil of a gun carriage and for holding the same stationary while loading, and at other times, of a self-acting friction brake or clutch detached from the carriage but geared therewith, substantially as herein described.

Second, The employment for the purpose of running the gun-carriage out or in, of the same system of gearing by which the gun-carriage is geared with the aforesaid friction-brake or clutch, substantially as herein specified.

Third, So applying and arranging the two portions, Q R, of the friction-brake or clutch in connection with the gearing by which the gun is worked, and so arranging a movable stop to act on teeth provided on one portion of the brake or clutch that by a mere shifting of the stop the brake or clutch is brought either to a condition to check the recoil or prevent the movement of the carriage, or to a condition to permit it to run freely, substantially as herein specified.

### 40,920.—Artificial Fuel.—Thomas M. Fell, Brooklyn, N. Y. Ante-dated Dec. 4, 1863:

I claim the within-described artificial fuel manufactured from anthracite and asphaltums in the manner described.

### 40,921.—Skate.—Martin Feurstein, Williamsburg, N. Y.:

I claim a skate iron, A, provided with two or more hinged dogs, a b c, as and for the purpose described.

Also inserting the dog or dogs in slots, d, as and for the purpose specified.

[The object of this invention is to enable unpracticed skaters to strike out with their skates without the liability of slipping backwards or in a lateral direction, whereby they are caused to loose their balance and to fall.]

### 40,922.—Forage Ration.—Matthew Fletcher, Louisville, Ky.:

I claim the forage ration composed of proper relative proportions of grain and rough food when the former is secured and preserved within the latter, both constituting one bale or package, made substantially in the manner and for the purpose described.

### 40,923.—Clothes and Hat Hook.—George B. Fowler, New York City:

I claim the claw, a, and brad or brads, b, in combination with the bracket, B, of a hook, A, constructed and operating in the manner and for the purpose substantially as herein shown and described.

### 40,924.—Compound Oil for Burning and Lubricating.—R. A. Gilman, Woodland, Wis. Ante-dated Nov. 21, 1863:

I claim combining animal fats, such as tallow and lard, &c., with mineral hydro-carbon oils, such as petroleum, coal oil, &c., by mixing them together in about the proportion herein specified, and heating them to a temperature of 195° Fah. (more or less), with or without the addition of lime and sulphate of zinc, for the purpose described.

[This invention consists in heating animal fats, such as tallow, lard, &c., together with mineral hydro-carbon oils, such as petroleum, coal oil, &c., in such a manner and to such a temperature that said animal fats unite and combine with the mineral oils and the mixture becomes liquified and suitable for lubricating and burning purposes.]

40,925.—Manufacture of Gas.—W. H. Gwynne, New York City:

I claim the employment or use of the cupola, A, surrounded by the annular space, a, in combination with the exhauster, H, applied and operating substantially in the manner and for the purpose herein shown and described.

Also the within-described process of producing illuminating gas by exhausting the products of combustion from a cupalo or its equivalent through a quantity of incandescent material, substantially as specified.

40,926.—Fruit Ladder.—James Hannan, Lyon, Mich.:

I claim, first, Connecting two ladders together in such a manner by means of a pin or otherwise that the two shall form a double self-sustaining ladder, capable of being adjusted at various hights by separating more or less the two sections in combination with the side braces, B, when arranged as and for the purpose described.

Second, I claim the side braces, B, constructed in such a manner that they can be adjusted in any direction.

Third, I claim the frame, G G, the stationary table, C, and adjustable platform, D, when constructed as described, and used in combination as and for the purposes set forth.

Fourth, I claim the table attached to the lower portions of the frame, G G, and the manner of securing the same to the ladder.

Fifth, I claim the adjustable platform upon the top of the table, constructed and operating as and for the purpose specified.

Sixth, I claim the standard, H, crane, I, and pulley, J, in combination with the basket, L, operating as specified.

Seventh, I claim the elevated ladder, F E, for the purposes set forth.

Eighth, I claim the windlass, M, in combination with the elevated ladder, rope, K', and basket, L, when arranged and operating substantially as and for the purpose specified.

Ninth, I claim the platform, N, when arranged as and for the purpose set forth.

40,927.—Pump.—Thomas Hansbrow, Sacramento, Cal.:

I claim the combination of the swinging screw bolts, C, and slotted plates, a, with the valve chest, A, and air chamber, B, in the manner herein shown and described.

[This invention relates to an improvement in a pump for which Letters Patent were granted to this inventor, bearing date Feb. 5, 1861. The within-described invention relates to an improved mode of securing the air-chamber to the valve-chest of the pump, whereby a firm and durable connection of the above-named parts is obtained, and one which will admit of being manipulated with the greatest facility, in order to secure the air-chamber to the valve chest and to detach it therefrom.]

40,928.—Car Replacer for Railroads.—Robert Harper, Chelsea, Mass.:

I claim the car restorer or combination of the arched plate, A, the descending plane or part, b, and the two flanches, a b, projecting from opposite sides of the said plate, A, substantially as specified.

40,929.—Steam Boiler.—R. S. Harris, Dubuque, Iowa:

I claim the boiler composed of the shell, A, filled to the top with tubes, a a, the water jacket, B, the annular flue, D, extending uninterruptedly round the shell, and the drum, F, containing both steam and water and communicating with the shell and the jacket, which are both filled with water, the whole combined substantially as herein set forth.

