

246

[Reported Officially for the Scientific American.]

LIST OF PATENT CLAIMS Issued from the United States Patent Office.

FOR THE WEEK ENDING APRIL 4, 1855.

FACTTRIOUS OILS-H. W. Adams, of New York City: I am aware that animal and vegetable oils have been mixed together and used for lubricating, painting, tanning, and burning purposes, I therefore claim no such mixtures; but crude turpentine is not an oil, and therefore its mixture with fixed oils is a new composition of matter. But I claim the use of crude turpentine in a mixture made with it and the fixed oils, in the manner and for the pur-poses substantially set forth.

Presses—James P. Arnold, of Louisville, Ky. : I am aware that conical pulleys and a 'raveling belt thereon have been used for various purposes where speed and power are required at variable stages. These I do not claim. But I claim operating the shipper that moves the belt along the cones by the descent of the platen whilst pressing, so that the power shall be increased with the resistance, un-til the material is pressed, and then allowing the shipper to run back at an increased velocity when the bale is ready to be removed, substantially as described.

MANUFACTURE OF WHITE LEAD BY PRECIPITATION-Richard Baker, of Newark, N. J. : I claim an improvement in the combination of apparatus, so arranged and construct-ed as to produce carbonate of lead by precipitation more ex-peditionsly and economically than by any other arrange-mentheretoforeused for the same purpose. I do not claim each and every part of the apparatus de-sortbed as new.

Loo not claim each and every part of the apparatus described as new. I claim connecting with an air pump a series of vertical distribution pipes, o o o, as described, consisting of a great many in number, descending vertically from the main horizontal pipe, Φ , and passing down through the head of the precipitating vessel, b, into the solution of sub-acetate of lead, 1 pipe at least through each square foot of surface of the top of the precipitating vessel, thereby traversing the solution with a great number of small jets or blasts of carbonic acid gas, causing a very rapid decomposition of the roution, as the vertical pipes cannot choke up with the ponderous precipitate, a constant blast from each pipe is thereby insured.

LUBRICATING PISTONS OF AIR PUMPS-Abel Barker, of Logshoat Pa. : I claim the transference of the lubricating oil from the bottom of the engine cylinder to the upper side of the piston thereof, for the purpose of insuring the proper lubrication of said piston, substantially as set forth.

Interfaction of said piston, substantially as set forth. SEED PLANTERS-C. B. Borden, B. S. Borden, and A. R. McLesn, of West Dresden, N. Y.: We claim attaching to the handle of an ordinary hoe, a chamber or box, B, which the corn or seed to be planted, said chamber or box being provided with a slide, D, having a slot or recess, h, in fits lower end, which slot or recess may be increased or diminished in size by adjusting the small slide, E. The slide, D, being arranged as shown, so as to be opera-ted by the finger of the operator, and the spiral spring, H, for the purpose of depositing the seed or corn in the holes or furrows in the earth made by the hoe, as shown and de-scribed.

[A brief description of this seed planter may be found on another page.]

another page.] CONDERSERS FOR STEAM ENGINES-Louis Bollman, of New York Giy; i Claim, first, the method described of con-trolling the injection of cold water into the condenser by connecting the injection cock or valve with a piston, E, or it equivalent, which is exposed on oneside to the pressure of the stmosphere, and on the other to the pressure within the condenser, and is acted upon substantially as set forth-by variations in the pressure in the condenser, so as to in-crease or diminish the injection, as the said pressure dimi-nishes or increases, and to stop the injection when the desired vacuum is obtained. Second the employment, substantially as described, for higher the said quantity of water to sup-ply the boiler to a higher temperature than the water deliv-or any convenient place near the entrance to the condenser, combined with a receiver, Q, which is arranged in any way ubstantially as described, of opening it at the com-mencement of eduction and injection to receive the said wa-ter, and of shutting it off from the condenser, before the temperature of the latter is toom unch reduced. [See description of this useful invention in No. 15 present

[See description of this useful invention in No, 15 present volume Sci. Am.]

SHIFS' RIDING BITS-Thos. Brown, of London, Eng.: I claim the tubular metallic riding bits, when entirely secured to a single deck of a vessel, and arranged substantially in the manner and for the purpose set forth.

