paid in this country than anywhere else on the globe, and a skilled workman can always command a handsome remuneration for his services. The relations of labor and capital are bound up in three words—they are identical-and they should work together for mutual advantage.

## A TOUR AMONG THE IRON-CLADS.

A recent tour of inspection made in one or two of the largest ship-yards, where iron-clads are now being built for Government, reveals the fact that they are in a forward stage of progress, and likely to be entirely completed at no very distant day.

THE "DUNDERBERG."

So much has been said about this vessel, that it seems almost supererogatory to add anything more; nevertheless it may be interesting to know that the work of plating is going forward with dispatch, and that, from present appearances, the ship will be ready long before her engines. The carpenters' work, inside and out, is finished—that is, comparatively little remains to be done; odd jobs here and there not being taken into account. The engine kelsons are all laid, and massive ones they are, too; the coal-bunker and bulk-head surrounding the boiler compartment are also in place; and so far as the carpenters are concerned we presume the vessel might be launched in a week. The below-water-mark plates are being fixed on the side, a layer of sheathing paper being placed between the plates and timber. The plates themselves are being laid vertically, not horizontally as usual, and are  $4\frac{1}{3}$  inches thick in the middle, tapering to 3 and 31 inches at the extreme ends.

The casemated fortress on deck is also completed. so far as the main structure is concerned. plating is not applied, and only the massive timbers, which constitute the casemate proper, are erected on deck. The port-holes for the guns are about the size of an  $\,$  ordinary window-sash—say three  $\,$  feet square, a few inches more or less; they are ten in failure to bear upon the traverse circles or segment number: three on each side, two forward and two aft. In one of them a rough template of what we took to be a 9-inch gun was placed on a temporary carriage, for the purpose of seeing what depression could be given to the weapon.

The Dunderberg's stern aft projects monitor-fashion about 25 feet, we should say at hazard; not having measured it we cannot speak by the rule. To protect this from the force of the sea, the under side of the | ing will not fail to produce the traverse movement. tail is laid with narrow joists some three inches apart. Seas on striking these joists will be broken into spray, of this improvement. and the shock of impact much weakened; the main tim bers of the tail are above these slats, and exert their full strength in supporting the structure. The engines of the Dunderberg are building at the Etna Iron Works. They are to be horizontal cylinders, 100 inches in diameter by four feet stroke of piston, having slide valves; from appearances it will be a long time before they are finished. No day is fixed for the launch of the ship.

Mr. Webb is also building two other magnificent steamers for the Pacific Mail Steamship Company; one of them is 340 feet long, 44 feet beam, and 31 feet deep; and is to have a beam engine of 105 inches cylinder by 12 feet stroke. The vessel will be, in all respects, similar to the Constitution. The other ship is to be 300 feet long, 43 feet beam and 27 feet deep, intended to run on this side of the Isthmus. When these ships are finished, the Company will possess a fleet which, for speed and comfort, cannot be surpassed in the world.

At Greenpoint, we found

THE "PURITAN" AND "ONONDAGA."

The first is the consort of the Dictator, and the latter a monitor battery of two turrets, contracted for by Mr. George Quintard. The outlines of the Puritan are still covered by the scaffolding upon her sides; the armor on the hips or shelves is not yet in place, although the carpenters are busily engaged in prepar-The deck is not completely laid, ing the way for it. although in a forward stage of progress. The lower parts of the ship are still in an unfinished condition; the engine room is in a state of chaos, and only the cylinder bolts, pillow blocks and some other parts, are in place. This part of the ship has been much delayed by the strike of the machinists, and also an accident which happened to a cylinder of the *Dictator*; the wings a rapid rotary motion, the air passing one of these being smashed last winter, necessitated through the central openings into the double conical

ed, the ship might be launched in forty days.

