

Escaping from Fire.

Human life has been often thrown away from persons not taking the precaution to accustom their minds to dwell at times on the proper method of acting in emergencies. From want of this, many rush into the very jaws of death, when a single moment's calm reflection would have pointed out a certain and easy means of escape. It is the more necessary to fix in the mind a general course of action in case of being in a house while it is on fire, since the most dangerous conflagrations occur at dead of night; and at the moment of being aroused from a sound sleep, the brain is apt to become too confused to direct the bodily movements with any kind of appropriateness, without some previous preparation in the manner contained herein. The London Fire Department suggests, in case premises are on fire,

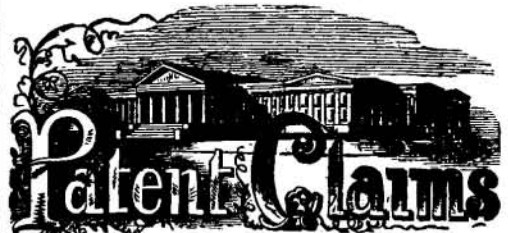
- 1. Be careful to acquaint yourself with the best means of exit from the house, both at the top and bottom.
2. On the first alarm, reflect before you act. If in bed at the time, wrap yourself in a blanket or bed-side carpet. Open no more doors than are absolutely necessary, and shut every door after you.
3. There is always from eight to twelve inches of pure air close to the ground; if you cannot, therefore, walk upright through the smoke, drop on your hands and knees, and thus progress. A wetted silk handkerchief, a piece of flannel, or a worsted stocking, drawn over the face, permits breathing, and, to a great extent, excludes the smoke.
4. If you can neither make your way upward nor downward, get into a front room; if there is a family, see that they are all collected here, and keep the door closed as much as possible, for remember that smoke always follows a draught, and fire always rushes after smoke.
5. On no account throw yourself, or allow others to throw themselves, from the window. If no assistance is at hand, and you are in extremity, tie the sheets together, having fastened one side to some heavy piece of furniture, and let down the women and children one by one, by tying the end of the line of sheets around the waist, and lowering them through the window that is over the door, rather than one that is over the area. You can easily let yourself down after the helpless are saved.
6. If a woman's clothes catch fire, let her instantly roll herself over and over on the ground. If a man be present, let him throw her down and do the like, and then wrap her up in a rug, coat, or the first woolen thing that is at hand.

Of the preceding suggestions, there are two which cannot be too deeply engraven on the mind, that the air is comparatively pure within a foot of the floor, and that any wetted silk or woolen texture thrown over the face excludes smoke to a great extent; it is often the case that the sleeper is awakened by the suffocating effects of the smoke, and the very first effort should be to get rid of it, so as to give time to compose the mind, and make some muscular effort to escape.

In case any portion of the body is burned, it cannot be too strongly impressed on the mind that putting the burned part under water, or milk, or other bland fluid, gives instantaneous and perfect relief from all pain whatever; and there it should remain until the burn can be covered perfectly with half an inch or more of common wheaten flour, put on with a dredging-box, or in any other way, and allowed to remain until a cure is effected; when the dry, caked flour will fall off, or can be softened with water, disclosing a beautiful, new, and healthful skin, in all cases where the burns have been superficial. But in any case of burn, the first effort should be to compose the mind, by instantaneously removing bodily pain, which is done as above named; the philosophy of it being, that the fluid, whether water, milk, oil, &c., excludes the air from the wound; the flour does the same thing; and it is rare indeed that water and flour are not instantaneously to be had in all habitable localities.—Hall's Journal of Health.

METEOR.—A brilliant meteor was seen in New York on the 24th inst., about 10 P. M., moving in a north-westerly direction.

A TREMENDOUS fire in Havana, Cuba, recently consumed \$5,000,000 worth of property.



ISSUED FROM THE UNITED STATES PATENT OFFICE FOR THE WEEK ENDING JULY 28, 1863. Reported Officially for the Scientific American.

** 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.

39,332.—Traction and Connecting Apparatus for Railroad Trains.—Claude Arnoux, Paris, France. Patented in England Dec. 24, 1861.