ADJUSTABLE PADDLE WHEEL-L. M. Dehart, of Reading, Pa. : I am awarethat reefing buckets on paddle wheels have been used ; and that an expanding propeller has also been essayed, in which the wings have been drawn towards the center or run out by means of racks and pinlons : these I do not claim.

to the second second second second second photos is the second se

ANCHORS-R. V. De Guinon, of Brooklyn, N. Y. : I de t claim fitting an anchorso as to hold in mud or sand, by not claim fitting an anchorso as to hold in mud or sand, by providing either large fixed or movable flukesin themselves. But I claim the method described of fitting a pair of mov-able flukes, g, to a suitable anchor, so as to fit it to hold In soft or sand ysoil, by means of the tie rods, h, thimble, 2, and collar, 1, for the purposes, and as specified.

SAFETY FORT FOR COAL HOLES-S, W. Frost, of Boston Mass. : I claim combining with the door, B, and the frame A, or the vault opening, a safety guard applied thereto, sub stantially in the mamor and for the purpose specified.

VALVES FOR STEAM ENGINES-Thos. Goodrum, of Provi-dence, R. I.: First, though I do not claim to be the first in-ventor of rotating tubular valves for the induction acdeduc-tion of the steam. I claim the rotary tubular valve having openings and cavities arranged substantially as described, to communicate with the induction and with one, two, or more openings or ports, a, leading to one end, and a corres ponding number of ports, a', ieading to the opposite end of ponding number of ports, a', itading to the opposite end of one, two, or more cylinders, whereby the same valve is en abled to control the induction and eduction of steam to both ends of one, two or more cylinders. Second, I claim the variable cut off, consisting of two seg-ments of cylinders, o, and o', and plates, p p', applied with-in the tubular valve, substantially as described. . Third, I claim arranging the valve casing and the tubular valve with the axis of the valve in line with the cylinder or cylinders, as described, so as to bring the valve into an equally convenient po-ition relatively to two or more cylin-ders, and enable the length of the passages leading from it to the cylinders to be reduced to the greatest possible de-gree.

Scientific American.

patent was issued to Mr. Gorsuch on the 7th of March, and in which it is averses the whole being constructed to operate his claim published in No. 27, SCIENTIFIC AMERICAN. A few days after the granting of the patent, Mr. Gorsuch re-ceived a notice from the Office that his patent had been re-fused. and gave as a reasonforits decision, that his invention fused, and gave as a reason for its decision, that his invention was anticipated by a patent granted to a well-known pump maker of this city. Upon investigation of the matter, it appears that after Mr. G.'s patent had been issued, and just as the document was to be mailed to him, the pump maker in question visited Washington, and, by some unexplained means, M'r. G.'s patent was cancelled, and a letter of rejec tion sent to him, referring for reference to a patent granted to said pump maker. The sequel is, Mr. Gorsuch has his patent ; the Office are convinced his claims do not infringe upon the patent referred to, and we are satisfied that Mr. Gorsuch would have lost his patent had his interests not been well cared for.]

HOSE COUPLING—Smith Groom, of Troy, N. Y.: I claim a hose coupling composed of two parts, on one of which are spring clamps or jaws controlled by a friction ring, and on the other a groove, into which said jaws or clamps take, the whole being so arranged, when united, as to make a tight joint, and yet allow one half of the coupling to turn on the other half without uncoupling it, as set forth.

PLOWS-T. J. Hall, of Tawakana Hills, Texas: I do not claim a cutting wheel in connection with a plow, as this has been done repeatedly.

But I claim so hanging the cutter to the beam as that it may swivel therein, in combination with the supports at the edge of the wheel, substantially as set forth and described.

VALVE FOR WIND MUSICAL INSTRUMENTS-GUSTAVAN Hammer, of Cincinnati, O.: I claim the combination of the bow, 15, string, 16, and the screw, 19, for working them-selves, and preventing the string from slipping, all for pur-poses set forth. I also claim the privilege of applying the improved valve to all musical instruments to which such valves are com-

monly attached.