The Onondaga has a large force of mechanics employed on her, and will soon be ready for sea. The turret bolts do not go clear through, but a jacket two inches thick is slipped over the main part of the turret; between the jacket and the turret a rust joint is driven—that is, cast-iron borings mixed with sal-ammoniac and borax, or urine—this is driven in tightly between the jacket and turret. The whole structure is of the same thickness as the ordinary turrets. No shot can drive bolts into the turret with this arrangement, as they do not go through the outer jacket. The Onondaga has two 15-inch guns and two 200pounder Parrotts. One of the 15-inch guns is turned off at the muzzle, and the port is enlarged two inches: by this means the piece can be run out of the port, as is ordinarily done. In a short time it is hoped that the vessel will be able to take her place in the

## RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week. The claims may be found in the official list:-

Gun Chassis.—This invention relates to chassis working on center pintles and to the application to the traverse wheels of such chassis of a system of toothed gearing operated by a hand crank or its equivalent, for the purpose of producing the traverse movement. In all previous applications of gearing in connection with the traverse wheels, the gearing has been applied only in connection with the wheels in the rear or with those in front of the chassis, generally with the former, and in case of the setting of the platform, and from other causes, the wheels to which the gearing has been applied have been liable to a rails, in which case the gearing would be useless, and the use of handspikes would have to be resorted to to produce the traverse movement. This invention consists in applying a system of gearing to both the front and rear sets of traverse wheels, in such a manner that both sets are caused always to operate together so that whether both sets or only one set has a bearing on the traverse circles or segment rails, the gear-S. J. Ashley, of San Francisco, Cal., is the inventor

Working Gun Carriages.—The object of this invention is to enable heavy guns, placed in turrets or otherwise, to be worked with the least possible number of hands and to reduce the recoil in the greatest possible degree. The invention consists, first, in 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 by a suitable system of toothed gearing. It consists, secondly, in the employment of the same system of gearing by which the gun carriage is geared with the aforesaid friction brake or clutch, for the purpose of running the carriage out for firing or of moving the carriage in or out for any other purpose. It consists, thirdly, in so constructing and combining the parts of the aforesaid triction brake or clutch, and so applying a movable stop in combination with them, that by the mere shifting of the stop, the brake or clutch is brought either to a condition to check the recoil or secure the carriage, or to a condition to permit the carriage to be run out or in freely. Capt. John Ericsson, of New York city, is the inventor this improvement.

Fan Blower.—The principal object of this invention is to make a fan blower which will produce the same effect when worked in either direction in contradistinction to ordinary fan blowers, which work in scroll-shaped cases, and consequently act in a different manner when turned in one than when turned in the opposite direction. The invention consists in an annular air chamber surrounding a conical cavity, and communicating with the same at its apex in combination with triangular wings working in said double conical cavity in such a manner that, on imparting to the wings a rapid rotary motion, the air passing

Rowland informed us that, so far as he was concernis conducted by a suitable tube or tubes to the place or places where the blast is to take effect. William Winter, of Plainfield, N. J., is the inventor of this improvement.

> Saccharine Liquid Evaporator.—This invention consists in the employment of two or more pans placed one above the other in combination with two or more furnaces, suitable flues and dampers, in such a manner that the heat from the first or lowest fire can be made to strike the first pan, or turned off from that pan and made to strike the second pan or any other pan above the first, and the heat from the second fire can be made to strike the second or any other pan above, and so on, and consequently the second pan can be exposed to the combined heat of the first and second fires, the third pan to the combined heat of the first, second and third, or of the second and third fires, and so on, and thereby the heat of each pan can be graduated to any desired extent, and the evaporation of the juice effected in a short time, with comparatively little fuel and labor and in the best possible manner. J. C. Chesney, of Abingdon, Ill., is the inventor of this improvement.

Burglar-proof Safe.—This invention consists in interposing between the walls of a safe a series of balls of cast-iron or other hard metal or material, arranged in such a manner as to be enabled to work. play, or turn freely between the walls and present a perfect barrier to a drill, router, or other burglar tool; the balls, in consequence of being allowed to turn freely, preventing a drill or router from acting upon them, and being of different diameters so as to effectually preclude a drill or router being used without coming in contact with a ball. The invention also consists in the employment of a flange or plate applied to the safe and in connection with the outer plates of the same, in such a manner as to prevent the outer plates from being wrenched or torn off from the same. The invention further consists in the application of a steel plate to one of the inner walls of the sides of the safe, for the purpose of protecting the inner plates or prevent them being broken and dislodged should the outer plates be wrenched off from the safe. Isaiah Rogers, of Washington, D. C., is the inventor of this safe.

Weighing Scales.—The object of this invention is to obtain a scale for weighing without the use of detachable weights, and one which will admit of being readily counterpoised or balanced at any time, when not properly in a balanced state, so as to insure perfect accuracy. To this end the invention consists in attaching, by means of a rod, a plunger to one end of the scale beam, said plunger being immersed in quicksilver or other fluid or semi-fluid contained within a suitable vessel, said fluid or semi-fluid serving to buoy up the plunger and causing the latter to serve as a counterpoise of varying capacity according to the size of the articles to be weighed. H. W. Catlin, of Burlington, Vt., is the inventor of this improvement.

