

LITERARY NOTICES.

DIGEST OF AMERICAN CASES RELATING TO PATENTS FOR INVENTIONS AND COPYRIGHTS, FROM 1789 TO 1862. By Stephen D. Law, Counsellor at Law, No. 52 John street, New York.

This is a handsome and large volume, containing a digested abstract of all the American cases, so far as they could be obtained, relating to patents for inventions, copyright and trade marks. It owes its origin to a want (experienced by its author) of some work containing a summary of the statute law and decisions of the courts in relation to patent cases. There are no less than eight hundred and thirty-four cases digested, and seven hundred and thirty-four of these have reference to patents for inventions. Of such cases about four hundred are to be found in the reports of the Supreme and Circuit Courts of the United States, contained in more than one hundred volumes, fifty cases from various law periodicals, and eighty are manuscript cases. All sources of information on American patents have been examined, such as decisions of the justices of the Circuit Court in Washington, on appeals from the Commissioner of Patents, &c., &c. Mr. Law has been very painstaking and laborious in preparing this work, and he has arranged the information in a most convenient manner for reference. It is not a mere dry digest, for all the most important points are carefully dwelt upon, so as to present correct and satisfactory information in relation to them. The decisions on particular patents are arranged in classes—those on reaping machines in one group, those on sewing machines in another, and so for all the patents, according to their specific character. It is the most valuable contribution to American patent laws that has yet been published, as a work of reference and reliable authority. The author deserves the thanks of the profession for his rich and valuable work.

MANUAL OF GEOLOGY. By Prof. James D. Dana, M.A., LL.D. Published by Theodore Bliss & Co., Philadelphia.

This is a much-desired volume, which supplies a want long felt by students of American geology. It is intended for the use of colleges, academies, and schools of science, as well as persons devoted to literature. It is illustrated by a chart of the world and over one thousand figures, mostly from American sources, it having special reference to American geological history. Its author is Professor of Geology, &c., in Yale College. American geology is written out by itself as a continuous history, and we have here presented a natural history of the earth—its continents, seas, climates, and life. The style of the author is not only instructive, but graceful and attractive.

Geology has become a most instructive and interesting science. In its survey of the earth science has recognized three kingdoms of nature, namely, the animal, vegetable, and inorganic or mineral. According to geology, the earth has been brought to its present condition through a series of changes or progressive formations, and under the guidance of the Almighty it has passed through a regular history, or growth, in seas and lands, rocks and mountains, in the physical conditions of heat and moisture, and in vegetable and animal life. As a historical science, geology finds strata of granite, sandstone, clay-rock, and limestone lying above one another in many successions; and it assumes that the sandstones were made of sand by some slow process, clayey rocks of clay, and that these were successively formed and belong to successive periods of the past, the lowest bed in a series being the earliest. Geology, therefore, infers that the character of each rock indicates some facts respecting the condition of the sea or land during the period of its formation. The rocks are, therefore, regarded as records of successive events in the history of the earth. Every rock marks an epoch in the earth's history; groups of rocks, periods; and large groups, ages; and the ages reaching through geological time are represented by the rocks that extend from the lowest to the uppermost series. A fossil shell, coral, bone, or leaf, found in one of the beds of rocks, is a record of some species that existed when that rock was forming, and it tells a tale of life of that epoch. By studying the character of these remains of past ages, geologists and

paleontologists restore the populations which have succeeded one another on the earth. Like the scholar who has studied the hieroglyphics and cuneiform characters on the tombs of Egypt and Assyria, and deciphered the history of past ages, so the geologist has constructed his alphabet of fossils, and given us the testimony of the rocks to the history of our planet in ages long before man raised a monument or wielded a pen. Geology has, therefore, become a most deeply interesting science to all men, and in this volume of Professor Dana we have the best work of the kind yet given to the public.

EMPLOYMENT FOR WOMEN. By Miss Virginia Penny. Published by Walker, Wise & Co., Boston, Mass.; and may also be obtained at Room 44, Bible House, this city.

To find out suitable channels in which women might successfully exercise their talents, hands, and brains has long been a subject of inquiry among philanthropists generally. So few branches have been hitherto known in which they could compete with men, that their sphere of usefulness has been somewhat restricted. We are not of those who believe in confining women to teaching, shop-tending, or a few of the simple avenues of trade which has been their walk heretofore. In most of the manual, mental, and mechanical operations of the day our sisters now compete with us; and we think it will prove a surprise to many men when they are told that out of five hundred and thirty-three articles which the book in question contains, more than five hundred are descriptions of work in which women have, or may be, engaged. The work also gives the average prices paid for labor, for board in the various towns of the several States, and furnishes, in brief, a compendious account of information upon this subject which would be otherwise unattainable.

RECENT AMERICAN INVENTIONS.

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

Nav Mode of Operating Railroad Pumps.—This invention consists in the application of steam from the locomotive boiler to operate the piston or pistons of one or more steam cylinders which connect by suitable mechanism with the plunger of a railroad pump, in such a manner that whenever the locomotive arrives in the neighborhood of a pump, and when it is desired to throw water into the tender or into a tank situated at the side of the track from which it can be let down into the tender, this object is effected by connecting said steam cylinder or cylinders with the locomotive boiler, thereby operating the pump by steam power instead of the ordinary slow process of operating the pump by hand. Gilbert M. Cole, of Folsom city, Cal., is the inventor of this device.

Knitting Machine.—The principal object of this invention is to provide for the easy insertion and removal of the needles of a circular knitting machine, and to this end it consists mainly in a peculiarly constructed grooved conical needle plate and a peculiarly applied needle-operating ring, working in combination with such needle plate. The inventor of this knitting machine is W. B. Evans, of Holderness, of Grafton, N. H.

Cartridge-tearer.—This device is composed of two horns and an interposed fleam-like tooth to be attached to the barrel of the gun, near the muzzle, the horns being for the reception of the folded end of the cartridge between them and the fleam-like tooth being for the penetration and tearing of the paper while it is confined between the said horns. Dantel Kelly, of Grand Rapids, Mich., is the inventor of this device.

THERE is now exhibiting on the Boulevard Magenta, at Paris, the figure of a woman so constructed as to sing various songs. A tube of india-rubber represents the larynx; the voice has a compass of two octaves. The inventor is Mr. Faber, formerly a professor of mathematics in Germany.

COPPER cents, nickle cents and three-cent pieces are all of much less intrinsic value than the sums they represent, and people will make nothing by hoarding them.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING DECEMBER 16, 1862.

Reported Officially for the Scientific American.

. Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, 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.

37,146.—Knapsack Collar.—J. E. Atwood, Washington, D. C.:

I claim the use of a stiff leather collar constructed as described, when combined and arranged in the manner set forth, with a knapsack.

37,147.—Cider Mill.—P. J. Berlin, Blairsville, Pa.:

I claim the arrangement of the stripper, D, oscillating lever, I, spring lever, m, and crushing rollers, d d', with the wiper, m, and master wheel, in the manner herein shown and described.

