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Cooling Rooms.

The warm weather will shortly be here, and every one will be seeking the refreshing influence of a cool and shady place, whereunto they can retreat from the blazing sun; so we will give our readers a few hints concerning the cooling of their houses. The first necessity is a thorough draft. This can always be obtained by opening every door and window in the basement, the top of every window above, and by throwing each door wide open; but above all, be sure that the trap door in the roof is open, and there is plenty of air room from it down the stairs, so that whichever be the direction of the wind, there will be at least one ascending current of air in the house. Another requisite is shade. Our common slat shutters answer well for the windows, but the most cheap and convenient shelter for the roof is to cover it thickly with straw, dried reeds, or rushes. These will resist the influence of the noonday sun, and keep the garret almost as cool as the basement. One of the most simple methods, and at the same time cheapest means of artificially lowering the temperature of a room is to wet a cloth of any size, the larger the better, and suspend it in the place you want cooling; let the room be well ventilated, and the temperature will sink from ten to twenty degrees in less than half an hour.

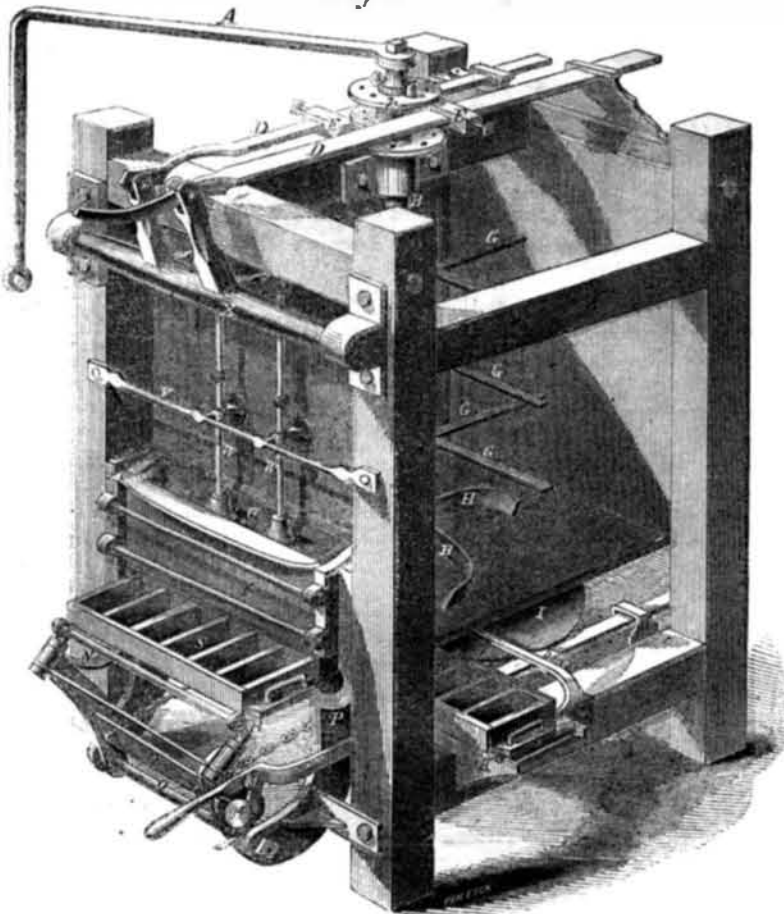
The above hints will be useful to many, and as a last suggestion we will inform the reader that, in summer, it is well to keep a solution of chloride of lime in the house, and occasionally sprinkle it in the more frequented parts, as the passages and stairs.

Cleansing Printed Cotton Fabrics—Calicoes.

A patent has been secured by Jas. Goodwin and Andrew Boyd, of Milton, Scotland, for a singular mode of cleansing printed goods from dirt and extraneous colored matters that may have been diffused over their surfaces during the process of printing. The invention consists in taking the cinders of mineral coal or coke, but the former are preferred, and sifting them to separate the ashes and dirt. The sifted cinders are then placed in a suitable copper vessel or boiler, with boiling water, and the printed calicoes after being first washed in cold water to remove all the dirt possible, are introduced into this boiler and boiled for an hour, when they are taken out, washed in cold water, dried, and are then fit for calendering. This process of cleansing newly printed calicoes in printworks is stated to be an improvement which deepens the colors of the dyed parts of the goods, clears the light or white parts, and is a superior and cheap substitute for soap and other chemicals now employed for the same purpose. It has generally been supposed that the ashes, and especially the cinders of mineral coals, have no detergent qualities, but this novel application of them goes to establish a contrary opinion.

CARNELL'S BRICK MACHINE.

Fig. 1



This machine is intended to temper the clay and make the bricks, within the limits of the one machine, and it is provided with a box large enough to contain sufficient clay to supply it for a day. This box is filled over night, and the clay left in soak until the morning, when the machine is worked by horse power or steam. Our engraving, Fig. 1, represents a perspective view of the whole machine, which we will now describe.

A is a beam crossing the top of the machine; this must be kept high enough to clear the arms that press the clay, and to the ring in this is attached the horses or oxen; when steam is used, this is dispensed with, bevel or spur wheels taking its place. B is a shaft passing perpendicularly through the box, having on the top, C, a three-plate piece with twelve holes in it, six in each division, for the purpose of regulating the pressure and the number of bricks to be made by each revolution of the machine, and to accommodate the slot piece, 2, Fig. 2, which draws the molds under the grating, and carries those that have been filled to the side; D D are two levers passing across the top of the machine, resting in guides with friction rollers; E E are two lug pieces fastened with set screws, and so arranged as to give the plunger box any desired movement; G G G G are a number of knives on B, for the purpose of cutting and tempering the clay; H H are four pushers fastened with a wedge, to push or force the clay into the plunger box.

Beneath the hopper box is a table, I, which revolves with the shaft, B, and brings the molds, S, out at the side—this table should be placed about one-eighth of an inch below the mold—which D draws from under the grating, and it should be fastened on the shaft, B, with four set screws, so as to be raised or lowered; an arm with a roller pass-

es across the top of the table, which prevents the molds from revolving further than the post, see Fig. 2. J is a lug piece beneath the table, with six slot holes, having an arm or arms, this arm is placed in one of the slots arranged with pins; it revolves with the shaft and draws D in. The arm or arms should be so placed in the holes that while the molds are being drawn from under the grating, the plunger, U, is standing still; 5 is a lug

Fig. 2

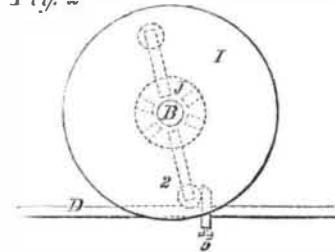
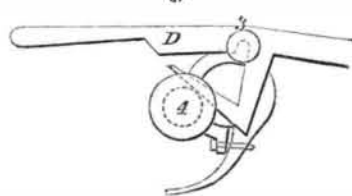