MORE OF LOADING RIFLED CANNON-Luther Houghton, of Philadelphia, Pa. : Disclaiming the sabot, as now used, I claim for loading rifled or grooved cannon, the employ-ment of a deep sabet at the base of the projectile, so as to be driven thereon, and into the grooves of the gun at the momentof discharge, for rendering said grooves effective in producing the rotation of the projectile, as specified.

producing the rotation of the projectile, as specified. Looms-B. H. Jenks, of Bridesburgh, Pa. Ante-dated Jan. 8, 1855: I claim the yielding rest or support for the picker, arranged substantially as described, to break the sudem blow or concuession with which the shuttle impinges upon the picker. thereby preventing the filling of the cop from being jarred off and entangled, and relieving the pick-er from danger of being broken. I also claim separating or freeing the picker from the end of the shuttle by the same movement which shifts the shut-tle boxes, operating through a combination of levers, cams, and springs, ubstantially as set forth, or through levers, cams, or treddles worked from any part of the loom.

DOUBLE ACTING PUMP-B. F. Joslyn, of Worcester, Mass. I do not claim placing cylinders in any particular position in regard to the air chamber or other parts, nor the exact form or proportions of any of the valves, tubes, or other parts.

form or proportions of any of the valves, tubes, or other parts. But I claim forming a direct passage to admit fluids to one part of the cylinder by means of a tube attached to and working with the piston, and passing through the other part and end, when applied to double-acting pumps, as described or any other subsjantially the same.

RARES AND HAY ELEVATORS-Wm. J. Keeney & James R. Tarbox, of Switzerland Co., Ind.: We claim the combi-nation of the apron, b', endless belt, M M, and elastic clear-ers, I I, eiher alone or in connection with two driving wheels, clutches, and arakeplaced behind for the purpose of raking and elevating hay, as set forth.

Hoisting ind totaling high so for third Hoisting and totaling high so for third Pottaville, Fa. ; I claim the combination of the coal car, C, and its carriage, B, with the hoisting carriage, D, is guided ver-tically up the shaftby its ways, A', the carriage of the coal car, C, is guided by the independent ways, A 2 and N, insuch a manner as to t I the car when it obtains the proper eleva-tion, and place it in such a position that its contents will be self-discharged into the shute, 6, substantially as set forth.

APPARATUS FOR FEEDING PAPER TO HAND PRINTING PRESSES-Ebenezer Mathers and Wm. D. Siggfried, of Mor-PRESSES-Ebenezer Mathers and Wm. D. Siegtried, of Mor-gantown, Va.: We claim the feeding hand presses, auto-matically, by means of the operation of the clamps, guide rods, cords, weights, pulleys, catches, and springs, arranged in the manner and for the purpose set forth.

COTTON GINS-J. B. Mell, of Riceboro', Georgia : I am aware that card clothing has been used with a rotary brush in a cottongin, and thereforeI do not claim them sep-arately or combined. I claim the combination of the beater, B, card cylinder, F, brushes, g and H, and plate, J, when arranged substan tially in the manner described and set forth.

[On page 348, Vol. 9, a notice may be found of this cotton cleaner.]

LANCETS-Henry Mellish, of Walpole, N. H.: I do not claim the combination of a piston and charger, as such, for the purpose of depositing vaccine or other matter. But I claim the construction of a lancet in combination with a charger and piston inside its blade, substantially as described, for the purpose of depositing vaceine or other matter, in a puncture made for that purpose, before the lan-cet is drawn.

COAL HOLE COVERS-F. H. Moore, of Boston, Mass. : I claim the method of securing the coal hole cover by means of the rods, b, or their equivalents whereby the cover may be raised more or less as required for purposes of ventilation or for the introduction of coal, and all danger to passers-by is avoided, as set forth.

BREECH-LOADING FIRE ARMS-Rollin White, of Hart-BREECH-LOADING FIRE ARMS-Rollin White, of Hart-ford, Ct. 1 claim, first, the application of the siding breech to operate in connection with the trigger, through a tumbler, as described, in substantially the same manner as the ham mer in ordinary fire arms, thereby making the breech serve not only its proper purpose of closing the rear of the cham-ber, but as the hammer for effecting the explosion of the charge, as set forth. Second, the spring plate, B, applied substantially as de-scribed, to serve as a guide to contauct the cartridge into the open chamber, and as a guard to prevent the cartridge fail-ing out at the rear of the chamber before the breech is liber-ated, as set forth.

STOVE PIPE TUBE-Thos. Moore, of Fair Haven, Vt. : I claim the double and adjustable concentric tubes, or stove pipe thimbles, constructed in the manner described for the purposes set forth.

PULLEY ARRANGEMENT FOR DUMB WAITERS-Andrew Murtaugh, of New York City: I claim the manner shown of arranging and suspending the waiter, A, and weight, B, between the cords, C D, arranged double over pulleys, sub-stantially as and for the purposes e.t forth.