[The object of this invention is to combine on the same platform an apparatus for crushing apples, &c., operated by means of a horse-power, and a device for pressing the crushed apples or other fruit, said platform being supported on sleigh runners, in such a manner that the whole cider mill can be readily moved from place to place and operated wherever it may be put up.]

37,148.—Grain Separator.—Murrin Burr, Plymouth, Mich.:

I claim the arrangement of the horizontally-vibrating shoe, D, and the screen, L, having an independent, vertical, reciprocating movement, for the purpose of agitating it sufficiently to discharge the foul seed and to prevent it from choking, as herein set forth.

In combination with the screen, L, I also claim the segments, M M', or their equivalents, pivoted to the shoe, and having shanks, I, resting in sockets of retaining cross pieces, C C', for the purpose of giving a reciprocating vertical movement to the said screen, with the horizontal vibrations of the shoe, substantially as herein specified.

I also claim the arrangement of the double-inclined spout, R, spaces, r r, between the shoe and walls of the mill, and seed receptacle, v, so arranged as to discharge the foul seed around the lower screen, U, and collect it, substantially as herein described.

I also claim the arrangement of the ledges, t, segments, M' M' or equivalents, and blocks, s, arranged in connection with the shoe, D, and walls, B B, of the mill, as herein specified.

37,149.—Combined Shoulder Brace and Suspenders.—D. W. Canfield, New York City:

I claim the combined shoulder brace and suspenders, composed of the shoulder straps, A, and neck straps, C C', front straps, D D', and end pieces, a and c c, the whole arranged and combined as herein set forth.

[This invention consists in a novel mode of arranging and combining the several straps and pieces of which the combined shoulder brace and suspender is composed, whereby it is made to serve as an effective shoulder brace, and to support the pantaloons or other garment with greater ease and comfort to the wearer than with the arrangements of parts in common use, and is rendered more perfectly adjustable.]

37,150.—Attaching Handles to Knives.—Matthew Chapman, Greenfield, Mass.:

I claim the flat tang, C, of the implement, provided with a V-shaped notch, a, at its end, in combination with the rivet, D, and the slot, b, in the handle, B, provided with a projection, c, at its bottom, of such a shape as to fit into the notch, a, of the tang, substantially as and for the purpose herein specified.

[This invention consists in having the handle of the knife or other article slotted longitudinally a certain distance from its inner end, and having the knife or other article provided with a flat tang, equal in length to the slot, the end of the tang having a V-shaped notch made in it, and the end of the slot provided with a corresponding shaped projection, which fits in the notch in the tang, when the latter is inserted in the slot in the handle, the above parts being used in connection with a rivet which passes through the handle and tang.]

37,151.—Grinding Mill.—J. M. Clark, Lancaster, Pa.:

First, I claim the mode substantially as described of attaching the cross-tie, r, and lever, E, to the hoop, d, for the purpose specified.

Second, I claim a revolving grain cup or disk, H, having couplings or lugs, h', and an attached tube, r, in combination with the rim, e.

Third, I claim applying to millstones a silent feed which is not affected by the act of setting the stones to grind either coarse or fine, substantially as described.

Fourth, I claim suspending the revolving cup or disk, H, from the cross-tie, r, by the tube, r, or its equivalent, in the manner and for the purpose set forth.

Fifth, I claim suspending the stationary grain guard, H', over the eye of the stones, and so that it may be removed therefrom with the cross-tie, r, for the purpose set forth.

Sixth, I claim the combination and arrangement of the lever, E, cross-tie, r, and hoop, d, substantially in the manner and for the purpose set forth.

Seventh, I claim the combination of the feed-lever rod, m', and rod, m2, substantially as and for the purpose set forth.

Eighth, I claim operating an alarm and also an indicating apparatus, by means of a shaft which receives motion directly from the central portion of the mill-stone "runner," for the purpose specified.

Ninth, I claim the combination of the alarm apparatus and the indicating apparatus with the centrally-located shaft, 12, substantially as described, for the purpose set forth.

Tenth, I claim a lighter staff, j, in combination with the screw shaft, m, substantially as described.

Eleventh, I claim the head blocks, 112, whether stationary or adjustable, in combination with the "way," L, substantially as described, for the purpose set forth.

Twelfth, I claim applying to the bell shaft, K', a belt arm, x, and bell, B', which, by their centrifugal action, effect the alarm in connection with head blocks, 1 and 12 or their equivalents, substantially as described.

Thirteenth, I claim in a bell which constitutes a part of a centrifugal governor, so hanging the "clapper" on a pivoted spring-arm, that it has unobstructed freedom to move back and forth in the line of rotation of the bell, against the inner side of the bell, but is prevented from coming in contact with the bell in a direction at right angles thereto, substantially as described.

37,152.—Mode of operating Railroad Pumps.—G. M. Cole, Folsom City, Cal.:

I claim the application of one or more cylinders, D, which are supplied with steam from the locomotive through pipes, c c', in combination with the pump, B, as and for the purpose shown and described.

37,153.—Expanding Bedstead.—Nelson Cross, New York City:

I claim the combination of the side and cross levers or bars with the canvas top or bed piece, as and for the purpose aforesaid.

37,154.—Straw and Grain Separator.—A. B. Davis, Philadelphia, Pa.:

I claim, first, Separating the straw from the grain in threshing machines by means of a series of rocking rakes, arranged in respect to and operating in unison with each other, substantially as set forth.

Second, Imparting the desired motion to the said rocking rakes by means of reverse racks, arranged in a reciprocating frame, in relation to pinions on the shafts of the said rakes, substantially as set forth.

37,155.—Air Engine.—William Denkmann, Washington, D. C. :

I claim, first, The use of a plurality of separate heating chambers, operating successively in connection with each working end of the driving cylinder, K, substantially as set forth, to admit of heating the air in a certain time at which it is used.

Second, An air pump, L, employed in combination with heating chambers, substantially as set forth in the foregoing claim, to supply said chambers successively with cold air.

37,156.—Tourniquet.—Jacob Dunton, Philadelphia, Pa. :

I claim the combination of the adjustable slotted plates, A A A', as, F, and straps, G G', as set forth.

[This tourniquet is adjustable to suit limbs of any size, and is adapted to arrest arterial circulation, without interfering with that of the veins.]

37,157.—Wave Propeller for Shallow Water.—J. B. Eads, St. Louis, Mo. :

I claim providing light-draught vessels with a chamber, in which the propeller works when said chamber is filled with water by atmospheric pressure, to a height above that of the water in which the vessel floats, for the purpose and in the manner substantially as herein described and represented.

37,158.—Riding Stirrup.—R. N. Eagle, New York City :

I claim first, Giving any desired longitudinal, lateral, or oblique inclination to the tread of a stirrup (with arms of equal length or with the inner arm the shorter), by means of the location given to the point of suspension, substantially as hereinbefore described.

