### NEW PUBLICATIONS.

THE AMERICAN HOUSE CARPENTERS' AND JOIN-ERS' ASSISTANT. By Lucius D. Gould, Architect

This is the title of a large quarto volume, in which the science and practice of building wooden structures is fully treated. It is illustrated with forty-four lithographic plates, and gives direc-tions not only about doing work, but upon the use of mathemati-cal and drafting instruments. Valuable tables of the relative strength and other properties of materials, and other useful information make this a valuable vade mecum for the practical work man.

ATLANTIC MONTHLY.

The number for November is very excellent in every respect. The Publishers announce, for 1867, a Serial from Dr. O. W. Holmes, a series of articles from James Parton, and frequent papers from James Russell Lowell, in addition to their regular contributors Ticknor & Fields, Boston.

ADDRESS ON PRESENTING TO JOHN ERICSSON THE RUMFORD MEDAL OF THE AMERICAN ACADEMY. By E. N. Hosford, late Rumford Professor in Harvard University.

We have received from the author a copy of this pamphlet which is valuable as giving a *resume* of the inventions and valuable discoveries of this distinguished engineer. It states that Friceson built the first successful propeller having all its machine ry below the water line-the Francis B. Ogden-which was reject et by the Lords of the Admiralty of England, on the ground that "it would be impossible to steer a vessel where the propelling power was so near the rudder." Mr. Ericsson came to this coun-try, bringing the machinery of the *Robert F. Stockton*, and shortly after built for the Government the screw steener *Princeton*. The idea of the monitor class of war vessels was conceived by Ericsson in 1854, when he submitted to the Emperor Napoleon a plan for such ships. Capt. Coles, of the English navy, dates his first idea in 1860. Capt. Ericsson is well known for his hot air en-gines, but his crowning glory is the total change in war ships, inaugurated by his celebrated Minitor. The pamphlet is published by Hurd & Houghton, Boston, Mass.

REPORT OF THE SECRETARY OF THE SMITHSONIAN INSTITUTION, January, 1866. This Report we shall take occasion to employ hereafter in the

elucidation of several subjects upon which it briefly treats. In the meantime we may state that it contains information of general interest on many matters of importance.

HUSSEY, WELLS & Co., of Pittsburgh, Pa.

In reply to the ninth question of the U.S. Revenue Commission have published a paraphlet consisting mainly of the certificates in Eavor of their cast steel. These are unanimous in praise of its evenness and excellent qualities.

LECTURES ON AGRICULTURAL CHEMISTRY. By Prof. S. W. Johnson, Yale College.

A series of four lectures, illustrated with cuts, and the facts exemplified and made practical by experiments. The subject of chemistry as applied to the tilling of the soil is treated in this pamphlet in Prof. Johnson's usual lucid and practical style. He has already done good service to the agriculturists of the country by his lectures, occasional addresses, and publications on this sub

CURIOUS QUESTIONS. By Rev. Henry A. Brann, D.D.

This is a work on mental and moral philosophy, valuable to the mechanician and the natural philosopher merely, or, at least, mainly, because it refers incidentally to the operation of natural laws

WOODWARD'S ARCHITECTURE.

This neat volume is incontract or the. This neat volume is issued by Geo. E., and F. W. Woodward, at the office of the *Horticulturist*, 37 Fark Row, New York. Many of our readers will recollect "Woodward's Country Homes," a valuable volume as a guide to the erection of rural homes. The present volume is the first of a country indication is the start of the second present volume is the first of an annual series, intended to aid in the building of farm houses, villas, barns, ice houses, and other structures pertaining to country life, as well as to direct in laying out grounds in gardens, orchards, walks, drives, etc. It is profusely Ilustrated with plans and designs, and forms an attractive and read able volume to those who do not intend to follow it; directions as well as a valuable manual to all who make the country their home.

### Inventions Patented in England by Americans.

Condensed from the "Journal of the Commissionersof Patents, PROVISIONAL PROTECTION FOR SIX MONTHS.

2,296.--SLIDE VALVE FOR STEAM ENGINE.-William B. Robinson Detroit, Mich., and Zoheth S. Durfee, Philadelphia, Pa. Sept. 7 1866.

2,298.-BEER AND ALE.-John Schneider, Williamsburgh, N. Y Sept. 7, 1866. 2,306.-WATER-POWER ENGINE.-William Lonsdale and William Peete, New York City. Sept. 8, 1866.

2316.-MANUFACTURING LEATHER.-George V. Sheffield and James F. Coburn, Hopkinton, Mass. Sept. 8, 1866. 2,319.-SEAMLESS METALLIC TUBE.-William F. Brooks, New York City. Sept. 10, 1866.

York City. Sept. 10, 1866. 2,329.—ELECTRIC TELEGRAPH CONDUCTOR.—John M. Batchelder, (ambridge, Mass. Sept. 10, 1866. 2,358.—HORSE RAKE.—Daniel G. Adelsberger, Emmittsburg, Mat. and Richard R. Riches, and Charles J. Watts, both of Norwich county of Norfolk, England. Sept. 14, 1866.

2,369.—BRAIDING MACHINE AND WARP REGULATOR.—William Tunstill, Paterson, N. J. Sept. 14, 1866. 2.4(3.-PRINTING MACHINE.-George Gordon, New York City-Sept. 19, 1866.

2,484,—BRONZING MACHINE.—John K. Lowe, Cleveland, Ohio. Sept. 26, 1866. 2,490,—CUTTING FILES.—Albert F. Johnson, Boston, Mass. Sept. 6, 1866.



ISSUED FROM THE U.S. PATENT OFFICE FOR THE WEEK ENDING OCT. 23, 1866.

Reported Officially for the Scientific American.

237 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.

58,964.—SCREW.—John Absterdam, New York City, I claim the above-described wood screw, with the plain cylin-drical portion between the point and the threaded portion, sub-stantially as and for the purposes set forth. 58,965 .- GATE.-Henry Adams, Seattle, Washing-

ton Ter. Iclaim a gate hung to its post by means of a hinge, E, asses through a vertical slot, I, and is held to the gate by substantia liy as herein described and for the purpose spe

58,966.-Hoe.-Sherman W. Adams, Wethersfield,

Conn. First, I claim the combination of the blade, a, and handle, b, when constructed and operating substantially as herein shown and described. Second, The hoe as above described and set forth as a new ar-ticle of manufacture.

58,967.-FEED CUTTER. - William F. Altfather,

Johnstown, Pa. Johnstown, Pa. First, Iclaim the combination of the inclined or diamond-shaped knife sash, connecting rod or bar, I, and eccentric, F, with each other, and with the driving haft, C, cutter frame, B, and box, A, substantially as herein shown and described. Second, The combination of the jaws, P and S, bent levers, O and R, and pivoted cam lever. N, with each other, and with the cutter box, A, support, M, and eccentric, F, substantially as herein shown and described, and for the purpose setforth.

in shown and described, and for the purpose setforth. 58,968.—MECHANISM FOR OPERATING THE HAR-NESS OF LOOMS.—William R. Andrews, Mystic River, Conn. I claim the above specified new and useful harness-operating mechanism or combination, consisting of the tri-arned lever, D, the two cams, EF, the gears, cc, and racks, G H, the spring, I, and the rack-elevating mechanism, the whole being arranged to gether, and with a pattern chain and its actuating mechanism, substantially in manner and so as to operate as explained.

58,969. — INSTRUMENT FOR EXTRACTING CORKS FROM BOTTLES.—J. T. Ashley, Brooklyn, N. Y. Iclaim the slide, F, in combination with the tongs, A, when arranged thereon, so as to operate substantially in the manner and for the purpose described.

58,970.—APPARATUS FOR MOVING BUILDINGS.— Egbert H. Avery, Belvidere, III. I claim the guide keys, D, in combination with the tracks, C C' B, substantially asset forth.

B. SUBSTATICALLY ASSOCIATED. 58,971.—BUTTER WORKER AND PACKER.—Charles F. Barager, Candor, N. Y. I claim the arrangement of the bowh, B, vessel, I, and slotted lever, D, with the universal joint, E F, and stop pins, d'e, said lever, D, being adapted to aim if of the attachment of the ladle, C, and packer, J, and the whole operating substantially as de-scribed cribed.

scribed. 58,972.—PUMP.—A. B. Barlow, Ripon, Wis. I claim the method substantially as above described of backing the lower joints of the cylinder and said chamber by mean<sup>3</sup> of a bottom piece, I, and annular flange or cap, N, and the packing material, a a, secured by them by the aid of a surrounding flange, N, substantially as described. 58,973.-CORN PLOW.-Peter Barnhart, Chillicothe,

UIIO. I claim the adjustable fender, F, and beam, A, in combination with the standards, B B, for the purposes and substantially as de-scribed.

58,974.-STRAW CUTTER.-John W. Bartlett, Har-

58,974.—STRAW CUTTER.—JOON W. Bartlett, Har-mar, Ohio. Antedated October 12, 1866. First, I claim the arrangement of the fly wheel, fly wheel shaft with two cranks, knife, C, oscillating arm, D, and standard and guide, F, substantially as set forth. Second, I claim the combination of the crank, g, attached to the end of the fly wheel shaft, the lever, P, and the bent pawl lever, H, with the ratchet wheel and feed rollers, substantially as set forth

Third, I claim the pawl holder and guide, I, constructed and connected together as set forth. Fourth, I claim the hinged board, O', with its shaft, P', in com-bination with the bent spring, S', substantially as and for the pur-pose set forth.

-Composition for Roofing.-F. Bearse 58.975.

and G. E. Hopkins, Barnstable, Mass. We claim therefor the composition as made of the acid and other ingredients, substantially as hereisbefore set forth.

58,976.—CHURN.—M. Bratt, Maysville, Ky. First, I claim the combination of the hollow tube, E, having the valve, c', at its upper end, and with the hollow dasher handle, D, having a valve, d', at its upper end, and with the bottom, a', of the courn, A, substantially as here'n described and for the purpose

set forth. Second, The combination of the guide rod or plunger, F, with the hollow dasher handle, D, havin z a valve, d', at its upper end, and with the bottom, a', of the churn, A, substantially as herein described and for the purpose set forth.

-GRINDING MILL.-Charles P. Benoit, De-58,977.

troit, Mich. Iclaim the machine for crushing grain consisting of the longi-tudinally grooved roller, B, and the transversely grooved cylin-der, C, arranged to operate substantially as described for the pur-pose specified.

58,978.—CREANING, SLICKING, AND SKIVING LEATH-ER.—C. C. Bellows, New Ipswich, N. H. I claim, Firse, The combination of the slotted standards, B, slotted triple-armed lever, E, springs, I, and rod, G, arranged to operate with the roller, D, when constructed and applied in the manner and for the purpose specified. Second, The plate, J, having skiving knives, d, attached to or formed on it, and applied to the upper roller, C, by means of the bars or clamp frame, substantially as and for the purpose de-scribed.

Third, The laterally-adjustable creasing wheel, F, on the upper Third, The laterally-adjustable creasing wheel, F, on the upper roller static, operating with the flanged roller, G, substantially as described for the purpose specified.

58,979.—PIANO STOOL.—Joshua Briggs, Peterboro, N. H. I claim combining with the pillar, c. the spinctle unt when

inade with a wood screw cut upon its outer surface for securing it permanently to the pillar, substantially as described. I also claim the combination of the pillar, c, base, a, and bolt, i, when the pillar is constructed to recoive the bolt through the tube in which the screw spindle plays, and with a seat for the head of the bolt at the bottom of said tube, substantially asset forth. 58,980 .- STEAM-ENGINE SLIDE VALVE .- Richard

JO, JOU. — STEAM-ENGINE SLIDE VALVE. — Richard C. Bristol, St. Clair, Mich. I claim, in connection with a slide valve, the within described arrangement of rollers, C, mounted concentrically upon the cross bars, C, and between the longitudinal bars, C2C2, and arranged to operate relatively to the valve, and to the cylinder face, and to the steam chest, substantially as and for the purposes herein specified.

specined. 58,981.—AMALGAMATOR.—Edmund Brown, Chica-go, Ill. I claim, First, The revolving and stationary shaft, with aper-tures and finange for crowding the quark out into the lead. Second, The series of compastic and arrange d for the pur-pose specified.

58,982.-WINDOW SCREEN.-Edward Bucklin, Jr., and Sedgwick A. Sutton, North Providence, R. I.

K. 1. We claim attaching the screen directly to two supporting rails, D and D', in such manner that the width of the screen may be increased or diminished in the same proportion as the lengths of the rails, as and for the purpose described. 58,983.-FARM GATE.-John A. Cheatham, Nash-

58,983.—F'ARM GATE.—John A. Cheatham, Nash-ville, Tenn.
 Iclaim, First, The combination of the lever or levers, A A, with the vertical spindle, E, controlling the gate and its latch, with the cam-shaped plece, O, or its equivalent, substantially as and for the purposes set forth.
 Second, The combination of the lever or levers, A A, and the spindle, E, with the upper disk, L, the trigger, K, and latch, J, substantially as and for the purpose described.

58,984.—LADDER.— . Ckertizza, New York City. I claim the combination of sides so sloping that the narrow end of one sectional ladder fits within the wider end of any other, with the slots, d a and c', and the bars, b and b' b', substan-tially as described and for the purpose setforth. 58,985.—FAN BLOWER.—Patrick Clark, Rahway, N. J.

N. J. I claim, First, The diaphragms, C C, when used in combination with a compound fan blower. Second, The fan wheel, F F, when constructed with fans or yanes of the form and arrangement with respect to each other as described. Third, Attaching each fan or vane at its ends to two adjacent arms, as described. Fourth, The leather packing, D D, when combined with the diaphragms, C C, as described.

58,986 .--- CORN SHELLER .- William Colwell, Chillicothe, Ill.