I claim the draw-bar, F, when arranged to turn the front and rear axles of the car through the medium of the rods, I and I', sleeves, J and J', lever, G, rods, K and K', and rods, H and H', or a system of rods and levers equivalent to the same, substantially as and for the purpose herein set forth.

39,333.—Plant Fender.—Philo Barber, Lstant, Ill. I claim, first, A fender-guard, consisting of longitudinal rods and sliding transverse rods, put together in such a manner as to form a sieve, the meshes of which are capable of being extended or contracted, substantially as and for the purposes herein described.

Second, In combination with a flexible fender constructed substantially as described, the extension rod, c, or its equivalent, substantially as described.

Third, A fender or plant shield constructed of longitudinal and transverse wire rods looped together and twisted so as to constitute an open sieve-like frame, substantially as described, whether the meshes of the fender are variable or invariable in size.

39,334.—Tool for finishing Buckets and Tubs.—J. W. Bartlett, Harmer, Ohio, and A. Morris, Marietta, Ohio.

We claim the bit-stocks, D B, and the bits, e C, or their equivalent, in combination with the crozing bits, ff, in the manner and for the purpose we have herein set forth.

39,335.—Leather-rounding Machine.—Philip Beckman, Naperville, Ill. I claim, as a new article of manufacture, a leather-worker's rounding machine, so constructed that the adjoining faces of the parts below which the leather is rounded shall overlap, in the manner and for the purpose substantially as set forth.

39,336.—Cording-guide for Sewing Machines.—C. P. Benedict, New York City. I claim the construction of the cord guide, and its attachment to the frame in a manner that it can be turned around the point at which the cord is delivered as a center to accommodate the work to be performed, substantially as and for the purpose set forth.

39,337.—Cultivator.—John Burns, Franklin, Ohio. I claim the attachment of the handles, G, at their forward end to the upper end of the perforated cross-shaped clevis, E, which is formed on and made a part of the central beam, A, in the manner described, in combination with the stay rods, H, and beams, A B B, when arranged in the manner and for the purpose specified.

39,338.—Saw-mill.—Henry Caslow, York, Pa. I claim, first, Operating the log carriage by means of the cone-pulleys, and the toothed wheels, a, f, g, so as to enable the saw to cut the timber both ways, substantially as herein described.

Second, The combination of cone pulleys, main driving saw shaft balance wheel, i and pitman, with the log carriage, substantially as and for the purpose described.

Third, The laterally-sliding trundle wheels, t, g, levers, spring and catches, with the adjustable clamps on the longitudinal bars, operating substantially as and for the purposes described.

Fourth, The saw sash constructed with a spring-back for stretching and keeping the saw under constant tension, substantially as herein described.

Fifth, The slotted yokes or loops applied to the saw sash and adapted for receiving two single saw blades, in conjunction with a spring-backed saw sash, substantially as described.

Sixth, The combination of vibrating arms, working in a slotted plate, on a pitman, rock-shaft, vibrating arms, pawls, and double, right-and-left ratchet wheel, j, with their spring supporting rods and latches, all arranged and operating substantially as herein described.

39,339.—Bung-cutter.—Jes. Christiansen, Milwaukee, Wis. I claim, first, The arrangement of the parts, substantially as herein described, so as to constitute a machine for cutting tapering bungs.

Second, The movable apparatus, I, to hold the timber in place, substantially as described.

Third, The cutting knife, figures 7 and 8, with spurs, to head down, and projecting edge to clear the chips, substantially as and for the purpose described.

39,340.—Clothes-frame.—John Danner, Canton, Ohio. I claim the combination of the arms, a', having small inclined grooves, f, with the revolving head, b, and circular wire, c, constructed, arranged, and operated substantially in the manner and for the purposes described.

39,341.—Washing Machine.—John Danner, Canton, Ohio. I claim the combination with a stationary wash box of a rotating rounded-slotted cylinder, provided with knobs, G, and weighted balls, the whole being constructed and operating substantially as set forth.

39,342.—Carbureting Gas from Steam and Hydro-carbons.—W. H. Gwynne, White Plains, N. Y. Ante-dated Jan. 19, 1863. I claim making illuminating gas from water and hydro-carbons, by passing the water gas through any liquid hydro-carbon, contained in a reservoir, attached to a gas fixture.

