



Reported Officially for the Scientific American  
**LIST OF PATENT CLAIMS**  
 Issued from the United States Patent Office  
 FOR THE WEEK ENDING JUNE 1, 1852.

**FOUNTAIN PEN HOLDER**—By Chas. Cleveland, of Middlebury, Vt.—I claim the combination of the valves in a fountain pen for the admission of air and regulating the flow of ink, with the slide or buttons, and with the spring and slide, in the manner described or in any other substantially the same.

**CORN SHELLERS**—By David Eldridge, of Philadelphia, Pa.: I claim the combination of the concave wedge, and the guard, with the concave wheel, for shelling corn, as described.

**RAILROAD CAR WHEELS**—By Nehemiah Hodge, of North Adams, Mass.: I claim the construction of car wheels, the combination of the segmental rings and keys, constructed substantially as described, or their equivalents, for the purpose of facilitating the insertion of the ring or band of india-rubber or other elastic material, between the central portion and the rim of the wheel, and as a means of fastening or holding the whole together, as set forth.

**COPYING MANUSCRIPT**—By John Jones, of Clyde, N. Y.: I claim, first, the employment or use of the circular rack, which serves as a guide to the index, said rack having a rim attached to its under surface and projecting outwards, with the necessary letters and characters stamped or placed upon it, corresponding to the type placed on the periphery of the horizontal wheel, as specified.

Second, I claim placing or securing the type vertically to the periphery of a horizontal wheel, having a rotating motion, and also a motion in the direction of its axis, by which, with the aid of the rack and index, the required letters may be printed upon the paper, in combination with the roller, levers, and the shaft, or other equivalent device, for the purpose of operating upon the cylinder, and adjusting it to allow for the different thickness of type on the wheel, as described.

Third, I claim the employment of the cylinder upon which the paper is secured, said cylinder having a motion in the direction of its axis, and also a rotating motion, said motions being communicated to it by the devices, as described, or in any other equivalent manner.

**VIOLINS**—By Wm. S. Mount, of Stony Brook, N. Y.—I claim the construction of that portion of stringed musical instruments which receives the strain of the strings, when tightened in tuning, in such form or forms as will cause the line of that portion of the instrument to be lengthened instead of shortened, if the same be altered at all by the strain.

I also claim the hollow backed violin, or other stringed musical instrument of similar character, constructed substantially in the manner set forth.

**REVOLVING BREACH FIRE-ARMS**—By Henry S. North, of Middletown, Ct., & C. D. Skinner, of Hadam, Ct.—We claim the construction of the sliding crotch, substantially as described, to enable it to perform the double purpose of revolving the breech and wedging it up against the barrel, and the combination of the sliding crotch and guard lever, constructed and arranged as specified, by which the breech is rotated, wedged forward, and the gun cocked by one motion back and forward of the trigger-guard, or its equivalent, substantially as described.

**SMUT MACHINES**—By G. S. Peck, of East Smithfield, Pa.: I claim the arrangement in which the grain is fed in at or near the bottom of the cylinder, through which it is elevated, by means of spirally inclined beaters, and discharged through the passage or spout, in combination with the ascending blast from the fan or blower, the same being arranged and operated essentially as set forth.

**POWER LOOMS**—By Rensselaer Reynolds, of Valatia Village, N. Y.: I claim, first, connecting the rocker of each picker staff, made and operated substantially as specified, with the bed on which it rocks, by means of an interposed strap of leather, or other flexible substance, attached at the inner end to the bed and at the outer end to the rocker, substantially for the purpose specified.

Second, forcing the shuttle binders inwards against the shuttle, while boxing, by a gradually increasing force, by means of arms on a rocker provided with a spring, which is acted upon by a pin on the connecting rod of the lay, substantially as described.

Third, securing the rawhide pickers to the inner face of the staffs, by means of the leather strap, or the equivalent thereof, embracing and binding the two together, substantially as described, to insure the firm union to resist the rapid blows, and to prevent pieces of rawhide from breaking and flying, as set forth.

**CAST-IRON CAR WHEELS**—By Daniel R. Rall, of Rochester, N. Y.: I do not claim the concave plates or sides of the wheel; nor do I intend to limit myself to the precise form of such plates connecting the hub with the rim or tread of the wheel.

But I claim the partitions or braces connecting the rim or tread with the two plates or sides of the wheel, the said partitions or braces extending from the inside of the rim or tread, radially or nearly so, part of the distance towards but not connecting with the hub, as herein set forth.