Colley, 111. I claim, in combination with the cone, B, shaft, C, and hopper, F, the fan, N, and elevator, U, for the purposes and substantially as herein set forth.

as herein set forth.
58,987.—SAFETY VALVE.—D. G. Coppin and G. H. Cleinens, Cincinnati, Ohio.
We claim, First, The valve, C. and tube, m, constructed as above described and for the purpose set forth.
Second, The valve, C. levers, I, weights, D and D', arranged as above described and for the purpose.
Third, The valve, C. levers, I, weights, D and D', tube, m, in combination with annular ring, f, casing, B, sleeve, n, and cap. o for the purpose above described and set forth.
58,988.—CORN PLANTER.—W. H. Cox, Virden, Ill. First Leight the performance of the perform

30,900.—CORN FLANTER.—W. H. COX, VIFUER, HI. First, I claim the perforated, horizontal, revolving plates, m m, in the hoppers, D D, for feeding and dropping the grains of corn evenly in combination therew ith, and with the bevel gear wheels, h, and the pulleys, b, d, connected with and deriving their mo-tion from one of the driving wheels, C, constructed and arranged substantially as and for the purposes here in described. Second, I claim the thimble, a, within the hub of the driving Second, I claim the thimble, a, within the hub of the driving wheel C, forcarrying the pulley, b, in combination therewith, and with the stationary axie, B, constructed and operating sub-stantially as and for the purposes herein specified. Thr d, I claim the arrangement of the side pleces, ff, hung upon the axie, B, for supporting the hoppers, D D, and raising and lowering at pleasure with the lever, F, substantially as herein described. Fourth, I claim the slide plece, G, with the push and pull paw I, 00, for vorking the seed grouping apparatus by hand when ad-justed for planting corn in hills, in combination with the revolv-ing perforated places, m m, to which they impart an intermittent motion, arranged and operating substantially as herein described M, corn provide the seed support of the section o

58,989.-MACHINE FOR STRIPPING THE TOP FLATS

or, or an additional and a strain of the state of the sta

58,990.—HARDENING SPRINGS.—George G. Crowell,

Lime Rock, Conn. I claim the employment of glue, or equivalent glutinous animal matter, either alone or in combination with other material, as a hardening compound, when employed substantially in the man-ner and for the purpose herein set forth.

58,991.—TABLE AND HOLDER FOR SHEARING SHEEP.
—A. M. Culver, Bedford, Ohio.
I claim the table, B, arms, C C', pawl and ratchet, a b, and sbackle, D, constructed and arranged as and for the purpose specified.

nea. 58,992.—KNIFE CARRIER.—Porter E. Cummings, Sanford, Me. I claim the improved knife carrier, made substantially as de-scribed, viz: with the knife-shank socket, and the rebate arranged in it, as set forth, the said carrier bdng provided with a set screw, or equivalent means of fixing the knife shank in the socket.

58,993 .- HAND SEED SOWER .- Obed Dann, Janes-

58,993.—HAND SEED SOWER.—Obed Dann, Janes-ville, Wis.
Iclaim, First, The combination of the box, A. and shide, E. when constructed, arranged, and used substantially as and for the pur-pose set forth.
Second, The combination of the box, A, cap, B, and handle, C, when constructed, arranged, and used substantially as and for the purpose set forth.
Third, The combination of thebox, A, slide, E, e., B, and handle, C, when constructed, arranged, and used substantially as and for the purpose set forth.

58,994.—BED BOTTOM.—Garret B. Davis and Chas. B. Davis, Freeport, Ill. We claim the strengthening rols or girders, E.E., in combina-tion with the bow-shaped cross pieces, C.C., and elastic bands, D, substantially as specified.

58,995.—TABLE.—Ernest Dinter, Boston, Mass. I claim the improved table stand as having two parts, a b, con-structed with receiving slots, arranged in them so as to enable them to be applied together, substantially asset forth.

them to be applied together, substantially as set forth. 58,996.—STEAM-ENGINE GOVERNOR.—E. C. Ed-monds, Buffalo, N. Y. I claim the combination of the adjustable clutches, tt', with the slip shaft, G, loose pinjons, h', bevel wheel, K, and spinile, C, for producing an intermittent motion to the valve-operating mechan-ism, and stantially in the manner set forth. I also claim, in combination with the above, the serew valve

shaft, p. pulley, o, band, n, and pulley, m, for operating the valve r, arranged and operating substantially in the manner specified. 58,997.—WASHING FLUID.—Alfred A. Enqoist, San Francisco, Cal. Antedated Oct. 3, 1866.

I claim the compounding of the ingredients in about the propor-tion, as herein described, in combination with the process, sub-stantially as set forth.

58,998.—SEAL FOR JAR AND CAN.—Henry S. Fisher, Oakville, Pa. I claim a seal for preserve jars, cans, and other vessels which is composed of mdia-rubber, or other equivalent substance, lined or covered with a substance which is saturated with an adhesive cement, substantially as described.

cement, substantially as described. 58,999.—CASTER FOR FURNITURE.—Frederic G. Ford, New York City. I claim, First, Combining and arranging the caster by leaving a space between the central boss and horn, so that the horn shall be out of contact with the central boss, thereby relieving the caster of much of its friction, substantially as shown and described. Second, The combination, in a caster, of a central screw and horn, with a plate constructed with the boss, B, substantially as above shown and described. Third, Constructing and arranging the central boss of the plate with respect to the screw and horn, so that the said boss shall sup-port the screw and hord, so that the said boss shall sup-port the screw and hord be in contact with the horn, in the manner and for the purposes substantially as herein set forth. 59 000 — Appapatarty Sop LWIAT UNG CAS — Theodore

59,000. — APPARATUS FOR INHALING GAS. — Theodore

5,000. — APPARATUS FOR INHALING GAS. — I fleorore F. Frank, Bulfalo, N. Y. 1 claim the above described apparatus for generating and inhal-j vital oxygen, consisting of the generator, B, roceiver, E, pro-ided with the expanding bar, K, induction gas and air tubes, f , with the: r valves, i's top cock, h, and infailing tubes, f, com-ned, arranged and operating substantially as set forth.

59,001.-HAY SPREADER.-C. R. Frink, Norwich,

59,001.—HAY SPREADER.—C. R. Frink, Norwich, N. Y. I claim, First, The grooved or double-flanged eccentric wheel or dl k. A. combined with a movable plate, a, and cap plate, b, for operating the fork rods, B, in their connection with the spiral springs, C, substantially in the manner and for the purposes as herein set forth. Second, The movable jointed arms, E, in combination with the brackets, F, for relieving the forks of any straining or undue pres-sure, substantially in the manner and for the purpose as herein described.

59,002.—CARPET FASTENER.—Robert A. Gawler, Concord, N. H.

UDECUT, N. I. I claim a carpet fastener consisting of a shank to be driven into the floor of a room, and a hook, horseshowshaped, as shown, orking in said shank, in the manner described. 59,003.-CULTIVATOR PLOW.-William O. Gibson,

Charleston, S. C. Iclaim the two parallel beams, A A, connected by two cross bars, a a, and provided with the gage wheel, C, in combination with the bard, provided with the colter projection, e, and hori-zontal blade or knife, D, and connected to the beam, A, by the standards, c, c, and the plow, E, attached to the beam, A', all be-ing arranged substantially as and for the purpose set forth.

59,004.-MANUFACTURE OF ILLUMINATING GAS. Henry L. Green, Portland, Oregon. I claim the combination of saw dust with naphtha, petroleum or mineral oils, in about the proportions named, for the manufac ture of illuminating gas, substantially as set forth.

59,005.—WASHING MACHINE.—Jonathan J. Green, Grand Rapids, Mich. I claim the flexible rubbing concave, C, in combination with the cylinder, D, constructed substantially as shown and described. 59,006.-BRICK MACHINE.-J. B. Gridley, Albany

59,006.—BRICK MACHINE.—J. B. Gridley, Albany, N. Y. First, I claim operating the clay-compressing plunger of a brick machine by means of the grooved wheel, Lor its contrained, so that said plung r shall be depressed gradually but for bly, and clevated, and arrested and retarded in its operation at intervals, substantially as and for the purposes specified. Second, I claim the flanges or projections, R, or their equiva-lents, for glying motion to one or more levers, which feed the molds to the mud box. Third, In a brick machine I claim mounting a wheeled follower or moid-feeding device upon tracks, substantially as and for the purpose specified.

purpose specified.
59,007.—COTTON-BALE TIE.—James H. Gridley Washington, D. C.
First, I claim the cotton-bale, or other tie, so constructed that the lastening is made by the edges of said tie, in connection with corresponding flanges on the opposte end of the tie, or on a separate plate, having said flanges on it, substantially as described. Second, The plate, B, having flanges, b, cast or otherwise, fornied on lise edges, in combination with the ends of the tie, when said ends are cut in dovetail form, substantially as described.
Third, The plate, B, having flanges, b, on its edges, and lips, a, as described, in combination with the tie, having a dovetail ends escribed.

59,008.—CARRIAGE JACK.—Joshua Hammond, Prov-

idence, R. I. I claim a carriage jack with a fixed standard, B, movable stand-d. 2. levers, E and G, and link, F, constructed and combined bstantially asset forth.

59,009.—CURTAIN FIXTURE.—Benjamin Handforth Chicago, Ill.

I claim, in combination with the curtain, A, roller, R, and cord, D, the arrangement of the sheave, E, provided with the groove, a and one or more oblique grooves, b, operating substantially as and for the purposes specified. 59 010 - Drow Terrer V.

10r the purpeses specified. 59,010.—PLOW.—James Harris, Kansas, Ill. I claim the stacking of the rear plow, H, to the beam, A, by means of a bent bar, F, projecting laterally from the beain, and having a dovetail groove, d, made in it, to receive the plow stand-ard, in combination with the front plow, E, attached to the stand-ard, D, which is secured to the beam, substantially as and for the purpose stiorth.

59,011.—BROOM HEAD.—John Harris, Marquette,

Wis. I claim the combination of the arm3, A, pins, B, and serrated bars, C, when said arms, pins, and bars, are constructed and com-bind substantially in the manner herein described and for the purpose set forth. 59,012.—CULTIVATOR.—J. B. Herman, Mount Ver-

505,012.—CULTIVATOR.—s. D. Horman, result non, Iowa. First, I claim the arms, R, applied to the machine, substantially as shown, with the hinged bar, J, chains, Q, and plow beams, L, all arranged substantially as and for the purpose specified. Second, The curving of the rear parts of the plow beams, L, in combination with the inner laterally-aljustable plow beams, L, substantially as and for the purpose set forth.

59,013.-CULTIVATOR.-John B. Herr, West Lam-

peter Township, Pa. 1 claim the combination and arrangement of the parallel shovel beams, A B, united by the tongue, C, handles, H, and braces, D, when constructed and operating in the manner and for the pur-pose specified.

59,014.—Shifting Carriage Top.—A. V. Heyden,

Milwaukee, Wis. rirst, I elvm attaching all the supports of carriage top, B, to a single metal pate, C, and fastening the same to carriage seat, A by means or catches, D and E E, substantially as and for the pur-pose described.

pose described. Second, A curriage top with all its supports attached to metal plate, C, wich standards, I I, passing through geat, A, with slots or fotches in their lower ends, inte which catches, F c, are locked

by means of lever, G, and held in position by spring catch, H, to gether with catch, D, to hold the middle of plate, G, firmly to seat, A, all in combination, substantially as and for the purpose de-scribed.

59,015.—MACHINE FOR CUTTING TOBACCO.—Lewis F. Hildebrand, Chicago, Ill. I claim the combination of the trongh. A, face plate, C, the roller, F, knife, D, and the cutting block, G, substantially as set forth.

59,016.-HORSESHOE.-Warner Hinds, Worcester,

Mass. I claim the horseshoe, constructed substantially as herein de-cribed, as a new article of manufacture.

scribed, as a new article of manufacture. 59,017.—STEM FOR TOBACCO PIPE.—Constantine Hingher, New Brunswick, N. J. I clain, First, The curved tube, c. applied to the upper part of the cup, B. and Optimiting in combination with the same, and with the conical cap, d. applied to the tube, b, which rises from the bottom of the cup, B, substantially as and for the purpose de-scribed. I claim, f the cup, B. the conical bottom of scribed.

scribed. Second, The secondary cup, e, in combination with the lower end of the stem, A, and with the cork, f, constructed and operat-ing substantially as and for the purpose specified.

and the best and for the purpose specified.
59,018.—HAY ELEVATOR AND CONVEYOR.—N. D. Hinnman, Stepney Dcpot, Conn.
I claim, First, The frames, I J, hook, N, and cross l'ar. ], in combination with the pendent bars, H H, rod, O, and bar, M, all arranged in the carriage, B, and used in connection with the pins, b, in the ways, A, substantially as and for the purpose set forti.
Second, The jawi, P, m combination with the thimbles, W W, on the chain, Y, of the holsting rope, G, the rod, R, and frame, G, all arranged substantially as and for the purpose set forti.
Second, The jawi, P, m combination with the thimbles, W W, on the chain, Y, of the holsting rope, G, the rod, R, and frame, G, all arranged substantially as and for the purpose specified.
Third, The bent or knee lever, T, connected with the frame, Q, all arranged substantially as and for the purpose set forth.
Y and hammer, Z, sübstantially as and for the purpose set forth.
Fourth, The adjustable bars, D E, piaced on the ways, A, and the bar, E, provided with the bing do plate, X, substantiallys and for the purpose specified.
Thin, The combination of the carriage, B, ways, A, adjustable bars, D E, and plate, D, holsting rope, G, provided with the protuberance, y, and the chain, V, with thimbles, W W, applied to it, and the frames, I J and Q, rods, O, R, hook, Y, cross bar, j, and the bent or knee lever, T, all arranged to operate in the manner substantially as and for the purpose set forth.
59,019.—HAT PROTECTOR.—Harrison Hodgson, New

beind a like to the intermediate substantially as and for the purpose set forth.
59,019. — HAT PROTECTOR. — Harrison Hodgson, New York-City.
I claim, First, The combination with a hat of the movable feet, C, three or more in number, when so arranges and connected that they are projected beyond the crown and withdrawn simultaneously, substantial y as described.
Second, I also claim the feet, C, in combination with the radial lers, D, to whose ends they are attached, substantially as described.
Third, I also claim the shorted plate, H, with eccentric sites, I, in combination with the legs, D, which are raised and lowered by giving rotary motion to said plate, substantially as described.
Fourth, I also claim the wrench, F, in combination with the agency of the screw, C, substantially as above shown.
Fifth, I also claim the short or casing, E, which covers and protects the slotted plate, the combination with said plate, and with the legs, D, substantially as above shown.
Fifth, I also claim the substantial with said plate, and with the lege threshown.
Sith, 1 also claim the substantial with said plate, and with the lege, D, substantially as above shown.
Sith, 1 also claim the substantial with said plate, and with the lege, D, substantially as above shown.
Sith, 1 also claim the substantial with said plate, and with the lege.

Seventh, I also claim the enlargements on the end of the feet, C. substantially as above set forth.

59,020.—STEAM GENERATOR.—Philip Hoelzel, New

Orleans, La. I claim, First, The receptacle, a, when constructed and arranged substantially as and for the purp se herein recited. Second, Combining with or connecting to a steam boller the series of cylinders, for heating and purifying the feed water, said cylinders having blow-off pipes and the alternating connecting pipes, arranged substantially as herein set forth.

59,021.—CAR TRUCK.—John S. Howard, Schenecta-dy, N. Y. I claim the combination of the beam, A. ell'ptical spring, p. stantally a described for the purpose specified.

59,022.—Corn PLow.—R. C. Howard, Lena, III. I claim the guide rods, O, in combination with the lever, a", a beams, F, substantially as described for the purpose specified.

59,023.—FENCE POST. — William Hunter, Detroit, Mich.