39,343.—Washing Machine.—Ashman Hall, Dansville, N. Y. I claim, first, The ashboard composed of alternately right-and-left, or zig-zag, open surfaces, substantially as described.

Second, A washboard constructed with a soap suds receptacle, m, arranged beneath the open slatted surface, l, substantially as and for the purposes described.

Third, Combining with the zig-zag ribbed and waved washboard the spirally-ribbed rollers, the ribs of which run in opposite directions on each roller, substantially as, and for the purposes herein described.

39,344.—Slide Valve for Steam Engines.—J. F. Hamilton, Pittsburgh, Pa. I claim the use of the grooves, r, and inclined planes, e, when used in combination with the plate, c, screw, f, and a metallic compound, as herein described and for the purpose set forth.

39,345.—Wagon.—L. M. Ham, Boston, and J. H. Dodge, Chelsea, Mass. We claim, first, The means herein described for obviating the strain upon the center-bolt or rod of the front axle-tree, the same consisting of the connecting chain, u, and fixed staple, v, arranged with regard to the same, and operating substantially as specified.

Second, The arrangement of the pole with regard to the body, the springs and fucellae of the front axle-tree, substantially as herein described and for the purpose specified.

39,346.—Tunnel Measure.—J. J. Hillman, Boston, Mass. Ante-dated Feb. 29, 1863.

I claim, in combination with the hinged valve, e, at the bottom of the tunnel, the swinging elastic handle, H, substantially as described, and for the objects specified.

39,347.—Knitting-machine Burr.—George Jackson and Geo. Campbell, Cohoes, N. Y. We claim a knitting burr blade, A, having a tapered shank, b, provided with a projection, c, so that a series of the blades can be secured in a slotted hub, E, by means of a ring, F, on one side only of the burr and surrounding the shanks, substantially as herein described.

We also claim a knitting burr having a series of blades, A, provided with tapered shanks, b, and projection a, c, thereon, and fastened in a slotted hub, E, by a ring, F, on one side only of the burr, and surrounding the shanks, and secured thereon by a tightening and holding device, H I, substantially as herein set forth.

39,348.—Apparatus for Injections.—Claude Andre Jozanski, Saint Romain, France. I claim, first, The elliptical bent plate, D E, and pap or conoidal projection, F, G, forming part thereof, or their equivalents constituting a mouth-piece which when inserted into the organ will form an air-tight joint, for the purposes set forth and substantially as described and represented on the annexed drawings.

Second, The mode of making said conoidal mouth-piece, D E F G, hollow, and providing it with an outlet as at L and M, for the purpose of drawing off the spent liquid, substantially as described and shown on the drawings annexed.

Third, The arrangement of the pumping apparatus, with the projection, U, on the pipe, A B C, and with the pipe, A' B', attached to the said pipe, A B C, in the form of a cross, in combination with the bent plate, D E, and conoidal projection, F G, substantially as and for the purpose described.

39,349.—Locomotive Horse, for Vehicles, &c.—Philip W. Mackenzie, Jersey City, N. J. I claim, first, In combination with a horse or proper seat for the rider, the employment of a cranked axle having three or more centers, alternately described, whereby the weight of the rider being alternately shifted from the saddle or seat to the foot rests, produces a rotary motion of the vehicle, substantially as described and set forth.

Second, I claim in combination with a horse or other proper seat for an erect position of the rider, the steering mechanism consisting of the front wheels, F I, and plates, d, i, or their equivalents, whereby the hind wheels can be readily turned, and the direction of the vehicle perfectly governed at whatever pitch the body of the rider may be, substantially as described and specified.

Third, I claim in combination with a steering mechanism substantially as described, the fork, G, and cross-head, f, or their equivalents, and the bit or lever in the mouth of the horse so that by drawing the bridle the vehicle can be perfectly directed by the rider while in the seat, substantially as described and specified.

Fourth, I claim mounting a horse or proper seat for an erect position of the rider upon wheels so that it may be propelled by the weight of the rider and guided in any direction, substantially as specified and set forth.