[This invention consists in a novel arrangement of tubes, flues and water jacket, in connection with the cylindrical body or main portion of the boiler, and with an upper water and steam drum whereby a boiler is obtained which is very safe, durable and economical of fuel.]

40,930.—Hay and Cotton Press.—G. W. Hart, Aurora, Ind.:

I claim the mode of supporting the frame of a vertical hay press clear of the ground, by means of the pedestal, B, and nut, c, or their equivalents, substantially as and for the purposes set forth.

40,931.—Pantaloon Strap.—Samuel Heller, New York City:

I claim a pantaloon strap consisting of a center piece, A, of leather, two strips, B, of elastic india-rubber fabric, and two end-pieces, c, of leather, all arranged in relation to each other as and for the purpose herein shown and described.

[This invention consists in a strap with a centerpiece of leather, two strips of shirred india-rubber and two end pieces of leather, so that all the advantages of the leather are preserved and sufficient elasticity is imparted to the straps to prevent the pantaloons from being exposed to an injurious strain.]

40,932.—Apparatus for Concentrating ore.—James Hepburn, Mokelumne Hill, Cal.:

I claim, first, Exposing the ore as the same passes through the sluice, A, to an upward current of water from the receiving box, B, substantially as and for the purpose specified.

Second, The employment or use of one or more receiving boxes, B, arranged in relation to the aperture or apertures, a, in the bottom of the sluice, A, and operating in the manner and for the purpose substantially as herein set forth.

[This invention relates to an improvement in the manner of sluicing or separating the gages and rock or earthy matter from the ores of valuable metals after the same have been reduced to powder by stamping or crushing, so as to effect by the automatic action of water a perfect separation of the ore from the rock in which it was disseminated.]

40,933.—Mode of treating Fish Water for use in Dyeing, &c.—J. B. Herreshoff, Bristol, R. I.:

I claim the employment or use of Menhaden fish water in the dye tub, or as an agent for dyeing, substantially in the manner specified.

Also, the within-described process of treating or preparing Menhaden fish water previous to its application in the dye tub by exposing it to a temperature of about 300 Fah., under a pressure of about 60 pounds to the inch as herein set forth.

[This invention consists in the employment or use of the aqueous liquor pressed from Menhaden fish during the process of extracting oil therefrom for precipitating tarrates in the dye tub or as an agent for dyeing.]

40,934.—Sugar Evaporator.—James High, Walnut Fork, Iowa:

I claim the combination with the finishing pans, D D', mounted on wheels attached to their sides as herein shown and described of the guard, C, supported on either the stationary or moving pans and projecting over the space between the two in the manner and for the purposes specified.

[This invention consists in the arrangement of a transverse track at the rear end of the flue in combination with two wheeled pans and with a stationary heating pan, in such manner that the juice after it has been boiled in the heating pan and freed from scum can be conveniently ladled over into either of the wheeled pans, and exposed to a moderate heat over the rear end of the pan for the purpose of finishing the sirup, and that one of the said wheeled pans can be emptied while the contents of the other are being finished.]

40,935.—Cultivator Teeth.—H. T. Hooker, Skeneateles, N. Y.:

I claim the standard, A, provided with the reversible share, C, detachable mold-boards, B B', and pulverizer, D, the whole constructed, arranged and operating in the manner and for the purpose herein set forth.

40,936.—Clothes' Airers.—Lorenzo Horn, Wolfboro' New Hampshire:

I claim the spring, F, upon tube, E, arranged and operating in combination with spring, D, and groove, c, of rod B, substantially as and for the purpose herein specified.

40,937.—Fanning Mill.—Henry Kelly and William Franklin, Decorah, Iowa:

First, we claim the shoe vibrating on a single central vertical pivot, B, or its equivalent as and for the purposes described.

Second, The strap, H, or its equivalent as and for the purposes described.

40,938.—Mill for Crushing Sugar Cane.—G. H. Laub, Macomb, Ill.:

I claim the pendant, J, attached to the sweep, G, and provided with the vertical slot, e, when used in connection with the stationary cylinder, C, and roller, H, as and for the purpose set forth.

[This invention consists in the employment or use of a stationary cylinder in connection with a sweep having a pressure roller attached to it, the lathe being provided with a toothed or gear wheel at its upper end which works in a sunken gear at the upper end of the stationary cylinder; the stationary cylinder being provided with an annular trough at its lower end, and the sweep having an attendants' seat attached to it, and also a cane-guide and cane-rack, all being arranged in such a manner as to form an economical, durable and efficient mill for the purpose specified.]

40,939.—Faucet.—John Leitch, Buffalo, N. Y.:

I claim the combination and arrangement of the abutment, D, valve, E, diaphragm, H, and operating screw, G, substantially as described.

40,940.—Stump Extractor.—Hiram Lemm, Leonidas, Mich.:

I claim the lever, F, with the pawls, G G, attached in combination with the ratchet, K, and drum, I, with chain, J, attached, all arranged on a mounted frame, A, to operate as and for the purpose herein set forth.

I further claim the pole, L, provided with the spike, M, in combination with the chain, N, all arranged as and for the purpose specified.