Second, A strap or its equivalent employed to connect the arms of a stirrup, and constituting the means of attaching the suspending straps, and for confining the upper part of the cover, when one is used.

Third, A cover composed of two or more pieces of leather or its equivalent, and applied substantially as hereinbefore described.

Fourth, The combination of the rawhide or felt with the frame or body of a stirrup, substantially as and for the purposes specified.

Fifth, The arrangement of the shaft, H, in inclined positions, as represented in Fig. 6, and described, for the purposes specified.

Sixth, The combination of an adjusting suspension with a stirrup or its cap, substantially as and for the purposes set forth.

Seventh, Giving to the sides or arms of a stirrup, whether of wood or other material, an oblique direction in front, and a perpendicular direction or line in rear, substantially as represented in Fig. 4, or the converse or described equivalent thereof, for the purpose specified.

37,159.—Centrifugal Gun.—G. C. Eaton and S. W. Turner, Cleveland, Ohio :

We claim, first, The stirrup, I, and bridge tree, I', in combination with the plate, G, and turn-table, G', arranged as specified, for the purpose of giving horizontal range to the ball.

Second, We claim the turn-table, G', in combination with the articulation, K' K', for the purpose set forth.

Third, We claim the frame, M M', in combination with the articulation, K' K', for giving altitude to the projectile, as specified.

Fourth, We claim the arms, T T', operating in concert within the frame, M M', for the purpose specified.

Fifth, We claim the stops, g, h, operated as and for the purpose set forth.

Sixth, We claim the slutches, p, and weighted lever, p', in combination with the cam, W, arranged and operating as and for the purpose specified.

37,160.—Apparatus for teaching Military Tactics.—W. S. Engle, Brooklyn, N. Y. :

I claim the employment or use of the military figures or pieces, representing privates and officers pertaining to a battalion or regiment, for the purpose herein specified.

[This invention consists in the employment or use of military figures composed of rectangular blocks representing companies in line, and detached figures representing officers and privates, whereby a learner may practice all the movements of the privates and officers, both in battalion and company drills.]

37,161.—Knitting Machine.—W. B. Evans, Holderness, N. H. :

I claim, first, The combination of the needle plate, A, having its face composed of two conical surfaces, e, and needle groove, e, opening into the said cylindrical surface, and the two rings, B, C, having between them an open space, s, s, opposite to the openings of the grooves in said cylindrical surface, substantially as and for the purpose herein specified.

Second, The plate, L, applied in combination with the said needle plate and the ring, B, substantially as and for the purpose herein specified.

Third, The inclined surfaces, g' g', provided on the ring, C, substantially as and for the purpose herein specified.

37,162.—Machine for Threshing and Hulling Clover Seed.—G. W. Fosdick and John Crawford, Dowagiac, Mich. :

We claim the arrangement of the threshing cylinder, D, concave, C, picker, R, apron, E, screen, F, and pendulums, f, with the carrier, G, in the manner herein shown and described.

The combination of the parts above mentioned, when arranged in the manner stated, with the apron, H, hulling cylinder, I, shoe, L, fan, P, and elevator, N, as herein shown and described.

The arrangement of the apron, H, and boards, m, K, with the concave, J, cylinder, I, and shoe, L, in the manner herein shown and described.

[The object of this invention is to obtain a machine by which clover seed may be threshed from the straw, and the latter separated from the heads, and the seed also separated from the hulls—the whole operation being performed simultaneously, and the work done in a perfect manner.]

37,163.—Iron Bedstead.—J. M. French, East Cambridge, Mass. :

I claim the improved bedstead as made not only with its angle iron rails, B, B, and head and foot frames connected by tenons and mortises, but with each of the said rails furnished with bearers, e, e, constructed and arranged with respect to the tenons and mortises, and the lower bars of the head and foot frames, in manner and so as to operate therewith, substantially as specified.

37,164.—Lock for Mail Bags.—W. W. Gingrich and C. S. Coates, Mexico, Pa. :

We claim the arrangement of the jaws, A, B, the plates, E, D, and the springs, m, n, o, several parts being constructed and used for locking the mouth of the bag at several points at one time, as herein fully set forth.

37,165.—Gearing for Machinery.—S. P. Gary, Oshkosh, Wis. :

I claim the combination of the stationary wheel, B, with the revolving wheel, C, the joint, G, and the crank, H, for the purpose of transmitting rotary motion from the shaft, D, to the shaft, E, or the reverse, substantially as herein set forth and described.

37,166.—Cultivator.—H. J. Heaton, Peoria, Ill. :

I claim the arrangement of the sliding bars, C, C', draught-pole, D, bar, E, and lever, F, in connection with the frames, J, J', having the plows, P, attached, all arranged as and for the purpose herein set forth.

[This invention relates to an improved cultivator of that class in which adjustable or laterally sliding shares or teeth are employed. The object of the invention is to obtain a cultivator of the class specified, which will enable the operator or attendant to have more perfect control over the implement than hitherto, so that the shares or teeth may be readily adjusted and made to plow up to the plants and follow the sinuosities of the rows however crooked or curved they may be.]

37,167.—Apparatus for Distilling Alcohol.—P. L. Howlett, Springfield, Ill. :

I claim, first, The arrangement of one or more heating tubes, I, in the extractor, B, in combination with the still, A, and doubler, C, constructed and operating substantially as and for the purpose specified.

Second, The arrangement and combination of the compartments' f, g, h, in the extractor, B, pipes, a and b, heating tubes, I, still, A, doubler, C, worms, e and m, troughs, D and E, and pump, E, all constructed and operating as and for the purposes shown and described.

[An engraving and full description of this apparatus will be found on Page 289, Vol VII. of the SCIENTIFIC AMERICAN.]

37,168.—Water Motor.—Daniel Hunsicker, Laurelton, Pa. :

I claim the endless chain provided with hinged floats and arranged to work over a rotating block, substantially as described.

And in combination with the endless chain and floats, I claim the guide rollers, M M, and guide pieces, N and P P, for the purposes set forth.

37,169.—Skate.—Benjamin Irving, New York City :

I claim as an new article of manufacture an improved skate, the runner or shoe of which is made of a plate of steel, with a narrow groove near each edge, when the body or frame of the skate is made of iron or some other softer metal or material, and when said frame is adapted equally to either foot as herein described.

37,170.—Machine for Punching and Eyeletting Shoes, &c.—Jeremiah Keith, New Bedford, Mass. :

I claim my improved punching and eyeletting machine, the same consisting of the vibrating hopper or eyelet magazine, C, the inclined director, D, the eyelet retainer, E, the rotary punch, L, and upsetter, L', the rotary punch bed, T, and the eyelet separator and carrier, U, the whole being constructed and made to operate substantially as set forth.

I also claim the combination of the rotary punch, L, and upsetter, L', with the rotary punch bed, T, and the eyelet separator, U, the same being arranged substantially as set forth.