Fifth, I also claim in combination with the steering and propelling mechanism, making the body of the horse hollow, substantially as described, whereby I am enabled to obviate the danger of capsizing consequent upon a solid heavy horse, and for the purpose of readily adjusting and securing the steering mechanism therein, substantially as set forth and specified.

39,350.—Manufacture of Illuminating Gas.—William P. McConnell, Washington, D. C. I claim the improvement herein described in making illuminating gas from petroleum or coal oil, viz., subjecting the products of destructive distillation therefrom to a high degree of heat, substantially in the manner and for the purposes herein set forth.

39,351.—Snap Hook.—F. Palmer, Janesville, Wis. I claim, first, Combining with the notched shank, a, and hook, b, the sliding spring tongue, e, and locking bar, f, operating substantially as and for the purposes herein described.

Second, Enclosing a flat spring, g, which throws the locking bar, f, in its place in the notch, i, within the sliding box, d, substantially as and for the purposes herein described.

Third, In combination with a square notched shank, a, the rectangular sliding box, d, tongue, e, ears, e' e', and locking bar, f, substantially as herein described.

Fourth, A sliding spring tongue, e, which is capable of being depressed upon the shank, a, and also slid longitudinally to unlock and open the snap, substantially as herein described.

39,352.—Machine for Cutting Veneers.—Harrison Parker & Charles W. Hawkes, Boston, Mass. We claim the arrangement of the knife, c, bed-plate, D, head-block, G, feed-screws, H H, lever, g, and rocker-shaft, d, all arranged and operated as set forth.

39,353.—Washing Machine.—Moses Perin, Lakeland, Minn. I claim the combination and arrangement of the slatted drum, B, which is held down by the yielding pressure of boxed springs, c, c, with a rolling concave bed, with side supporting rockers, h, h, which are suspended beneath said drum by means of links, i, i, and outside springs, e, e, substantially as described.

39,354.—Manufacturing Bomb Shells.—Abiel Pevey, Lowell, Mass. I claim, first, The journal boxes, C, of the flask, A, as herein described.

Second, Also the rammer as herein described.

Third, Also the pattern, D, as herein described.

Fourth, Also the core-box, as herein described, all corresponding so as to fit the journal boxes, C, of the flask, for the purpose set forth.

39,355.—Carding Engine.—Robert Plews, Smithfield, R. I. I claim, first, The combination of a transverse adjustable blade, G, or a pair of adjustable blades, G G, with the cylinder of a machine for carding fibrous material, substantially as described for the purposes specified.

Second, Intercepting the current of air generated by the cylinder of a carding machine when in operation by means of a transverse adjustable cutting blade, G, or its equivalent, substantially as described for the purposes specified.

39,356.—Stilt for burning Earthenware.—Philip Pointon (assignor to James Ford & Charles Leek), Trenton, N. J. I claim making said stilt, with a pointer lower end to fit a hole or cavity in a base plate, stand or cagger, or the hole or cavity in the next stilt below; and with a hole or cavity in the upper end to receive the next stilt above, and with one or more spurs at the side to support the ware when burned.

39,357.—Apparatus for heating Wagon Tires.—Samuel G. Reed, Worcester, Mass. I claim the application of gas for heating tire.

I also claim the apparatus for heating tire when constructed in the manner, or its equivalent, substantially as and for the purpose set forth.

39,358.—Raking and Binding Apparatus for Reaping Machines.—A. B. Smith, Clinton, Pa. Ante-dated Jan. 20, 1862. I claim the arrangement of the parts, E E' E'', composing a separate and complete frame, and so as to be attached to the main frame, A, by a single bolt, Z, substantially as and for the purposes described.

I also claim the combination and arrangement of the cam, T, sliding bar, V, and tappet, U, substantially as set forth, for the purpose of producing the return vibratory motion of the rock-shaft, J, to open the compressing and binding arms, by a positive movement.

I also claim the combination and arrangement of the vibrating lever, O, its notch, s, and the pin, r, for operating the band hook, N, substantially as herein specified.

I also claim the thin lip, l, projecting closely over the hook, N, in the manner and for the purpose set forth.