[This invention consists in the employment or use of a lever provided with two pawls and fitted on the upper part of a mounted frame, in combination with a ratchet and drum fitted in the mounted frame, and all arranged to operate in such a manner and in connection with a chain so as to admit of stumps being extracted and heavy bodies elevated and transported from place to place with the greatest facility. The invention also consists in a simple and novel means employed for holding the mounted frame in proper position when the machine is in operation.]

40,941.—Weather-strip.—H. Ogborn, Green's Fork, Ind. Ante-dated Dec. 6, 1863:

I claim the bolts, G G, in combination with the curved piece, c, piece, D, and springs, H H, the whole being arranged, constructed and operated in the manner and for the purposes set forth.

40,942.—Grain Cleaner and Separator.—J. W. Patterson, Monticello, Minn. Ante-dated Dec. 12, 1863:

I claim, first, The revolving spiral arms, I I, attached to the shaft, B, where said arms are used in connection with the beater, G, perforated cylinder, H, as and for the purpose specified.

Second, The bar, S, attached to the upper part of the shoe, N, to prevent the choking or clogging of the hopper as specified.

[The object of this invention is to obtain a machine of simple construction which will effectually separate oats from wheat, and also separate smut and all other impurities from the grain.]

40,943.—Side-saddle Tree.—Tyree Pogue, Madison, Ind.:

I claim a side or ladies' saddle tree, formed and constructed in the manner hereinbefore specified and represented.

[By this invention a seat of improved form is produced without any building up process.]

40,944.—Wheel Vehicle.—C. J. Preston, Harlem, Ill.:

I claim the arrangement of the transoms, a g, with recesses, c r, fitting respectively over the bolster, d, and center bar, h, and connected with the truck frames, B C, in the manner and for the purpose substantially as herein shown and described.

[This invention consists in a double truck frame the fore part of which is so arranged that the cross timber behind forms the slider, and the transom, through which the king bolt passes, is framed into the center of each of the oblique cross timbers or hounds, and the transom of the rear part of the truck is supported by longitudinal timbers, both transoms being fitted, that in front to the centerpiece and that in the rear to the bolster by means of recesses, in such a manner that said transoms are allowed to spring down until they strike the centerpiece or bolster and thereby the required spring for the truck is obtained.]

40,945.—Pump.—G. H. Reynolds and G. H. Babcock, Mystic Bridge, Conn.:

First, We claim the two induction valves and the two educting valves of a double-acting pump arranged as shown in the single chamber, A, in combination with the partition, O, between the induction valves, m m' and extending to the eduction valves, n n', substantially as and for the purpose herein described.

Second, We also claim the construction and arrangement of the valve seats, M N, the valves, m m' n n' and the partition, O, whereby the said valves and their seats may be removed from the chamber, A, in one mass, substantially as herein specified.

Third, We also claim the employment of the cam, I, in combination with the hinged bail, F, and the bonnet, E, substantially as and for the purpose herein set forth.

40,946.—Curry-comb.—J. W. Rockwell, Ridgefield, Conn.:

I claim a curry-comb having a series of metal bars, A, applied to a flexible back, B, substantially as and for the purpose set forth.

[This invention consists in a curry-comb having its metallic bars or teeth attached to a flexible back made of leather or other suitable material in such a manner that a light and durable comb is produced, which will readily adapt itself to the sinuosities of the body of a horse or other animal on whom it may be used.]

40,947.—Safe.—Isaiah Rogers, Washington, D. C.:

I claim, first, A burglar-proof safe having the space between its walls provided with balls arranged in such a manner that they may turn and still be retained in proper position, for the purpose herein set forth.

Second, The employment or use of balls of different diameters substantially as and for the purpose specified.

Third, The steel plate, D, secured to the outer face or side of the wall, B, when said plate is used in combination with the balls as and for the purpose set forth.

40,948.—Fastening for Tobacco Presses or Cases.—C. E. Rymes, Charlestown, Mass.:

I claim my improved segment band fastening, as composed of the screw bolt, b, the nut, e, the adjustable washers, c c, their concave seats, d d, and the cam or eccentric, g, they being made, arranged, together and applied to the band substantially in manner and so as to operate as described.

40,949.—Pessary.—H. V. Scattergood, Albany, N. Y.:

I claim the construction of a pessary in the form of a light self-adjustable frame, constructed substantially as described, to be applied externally to the uterus to raise and support the same in the manner set forth in this specification.

40,950. Apparatus for Washing Ores.—Philip Scheuerman, Hancock, Mich.:

I claim, first, The combination of the shaft, F, cam, E, and yoke, D, with the plunger, c, of an ore washer, substantially as described.

Second, The two separate reservoirs, A A, provided with screens, J J, in connection with a single plunger, C, arranged substantially as shown to admit of the plunger forcing the water simultaneously through both screens for the purpose specified.

Third, The combination of the strip, H, and plates, I I, with the plunger, C, and reservoirs, A A, operating as a guide to the said plunger, and a partition between the reservoirs, all as herein shown and described.

Fourth, The tubes, K, provided with openings, b, in their under sides in close proximity to the screens, and communicating with chambers, L, at the end of the screens opposite to the ends on which the ore or pulp is admitted, substantially as and for the purpose set forth.

[This invention relates to certain improvements in that class of ore-washers in which water is forced up through screens on which the ore or pulp is discharged from the stamp mill. The object of the invention is to obtain an ore-washer of the class specified which will be more compact than those previously devised, more simple in its construction as well as more efficient in its operation.]