**ESCAPE LADDERS**—By J. C. fr. Saloman, of Georgetown, D. C.: I claim forming or constructing a ladder with each successive step from the end or ends, longer than the one preceding it, and connecting said steps with each other by links, made fast at one end to each step, and the other end sliding through eyes in the step above or below, so that the steps can all fold closely together, in the manner substantially as described.

**LOOMS FOR WEAVING PILED FABRICS WITHOUT THE FIGURING WIRES**—By R. W. Sievier, of Cavendish Square, England: Patented in England, Sept. 5, 1844: Having now described the particular feature of my improvements in looms for weaving, and the mode or method of producing plain or figured goods or fabrics, I desire it to be understood that I claim, first, the novel mode or method of producing plain or figured goods or fabrics having terry or looped surfaces, of the kinds described, by partially beating up certain picks of the shoot or weft threads, and afterwards further beating up or driving home those picks or shoots, in order to cause certain portions of the terry warp to pucker up in loops, but I do not confine myself to any particular number of picks or shoots of weft, but have described a method

by which my improvements in producing plain or figured goods or fabrics, having a terry or looped figure, may be accomplished as the number of picks or shoots of weft may be varied, to produce a different appearance in the face of the fabrics woven under my patent, according to the desire of the weaver.

Secondly, I claim varying the forward stroke of the batten, to produce the open or close beating up of the weft, substantially as described, in combination with the apparatus for holding the surface threads or yarns, and carrying them forward in the manner described, or any other substantially similar, for the purpose of aiding in forming, in the loom, the loops of terry fabrics.

**VERTICAL TRIP HAMMERS**—By Peter Stebbins & John Holmes, of Schenectady, N. Y.: We are aware that vertical trip-hammers, elevated by friction rollers, are not new, neither are cams for regulating the elevation to which such hammers shall be lifted and therefore we do not claim them; but we claim, first, the recessed rollers, in combination with the plain rollers, and springs, or their equivalents, for controlling the operation of the lifting rollers; the projections on the said recessed rollers causing the shaft, lifting roller, and plain rollers, to recede or move from the rollers on the shaft, and thereby allow the hammer to fall, the whole being constructed and arranged and operating substantially as described.

Second, the manner described, of regulating the blow of the hammer, by making the recesses, in the periphery of the rollers of unequal lengths, and making the said rollers movable on their shaft, so that either projection can be brought opposite to and made to act in combination with the plain rollers, in the manner set forth.

**MACHINES FOR TURNING AND POLISHING**—By B. J. Tayman, of Philadelphia, Pa.: I claim the arrangement of a polishing belt for polishing circular surfaces, in such manner that a bight of it shall pass round the article to be polished and move concentrically or nearly so, to the surface thereof, so as to finish the same rapidly and without the danger of making flat places in its periphery, which is always so imminent when a round article is polished by bringing it in contact with a polishing surface moving in a straight line.

I likewise claim the combination of the rotating tubular cutter for turning the rod with the polishing belts, which, while polishing one end of the rod, grasp it firmly and hold it from turning, whilst its other end is under the action of the cutters, as set forth.

**ENGRAVING SURFACES**—By Isaac Taylor, of Stamford Rivers, England: Patented in England Feb. 21, 1849: I claim, in the first place, the connecting of rhomboidal frames or pentagons, in series, so as that the one which first receives a movement from the hand or other moving power, conveys its movement to a second, and this again, if required, to a third, and so on, as far as the nature of the work to be done may need a high diminution to be carried.

In the second place, I claim the rhomboidal frames or pentagons in pairs, so connecting each pair by a rod or bar, at the working joint of each, as that a true geometric point of movement is presented upon every point or spot of such rod or bar, whether the said rod or bar be made to communicate motion to the cutting or other tools which act upon a fixed surface, or whether it be made to communicate motion to the surface itself, either plane or cylindrical, while the tools are fixed. These tools, which may be of any number convenient to apply, or required by the work, may be diamond or steel points, gages, punches, drills, pencils, pens, or tubes, for conveying colors.

In the third place, I claim the conveying the movement of the rod or bar connecting two pentagons, to a cylinder or roller, in such manner as that when points or tools of any required kind are applied to the surface of the same and in whatsoever direction, whether vertically, on the sides, horizontally, or beneath, each point or tool brought into contact with the cylinder, produces thereupon the same figure or mark of whatever kind which it would produce, if operating upon a plane surface.

