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## Curiosities of Human Food.

Mankind has been wonderfully ingenious from its infancy, in the concoction of edible varieties. Apart from baked human thighs in Fejee, and boiled fingers in Sumatra, there are sundry culinary fashions still extant which must be marvelously unintelligible to a conventionalized appetite. Not that it appears strange to eat duck's tongues in China, kangaroos in Australia, or the loose covering of the great elk's nose in New Brunswick. Not even that it is startling to see an Esquimaux eating his daily ration, twenty pounds in weight of flesh and oil, or the Yakut competing in voracity with a boa constrictor. But who would relish a stew of red ants in Burmah, a half-hatched egg in China, monkey outlets and parrot pies at Rio Janeiro, and bats in Malabar, or polecats and prairie wolves in North America? Yet there can be little doubt that these are unwarrantable prejudices. Dr. Shaw enjoyed lion; Mr. Darwin had a passion for pumpe; Dr. Brooke makes affidavit that melted bears' grease is the most refreshing potion. And how can we disbelieve, after the testimony of Hippocrates, as to the flavor of boiled dog? If squirrels are edible in the East, and rats in the West Indies—if a sloth be good on the Amazon, and elephants' paws in South Africa, why should we compassionate such races as have little beef or mutton? for we may be quite sure that if, as Montesquieu affirms, there are valid reasons for not eating pork, there are reasons quite as unimpeachable for eating giraffe, alpaca, mermaid's tails, bustard and anaconda.

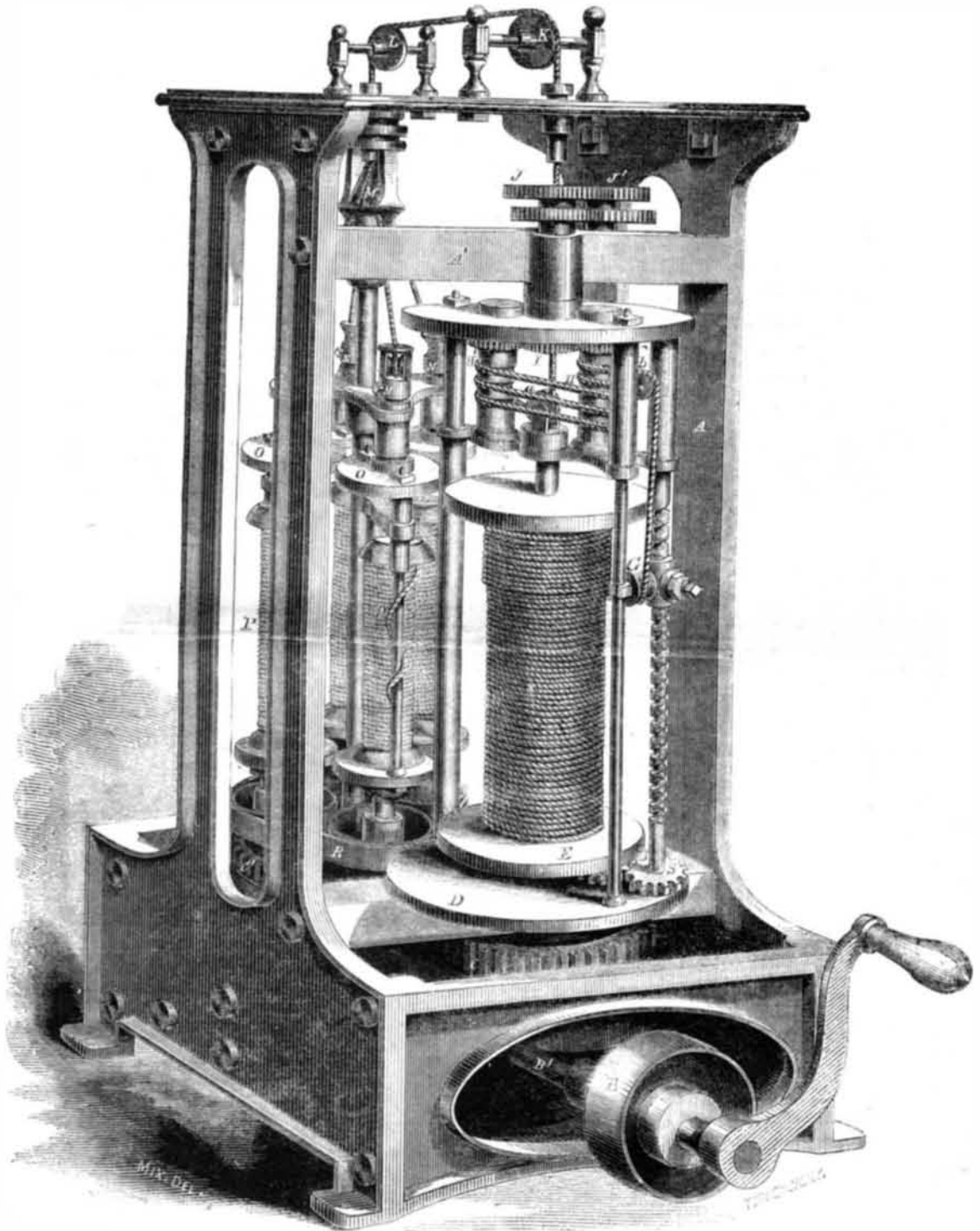
## Improved Rope-Making Machine.

The manufacture of rope by machinery is a great improvement on the old system, not only in the superiority of the article produced but also in the quantity and economy of labor. The subject of our illustration is a machine for making rope, recently invented by Newton Adams, of Lansingburgh, N. Y., and patented by him August 24, 1858, and it possesses the peculiarity of giving the rope half its twist while in motion toward the receiving reel, thus saving time in the manufacture.