40,951.—Machine for making Sheet-metal Eave Troughs.—S. A. Scofield and Erastus Churchill, Morenci, Mich.:

We claim, first, A stationary supporting bed, A, with a stationary circular "former" constructed on one of its edges, so as to stand entirely above the base of the bed, in combination with a recess, a, of the form and located substantially as described.

Second, The combination of the stationary bed, A, circular former, B, and the recess, a, with the vibrating head, C D, substantially as and for the purpose described.

Third, The wedge-shaped clamping piece, D, between the circular former, B, and the shoulder of the head, C, when constructed and arranged substantially in the manner and for the purpose described.

Fourth, So applying a wedge-shaped clamping piece, D, to a head, C, that by manipulating a lever the pressure of the wedge may be maintained and also the vibration of the head produced, substantially as described.

Fifth, The bent arms, d d, in combination with a swinging head-clamp, D, and recessed bed and former, A B a, substantially as and for the purpose described.

40,952.—Bobbin.—C. A. Shaw, Biddeford, Maine:

I claim a bobbin substantially such as described, combining in one and the same article the grooves, o o, bosses, f f, and conical or cone-shaped ends, m m g g, and this I claim whether the said ends are cut out or sunk on their outside faces in the manner described or not.

40,953.—Process of Refining Sorghum Sirup.—J. F. Sheldon, Viola, Ill.:

I claim the process herein described of treating cold sirups with saleratus in the manner described and for the purposes set forth.

40,954.—Process of Manufacturing Sugar from Sorghum.—J. F. Sheldon, Viola, Ill.:

I claim the process herein described of treating sorghum sirup, when cold, with saleratus or its equivalent, in the manner and proportions herein set forth and described.

40,955.—Canceled.

40,956.—Artificial Leg.—I. D. Small, North Fairfield, Ohio:

I claim, first, The combination with the knee and ankle joints, constructed as described of the cords, C and E, spiral spring, D, and pulleys, L and M, arranged, attached and operating as and for the purpose specified.

Second, I claim the spring, S, when constructed, applied and operating as set forth.

40,957.—Railroad Car Truck.—A. F. Smith, Norwich, Conn.:

I claim, first, Suspending the car to the truck by freely swinging links of so short radius that the gravity of the parts alone will effectively sustain the lateral motion at high velocities, substantially as herein set forth.

Second, The employment of the within-described fixed straps, M, swinging suspending links, N, joint, m, and bars, a b, or their respective equivalents arranged substantially as shown, whereby the vertical strain is borne by the top of the bearing beam, A, and base of the swing beam, B, as usual, and a shorter radius of lateral motion secured with the advantage specified.

40,958.—Projectiles for Ordnance.—D. E. Somes, Washington, D. C.:

I claim, first, Restraining a ball or projectile in a gun on its outward passage by means of friction, till the powder shall have time to burn and the maximum or any desired amount of its power developed substantially in the manner described.

Second, A projectile with mortices, d d d d, and pieces, f f f f, springs, n n, and cap, n, made and used substantially as described.

40,959.—Cultivator.—A. J. Sparks, Wyanet, Ill.:

I claim, first, The two levers, G G', connected together by a joint formed of the slotted plate, g, and segment rod, I, and attached to the plow beams, H H, substantially as shown, to admit of a ready lateral movement of the same as well as the ready elevating of the plows above the surface of the earth as set forth.

Second, The suspending of the plow beams, H H, from the frame, A, by means of the upright bars, J J, and incline bars, p p, provided with rollers, s o, at their upper ends which work on suitable ways or guides, substantially as set forth.

Third, The hooks, M, on the plow beams, H, in connection with the pendant hook projections, N, on the frame, A, when said parts are used in combination with laterally moving plow beams for the purpose specified.

[The object of this invention is to obtain a plow of simple construction which will admit of the plows being moved laterally with greater facility than usual, to conform to the sinuosities of the rows of corn and also admit of the driver either riding on the machine or walking behind it as he may desire; provision being also made for gaging the depth of the penetration of the plows and regulating the space between them to suit the width of the space between the rows of corn.]

40,960. Hoop Skirt Wire.—J. W. Stiles, New York City:

I claim a steel hoop for ladies' hoop skirts, covered with one or more metals by plating, electro-plating, or in the moist way or other equivalent means, the hoop may then or may not be covered with cotton or other textile fabric, whereby I produce a more elegant, cleanly and cleansable hoop for ladies' hoop skirts.

40,961.—Field Rollers.—U. M. Sunderland, Highgate, Vt.:

I claim the gudgeon cross-bar, P, when provided with the single attaching flanches, p p, projecting in opposite directions in combination with the shouldered gudgeons, M M, and box enlargement, L L, extending over them in the manner and for the purpose herein set forth.

40,962.—Machine for Measuring Cloth.—C. M. Swany, Philapelphia, Pa.:

I claim the drum, B, provided with the screw shaft, C, and nut, D, in combination with the graduated plates, b b, one or both, pressure roller, E, and the lever or pawl, J, and ratchet or milled wheel, I, or their equivalents, all arranged to operate substantially as and for the purpose herein set forth.