In the fourth place, I claim the construction of a frame, called in my specification a ruling board, which, by transferring the weight of a loaded cylinder, alternately from the sides or bearers of an external and internal frame, allows each frame in its turn to move backward or forward a distance regulated by screws or other similar means. In this manner, and by the application of a carriage or traversing point to one of these frames, lines may be ruled or engraved with perfect accuracy as to their distance one from the other.

**PROCESS OF MANUFACTURING GUTTA PERCHA**—By John Rider, of New York City: I claim the preparing of gutta percha for vulcanizing, by a preliminary separate heating of it to such a degree, as to expel its volatile ingredients herein specified, which I find can generally be effected at the high temperatures from 285 to 430 degrees Fahr., substantially as set forth.

I also claim the process described, of vulcanizing gutta percha, by first heating it to a sufficiently high temperature to expel from it the volatile ingredients specified, which it is believed can be accomplished between 285 and 430 degrees Fahr., and then incorporating with it, substantially as specified, a hyposulphite, either alone or in combination with metallic sulphurets, whiting, magnesia, or with all of them together, and then subjecting the mixture to a temperature of from 285 to 320 degree Fahr., all the steps of the said process being performed substantially in the manner set forth, at the same time desiring it to be understood that I disclaim the vulcanizing of gutta percha in all cases save when it has been prepared for the vulcanizing operation, by the aforesaid preliminary heating.

#### Animal Phosphorescence.

Hera path, the eminent chemist, has read a paper before the British Chemical Society, combatting the view that animal phosphorescence is owing to the slow combustion of phosphorus. He has made experiments with glow-worms in glass vessels, and whilst emitting light, no ozone was produced. He ascribes the phenomenon of light in glow-worms to carbon in some allotropic condition not yet understood. This bears on a question at issue between Liebig and Mulder as to whether phosphorus occurs in the animal frame, merely as phosphoric acid or phosphamide. It is our opinion that Hera path is right; the light of the fire-fly is not due to phosphorus, we think, for we do not know of a single case where it has been demonstrated by a careful experiment.

#### The Electric Fire Telegraph.

MESSRS. EDITORS—Will you allow me to occupy a few lines of your paper in reply to the communication from H. Van Ausdall, of April 24, concerning the "Municipal Telegraph," now in successful operation in Boston. Mr. Van Ausdall, I am persuaded, in his very proper desire to secure the credit which belongs to every original inventor, has not done justice to the real priority of Dr. W. F. Channing's claim.

The first publicity given by Dr. C. to his idea, was as early as June, 1845, when he published an article, which I have seen, in the Boston Daily Advertiser, describing "the use of the Telegraph in our cities, to give an instantaneous, universal, and definite alarm in case of fire," and embracing the following among other principles: a central office, a multiplicity of circuits, duplicate conductors, signal stations to signalize a fire to the centre, and striking machinery at the church bells to be liberated by a galvanic impulse from the centre. In January, 1848, Hon. Josiah Quincy, Jr., the Mayor of the city of Boston, called the attention of the city government to the proposition to institute such a system of fire alarm, and suggested the propriety of experiments to attest the feasibility of the plan. In pursuance of this recommendation, Moses G. Farmer constructed for the city two large models of striking apparatus, with his electromagnetic escapement, which has since been patented, and which now constitutes an important part of the system in Boston. The attempt was abandoned, not because of failure, but because confidence in the capacity of the Telegraph was not yet established.

These statements, which may be readily verified, if more than the evidence of public notoriety be required, will satisfy Mr. Van Ausdall, I am confident, that his first communication of June 21, 1851, has not the claim of priority which he supposes. But, it may also be added, that, previous to that date, a special committee of the Municipal Government of Boston had reported upon an elaborate communication upon the subject from Dr. C., and an appropriation of ten thousand dollars had been made by the city government to carry the plan into practical operation. The details of the system, as finally erected, are due to Mr. Farmer, the constructor, and to Dr. Channing, the inventor.

These remarks, made in justice to Dr. C., do not call in question the originality which any other gentleman may claim. Indeed, early in the autumn of 1850, without having heard of Dr. C.'s earlier movement, I prepared the outline of a similar system of "Fire Alarms," of which I deemed myself the original inventor; and in a house then in process of erection for my own occupancy, the copper wires for a complete burglar-alarm, including every door and window of two stories, were inserted before the walls were lathed and plastered, ante-dating Mr. Ausdall's public communication by eight or nine months, and his notice of Jan. 29th, 1851, by three or four, in a practical application of the same idea, invented by him. The wires themselves will furnish the best evidence of these statements; and, like Mr. Van Ausdall, in 1850, I also exhibited to neighbors and friends a model which satisfactorily established the utility of the invention.