A is the framing, and near its back it contains bearings for an upright shaft that corresponds with the main laying spindle of an ordinary sun-and-planet machine, and has secured to it the usual bearings holding the bearings of the strand flyers, O, and bobbins, P. The strands pass from the flyers over small pulleys, N, and over the grooves in the

conical cap, M, so that each strand is smoothed and twisted, before being partially twisted together as rope, when passing over the pulley, L. Motion is given to the central shaft of the flyer frame from the prime mover, by a shaft, B', provided with bevel gearing and driven either by a crank or belt-wheel, B. The cog-wheel, C', is the means by which motion is conveyed to the flyer frame. The flyers, themselves, are rotated inside the rotating frame by a very simple and ingenious device, each flyer being provided with a small belt wheel, and around them all passes the belt, R, which is secured so as to be incapable of revolving with the frame, and yet at the same time hugs the pulleys enough to give them motion, so that when the flyer frame carries them round within it, they are also rotated and give the necessary twist to the strand. D is another revolving flyer moved by the cog-

## ADAMS' ROPE-MAKING MACHINE.



wheel, C, from B, and this finishes the twist of the rope as it comes from the other flyer frame over the pulleys, L K.

The rope passes through a tube in the top of the frame and through the center of gearing, J, J', in the cross-piece, A', and over the tension-rollers, H, H', to the reel. One of the cog-wheels, J, is connected by a tubular shaft with the cog-wheel, I, and this rotates the two tension-rollers or grooved capstans, H, H', at such a speed, according to the rate at which the machine is working, as to always keep the cord or rope sufficiently "taut." The rope coming under the small pulley, a, is taken on to H', thence to H, and hence over the pulley, b, and under the transverser, G, that is mounted on a double screw-shaft, E, and this gives it the proper lay upon the reel. This screw-shaft is moved by gearing, S, from the reel, E, which is also

rotated. The twist may be varied by changing the relation of the motions of the flyer-frame and reel, which can be done by shifting the belt on cone-pulleys (not seen in our engraving), or by varying the motion of the strand-flyers, making them move faster or slower. The great advantage of this machine is the saving of time, as the rope is being twisted all the while during its motion from the strands to the receiving-reel, and it can be worked at any speed, and constructed of any size for any kind of rope. The reel, E, can of course be arranged horizontally, if desired. The inventor has assigned the patent to himself and Hamilton Arnot, of the same place, and any further information of this truly ingenious and efficient machine may be obtained by addressing the inventor as above, or H. W. Fowler, General Agent, Hoosick Falls, N. Y.



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\* Circulars giving full particulars of the mode of applying for patents, 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.

**METHOD OF OPERATING RECIPROCATING SAWS.**—T. J. Alexander, of Westerville, Ohio: I claim the arrangement of reciprocating the saw by means of right and left hand racking levers or drivers, jointed to, or otherwise connected with, the saw, when said levers are separately hung or pivoted and geared together for reverse action, and so arranged as to admit of being worked by the hands of the operator, substantially in the manner specified.

**PREPARATION OF ARTIFICIAL FUEL.**—Henry Adolphe Archaerou, of Paris, France. Patented in France Aug. 11, 1856: I claim producing artificial fuel by stirring, mixing, or incorporating coal dust or small coal, peat, turf, lignite, or other combustible substances, with resin, pitch, tar, or other resinous, bituminous or carbonaceous matters or substances, in any suitable proportions, according to the nature of the materials employed, and by causing steam, hot air, or fumes, to pass through the mass during the stirring or mixing operation, or while the carbonaceous and bituminous particles are in motion.

I also claim mixing vulcanized carbonaceous matter with melted pitch, tar, or other bituminous substances, when the latter are worked up into a frothy state as described.

**APPARATUS FOR DESTRUCTIVE DISTILLATION.**—Luther Atwood, of Brooklyn, N. Y.: I claim the arrangement and combination of the combustion tower, distilling tower, and steam blast, or their substantial equivalents, in combination, when arranged, combined, and operated substantially as described.

**MACHINE FOR JOINING STAVES.**—Henry Benter, of Wheeling, Va.: I claim, first, The carriage, C, provided with rollers, i, and used in connection with the adjustable guides, a, b, and rotating cutter head, c, substantially as and for the purpose set forth.

Second, The adjustable plate, s, in connection with the stationary jaw, j, and sliding jaw, k, attached to the carriage, c, substantially as and for the purpose specified.

[By this machine staves may be both dressed and jointed in a very expeditious manner, to suit barrels and casks of various sizes.]

**MEASURING FAUCET.**—Edmund Bigelow, of Springfield, Mass.: I claim an improved self-measuring faucet, whose supply valve is closed and discharge valve opened by a single movement, and whose discharge valve is closed and supply valve opened by a single movement produced by a spring, and which is supplied with a meter, and the vent pipe is shut off when the faucet is to be filled or is standing full, substantially as described.

**CASTING STEREOTYPE PLATES.**—William Blanchard, of Washington, D. C.: I do not claim anything new in the method described of fastening the flexible mold plates.

I do not claim the casting of stereotype plates for printing, by immersion, as a novelty.

But I claim casting stereotype plates for printing by immersing a metallic mold plate with a mold or matrix formed upon and adhering to it, substantially as described.

I claim the manner of casting any number of stereotype plates, by immersion, or otherwise, in which each mold plate holds, on one of its sides, a matrix, whereon the face of the stereotype plate is cast, in one compartment, while its reverse side, in any compartment, is used as a matrix whereon to cast the back of another stereotype plate, substantially as described.

**PROPELLER FOR CANALS.**—Benjamin Burling, of Buffalo, N. Y.: I claim propelling canal boats or other craft by means of a steam tug, B, placed within a well hole, a, at the stern, and connected therewith by the shackle, b, and stanchions, c, d, or their equivalents, substantially as and for the purpose set forth.

[The object of this invention is to apply steam power to the vessel in such a manner that the necessary machinery for effecting the purpose will not be inseparably connected with the vessel, but rendered capable of being readily detached in case of accident, and the propeller will be unaffected by the varying draft of the vessel, so as to act with regularity at all times. This is done by making the canal boat with a recess at its stern, capable of receiving a steam-tug of proper dimensions.]

**WATER WHEEL.**—N. F. Burnham, of Laurel Factory, Md.: I am aware that the French turbine (Jonval) receives power from the lower part of the bucket the same as mine.