I also claim the combination of the magazine, C, the conductor, D, the retainer, E, the revolvable eyelet separator and carrier, U, and the upsetter, L', the same being arranged and made to operate as set forth.

37,171.—Cartridge-tearer for Muskets.—Daniel Kelly, Grand Rapids, Mich. :

I claim a cartridge-tearer composed of a ring or band with two horns, a, a, and tooth, c, between the horns; said horns, tooth and ring being all made in one piece and operating as herein set forth.

37,172.—Claw-bar.—Isaac Lamplugh, Peoria, Ill. :

I claim the shifting fulcrum arm, E, having an auxiliary bearing point, d, in combination with the slot, b, recess, a, and the heel, H, in the manner and for the purpose substantially as described.

37,173.—Air Gun.—Edward Lindner, New York City :

I claim, first, The operation of a lever constructed conformably in shape with the handle or stock of the gun or pistol, so as arranging and combining with it a piston and spring as to compress the latter by direct action on the piston rod, substantially as herein shown and described.

Second, The combination with a cylinder in which the air is compressed as described, of a piston with an automatically expanding package as herein shown and set forth.

Third, The formation of an annular recess at the joint of the barrel with the breech in combination with a projecting india-rubber ring, whereby an air-tight joint is effected substantially as herein described.

Fourth, Providing the cylinder containing the air-compressing piston with an aperture and slide valve, or any other equivalent means of adjusting the size of the said aperture, to regulate the size of the vent, or the force of the compression as herein described.

Fifth, The construction of the projectiles with an elastic and expanding back or bottom whereby in air pistols or guns rifled barrels may be used to insure accuracy of aim as herein described.

37,174.—Ash-sifter.—William McConnell, Philadelphia, Pa. :

I claim, first, A hopper, A, of any suitable form, provided with the lid, a, or its equivalent, and sieve, b, when the whole is so connected to a permanent bracket, B, or its equivalent, as to be readily vibrated.

Second, I claim, in combination with the vibrating hopper, a curtain, D, of such shape and dimensions as to inclose the mouth of the receptacle for the ashes without interfering with the free movement of the hopper.

37,175.—Post-mark and Cancelling Stamp.—M. P. Norton, Troy, N. Y. :

I claim, first, The cancelling device, C, having on the face or lower surface thereof knives or cutters, and a guard or guards in combination with each other, by means of which the postage stamp is cancelled by the said cutter, and at the same time prevent any injury to the letters or any contents therein from the said knives or cutters by means of the said guard or guards, substantially as herein described and set forth.

Second, I also claim the combination of the cancelling-stamp, C, and the post-marking or rating-stamp, D, with the cross-piece, B, substantially as and for the purpose herein described and set forth.

37,176.—Earth-scraper.—Nelson Peck, Jay, N. Y. :

I claim the combination of the scraper, C, draught-pole, D, axle, A, and levers, E E, all arranged to operate substantially as and for the purpose herein set forth.

[This invention relates to a new and improved earth-scraper designed for repairing roads and for general grading purposes. The invention consists in a novel and improved combination and arrangement of the scraper-wheels, draught-pole and levers, whereby the scraper may with the greatest facility be raised or lowered—lowered to perform its work and elevated to discharge its load.]

37,177.—Pantographic Engraving Machine.—Benjamin L. Phillips, Providence, R. I. :

I claim, first, The method of communicating the motions of the tracer-point, A, and carriage, E, to the cylinder, C, substantially as described.

Second, Supporting the bars, T, on fixed inclined ways, S, substantially as and for the purpose set forth.

Third, A compensating connection between the weighted arm, g', and graver arm, e, substantially as described.

Fourth, The weighted arm, e', at a different point from that which the graver arm, e, is pivoted, that they may be moved separately, substantially as described.

Fifth, The inclined groove, S, for guiding the graver carriage substantially as described.

Sixth, Inclining the bar, F, for the purpose specified.

Seventh, Changing the relative speed of the carriages, E and G, by connecting them with pulleys of a different size, substantially in the manner and for the purpose set forth.

Eighth, The automatic feed connected with the pulley, E', for regulating the spaces between the grounding lines substantially as described.

Ninth, The employment of screw-scored pulleys such as, W E' C', on a pantographic engraving machine, for the purpose specified.

Tenth, The employment of templates cut out to the form of any figure which is to be repeated, in combination with a supplementary tracing-point, a', to be used substantially as set forth.

Eleventh, Reversing the motions of the graver carriage by clamping the wire, x, to the carriage, G, either at a or a'.

37,178.—Horse-power.—William Pierpont, Salem, N. J. :

I claim, first, The combination of the socket pieces, A, and lever supporting piece, b, with the main wheel, A, substantially as and for the purpose set forth.

Second, The combination of the draft levers, B, with the braces, C, and main wheel, A, substantially as set forth.

37,179.—Head Block for Lasts.—C. F. Pollard, Lynn, Mass. :

I claim, first, The plates, B E F, notched flange, C, with the wedge, D, spiral spring, d, and pin, b, when combined and arranged to operate in the manner and for the purpose specified.

Second, The sliding toe rest, K, pivoted catch, p, in combination with the inclined plane, J, notched bar, o, curve spring, n, and pivoted lever, H, when arranged to operate in the manner and for the purpose specified.

[This invention consists in a peculiar manner of attaching the table supporting the heel and toe rest to the pedestal, whereby the last may be easily and expeditiously adjusted to any desired angle or inclination; also in an arrangement of sliding toe rest which admits of long or short lasts being used without materially changing its inclination.]

37,180.—Belt-shifting Device.—William Sellers, Philadelphia, Pa. :

I claim the use of an internal and external segment wheel arranged substantially as and for the purpose specified.

37,181.—Elastic Cups, Dippers, &c.—Thomas Smith, Boston, Mass. :

I claim the improvement in the manufacture of elastic or semi-elastic vessels, which consists in so forming them as to cause them to engage and be firmly held in a band or bands of metal or other rigid material, substantially as described.

37,182.—Apparatus for Steaming Oysters in the Shell.—Isaac Solomon, Baltimore, Md. :

I claim, first, The combination and arrangement in an apparatus for steaming oysters of the receiver, a' a' a', constructed substantially as described, with the steam supply pipes, valve and perforated shell tubes constructed and arranged for conjoint operation in the manner set forth.

Second, In an oyster-steaming apparatus, the combination of the steam-tight doors, A, constructed and operating substantially as set forth, with the air valves, F, and steam-escape valve arranged and operating as and for the purpose described.

Third, The employment in an oyster-steaming apparatus of a receiver at the bottom for the reception and preservation of the liquor from the oysters to be drawn off for use as described.

37,183.—Spring Fastening for Lamp Chimneys.—W. S. Thompson, Rochester, N. Y. :

I claim securing the chimney by means of the flexible, elastic wires, D D, on the opposite sides, suitably connected together, and having the portions, c, c, resting respectively in the slots, a, a, of the flange of the chimney, as to furnish as to furnish an extended, continuous bearing on the base of the chimney to hold it centrally in place and allow it to expand freely and to adapt it to different sized chimneys, the whole arranged, combined and operating substantially as herein set forth.