Fig. 3



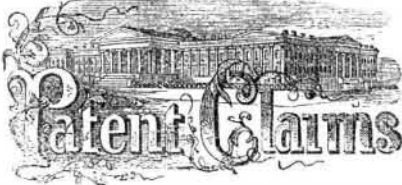
piece so arranged as to bring the molds in their proper place; K is a table on the side with three rollers regulated with the height of the table for resting the molds on; 3 and 4 is a slip clutch attached to the lower rockshaft, which draws the molds under, and fastened on by stud bolts together in two semi-circular pieces; D, Fig. 3, hooks in 3, and when stones get in between the grating and the mold, S, it draws 3 tight to the molds, and should there be any strain, 4 revolves and unhooks, and

the machine goes on working, and the clay goes back into the hopper without making bricks until the obstacle is removed. N is a spring on the lower rockshaft, so arranged that when D draws in sufficient to bring the molds in their proper place, it throws the rock shaft immediately back, and leaves it standing still seven-eighths of the time, giving the operator ample time to place his molds upon the carriage. O is an axle which passes across the lower rockshaft, regulated by screws in each side; P are supports for the axle of the apparatus, Q, which pushes the molds under the plungers upon the table, R. S is the mold box. There is a box in front of the machine kept two-thirds full of sand, (which should be clean and free from dirt and as fine as can be got,) in which the molds are immersed, they being first soaked two or three hours in water, so that the sand will stick to them. Being well sanded, they are then placed on the carriage between the two washers on the rockshaft, which always guides them under the grating to their proper place. T is the plunger box which has a plate in the front with grooves on each side for the purpose of taking the clay or substance out. There is a grate on the bottom which slides in grooves on either side, so arranged as to be drawn out and others placed in for the purpose of making different shape bricks; this must be so arranged as to suit the shape or size of the molds—as the clay is always pressed through the center of the grate, and the clay being pressed through small surfaces shields the sides of the molds and prevents the sand from being rubbed off. U is the plunger follower, which fits inside of the plunger box and presses the clay into the molds, tightened by two cross rods, and on the back by a wedge in case it gets loose or wears; V is a cross rod or guide for the plunger rods, W W; X is a heavy rockshaft on top for the purpose of pressing the clay into the molds. The molding parts and plungers are thrown out of gear for the purpose of grinding the clay when first starting the machine, or for any other purpose. The whole machine is operated by two simple levers. This machine is put together by sixteen wood screws, the frame is mortised and substantially put together. A large number have been put in use, and there has been no difficulty in working the machine, and no complaint made about its not giving good satisfaction—this is a rare thing for brick making machines. When the machine stands three or four days, it should be entirely cleaned out. It should be placed in the center of the floor, so that the bricks can be carried all around, say from 100 to 150 feet—the bricks can be taken away from the machine by wheelbarrows, railroad, or by hand.

Any brickmaker will be able to judge of the qualities of the machine from the description and engravings, and we have no hesitation in saying that it is a serviceable and compact machine. It is the invention of Charles Carnell, of Germantown Road, above Fifth street, Philadelphia, Pa., from whom machines or any information can be obtained. It was patented February 2nd, 1858.

Gas-light in American Cars.

Several cars on the New Jersey Railroad have been lighted with gas as a matter of experiment, and with such satisfaction, it is stated, that all the trains are to be furnished with it permanently. Cylindrical reservoirs are placed under the floors of the cars, and these are charged, from a supply gas pipe at Jersey City, with a quantity sufficient to give a bright light for fifteen hours.



Issued from the United States Patent Office
FOR THE WEEK ENDING APRIL 13, 1858.

[Reported officially for the Scientific American.]

AWLS AND TOOLS—Herrick Aiken, of Franklin, N. H.: I claim the form, shape, construction, combination and arrangement of the set of awls and tools (twenty in number) as described in the specification and represented in the drawings, for the purpose of connecting them with a handle, having a receptacle in the large end to contain the said awls and tools, and a socket and gripe secured in the other, and to confine and hold the several awls and tools for use as occasion may require.

I also claim making the shanks of the awls and tools square with parallel sides serrated and equal in size for the purpose of inserting them into a gripe connected with a handle, the shanks being serrated so that the gripe will hold them more firmly for use than if the shanks were made plane without the serrating; and these improvements in awls and tools I claim when used in any kind of socket and gripe for holding and changing them.

SEEDING MACHINES—C. F. Anderson, of Charlestown, N. H.: I claim, first, Actuating the seed slides, Q R, by means of the shaft, K, operated from the wheel, P, by the spur wheel, J, pinion, L, beveled or made of double oblique form on its outer side, the tube or collar, I, provided with the pin, o, and the zig-zag groove in the shaft, K, and the spring, c', the above parts being arranged to operate as and for the purpose set forth.

Second, The latch or catch, W, connected with the slides, Q, R, and used in connection with the sliding collar, M, and the boss or shell o, on shaft, K, substantially as and for the purpose set forth.

Third, The blade or scraper, f', attached to the rod, c', and actuated when desired by means of the spindle, z', shaft, v', link, c', and spring, g', substantially as and for the purpose specified.

Fourth, Raising and lowering the frame, E, of the machine by means of the eccentrics, C C', attached to the axle, A, in connection with the straps, D D, and clutch, f, substantially as and for the purpose specified.

[This invention relates to an improvement in that class of seeding machines in which the distributing devices are combined, for the purpose of distributing different kinds of seeds with one and the same driving mechanism; and the invention also relates to a peculiar device for making the hills at certain points, and to a novel arrangement of means for elevating the body of the machine so that the seed conveying tubes and shares may be readily elevated from the ground while the machine is being drawn from place to place, or at any time when the distribution or planting of the seed is not required, while the machine is in motion, as in turning at the end of rows and the like.]

SEWING MACHINES—J. E. Atwood, J. C. Atwood and O. Atwood, of Mansfield Center, Conn.: We do not claim the use of a die to guide the needle and hold it steady against the action of the looper.

But we claim the arrangement of the needle die, the looper, and the stationary finger, in such relation to each other as described, for the purpose of extending the loops on a position for the needle to enter them without failure.

[We have given a notice of this machine in another column.]

CHAFF SCREENS FOR WINNERS MACHINES—Alfred Reichlamb, of Ripley, O.: I do not claim forming chaff screens for winners by punching sheet metal plate, so that bars may be formed and turned up, for this has been previously done.

But I claim constructing the screen of sheet metal plates or strips, a, bent or turned over on one edge, and slitted or cut at the opposite edge, so that portions, c d, may be bent up as shown, the plates being secured in the frame or between the sides, A A, so as to overlap each other, and the whole arranged substantially as and for the purpose set forth.

[This invention consists in the peculiar construction of the screen, whereby the screen is rendered strong and durable, more effective in its operation, readily cleaned or freed from foreign substances, if they are caught in it, and quite economical to construct.]