I do not claim, therefore, the lower end of the bucket, K.

But I claim, first, The concave hub as represented, in combination with the bucket as represented, which forms the wheel.

Second, I claim the chutes or guides in combination with the wheel, by which one-fourth, one-half, three-fourths, or all the water, can be admitted to the wheel, and in each case get the same percentage from the amount of water used.

**MACHINE FOR BENDING WOOD.**—Alonzo Chubb, of Painesville, Ohio: First, I claim the combination and arrangement of the strap, U, with the guides, M, in the manner and for the purposes set forth.

Second, I claim making the guides adjustable by the use of the slots therein, and of corresponding ones in the bed timbers, as shown, and for the purposes set forth.

**TRIANGULAR STAND FOR FURNITURE.**—Thomas W. Currier, of Lawrence, Mass.: I claim the arrangement of the triangular plates, B and C, with legs, A, on the axle, E, as and for the purpose specified.

**VEGETABLE CUTTER.**—Wm. C. Davol, of Fall River, Mass.: I do not claim, separately, any of the parts shown and described.

But I claim the bed plate, A, having the hopper, D, attached, provided with the follower, E, the vibrating plate lever, B, provided with the double-edged knife, C, and hook, F, and attached to the bed plate, A, the whole being arranged and combined to operate as and for the purpose set forth.

[This is a very cheap and efficient implement for slicing vegetables, either for the table or domestic use.]

**BOOTJACK.**—Henry N. Degrav, of Green Island, N. Y.: I am aware that bootjacks with movable jaws have heretofore been constructed. I do not lay claim, therefore, on this part of my invention.

But I claim the arrangement of a guide piece, G, for the purpose of operating the jaws, C, as described, in combination with a swinging platform, D, which rests on pivots, c, at points between its front and back ends, so that it can be operated by throwing more or less weight on the heel of the toes of the foot placed on the same, substantially in the manner and for the purpose specified.

[This invention consists in connecting a swinging platform to two movable jaws by means of a guide piece of such construction that the jaws open and close by raising or depressing the front end of the platform without the aid of springs, and the requisite degree of pressure can be obtained on the boot by the other foot of the operator.]

**MEAT CUTTER.**—Benjamin Dewalt and Charles E. Schrader, of Reading, Pa.: We claim the arrangement of the knives, D, in a screw form in different directions from the ends of the cylinder, B, to the center thereof, to discharge the meat at the adjustable opening, F, in the bottom, in the manner and for the purposes described.

**CRICKET BATS.**—M. Doherty, of Boston, Mass.: I claim, first, Constructing the blade of the bat of a wooden shell with a filling of cork, or other materials, substantially as described.

Second, Constructing the handle of the bat of a wooden knob, with a central strip of whalebone, or other elastic material of similar character, running down into the blade, substantially as described.

[The object of this invention is to construct a cricket bat that will not be indented or bruised by the ball in use, and will not sting or jar the hand in striking the ball, like the common bat, and that, while being lighter, will send a ball a greater distance than the common bat.]

**MACHINE FOR BENDING AND SETTING SPRINGS.**—John Evans, of New Haven, Conn.: I claim, first, The adjustable or sectional bed, formed of the bars, i, connected to the weights, k, and arranged substantially as shown, for the purpose specified.

Second, The adjustable clamps or straighteners, formed of the strips, b, c, placed on rails or bars, F, G, and arranged as and for the purpose set forth.

Third, The adjustable or sectional bed formed of the bars, i, as described, and the adjustable clamps or straighteners, formed of the strips, b, c, placed on the rails, F, G, in combination with the adjustable dies, M, arranged to operate as and for the purpose set forth.

[This invention consists in using, in connection with suitable pressure or forming dies, an adjustable bed and side clamps, or straighteners, so constructed and arranged that the form of the bed may be varied to suit the desired shape of the leaf or portion of the spring to be bent or set, and springs of different sizes, and also all the leaves of an elliptic spring, including the plates, bent or set with the greatest facility, and with one and the same machine.]

**PUMP.**—James L. Fagan, of Anaque, Texas: I do not claim, separately, any of the parts shown and described, irrespective of their particular arrangement and adaptation for a submerged pump, for rotary pumps, or those having a partial rotating reciprocating movement, have been arranged similarly to the described invention.

But I claim the cylinder, A, and hollow shaft, B, connected together as at b, and provided with valves, i, and also provided with the piston, G, with the stationary plate, J, fitted within it, the whole being arranged as and for the purpose set forth.

[This is a simple, but very efficient submerged pump.]

**COFFEE POT.**—James H. Freeto, of Wheaton, Ill.: I claim the arrangement of valves, i and j, in the condensing chamber, H, in connection with the pipes, L and K, whereby the steam which escapes through the valve, i, is carried off and deposited, in a liquid state, into the spout, while at the same time, by the action of the steam, a jet of cold water is admitted into the chamber, H, substantially as and for the purposes specified.

I also claim closing the opening, C, through which the spout, D, communicates with the coffee pot, A, by means of a flat valve, E, which is operated by a rod, G, when the same is applied to a coffee pot which is hermetically closed by a gasket, G, in connection with the air tube, o, substantially as and for the purpose specified.

[The object of this invention is to preserve the flavor of the coffee, a great portion of which escapes with the steam when hot water is poured on ground coffee, and this is effected by arranging the valves connected with pipes in a condensing vessel, that the steam and contained flavor or aroma is condensed and carried back into the coffee.]

**MOLDING COVERS OF COOK STOVES.**—George W. Gardner, of Troy, N. Y.: I claim combining with that part of the pattern which gives form to the recess of the cover, the pivoted projections, as and for the purposes set forth.

**PLOWS.**—John M. Hall, of Warrenton, Ga.: I claim the arrangement of the adjustable coulter bar, C, having i' holes, F, shoe, F, mold-board, E, adjustable screw bolt, D, attachment, Z, pins, g, key, h, bolts, j, and slot in beam, A, operating as described, and for the purposes set forth.