[See notice of this invention on another page.] SEED PLANTERS-L. W. McGaffey, of Syracuse, N. Y. : I am aware that a swinging fertilizer discharge valve, in con-nection with a seed planter of itself is not new. Also, that a tilt apron abruptly operated by cams to dscharge accumu-lared seed let on to it by a separately driven slide or valve has before been employed, but the relative arrangement, construction, and operation of these parts has been differ-ent; as substantive devices therefore or otherwise than as arranged and operating in connection. I do not claim them. I claim the combination of the fertilizer tilt apron, K, with the seed distributing roller, F, constructed, arranged and operating together, substantially as specified. SEED PLANTERS-I. W. McGaffey, of Syrac N. Y. : I [A short description of this waiter may be found on an other page.]

the inder to be operated, as set forth. RAILROAD CAR SEATS-A, D. Smith, of Meredith, N. Y. : I claim the combination of the arms, c c, which project from the back of a car seat, with the movable bars, d a, which are combined with the car seat and its arms, K K, or their equivalents, in such a manner that by the sid of the shoul-ders, g g, on the standards, p p, the back of the seat may be supported in '...e proper position for day riding, or be els-vated into the proper position for night riding and sup-ported in that position, substantially as set forth.

CHAIN PUMPS—Arcalous Wyckoff, of Columbus, Ohio: I Claim the application of an elastic or other suitable valve to an endless chain pump cylinder, said valve being arranged so as to be capable of only opening upward, substantially as and for the purpose set forth.

[On another page a brief description of this inventionma; be found.]

PROTECTOR FOR LAMP SHADES-Charles and Anna C FROEDOR TOR LANF SHADES-CHARGE SHILL ALINE C. Wilhelm, of Philadelphis, Pa.: We sere aware that patent has been granted to M. B. Dyatt, for a lamp shade frame made of metal, in which he claims the arrangement of the shade, shield, and wires, or their equivalents, with the in-tervening space, substantially as described, for the protec-tion of the shade; this we do not claim.

tion of the blade; this we do not claim. We claim the introduction of mice as a transparent non-conducting material between the shade and the frame, for the purpose of preventing the shade from taking fire, or be-ing otherwise injured, whilst the light is as free to be refiect-ed as though these was nothing interposed between them, substantially as described.

BANK LOCKS-C. Gustav Mueller, of Charleston, S. C. clam, first, a key provided with extension bits, the ind

I chaim, first, a key provided with extension bits, the indi-vidual length of each of which can be altered at pleasure, and still be applicable to the lock, as described. I also claim the arrangement of the plates, M, and slides, P, for preventing any fraction, and so as to prevent the pos-ability of leeling how the plates or slides are connected, as set forth.

ability of recing tow are parts a set forth. I also claim the bars, M, having saw toothed racks as ar-ranged with the sidid pars, i, and the projecting pins, m, for operating them from the outside of the lock, as de-scribed. I also claim thearrangement of the horizontal changeable slding puns which are moved by the bars, M, the rack toothed wheels or segments, and forked lever, U, which is moved by the projection on the circular plate, W, as set lorth.

Indice by the projective of the bars, M, and the stationary I also claim, as arranged, the bars, M, and the stationary plate, H, tor holding the pins when they are withdrawnfrom and bars, as described. I also claim the arrangement of the knob, the collar, R, with its bent arm. T, and use circular plate, W, for turning

with its beam such as a suggement of the show, the contra set, with its beam such as the circular plate, who for turning and holding said plate, substantially as described. I also clarm, as a ranaged, the roat, p, of the inner knob, the lever, l, shatt, t, lever, d, plate, r, and its spring, g, for con-necting said knob with the bars, M, and operating them as set forth.