37,184.—Seeding Machine.—Morris Todd, Quasqueton, Iowa. :

I claim the arrangement of the vertically adjustable hopper-box, A, suspended by means of straps or pendents, B, from the hind axle, E, of an ordinary wagon in combination with the gauging screw, c, and hinged bottom, G, all constructed and operating in the manner and for the purpose shown and described.

[This invention consists in the arrangement of a vertically adjustable hopper box suspended by means of suitable straps or pendents from the axle of the hind wheels of an ordinary wagon and provided with a hinged adjustable bottom in combination with a gauge screw in such a manner that said hopper can easily be adjusted to suit wagons of different height, and the bottom can be set to sow different seeds or different quantities of seed per acre by means of the gauge screw, which is provided with a suitable scale to indicate the quantity of seed sown per acre for different positions of the hopper bottom.]

37,185.—Amalgamator for Gold and Silver.—Thomas Varney, San Francisco, Cal. :

I claim, first, The employment or use of a rotating muller, F, provided with central openings, g, and arranged within a pan or tub, A, with a stationary muller, G, or an equivalent bed-plate, substantially as shown, to insure a current or circulation of the pulp within the pan or tub and between the mullers, as and for the purpose set forth.

Second, A covered or close pan or tub, A, composed of two parts, a, b, connected together, when said pan or tub is used for an ore amalgamating device as specified.

Third, The curved plates or scrapers, I, arranged to operate in connection with the rotary muller, F, for the purpose herein set forth.

[This invention consists in the employment or use of a rotary and stationary muller placed within a suitable pan or tub provided with a cover, and arranged in such a manner that when the device is in operation the ore will pass in a current or stream outward from the center and between the mullers to the circumference of the same and thence inward over the upper and rotating muller to the center of the same; and down through said muller between it and the lower stationary one to be again thrown to the periphery of the mullers, thereby causing all the particles of the ore to be brought in contact with the quicksilver in the pan or tub or with the amalgamated plates attached to the muller or mullers. The invention also consists in the employment or use of curved or spiral scrapers placed within the pan or tub and arranged relatively with the upper surface of the rotating muller in such a manner as to insure the passage or movement of all heavy substances in the pulp, thereby preventing the same from lodging on the rotating muller.]

37,186.—Steam Engine.—Henry Walters, Tamaqua, Pa. :

In cylinders of steam engines of otherwise ordinary or suitable construction, I claim valves at either end of said cylinder and controlled by a working beam so as to automatically open and close the water passages by the alternate action of steam on the piston as described, when the fulcrum of said beam is adjustable, whereby the lift of the valves may be regulated at pleasure substantially as herein shown and set forth.

37,187.—Harvester.—David Warren, Gettysburg, Pa. :

I claim the springs, A1 and A2, the bolt, e, and the guide, E, the whole arranged in the manner and for the purpose herein specified.

37,188.—Self-feeding Sawing Machine.—T. J. Wells, New York City. :

I claim the combination of the saw, A, with the table, E, and guide, F, when arranged in relation to each other, and operating in the manner and for the purpose described.

37,189.—Mode of Punching Countersunk Holes.—J. V. Westlake, St. Louis, Mo. :

I claim the punching of countersunk holes in metal so that the same shall be applicable to the practical use of receiving the taper or inverted cone-shaped heads of bolts and other like fastenings, substantially as described.

37,190.—Furnace for the Manufacture of Oxide of Zinc.—Joseph Wharton, Philadelphia, Pa. :

I claim, first, The trough, F, and trunk, E, for introducing water into the furnace for the purpose of cleaning the zinc oxide while in the furnace and at the instant of its production, substantially as above described.

Second, The arrangement of the furnace, A and B, the division wall, c, and the reverberatory arch or cover, substantially as shown.

37,191.—Rocking Sled Propeller.—John Wiarda, Hoboken, N. J. :

I claim, first, The arrangement of one or more pointed feet, d, d, in combination with the rocking seat, A, of a sled, constructed and operating as and for the purpose shown and described.

Second, The arrangement of working beams, F, in combination with the hinged pointed feet, e, e, and with the rocking seat, A, and foot-board, b, of a sled constructed and operating substantially as and for the purpose specified.

[This invention consists in the arrangement of one or more pointed feet hinged to the under surface of the rocking seat of a sled, suspended from a pivot or pivots in such a manner that by imparting to said seat an oscillating or rocking motion the feet are alternately depressed on the ground in an inclined direction so as to propel the sled, and raised for a fresh hold and thereby a considerable velocity can be imparted to the sled with a comparatively small exertion of the person or persons occupying the seat.]

37,192.—Manufacture of Hose and Flexible Tubes.—H. A. Alden, Fishkill, N. Y., assignor to The New York Rubber Company :

I claim the herein-described process or method of water-proofing hose by the application of higher pressure of such liquid or semi-liquid india rubber, gutta percha, or other cementing substance or compound as that, by subsequent exposure to air or heat or by being otherwise treated, shall form a dry flexible coating impervious to water, and when so water-proofed, I claim the mode described of preserving the cylindrical form for the hose.

37,193.—Rifled Muzzle for Smooth-bored Guns.—C. R. Alsop, Middletown, Conn., assignor to J. W. Alsop, of New York City :

I claim a rifled muzzle in combination with a smooth-bore gun barrel, substantially in the manner and for the purpose set forth.

37,194.—Ship's Windlass.—James Emerson, Manchester, N. H., assignor to Wm. P. Hunt, Dorchester, Mass. : I claim, first, placing the two grabs, E, E, on one vertical shaft and causing them to revolve in reverse directions for the purpose of heaving in the two chains of a ship at the same time, substantially as described.
 Second, I claim the arrangement of the small gears, I, J, K, L, and the clutch, N, in connection with the two chain grabs on the vertical shaft, P, for the purpose described, when arranged substantially as described.
 Third, I claim the separation of the shaft, Q, thus making it in two pieces in order to allow nearly all of the working parts to be secured to the lower piece, for the purpose named and substantially as described.

37,195.—Hydraulic Cylinder.—Daniel Fitzgerald, New York City, assignor to himself and C. B. Tatham, Brooklyn, N. Y. : I claim consolidating and combining the strength of concentric cylinders by means of water or other liquid, hot or cold, filling the interstices in the manner substantially as above described.

67,196.—Method of Securing Bits in Stocks.—Daniel Kelly (assignor to himself and J. A. Smith), Grand Rapids, Mich. : I claim the arrangement of the notched wedge-faced pivoted button, a, with the tool stock, A, and tool, B, in the manner and for the purpose herein shown and described.
 [The object of this invention is to obtain a simple device for securing bits to their stocks which may be readily applied to an ordinary round or square stock and which will draw the bit head firmly into the stock and at the same time lock it securely therein.]