[This invention consists in the employment or use of a drum provided with a screw shaft and nut, and also with a ratchet, in connection with a pressure roller, lever and graduated plate, all being arranged in such a manner and in such relation with two drums or shafts from one of which the cloth is unwound and upon the other of which it is wound, that the desired work may be done in an expeditious and accurate manner.]

40,963.—Spring for Furniture.—C. F. and J. W. Tillman, La Crosse, Wis.:

I claim the stem, D, provided with an adjustable pin, h, in combination with the cap, C, buttons, d, spring A, and slat, B, all constructed and operating in the manner and for the purpose herein shown and described.

[The object of this invention is to secure spiral springs and particularly bed springs in an upright position, doing away with the process of tieing or sewing to the webbing and to render said springs adjustable, so that they can be set according to the weight which they are to sustain and to prevent them being bent sideways.]

40,964.—Process of Bronzing or Coloring Iron.—Hiram Tucker, Newtown, Mass.:

I claim the process of bronzing iron substantially as described.

40,965.—Mode of Changing Motion.—R. G. Turner and H. Stone, Dedham, Mass.:

We claim the above-described combination for obtaining a continuous rotary from a reciprocating rectilinear movement, the same consisting of the rack, K, the two engaging gears, D E, the rack gears, H I, and the cams, F G, and spring catches, L M, or their mechanical equivalents, arranged and applied to two shafts, A B, substantially in manner and so as to co-operate as hereinbefore specified.

40,966.—Car Coupling.—John Van Dyne, Crum Elbow, N. Y.:

I claim the arrangement of the cam, F, jaws, B, and springs, C, with the guides, D D, head, A, and shackle, E, in the manner herein shown and described.

[The object of this invention is to simplify the car coupling by dispensing with certain parts thereof, and at the same time render the coupling more efficient than it originally was.]

40,967.—Tool for Fastening Boiler Tubes.—Aaron Van Guysling, North Greenbush, N. Y.:

I claim, first, The application of the handle, F, to the sleeve, A, to operate in combination with the segmental expanders, D, and conical mandrel, C, in the manner and for the purpose substantially as described.

Second, So arranging the segmental expanders, D, in relation to each other and to the sleeve, A, that the same when not expanded leave no gaps between their adjoining edges, and when expanded they embrace the largest possible part of the inner surface of the tube as set forth.

This invention is intended as an improvement on a tool for attaching tubes to boilers, on which a patent was granted to Thomas Prosser, April 17, 1849. The improvement relates to the slotted sleeve which forms the guide for the segmental expanders, and which is provided with a handle so that after the conical mandrel has been inserted, the tool can be turned, and that by this action the joints between the tools and tube-shut is rendered smooth, free from ridges or wrinkles and perfectly tight.]

40,968.—Confining the ends of Elliptic Springs.—Richard Vose, New York City:

I claim the combination of curved, tension-spring plates, with elastic bearing plates, in the construction of a tension elliptic spring, when said tension plates are self-retained in their proper positions, and left free to expand independently of each other, substantially as is herein set forth and described.

I claim also the use of hollow end caps to retain and secure the ends of the elastic plates, in an elliptical or semi-elliptical tension plate spring, substantially in the manner and for the purpose herein set forth.

40,969.—Shingle Machine.—Martin Weaver, Millersburgh, Pa. Ante-dated Dec. 1, 1863:

I claim, first, The combination of the horizontal circular saw, C, adapted to cut on both sides of the horizontal endless chain, E, and gage blocks, K, all arranged and operating as herein set forth.

Second, The combination of the tables, N N', with the rollers, M M', endless chain, F, gage blocks, K K', and double-acting saw, C, all constructed and operating as described.

[By means of this invention shingles are sawn at two places on a shingle machine as fast as two operators can place the blocks in position.]

40,970.—Portable Photographic Gallery.—Samuel Weaver, Gettysburgh, Pa.:

I claim the enlargement of a portable daguerrean gallery or house, by means of the elongated sliding bars, C, friction roller boxes, D, movable sides, g, and friction rollers, E, as arranged, and operating substantially in the manner herein specified.

40,971.—Vegetable Cutter.—Amos H. Wellington, Woodstock, Vt.:

I claim my improved machine or combination and arrangement of the vertical conical hopper, B, the two detainers or cutting boards, L L, and a vertical hollow cone or frustum, C, provided with knives, having throats opening into the interior space or chamber of the said cone or frustum, the whole being substantially as and for the purpose and to operate as hereinbefore specified.

40,972.—Shuttle Fastening.—Gilbert D. Whitmore, Boston, Mass.:

I claim the above-explained improved blind fastener, having a handle, E, and two or any other suitable number of inclined cam slots, e e, made and applied together and arranged with respect to a spring-bolt, A, and its case, B, substantially in manner and so as to operate therewith and with catches, F H, disposed as specified.

40,973.—Cultivator.—Erastus Wilcox, Delhi, Iowa:

I claim the combination and arrangement of the frame, A A B B, bars, D D, and adjustable standards, F F, wheels, H H, inclined bars, I I and J J, stands, N N and T T, bars, L and M, handles, J' J', shovel stocks, Q and V, with cultivating shovels, S and X, the whole constructed as described.

40,974.—Fan Blower.—William Winter, Plainfield, N. J.:

I claim the annular air-chamber, d, and double conical cavity, a, with central apertures, f, in combination with triangular rotary wings, B, constructed and operating substantially as and for the purpose shown and described.