MICE. I claim the combination of flanges such as above described with a pointed fence post, in the manner above described for the purpose of making said post, when driven into the earth, firm and immovable and incagable of oscillation, or any other arrange-ment of flanges so attached which will secure, substantially the same effect.

same elect. I also claim the application of such flanges and the arrangement thereof to any article of use designed to be fixed in the earth, whether for fence posts, lamp posts, awning posts or any other article which by substantially the same means can be firmly fixed or driven into the earth.

59,024.—LET-OFF FOR LOOMS.—Daniel Hussey, Nashua, N. H. I claim the combination of the cam, o, and the impelling pawi, m, applied to the crank shaft as described with the arm, r, and the escapement mechanism applied to the yarn guide and the yarn beam, the whole being to operate in the manner and un-der circumstances, substantially as set forth.

59,025.—FUMIGATOR.—Isaac Hutchins, Jr., Welling-lington, Me.

lington, Me. First, I claim the cylinder or box, B, constructed as described in combination with the bellows, A, substantially as described and for the purpose set i orth. Second, The combination of the perforated plate, c, with the cylinder or box, B, substantially as described and for the pur-pose set forth.

59,026.—SASH FASTENING. — Benjamin S. Hyers,

 $Pek_{in}$ , III. First, I claum a rack, B, secured on the pivot, D, when applied to a sach fastener, for the purposes and substantially as described. Succind, I claim the spring, E, in combination with the rack, B, substantially as described. Third, The toothed wheel, A, in combination with the rack, B, and spring, E, substantially as and for the purposes set forth.

59,027.—REED PLATES FOR MELODEONS, ETC.— Gustavus W. Ingalls, Concord, N. H. I claim the improved reed socket plate, made substantially as described, viz., by punching it through in one direction, and forming the mouth on that side which is opposite to that surface at which the punch is made to enter the metal.

59,028.—DITCHING MACHINE.—Henry C. Ingraham,

59,035.—Differing machines machines, machines,

59,029.—CISTERN FOR WATER CLOSETS, URINALS, ETC.—Alfred Ivers, New York City. I claim, First. The receptacles or cisterns, a and c, and siphon pipe, g h, in combination with a float to cause the delivery of water from the vessel, c, for the purposes and substantially as specified.

specified. Second, I claim a cistern for water closets, urinals and sinks to which water is gradually and continuously supplied, in combina-tion with a float and siphon or equivalent mechanism, to effect

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a periodical discharge by the action of the water of the contents of said distorn, substantially as set forth.

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59,030.— PUMP.—David L. Jaques, Hudson, Mich. First, I claim the plunger, b, of any suitable length consisting of heads, P and Q, and leather packing, D, at each end lifting valve, t, valve, r, and opening, Q, all constructed and operated substantially for the purpose and in the manuer set forth. Second, The combination of plunger, b, space, y, and ploe, E, for the purpose and in the manner, substantially as heretofore stated.

59,031.-MACHINE FOR MOLDING, FELTING AND

59,031.—MACHINE FOR MOLDING, FELTING AND FULLING HAT BODIES.—Moses A. Johnson and William Markland, Lowell, Mass. We claim, First, Molding, feiting and fulling for wool or other fibrous material to hat bodies, in a perforated mold and by a cone or former corresponding thereto, and the direct action of steam upon the material to be so molded, feited, and fulled by fulling a reciprocating, rotary, and a rising and falling motion to tailors of forucer willie acting upon or with the but, substan-tially as herein described. Motions, Viz., back and forth, and up and down, given to it, the bowl or mold having a continuous rotating or interiniteat or re-ciprocating rotary movement, substantially as described. former, substantially as and for the purpose described. We also claim shifting, crease the force of the blow of the failing occlaim so the process proceeds, substantially as de-scribed.

59,032.-COMBINED FLY WHEEL AND CRANK SHAFT.

scribed.
59,033. — HORSE HAY FORK. — Henry Kauffman, York, Pa.
First, I claim the dividing iron, B, which prevents the bay from clogging and stopping the operation of the hooks in their lateral movement, and s provided with the spearhead, which facilitates penetration into the hay.
Second, The combination of the hooks, A A, and the removable prongs, E, a range of or joint operation in the manner and for the purpose set forth.

59,034.—MEASURING FUNNELS. — W. E. Keene, Lynn, Mass.

Lynn, Mass. I claim for a measuring funnel the arrangement of the valve and valverod, consisting of elastic piston, c, attached to rod, d, by compressing nuts, e and f, within cylinder, b, constructed as de-scribed, with holes, m, and exterior graduating belts, and com-bined with, and arranged in the axis of funnel, A, by means of standards, g, and cross piece, b, all operating together as and for the purpose described. 59,035.-CATTLE GAG.-William Kegg, Lassells-

9,030.— CALLER Ville, N. Y. I claim a cattle gag consisting of a ring, A, and arms, B B, con-tructed and applied substantially as and for the purpose speci-ed. STIRT BOSOMS.—

I claim a cattle gag consisting of a ring, A, and arms, B B, con-structed and applied substantially as and for the purpose speci-fied. 59,036.—FLUTED PUFFING FOR SHIRT BOSOMS.— —Geo. E. King, New York City. I claim the within described fluted puffing as a new article of manufacture and made by fluting, by mechanism, and in a regular manner, a strip of muslin or other material, throughout its length, and compressing and flattening down the extremities of the flutes, of the flutes, and afterward machine stitching said borders along and at the union of the borders with the flutes, substantially as specified.

59,037.—SPINDLE STEP.—A. P. Kinney, South

Carver, Mass. I claim the socket, A. in combination with the step, B, the latter being provided at its upper end with a cup, d, which rests on the tep of the socket, and communicates with the socket by means of one or more holes, e, and also provided with a groove to receive an absorbent material, a, all arranged substantially as and orthe purpose set forth.

purpose set forth.
59,038.—WASHING AND WRINGING MACHINE.—John Lamb, Jeffersonville, N. Y.
Iclaim, First, The combination of the rubber boards, L M, crank wheels, P S U, double crank, V, and pitmen, T, with each other, with the crank shaft B, and with the frame, A, of the ma-chine, substantially as described and for the purpose set forth.
Second, The combination and arrangement of the springs, I, slotted stop, J, rollers, E H, gear wheels, C D, and clutch, F, with each other and with the frame, A, of the machine, substantially as described and for the purpose set forth.
Third, The combination of the rollers, E H, and the rubber boards, L M, with each other and with the frame, A, of the ma-tohm e, substantially as herein described and for the purpose set forth.

59,039.-MACHINE FOR WASHING SAND AND OTHER

59,039.—MACHINE FOR WASHING SAND AND OTHER MINERAL SUBSTANCES.—Wm. M. Lanehart and Jos. C. King, Cookstown, Pa. We claim, First, The construction and use of the cistorn, a, in combination with an apparatus for washing and raising sand, sub-stantially in the manner and for the purposes above set active Second. The cisterns, a, one or more, in combination with a corresponding number of elevators and spouts, and the trough, i, the whole being constructed and arranged substantially in the manner, and for the purposes above set forth.

 manner, and for the purposes above set forth.
 59,040.—HOOK PINS FOR FASTENING WEARING APPAREL.—Alexander Lindsay and Myron Moses, Malone, N. Y.
 First, We claim a pin, A, of spring metal having a part, a, turned back to the body, A, and tertuinting in a hook, b, ar-ranged and operating as and for the purpose specified.
 Second, We claim the pin, A a, b, First, and releasing slide or ball, D, substantially in the manner and for the purpose described.
 O 041. Concerner Wearener and for the purpose described. 59,041.-CLOTHES WRINGER.-John S. Lash, Phila-

delphia, Pa. I claim the combination of the jointed compensating link, h, and arms, with the non-sliding gear, J, K, and the rollers, C C', substantially in the manner and for the purpose described.

C', substantially in the manner and for the purpose described. 59,042.—APPARATUS FOR MAKING PAPER PULP.— Henry and Fritz Marx, Baltimore, Md. We claim the arrangement of the mill stone, B, the boxes, D, followers. X, and feed facing, operated by rack and pinion, band, wheel and weight sub studially as described. We claim the arrangement of the longitudinally-shaking shoe provided with inclined sieves in vertical series with separate points of discharge, substantially as described. We claim the corrigated or rough surfaced grindstone in the relation and capacity described. SO 042.— Communication of the provided stream of the series of the second term of the series of the second series of the second sec

59,043.-FEED CUTTER.-John Massey, New York City. claim the adjustable frame, F, in combination with the knife, granged with the revolving knife cylinder, B, constructed and crating in the manner and for the purpose herein specified.

59,044.—PRIMING METALLIC CARTRIDGE.—Edward Maynard, Tarrytown, N. Y. I claim a closely-fitting metallic shield or cover in combina-tion with the base of a cartridge when said base is so constructed as to receive solid support from the gun and is primed exteriorly, substantially in the manner and for the purpose herein set forth

59,045. — GATE. — Oliver C. McCarty, Haysville, Ohio.

Unio. I claim the application of the wires or chains, c., to whe loop, E, and to the bair, D, so as to rotate the gate and cause it to re-turn to its original position when closed, and also the rod, B, about which the gate revolves when opened, and also the post, a, upon which the gate revolves.

59,046.-MITER BOX. - J. A. McKinstry, Monson,

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Mass. I claim the miter box, the parts of which are composed of the ad-justable plates, A. 4, guilds, C. plate, B. hookedrods, D. gradnated plate, E. guide posts, P. uprights, G. and expanding rod, A\*, when arranged and operating substantially as described for the purpose specified.

59,047.—DISCHARGING GRAIN FROM VESSELS.-

9,047.—DISCHARGING GRAIN FROM VESSELS.— H. Merry, Dunleith, Ill. First, I claim the combination with a vessel of a removable rell A B C , constructed substantially as herein described and or the purpose set forth. Second, The combination with the removable well, A B C D, of he gates, F G, one or more, constructed and operated substan-lally as herein described and for the purpose set forth.

the gates, tially as h 59.048.-Lock.-A. O. Mills, Nashua, N. H.

59,048.— LOCK.—A. O. Mills, Nashua, N. H. First, I claim the combination of the sliding frames, C, T. shaped slotted tumblers, D, having spring ends, a, cross bars, d d', and projection, b, of the bolt, B, operating with the bits, e, of the key, D, substantialy as described for the purpose specified. I also claim the fitting of the tunblers, D, in the frame, C, by means of which will admit of changes being effected in their positions by the action of the key alone when the tumblers are retained or held by the projection, b, of the bolt, B, as set forth. I further claim the forming of the adjustable bits, e, with lips, h, at their ends to permit the slipping of the bits out from the Key, asset forth. h, at key, asset forth.

59,049,—MOLE PLOW.—Adam Miller, Chicago, III, First, I claim the cutter brace, F, when attached to a pivoted beam lever and movable colter, substantially as specified. Scoond, The arrangement and combinition of the colter, F, cutter brace, E, and pivoted lever, B, with the standards, C, pro-vided with ratchet and pawl and beam, A, substantially as "Thurd measurement."

Third, The arrangement and combination of the hooks, L L, Cords, I L, and cross bar, k, with the mole, H or G, for inserting two or more lengths or pieces of drain tile, substantially as set forth and specified.

59,050. - COMBINED RAKE AND SPADE - W. H. Miller, Brandenburg, Ky. Iclaim the combined rake and spade, made and adjusted sub-stantially as described.

59,051.—STEAM GENERATOR.—Thomas Mitchell, Albany, N. Y. I claim the combination of the means substantially as herein described for senerating steam, with the means substantially as herein described for controlling the introduction of the water into the generator, by the pressure of steam generated, as and for the purpose set forth.

59,052.-MEDICINE.-Lorenzo Olea Moreno, New York City. I claim a medical compound made as and for the purpose de-scribed.

59,053.—Three-horse Splinter Bar.—J. B. Mor-

rison, Fort Madison, Iowa. I claim the strap, cord or chain, F, with whiffletree, G, attached and applied to the splinter bar, B, and drait pole, A, as shown, when said strap, cord or chain is used in connection or combina-tion with the whiffletrees, D E, attached to the splinter bar, and the latter secured to the draft pole one-third the distance of its length out of center, spistantially as shown and described.

59,054.—BRIDGE.—Thomas W. H. Moseley, Boston, Mass.

MASS. I claim the improved truss as composed of the arched plate, A, the chord, B, the flanges, C C, or the same and the end strength-ening plates, g.g. I also claim the combination of the shoes, D D, and their ad-justing crew bolts, k, and nuts, 11, with the truss made of the archesi plate, A, the chord, B, and the flanges, C C, or the same and the strengthening plates, g.g, the whole being arranged sub-stantially as described.

59,055.—STEAM JET FOR STEAM GENERATOR FUR-NACE.—David M. Nichols, New York City. I claim the combination of the steam jet with a divided flue and a valve for one division of the flue, all operating substantially as get forth.

59,056.—CARRIAGE-TOP PROTECTOR.—R. Nickson, Akron, Ohio.

I claim a protector for a carriage top formed of a ground block , springs, C, and plate, D, substantially as described.

59,057.—GRATE FOR HEATING STOVES. — George Nimmo, Jersey City, N. J. I claim the sliding gate, b, and plate, 1, in combination with the closed hopper, c, fitted and operating in the manner and for the purposes set forth.

59,058.—STOVE COVER, POT, AND PAN LIFTER.— Joseph B. Oakey, Indianapolis, Ind. I claim a metallic head, constructed substantially as set forth, in combination with a wood or other handle, in the manner and for the purpose herein set forth.

59,059,—TACK EXTRACTOR.—F. M. Osborn, Dover Plains, N. Y. I claim the hinged support. D, in combination with the handle, A, having pronged end, R, substantially as described for the pur-pose specified.

59,060. — GATE. — Manning Packard, Clarendon N. Y.

N.Y. I claim sustaining the weight of a gate and allowing it a free action by means of two extension bars braced together and run-ning on friction rollers, h, situated between them, the whole arranged and operating as herein set forth. I also claim the employment of a series of extension bars, b c d, in combination with rollers, h h, so arranged that the gate may be adjusted higher or lower at pleasure, substantially as specified

59,061.—POTATO FORK.—J. S. Patterson, Whitney's Point, N. Y.

First, I claim pivoting a fulcrum or rest to the lower part of a garden or potato fork, substantially as herein shown and de-

scribed. Second, The fulcrum or rest, C, constructed as herein shown and described, in combination with a garden or potato fork, sub-stantially as and for the purpose set forth. 59,062.—PROCESS OF SEPARATING AND COLLECTING

59,062.—PROCESS OF SEPARATING AND COLLECTING THE FATTY MATTER FROM WOOL YOLK.—John M. Pendleton, New Brighton, N. Y.
First, Iclaimseparating the fatty or olly matter making part of the woolvolk from the water or solution in which the wool secoured, by combining or uniting therewith any of the acids which will separate said fatty or olly matter from said solution, substantially as described. Second, Straining said fatty or olly matter under pressure through canvas, or other suitable material, for the purpose of purifying the same.
50,062. METHOD & DETAINING LEAD EFOND DECORD

59,063.-METHOD OF OBTAINING LEAD FROM DROSS. -Charles Pickering, St. Louis, Mo. I claim the within-described process of treating dr scummings made fromlead by sulcting the same togeth the ingredients herein specified, for the purpose set forth

59,064,-INTERMITTENT AND EXPANSIVE GEARING.