SAWING MACHINE—J. L. Beadle, of Marengo, N. Y.: I claim the combination embraced in the manner of raising the table with the manner of adjusting the cross head and dogs, as described, and for the purposes set forth.

DOUBLE ACTING FORCE PUMPS—Eugene Bellamy, of St. Louis, Mo.: I claim, first, The division piece, V, as constructed, with top and bottom grooves, u, fitting or corresponding flanches, u', on the lower chamber, and on the adjustable piece, w, for the purpose set forth.

Second, I claim the cylinder, B, as constructed with flanches, b, fitting into grooves, d, in cylinder, A, as a removable cylinder, easily removed, so that another can be replaced in case of breakage.

DREDGING MACHINES—E. B. Bishop, of Shreveport, La.: I am aware that screw shafts have been proposed for use as snow clearers on railroads, and therefore I do not claim them broadly.

But I claim the combination with the bow of the boat, A, of two spirally flanged shafts, F F, in the manner substantially as described for the purpose of dredging or deepening the channels of rivers, &c.

[A description will be found on another page.]

PLOWS—Thomas E. C. Brinly, of Simpsonville, Ky.: I claim the grass hook, B, and its plate, C, when constructed, arranged and operated in relation to the beam and moldboard of the plow, substantially in the manner and for the purpose set forth.

RAILROAD CAR SEAT—David Buzzell, of Charlestown, Mass.: I claim an improved railway chair or combination of stationary seat, a reversible back, two swinging foot rests, and mechanism so connecting the said foot rests and the reversible back as to enable the foot rests to be operated by the back in manner and under circumstances substantially as described.

I also claim making the reversible back, A, in three parts, K I m, arranged and applied together substantially in the manner and so as to operate as specified.

I also claim the application of the springs to the head rests in the manner set forth, such head rests being provided with latches, or their equivalents, as specified.

WASHING MACHINE—Henry Capell, of Fredericktown, O.: I claim the arrangement of the spring pawls, w, and grooves, v, on the shaft, F, and these arranged with the hooks, u, for elevating the pounders and the spring, M, for purposes mentioned in the specification.

TRIMMING THE EDGES OF CIRCULAR BOOT TOPS—P. C. Clapp, of Sloughon, Mass.: I claim the arrangement of the boot board, J, the movable frame, X Y, the slide, W, and the boss, Z, for turning the edges of the circular and other shaped boot tops in the manner set forth.

MOWING MACHINES—Wm. Crook, of New Hope, Pa.: I claim securing the driver's seat to the hinged cutter frame of a mowing machine in such a position as regards the center of vibration of said frame, that the weight of the driver may act as a counterbalance, or nearly so, to the cutting apparatus, for the purpose specified.

TRUSS PADS—Wm. F. Daily, of Baltimore, Md.: I claim, first, Constructing a hollow truss pad or supporter A, for hernia, with a series of small perforations, c, in its front plate, a, in combination with enlarged openings in its back plate, so as to allow some healing substance to be brought in contact with the body, and also ventilation or a perfect and healthful circulation of air through it and over or about that part of the body covered by and with which the pad or supporter, A, comes directly and constantly in contact, substantially as set forth.

Second, Attaching the pad, A, to the main spring of the truss or body strap, c, by means of the combined agency of a recess or groove, C, in the back of the pad, an oblong slot, D, in the main spring, and a single set screw, E, whereby every facility of adjusting the pad, A, speedily, by simply operating one screw, E, is afforded, and at the same time the liability of the pad, A, twisting round and rubbing is avoided, substantially as set forth.

[See a description in another portion of this paper.]

CORN SHELLEERS—A. B. Davis, of Philadelphia, Pa.: I claim the endless band or endless chain of toothed plates, G, in combination with the angular gating, N, when the same are arranged for joint operation, substantially as and for the purpose set forth.

BASES FOR ARTIFICIAL TEETH—George Dffenbach, of New York City: I claim making the base for artificial teeth of a composition of matter in which amber forms the principal ingredient, in the manner substantially as described.

RAILROAD CAR BRAKE—Gideon Dorsch, of Schenectady, N. Y.: In itself considered, I do not claim the endless chain, b.

But I claim combining the ends of the levers, E E, with an endless chain, b, as and for the purposes set forth, when said levers are hung and operated as described.

COP TUBES—James Eaton, of Townsend Harbor, Mass.: I claim as a new article of manufacture a metallic cop tube having corrugations or grooves upon its surface formed by corresponding knife edges or their equivalents upon the face of the die in which the table is made, as set forth.

HARVESTERS—D. W. Entrikin and L. H. Davis, of West Chester, Pa.: We claim, first, The combination of shaft, K, curved attachment, D, lever, I, pulley, G, tongue, C, and ratchet, H, substantially as and for the purpose set forth.

Second, The combination of the slotted side piece upon the main axle with the crank working in said slot, substantially as and for the purpose set forth.

Third, The combination of the rollers, p p, above and below the set, with the vertical plates, j z, as and for the purposes specified.

CUTTING DEVICE FOR HARVESTERS—D. W. Entrikin and L. H. Davis, of West Chester, Pa.: We claim, in combination with the roughness upon the surface of the cutter bar, and cutters as described, the arching of the finger, an extending it back upon the bar, the hollowing out of the finger under the cutting bar, the whole arranged and operating as and for the purpose set forth.

HAY KNIVES—John Fasig, of Jackson, O.: I claim the angular knife, C, constructed substantially in the manner and for the purpose set forth, it being attached to the shank, A, as described.

SPRING BED BOTTOMS—Elbridge Foster, of Hartford, Conn.: I do not claim the peculiar spring.

But I claim the arrangement of the side and end springs, that is so that while one set of springs shall be attached at the middle parts of each of the frame, A, and be made to bear at their ends against the bars, F F, the other set shall be attached to their middle parts at the bars, F F, and be made to bear at their ends on the frame, A.

WATER AND FIREPROOF SAFE—John T. Garlick, of New York City: I do not claim making a safe either fireproof or water tight, nor making it sufficiently buoyant to float in the water in case of necessity.

But I claim, first, Combining a series of air cells or spaces with a filling of non-conducting material in a safe having a door or doors closing water-tight to render the same sufficiently buoyant to float on the water, and also to resist the action of heat and prevent the heat communicating to the articles stored in the safe, in the manner set forth.

Second, The combination of the safe constructed and arranged as described, with the loose bed or bottom piece, H, as and for the purposes set forth.

SEED DRILLS—J. Harris, of Shippensburg, Pa.: I claim having the spring bar, which is attached fast to the upper part of the main relief connecting bar, B, of the drill tooth, A, by one end, loosely connected at its other end to the upper end of the drill tooth by means of a curved hook on the tooth and a slot in itself, substantially as and for the purposes set forth.

[This invention consists of a spring attachment for drill teeth, and by it provision is made for the drill teeth yielding when they come in contact with stumps and stones, and thus save themselves from being broken, and then, after passing the obstruction, of springing forward to its original position. The arrangement is very simple, and not at all liable to get deranged.]