I also claim carrying the rake forward beyond or within the ends of the arms, L M, by means of the crank-shaped bend, g, in the rake-head, C, or any equivalent means, for the purpose specified.

I also claim the guards, e, e, behind the rake-teeth, f, f, or their equivalents, operating substantially as set forth.

39,359.—Breech-loading Ordnance.—A. B. Smith, Clinton, Pa. Ante-dated Jan. 10, 1863. I claim the combination of the packing cap, H, with the loosely fitting mandrel, B, being attached thereto, so as to have a side play, in all directions, and thus adapt itself concentrically in the breech-chamber, substantially as and for the purposes herein specified.

39,360.—Washing Machine.—Hamilton E. Smith, Pittsburgh, Pa.:

I claim, first, The perforated vessel, B, hung within a trough, A, and actuated from any adjacent driving shaft through the medium of the devices herein described, or any equivalent to the same, for the purpose of reversing the motion of the vessel at intervals.

Second, Operating the strap guides, said M, by means of a cam wheel, P, or its equivalent, to which a continuous rotary motion is imparted by means of the loose pulley, L', and strap, M, and any desired system of intermediate gearing, substantially as described.

39,361.—Artificial Leg.—Uriah Smith, Battle Creek, Mich.:

I claim, first, A knee-joint formed by the two parts, A, B, representing the femur and tibia, brought together in such a way as to take bearings end to end against each other, and held in their normal relations to each other by the straps, g, h, h', the side pieces C, C, the bar, D, and the pins, P, P, the ends of the said pieces, A, B, being rounded so as to allow the knee to be flexed to the full extent of the natural limb.

Second, I claim a knee-stop formed by the cross-bars, E E F F, or their equivalents, acting upon the bar, D, substantially as and for the purpose herein set forth.

Third, I claim an ankle-joint formed by the projections, a, a, upon the tibia, resting upon the corresponding shoulders, b, b, of the foot piece, I, in connection with the straps, c, d, and the cord, u, as herein set forth and described.

Fourth, I claim the cord, L, or its equivalent, attached to the instep of the foot, passing up under the patella and attaching at some point above the leg, to the supporting strap, S, to operate both the knee and ankle joints, substantially in the manner herein specified.

39,362.—Combination of the Strap and Hone.—George Snyder, Philadelphia, Pa.:

I claim as a new article of manufacture the block, A, hone, B, lid, C, and strap, d, with a case, D, the whole being constructed and arranged as and for the purpose described.

39,363.—Means of Checking and Resisting Missiles.—Alexander C. Twining, New Haven, Conn. Ante-dated April 11, 1863:

I claim, first, The above construction or arrangement by successive plates or layers, with the successive separating spaces or intervals between, and with lugs or angle irons or projections when necessary, or my construction, substantially the same, all for the purpose above described.

Second, I claim the mode of constructing the successive plates or layers and spaces between by bending forward and back a single plate (or plates placed side by side in layers) from outside to inside or vice versa, substantially as and for the purpose specified.

39,364.—Manufacture of Malleable Iron and Steel.—Edward Brown Wilson, Westminster, England:

I claim the peculiar construction and arrangement of apparatus for manufacturing malleable iron and steel, as hereinbefore described and illustrated in the annexed drawings, so that the tuyere or tuyeres may be out of contact with the molten metal and blow the air or gases down upon and through the metal in place of blowing up through or around the same, as heretofore.

39,365.—Hay and Cotton Press.—Platt C. Ingersoll (assignor to himself and H. F. Dougherty), Green Point, N. Y.:

I claim connecting the levers, D, D, to each end of the follower, F, by means of the two connecting rods, d and joints, G, G, and also controlling the movement of the said levers by the friction rollers, H, H, and the outside rods B' B', as shown and for the purposes before specified.

39,366.—Channeling Tool.—Joseph B. Johnson (assignor to John B. Nichols), of Lynn, Mass.:

I claim my improved sole channelling apparatus as made of the separate tubular and angular cutters, B, C, and a guidestock, A, (made substantially as described) fastened together by one or more screws or devices which will admit of such cutters being adjusted with reference to one another, as well as either one or both being removed from the stock for the purpose of being sharpened, or for any other purpose, as circumstances may require.