Lyman B. Potter, Putnam, Conn. I claim the device for an intermittent and expansive gearing, constructed and operated substantially as herein shown and described.

9,065.—ROOFING MATERIAL.—William L. Potter Clifton Park, N. Y. I claim an improved roofing formed by the combination of two 59,065.

pieces or layers, A and C, offelt or other sultable fabric, with an intermosed layer, B, of my plastic roofing patented Feb.21, 1865, and July 17, 1866, when said roofing is constructed and pre-pared substantially as herein shown and described and for the purpose set forth.

59,066.—OIL CAN.—W. J. Prall, Pomeroy, Ohio. I claim the perforated suspended drop, C, adapted for the probled dsscribed, perforated cap, D, purp receiving tube, E, dc cover, G, with projecting recess, g', in combination with e body, A, substantially as and for the purpose specified.

59,067. — TIRE-SHRINKING MACHINE. — Thomas Pratt, Valparaiso, Ind. I claim the combination of the flanged bed piece, B, vise, E, gripe, D, and screw, C, when said parts are respectively con-structed and the whole arranged substantially in the manner and for the purpose set forth. 59,068.—HEATER FOR WASHING MACHINES.—W.

1005.—HEATER FOR VVASHING MACHINES.—W. H. Pratt, Davenport, Iowa. irst, I claim arranging chambers, C and D, beneath the per-ated-bottom wash box or tube, substantially as described. econd, The comb hation with the heater, C D, constructed as scribed, with a washtub, A B, substantially as setforth.

for: Se des

Gescriped, with a washub, A.B. substantiary assertorth. 59,069.—Sounding Board For PIANOS.—Frederick E. Ramm, Philadelphia, Pa. I claim combining with the sounding board of a piano an ad-justable bearer or spring by which the sounding board may be raised when from any case it has sunk or settled below its proper position, substantially as described and for the purpose set forth.

59,070. — MEDICINE. — William Ranson, Portage, Wis, Ielaim the improved medicine, compounded substantially as herein described.

59,071.—PLANTING MACHINE.—George Ray, Kind-erhook, N. Y. First, I claim the slide, n2, arranged in relation with the cups, n1, of the carrier belt, H, and with the hopper, G, and tubular standard, G', substantially as herein set forth for the purpose specified.

Standard, G, substantially as herein set forth for the purpose specified. Second, The slide, h, and elastic rod, f.arranged in relation with each other and with the cam, E, tubular seeding stock, C, and carrier belt, H, substantially as herein set forth for the pur-pose specified. Third, The supplementary tubular stock, D, furnished with two slides, i, and so arranged and operated in relation with the seeding stock, G, as to be capable of dropping a fertilizing mate-rial into the hill limitaneously with the dropping of the seed, substantially as here in set forth. Fourth, The platform, D, arranged below the rearmost end of the frame, A, and in relation with the seat, K, and hopper, G, substantially as herein set forth. Fifth, The bent lever, p, link, p', lever, r, rod, r', and arms, s and u, of the transverse shaft, s', so arranged in relation with seed-conducting mechanism simultaneously with the tars. S of the thills or drait pole that the clutch will be thrown out of gear with the seed-conducting mechanism simultaneously with the raising of the forward end of the frame, A, substantially as herein set forth for the purpose specified. 59.072.—RAFTING PIN.—Thos. B. Raymond Sagi-

59,072.-RAFTING PIN.-Thos. B. Raymond, Sagi-

naw, Mich. I claim a rafting pin made in wedge form and having a notch or channel extending up from its point or edge for receiving and grasping a straight rope, substantially as described and for the purpose set forth.

59,073.—STEAM PLOW.—Owen Redmond, Roches-ter, N. Y.

ter, N. Y. I claim the anchors operating substantially as described, or operating them in any manner by which their protrusion and withdrawal are effected in a somewhat similar way. Second, The eccentric, F. Third, The removable cam, H, lever and weight or a spring equivalent to the weight.

59,074.—PORTABLE PROPELLER AND STEERER FOR BOATS.—Thomas Reece, Philadelphia, Pa. I claim the combination of the portable propeller and steering apparatus with the claimps, d and e e', arranged and operating substantially as and in the manner set forth.

59,075.—COUNTER SUPPORTER. — Joseph Reising,

59,075.—COUNTER SUPPORTER. — JOSEPH INCISING, Aurora, III. I claim, as a new article of manufacture, a steel counter sup-porter constructed as described and applied to the rear portion of the heel, as and for the purpose specified.

 59,076.—STOP-MORTISE LATCH.—Francis A. Richardson, Poultney, Vt.
 I claim the employment or arrangement of the stop latch, E, catch, L, and slot or recess, F, in combination with the movable bar or stop, H, the whole being arranged and operated in the inanner and for the purposes substantially as herein described and set forth. 59.077

9,077.—WHEAT DRILL.—Matthias S. and J. S. Rickel, Geneseo, Ill. First, We claim the hopper, C, provided with communicating partments, b b C C, as shown, plates, h h h", in combination ith the agitator, B, suitably operated and provided with the obes, J and J', arranged substantially as described for the pur-oue sortificator bucks, state, and states of powers, setting of the plows, K, swinging bars, L, Second, The combination of the plows, K, swinging bars, L, springs, N', and cam, M, constructed and operating substantially as described for the purpose specified.

59,078.—PLOW.—J. L. Robarts, Brunswick, Ga. I claim the detachable and reversible V-shaped land side, secured to the stock, C, substantially as shown and described.

59,079. — WATER DRAWER. — Cyrus W. Saladee, Newark, Ohio.

First, I claim the yoke, AA1, constructed and operating in the manner and for the purpose substantially as shown and de-scribed. scribed. Second, I claim the flange or spont, C, in combination with the yoke, A A 1. substantially as and for the purpose shown and de-scribed.

scribed. Third, I claim operating the yoke, A A 1, and buckets, B, by means of the lever, D, or its equivalent, as and for the purpose herein set forth.

The set of the purpose substantially as shown and described.

80.—BRICK MACHINE.—James Sangster, Buffalo, N. Y. 59.080.

59,080.—BRICK MACHINE.—Jamus Sangster, Bull alo, N. Y.
First, a claim the openings, T T, be the number more or less, when placed within the portion of the sliding mold, B, where the brick or material receives its pressure.
Second, The openings, Ji and J2, in the lower part or sides of the pistons, as and for the purposes described.
Tourth, The pins, Z, or the equivalent thereof, when used in the mold. B, substantially as described.
Fiftd, A piston moving and compressing the clay to the point desired which is then force by the opposite piston with the brick partly compressed back again to a support, where it remains until the piston which moves it back gives the completing pres-sure to the brick.
Sixth, The employment of one or more plates, R, substantially as described.
Seventh, I claim the lifter, U, when constructed with the open-ings, B2 and B2, or the equivalent thereof, when used in combina-tion with the plate, C, substantially as described.
Sighth, The arrangement of the cam-connecting rod and the

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stationary guide, E, when need to give the irregular reciprocat-ing motions of a brick machine. Ninth, The combination of the pistons, H and H', as described and set forth.

59,081. — HANGING CARRIAGE BODY. — Henry Scharch, New York City. I claim the attachment of the springs to the body, as and for the purposes set forth.

59,082.-Door Spring.-Reinhard Scheidler, New-

os, uoz. — DOOR SPRING. — Reinhard Scheidler, New-ark, Ohio. First, I claim the tongne, C, in combination with the coils, c c. secured to the lugs, a a, in the manner described. Second, Secu ing the inner straight ends of the spring coils, c c, to a suif tongue. C, which is constructed substantially as described. Third, The combination of the spring coils, c c, tongue, C, and retaining nuts, C' C', with the slotted box cover, B, substantially as described.

Fourth, Sustaining the inner end of the lever, C, upon the box, B, or its equivalent, by means of a curved flanch, f, formed on said lever, substantially as described.

59,083,-APPARATUS FOR DRYING DISHES.-C. W.

Schroeder, New York Dirks, composed of a box I claim an apparatus for drying dishes, etc., composed of a box r stand provided with one or moresets of shelves and intermedi-te heaters, substantially as and for the purpose described.

59,084.—GATE.—Charles Seefeld, Lomira, Wis. I claim the arrangement of the platform, F, with the lever, E, with bar, D, so operated by weight on the platform, F, as to gwe the bar, D, the requisite inclination so that the gate opens and closes by its gravity.

59,085.—HITCHING CLAMP OR HOLD-FAST.—James P. Senchair, Millport, N. Y. I clain the hitching clamps, or hold-fast, constructed and ap-plied in the manner described for the purpose specified.

plied in the manner described for the purpose specified.
59,086.—MEDICINE CHEST.—Edward M. Skinner, Boston, Mass.
First, I claim constructing the chest or case in such a manner as to form, when the same is open, a series of shelves, substantial-ly as and for the purpose specified.
Second, I claim the combination of a series of perforated shelves, C, with the sides. D, as and for the purpose specified.
Third, I claim the combination with the chest, A B, constructed as described, of the perforated shelves, the slides, D, the com-partments, D' E, and drawer, F, substantially in the manner and for the purpose described.
59,087 — CERE AD, CHATE — John, E. Smell Berlin

59,087.-CRIB AND CHAIR.-John E. Small, Berlin,

Wis. I claim the joints, b b, in combination with the end racks, c c, the folding side rack, E, and the pieces, d d, substantially as and for the purpose set forth.

b) the folding side rack, b, and the pieces, d d, substantially as and for the purpose set forth.
59,088. — SEWING-MACHINE SHUTTLE.—Earle H. Smith, Bergen, N. J. Antedated Oct. 7, 1866. First, I claim a cylindrical shuttle formed of sheet metal, in combination with a bobbin inserted and removed from the side, substantially as described.
Second, The fixed curved guide for the shuttle thread, in combination with a slit in the shuttle, substantially as set forth.
59,089.—TitANSMITTING MOTIVE POWER.—R. T. Smith, Nashua, N. H. I claim the swivel stirrup, J, secured to the swinging rod, I, in combination with the cage. N, handle, Q, and shaft, g, carrying the brush, cutter, or other article, and connecting with the shaft, k, in the stirrup, by bevel gear or other equivalent means, substantially as and for the purpose set forth.
59,090.—BUTTON—Charles F. Snencer, Bochester

-BUTTON.-Charles F. Spencer, Rochester, 59,090.-

9,090.—BUTTON.—Charles F. Opence, ..... N. Y. I claim the plates or disks, d and e, in combination with the eaded stem, b, attached to the button, the parts or pieces being onstructed and operated substantially as herein recited.

59,091. --CHURN DASHER. -- N. H. Spencer, Canan-daigna, N. Y. Ichain, First, Forming the dasher, A, in bowl shape, substan-tially as herein shown and described. Second, Forming two or more valves in the upper part of the bowl shaped dasher, A, substantially as herein shown and de-coribed

scribed. Third, The combination of two or more ball valves, C, with the dasher, A, substantially as herein shown and described. 59,092.-CAP.-Christian and Frederich Stattmann,

59,092.—CAP.—Christian and Frederich Stattmann, Chicago, Ill. We claim, First. The employment of the reversible flap, A, in combination with a cap whose front and rear part are composed of different material, arranged and operating substantially as de-scribed and shown. Second, We claim in a cap whosesides are slotted or separated as described, the employment of an elastic insertion or connec-tion, D, substantially as and for the purpose specified.

uon, D, substantially as and for the purpose specified.
59,093.—MACHINE FOR SCALDING HOGS.—Matthias Stricker, Vincennes, Ind.
I claum the box or boiler, A A, combined with the swinging crudle for submerging a hog in the scalding water within, and turning the scalded bog out on a side bench or table by reversing the cradle, constructed and arranged substantially as herein de-scribed.

59,094.—STITCHING CLAMP.—William W. Taylor, Newark, N. J. I claim, First, The combination of the toggle lever, D, with the ower end of the jaw or leg, A, of the clamp, and with the foot look, H, or equivalent, substantially as herein shown and de-cribed.

scribed. Second, The combination of the jointed arms, C, with the jaws, A and B, of the clamp, substantially as herein shown and de-scribed. Third, An improved stitching clamp formed by the combina-tion of the jaws, A and B, jointed arms, C, toggle lever, D, and foot block, H, or equivalent, substantially as herein shown and described.

aescribed.
59,095.—WRAPPER FOR NEEDLES.—Sineus E. Tot-ten, Brooklyn, N. Y. Antedated Oct. 7, 1866.
I claim a wrapper for needles provided with a magnetic at-tachment, substantially such as herein described for the purpose set forth.

59,096.—BALANCED STEAM VALVE.—Joseph Trent, Millerton, N. Y. Antedated Oct, 7, 1866. I claim the above-described construction and arrangement of a subular slide valve for steam or other engines, substantially as and for the purposes set forth.

59,097.-BARREL HOOP.-H. W. C. Tweddle, Alle-

39,091.—DARREL HOP.—H. W. C. I Weddle, An ghany, Pa. I claim making metallic hoops for barrels, casks, and simil vessels, with the inner surface provided with longitudinal ridg so constructed as not to prevent the hoop being driven on t cask, while the projecting edge or edges thus provided can it to remain in place when driven, substantially as hereinbefo described.

59,098.-MODE OF HANGING BELLS.-Ezra W. Van-

59,098.—MODE OF HANGING BELLS.—Ezra W. Vanduzen, Cincinnati, Ohio.
First, I claim a bell proper, having a crown opening, B, in combination with a yoke and crown plate, substantially as and for the purposes set forth.
Second, The arrangement of the flanged or collared yoke, C D, perforated crown plate, E, and two or more attaching bolts, F F' G G, for combination with an open-crowned bell, substantially as set forth.
Third, In the described combination the crown plate, E, attach ing bolts, F F', and caps, H H', for the purposes stated.
Fourth, The crown plate, E, having a cast projection or spade handle, K, for the clapper, se and for the purpose set forth.
Firth, The perforated crown plate, E, in the described combinity.

59,096.-

DF.UFE. --FLODE OF HANGING BELLE. --EZRA W. Vall-duzen, Cincinnati, Ohio. First, I claim the arrangement of flanged and mortised yoke. C D H, and bossed and tenoned crown plate, E F G, the whole traversed by a single axial bolt, J, in the manner set forth. Second, The combination of sockets, L L, beneath the crown plate and buffers, I I, and set screws, M M, for the purposes ex-plained. Third, The bossed crown plate, E E either with or without the tenon fr and small border to an end of the travel. ea. r<sup>4</sup>, The bossed crown plate, Ε E, either with or without the h, G, and spade handle, I, as and for the purpose ε et forth.