LOCK—H. L. Hervey, of Windsor, Conn.: I claim, first, The pin wheel, D, or its equivalent, constructed and operating as described and for the purpose set forth.

Second, I claim the revolving slotted dial, G, either plane, pointed, or corrugated on its face, in combination with the dial holder, E, operating, as described and for the purposes set forth.

Fourth, I claim the dial, M, illuminated or not, and index hand, L, when arranged and operating in connection with inside dial, G.

Fifth, I claim the manner of changing the lock into a common spring lock by means of pin, u, in the manner set forth.

CHRONOMETRIC LOCK—Amos Holbrook, of Milford, Mass.: I claim, first, The use, in the construction of automatic and chronometric locks, of jointed release levers, so arranged that their action when released shall be from the time-work, and so that the releasing of either lever from its rest on the time-work, shall release one end of the crescent, I, or its equivalent.

Second, The retaining of release levers while the lock remains locked upon fixed or adjustable rests, which shall receive all pressure necessary to insure the action of the levers when released by the time-work.

Third, The use of a crescent, I, or its equivalent, so arranged that the releasing of either end of it shall also release the unlocking spring or springs, and unlock the lock as set forth.

Fourth, The use of a spiral grooved cylinder (operated by time-work) with the base or bottom of the spiral grooves full and entire without notch or cavity, as set forth.

Fifth, The use of a hollow cylinder locking bolt revolving loosely in its bed when locked as set forth.

Sixth, The adjusting springs, J J K, or their equivalents for the purposes set forth.

Seventh, The arrangement of a T guide, or its equivalent, with its guides and unlocking springs between the unlocking bolts, as set forth.

Eighth, The end of spring bolt, operated from the outside of the lock plate, for the purpose of retaining the locking spring compressed till closing the door, as set forth.

WHEELWRIGHTS' MACHINE—Samuel Holl, of Reading, Pa.: I claim, first, The advantage of cutting the whole length of the tenons from the circumference of the spokes toward the cutter, thereby economizing time and labor to what all other tenoning machines require, as they commence cutting at the end of the spokes against the grain of the wood, consequently their cutters or bits cannot compete with mine for economy and durability.

Second, The advantage of my machine answering the double purpose of tenoning and hub boring on the same frame or table work without removing the wheel. I am aware that gearing of different kinds has been heretofore used, but I am not aware that this device or motion of gearing has been heretofore used for the purpose specified, I therefore do not broadly claim the gearing separately.

But I claim the sliding feed rest, c, or anything essentially the same, in combination with the devices of the open ended shaft, R, level gearing, V, and 6, check screws, and nuts, e and j f, also feed screw, a, shaft, 7, spur gear, 8 and 9, and guide, b, when arranged as described, and used for the purpose set forth.

I also claim the combination and arrangement of the device for cutting tenons and boring hubs without removing the wheel from the machine, substantially as and for the purpose set forth.

WATER FILTERERS—A. Jaminet, of Florissant, Mo.: I claim combining one or more doubled chambered preparatory separating vessels, B B 1 B 2 B 3, with one or more filtering vessels, C E E 2, and furnishing both sets of vessels with puppet or other valves, D D, and operating said valves by means of tilting troughs through the agency of the weight of the filtered water, all substantially as and for the purposes set forth.

MACHINE FOR EXCAVATING AND WASHING GOLD—Solomon Johnson, of New York City: I claim the chain and buckets in their peculiar form of construction, and method of operation in combination with the pump, d, all substantially as set forth.

BEE HIVES—K. P. Kidder, of Burlington, Vt.: I claim, first, The particular construction of the hive so that the smaller portion may fit within the larger portion and leave a dead air space between them, or raised up and supported on the division or partition boards to form two hives, the whole being constructed and operating as herein set forth.

And I also claim in combination with the hive constructed as described, the device w, for regulating or entirely cutting off the ingress or egress openings, said device being susceptible of four distinct adjustments, as set forth and explained.

BONNET FRAMES—W. E. Kidd, of New York, N. Y.: I claim making ladies bonnet frames of two thicknesses of cape lace, substantially as and in the manner specified.

THROTTLE VALVE—T. S. La France, of Elmira, N. Y.: I claim a valve that hollow conical valves have before been used, and such alone I do not claim.

Nor do I claim the employment of recesses formed in the periphery for the admission of steam, for the purpose of balancing the valve when at rest, as such arrangement does not produce the effect claimed for my invention.

But I claim the series of chambers d d, in the valve seat, in combination with corresponding chambers or passages in the valve shell B, and the bracing and binding partitions b b, the whole arranged and operating, substantially as set forth.

MODE OF CONSTRUCTING TRUNK HANDLES—Samuel Lagowitz, of Newark, N. J.: I do not claim to be the inventor of pressing leather into dies or moulds for the purpose of ornamenting the same, this has long been in common use for various purposes.

I claim the thin leather shell, prepared, packed and stitched in the manner and for the specified purpose, substantially as described and shown.

STRAW CUTTERS—J. R. Landis, of Lancaster, Pa.: I claim a yielding bed or bottom in the feeding trough or box, connected to and depressed by the lower feeding roller as it is forced down by the material fed into the machine, substantially as described.

And, in combination with the above, I claim the rotary cutting apparatus arranged to receive the cut fodder and cut it still finer, as described.

TRACK CLEARERS FOR MOWING MACHINES—Abraham Marcellus, of Amsterdam, N. Y.: I do not claim separately the wing E, and the plate or board F, for they had been previously used.

But I claim operating the plate or board F from the driving wheel C, by means herein shown, or its equivalent for the purpose set forth.

[The invention in this track clearer consists in a novel way of operating or vibrating a plate or board, which is pivoted to the shoe and fitted within the ring, at the outer end of the finger bar of the machine, the vibrating board and ring forming the track clearer.

The invention relates to a modification of an improved track clearer, for which letters patent were granted the inventor Dec. 29, 1857. In the latter invention the plate or board was so arranged as to be operated by a cam placed on the wheel, which supports the outer end of the finger bar, and hence this track clearer was only applicable to large machines, or such in which it was necessary to have the outer ends of the finger bars supported by a wheel. The invention now patented is designed to render the vibrating plate or board applicable to small or light machines, or any class of mowing machines in which it is not necessary to have the finger bars supported at their outer ends by wheels.]

IMPROVED DOOR FASTENER—G. W. McGill, of Buffalo, N. Y.: I claim, first, The formation of the blade B, with its peculiar connection with blade I.

Second, The use of the blade B, constructed as described, and operating in connection with screw L and blade I, and screw C, for the purpose specified.

GRAIN AND GRASS HARVESTERS—Henry Marcellus, of Amsterdam, N. Y.: I claim the V-shaped ledges, b, secured in any proper way between the fingers B, at their back parts, in combination with the oblique sides e, at their back parts, of the cutter teeth d, the parts being arranged to operate substantially as and for the purpose set forth.