**CLOTHES RACK.**—Winfield S. Foster, of Marilla, N. Y.: I claim the combination of the rods, B, and heads, A, C, with the side pieces of the expanding clothes-rack, in the manner and for the purpose specified.

**PLOW BEAMS.**—John S. Hall, of Manchester, Pa.: I do not claim a tubular plow-beam.

I claim an iron or steel plow beam, of an inverted U formed throughout its main length, and welded or compressed at its ends, and so made as to be capable of receiving the top of the standard into its hollow portion, and be otherwise conveniently connected to or with the other portions of the plow, and so as to make a cheap and efficient junction of the several parts thereof, and produce a cheap, strong and durable plow beam, as set forth.

**MACHINE FOR CUTTING STRAW AND HAY.**—W. O. Hickok, of Harrisburgh, Pa.: I do not claim, broadly, connecting the pinion on the cutter shaft with the feed rollers, vibrating in guides.

Neither do I claim the arrangement of a shaker between the feed rollers and the cutters.

But I claim the arrangement, in combination with the upper or yielding feed roller, E, and the cutter shaft, F, of the coupling lever, G, when the said lever, G, connects the said feed roller, E, with the cutter shaft, F, by having its fulcrum around the said shaft, F, and also carries the pinion, 6, which connects the pinion, 7, of the shaft, F, with the spur wheel, 8, of the near journals of the feed roller, E, as set forth, the journals of the said feed roller, E, working in grooves, x, which are curved, so as to be concentric with the said cutter shaft, F, as described, the same operating together in the manner and for the purpose set forth and described.

**RAILROAD SPLICE FOR RAILROAD TRACK BARS.**—Charles Hilton, of Albany, N. Y.: I do not claim the use of the plates nor the wedge, broadly.

But I claim deep wrought iron fish-plates secured to the sides of the rails by bolts or keys, and extending downward below the base of the rail, in combination with the gib and wedge, substantially in manner and for the purposes set forth in the specification.

**HORSE AND OX SHOES.**—N. E. Hinds, of Coopers-town, N. Y.: I claim the curved or semi-circular form of the heel calks, with the corners thereof turned inward or towards the central part of the shoe.

**FOUNTAIN BRUSHES.**—L. B. Hoyt, of New York City: I claim as a new article of manufacture a marking brush, consisting of a cistern, A, which is provided with a stationary valve, c, and having the brush attached to a conical tube, G, which fits into a shell, E, and otherwise constructed substantially as described.

[This marking brush is connected to a cistern of marking ink by tubes or passages, and the cistern is provided with a valve, so that the flow of ink can be regulated as the person using the brush may desire.]

**HARVESTERS.**—Moses G. Hubbard, of Penn Yan, N. Y.: I claim the combination of the curved portion of the finger bar hinged at a, with the spring, d, forming a yielding and elastic corner or point of attachment, of sufficient strength to securely connect the cutting apparatus thereto, substantially as and for the purposes set forth.

I also claim the auxiliary adjustable spring, H, or its equivalent, substantially as and for the purposes described.

**STEAM BOILERS.**—Edward Kendall, of Cambridgeport, Mass.: I claim, first, The arrangement of the water walls, A, B, B, the suspended water spaces, F, F, flues, H, H, fire-box, G, lower and upper smoke boxes, J, M, and tubes, L, L, within the shell of the boiler, substantially as set forth.

Second, In combination with the described arrangement of water spaces and heating surfaces, I claim the arrangement of the hollow fire-bride, O, the pipes, a, a, and b, the cylinder, N, and pipes, c, c, the whole operating substantially as set forth.

Third, The arrangement of the passages for the gaseous products of combustion, the exhaust steam, and the air in the air-heater, substantially as and for the purpose set forth.

[This invention consists in certain arrangements of water spaces, flues, and heating surfaces, whereby several important advantages are obtained. It also consists in a certain arrangement of passages for the air, the escaping gaseous products of combustion, and the exhaust steam in a heater for heating air to supply the furnace.]

**PACKING BAR LEAD.**—Zebulon Kinsey, of Dubuque, Iowa: I claim the use of the bar or bolt, B, made substantially as described, when inserted in perforations made in bars or pipes, and clenched or fastened in the manner substantially and for the purpose aforesaid.

**STEAM PRESSURE GAGE.**—Thomas W. Lane, of Meredith, N. H.: I claim so combining the pressure tube with the pipe through which the pressure within the boiler is transmitted to the gage, that the length of tube in either direction from its junction with the pipe shall not exceed a semi-circle, and placing the tube in a position that it shall descend at every point towards its junction with and drain back into the pipe.

Second, I claim joining the pipe from the boiler with the indicating tube at a point between its two ends, and bending the latter as set forth, so that the ends of the tube shall be nearly over the points where its two branches are rigidly supported, whereby the tube is rendered less sensitive to the vertical shocks to which it is subjected.

Third, I claim the arrangement of the lateral catches with the elevated finger-socket, the whole constructed of a single plate, which is so formed, that while the catch end thereof is horizontal, and constitutes right and left catches, and is connected to the bottom of the shutter, the opposite end is vertical, and is connected to the face of the shutter at some distance above the bottom thereof, and constitutes a finger-socket or hook near the hinged edge of the shutter, to be drawn back by a finger for the purpose of unfastening the shutter, when open, and closing the same as herein described.

Fourth, I claim pivoting the lever, i, to the indicating tube without attachment to the case, for the purpose specified.

**HOSE COUPLING.**—Robert B. Lawton and W. H. Bliss, of Newport, R. I.: We do not claim connecting the two parts or thimbles, C, D, together, by means of a screw or pin passing through one thimble and fitting in a groove in the other, for such coupling or connection is well known and has been used, if not for the same, for analogous purposes.

But we claim the thimble, C, D, being provided with the shoulder, b, and ground seat or packing, c, and the thimble, D, provided with the groove, e, with inclined sides and a flange, G, the above parts being used in connection with a roller or rollers, g, fitted in the screw caps, i, and the whole arranged to operate as and for the purpose set forth.