Third, The bossed crown plate, F. E. either with or without the tenon, G. and spade handle, I. as and for the purpose set forth.
59,100. — BOLT-HEADING MACHINE. — Benjamin Walker, Birmingham, Conn.
First, I claim the combination of the clamping heads, B', gare, d. and cutter, F. arranged substantially as described, whereby the blank is gar ed, cut off, and champed between the said heads, B', substantially is gare, ed, and cutter, F. arranged substantially as described, whereby the blank is gar ed, cut off, and champed between the said heads, B', substantially as herein set forth.
Second, The dies, T, in combination with the heading dies and with the champing dies, Z', and combination with the heading dies, Z', and context, B', and a context, B', and a context, B', and a context, B', and substantially as herein set forth for the purpose specified.
Fourty, The heading dies, Z', and context, B', and the camping heads, B', and substantially as herein set is solved and the processed corners, substantially as herein set is solved and the processed corners, substantially as herein set is solved and the principal of the purpose specified.
Fourty, The heading block, M, or prinsied, with suitable heading dies, in combination with the borizontally as herein set for for the purpose specified.
K, and with the champing heads, B', substantially as herein set for for the purpose specified.
Seventh, The side, C', furnished with the purpose proced set. Seventh, The side, C', furnished with the purpose proced specified.
Seventh, The side, C', furnished with the purpose proced set. Seventh, The side, C', furnished with the purpose proced set.
S0, 101.—CAR COUPLING. — Samuel J. Wallace,

59,101.—CAR COUPLING. — Samuel J. Wallace, Carthage, Ill. Antedated Oct. 13, 1866.
 I claim the arrangement at the end of the car of the horizontal shaft, A, arr., F, and link, G, operating the coupling pin, P, sub-stantially as d scribed.

59,102.—GRAIN-DRYING KILN.—Nicholas Wallas-

59,102.—GRAIN-DRYING KILN.—Nicholas Wallaster, Dettoit, Mich.
Ielaim, First, The loader, D. formed by c "ubining the sections or traps, d', the covers, d4, the bars, d5, and the screws, F, with each other and with the frame of the loader, substantially as described and for the purpose set forth.
Second, The arrangement and combination of the sections, g1 g2 g5, of the floors, constructed as described, in combination with each other, with the sides of the drying chamber, and with the end other, and with the constructed as described, in combination with each other, with the sides of the drying chamber, and with the purpose set forth.
Third, The combination of the pipes, S S1 S2 S3, constructed and arranged as described, with the canals formed in the sides of the kin, between its outer and inner walls, substantially as described and for the purposes set forth.
Fourth, The combination of the pipes, B', with the openings, A', in the outer will of the kin, and with the canal through which pass the pipes, S1 S2 S3, substantially as described and for the purposes set forth.

59,103.—MACHINE FOR SHEARING SHEEP. — A. Washburn and T. Brintnall, Sork, Ohio. We claim, First, The swinging arm, E, with a counterbalance weight, substantially as described. Second, The shart or tumbling rod, J, with flexible connections, I K, operating substantially as described. Third, The ad justable shield, R, covering the knives, and oper-ating substantially as described.

ating substantially as described 59,104. — MACHINE FOR MAKING SHEET-METAL PANS.—Orvill W. Wwy, Troy, N. Y. First, Icalam the employment and arrangement of the movable and adjustable dies or win s. B. in combination with a central and vertically-inoving platform die, C. in the manner substantially as herein described and set forth. Second, I claim the employment of the downward-moving plat-form or die, C. as the means for operating or working the said dies or wings, B. in the manner and for the purpose substantially as herein described and set forth. Third, I claim the said die or wings, B. in combination with the sides, N, and the bevel regulators, P. in the menner and for the purposes substantial lash cein described and set forth.

59,105 — MACHINE FOR RAKING AND LOADING HAY. — Milo Webb, Chenango Forks, N. Y. I claim the sleeves, F and G, attached to the wheels and ar-ranged to operate in combinition with the yoke, e, substantially seand for the purpose set forth.

59,106.—APPARATUS FOR SPINNING DIRECT FROM THE DOFFER OF CARDING ENGINES.—Thomas Welham, Philadelphia, Pa. First, I claim the combination with the doffer, B, of a carding engine, of the adjustable spinner bed, R as and for the purpose described.

described. Second, I also claim the combination with the doffer, B, of a carding engine, of the spinners, C, Constructed and operating as and for the purpose described. Third, I also claim the arrangement of the spinners, C, with 'n-plosed rollers, S, the adjustable spinner bed, R, and spools, I, operating as herein described and for the purposes set forth.

59,107.—HINGE.—W. T. Wells, Decatur, III. I claim the slotted lear, M, of the hinge, B, in combination with the tumb screw, G, secured as described, and adapted substan hally as and for the purpose specified.

59,108.-TRUSS PAD.-Thomas S. Wheeler, Boston,

Mass. I claim the improved joint or spring and path connection made of the screw, a, the cloug at the ad, b, and an elliptical cup or socket, c, arranged, applied together in manner, and so as to operate substantially as specified; and I also claim its combina-tion with the spring and pad of a truss or abdominal suppo ter. 59,109.-TANNING.-George D. Wheelock, Freedom

Ohio. 1 claim the within described process of tanning hides and skins, by treating the same successively with the liquors herein set forth.

59,110.-DOUBLE-BARRELED FIRE-ARM.-Eli Whit-

ney, New Haven, Conn. First, I claim the manner, substantially as herein described, of constructing the took (rase, A A, in one piece, and with tang sockets or holes, b b d, and side apertures for plates, j j for the ourpose set forth success or notes, b b a, and suce apertures for plates, j j for the gurpose set forth. Second, The combination of the pin, c, and the tangs of the breech piece in the construction of a double-barrel gun, as set

<sup>5</sup> Second, the combination of a double-based of threech piece in the construction of a double-based of three piece lock case, A A', sub-stantially as described and for the purples set furth. The construction of the perforated plate, j, with an off-the provide set of the set of the partial based of the truble cand tanner shaft through it, sub-stantially as described. Fourth, The arrangement of the partition, A', case, A, detached bit, the arrangement of the partition, p, substantially in the stantial set of the partition.

Fourth, incrementation of the partition, A', case, A, detached standard assing the function of the partition, A', case, A, detached triggers, K K', sears, S S, and single pin, p, substantially in the manner and for the purpose described. Sixth, The compination of the socket, d, with the sockets, b b, when the socket, d, is a continuation of the lock chamber, A, and gaid sockets, b b d, receive tangs, d' b' b', of the parts, C C D, sub-

Sixth, The complication of the socket, d, with the sockets, b b, when the socket d, is a continuation of the lock chamber, A, and said sockets, b b d, receive tangs, d'b'b', of the parts, C C D, sub-stantially as described. Seveniu, The partition, A', within the case, A, constructed as specified, and serving in connection with the case, A, the several described functions, as set forth. Eighth., The manner herein described of constructing the lock ( $\csc_{A} \in A'$ . In one piece, and with hard metal bearings, such as plearing for the purposes t forth.

ation with two or more attaching bolts, F F', as and for the pure 59 111. - FRUIT CAN. - L. J. Wicks, Bridgeton, N. J. Does set forth. 59,099. - Mode of HANGING BELLS. - Ezra W. Van- and described and for the purposes set forth. 59,112 .- RAILWAYS .- Swain Winkley, New York

City. aim il.e construction of the base plates with arched corruga, as described. I cla

1008, as described.
59,118.—HORSE RAKE.—John Wood, North Bloom-field, N. Y.
I claim the special arrangement of the spring stops, K K and o o, and the bar, C, provided with the double wedge, u, when the said parts are used in combination with the single handle, B, for con-trolling the rake head, operating as and for the purpose herein set forth.

59,114.-PORTABLE FENCE.-G. C. Wright, West field. Ohie.

I claim the herein-described construction of a fence, consisting f the boards, A, battens, B, blocks, C, braces, D, and pins, a, sub-tantially as specified.

59,115.—SEED PLANTER.—Lewis R. Wright, Cohoes,

1. 1. I claim, First, The arrangement and combination of the levers, et g h, with the sliding cylinder, I, and cog wheel, D, in the man-ner and for the purposes substantially as herein described and set forth. Second, The arrangement of a Cog wheel of cylinder, D, con-taining the series of cogs, a b c, upon or near each end of the driver shaft, B, and the shafts, G G, containing the sliding philors, E E, and the planting cylinders, F F, each being arranged and combined in the manner substantially as herein described and set forth.

be a find the planning cylinders, r. r. each deal garranged and combined in the manner substantially as herein described and set forth. Third, I claim the mode herein described and setforth forcom-bining and discommenting two or niore seed planting machines, constructed and arranged substantially as herein described and set forth. Fourth, The employment of the marking device. M. construct-

orth. urth, The employment of the marking device, M, construct-nd combined with the arm, L, hinged to the frame, A, in the ner substantially as herein described and set forth.

-MACHINE FOR RAKING AND LOADING HAY. -R. Wright and J. Wright, Franklin township, 59,116. Pa.

We claim the yielding rake head, g, in combination with an endless apron when used for raking hay and conveying it up into the bay wagon, in the manner herein described and set forth.

59,117 -- MANUTAL POWER.-John H. Yager, Tren-

ton, Ohio. I claim the double brakes, b and b'b', with their rock shafts c', and connecting rods, f and f' and gg'g g', in combination with the vertical slots, m m and m' m', and the crank shaft, a a he whole being constructed, arranged and operated substan-ally as and for the purposes herein described. the v tially

a whote whote whote difference of the event of the purposes herein described.
59,118.—CURRYCOMB.—Willbur F. Arnold, Winthrop, Conn., assignor to himself and P. A. Gladwin, Boston, Mass.
I claim, as an improvement in currycombs, the employment of one or more springs, F, for throwing over an retaining the plate, D, upon the comb, substantially asset forth.
59,119.—STOVE DOOR.—Solomon C. Batchelor (assignor to himself and W. C. Davis & Co.), Cincinnati, Ohio.
I claim a stove-door hinge composed of open backed sockets, C, with the described stepped upon portions in combination with the correspondingly stepped collar, E, of the pintle, as and for the purpose explained.
In combination with a stove-door hinge constructed as above specified. I further clain n the log, F, for the purpose set forth.
59,120.—MACHINE FOR MAKING FISHING LINES

59,120.—MACHINE FOR MAKING FISHING LINES AND OTHER SMALL CORDS.—Peter Brooks (as-signor to the National Line and Cord Co.), New

Haven, Conn. First, I claim the feeding bar, N, arranged upon the hollow shaft, a, and combined with the hollow shaft, d, and the thread guide, f, constructed and arranged to operate substantially in the manner and for the purpose herein set forth. Second, The levers, h, in combination with the respective threads of which the line is formed and the twisting apparatus, constructed and arranged to operate substantially in the manner and for the purpose herein set forth.

and forthe purpose herein set forth.
59,121.—SAFETY VALVE.—William Burnett, San Francisco, Cal., assignor to John C. Paige, Stoneham, Mass.
First, I claim the arrangement of the levers and their attachments, substantially as described and for the purpose specified.
Second, The lever weight so arranged that the lever passed that weight, substantially as described and for the purpose specified.
Th rd, Themeans herein described for relieving the valve of its load to test its operative condition.
Fourth, The arrangement substantially as described for securing the cover of the inclosing case.
Finh, The cap provided to prevent the valvespindle from being wedged, abstantially as herein described.

wedged, anotation by as nerein eccentre. 59,122.—FAUCET.—William S, Cooper, Philadelphia, Pa., assignor to Cooper, Jones & Cadbury. I claim the hollow projection, C, its spring, G, cap, F, annular pucking piece, p, and collar, u, of the sp indie, E, the whole being accounted substantially as and for the purpose herein set forth.

59,123.—SEED DRILL.—H. V. Davis and Gorge W. Peabody, Amherst, N. H., assignors to George W. Peabody, Amherst, N. H., and Charles B. Tuttle, Milford, N. H.

I utile, Mini oru, N. H. We claim the bar, A. having the reed box, D\*, secured upon its lowerpart, and inestrips, B B, attached to its lower end and with theroller, C, between heir rear ends and the furrow opener, E., at their front end, in combination with the fixed perfor ated plate; e, in box, D', and the reciprocating perforated plate, state rear of plate, e, operated by the root, B, and cam, D, from the axis of the roller, C, substantially as shown and described.

59,124.—AIR-COMPRESSING PUMP.—J. N. Dennison (assignor to himself and F. H. and R. J. Gould), Newark, N. J. First Loising

First, I claim a pump composed of two (or more) cylinders of unequal size provided with pistons connected together by a pipe with suitable valves, as shown, in combination with an air supply pipe leading to the largest, and a discharge pipe leading from the smallest cylinders, substantially as and for the purpose herein set forth. other by

Smalles cylinders, australiant, the second, The jackets, 11', communicating with each other by pipe, m, and provided with asupply and discharge pipe, in co bination with the cylinders, AC, and with or without an ad tobal pump, n, substantially as and for the purpose described.

59,125.—PUMP.—John N. Dennison (assignor to himself, Francis H. Gould and Roscoe J. Gould), Nwark, N. J.
I claim so arranging the pistons of a pump composed of two cylinders having pistons secured to one and the same rod, that either or both can be put in operation or thrown out of operation, substantially as and for the purpose described.

59,126.—MAGAZINE FIRE-ARM.—Valentine Fogerty (assignor to himself and Panl P. Todd), Boston, Mass.

I claim, First, The combination of the magazine tube arranged along the sides of the gun stock, as described, with the mechan-ismfor delivering the forward cartridge to the breech pin or to the end of the barrel, substantially as herein shown and set forth. Serond, Makingt hemagazine tube in two jawalaterally singed

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to each other so as to permit the Gary invertion of the cartridge into the feeding apparatus, and also allow the head of the car-tridge to pass dirough the smallest part of the feeding magazine as essented. Third, The combination and agrangement of the breech pin, D, fund hever, G, arm or lever, H, and cointeching rod, E, to give the required, movements to the breech pin and magazine, as de-sortion.

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Serther.
 Fourth, The plate, V, for opening and closing the lower end of Fourth, The plate, V, for opening and closing the lower end of the magazine, in combination with the lever, Y, for pressing open the sliding portion of the magazine, substantially as set forth.
 59,127.—WAXED THREAD SEWING MACHINE.— Thomas J. Halligan (assignor to bimself and Samuel Shapter), New York City. Antedated June 14, 1866.