Will you have the goodness to insert these lines as an act of justice to Dr. Channing, whose indefatigable labors, joined to the rare practical skill of Moses G. Farmer, have carried into successful operation one of the most beautiful and one of the simplest inventions of the present age of marvels? I am confident that Mr. Van Ausdall will cheerfully stand aside with me,—to both of us still belonging the sufficient satisfaction of having really invented the fire-alarm,—that credit may be given publicly, as it is surely due. The invention may belong to several persons as to originality; but the world must confess its indebtedness to its first informant,—although his information did not arrest general attention when he first volunteered his counsel, rather than to any later teacher.

AUGUSTUS R. POPE.

Somerville, Mass., May 28, 1852.

[Mr. Pope has sent us the printed article which appeared in the Boston Daily Advertiser of June 3, 1845, in which Dr. Channing describes his Municipal Fire Alarm Telegraph

with great minuteness; he is undoubtedly the first inventor, and Mr. Van Ausdall is a gentleman who will cheerfully concede to him his just claims.

#### Avalanche at Stillwater, Minnesota.

In the rear of the beautiful village of Stillwater, which nestles under the hill-sides at the head of Lake St. Croix, is a lake of considerable extent, high upon the bluff. This lake has its outlet through the village into Lake St. Croix, down through a ravine or gorge in the hills, which are composed of sand and gravel; and the little stream running from it, is carried high up, across the village in a trough, and propels a large over-shot wheel that drives the machinery of McKusick's saw-mill, in the village, on the lake shore. Recent heavy rains raised the waters of the lake back of the town very much, and saturated the hills with water, and sent through the ravine a mighty volume. Early one morning the villagers were awakened by a loud rushing noise, and looking out saw an immense river of melted earth slowly coming down through the ravine—spreading wider its current, as it emerged from the hills, burying one or two stables, nearly, crossing the street and filling McKusick's mill half full of deposits—moving onward into Lake St. Croix and depositing there some eight or ten acres of new terra firma in the lake, and making not only a permanent addition of much land to the town, but also an excellent steamboat landing at the edge of the new embankment. In one of the barns which was overflowed, there were two horses, which to save their lives, had struggled and scrambled up, to keep out of the water running into their stable, and saved their lives only by hanging upon the manger with their fore legs; they had to be taken out over the girt. Some cows in a stable were saved with much difficulty. Some half a dozen houses were buried.

#### How to Cook an Egg.

An egg should not be boiled; it should only be scalded—*vulgo*, coddled. Immerse your egg in, or, what is better, pour upon your egg boiling water. For time, proportion the same to the size and number of your eggs, and the collateral accidents. If you cook your eggs upon your breakfast table more time will be required. But if you station your apparatus on a good wholesome hob, where there is a fire, and so the radiation of heat is less positive, less time will suffice. The latter way is mine, winter and summer, and the differences of the surrounding circumstances equalize, or nearly so, the time. I keep one egg under water 9 minutes; two, 9½; three, 10; and four, nearly 11 minutes. The yolk first owns the power of the caloric, and will be even firmly set, while the white will be milky, or at most tremulously gelatinous. The flavor superior to anything which a plover ever deposited will be that which the egg of the gallinaceous domestic was intended to have; the substance, that which is delectable to the palate, and easy of digestion. There is perfect absence of that gutta percha quality, in the white especially, at once the result and the source of dyspepsia. I believe that eggs would be much more patronized and much more wholesome, if boiling were discarded.—[Cottage Gardener.

#### Rules for Health.

Rules for health, by a Scotch Philosopher who has tried them all:—Never drink anything but water. Never eat anything but oatmeal. Wear the thickest boots. Walk fifteen miles regularly every day. Avoid all excitement; consequently it is best to remain single, for then you will be free from all household cares and matrimonial troubles, and you will have no children to worry you.—The same rule applies to smoking, taking snuff, playing at cards, and arguing with an Irishman. They are all strong excitements, which must be rigidly avoided, if you value in the least your health. By attending carefully to the above rules, there is every probability that you may live to a hundred years, and that you will enjoy your hundredth year fully as much as you did your twenty first.

[The above is from Punch, and is a good pun on some of the whimsicalities of the present day.