[The object of this invention is to connect hose together in such a manner that a swivel joint will be attained, and at the same time certain provision made for compensating for the wear attending such connection, so that the coupling may always be kept watertight by the mere act of adjusting or connecting the parts together.]

**FIRE-PLUGS.**—Joseph L. Lowry, of Pittsburgh, Pa.: I claim, first, Making a single chamber serve the purpose of a cross-pipe, when each main leading into said chamber, is furnished with its own stop cock, and access is had to each stop cock through said chamber for repairs, &c., thus making one chamber and one cover common to two, three, four, or more mains, substantially as set forth.

I also claim arranging the fire-plug immediately over the chamber, for the purpose of effecting a circulation of the water in the pipe between the main and the fire-plug to prevent its freezing, as stated.

I also claim in combination with the valve, v, and its wing, w, as described, the hollow set screws, s, for wasting the water from the fire-plug when said valve is closed, substantially as described.

I also claim the removable gasket, c, in the ends of the branches or bowls, y, so as to renew the seats for the valves, b, when necessary, without disturbing the main or stop cock, access to these gaskets being through the common chamber, j, as stated.

**WATCH CASES.**—Louis Mabile, of New York City: I do not claim the movable plate, D, when applied and fitted to and combined with the case otherwise than as described.

But I claim the construction of the case substantially as described, with the front plate, D, fitted to the ring or frame, C, with a projecting rim, e, and bezel, i, all the way round, when combined with an internal cavity, d, in the back, to receive and contain the said plate, when removed from the front.

[This invention consists in a certain novel construction of what is known as a "magic" watch case, whereby extreme simplicity is combined with neatness of appearance.]

**CURTAIN LOCK FOR CAR LAGES.**—Samuel Marshall, of Wilmington, Del.: I claim the employment of the two metal plates, constructed as described, in combination with the button and button-hole of the carriage and chain, and with the spring fastening, the whole being arranged and used in the manner and for the purposes set forth.

**WATER GAGE FOR STEAM BOILERS.**—Alexander Miller, of Cleveland, Ohio: I do not claim, broadly, attaching an index to the stem of the alarm valve of an alarm water-gage.

But I claim operating the valve, d, of an alarm gage to produce the alarm, when necessary, by means of a cam or wiper, h, on a valve stem, D, and a stationary inclined projection, g, on the socket or tube, A, or its equivalent, the several parts being arranged and applied in combination with a float attached to the stem, substantially as set forth.

[An engraving of this invention was published on page 157, present volume of the SCIENTIFIC AMERICAN.]

**CORRUGATED IRON PAVEMENTS.**—James Montgomery, of New York, N. Y.: I claim, First, The arrangement and combination, substantially as described, of the unequal ribs, or corrugations, A and B, for the purposes set forth.

Second, The described form and application of the laterally projecting spurs, C, for the purposes explained.

Third, The dove-tailed groove shown applied to metallic paving, and employed as set forth, to retain within it concrete and other matter.

**GRAIN SEPARATORS.**—Henry Montgomery and Simeon Howes, of Silver Creek, N. Y.: The aperture, U, when situated immediately below the inclined board, S, and in combination therewith, for the purpose specified.

**LOOKS.**—L. F. Munger, of Rochester, N. Y.: I am aware that sliding-tumblers have been previously used, and also saw-plate, or thin flat keys provided with notches of varying depths, corresponding with the varying positions of the slots in the tumblers; I therefore do not claim separately these parts.

But I claim the arrangement and combination of the knob, E, with the tumblers, C, and bolt, B, the said knob having studs, g, and h, out of line with each other, one stud, h, being in line with the bolt, and the other stud, g, being in line with the tumblers; so that when the keys G is inserted, one of the studs, g, shall pass by the tumblers, while the bolt, B, is shot out by the other studs, h, and when the key, G, is withdrawn, and the knob, E, reversed, the stud, g, shall lift the tumblers, and thus prevent the picking of the lock by the insertion of a key, all as shown and described, for the purpose set forth.

[This invention relates to an improvement in that class of locks that are provided with tumblers, and more especially designed for fire-proof safes, bank doors and other places where great security is required. The invention consists in the employment or use of a series of tumblers arranged relatively with a bolt and key-hole or socket, and used in connection with knob-bits, whereby the lock is rendered unpickable by a very simple arrangement of means and all the advantages of more complicated locks obtained.]

**SCREW-PLATE.**—Putnam D. Nichols, of Hartford, Conn.: I do not claim as new the circular dies. I claim the adjusting steady pins and set-screws, with the sliding-plate, K, attached to the regulating-rod and screw, G, H, in the manner as described in combination with the method of adjusting and regulating the dies for operation, in the manner substantially as set forth.

**BROOCHES, EAR-RINGS, &c.**—Henry Oliver, of Philadelphia, Pa.: I am aware that sun pictures have been produced upon the inner surfaces of planes of transparent material, and that temporary concave fields have been suggested to overcome the spherical aberration of the lenses, in the production of pictures having a plane surface.

But I claim photographic or sun-pictures upon concave surfaces of glass, and backing them up with cement, in the manner and for the purpose substantially as specified.

**BLIND FASTENING.**—Rufus Porter, of Washington, D. C.: I claim the combination of the lateral catches with the elevated finger-socket, the whole constructed of a single plate, which is so formed, that while the catch end thereof is horizontal, and constitutes right and left catches, and is connected to the bottom of the shutter, the opposite end is vertical, and is connected to the face of the shutter at some distance above the bottom thereof, and constitutes a finger-socket or hook near the hinged edge of the shutter, to be drawn back by a finger for the purpose of unfastening the shutter, when open, and closing the same as herein described.

**LAMPS.**—Charles W. Richter, Sr., of Madison, Geo.: I claim the combination of chamber, D, and tubes, I, I, T, with the non-conducting medium, C, c, above plate, P, the arrangement being substantially as described.

I also claim the manner of moving the wick within the tube, T, in combination with the construction described.

**STALLS FOR HORSES ON SHIPBOARD.**—Samuel Samuels, of Brooklyn, N. Y.: I claim suspending a horse-box on board of a ship or other vessel, on pivots or centers, having their axis arranged transversely to the box, and parallel or thereabouts with the length of the vessel, substantially as and for the purposes set forth.