[This invention relates to an improvement in the reciprocating cutter which is most generally used for harvesters, and has for its object the preventing of the same from being choked or clogged. The invention consists in having horizontal V-shaped ledges at the back parts of the fingers, and having the back parts of the teeth, which are underneath the cutter bar, and which work over the V-shaped ledges, formed obliquely at their sides, so that, as the sickle or cutter is operated, the V-shaped ledges in connection with the oblique sides of the teeth will force outward from the back part of the sickle all cut grass or grain which might have been between the cutter bar and fingers, and which would otherwise choke or clog the cutter, so as to render the same inoperative.

MACHINES FOR HOISTING AND DUMPING COAL—George Martz, of Pottsville, Pa.: I claim, first, The employment in combination with the car F, and dumping chute I, of the peculiar arrangement of mechanism consisting of the sliding gate B, pivoted platform E confining catches T g g, trip bar H, tilting or dumping stop bar J, substantially as and for the purposes set forth.

Second, The employment of the tilting or dumping stop bar J, whether yielding or stationary, above the front of the platform E, substantially as, and for the purposes set forth.

Third, Having the sections d d, of the railroad attached to the platform, so that they may rise and come in contact with the wheels of the car and cause the car to assume a proper lifting position, and also serve for lifting the car, and likewise for holding it from forward or backward play while tilted or dumped, substantially as, and for the purposes set forth.

BAR FOR SECURING BANK VAULTS—William Maurer, of New York, N. Y.: I do not claim the attachments of hooks to a sliding piece or bar, broadly, as this has been proposed before.

But I claim attaching on the inner side of a movable cross bar, by which vaults or safe doors are secured and strengthened, a sliding piece provided with hooks and so arranged that said sliding piece may be operated after the bar is in its place, for the purpose of firmly connecting by means of said hooks the bar with the door and the door frame, or with both doors where double doors are used, in the manner as described.

Secondly, I do not claim the mode of hinging a bar to the door or door frame generally.

But I claim the arrangement and use of a revolving hinge plate, to which the bar for securing and strengthening doors is attached, constructed in the manner and for the purposes specified.

ILLUMINATING IRON ROLLER SHUTTERS—James McIntyre, of New York, N. Y.: I am aware that iron and glass have been combined in various ways for vault lights, windows, and other parts of buildings, and therefore I disclaim such combination for all other purposes than the slats of rolling iron shutters.

But I am not aware that glass has ever been used in a rolling iron shutter, or that such a shutter has ever been used in a rolling iron shutter, or that such a shutter has ever been made to possess the combination of characteristics herein mentioned.

I therefore claim the construction of rolling shutter with its slats of iron and glass combined, substantially as herein described, to obtain the characteristics specified.

[This is described on another page.]

RAILROAD CAR COUPLING—Albert Hillbard, of Galesburg, Ill.: I claim the combination of the round or oval ring or clevis attached to the hook of the bumper, the same to act as a self-coupling, the latch and the catches or any other equivalent substantially the same, so as to enable any one to use the bumper and ring as a self-coupling.

CORDS FOR SKIRTS—David Perry, of Paterson, N. Y. Ante-dated October 13, 1857: I claim the hoop-like manufacture of cordage, when made in the manner and for the particular purposes described, that is to say, I claim the untwisted fibrous or filamentous core, which compressed and lapped or wound, while in that state, in the manner and for the purposes described.

REAPING AND MOWING MACHINES—Charles Beach, of Penn Yan, N. Y.: I claim the combination of the cutters C and D, with the separator of a harvesting machine, when arranged and operated as, and for the purpose herein set forth.

WATCH CASES—Elijah Bliss, (assignor to Baldwin & Co.) of Newark, N. J.: I claim, first, Arranging the pendant so as to form one of the centres on which the body of the watch turns, and by which it is permanently attached to the outer case, when by the pendant itself forms a handle to reverse the body of the watch on the outer case, for the purpose specified.

Second, Arranging the case holding the works of the watch within a secondary ring h, pivoted to the outer case, so that the body of the watch can be turned in a plane parallel to its face, in order to change the position of the figures on the dial plate when the watch is reversed in the outer case.

Third, The arrangement of the push piece f, and pin h, as described, so as to act on the spring holding catch of the close bristle of the outer case when on either side of the pendant.

FURNACES—James McCracken, of Bloomfield, N. J.: I do not claim the employment of hollow grate bars for the passage of air through them, as such have before been known and used.

Nor do I claim supplying air to the gaseous products of combustion, for the combustion of the inflammable gases evolved from the fuel.

Nor do I claim the heating of the air to be supplied to the inflammable gases.

Nor, finally, do I claim the use of a shield plate to protect the bottom of the boiler, and prevent it from being overheated, as all these have long been known.

But I claim the employment of hollow grate bars, in combination with a closed ash pit, in the manner substantially as herein described, so that the air which passes through the said grate bars shall be discharged into the ash-pit, and thence pass up between the said grate bars to supply the blast or draft to the fire on the grate bars as set forth.

I also claim the use of tubular bearers for supplying heated air to the inflammable gases at or near the fire bridge, substantially as described, in connection with a shield plate, substantially as described, and interposed between the fire and boiler or other body to be heated, constructed and arranged as specified, to maintain the inflammable gases at a high temperature until after they are supplied with heated air for their ignition, as described.

STENCIL PALLET—Joseph H. Merriam, of Boston, Mass.: I claim as a new manufacture a stencil maker's pallet or pot, constructed substantially as described.

CONDUIT JOINT FOR GAS PIPES—Charles Monson, of New Haven, Conn.: I claim the described new mode of connecting two leading tubes, A B, viz, by a flexible tube, D, and a joint which will not only allow one tube to be moved into one or more angular positions with respect to the other tube, but so connect the two leading tubes as to relieve the flexible tube from injurious longitudinal or tensile strain as specified.

CONNECTING RIGIDLY THE ENDS OF METAL BEAMS—Samuel Nowlan, of New York City: I am aware that gas and water pipes are joined together by pouring in molten metal to confine the ends of the pipes together, and that molten metal has been used to confine bolts and other fastenings in stone and other material, and I do not therefore claim broadly the use of molten metal poured into a joint to confine and retain it in place.

But I claim forming a rigid joint of two metal beams by pouring molten metal between the tongue of one beam and the mortise of the other, constructed respectively and arranged in the manner described, i. e., when the sides of the tongue, which have a latch projection, fit on to the sides of a similar shaped mortise and socket, and when the opposite sides of both the tongue and the mortise are corrugated, and leave a space between themselves, into which the molten metal is to be poured, substantially in the manner and for the purposes specified.

GIVING ADHESION TO DRIVING WHEELS OF STEAM VEHICLES, PLOWS, &c.—John T. Price, of Rockville, Ind.: I claim the arrangement of spurs on driving wheels for a steam plow or land carriage, so that the said spurs do not interfere with the rolling of said wheel, unless it should slip on the ground, and then when it slips said spurs (aided by the diagonal corrugations tending to face the dirt against them) to take effect and prevent it, as substantially set forth.