Samuel Shapter), New York City. Antedated June 14, 1866. Iclaim the vertically oscillating and laterally-sliding curved eye pointed needle arranged above a perforate bed plate of a shuttle sewing machine, and operated substantially as described, for serving and feeding the material or work, as set forth. Second, The combination of an aw with an eye-pointed needle. Third, The arrangement of a curved awi with a curved eye-pointed needle arrange dato operated substantially as specified. Third, The arrangement of a curved awi with a curved eye-ment, for the purpose of feeding the material, and a curved move-ment, for the purpose of feeding the material, and a curved move-ment, for the purpose of feeding the material, and a curved move-ment, for the purpose of feeding the material, and a curved move-ment, for the purpose of feeding the material, and a curved move-ment, for the purpose of feeding the material, and a curved move-ment in a vertical plane for the purpose of carrying the upper thread through and below the bed plate, substantially as itserribed. Fourth, The arrangement of the pressure foot and its rod with and for the purpose est forth. Statially as herein discribed and shown. Fifth, The arrangement of the hinged devices, L L', lever, K, and pressure device, D D', substantially in the minner and for the purpose described. Seventh, The pressure foot controlled by means of a cam, N, constructed and arranged as set forth, in combination with the perforating and refeding needle, substantially as described. D, 128.—MELODEON.—Frederick Hoddick (assignor

porrotating and recuing needle, substantially as described.
 59,128.—MELODEON.—Frederick Hoddick (assignor to George A. Prince & Co.), Buffalo, N. Y.
 I claim, First, A tremulo bellows, F, having inlet and outlet valves, fif2, constructed and operating substantially as herein described.
 Second, A tremulo bellows, F, or its equivalent, placed and used in connection and combination with the wind chest and swell valve of reed musical instruments, for the purpose and substantially as described.

59,129. — CARPET STRETCHER. — John Kaily (as-signor to himself and W. H. Alexander), Can-

signor to himself and W. H. Alexander), Canton, Ohio.
I claim a carpet stretcher composed of the teeth, lunged and adjustable levers, and cord, the whole being arranged to operate substantially in the manner and for the purpose described.
59,130. — WATER GRATE. — Wm. A. I., Kirk, Hamilton, Ohio, assignol' to Owens, Lane, Dyer & Company.
I claim the tubulargrate bars, B, each provided with a longitudinal diaphragm, D, when the said grate bars are arranged beneath the fire box, and at the lower end of the water leg, A, of the boiler, in the manner and for the purpose herein specified.
59 131. —STOVE-COVER LIFTER. — J. C. Longshore

59,131.—STOVE-COVER LIFTER.— J. C. Longshore (useignor to himself and John Longshore), Mans-field, Ohio.
I claim the combination of a stove, lid lifter, D, pincers, A B, pot, dish, addiron, etc. etc., lifters, F G, hammer, H, and rack puller, a, all n one implement, constructed substantially as show n and described.

puller, a. all in one the term term, constructed substantially as shown and described.
59,132.—HAND LOOM.— Stephen C. Mendenhall and Simon Sparks, Richmond, Ind., assignors to Stephen C. Mendenhall.
we claim. First, The pschilterly shaped cam, E e e' c" c", in the described combination with the grooved hub, F, constructed as described, and a screes of treades, 133, or more, constructed as described, and a screes of treades, 133, or more, constructed as described, and a screes of treades, 133, or more, constructed as described, and a screes of treades, 133, or more, constructed as described, and a screes of treades, 133, or more, constructed as described, and a screes of treades, 133, or more, constructed as described, each describe term cam's made to operate all the treadles, and also here the treades depressed during almost the entire Second, The rise, K, and stop, L, in the described combination with the cam, E ee' e''e'', and hub, F, grooved ge, shown and described, we claim the retracting spring, G, shown and described we claim the retracting spring, G, shown and described combination, the yielding and spring, J, for the groups est forth.
Second, The claim the described combination, the yielding and spring, J, for the groups, Second, N, for the momentary definition of the larger outside of the hub, as set forth. Strend We claim the relarging custod of the hub, as set forth.
Severth, We claim the classing custod of the hub, as corp, the distribution with the spring estimation for the classing combination, the classing combination with the secribed combination with the spring stream of the step of the stream of the spring for the combine of the hub, F, risek, stop, L, releasing combination with the spring estimation for the stream of the stream

59,133.—CLOTHES RACK.—John O. Montignani, Albany, N. Y., assignor to A. Turner. I claim the construction of clothes pins for portable clothes racks by forming their axes or pivots as described.

Facks by forming their axes or pivots as described.
 59,134.—MACHINE FOR FOLDING PAPER COLLARS. —Chas. E. Moore, Roxbury, Mass., assignor to Andrews A. Evans, Boston, Mass., assignor to New England Model Collar Company. I claim, First, Folding collars by means of the angular groove, P, and die, Ns, whether the described. Second, The rollers, R and Q, arranged and operating in com-bination with the groove, P, and die, N, substantially as and for the purpose described.

59,135.—MANUFACTURE OF WHITE LEAD.—H. J. Overmann (assignor to Wm. S. Hascall), New

Overmann (assignor to Wm. S. Hascall), New YorkCity. First, I claim fuc manufacture of white lead from metal lead, or litharge, or ores of lead by means of nitric and sulphuric acids or their several equivalents, in combination with pyroligneous or oxalic or similar acids, with or without the use of borax or its equivalent, substantially as described. Second, I also claim the use of pyroligneous or oxalic acid Q similar acids for destroying the crystal line structure of the pre-cipitated sulphate of lead, with o without the use of borax, or its equivalent, substantially as described. Third, Islas claim in the manufacture of white lead dissolving and precipitating lead or its compound at the same operation in one vessel, substantially as described.

59,136.—TRUNK.—Elias B. Quick (ussignor to him-self and George 'I. Palmer), Brooklyn, N. Y. Iclaim a trunk with a ventilator or ventilators' attached, sub stantially as shown and set forth.

59,137.—HoISTING MACHINE.—Henry J. and James Reedy (assignors to James Reedy), Cincinnati

Reedy (assignors to James Reedy), Cincinnati Ohio. We claim, First, The mode substantially as described of sup-porting and elavating a hoisting platform. Luy a single rope, p whose ends are secured to opposite ustremities of the windlass H, while its bight or middle portion is rove through a sheave. O upon the platform for the purpose described. Second, Counterbalancing a hoisting platform by a weighted cord, Q which being carried incritoniative yoer one end of the windlass at or near its mid length and on the reverse side from the politicity gable, P. Third, These biologicht gain releasing brake, UX. arranged and operating substantially as set forth.

Fourth. The provision of the servated occentrics,  $\mathbf{Y}$ , spring bolts,  $\mathbf{Z}$ ,  $\mathbf{X}$ , and stirrup,  $\mathbf{N}_i$  the whole operating as a safety check, in the manner explained. 59,138 .- CIRCULAR LOOM FOR WEAVING HA

Bhineas Leeson Slayton and Charles I. Kane (assignors to Almet Reed), New York City. claim, First, In a circular loom having one or more sets of ring machinery elevating and depressing the upper series of tions, a3, and their attachments, substantially as above de-velopment of the substantially as above de-

artitions, a3, and their attachments, substantially as above de-scribed. We also claim elevating and depressing the ring, H, carrying the series of partitions, a3, and the ring, F, carrying the partitions, a', by means of the screws, S, or their equivalents, substantially as described. Third, We also claim the use of fixed rack. U, or its equivalent, by which an independent motion is given to the separating wheels, q', of the shuttle carriage, substantially as above de-scribed. Fourth, We also claim the primary channel, **0**, beneath the shuttle carriage which receives and retains the stems of the warp carriers, null removed by the indicator rods, r, substantially as described. Fifth, We also claim raising the warp carriers from the pri-mary channel, **0**, into the parts of the shuttle carriage by means of an indicating apparatus, made substantially as secribed. Sith, We also claim transferring the warp carriers from the pri-mers of the bridge shown in Figs. 9 and 10, or any equivalent device, substantially as described. 59,139. — HORSE HAY FORK, — Seymour Rogers,

59,139. — HORSE HAY FORK. — Seymour Rogers, Pittsburgh, Pa., assignor to Luman Rogers. I claim the combination of the elevating rod, d (to which the hoisting rope is attached), having a barb, f. picoted therete, with the penetrator or sheath, a, and cam lever, f. constructed and operating substantially as hereinbefore described.

59,140. - DITCHING MACHINE. - David Sawyer

59,140. — DITCHING MACHINE. — David Sawyer Webster, ('hio, assignor to himself and Robert Barber, Perrysburg, Ohio. I claim, First, The wheels, B C D and H, and shaft, E, as ar-ranged with shaft, F e and c', wheels, G G' and d', for the pur-pose and in the manner set forth. Second, 'The wheels, I and K, and sweep, M, as arranged with the wheels, c' d' G G' and B C and D, for the purpose and in the manner described. Third, The links, N, and lever, N', rod, O, and staple, P, as ar-ranged, for the purpose and in the manner speci ed. Fourth, The shaft, T, chains, W, and Wheels, V', as arranged with the sheave, X, wheel, V, and frame, A, in the manner and for the purpose set forth. Fifth, The bucket, b', cutting edges, e'', in combination with

Eighth, The holds with e cam, is they, i, filled spring, r, as arranged for the purpose and in the manner specified.
59,141. — COTTON-BALE TIE. — George A. Seaver, New Orleans, La., assignor to Alexander H. Seaver, Brooklyn, N. Y.
I claim making the inner sides of the link with a curved or angular form, substantially as described, for the purpose of holding the band by indenting its edges in addition to the transverse bending when it has been forced into position.
59,142. — FEEDER FOR CORDENENTIAE. — Edgar M. Smith (assignor to Mitchell, Vance & Co.), New York City.
I claim, First. A cased or caged float and valve interposed between a supply barrel or cask, and the gas apparatus or machine, for the purpose of supplying automatically and in uniform quantities, the gusonine or other gas neaking material from the barrel to the agaometer or service pipe, as described.
59 143. — PISTON PACKING — William G. Snook and

59,143.-PISTON PACKING .- William G. Snook and

a9,143.—PISTON PACKING.—William G. Snook and O. C. Patchell (assignors to themselves and A. H. Gorton), Corning, N. Y.
We claim, First, The combination of the bolt or stem. J. perforated slide, K. and spring, N. with each other, and with the grouved part, L. ring, F and G, and perforated plates, B D, sub-stantially as described for the purpose specified. Second, The combination of the springs, L, and relief valve, M, with the port, C, of the platon head, substantially as described for the purpose specified.

59,144.-COTTON-BALE TIE.-Charles Swett, Vicks-

59,144.—COFTON-BALE THE—Charles Swett, Vicks-burg, Miss., assignor to Charles G. Jolmson, New Orleans, La. Antedated April 23, 1866. I claim, as a new manufacture, my improved fastening block for uniting the ends of metallic bands, when said bands are made to embrace compressed bales of cotton, or other equivalent sub-stance, substantially as herein set forth.

59,145.—DEVICE FOR FORMING THE EYES OF BED SPRINGS.—N. B. White (assignor to himself and Henry B. Baker), Dedham, Mass.
I claim the combination of the two plates or have, C D, the stud, E, the shoulder, G, arranged substantially as described.
I also claim the combination of the two plates or jaws, C D, the stude E, the shoulder, G, and the shoulder, F, arranged substan-tially as specified.
I also claim the combination of the recess, h, with the shoulder, F and G, and the stud, E, applied to the two plates, C D, as Jake Claim the combination of the plate, D, with the head increase.

also claim the combination of the plate, **D**, with the bending ess, e, arranged in it, as and for the purpose specified.

59,146.—STEAM GENERATOR. — James Woodford and William H. Bancroft, Portland, Wis., as-signors to said Bancroft and W. L. Ward.
We claim, First, A boiler, D, when constructed with an internal fire chamber, F, flues, Fl, and an internal flue, F2, and arranged substantially asset forth.
Second, In combination with a boiler, D, we claim a jacket, C, euromanding the wick tube, B, for heating the water before it is applied to the boiler, substantially in the mannerset forth.

59,147.—STEAM GENERATOR.—James Howard and Edward Tenney Busfield, Bedford, England. We date, First, A series of tubes, a b c, coupled and connected, substantially as represented in Fire, 8, for the p up se set forth. Second, Arruythe the sections of tubes, substantially as here in described, to give access to the heating chamber. Third, The Screens, I, for directing the current of heated gases, and for allowing a free circulation of heat around the upper part of the sections of tubes, substantially as and for the purpose de-scribed.

59,148.—TELEGRAPHIC SIGNALS.—Ralph A. Jones

and Joseph Hedges, Aylesbury, England. We claim an alphabet or characters composed of a long stroke used in conjunction with a dot and dash, forming the several characters of the Morse alphabet, substantially as and for the pur-pose described.

59,149.—APPARATUS FOR RECTIFYING ALCOHOL.— Henri Lamotte, Percy street, Bedford square,

England. I claim the boiler, A No. 1 and A No. 2, and "ectifying column or analyzer, **B**, in combination with the purifyers, F and G, the parts being connected by pipes and regulated by cocks or taps, in the manner and for the purposes set forth.

59,150.—PRIVY SEATS. — Ernest Mangeon, Paris, France. I claim the combination of the cover, D, valve, C, and mechan-

ien by which the position of the cover ocutrels the position of the valve, so that when either is open the other is closed all being arranged in connection with the bopper, A, a deconduit pipe, **B**, of a water closet or privy, substantially as herein set forth. 59.151.—APPLYING AND SECURING METAL BANDS

59,151.—APPLYING AND SECURING METAL BANDS on COTTON BALES.—James J. McComb, Liver-pool, England.
 Iclaim, First, The peculier form of the self-acting hipping ties or metal band lock for connecting the ends of metalbands up-rounding cotton and other bales, as hereinbefore described and setforth, and forming the holes or slots on one end a little narrower than the width of the metal band by forming the side or sides at an angle, substantially in the manner and forthe purposes hereinbefore described and set forth, and Lastly. The improved construction of grapple jointed to and operated by a hand lever having jointed prones, substantially in the manner and for the purposes hereinbefore described and set forth.

59,152.-Cotton-Bale Tie. - James J. McComb,

Liverpool, England. I claim the peculiar manuer of holding the metal bands, x, as hereinbefore described by Figs. 1 and 2, substantially in the man-ner and for the purposes hereinbefore described as set forth. 59,153.—DEVICE FOR LOWERING AND DETACHING

59,153.—DEVICE FOR LOWERING AND DETACHING BOATS FROM THEIR DAVITS. — Carl Henrik Ramsten, Carlskrona, Sweden. Iclaim, First, The hooks, D. constructed substantially as de-scribed, of a lever, b, pivoted arm, c, and hook end, 4, for opera-tion, essentially as and for the purpose herein set forth. second. The combination with dispurging hooks, as described, at or to opposite ends o the boat, of the connection between the hooks, as formed by the rod, E, and chains, n, n, for action in the manner described. Third, The stopper, F, in combination with the rod, E, chain, n, and lever, b, for operation together, essentially as specified. Fourth, In construction and the two gripe, H, the datable jointed hook is lashed by the rod and the content on the fall is released, substantially as herein set forth. 59,154.—COMPOSITION FOR FORMING USEFUL AND

59.154.—Composition for Forming Useful and ORNAMENTAL ARTICLES.—Daniel E. Somes, Washington, D. C. I claim the combination of the substances or their equivalents, herein described.