And I also claim combining series of two or more so-suspended boxes, substantially as and for the purpose described.

[In the transportation of horses by sea they have always, previous to this invention, been liable to much injury from the motion—particularly the rolling of the vessels on board of which they are carried, as they have always been placed in fixed boxes or stalls, and the only means adopted for their protection has been the padding of the insides of their boxes or stalls, and the placing of broad slings under their bellies to relieve their legs. This invention is intended to enable them to be carried without such injury, and consists in suspending a horse-box on board of a ship or other vessel, on pivots or centers, which are arranged transversely to the box itself, but parallel or thereabouts with the length of the vessel, and in such manner that the box will, by the force of gravitation, remain with its bottom or floor in a horizontal or nearly horizontal position, notwithstanding the most violent rolling of the vessel, and thus in a great measure prevent the horse being thrown against its ends or sides. It further consists in combining a series of two or more so-suspended boxes by arranging them side by side with their suspending pivots in line with each other, and fastening them together, so that all will remain stationary or swing simultaneously, and the weight of the several boxes and of the horses in all but the one will tend to prevent any swinging movement being produced by the sudden movements of the horse in any one of the series.]

**SEAL-PRESSER.**—Joseph Saxton, of Washington, D. C.: I claim, First, A sealing-press, operated by a lever, to which the stamp is attached by an adjustable joint, the whole being adapted to the purpose of sealing with fusible metal or alloy substantially as described.

Second, The guard for retaining the excess of metal driven off from the seal, in the act of making the impression.

**CURTAIN FIXTURES.**—Henry C. Spalding, of Brooklyn, N. Y.: I claim, First, The narrow rim, f, in combination with a roller having end play, as described.

Second, The combination of the roller, flange and cord, as set forth.

Third, The combination of the two hangers with the roller, the cord and track, constructed substantially as described, and operating in the manner set forth.

**TREADLE-STAND**—Henry C. Spalding, of Brooklyn, N. Y.: I claim a new and improved article of manufacture, a self-sustaining skeleton treadle-frame, composed of sections secured together at right angles, substantially as described, so that the frame is self-braced crosswise, and lengthwise with the table which it supports.

**APPARATUS FOR VENTILATING RAILROAD CARS**—Robert Taylor, Reading, Pa.: I do not desire to claim broadly the forcing of air into railway cars by a blowing apparatus operating by the axles, as such a device is described in the patents of R. Cook, August 19th, 1851, and J. H. Taylor, October 30th, 1855, nor do I claim an air-pump, or air-pumps, operated by the axles, as they have been heretofore used in connection with pneumatic car-springs.

I also disclaim the rotating, ventilating valves, M, the same or their equivalents having been heretofore used.

But I claim the blowing cylinder, G, hung to one of the trucks of the car, and operated from one of the axles by means of an eccentric, D, or other equivalent device, in combination with the flexible or self-accommodating inlet and discharge pipes, I and H, and the distributing pipes, K, the whole being arranged substantially as and for the purpose set forth.

**CHUCK FOR WATCHMAKERS' LATHES**—G. H. Waldin, of Burlington, Iowa: I claim the use of the cylindrical core, or spindle, C, in connection with the handle, D, for containing sealing-wax or its equivalent, the whole constructed and operated as specified.

**CREMENTING ROOFS**—J. L. G. Ward, of Adrian, Mich.: I do not claim, broadly, the use of alkaline silicates, applied as a protection to the walls or other parts of buildings; but I claim the covering of roofs of buildings by laying bricks or tiles, or slabs of other material, in a bed of cement consisting of alkaline silicate, and subsequently treating the surface of said cement with an acid which combines with the alkaline thereof, and leaves a surface of pure silica, substantially as described.

[This invention consists in the covering of roofs by burying bricks or tiles in a cement consisting of an alkaline silicate, and subsequently treating the surface of such cement with an acid which combines with the alkali of the cement and forms a salt which when washed away leaves a surface of pure silica that is impervious to water, thus producing a weather-proof roof of a very superior character.]

**PESSEAIRS**—Francis E. Wells, of Texada, Texas: I claim the combination with the ring, A, of the hinged jointed and slotted stanchion supports, C, C, and their stems, D, the hinged sliding-support, G, the hinged arm, I, the collar, M, or its equivalent, and the plate, B, the whole applied and operating in relation to each other, substantially as set forth.

[By this invention what is known as the ring-pessary is supported upon the exterior of the body, thus avoiding all except the requisite internal pressure or support.]

**APPARATUS FOR HANDLING HIDES**—Charles Weston, of Salem, Mass.: I claim the apparatus described, for keeping hides in motion, while exposed to the action of the tanning liquid, the same consisting of parts constructed and arranged, in relation to each other, as described, so as to operate substantially in the manner and for the purposes set forth.

**FEEDING MECHANISM FOR SAWING MACHINES**—Phillip P. Weis and F. Schutte, of Philadelphia, Pa.: We claim the adjustable frame, N, with its rollers, I, the pressure-frame, P, with its rollers, J, and the feeding-screws, M, in combination, the whole being arranged substantially as and for the purpose specified.

**KEY-BOLT FOR ATTACHING CARRIAGE TUBES**—G. P. Wilhelm, of Bridgeport, Pa.: I do not claim as new of themselves either the key-bolt or the spiral spring, but I claim the manner described of fastening shafts and poles to carriages by the arrangement of the bolt, B, spiral spring, C, and clips, C', arranged and operating as set forth.

**HARVESTERS**—Walter A. Wood, of Hoosick Falls, N. Y.: I claim, first, connecting the bent bar, J, to the axle, and allowing its other end free vertical motion between guides, substantially in the manner described.

I also claim, in combination with the bent bar, J, for sustaining the finger and cutter bars, the continuation of the finger-bar, and its attachment to the main frame, substantially in the manner and for the purpose set forth.