PROCESS OF EXTRACTING FAT OILS FROM SEEDS—John Preston, of Dorchester, Mass.: I claim the employment of either molasses or a sugar sirup under circumstances and in manner substantially as set forth.

FOG BELLS—A. C. Rand and R. K. Johnson, of Buffalo, N. Y.: We claim the arrangement of mechanism No. 1 and mechanism No. 2, (or their equivalents) relating to each other for the purposes substantially as set forth.

SNOW PLOWS—Samuel Richards, of Philadelphia, Pa.: I do not desire to claim the adjustment of the vertical planes up or down the inclined plane alone, or the adjustment of said vertical planes to the right or left side separately considered.

But claim as an improvement on my former patent of May 13th, 1856, the snow plow having vertical planes

made adjustable at the same time both up and down the inclined plane, and from side to side, whereby it is rendered equally effective in passing from light snow to deep snow, and in throwing the snow to either side of the track at pleasure, the whole being arranged and operating substantially as described.

TIGHTENING THE SPOKES AND FELLIES OF CARRIAGE WHEELS.—B. A. Rogers, of Shubuta, Miss.: I do not claim having the spokes communicate with the eye of the hub and expanded by a cone box.

But I claim the combination, in a wheel, of the annular chamber, E, spoke sockets, G, communicating with said chamber, expanding packing ring, H, taper axle box, I, and extended spoke, B B, substantially as and for the purposes set forth.

STRAW CUTTERS.—E. P. Russell, of Manlius, N. Y.: I claim the arrangement of the knife, B, and feed rollers K L, when attached for operation, and arranged relatively with the feed box, A, substantially as and for the purposes set forth.

SEED PLANTERS.—Thomas Russell, of Waldoborough, Me.: I claim arranging the arm, P, of the rocker shaft, so as to extend over a cone box, I, between the wheels as described, in order that such arm may serve to clear the said space between the wheels from earth which may adhere or be taken up therein.

I also claim in connection with a hopper made removable from the frame as specified, applying the movable brush, O, to the dropper or valve, I, by means of an arm, U, extending down from the brush shaft and into the dropper, K, in the manner as described, the same being for the purpose as specified.

WRENCH.—E. Scripture, of New Haven, Conn.: I am aware that a wrench has been made having a screw thread cut upon the face of the shank, and a screw nut fitted into one side of the movable jaw, the arrangement being such that when the periphery of the screw nut is forced and held into contact with the screw thread by means of a cam button, the movable jaw may be operated by turning the nut; I do not claim any device of this kind.

I am aware that a pawl, H, and a serrated bar, A, in connection with an arm, E, provided with a spring, B, have been previously used, and I therefore do not claim said parts.

But I claim the employment within the pawl, H, of a screw rod, G, substantially as and for the purposes set forth.

[A notice of this invention will be found in another column.]

CHAIN SHACKLE.—Joseph Snelling, of East Boston, Mass.: I do not claim a shackle or chain link made in four separate parts, arranged at right angles to each other and held together by rivets, screws, and nuts.

But I claim the improved connecting shackle or link as made in two parts, A, B, and with one of them formed in one piece as a double hook and with a space, C, between its extremities, and with tenons, D, D, as described, and its other part constructed so as to extend into and fill the said space and lap over the hooks and receive these tenons, substantially as specified.

COOKING STOVE.—James Spear, of Philadelphia, Pa.: I claim the hollow center piece, I, when connected with the hot air tube, T, and constructed in the manner and for the purposes set forth.

HORSE SHOE MACHINE.—Geo. Stiles, Jr., and Strickland Kneass, of Philadelphia, Pa.: We are aware that an arrangement of a revolving "former" has been heretofore patented in combination with two stationary bending levers; we do not therefore claim any such arrangement.

But we claim, first, the employment of the stationary former, e, e', e'', in connection with the reciprocating levers, K K' K'', and with the fixed cam, S, arranged and operating as set forth.

Second, the employment of the moving swager, d d', and fixed swager, f f', for forming and swaging the shoe while on the former, e, e', e'', and inclined at the side in a hollow moving die box, H H', arranged and operating as set forth.

Third, the employment of the hollow box plunger, H H', in connection with the former, C C', for creasing and punching the shoe at the same time that the outer edge is finished by the hollow die box, the whole arranged and operating substantially as above described.

RAKING ATTACHMENT TO HARVESTERS.—Oren Stoddard, of Busti, N. Y.: I claim, first, the balance frame, F, or its equivalent connected with fingers or arms, G, G, or other raking device, in such a manner that the cut grain by its own gravity, in connection with the weight or counterpoise, K, of the frame, F, will be made to actuate the raking device so that the gavels will be discharged from the frame of equal weight, however variable the crop being cut may be.

Second, the peculiar arrangement of the balance frame, F, shaft, D, with clutch, d, attached, pulleys, e, e, on shaft, D, cords, h, fingers or arms, g, g, and bar, H, substantially as and for the purposes set forth.

Third, the registering device formed of the dial, m, and index, l, operated automatically from the raking device, substantially as and for the purpose set forth.

[This invention consists, firstly, in a novel raking device, so constructed and arranged that the cut grain in consequence of its gravity is made to actuate the rake and be the means of causing it to be raked off the platform at proper intervals to form the gavels or sheaves of uniform size. Secondly, there is a peculiar arrangement of the cutting device, whereby the same is made to operate with a comparatively small amount of friction. Thirdly, there is a registering device connected with the raking device, and so arranged as to number the gavels or sheaves as they are raked from the platform. This invention is designed chiefly for small hand harvesters, or which are pushed along by an operator, but it may be applied to large machines with advantage.]

GAS BURNERS.—Wm. Fallman, of Cincinnati, Ohio: I am aware that disks have been employed within gas burners to act on the principle of valves, I therefore do not claim such.

But I claim the construction and arrangement substantially as described, of the disk, c, fixed concentrically within the burner so as to leave around it a contracted annular passage, c, for the purpose explained.

SODA FOUNTAINS.—C. D. Van Allen and Saml. Avery, of Baldwinsville, N. Y.: We claim the apparatus described, that is to say the combination of the reservoirs, J, J, (the one an acid, the other an alkali, in separated solutions) pipes, K, K, valve, M, pump chamber, P, elastic cover, C, aperture, A, valve, N, valve cap, D, pipe, E, and generator, F, in these several parts are constructed and relatively arranged with respect to each other as set forth for the purpose specified.

REVOLVING FIRE ARMS.—Rollin White, of Hartford, Conn.: I do not here intend to claim extending the chambers right through the rear of the rotating cylinder, as that forms part of the subject matter of Letters Patent of the United States obtained by me, dated 3d April, 1855.