59,155,-PIANOFORTE ACTION,-C. L. and A. B. Ir-

### REISSUES.

REISSUES. 2,382.—HARVESTER.—Robert T. Campbell, Wash-ington, D. C., assignee of T. N. Supton, Win-chester, Va. Patented May 8, 1855. Tirst, I claim the application of a hinged diagonal brace, b, in against beckward strain and threat should be asset forth. Second, Hinging a diagonal brace, b, and a rear brace, b2, sub-tront of the finger beam for the pathetic bit asset forth. Third, Sustaining the platform frame and the finger beam my means of a for ward diagonal brace, b, and a rear brace, b2, sub-stantially as described. Fourth A hinged brace which extends forward of the finger beam and is adapted to serve as a guard and also as a means of sustaining the finger beam against back ward strain, substantially a described. Fourth A hinged brace which is connected at one end to the finger beam and extended the same and connected by an eve formed on it to the draft frame, and adapted to secribe a sustaining the finger beam against back ward strain, substantially as described. Fift 1, a diagonal brace, b, as claimed in the fifth clause of the claim, under the platform which sustains the fallen grain, substantially as described. Styn, Retending the brace, b, as claimed in the fifth clause of the claim, under the platform which sustains the fallen grain, substantially as described. Styn, Retanding the first the same and and connected to a horizontal chaft, H, or equivalent, substantially as described. Eighth In combination with a vibrating finger beam which projects laterally from the grain, substantially as described. Eighth, In combination with the subject matter of he sixth read, or its equivalent, mounted which ly us the drager beam, or its platform, lorgathering in the standing grain, substantially as described. Ninth, In combination with the subject matter of the sixth read of the claim, raise dual means which will carry of the cut grain from behind the cutting apparatus and deliver it from the inder side of the ground. Over which if is drawn, I claim a read or the claim, the diam portifing means which will en

ed. epth, The employment of the cutters, d. placed on the ro shaft, M, in combination with the two sets of fingers, P Q d platers being constructed and operating substantially as red Ele Q,

tating shaft, M, in combination with the two advisor fingers, F.Q. the said gars, being constructed and operating substantially as described. Tweifth, Supporting a reel, or its equivalent, at its inner end by the hinge of the finger beam and at its outer end by a wheel, or other equivalent device, substantially as described. Thirteenth, Supporting both, a device which moves the cut grain to one side of and away from behind the cutter, and a de-vice which reels in the uncut grain to the cutting an paratus, by means of the axis, a, hinged at the inner end of the inger beam and a wheel equivalent at the outer end of such beam, substan-tially as described. Fourteenth, Supporting a reel wholly upon the hinged inger beam or platform which receives the falling grain, in combination one side c.<sup>2</sup> the draft, frame in such manner that the finger beam and reel together will be supported at one end by a hinge con-nection and by a wheel, or its equivalent, at the other end, sub-stantially as described.

action and by a wheel, or its equivalent, at the other end, substantially as described.
2,383.—TREATING WOOD, STRAW, ETC., FOR THE MANUFACTURE OF PAPER PULP.—The Hydrostatic Paper Company, Rochester, N. Y., assignees by mesne assignments of Henry L. Jones and D. S. Farquharson. Patented June 5, 1866. We claim the subbining of straw, wood, or any fibrons material to be converted into pulp by subjecting the same to the action of alkaliliquor of any desirable temperature applied under the hydrostatic pressure of the liquid itself, applied by a force pump or other wise instead of using steam pressure preparatory to the bleaching of such material in the ordinary method, substantially as described.
Second, We claim the combination with the cylinder, A, of the pump, B, and pipe, B, substantially as alore to frame.
Third, We claim the safety valve, K, in combination with the pump, B, below the piston or plunger and in direct communication with the pump barrel, substantially as above described.
2 324.—Appendent Second Sec

2.384.-

-Apparatus for Bleaching Paper Pulp. The Hydrostatic Paper Company, Rochester,

N. Y., assignees by mesne assignments of Henry Jones and Duncan S. Farquharson. Patented

March 13, 1866. We claim, First, Bleaching the material to be converted into

paper, by subjecting the same to the action of bleaching liquor, applied under pressure, substantially as described. Second, We durn the combination with the cylinder, A, of the pump, B, and pipe, B, substantially as and for the purpose set forth. Third, We claim the combination with the cylinder, A, of the elevated reservoir, E, and pipe, F, substantially as and for the purposes set forth. Fourth, In combination with the cylinder, A, pump, D, and pipe, F, we clain the valve, O, for relieving the pressure of the Equid, as explained.

DESIGNS. -FLOOR OIL-CLOTH PATTERN.-Charles T. 2,495.-Meyer, Bergan, N.Y., assignor to E. C. Sampson,

2,496.—ORNAMENTING CHILDREN'S LONG COMES.— Leonce Picot, Hudson, N. J., assignor to the Rubber Clothing Company of New York City,

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OFF'S COMBINED CULTIVATOR AND Seed Coverer. Patent for sale. Address 19 4*] S. M. GOFF, E. Addison, Addison county, Vt.	and Girlswant. Terms: \$2 00 a year; large discount to Clubs. Specimen Copies, 20 cents.	Machine, indispensable to competition in all branches of wood- working. Our improved guards make it safe to operate. Combi- nation collars for cutters, saving 100 per cent, and feed table and connection, for waved moldings and planing, place it above all others. Evidence of the superiority of these machines is the large numbers we sell, in the different states, and parties; laying
Work. AMTED-2 FIRST-CLASS TIN PLATE work. Address Arthur C. PORTER, 19 2] 35 Woodward Ave., Detroit, Mich.	Contains the ablest and most interesting articles from Once a	as the other's and purchasing ours, for entring and snaping irregu- lar forms, sash work, etc. We hear there are manufacturers infringing on some one or more of our nine patents in this machine. We caution the public from purchasing such.
<b>PATENTIAL</b> State and County Rights of the new Patent Watch Protector. Also, will enter into agreements with manufacturers, by the payment of a royalty. Address 1*1 T. W. TERRY, Baltimore, Md.	toria, and Geological Magazine; London Review, Saturday Re- view, The Argosy, Fortnightly Review, Chambers's Journal, Spec- tator. Athenaeum, Leisure Hour. All the Year Round, and all the	All communications must be addressed "Combination Molding and Planing Machine Company, cor. Ist ave. and 24th-st., New York, where all our machines are manufactured, tested before delivery, and warranted. Send for descriptive pamphlet. Agents solicited. 19 tf

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REATMENT OF SUGAR CANE.—The Sub-scriber, owing to his feeble health, would like to sell, or en-age with partles for the sale or use of his process for extracting simp from cane, patented Aug. 28, 1860. The simp made by my Steaming Process is considered equal to Golden Sirup, and sells readily at the same price. With a single apparatus of eman can prepare in one 4ay enough for 55 gallons of sirup. The patent is unquestionably very valuable, and reliable parties can make favorable terms by humediate application to 18 3\*1 J. C. BELL, Patentee, Pawnee City, Nebraska,

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Office of William Sellers & Co., Philadelphia, Aug. 15, 1866. Joseph Harrison, Jr., Esg.: DearSir:-We have your favor of the 9th fast, and may say in reply, that we have now had the "Harrison Boller" in constant use in our Works for nearly two years. It has given us great sat-isfaction. We consider it quite as economical in the use of fuel as any boiler we have used, or with which we are acquainted, and are satisfied that it is much safer than any boiler and de. Jours truly, WM. SELLERS & CO.

### Philadelphia Rolling Mill, Kensington, Philadelphia, Aug. 13, 1866

Kensington, Philadelphia, Aug. 13, 1800. Mr. Joseph Harrison, Jr.: Dear Sir.--I will say in reply to yours of the 9th inst., that I have had one of your Bollers almost in constant use over one of my Pudding Furnaces for over eighteen months, and in all that time it required no repairs, with the exception of changing a few light bolts for heavier ones, and it is now running without any signs of leaking or want of repair, apparently as good as when first put up. I think I have just grounds from the experience I have had, to recomment them as good an safe boller, and one that generates steam very fast. I feel confident that I get nearly donble the quantity of steam from this boller that I do from any other Fud-ther the day is not far distant when they will be in generaluse in Iron Manufecturing, establishments. STEPHEN ROBBINS.

Artisan Hall, 611 and 613 Sansom street, Philadelphia. Mr. Juseph Harrison, Jr.: Dear Mr. - We take great pleasure in testifying to the nerits of your Boler, as a generator of steam, the confidence we have in its safety, its economy of fuel, and also of space for its crection. If has now been in successful operation more than a year, without the necessity of any repairs, and our confidence increases with its use. We shall always consider it a privilege to exhibit and explain its merits to any who may wish to examine it. Respectfully, etc., GEO. W. SIMONS, BRO. & CO. Philadelphia, Ang. 9, 1866.

Philadelphia, Aug. 9, 1866.

Philadelphia, Aug. 9, 1866. Mr., Joseph Harrison, Jr.: Dear Sir.-In reply to your communication respecting our opin-ion of the "Harrison Boiler," we would state as follows. We have had one of your Boilers in constant use fortwenty-two (22) months, suring which time it has supplied steam to a 6-horse Engine, driv-ing about seven lathes and several other power tools. It is per-tectly tight and free from leakage; takes up less room than an or-inary Boiler; and as to its economy in thel, you can best judge for yourself, from the following statement: During the past year it has burned from 50 to 60 tons Pea Coal, each week averaging 6½ to 7 days. We can truly recommend said Boiler, from our ow 1 experience, as safe, reliable, and economical. Truly yours. TAWS & HARTIMAN, 1237 North Front street.

### Office of the Salem Coal Company, Philadelphia, August 16th, 1866.

Joseph Harrison, Jr., Esq.: Philadelphia, August 1010, 1000. Dear Sir -- After having your cast-iron Boiler in use at the Collic-ry of this Company for more than a year, it gives me pleagent to state that its operation has been very substanticry. It is the im-portant point of economy of fuel it is reported to be superior to any other Boiler we have in use, and as regards its safety from de-istructive explosion.it centanly has no equal among all the vari-ous forms of boilers that have ome under my notice. Very truly, JNO, C. CRESSON, Prest.

Germantown, Aug. 16, 1866.

Germantown, Aug. 16, 1865. Mr. Joseph Harrison, Jr.: Dear Siri-About four months ago, we put in one of your "Har-rison Boilers," and it gives us and, planante to be a be to state that, as a safe steam generator, in the general economy. In fur, the, etc., we consider it the best Boller now in use. Our Boller, 50 horse-power; our Engine has a 14-inch eyinder, with a 56-inch 50 horse-power; our Engine has a 14-inch eyinder, with a 56-inch 50 horse-power; our Engine has a 14-inch eyinder, with a 56-inch 50 horse-power; our Engine has a 14-inch eyinder, with a 56-inch 50 horse-power; our Engine has a 14-inch eyinder, with a 56-inch 50 horse-power; our Engine has a 14-inch eyinder, with a 56-inch Boller so excellent in its services, aside from its safeness from ex-plosion and its real economy, that we could not and would not do Boller " to any one who may call at our Works, where they can daily see it in practical operation. Very Tr.1, Yenry, etc. Manufacturer of Edge Tools, Hammers, etc., Armat.st., Germantow 1, Philadelphia.

New York, Angusi 15th, 1866. Mr. Joseph Harrison, Jr. Philadelphia, Pa.: Dear Sir.--We take pleasure in informing you that the Boiler purchased from you, which we have had in use about five nomths, has given the best satisfaction, and has borne out everything you claimed for it. As a steamgenerator we have neversoen any time equal to it. We consider the saving of fuel as being very fred compared to ordinary bollers. If we had need of more steam ca-pacity, we should most certainly use your Boiler in preference to any user. You are at liberty to use this, if it will be of any ser-vicetor you. Yours truly, LINTED STATES WATCH CO., F. A. GILES, Pres't.

Philadelphia, Aug. 10, 100. Joseph Harrison, J.L. Esq.: Dear Sirr-The "Harrison Boiler" we bought of ron, some four months ago, has given us perfect satisfaction. The four is placed over one of our heating furnaces, and, in consequence of the steam-opic connections with our main steam pipe. We have no means of testing its economy in fuel. We believelt to be safer and more economical than the Context Boller, and have no hestation in recommending it as gengrady augment for Rolling Mills. Its to place it immediately over the furnace, conting the fur-naces at an inconvenient distance from the machinery, which the ordinary Cylinder Boller require. Very truly yours. Very truly yours.

### Philadelphia, Aug. 15th, 1866.

DosephHarrison, Jr., Esq.: Philadelphia, Aug. 15th, 1866. Dearsir: Belore ordering one of your Bollers, we sought infor-mation respecting them from several of ourfriends who were using them. Their texpinony was of such a character that we felt no hesitation in adopting it, and it has more than answered our ex-pectations. We recommend them as safe, very economical, and easily managed; they possess fully all the advantages you claim for them.

# n. Very respectfully ours L. MARTIN & CO., Manufacturing Chemists, City Office 140 South Wha ves.

Atlantic Milk,Lil wood, Atlantic county, N. J., August 13th, 1866. August 13th, 1866. Dear Sir:-We have had one of your Six-slab Boilers in use in our Paper Mill for firs model. We conder a unequeled by any other take of boiler me win use. With lens, than one-half the fited t produces more and driver steam than any boiler we ever used.

It is simple, easily managed, and perfectly with,  $\psi_{11}$ . Boiler bleaches the stock for, and dries one tun of paper daily, with one cord of pine wood per day.

## Verv truly, McNEIL, IRVING & RICH.

Mercantile Printing Rooms, Franklin Building, Philadelphia, 16th Aug., 1866. Joseph Harrison. Jr., Esq.: Philadelphia, i.i.th Aug., 1866. Dear Sir:—I am very much pleased with the Goller you put in for mesome nine or ten months ago. It has been in constant use— no trouble—norepairs—nostopping to clean out, and steam can be "got up" in about twenty minutes. It requires less coalthan the Cylinder Boiler formerly used here, although it is doing a great deal more work. I cheerfully recommend it as being and doing all that you claimfor it. Yours very respectfully,

## Yours very respectfully, JAMES B. RODGERS.

## Daily Evening Bulletin, Philadelphia, Sept. 1, 1866.

Daily Evening Bulletin, Philadelphia, Sept. 1, 1866. Dear Sir:-We have one of your 31 Horse-power Globular, Five-Slabbed Bollers, known as the "Harrison Boller," in use now near-five months, and as a safe, reliable steam boller, and for economy of fuel, we think it cannot be equaled. We have a ten horse-power engine, running eight hours per day, with an average saving of 30 per cent in the use of fuel over the olie style holler. Our Engineer, Mr. George Lodge, has had over thirty vears' experience in the management of bollers, and he has no hesitation in pronouncing the Harrison Boller the "Best" he ever worked. Very reconciliate yours.