REFEATING FIRE ARMS-Rollin White, of Hartford Ct. : I claim, first, extending the chambers, a a, st the rotating cy linder, A, right through the rear of the said cy linder, for the purpose of enabling the said chambers to be charged at the serviced secribed

the rear, either by hand or by a self-acting charger, suostan-tally as described. Second, the application of a guard to cover the front of all the chambers of the cylinder, which are not in line with the barrel, or any number thereof which may have been loades, combined with the provision of a proper space for the lateral escape of the exploded powder, substantially as described, whether the said space be between the cylinder and guard, or in rear of the cylinder, and whether the said guard be constructed with a recess, to receive the balls or be of such form as merely to stop the balls. Third combining a charging mission, if with the hammer

be of such form as merely to stop the balls. Third, combining a charging piston, t;, with the hammer by means of gearing, substantially as described, or by the equivalent thereof, in such a manner that by raising the ham-mer to cock the lock, the piston is moved towards the cham-bered cylinder to force a cartridge from the magazine into one of the chambers thereof, and by the tailing of the ham-mer, the piston is withdrawn to allow a new cartridge to be mer, the pictor is withdrawn to anow a new carringe to be supplied ready to be driven into the next chamber of the cyl-haer as the hammer is again raised to cock the piece, as ful-ly set forth. Fourth, furnishing the hammer with an attachment, m, by

which in the act of falling it may close the mouth of the magazine, substantially as described, before exploding the priming, and thus protect the charges within the magazine from ignition.

REPEATING FIRE ARM-Rollin White, of Hartford, Ct. REPEATING FIRE ARM-Rollin White, of Hartford, Ct. : First, 1 do not claim the employment of a magazine to sup-ply cartridges to the chambers or caps to the nipples, when the cartridges are arranged therein end to end, to be ied iuto the chamber or chambers or on to the nipple of the piece. But I claim the method substantially as described, of com-bining and applying the magazine and charging tube either for cartridges or priming, to wit, the charging tube being arranged in line with the chamber or one of the chambers or the nipple, or one of the nipples of the piece, and the maga-ime teng arranged in such a mamor relatively thereto that the cartridges or caps lie side by side, to be sideways one by one, as required, in o the charging tube, by gravitation, a spring, or other means, on the retraction of the said piston from opposite the magazine, and to be fed into the chamber or to to the nipple by the movement of the piston towards

or on to the nipple by the movement of the piston towards it. Second, I claim combining the rotating chambered cylin-dered with the charging piston, or its equivalent, in the manner substantially as set forth, so that by the operation of retracting the charger after charging a chamber of the cylin-der, the cylinder shall be rotated to the extent required to bring a new chamber in line with the barrel Third, I claim combining the hammer with the charging piston, in the manner substantially as déscribed, so that the operation of moving the charging piston to drive a cartridge from the magazine into the chamber the hammer shall be raised to cock the lock. Fourth, I claim the spring protecting plate, M, applied substantially as described, to fall into notches, u, u, in the rear of the rotating cylinder to protect the other charged chambers from the effects of lateral fire tromthe discharge of the chamber which is in line with the barrei. [This is the fith platent on fire arms taken by Mr. White,

[This is the fifth patent on fire arms taken by Mr. White within a few weeks, through this office.]

Prove-Nosh Warlick, of La Fayette, Ala. : I do not claim the whale lanceshaped point a parately. But I claim the whale lanceshaped point, D, having a notch in its upper side to receive the lower end of the coult-er, in combination with said coulter and the y-shaped ad-justable double brace, UC, as set forth.

[See a description of this plow on another page.]

Excavation of time -C. Williams, of Jackson, Tenn. I claim having the frame or shaft, D, of the scoop or shovel, E, formed of two bars, e.e, and having said bars working be tween friction rollers, d, in guide plates, c c, at opposite sides of the pole. A. The frame or shaft and shove being operated by the means shown or their equivalents. [On another page see a description of this machine; en

gravings are necessary to explain the matter well,]

MECHANISM BY WHICH APPROACHING VEHICLES OPEN AND CLOSE GATES-Enos Woodruff, of Elizabethiown, N. J.: I claim, first, applying weights in manner specihed, or any similar manner, to the operating the gate.

in combination with the charging chamberand breech piece, having an opening, P, in it, for cutting off the end of the cartridge, and discharging the raggements thereof from the charging chamber, the said parts made and opersting in combination with the barrel and magazine of a gun, sub-stantially as set forth.

6

íR

FOLDING BEDSTEADS-William Stoddard, of Hingham, Mass. : I claim, the making the side rails of bedsteads in sections hinged together, and also to the head and foot posts, so that they will fold together substantially as specified, in combination with the slats which support the bedding, which slats are so constructed and provided with pins or projections near the ends of them, as to brace or hold the folding mills firm when the bedstead is extended essentially in the manner and for the purposes set forth.