37,197.—Coal Oil Lamp.—D. E. Hall, Brooklyn, N. Y., assignor to himself, Vasconcellos Houghton, Wm. A. Nichols and T. C. Sears : I claim the fibrous mineral tip, l, prepared substantially as specified in combination with the wick, f, of fibrous material, as set forth.
 I also claim the adjustable wick tube, d, in combination with the deflecting tube, g, for the purposes and as specified.

37,198.—Smelting Ores of Gold, Silver, Copper, &c.—William Quann, Philadelphia, Pa., assignor to himself, Wm. L. Taylor, A. R. Wetmore and C. C. Lamthrop : I claim in the process of smelting gold, silver, copper, nickel, and all other ores except iron, and for purifying the metal obtained therefrom, the use of wood ashes, chemical charcoal, carbonate of ammonia, oil or other resinous matter, salt, bone dust, sulphur and sand, substantially as described.

37,199.—Counting Attachment for Envelope Machines.—G. H. Roay, Hudson, N. J., assignor through mesne assignment to J. Q. Preble, New York City : I claim so disposing of the envelopes as the same are discharged from an envelope machine that one or more envelopes are pushed out beyond the edge of the regular pile at intervals of twenty-four or any other desired number of envelopes, substantially as and for the purpose herein shown and described.
 [The invention consists in so disposing of the envelopes, as they are discharged from an envelope machine, that one or more envelopes are pushed out beyond the edge of the regular pile at intervals of twenty-four or any other desired number of envelopes, and by these means the whole pile is divided off so that the envelopes can be taken out without counting and made up into packs of the desired number.]

37,200.—Concussion Fuse for Shells.—S. R. Russell, Middletown, Ohio, assignor to himself and B. F. Tefft, Bangor, Maine : I claim the combination with a projectile of the perforated tube, B, the plunger, D, plug, H, and fuse, C, arranged and operated in the manner and for the purposes substantially as herein described.

37,201.—Machine for Screwing on the Soles and Heels of Boots and Shoes.—Eugene Lemercier, Paris, France, administrator of the estate of L. J. Sellier, assignor to A. B. Howe, New York City : I claim, first, constructing and mounting the machine in such a manner that any required pressure may be produced on the shoe at the will of the operator while the screw is entering the sole and instantly stopped after the point of the screw touches the iron last, substantially as and for the purpose described.
 Second, in combination with a machine for cutting and inserting screws in boots and shoes, an elevating and depressing apparatus, as shown at F G H, Fig. 1, by means of which the machine can be elevated or depressed as required, as in passing from the heel to the shank of the shoe, which apparatus also admits of placing the machine in such a position that the screw may enter the sole at any required longitudinal angle, substantially as described.
 Third, connecting the machine to the depressing lever, D, as shown at I' I' I' I', for the purpose of inclining the machine to the right or left, so that the screw may be entered at any required lateral inclination.
 Fourth, in combination, the elevating and depressing apparatus, F G H, with the connecting joint, I' I' I' I', for the purposes set forth in the specification.
 Fifth, in combination with the screw, R, and spring, V, the movable step or bisected nut, v', for feeding in a fresh supply of wire and acting in the manner described and for the purposes set forth.
 Sixth, the nose with recesses, h, h', Fig. 3, acting as a gage for insuring a uniform distance between the screws.
 Seventh, in combination with a machine that makes and supplies screws from a continuous wire, the cutter, d, actuated by a lever, N, rack, e, pinion, O, and a spring, f, said cutter severing the screw near the sole, as soon as screwed home.
 Eighth, the triangular section of the cutter, d, shown at Fig. 2 a and b, leaving the lower ends of the screw in the shape of an inverted V, for the purpose of spreading and riveting on the last.

37,202.—Sewing Machine.—A. B. Shaw (assignor to himself and N. H. Shaw), Worcester, Mass. : I claim the combination of the lifting cam and pin, x, with the lever, H, and springs, v, in the manner and for the purpose shown and described.
 [A part of this invention relates to the use of an eye-pointed looper operating in combination with an eye-pointed perforating needle to produce what is known as the double-looped stitch and it consists in a certain mode of applying and giving motion to such looper by which the machine is enabled to be simply and cheaply constructed and made very effective and certain in its operation. Another part of the invention relates to what is known as the top feed, in which the presser and feeder are combined in one foot-piece working on the loop of the cloth, and it consists in a certain mode of relieving the said foot-piece of pressure while it is returning to take a new hold of the cloth after every feeding movement.]

37,203.—Knapsack.—Joseph Short, of Boston, Mass., assignor to Abbie H. Short, of Salem, Mass. : First, I claim the suspension strap or straps, c', in combination with the connecting strap or straps, l, and yoke or neck-strap, B, in the manner and for the purpose substantially as set forth.
 Second, I claim the steady pins, e, e, in combination with the knapsack, A, substantially in the manner and for the purpose set forth.

37,204.—Grate for Stoves.—Isaac Smith (assignor to S. H. Ransom & Co.), of Albany, N. Y. : I claim combining with the grate, suspended by hinges as herein referred to, the dumping arrangement, substantially as described.

37,205.—Bending Metallic Spouts.—E. Valentine & M. Ridout (assignor to himself and William Beck), of Milwaukee, Wis. : We claim the use of an elastic core or mandrel in the manufacture of curved metallic pipes or spouts, substantially in the manner hereinbefore set forth.
 We also claim the use of a series of thin elastic metallic plates in the construction of a core or mandrel for the inflection of metallic spouts, substantially in the manner herein set forth.
 When an elastic core or mandrel is used in the manufacture of curved

metallic spouts, we claim the use of a shaping block, G, a retaining hook, S, and a lever-actuated swaging wheel, T, or their equivalents, when combined and arranged substantially in the manner and for the purpose herein set forth.
 When a lever-actuated swaging wheel, T, and shaping block, G, are used in the inflection of metallic spouts, we claim the use of an elastic projecting band, p, and elastic cushion, r, or their equivalents, when combined and arranged substantially in the manner and for the purpose herein set forth.

37,206.—Machine for Rolling Tires for Locomotive Wheels.—Sherman Jaqua, of Paterson, N. J. : I claim, first, The arrangement, as described, of the top and bottom rollers in an adjustable frame, which is so constructed and attached to the bed as to allow the axis of the said rollers to be brought into a radial line with tires of various sizes, while, at the same time, they are made capable of inward and outward radial adjustment, substantially as set forth.
 Second, The arrangement of two bottom rollers, as herein described, in relation to the top roller, by which the tire is prevented from sagging away from the top roller, and a finishing flange roller allowed to be placed immediately under the top roller, as herein set forth.
 Third, The arrangement of the bottom rollers for finishing the lower edge of the tire, in a different radial plane from that which is occupied by the driving rollers, by which they are prevented from interfering with the said driving rollers, and a more efficient and satisfactory arrangement of parts is made admissible.