Very respectfully yours, EVENING BULLETIN ASSOCIATION, 607 Chestnut-st.

## Earle Stove Company, Worcester, Mass., Sept. 3, 1866.

Worcester, Mass., Sept. 3, 1000. Joseph Harrison, Jr.: Dear Sir --Before purchasing your boiler, we examined with much care the various kinds now in use, determined to get "The Best." After eight months' trial, our experience conclusively confirms the correctness of our judgment in making chole-of yours. Our President (T, K. Earle), and Treasurer (Ed-ward Earle), who have in their Card Factory, one of the best of tubular boilers, are now putting tone of yours. We refer you to our Engineer, Mr. Fredrick Fdwards. EARLE STOVE (O., SIDNEY SMITH, Supt. Worketer Mass. Sent. 34, 1866.

EARDE STOVE OF, SIDNET SMITH, Sup. Worcester, Mass., Sept. 3d, 1866. After an experience of twenty years in running the most approv-ed bolters and engines in use. I regard the Harrison Boller, made by describ Harrison, Jr., of Philadelphia, the most economical for fuel, safest, quickest working, and one that will give the steadlest motion to the engine with the least attention. EREDENTICLE EDW ARDS, Engineer, EARDE Stove Co., Worcester, Mass.

Worcester, Mass., 9th mo., 6th, 1866.

Worcester, Mass., string, stri

## Truly yours T. K. EARLE & CO.

Mpine Mills, Howards, Center countly, Pa., September 8, 1966

Mplice Mills, Howards, et al. September S, 1999 Deeph Harrison, J.F., Keq.2 Deer Str. Ik gives no great pleasure to be able to inform you that your Boller comes up to the mark smealue expectations; 'w fact, all that you can possibly each for it, bring comparison, safe, and a specify operfactor of shours, while done with out furt points, of the specify operfactor of shours, while done with out hereing a chain of the ground, sweept the mason, necessing to your plans, sent grafts, the line leak fracture of delay lines (of your plans, sent grafts, the line leak fracture of delay lines (of your plans, sent grafts, the line leak fracture of delay lines (of your plans, sent grafts, the line leak fracture of delay lines (of your plans, sent grafts, the line leak tracture of delay lines (of your plans, end grafts, the line leak fracture of delay lines (of your plans, end grafts, the line leak fracture of delay lines (of your plans, end grafts, the line leak tracture of delay lines (of the line with a store) (dela share-ou street), 25 thors, power Oscillating Lagran, who saw the store of some line a 55 def from states of 2 for the interview. I have a Sir, yneres are respectively. PERCY 9, WED TE, Ageet.

I art, et visual retrieves responsely. The Avert. PERCY P., WPITEL Avert. Lincoln ME. S. W. Cor. 25th and Status strets. Philadelphia, Sept. 10, 149, Joseph Hartison, Jr., 1542. Dear Sit.-In reply to your letter of the full alk, I would be that I have been using the "Hartison Belle" The prove function yours. I have been using the "Hartison Belle" The prove function of the stretcher and the full dear and the stretcher and the subschedule. There is no for the full alk, I would be yours. I have two for the full areas that I find the prove and have been using the "Hartison Belle" for subschedule. Article and P. Stress and State to compare under at the stretcher and the stress of the prove the state that I find the stress of the stress the state the state the state that I find the subschedule. The state to compare under at the state the state the state the state to reply the state the state of y contract and the state to compare the state the state of y contract the base the state to reply the state the state the state of y contract the base the state to reply the state the state the presence is a full rest of state to compare the state the state the presence is the state the state to state the state the state the state of the base the state the state to compare the state the state the presence is the state the state the state the state the state on the the state the state the state the state the state power generally, and heating has have the state the state the state of the state the state the state the state the state the state of the state the state the state the state the state the state of the state the state the state the state the state the state of the state the state the state the state the state the state of the state the state the state the state the state the state of the state the state the state the state the state the state of the state the state the state the state the state the state of the state the state the state the state

Superintendent's Office, Camden and Atlantic Railroad, Camden, N. J., Aug. 21, 1866.

Joseph Harrison, Jr.: Dear Sir:-You ask our opinion of the safety, economy in fnel, and general merit of the Harrison Boller we have in use. I deem it a safe Boller; from its construction I do not think it possible that a disastrons explosion can occur. It is a rapid generator of steam, and requires less fuel than any boiler that has come under my notice. Verv respectfully yours.

## Very respectfully yours, G. W. N. CUSTIS, Supt.

## Philadelphia, Aug.10, 1866,

Philadelphia, Aug, 10, 1866, Dear Sir.-Having charge (as administrators) of the Worsted Mills of the late Mr. Samuel Yewsell, at which the recent terri-ble explosion of a wrought-iron boiler occurred, we have decided to avoid a recurrence of such a calamity in the future, and, be-lieving your Boiler to be the only one absolutely free from danger from explosion, and at the same time equal, if not superior, as a generator of steam, and in economy of fuel, to any holler now in use. You will please accept our order, to furnish us forsaid Mills, two fifty horse-power Boilers, to be used separately or in conjunc-tion. By control ying quickly with the above order, you will very muchoolline. Yours truly

# Yours truly, JAMES HUNTER, N. R. SUPLEE, SAmmistrators.

## Rock Island Manufacturing Company, Charlotte, N. C., August 23, 1866.

Rock Island Manufacturing Company, Charlotte, N. C., August 23, 1866. Mr. Joseph Harrison, Jr.: Dar Sfr:-Our experience with your Boiler warrants us in bear-ing testimony to its superiority over any other with which we are acquainted. Ours is a 10010078-power boiler, and drives six sets of woolen machinery, and trrinshes steam for our yelling uptera-tions, and for heating the mill. Our fuelis wood, and we used are actually and so call our work, whereas, we formerly used that aparting and so call our work, whereas, we formerly used that aparting and so call our work, whereas, we formerly used that aparting and so call our work, whereas that in fifteen immutes after applying the fire in the morning, we have on a full head of steam, and our machinery at work. We have had it in use only a few months, it is true, but we presture long enough to test is adaptation to our fuel and our work, and have found it in every respect to come up to your representation. Our Boiler was set the the slightest difficulty. Your Islier commends itself for econ-omy in fuel, and its morits need only to be known to render it uni-yersally popular. Wery respectfully yours. 14 41

### 312

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IMPORTANT TO MANUFACTURERS AND Inventors.-SMITH & GARVIN, No. 3 Hague street, New York, Machinists and Model Makers, are now ready to make pro-posals for building all kinds of Light Machinery, Manufacturers' Tools, Models, etc. Satisfactory reference given. 788\*

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THE MECHANICS' AND AGRICULTURAL FAIR ASSOCIATION OF LOUISIANA.

At a special meeting of the Board of Directors, held at Mechan-ics' Institute, on the 12th inst. it was unanimously resolved that the FIRST GRAND FAIR of this Association shall take place on the FAIR GROUNIS, City of New Orleans, commencing on the 20th of November ensuing. Inventors, Manufacturers, Agriculturists, Stock Raisers, and others, from any portion of the United States, desirous of being represented in this Industrial Exhibition, can obtain full informa-tion by addressing the officers of the Association. I. N. MARKS, President. LUTHER HOMES, Sec. and Treas. C. H. SLOCOMB, [17 5] Chairman of Committee on Fair Grounds.

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### Improved Patent Station Indicator.

The ordinary way of giving railway passengers the conductor or brakeman at the door of a car. Generally this call is given while the train is in leave the train on such short notice is one of a tially contain free silica, lime, or other material which of E. At F is represented a vertical longitudinal serious character. For these reasons

persons are often carried beyond the point of their destination. To obviate these difficulties is the

design of the device herewith illustrated. The apparatus is a box, containing a simple mechanism, operated by a lever, which, by means of a ratchet and pawl, moves an endless band, bearing at equal distances the names of stations, with the distance between the two termini.

The engraving represents one of these indicators in a car, the side of which is broken away to expose the apparatus. A lever A, projects through the side and is operated by the post and incline, B, at the side of the road. As the car passes a station, the incline turns the lever and presents the direction, "the next station is -If, on a car backing, it again passes the post, this action is reversed, so that the apparatus is self-operating, or automatic, and always correct. A bell can be attached to the indicator to call the attention of the passengers to its operation.

When the car has run the route and is ready to return, the indicator is to be unhooked and hung at the rear end of the car, now become the forward end, when the action of the posts by the roadside will reverse its action giving a correct indication of the stations.

This device was patented April 3, 1866, by P. E. and J. P. Gruger, Lancaster, Pa., to whom apply for the purchase of rights

or for further information.

### The Photographic Art.

Sir David Brewster, in a recent address on the claim of science and art to national recognition and support, indulges in the following beautiful remarks concerning the photographic art :-

But while the artist is thus supplied with every material for his creative genius, society derives a still greater boon. The home-faring man, whom fate or duty chains to his birth place, or imprisons in his fatherland, will without fatigue and danger, scan the beauties of the globe, not in the deceitful image of a hurried pencil, but in the very picture which would have been painted on his retina had he been magically carried to the scene. The outlines of the Himalayas and the Andes will stand before him in their most favored aspect. The Niagara will pour out her mighty cataract of waters, while the dreaded volcano will toss into the air her clouds of dust and fragments of fire. At a lower altitude, Egypt's colossal pyramids will rise before him ; the temples, too, of Greece and Rome, and the gilded mosques and minarets of the East. With a more affectionate gaze he will survey the hallowed scenes which faith has consecrated and love endeared. Mount Zion will stand before him "as a field that is plowed," Tyre as a rock on which " the fishermen dry their nets," Nineveh " made as a grave," and Babylon the great "cast up as a heap," covered with pools of water, and without even the "Arab's tent" or the "shepherd's fold." Yet, though, it is not only Palestine in desolation that we see; the seas which bore on their waves the Divine Redeemer, the hills which bounded his view, the pathway which he trod, and the mount from which he spoke the message of salvation, stand unchanged, and appeal to us with immortalinterest.

### Molds for Casting Iron, Steel, etc.

Mr. Frederick Tachsel, analytical chemist, and Mr.Wm. Hall, brassfounder, of Manchester, England, slight advance upon the cost of the naked bullet. have patented certain improvements made by them

in molding forcasting steel, iron, and other metals. According to the usual process of molding for castnotice of their arrival at stations, is by the call of ing, it is well known that sand is employed which is more or less silicious, the silica of which, when submitted to the melting temperature of certain motion, and the noise of the cars frequently drowns metals, becomes fused and combines with said metthe voice of the conductor, or renders his direction al. This invention consists in substituting for the indistinct. Then the difficulty of getting ready to aforesaid sand, a material which does not substan-



P. E. & J. P. GRUGER'S STATION INDICATOR.

will fuse at the melting temperature of the metal gallon, and can be laid down in Liverpool at 2s. per to be cast. With this view, materials with an aluminous base, having been previously reduced to a state of powder, are employed in the place of the usual sand, and after the ordinary manner of molding. As illustrative of the invention, coal shale or fireclay, ground, when dry, to a powder, may be used as above described.-Railway Times.

### PECK'S PATENT PATCHED BULLET.

There has been much discussion of the comparative merits of breech and muzzle-loading rifles. The patch used on the ball in the muzzle-loader causes a smooth, even fit in the barrel, renders leading impossible, prevents friction and irregular



motion, and cannot be dispensed with in close shooting. It seems to be conceded that if the ball used in the breech-loader could be thus patched, it would add to its other merits all the accuracy of the muzzle-loader.

It is claimed for the invention herewith illustrated that it answers all the requirements of a perfect patched bullet, and can be used with equal facility in a breech or muzzle-loading rifle, but is more especially adapted to metallic cartridges for breechloaders, and that it can be manufactured at a very The engravings represent the bullet in its various

stages of manufacture. A is the slug as first cast. The nick, at B, is to receive the margin or edges of the patch, represented at C. This patch may be of cloth, paper, or parchment. The patch and slug are placed in a matrix, and a die compresses the metal. securing the patch smoothly around the base of the bullet, as seen at D. Another operation by means of the compression of dies, gives the finished form

> section of the finished projectile, showing exactly how the patch is secured. From specimens, we judge this mode of patching to be very superior. It makes a very handsome projectile.

> This improvement was patented July 19, 1864, by Milo Peck, New Haven, Conn., whom address for further information.

### Petroleum and Sperm Oil as Lubricators.

The Engineering says that an American correspondent states that on the Boston and Worcester, and the Boston and Mainerailroads, experiments have been made with petroleum and sperm oil to determine which is the best as a lubricator. The results were as follows :-

They put a railway carriage on each line in perfect order, calipered the journals and weighed the brasses, and used only sperm on one truck and only petroleum on the other of each carriage. After running the carriage 19,000 miles, all the axles and brasses were found in good order, with equal wear all round, and 20 per cent less oil had been used from the petroleum cask. They now use petroleum exclusively in the Lightner boxes of their carriages.

This oil, of the best quality, fully equal to pure sperm oil at the least, and probably better for carriage axles, can now be bought for 50 cents per

gallon. Sperm is worth \$2 \$5, and must be worth four or five times as much as petroleum in Liverpool.

The cause of the great depression in price here just now is the sudden and enormous supply of this lubricating oil obtained in Western Virginia, said to be 1,000 barrels per day, while the consumption in this country is only about half as much. The export trade in this quality of oil has yet to be opened.



### INVENTORS, MANUFACTURERS.

The SCIENTIFIC AMERICAN is the largest and most widely circulated journal of its class in this country. Each number con-tains sixteen pages, with numerous illustrations. The numbers for a year make two volumes of 416 pages each. It also contains a full account of all the principal inventions and discoveries of the day. Also, valuable illustrated articles upon Tools and Machinery used in Workshops, Manufactories, Steam and Mechanical Engineering, Woolen, Cotton, Chemical, Petroleum, and all other Manufacturing Interests. Also, Fire-arms, War Imple-ments, Ordnance, War Vessels, Railway Machinery, Electric, Chemical, and Mathematical Apparatus, Wood and Lumber Machinery, Hydraulics, Oil and Water Pumps. Water Wheels, Etc., Household, Horticultural, and Farm Implements-this latter Department being very full and of great value to Farmers and Gardeners, articles embracing every department of Popular Science, which every body can understand and which every body likes to read.

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