**MOWING-MACHINES**—Walter A. Wood, of Hoosick Falls, N. Y.: I claim connecting the bent-bar that carries the finger and cutter-bar to the main frame by the spring-plate, M, and to the axle by the loop, D, so that the finger-bar may rise and fall independently of the wheel or main frame, or the main frame independently of the finger-bar, substantially as described.

**MACHINES FOR CORKING BOTTLES**—Lewis L. Cliechester, of New York, N. Y., (assignor to David L. Winthringham), of Jersey City, N. J.: I do not claim, broadly, the employment or use of toggles for operating the bar, F, for they are a well-known mechanical device, and have been used for analogous purposes; but I claim the toggles, E, E, frame, G, and bar, F, provided with the plungers, D, in combination with an adjustable bottle-stand, K, and bar, C, provided with the tubes, A, A', A'', for the purpose specified.

I further claim the particular manner of adjusting the bottle-stand, K, to wit: attaching the same to the frame, G, by means of the lever, I, bar, J, arms, K, K, cross-bars, M, and plates, L, substantially as shown and described.

[In this invention toggles are employed, connected with a lever-frame and driving-bar in connection with an adjustable bottle-stand, so that corks may be driven into bottles with great facility, and the same machine rendered capable of corking different sized bottles, and also of driving the corks a greater or less distance into the necks of the bottles.]

**CATAMENIAL BANDAGES**—Charles E. Clark, (assignor to himself and George W. Clark), of Boston, Mass.: I claim my improved manufacture of menstrual receiver, as made of two inflatable, water-proof crescent-shaped vessels, united by a water-proof system, and arranged together and with the septum, and provided with means of supplying them with air, and discharging them from, substantially as specified.

**ELECTRO-MAGNETIC FIRE-ALARM APPARATUS**—Moses G. Farmer, of Salem, Mass., (assignor to William F. Channing), of Boston, Mass.: I claim the combination of two or more key-boards or fire-alarm strikers, constructed and operating substantially as described, with one or more electro-telegraphic alarm-machines, in the same closed electric circuit or independent closed electric circuits by means of a mechanism that will make and break a circuit, as shown and described.

**RAILROAD CAR SEATS AND COUCHES**—Jonathan Good, (assignor to himself and E. L. H. Dabbs), of Philadelphia, Pa.: I claim the arrangement and combination of the pivoted horizontally and vertically-moving plate, C, curved ratchet plates, J, rack extension, D, and union, G, as and for the purpose shown and described.

[This is an improved sleeping-car which has seats that change to comfortable couches at night, and in which there is room for the traveler to stow away his clothes.]

**STRAW-CUTTERS**—William Hinds, (assignor to Jerome Hinds), of Little Falls, N. Y.: I claim the arrangement of the cutters, C, C, in combination with the cutter, M, fig. 1, constructed substantially as and for the purpose set forth.

**MACHINE FOR FINISHING CARBOYS**—Lyman Hyde, of Ellenville, N. Y., (assignor to the Ellenville Glass Company): I do not claim the shears or formers, C, for they have been previously used, but I claim the shears, C, treadle, P, or its equivalent, mandrel, B, and furnace, B, placed within a suitable frame, A, and arranged for joint operation, substantially as and for the purpose set forth.

The object of this invention is to enable heads similar to those on the necks of bottles and small glass vessels to be formed on the ends of the necks of carboys and other large glass vessels of similar or approximate form. Large vessels of this sort have hitherto been "unfinished," as it is technically termed, that is to say, the ends of the necks have been left plain without a head or finish, in consequence of the inability of the workman to reach the neck of the carboy and perform the necessary work; the finish on the vessels being hitherto done exclusively by manual labor. This invention performs the operation perfectly by mechanical means.]

**BED-BOTTOM**—A. W. Morse, (assignor to himself and R. B. Robie), of Eaton, N. Y.: I claim the combination and arrangement of the rods, B, gear-wheels, A, staples, G, pins, H, wires, C, or their equivalents, lever, F, ratchet roller, D, pawl, E, for the purpose of giving the proper tension leathways and sideways simultaneously, substantially as set forth.

**BLACKING**—L. R. Rockwood, (assignor to J. L. Cough), of Worcester, Mass.: I claim edge blacking, when composed of the mentioned materials in the proportions and manner substantially as set forth and described.

RE-ISSUE.

**EXTENSION FINGER-RINGS**—Samuel Friend and George Seiler, of New York, N. Y. Patented December 21, 1855. We claim a divided spring-ring constructed substantially in the manner and for the purposes specified, whereby by the springing of the ring permits the same to pass the joints as set forth.

DESIGN.

**STEREOSCOPE CASES**—William Loyd, of Philadelphia, Pa.

ADDITIONAL IMPROVEMENT.

**IMPROVEMENT IN SPRING-BED BOTTOMS**—Henry F. Smith, of Washington, D. C. Patented October 6, 1857. I claim the supporting the fixed end of the longitudinal slats in spring-bottom beds by means of longitudinal spring-bars, substantially as described, so that the elasticity or yielding of both ends of the slats may be equalized for the purpose set forth.

**INVENTIONS EXAMINED** at the Patent Office, and advice given as to the patentability of inventions, before the expense of an application is incurred. This service is carefully performed by Editors of this Journal, through their Branch Office at Washington, for the small fee of \$5. A sketch and description of the invention only are wanted to enable them to make the examination. Address **MUNN & COMPANY**, No. 37 Park-row, New York.

American Influence Abroad.

Virgil, in his day, sang songs and lauded high arms and prowess, deeds of heroism and martial glory, and it has long been an established idea that the greatness and the glory of a nation which hand it down to posterity are deeds upon the battle-field, and honors won by human bloodshed. This idea is false—a slander on mankind—a disgrace to the race. All the nations and cities of antiquity are preserved in our memories more by the works of their artisans and artists, than by their conquests or heroes. Who but the deep student knows aught of Babylonish arms? but every one is familiar with the hanging gardens of that famous city. The history of the early rulers of Egypt is shrouded in mystery; but the Lake of Meros, the Pyramids, and her excavated sepulchres remain as testimonials of her greatness. Greece, Rome, and the early Germanic Empire have all left their mark upon succeeding ages, by real work that was done in them, and the skill which their artificers possessed.