But I claim, first, the enlargement of the chambers in the rotating cylinder, or in a position thereof in a rearward direction when such cylinder or portion thereof is detached from the breech and thereby rendered capable, by such enlargement, of being driven forward substantially as described, into contact with the stationary barrel, for the purpose of preventing leakage.

Second, making the detached breech of the rotating chambered cylinder rotate with the cylinder, substantially as and for the purpose set forth.

Third, constructing the breech of the revolving cylinder with a recess, i, in its face at the back of each chamber, and a notch, j, in its periphery meeting the said recess substantially as described, so that the hammer, H, swinging in the manner most common to fire arms may strike into the chambers and cut or tear, and thereby explode the cartridge.

Fourth, The fitting of the hammer to close that portion of the breech which is left open by the notches, j j. [A notice of this will be found on this page.]

LOCOMOTIVE ENGINES.—Ross Winans, of Baltimore, Md.: I claim the arrangement of the house or position for the engine man between the fire box and the forward end of the boiler, to aid in properly distributing the weight upon the wheels in a locomotive engine, with a fire-box of the large size necessary for the economical burning of coal as fuel, and incidentally to secure other advantages, substantially as set forth.

ROLLING MILLS.—John A. Bailey, of Boston, Mass., (assignor to James Horner and James Ludlum, of New York City): I do not claim, broadly, the alternate raising or lowering of one or more of the rollers in rolling mills, for the purpose of producing wedge-shaped work, for I am aware that it is common to place the ends of rollers in sliding frames, and to depress or elevate the latter by separate cams.

But I claim the application of eccentrics, C D, to the journals, a, of rolling mill rollers in the manner and for the purposes substantially as shown and described.

[A notice will be found in another column.]

PRESERVE JARS.—Joseph Borden, of Bridgeton, N. Y., (assignor to David Potter and Francis L. Bodine): I claim a preserve jar, in which the cup or groove for holding the cement is formed on the exterior from the wall of the jar by the method described.

OVENS.—J. S. Brown, of Washington, D. C., (assignor to himself and Joseph Kent, of Baltimore, Md.): I do not claim heating the draught air before it is introduced into the furnace or heater.

But I claim introducing the draught air in a thin sheet around the top of the oven and sides substantially as described, whereby the heat, which otherwise would radiate from the outer surface of the oven, is employed for improving the combustion in the furnace or heater.

I also claim the strips or plates, b, d, arranged in the inclosed air spaces substantially as described, for the purpose of confining the heated air closely to or near the inner case of the oven as specified.

ROTARY STEAM ENGINES.—Levi Matthews, (assignor to himself and J. K. Andrews), of Antrim, Ohio: While not claiming as new or broadly a hinged connection of the piston with the revolving or driving ring, by jointed attachment or attachments.

I do claim, as both new and useful, hinging the circular piston, B, at its center, to the outside driving ring, D, by means of a rigid arm or piece, r, projecting from said ring into the annular steam channel of the cylinder, as and for the purpose set forth.

MACHINE FOR ROLLING AND CUTTING DOUGH.—Isaac S. Schuyler, (assignor to J. McCollum), of New York City: I claim, first, the removable guides, A, A, or their equivalent, when used in combination with the slides of a reciprocating cutter, and operated for the purpose of releasing and securing the cutter, substantially as heretofore described.

Second, I claim the perforated discharging plate, either with or without yielding resistance, in combination with the reciprocating cutter when made adjustable substantially as described.

STEAM GENERATORS.—Geo. Scott, (assignor to Scott, Todd & Co.), of Philadelphia, Pa.: I do not claim the employment of a rotating coil, as that has long since been known and used for various purposes.

But I claim the employment of a rotating tubular coil, one end of which is connected with any suitable apparatus for forcing in water, &c., and the other with a suitable vessel to receive the steam generated in the said coil, when this is combined with a furnace so arranged that, in the rotation, every part of the circumference of the coil will in succession pass over the fire, substantially as and for the purpose specified.

SIGNS, DOORPLATES, &c.—John Y. Wellman, (assignor to Chas. A. Thompson), of Lowell, Mass.: I claim the new manufacture of door plate or sign described, to wit, a transparent plate having a backing containing the name or device affixed to said backing, and the backing affixed to the plate as described.

MACHINE FOR MANUFACTURING SPLINTS FOR BROOMS.—John W. Wheeler, (assignor to himself and C. D. Williams), of Cleveland, Ohio: I claim the groove cylinders, A, A, the periphery of whose tongues or ribs, c c c c, pass each other as seen at e e e, the edges being in contact and acting like revolving shears when arranged in combination with the delivering combs, E, E, all operating in the manner and for the purpose set forth.

WATCH CASES.—J. F. Watson, of St. John's Square, Clerkenwell, Middlesex Co., England, (assignor to Jas. Adams, of same place, assignor to Bigelow Bros. & Keenard, and Palmers & Batchelders, of Boston, Mass., assignors to Baldwin & Co., of Newark, N. J.): Patented in England, June 16th, 1857. I claim, first, attaching the pendant to the outer instead of the inner case as heretofore done, for the purposes herein set forth.

Second, the arrangement of the pivots on which the watch turns, or the springs for holding the body of the watch to the case, in relation to the figures on the dial plate, and to the pendant on the outer case, as described.

BROGLERS' ALARM.—Henry Herath, Benjamin Banman, and Henry C. Locher, of Lancaster, Pa.: We claim the shape and construction of the levers, C, with their levers, I, and weights, K, together with the sliding hinge, E, for operating through levers, G, against the spring, G, all in combination as described for the purpose set forth.

PREPARING MANURE BEDS.—Charles F. Spiker, of New York City. Patented in England, Aug. 19th, 1857: I disclaim distinctly the discovery of the fact that ammonia is absorbed to a small extent by oxides of iron, or aluminous earth in its natural state, or that it is produced by the decomposition of animal substances in contact with air and water.

But I claim the use of the peculiar process by which I produce, combine and fix ammonia, and charge it into beds of ammonia, in ammonia-beds made of aluminous earth, silicates of alumina, or the oxides of iron, sheltered from the rain and excessive temperature, and charged with diluted acids or weak solutions of such salts for the acid of which ammonia has a greater affinity than the base with which it was combined, in the manner and for the purpose set forth.

REISSUES.

ROLLERS FOR WINDOW SHADES.—Jacob B. Bailey, of New York City. Patent February 18, 1858: I do not claim spring, F, for the purpose of holding the roller.

Nor do I claim the endless band.

Nor do I claim the use of the india rubber as new, for the purpose of creating friction on a pulley, as that has been before known and used.

But I claim the combination of india rubber or equivalent substance, with a window shade roller or its pulley, substantially as and for the purpose described.

STEAM BOILERS.—Wm. M. E. and J. B. Ellis, of Washington, D. C. Patented Sept. 29, 1857: We claim, first, connecting the water legs, extending from the front to the rear end of the boiler continuously, to the shell of the boiler, as the point of the greatest horizontal diameter of the boiler, substantially as set forth.