GRAIN CLEANER—Benjamin J. Trimmer, of Parma, N. X.: I claim the construction and arrangement of the india rubberscroll and apring tech regulated by the bridge tree, for thepurpose and in themanner substantially as described,

for the purpose and in the manner substantially as described. WASHING MACHINES-George W. Edgcomb, of Lima, Ind.: I am aware that a wash-board has been made of a ronical form, having its surface higher above the bottom of the tub at the circumference than at the center, with radial ribs of the form of a half cone attached to it, and to the bot-tiom of the tub with their broadest end outwards, and with spaces between them of such width and depth as to receive the clothes between them in such a manner as to turn them over, has been used before, in the washing machine of Joel Wisner, patented November 8th, 1553, and therefore I do not cleaim such as my invention, for the reason that I have made a marked improvement thereon. I cleaim the alternating radial arrangement of the taper-ing rubbers, \P and I, upon the under side of the actuating disk, G, and upon the bottom, H, of the tub, substantially in the manner and for the purpose set forth. HARROWS-Charles Clareni (assignor to Chas. Clareni &

HARROWS-Charles Clareni, (assignor to Chas, Clareni & George P, Field.) of New York City : I claim making the rotating harrow in flexible segments, as described.

SCRAPERS FOR REMOVING DIRT FROM BOOTS AND SHOES —Ozro A. Chane, and Henry J. Lewis, of Green Point, N. Y. (assignors to Ozro A. Crane, a foresaid.): We claim the method described and shown, of causing the brushes, c, to accommodate themeelves to any size or shape of boot or shoe, and brush off both sides at once, by so attaching said brush-es that they shall be forced together by springs, substantial-lyas specified.

FIXTURES YOR CURTAIN ROLLERS—John Hartshorn, and Dexter H. Chamberlain, of Boston, Mass. (assignors to John Hartshorn, aforesaid): I do not claim balancing and sup-porting window curtaius by means of friction upon the ends of their rods.

boring winnow curvanes of means of infection upon the enus of their rods. But I claim the bent socket, E, pivoting upon the win-dow jamb, and secured therato by means of screws, as de-scribed, whereby sufficient friction may be placed upon the rod to balance a curtain of any size or weight, without the use of springs or other contrivances for the purpose.

RE-ISSUES.

RE-ISSUES. VAULT COVERS-Thaddeus Hyatt, of New York City. Original patent dated Nov. 2, 1845: I claim, in covers for openings to vaults in floors, decks, &c. making them of a metallic grating or periorated metallic plate, with the aper-tures so small that persons or bodies passing over or falling on them, may be entirely sustained by the metal, substan-tiallysa described, but this I only claim when the apertures are pretected by glass, substantially as and for the purpose specified.

All particles of generation with the grating or per-forated cover and glass fitted thereto, the knobs or protu-berances on the upper surface of the grating or perforated plate, lor preventing the abrasion or scratching of the glass, substantially as specified.

binkes of a topole attract of the graining of the glass, substantially as specified.
GRAIN AND GRASS HARVESTERS—Abner Whitely, of Springield, Ohio. Original patent dated Sept. 19, 1564: 11
Claim, first, the combination of the rake, O, swinging or suspended from one rod of the relet, with the guides, L L, and ways, S. substantially as above setforth and described, for the platform, but also for better directing the standing of the glass, but interactions of the role of the rake of the platform, but also for better directing the standing of the shaft which drives it, and staing on these arms to and from said shaft, permitting it to be adjusted to the platform by guides for that purpose, nor any such guides, whether combined with the reel or not, neither do I claim any such guides are used for reciprocating rakes.
Becond, I claim the guides for fuely grain into the east of the platform by guides are used for guiden grain into the reel as described, and for the purposes set forth. I do not claim any guides for guiding are used box whellow the lowest point at which there are lowed as the successive accuons of the rake.
Third, I claim the latch, 1, and appendages, by which the operator is enabled to permit more or less grain to accumulate on the platform between successive accuos of the rake. Fourth, I claim the bate guides of said cutters on the upper and lower sides of the said fingers.
Third, I do not claim the mere alternation of the alternate shear edge of the blades of said cutters on the upper and the said fingers.
Thith, I do not claim the mere alternation of the steternate shear edge of the blades of said cutters on the upper and lower sides of the said fingers.
Thith, I do not claim the mere alternation of the teeth on the cutters are staid fingers.
Mut a shear the degrain of the same tooth, will be above, and those of the next below.
But I do not claim the mere alternation of

DESIGN FORK AND SPOON HANDLES-Henry Biggins, of Mount Vernon, N. Y., (assignor to Michael Gibney, of New York City.)