40,975.—Cast-iron Building Pieces.—Robert Wood, Philadelphia, Pa.:

I claim building pieces consisting of hollow cast-iron shells, having projections and holes arranged substantially as and for the purpose herein set forth.

40,976.—Refrigerator.—W. M. Baker (assignor to himself and W. R. Heath), Walpole, Ind.:

I claim the air-tubes, I J, and air-chamber, H, in combination with the ice-chamber, D, and ventilator, K, all being arranged in relation with the inner case, B, to operate in the manner substantially as and for the purpose herein set forth.

[This invention relates to an improvement on a refrigerator for which Letters Patent were granted to this inventor, bearing date July 18, 1863. The object of the invention is to supply the interior of the refrigerator with cold dry air and to carry off from the former all gaseous impurities.]

40,977.—Cooling and Discharging Fermented Liquors.—Felix Brunnow (assignor to himself and Joseph N. Naglee), Philadelphia, Pa.:

I claim a vessel, A, of any suitable form for containing ice and water, and the weighted inverted vessel, D, in combination with the cocks and tubes herein described, or any equivalent to the same, the whole operating substantially as described, for the purpose specified.

40,978.—Primed Metallic Cartridge.—Silas Crispin, New York City, assignor to Thomas Poultney, Baltimore, Md.:

I claim, first, The combination of a thin-wrapped metal and paper cartridge case with a primer, so securely fastened together as to form a primed expanding wrapped metal and paper cartridge, substantially as above described.

Second, The combination of a thin-wrapped metal cartridge case and a primer, so securely fastened together as to constitute a primed expanding wrapped metal cartridge, substantially as described.

40,979.—Corn Harvester.—Edward J. Eno (assignor to Stephen H. Eno), Jacksonville, Ill.:

I claim, first, The rising and falling plates, I I', operated by the part pinion, J J', in combination with the guide arms, e, and the endless apron, Q, all being placed within or attached to a box, C, applied to the body of a cart or wagon, to operate substantially as and for the purpose herein set forth.

Second, The particular manner of attaching the box, C, to the wagon body, to wit, by means of the posts, D, and keys, E, as herein set forth.

[This invention relates to a new and improved machine for detaching the ears of corn from the standing stalks, and depositing the former in a cart or wagon as the latter is drawn along over the field and in proper relation with the rows of corn.]

40,980.—Spindle Bolsters of Spinning Machines.—Richard Fethney, Manchester, England, assignor to Lewis Leigh, Seymour, Conn. Patented in England Nov. 5, 1861:

I claim, first, The tubular bolster for spindles, herein described, provided with a spherical bearing fitting a recess in the spindle rail, for the purposes and substantially as specified.

Second, I claim the means, substantially as described, for preventing the rotation of said bolster and retaining it in its recess in the spindle rail as set forth.

40,981.—LeverJack.—Thomas M. Kane (assignor to himself and Ogden Howell), Goshen, N. Y.:

I claim the construction of the uprights, in combination with the lever block and clevis, when constructed, arranged and combined as herein described and for the purposes set forth.

40,982.—Fan Blower.—M. V. Noble, St. Anthony, Minn., assignor to himself, J. C. Nobles and Eliza C. Suydam:

I claim, in combination with a fan case having closed eyes, and a divided fan, the double sets of inlet and exit air ducts or passages, C C' and D D, constructed, arranged and operating together for the purpose of drawing in and forcing through it counter currents of pure and impure air, substantially as and for the purpose described.

40,983.—Mode of Fastening Bales of Merchandize.—T. W. Reilly (assignor to Hector H. McClean), New Orleans, La.:

I claim the buckle, A, with tongues, d d, and center piece, C, as fully represent d in the drawings.

40,984.—Manufacture of Artificial Stone.—F. M. Ruschaupt, New York City, assignor to J. G. Kershaw, Philadelphia, Pa.:

I claim the manufacture of artificial stone from lime, clay and gelatinous silicic acid, mixed and pressed substantially as set forth, for the purpose specified.

40,985.—Hoop Skirt.—S. S. Sherwood, Acquackanonck, N. J., assignor to himself and Alexander Douglas, English Neighborhood, N. J.:

I claim the combination with the tapes, A A, woven with loops or their equivalents, and the hoops, E E, of the cords or braids, F F, when the latter are secured outside of the tapes, and not through them, substantially as and for the purposes set forth.

40,986.—Turbine Water Wheels.—Seth Whalen, Balston Spa, N. Y., assignor to himself and Hannah Whalen, Burnt Hills, N. Y.:

I claim the guide wheel, g, with the chutes, l, l, and central discharge wheel, k, with the buckets, 2, 2, substantially as specified, in combination with the stop water or cap, l, extending from the guide wheel, g, to the shaft, h, as and for the purposes specified.

I also claim the follower blocks, n, and keys or wedges, 5, in combination with the stop water or cap, l, for the purposes and as specified.

40,987.—Mill for Grinding Fruit, Grain, &c.—Wm. N. Whiteley, Jerome Fassler and O. S. Kelly, Springfield, Ohio:

First, We claim the three grinding rollers in combination with the metal segments, k k, constructed substantially as described for the purposes set forth.