Secondly, interposing perforated plates between the flanges of the water legs and the shell of the boiler, as and for the purposes described.

GRASS HARVESTERS.—Jonathan Hains, of Pekin, Ill. Patented Sept. 4, 1855. I claim, in combination with a main frame, a loose cutter bar or finger beam that projects laterally from it, and so hung to the frame as that, in being dragged over the ground, it shall receive all its vertical movements solely from the undulations of the ground over which it is drawn, by means substantially as described. I also claim the combination of two hinged or jointed rods or bars, k, m, for allowing the cutter or finger bar or beams, its vertical, but restraining its lateral motion, substantially as described.

DESIGNS.

SCREWS FOR STEAM PIPES, &c.—James L. Jackson, of New York, N. Y. (Two patents.)

Sewing Machines.

We are having a great many inquiries for sewing machines from various parts of the country, and as we cannot conveniently reply to them all by mail, we have thought it proper to state our opinion in regard to them in this public manner. There are a number of very excellent machines now in the market which are deservedly successful. We have, however, never used but one, namely, Wilson's patent, manufactured by the Wheeler & Wilson Manufacturing Company, No. 343 Broadway, and we can say in regard to it that it is without a rival. No other machine exceeds it in its adaptation to all the purposes of domestic use. It is simple, not easily put out of order when in proper hands, and in point of effectiveness and finish, no other machine stands ahead of it. We state this much in regard to the excellent machine upon our own responsibility, and without the slightest intention to disparage other machines well known to the public; and we hope thereby to save ourselves considerable time and postage in answering letters which frequently come to us with inquiries touching this subject.

Testing the Quality of Steel.

The good quality of steel is shown by its being homogeneous, being easily worked at the forge, by its hardening and tempering well, by its resisting or overcoming forces, and by its elasticity. To ascertain the first point, the surface should be ground and polished on the wheel, when its lustre and texture will appear. The second test requires the giving it a heat suitable to its nature and state of conversion. The size and color of the grain are best shown by taking a bar forged into a razor form, hardening and tempering it, and then breaking off the thin edge in successive bits with a hammer and anvil. If it had been fully ignited only at the end, then, after the hardening, it will display, on fracture, a dissimilarity in the aspect of its grains from that extremity to the other, as they are whiter and larger at the former than the latter. The other qualities become manifest on filing the steel, using it as a chisel for cutting iron, or bending it under a heavy weight. Kinman long ago defined steel to be any kind of iron which, when heated to redness, and then plunged into cold water, becomes harder. But several kinds of cast iron are susceptible of such hardening. Every malleable and flexible iron, however, which may be hardened in that way is steel. Moreover, steel may be distinguished from pure iron by its giving a dark gray spot when a drop of dilute nitric acid is let fall on its surface, while iron affords a green one. Exposed to the air, steel rusts less rapidly than iron.

Recently Patented Improvements.

The following inventions have been patented this week, as will be found by referring to our List of Claims:—

REVOLVERS.—Rollin White, of Hartford, Conn., has invented some improvements in that class of fire-arms known as revolvers, in which the many-chambered cylinder is arranged to rotate on an axis that is parallel or nearly so with the stationary barrel. The first improvement consists in enlarging the chambers, or a portion of them, towards the rear, when the whole or a portion of the chambered cylinder is made in a separate piece from the breech, for the purpose of allowing the cylinder, or the portion of it that is detached from the breech to be driven forward in contact with the stationary barrel, to make a tight joint therewith by the force of the explosion of the charges. A second improvement consists in making the detached breech of a rotating chambered cylinder rotate with the cylinder, thereby obviating any stoppage to the rotation of the cylinder by the protrusion of the cartridges through the rear of the chamber; and a third improvement consists in a certain construction of the rotating breech for the purpose of allowing the hammer to strike into the chambers and explode a priming in the rear end of the cartridge, without using a needle or a detached priming, such as a cap, pill, or ribbon.

SEWING MACHINE.—This invention relates partly to the needle die, that is sometimes used for the purpose of guiding the needle and holding it steady while the looper enters between it and its thread. This part of the invention consists in making the needle die in two parts, one of which is movable to such an extent under the influence of a spring, that the die adapts itself to needles of various sizes, thereby obviating the necessity of providing each machine with two or more dies, which require changing when one needle is changed for another of different size, and also obviates the necessity of getting needles to fit the dies exactly. The invention also consists in a novel arrangement of a needle die, looper, and stationary finger, in combination with an eye-pointed needle, to sew the chain stitch with a single thread without missing any stitches. J. E., J. C., & O. Atwood, of Mansfield, Conn., are the inventors.

IRON AND GLASS SHUTTER.—James McIntyre, of New York City, has invented a new shutter, which consists in the construction of a rolling shutter with slats of iron and glass combined in such a manner as to render it not only burglar-proof and fire-proof in the same degree as shutters made wholly of iron, but sufficiently translucent to light the interior of a store, house, or office in the day time, enough for many purposes, when it is not desirable to open it, and also to expose to persons outside any light that may be used by a thief who may have secreted himself in the day time to wait for the closing up of the store. It can be easily rolled up, and possesses a combination of characteristics never before attempted in the construction of any shutter.

TRUSS PAD AND SUPPORTER.—This invention is designed for curing hernia or rupture, and it consists in a perforated pad or supporter, which supports the injured part of the body, and at the same time allows and maintains a perfect and healthful ventilation or circulation of air through it and over or around that part of the body covered by the pad. The pad can also be made hollow and open at the back, so as to admit some healing substance. And it is attached to the body strap in such a manner that it cannot shift, and still only has one screw which requires to be started in order to adjust it to the desired position. We regard this as a most excellent invention, and think every one suffering with rupture or hernia will be benefited by it. Wm. F. Daily, of Baltimore, Md., is the inventor.

MACHINE FOR DEEPENING RIVERS AND HARBORS.—This machine has two screw excavators placed at the front end of a boat, the screws being placed angularly with each other, and so arranged that, as they are rotated and the boat propelled along, the bed or bottom of the river or harbor will be scraped out and thrown on either side, thereby deepening the channel. The screws are so arranged that they may be raised or lowered as desired, and they are rotated by a steam engine on the boat, which also drives the propeller thereof. E. B. Bishop, of Shreveport, La., is the inventor.

SCREW WRENCH.—E. Scripture, of New Haven, Conn., has invented a new screw wrench, the novelty of which consists in the means employed for operating and adjusting the movable head or jaw of the wrench, so that this head or jaw may be quickly moved and firmly adjusted to the nut or other article to be turned or operated upon; the implement being held and the head or jaw operated with one hand only.

ROLLING MILL.—This invention relates to the application of eccentrics to the journals of one roller of the pair or set employed in a rolling mill, in such a manner as to effect the rolling of articles of more or less taper form as pile blanks, or articles of parallel form as may be desired. It is the invention of John A. Bailey, of Boston, Mass., who has assigned it to Jas. Horner and Jas. Ludlum, both of New York City.