37,207.—Military Observatory.—Thomas Welham, Nemaha county, Nebraska : I claim the combination of an observatory, look-out or signal station in such a manner that it can be elevated, when desired, to any required and practicable height by the addition of successive lengths or sections to the lower end of its supporting shaft, substantially in the manner described.

37,208.—Breech-loading Fire-arm.—Samuel Strong, Washington, D. C. : I claim mounting the hammer upon and securing it to the hinged gate and notching the face of the hammer at such a point relative to the trigger, that in the act of closing the gate to its seat in the breech, the trigger will enter the notch and raise the face of the hammer off the cartridge, as described.
 Also, in dividing the handle of the gate by which it is operated, or securing to its lower surface a spring catch, w, which takes into a notch formed in the breech, in the manner set forth.
 And the combination and arrangement of the gate, hammer, trigger, and mainspring, independent and so constructed, that unless the gate is fully closed the hammer cannot be raised to full cock nor the piece discharged in any other position.

RE-ISSUES.

1,363.—Machine for sewing Soles to Boots and Shoes.—Henry Dunham, Jr., Abington, Mass. Patented September 9, 1862 : I claim the combination of the curved and hooked needle with the last, constructed with a concave bottom, the whole being substantially as described and represented.
 I also claim the arrangement of the hook on the flank of the curve of the shank of the needle, as described, and with respect to the awl, so as to juncture lengthwise instead of crosswise of its section, a hole as made by the awl.
 I also claim the combination of an awl curved longitudinally with a needle, carrying its shank curved longitudinally and provided with a hook near its point.
 I also claim as an improvement a sewing machine, as constructed not only with its needle curved and hooked, but with the same and the rest cast off and needle-closer made to operate in curved paths, having a common center or axis, as described.
 I also claim the combination of the curved and hooked needle with the foot, constructed with a concave bottom, and with a chamfer, or with their mechanical equivalents, so as to form a ridge around the said bottom and inside of its outer edge, as specified.
 I also claim the combination of the last holder with its carrying plate, in such manner as to enable the former, to be inclined with respect to the latter, substantially in manner as set forth.
 I also claim the above-described arrangement of the feeding mechanism with respect to the last carrying-plate supporter, M, and the sewing mechanism.

I also claim a curved awl and a curved hook needle, arranged and combined with a guide wheel, G, and a last having a concave bottom, the whole being in manner substantially as specified.

1,364.—Metallic Car for Railroads.—La Mothe Life-preserving Iron Car Co. (assignees of B. J. La Mothe), New York City. Patented Sept. 24, 1861 : I claim, first, The construction of the frames of railroad cars and other vehicles, of tubes or of bars combined, substantially in the manner described.
 Second, Connecting the separate tubes of which the ribs are composed, and strengthening the corners by inserting the tubes within each other or by the insertion of additional tubes or rods, as specified.
 Third, Clamping the intersections by means of the sleeve sockets, i, fitting loosely over the bars or tubes, midway between the ribs, driving tightly against them.
 Fourth, The pair of rivets or bolted clamps, h, Figs. 6 and 7, securing the intersecting bars or tubes without perforating the latter with holes.

1,365.—Grate for Stoves.—S. H. Ransom & Co. (assignees of Isaac Smith), Albany, N. Y. Patented Nov. 27, 1860 : I claim suspending the grate by cranes or hinges, substantially as set forth.

1,366.—Grain and Seed Winnower.—George Westinghouse, Schenectady, N. Y. Patented March 4, 1862 : I claim the combination of the swinging shoe, H, operating as described, with the fan, C, when the blast of the latter operates upon the former in the manner and for the purpose specified.

EXTENSION.

5,966.—Scoop and Elevator.—Ephraim Morris, New York City. Extended Nov. 26, 1862 : I claim the application of the two-part scoop, g, g, at the lower end of the frame, a, a, conjointly with the arrangement described and shown, by which the toggle-joint arms, h, h, h, close the scoops to load, when acted on by the rope or chain, 10, which afterward raises the scoops and load, and through which arrangement the same parts open the scoop to discharge the load, when acted on the toggle-joint arms, through the shafts, b and c, and drums, c and d, substantially in the manner hereinbefore described and shown.

DESIGNS.

1,695.—Pattern of Floor-cloth, &c.—David Foyer, Dover, N. H., assignor to Abraham Folsom & Son, Boston, Mass.

1,696.—Stove Plate.—Julius Hobzer (assignor to E. M. Manigle), of Philadelphia, Pa.

1,697.—Stove.—J. D. Marshbank (assignor to himself and William McConkey), of Lancaster, Pa.

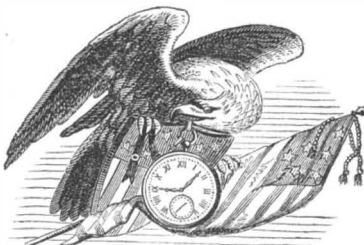
1,698, 1,699, 1,700.—Carpet Patterns.—E. J. Ney (assignor to the Lowell Manufacturing Company), of Lowell, Mass.

1,701.—Military Hat.—W. F. Warburton, Philadelphia, Pa.

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Inventors will do well to bear in mind that the English law does not limit the issue of Patents to Inventors. Any one can take out a Patent there.

Circulars of information concerning the proper course to be pursued in obtaining Patents in foreign countries through our Agency, the requirements of different Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park-row, New York, or either of our Branch Offices.

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ments, &c. Our success in the prosecution of rejected cases has been very great. The principal portion of our charge is generally left dependent upon the final result.

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J. W. R., of Ill.—There is no good work published on milling and millwrighting according to American practice. There is a great variety of opinion among millers respecting the best dress and the speed of stones. We advise you to visit some of the best mills and examine all the machinery. The information you would thus acquire would be of immense benefit to you.

C. H., of N. Y.—Jordan almonds are the bitter almonds which are natives of Syria. The common bitter almonds will answer your purpose in making cosmetics.

W. R. B., of N. H.—We have no data at hand from which we can give you reliable figures for the frictional grooved wheels in question. The dimensions in question will be readily supplied by the makers of such machinery—the Novelty works in this city.

J. F., of Wis.—Wm. Gates, of Frankfort, N. Y., is a reliable manufacturer of friction matches. We cannot answer your other inquiries satisfactorily; there is no accounting for the whims and conceits of men. \$1 received for four months' subscription.

L. V. R., of N. Y.—You can obtain pistol-saving metallic cartridges of J. W. Storrs, No. 256 Broadway, in this city.

J. E., of C. W.—We do not think you could employ any method, practically valuable, more advantageously than your present one. There are several methods of making carbonic acid gas known to science, but the quality most suitable for your use is made by sulphuric acid and marble dust.

W. M., of N. Y.—We do not care to discuss the currency question at any length in our columns. We devote but little space to such subjects and therefore must decline your article. We do not undertake to preserve contributions sent to us for publication. Parties should keep copies if they wish to preserve their papers.