Second, In combination with the frame and grinding rollers arranged substantially as described, we claim arranging the gearing which communicates motion to or between the rollers on the ends of the shafts outside of the journal boxes and frame, substantially as described.

Third, We claim, in combination with the ribbed segment, N, the spiral, crushing and feeding roller arranged over the grinding rollers, H and H', substantially as described and shown, to crush and feed the apples uniformly to the grinding rollers.

Fourth, We claim two spiral-ribbed grinding rollers running together at different velocities, with the ribs of one roller crossing the ribs on the other at an angle where the grinding is effected, in combination with the crushing and feeding roller arranged above them.

Fifth, We claim the combination of the hopper, Q, ribbed segment, N, segments, R R', and rides, L L, with the roller, M, forming the crushing box, constructed so as to be readily removed, as described, for washing and cleaning the mill.

40,988.—Metallic Cartridge.—T. J. Rodman, Watertown, Mass., and Silas Crispin, New York City, assignors to Thomas Poultney, Baltimore, Md.:

We claim, first, The thin metal-wrapped cartridge case, made substantially in the manner described and for the purpose set forth.

Second, The forming of a wrapped thin metal cartridge case combined with an internal or external strengthening disk or cups, whether this disk or cup is made of paper, metal, or an elastic material, substantially as above described.

## RE-ISSUES.

1,589.—Loom.—Thomas Lovelidge, Philadelphia, Pa. Patented Feb. 14, 1860:

I claim yarn-delivering mechanism, consisting of a toothed wheel and a detent or escapement lever, or their equivalents, applied to or operating with the yarn beam, substantially as set forth, when the said mechanism is controlled by the tension of the yarn through the medium of the devices herein set forth, or the equivalent to the same.

1,590.—Preparation of Straw for Paper Pulp.—J. B. Palser and Gardner Howland, Fort Edward, N. Y. Patented June 21, 1859. Re-issued July 3, 1860:

I claim the process of subjecting straw or similar stalks to the simultaneous action of an alkaline liquid, agitation, and a high temperature, such as is produced by contact with a surface heated by a fire heat, whereby such a change is effected in the organization of the glutinous or resinous matters contained in the material that the fibrous material can be separated from them by washing.

1,591.—J. B. Palser and Gardner Howland, Fort Edward N. Y. Patented March 20, 1860:

We claim as a new article of manufacture the staple fiber made substantially as herein set forth.

1,592.—Sewing Machine.—William Stanley (assignee by mesne assignments of A. H. Hook), New York City. Patented Nov. 30, 1859:

I claim the combination of the levers, m n, arm, k, spring, o, and cam, p, constructed and arranged substantially as and for the purpose set forth.

The combination of the two washers or plates, z z, concave at the center and rounded at their outer edges, with a center pin, and any suitable means to give such plates pressure, substantially as and for the purposes set forth.

## DESIGNS.

1,876.—Metal Tea Set.—Ernest Kaufman, Philadelphia, Pa.

1,877 and 1,878.—Stove Plates.—D. E. Paris, Troy, N.Y.

## EXTENSIONS.

Machinery for Making Cord.—W. E. Nichols, East Haddam, Conn. Patented Dec. 11 1849. Re-issued Jan. 20, 1857:

I claim, first, Twisting or controlling the twist of the strands while the main frame is revolving to lay them into cord, by causing an even-faced wheel attached concentrically to and revolving with the bobbin frame, to travel over a fixed and smooth surface, friction causing the frame to revolve.

Second, Revolving the bobbin frames on their own axes to twist the strands, at the same time that they are carried round a common center to twist the cord by rolling them on the surface of a stationary annular inclined track toward the inner or outer periphery of which they can be adjusted to run, so as to vary the relative twist of the strands and cord, substantially as herein set forth.

Third, I claim the construction and arrangement of the central stem or spindle of the bobbin frame, operating substantially as herein set forth; whereby the yarns are collectively subjected to progressively increasing tension and twist, from the commencement to the end of the process of laying them into the strand, whereby the latter is rendered smooth and regular in its figure and of uniform density and strength, and subjected to uniform tension, while being laid into the cord.

Loom for Weaving Figured Fabrics.—Moses Marshall, Lowell, Mass. Patented Dec. 11, 1849. Re-issued April 24, 1860:

I claim combining with the jacks that operate the series of leaves of heddles, and with the lifter and depresser and pattern chain, or any equivalent apparatus for determining the pattern, a mechanism for holding the jacks either in their elevated or depressed position, when not required to be operated, substantially as and for the purpose specified.

I also claim imparting an irregular motion, substantially such as herein described, to the jacks, by means of eccentric cog wheels, substantially as and for the purpose specified.

# Notes and Queries

O. M. B., of Conn.—By covering the surface of your galvanizing vessel with powdered charcoal, lampblack or soot, you not be troubled with disagreeable fumes.

O. E. M., of Ill.—We have never seen a casting (part of which was chilled) rendered malleable, with the chilled part preserved in the original condition.

T. C., of R. I.—You state that an article recently patented in England has been introduced and sold here, and you ask—"if I obtain an assignment from the patentee and take out a patent here, can I prevent the further manufacture of the article by other parties?" We reply you can; but the inventor must make the application for the patent in his own name and assign the whole right to you, in which case the patent would issue to you as assignee.

T. G. S., of C. W.—We have no business information concerning House's mode of operating window blinds. Unless you get the facts from him we do not know in what other way you can do so.