39,367.—Windlass.—John J. Kersey, Bearstown, Pa., assignor to himself and Robert L. McClellan, Cochranville, Pa.:

I claim the arrangement of the movable drum, H, with its flange, I, in combination with the stationary brake, G, the pinion, K, on the shaft that revolves the drum, in connection with the shifting lever, E, hold-fast or ratchet, F, all operating substantially in the manner and for the purpose specified.

39,368.—Tea Kettle.—William H. Leselle (assignor to himself and Augustus G. Seaman), Brooklyn, N. Y.:

I claim the combination of the kettle, g, and connecting pipes, d, d, with the suspended dish-shaped boiler, E, when the whole are constructed, arranged and operate as described, for the purpose specified.

39,369.—Compound Sub-caliber Projectile.—Clifford Arick, St. Clairsville, Ohio:

I claim, first, Loading with incendiary, explosive or other destructive material, the bearings or the casing and bearings used for projecting from a gun a "sub-caliber shot."

Second, So arranging the bearings used for projecting a sub-caliber shot or bolt from a gun that, on its flight, the shot and its bearings or its bearings and casing shall be separated by atmospheric and other causes; in such manner that the sub-caliber shot shall act as a penetrating projectile, and its bearings and casing either all or all of them as may be most desirable, shall act in conjunction with it as an effective following shot.

Third, A casing for a sub-caliber bolt or shot with its bearings arranged with suitable chambers for the reception of explosive incendiary or other destructive material, to be operated in any manner as and for a following shot.

Fourth, A conical and grooved casing, or with otherwise perforated bearings for a "sub-caliber shot" or a grooved shot, whereby the atmosphere is admitted from its front to its rear, in the manner and for the purpose described.

Fifth, A supplemental chamber made of glass or other suitable material, and adapted to the bearings and casing for a sub-caliber shot, and as an auxiliary chamber for the reception of destructive material, to increase the efficiency of a following shot, substantially as and for the purpose set forth.

Sixth, A sub-caliber shot, in combination with an incendiary shell, acting as its bearings, or its casing and bearings, and whether detachable or not, substantially as described.

Seventh, The introduction of air-passages through the bearings or the casing and casing of a sub-caliber shot, for regulating the flight of a following shot, substantially as described.

Eighth, A combined sub-caliber shot and following shot with its accompanying chambers for the reception of destructives, with its constructed and resulting openings for the admission of air from its front flanges to its rear, constructed and operating substantially as and for the purposes set forth.

RE-ISSUE.

1,514.—Halter Ring.—Lucius C. Chase, Boston, Mass. Patented April 30, 1861:

I claim, first, Attaching a halter-dee, or other harness ring, to a halter, or harness-strap by means of one or more rivets passing through holes in one or more flanges on said dee or ring, substantially as set forth and for the purpose described.

Second, Providing the edge of the flange or flanges, a, with the rim or rims, f, substantially as described and for the purpose specified.

DESIGN.

1,805.—Label.—Charles H. Weis, Philadelphia, Pa., assignor to W. H. Swift and Henry B. Courtney, Wilmington, Del.

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On filing each application for a Patent, except for a design.....	\$15
On issuing each original Patent.....	\$20
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Persons desiring to file a caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention. The Government fee for a caveat, under the new law, is \$10. A pamphlet of advice regarding applications for patents and caveats, printed in English and German, is furnished gratis on application by mail. Address MUNN & CO., No. 37 Park Row, New York.

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We are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business we have offices at Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Hetrochiers, Brussels. We think we can safely say that THOMAS-FROSTERS of all the European Patents secured to American citizens are procured through the Scientific American Patent Agency, No. 37 Park Row, New York.

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 Government Patent Offices, &c., may be had gratis upon application at our principal office, No. 37 Park Row, New York, or any of our branch offices.

ASSIGNMENTS OF PATENTS.

Assignments of patents, and agreements between patentees and manufacturers are carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American Patent Agency, No. 37 Park Row, New York.

It would require many columns to detail all the ways in which inventors or patentees may be served at our offices. We cordially invite all who have anything to do with patent property or inventions to call at our extensive offices, No. 37 Park Row, New York, where any questions regarding the rights of patentees will be cheerfully answered.