J. W. M., of N. Y.—There are certain kinds of powder on sale at druggists, which are good to drive away roaches. Get something of this kind and use it thoroughly and you may succeed in getting rid of the pest. We know of nothing better.

L. L., of Pa.—Your suggestion to divide postage-stamps in the center by a series of holes so as to allow one-half the stamp to be torn off is a good one, but it is not new. The same thing has been suggested to us before.

R. V. DeW., of N. Y.; L. K., of Ohio, and several others.—Your interesting communications have been received and will appear as soon as possible.

A. W., of Mass.—The Ruhmkorff coil is the most powerful electrical apparatus for decomposing water. Mr. Ritchie, of Boston, manufactures a superior apparatus of this character.

H. A. G., of Mo.—If you wish to become an engineer you must serve an apprenticeship until you are twenty-one years of age. Apply to any steam-engine builder, and if he wants your services he will give you the conditions under which you will be accepted.

J. B., of Cal.—It affords us pleasure to know that the chemical information published in our columns has been the source of so much pleasure and profit to you. The aniline colors which have so interested you may be those which are eliminated in nature's laboratory in embellishing the flowers of the field, but man knows very little about the forces which govern the functions of plants in secreting their colors.

H. S., of Ill.—You could undoubtedly boil the liquid at a much lower pressure of steam by increasing the amount of radial surface through which it passes; precisely how much less would depend wholly upon the increased radiation. You will not experience any difficulty, we think, from the cause you apprehend, unless you wire-draw the steam by crowding it through narrow tubes; none less in diameter than $\frac{3}{4}$ ths of an inch should be used. These are the size of those which are inserted in the condensers of our ocean steamers.

D. C. S., of Iowa.—Magnesium wire cannot be obtained here.

D. S., of Wis.—Smee's work on electro-metallurgy is published by J. Wiley, of this city. Napier's work on the same subject is of more recent date. It is an English publication. We do not know its price. Electro-plating, if well executed, and a good thick coating put on, is said to be as permanent as fire-plating for carriage irons. We have not heard of any experiments being made however, to test the comparative durability of the two systems.

D. S., of N. Y.—Every speck of mold or mildew upon a sail or other cloth injures the cloth beyond recovery, because the mildew is really a decay of the fabric caused by fungi. Every spot of mildew should be brushed off the moment it is noticed. Fungi or mildew generally appears when sail-cloth is reefed or folded up damp.

A. P. T., of Mass.—The information which we can give you respecting the preparation of dry collodion-paper for artists has been published in our columns. Many artists state that they have never seen good pictures produced with dry sheets.

M. & S., of Pa.—Light iron patterns can easily be coated with wax, but shellac varnish is the best that can be applied to wooden patterns. The shellac is dissolved in alcohol, and three coats of varnish should be put on. We have been informed that a coating of bees' wax mixed with turpentine is easily applied and is excellent for both iron and wood patterns as a priming for a second coating with shellac varnish.

G. B. F., of Conn.—The fiber of the milk-weed is beautiful and silky, but it appears to be too weak even for the manufacture of paper. Some experiments however, should be made to test its capabilities for this object. Your torpedo is original so far as it relates to its mode of propulsion by rockets, but we think it would be difficult to control. Thus far submarine torpedoes have, in most instances, proved failures.

D. W. W., of N. Y.—We are not in possession of practical information received from any of our correspondents as to the relative merits of the diamond and the steel pick in dressing millstones. Most all our correspondents who are millers use the steel pick.

A. M., of Wis.—Parallel shafts generally run easier when connected with small than large cog gearing. We would prefer a wheel of one foot in diameter to one three feet, when the distance between the shafts is of no consequence and the speed of the shafts is equal.

C. C., of D. C.—The chloride of calcium and the chloride of lime are two very different things. You have been using the latter to make artificial stones and no wonder you failed. The chloride of calcium is made with hydrochloric acid (muriatic) and chalk, or carbonate of lime. The common chloride of lime is made with hydrate of lime and chlorine gas. Harding's process for making the silicate of soda is patented.

T. S. S., of Va.—It has been proposed to us several times to arm gunboats with a submarine gun on the bow of each, which is a more plausible application than furnishing them with a percussion shell each, because the submarine gun embraces a mode of loading and firing under water. The muzzle of the submarine gun was also to be used as a ram.

Money Received

At the Scientific American Office on account of Patent Office business, from Wednesday, December 17, to Wednesday, December 24, 1862:—

W. H. W., of R. I., \$25; A. H. E., of N. Y., \$150; P. & G., of N. Y., \$30; C. D., of Min., \$30; H. L. C., of N. Y., \$15; T. N. D., of Ind., \$20; M. R. S., of N. Y., \$45; T. D. L., of N. H., \$25; J. C. C., of Pa., \$25; J. W. L., of N. Y., \$22; D. I. S., of N. Y., \$15; G. F. J. C., of N. J., \$35; W. H. F., of Mass., \$20; L. S., of N. Y., \$25; J. A. L., of N. Y., \$45; J. E. S., of Me., \$20; S. W., of N. Y., \$20; A. M., of N. Y., \$12; W. J. D., of N. Y., \$25; E. B., of N. Y., \$15; A. B. H., of Pa., \$35; S. L., of O., \$10; S. T. S., of Mass., \$15; J. B. McC., of Mo., \$40; W. T. M., of Ill., \$25; S. W., of Mass., \$30; R. B., of Cal., \$30; F. B., of Conn., \$45; A. L., of N. Y., \$20; G. J., of N. Y., \$20; J. A., of Pa., \$45; C. W. P., of N. Y., \$20; W. H. S., of N. Y., \$15; J. T. B., of Ill., \$10; D. D., of O., \$20; T. W. B., of N. J., \$25; A. S. L., of N. Y., \$136; L. O. C., of Pa., \$30; C. C. W., of Pa., \$25; W. F. G., of Pa., \$25; G. W. F., of N. Y., \$15; C. B., of Me., \$25; L. C., of Mass., \$15; J. H., of Iowa, \$15; P. & C., of N. Y., \$25; A. C., of N. B., \$40; A. M., of N. Y., \$22; P. McG., of Iowa, \$20; W. R. G., of N. Y., \$20; H. B. F., of N. Y., \$15; W. P., of N. Y., \$35; H. H. S., of N. Y., \$20.

Persons having remitted money to this office will please to examine the above list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, and inform us the amount, and how it was sent, whether by mail or express.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from December 17, to Wednesday, December 24, 1862:—

P. & C., of N. Y.; J. W. L., of N. Y.; A. M., of N. Y.; W. H. W., of R. I.; G. F. J. C., of N. J.; A. B. H., of Pa.; W. J. D., of N. Y.; W. F. G., of Pa.; C. C. W., of Pa.; E. J. M., of N. Y.; F. C. G. H., of N. Y.; W. T. M., of Ill.; H. F., of O.; C. D., of Min.; A. H. C., of N. Y.; L. S., of N. Y.

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