Sharp's Rifle in England.

The merits of Sharp's American breechloading lifte has been brought before the British Parliament, and its introduction into the British Army demanded. Mr. Maguirestated that he had witnessed experiments with it when it was fired forty times in five minutes. Col. Knox said he had also seen the weapon tested, and he considered it to be far superior to any other in use. Mr. Monsell also saw it tested, and agreed with all that had been said in its favor by Mr Maguire. He also stated, however, that as soon as the authorities at Woolwich had tested various rifles, and breech-loading fire arms, and reported on the best, they would at once proceed to manufacture it; at present, the question was between the choice of two, Mr. Sharp's, of America, and M. Lenoir's, of Paris. Oil from the Bowels of a Mountain. A statement has been made to us (for the truth of which we do not vouch) that a large number of springs have been discovered in Western Pennsylvania, which, by a process of evaporation and distillation, yield an oil equal in purity to the best sperm oil. It is represented as furnishing a brilliant light, and as not being affected by the cold with the thermometor 14 degrees below zero. It is said 1000 gallons of this oil has already been produced. Is there any truth in the report?-[Philadelphia Ledger.

[A description of this improvement in steam valves for engines may be found on another page.]

gines may be round on another page.] DIRECT-ACTING HYDRAULC STEAM PUMPS-R. B. Gor-such, of New York City; I claim effecting a water pressure upon the suction end of the pump plunger, M, in direct-act-ing steam pumpe, at or near the completion of the stroke, without diminishing the resistance against the forcing end of the plunger, or in the manner shown, or in an equivalent way, for the purpose of closing the suction valves, a, filling the vacuous space in the pump chamber, preparing the force valves for opening and acting conjointly with the steam pressure upon the pliston, B, whereby the steam valve, D, is operated with precision, whatever may be its velocity. [A singular incident is connected with the issuing of this

[A singular incident is connected with the issuing of this patent, which we cannot refrain from noticing. This same

S. 9 FIRE PROOF FLOOR AND CEILING-F. A. Petersen New York City : I do not wish to be understood as limit The state of the special form of the beams and tubes, and the kind of filling between them solong as the same result is at-tained by merely formal variations. I claim the method substantially as described of making freerroof floors and ceilings, by means of metallic flanched

To commutate method substantianty as described of making fre-proof floors and ceilings, by means of metallic fanched beams in combination with tile tubes interposed between and resting on the fanches of the beams, and tilled in above all substantially as and for the purpose specified.

FIRE ESCAFE LADDER-S. R. Roscoe, of Carlisle, N. Y. I claim, in the described sectional ladder, for fire escapes, and other purposes, the combingtion and arrangement of the mortise, m, tenon, t, spring latch, k, hook, h, and the groove

any similar manner, to the operating the gate. Second, the application to such gates of the manner here-in described, of causing both latches to lift at the same time. Third the application of catches with one side higher than the other, to a rotating gate. Fourth, the manner above described of preventing the tread of an animal from opening the gate, or any mode an-elorgue thereto.

alogous thereto.

CULTIVATORS FOR TOBACCO-Francis L. Smithson, of Meckleaburgh County, Va. : I claim the combination of the harrow teeth and cylinder, substantially in the manner and for the purpose set torth.

For the purpose set Join. ARRANGEMENT OF MEANS FOR FREEING STEAM BOIL-ERS FROM SEDIMENT—Hiram Strait, of Lovington, Ky.: I claim, in the construction of a steam boiler of any kind, the arrangement and combination of the valved partillon, blow-off pipes, and cock or valves, so as to expel its sediment, mud, scales, impurities or incrustations, at any time and in a few minutes, by the joint or separate force and pressure of its own steam and water, without exhausting either or sus-pending any of its ordinary duties or business, and thus render a steam boiler strictly and thoroughly self-cleaning substantially as herein specified. [An energying of this invention will be published next

[An engraving of this invention will be published next

week.]

BREECH LOADING FIRE ARMS-George H. Soule, of Jer-sey City, N. J.: I claim the use of the double-acting cam,