L. D. G. of N. J.—Address J. C. Hoadley & Co., Lawrence, Mass., for a small engine for farm purposes. We are glad to see that you are so sensible as to contemplate using steam on your farm instead of depending on hand labor. English farmers are derided sometimes for their old fogy ideas, but they are about twenty-five years ahead of their brethren in our country in this respect. Knitting machines are in practical operation, and there are many that come within the range of ordinary family use. The wind dial and register is about a century old, if not more.

C. E. F., of N. Y.—Your method of expressing cider appears to be new, and we do not see any reason why the plan would not work well, though there may be practical difficulties which could only be found out by experiment.

R. S. S. H., of Md.—The *New England Farmer* is published in Boston. You had better send on $2 and subscribe for it, and we have no doubt the editor will answer your enquiry.

A. C. E., of Mass.—You ask if there would be much risk in your going to Buffalo "to get a situation as second engineer on a propeller." You are just as competent to answer such a question as we are. We know nothing whatever about situations on Buffalo propellers.

H. H., of Ohio.—If an invention has been in use in your town for five years a valid patent could not be obtained for it—you can continue the use of the invention without danger of molestation. We thank you for your efforts to increase the circulation of our paper in your neighborhood.

G. W. F., of Ohio.—We cannot tell you how to split stones by chemical means so as to be of any practical value.

H. W. F., of C. W.—Clean your coins with dilute sulphuric acid; one part of acid in ten of water will answer very well. If there are dates upon them this will bring them out, if not, not. Nothing can bring out the date of coin which has been worn off; there are some old coin washers in this city, we are told, who have a simple method for bringing out dates—that is to manufacture 'em.

J. L. H., of Mich.—"Campin's Practical Mechanics," contains a portion of the information you seek. We cannot see how it is that correspondents write to us for information upon matters that we have just printed whole columns about in the SCIENTIFIC AMERICAN. A little more attention would save trouble on all sides.

## Money Received.

At the Scientific American Office, on account of Patent Office business, from Wednesday, Dec. 16, to Wednesday, Dec. 23, 1864:—

J. O. H., of Pa., $44; B. E., of N. Y., $25; J. M., of N. Y., $25; L. S., of N. Y., $41; H. H. E., of Conn., $16; L. O. C., of Pa., $20; W. H. B., of Cal., $20; E. C., of N. Y., $40; W. F. O., of Mass., $45; O. & F., of Mass., $20; R. T., of N. Y., $20; G. B., of N. J., $16; J. E., of N. Y., $16; R. H., of Mass., $20; G. G. H., of Conn., $45; C. C. C., of N. Y., $45; J. E., of N. Y., $100; F. McC., of Conn., $50; V. H. H., of N. Y., $12; S. L., of Ohio, $16; D. & K., of Cal., $30; G. B. McD., of Ky., $16; G. R. V., of N. Y., $30; H. C., of Ohio, $47; H. W. B., of Iowa, $16; E. M. K., of Iowa, $16; J. T., of Ind., $16; A. & H., of Conn., $30; T. A. M., of Pa., $16; C. W., of Mich., $25; A. J. M., of N Y., $32; J. B. H., of R. I., $100; W. H., of N. Y., $12; W. L., of N. Y $48; W. M. K., of N. Y., $41; J. B., Jr., of N. Y., $20; H. S. B., of La. $15; R. S. C., of Iowa., $45; W. M. D., of N. Y., $41; B. A. H., Iowa, $45; E. C. C., of Ill., $41; T. R. C., of Mass., $45; G. S. P., of Mass., $20; W. H., of N. Y., $22; N. C. W., of N. Y., $25; H. H. H of Ohio, $16; D. L., of Vt. $20; C. T., of N. J., $16; M. B., of Ky., $26; J. W. P., of Mass., $35; J. Z., of Ill., $15; H. S. S., of Mass., $16; A. L. S., of Conn., $25; G. T. B., of Mass. $16; R. G., of Mass., $20; G. S., of Maine, $16; T. J. B., of Wis., $16; A. A., of Ill., $16; N. J. A., of Ill., $16; P. B., of N. J., $25; G. C., of Conn., $16; S. D. T., of Mass., $16; M. H. M., of Ohio, $16; F. C., of Mass., $35; A. S., of N. Y., $20; F. B., of Bavaria, $16; J. T. L., of N. Y., $12; J. D., of N. Y., $20; P. S. F., of N. Y., $45; J. C, of N. J., $20; S. B., of N. Y., $20; M. F., of Conn., $20; H. & H, of N. Y., $25; P. C., of N. Y., $96; W. F, of Mo. $20; L. C., of Russia, $16; E. & H., of Mass., $20; W. X. S., of Mass., $20; E. W., of N. Y., $16; G. O. W., of Mass., $25; B. & G., of Conn $25; J. P. B., of Ill., $50; A.G. W., of Cal., $30; J. W. D., of Mich., $15; T. & S., of Wis., $16; G. H. S., of Conn., $16; S. D. D., of Iowa, $16; S. & S., of Ill., $15; T. S. M., of Ohio, $16; T. J. T., of Md., $16; G. H. E., of Mass., $15; N. H. R., of N. J., $16; J. S., of Mo., $16; W. H., of Pa., $16.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it, and if they have