Communications and remittances by mail, and models by express (prepaid), should be addressed to MUNN & CO., No. 37 Park Row, New York.



T. R. W., of Wis.—In referring hereafter to any article which has been published in our columns, cite the page and volume, not the date, which will save us a great deal of trouble in looking for it. Saleratus is a carbonate of soda. When mixed with flour in a state of dough, it produces raised bread; the carbonic acid gas being set free by the heat during the operation of baking.

C. A. M., of C. W.—Naphtha and benzole dissolve india-rubber rapidly; and make a water-proof varnish that dries much sooner than a varnish made with india-rubber and turpentine.

H. R. G., of N. Y.—If you wish to obtain employment in the Novelty Works you must apply in person; no letters will be noticed.

K. J. O., of Cal.—To manufacture the soluble silicates, special apparatus is necessary. The quartz must be ground, and dissolved under pressure, in an alkaline solution. It can also be made by fusing silica with an excess of alkali; then grinding the product after it becomes cold, and dissolving it in boiling water.

O. E. M., of Ill.—You will find a history of mineral Franklinite in the new American Cyclopaedia, also on page 393 Vol. V, current series of the SCIENTIFIC AMERICAN.

“Amateur Mechanic.”—Smooth iron castings are made every day, as you may see by looking at any sewing machine. Still finer qualities of this kind of work are made at Berlin, Prussia, for jewelry; which are not retouched at all. Your remarks respecting the round nose and diamond point tools are sensible; but your opinion of the article you mention is not. You misapprehend most utterly the tone of our criticisms; we desire to lead men to investigate the best form of turning tools for themselves, believing that they will be much benefited thereby. Chain feed is discarded by the best tool makers, at home and abroad; for reasons which are obvious to every unprejudiced person.

J. M., of R. I.—We are much obliged for your compliments respecting our considerations of the interests of mechanics. We are daily in the receipt of such friendly letters as yours.

R. L., of Mich.—We do not think that the article you speak of has ever been patented in this country. We cannot find any record of it.

T. B., of Conn.—A revolving teasing fork is not a novelty. We have seen them in use many long years ago.

Money Received

At the Scientific American Office, on account of Patent Office business, from Wednesday, July 29, to Wednesday, August 5, 1863:—

- T. H. B., of Mass., \$25; N. B. B., of N. Y., \$25; C. W. & W. W. M., of Ill., \$15; J. C., of Canada, \$30; A. J. A., of Ill., \$25; J. F. J., of N. Y., \$15; D. E. H., of Mass., \$15; D. H. B., of Iowa, \$25; O. P., of Vt., \$41; N. C. S., of Conn., \$16; O. F. W., of Conn., \$602; G. & H., of Mass., \$25; K. C. & B., of Wis., \$23; H. & J., of Wis., \$56; B. B. B., of N. B. Ter., \$10; S. H. of Wis., \$16; A. J. S., of Ill., \$25; G. S. P., of U. S. N., \$26; C. C., of Cal., \$45; F. & W., of N. Y., \$150; S. G., of Ill., \$25; B. McC., of Conn., \$16; C. F. B., of Conn., \$10; D. L., of Vt., \$16; M. C. B., of Ill., \$25; J. H., of Ill., \$25; P. B., of Ill., \$25; G. W. H., of N. Y., \$230; P. McG., of Iowa, \$25; P. T., of N. Y., \$16; B. O. B., of N. Y., \$20; G. B., of N. Y., \$45; H. P., of N. Y., \$40; T. S., of Ill., \$20; C. O., of N. Y., \$20; J. T., of N. Y., \$20; C. T. D., of N. J., \$65; W. F., of N. Y., \$20; H. D. L., of Mass., \$20; D. A. H., of N. Y., \$25; A. V. B., of N. Y., \$20; L. W. B., of Mich., \$40; J. S., of N. Y., \$16; J. M., of N. Y., \$41; C. N., of N. Y., \$41; G. F., of N. Y., \$20; W. H. B., of N. Y., \$25; J. P. A., of Ill., \$20; W. J., of N. H., \$20; R. H. J., of Ill., \$20; H. B. M.