Rice-polishing Device.—This invention relates to a new and improved machine for polishing rice after the same has been divested of its hulls. is to obtain a machine of the class specified which will be more efficient in its operation than those previously devised, by admitting of the free discharge of the dust or flour from the screen. so as to prevent the choking or clogging of the same; also by preventing the wire-cloth of the screen from being bent or getting out of proper shape or form; and further, by having the polisher arranged so as to be capable of being adjusted, and giving the screen a rotary movement as well as the polisher. Silas Dodson, of Bloomsburg, Pa., is the inventor of this improvement.

Port Closers for Forts and War Vessels.—This invention consists in the employment, for the purpose of closing the ports of vessels-of-war or the embrasures of forts, of two rollers, each being made to rotate independently of the other and provided with a cavity in one side, so that by turning the rollers in such a position that the cavities face each other an opening is obtained which is not wider than the muzzle of the gun and allows of giving to the gun any desired elevation or depression, and at the same time said rollers allow of training the gun to an angle of 45 deg. or more with the beam, and if the rollers are both turned in such a position that the cavities face the interior of the vessel or fort, the port or embrasure is firmly closed. The invention consists also in the substitution of one intended for the Puritan. Mr. cavity, is forced in the annular air chamber, whence it the application of semi-circular flanges embracing

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.

Value 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 Ameri

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.—Pr nting Press.—John F. Allen & R. W. Mc-Gowan, 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 us of a rotary cylinder, in combination with a series of cylindrical form or type-cylinders, and a reciprocating form or type bed; all arrang to effect the desired end.1

40,893.—Operating Gun Carriage.—S. J. Ashley, San

40,893.—Operating Gin 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.

MOSE 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 emplopment 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.]

the quicksiver, and a thorough amagamation "nected.]

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. L claim the two sets of inclined floats, D and D' and E and E', in

10rth 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 dic-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 combina-

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

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.

ons with the same set of dies or die jaws.

O,898.—Signal Switch for Railroads.—Horace H. Barnes,
Mexico, N. Y.:
I claim the arrangement of the segment rack, F. pinion, I, shaft, G,
untern, J, and box, K, with the switch lever, C, and, frame, D, in the
nanner 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.

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, eubstantially as described.

40,900.—Corn Planter.—Wm. F. Blandin, Macomb, Ill.: I claim, first, The adjustable shares, it, 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, previded 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, G, 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,

40,901.—Gaiter Boot Protector.—Frank M. Blodgett.

Boston, Mass.: laim the combination of the anklet or leglet, A, and the frontlet r, B, the same being arranged and applied together substantially ecified.

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.

geomer, 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: Iclaim 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, B, 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.

on relates to an improvement in that class of wa machines, in which the clothes are exposed to the action of a recip rocating pressure by placing them between said presser and the end

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 22° Fah, of a strong solution of a sulphide of an alkall 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.

maining 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, if, plaining 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.

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 quicksliver 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, arranged substantially as set forth.

10.907.—Corset.—L. L. Chapman, Camden, N. J.:
I claim in ladies corsets, constructed to have the breast puffs, elastic shoulder-brace straps, and stay-pleces, 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.

scribed 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 fre-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 sampers, 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 be ams, 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 cultiva-

[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, Duebridge, 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.

-Clasp for Harness Tugs.-L. D. Cowles, Armada,

40,911.—Chasp for marness rugs.—L. D. conto, annual, 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, 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 de tine object of this invention is to obtain a simple and emerging vice 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 in vention 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., 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 great-est 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 upp" 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, hande, 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 in-greened in the proportions specified, substantially as and for the purposes set forth and described.

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 senerately or simultaneously by the feet of the operator, and either senerately or simultaneously by the feet of the operator, and

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, FFII, 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,
FFII, 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 ise 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.]

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

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.]

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 segared 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 permit it to run freely, substantially as herein specified.

40,920.—Artificial Fuel.—Thomas M. Fell, Brooklyn,

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 or in a lateral direction, whereby they are caused to loose their bal-

ance 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 pur pose substantially as berein 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 oil, &c., in such a manner and to such a temperature that said animal farsunite and combine with the mineral oils and the mixture becomes liquified and suitable for lubricating and burning purposes.]