And so it is with us. The value of labor and its productions is daily becoming more felt, and hourly receiving a wider acknowledgement. Though we have few conquests of arms to boast of, and no graves of mighty dead to revere—save one, and that we have too little patriotism to buy at once—though we have no long line of ancestral greatness to look back to; yet we have educated labor to be proud of, and skilled work that is winning for America a name among the nations of the world of more value to real progress than conquest, shrines or ancestry. Americans, by their mechanical skill, are contesting in the glorious field of the liberal arts, and are gaining peaceful victories on the continent of Europe of more importance to the world than Austerlitz or Waterloo. Reaping machines are greater civilizers than swords, and Yankee unpickable locks greater securities to property than jails or gallows. We are led to these observations by the number of pat-

ents which our countrymen are continually securing in foreign countries—a number which is daily on the increase; and a few important ones, recently secured in England through the Scientific American Patent Agency, we will now proceed to notice:—

Stephen D. Carpenter, of Madison, Wis., has patented an improvement in operating railway brakes by electro-magnets. The mechanism employed is rendered very simple, and facility is afforded for graduating the pressure of the brakes upon the wheels. The brakes are attached to horizontal bars placed before and behind the wheels, and are suspended from centers above the wheels. Electro-magnets are adapted to the brake-bars by means of links and screw bolts, so as to admit of adjustment when required. The electro-magnets are supported in a horizontal position by means of pendant springs or arms, which will allow them to move a sufficient distance in a horizontal direction to bring the brakes against the peripheries of the wheels. The electro-magnets are connected by means of suitable wires with a battery, and when the circuit is closed, they will be attracted towards each other, and will then draw up the brakes against the wheels, and retard the carriages.

William Clemson, of East Woburn, Mass., has patented an improved method of grinding circular saws. The object of this invention is to grind these articles to a uniform thickness, and with their faces perfectly even or free from the wavy appearance so frequently produced by some of the methods of grinding generally practised, and to finish them perfectly from the center or eye. One of the improvements consists in grinding one side of a saw at a time, while its opposite side is supported by a roll, which has a rotary motion at the requisite speed for the purpose of causing the saw to rotate at the speed desired. Another improvement consists in the employment of a rotating clamp applied to the saw during the grinding process, in such a manner that it derives rotary motion from the saw through the agency of friction, and by the momentum acquired by such rotary motion is caused to control and render uniform, or nearly so, the velocity of the rotation of the saw, notwithstanding any differences of thickness of the saw-plate, and consequent tendency to variation in the action of the feed roll or other feeding contrivance upon the thicker and thinner portions of the plate. The spindle which carries the saw is, together with the friction clamp, mounted in a movable or traveling frame, whereby the saw may be moved up to the grinding surface as the grinding operation proceeds. The saw is also arranged to rotate in and during the grinding process upon a flat pivot, which is of sufficient width in one direction to fill the eye of the saw and steady the saw as it rotates, and is thin enough in a transverse direction to permit the grindstone to operate over the whole surface of the saw.

Edward Dugdale, of Burlington, N. J., has patented an improved method of constructing grates for furnaces, locomotives, stoves, &c., which consists in the employment of a series of flexible bars, composed of chains, metal rope, or linked rods, arranged side by side, and attached securely by their ends at the back and front or sides of the fire-box or furnace, with sufficient slackness to permit them to swing or be shaken, either by the movement of the furnace, as in the running of a locomotive, or by suitable mechanical means, for the purpose of causing them to work against or relatively to each other in such a manner as to prevent the adhesion of "clinkers" to them, and to cause the ashes and dirt from the fire to work down between and through them, and thus make their escape from the fire.

Martial Dimock, of Mansfield Center, Ct., has patented an improvement in sewing machines, relating especially to that class in which a needle with an eye near the point is used to carry a thread through the cloth to

be sewed, whether one or two threads be employed. This part of the invention consists in the employment of a pair of elastic nippers applied on the opposite side of the cloth or material to that on which the needle enters it, and operating in combination with the needle to seize the thread as it is protruded through the cloth, and draw it away from the needle in such a direction and to such a distance as to leave plenty of room for the passage, between it and the needle, of the looper, shuttle or other contrivance operating in combination with the needle to effect the enchainment of the single thread or the interlacing of the two threads, thereby preventing the failure of the looper, shuttle, or equivalent to enter the loop, and the consequent missing or dropping of stitches. A second part of the invention consists in a looper of novel description, operating in combination with a needle having an eye near the point to sew with a single thread in what is known as the chain and tambour stitch.

Messrs. Lindsay & Geddes, of Westville, Conn., have obtained a patent for some improvements in the machinery employed in the manufacture of paper. The invention is, in making the "lip" or basin which conducts the pulp from the vat to the endless wire apron of two parts, and in connecting these parts with the "deckles," which, as well as the "deckle straps," are, by a novel mechanism, rendered susceptible of lateral adjustment. The "deckles" determine the width of the pulp on the endless wire apron, and consequently also that of the paper, and as the two parts of the "lip" or basin which conducts the pulp to the apron are connected to the "deckles," one to each, the said two parts of the "lip" or basin will be moved simultaneously with the "deckles," and consequently the "lip" or basin will expand or contract in width, so as to correspond with the width or space between the "deckles." The machine is also provided with a novel way of adjusting the usual gage employed for the even distribution of the pulp on the endless wire apron.

Such inventions as these, useful and new, are the best means we can adopt to keep our place in the ranks of the nations; and we hope that our citizens will ever be sending their improvements across the sea.

Steam Traveling on Ice.

A very novel steamer is now being constructed at Prairie du Chien, on the Upper Mississippi, by Norman Wiard, of that place. It is designed for traveling on the ice, and making rapid journeys on the frozen rivers and lakes of the north-western territories. It is 70 feet long, 12 feet beam, and is supported on a pair of large skate runners, like a common ice-boat. The bottom of the hull and part of the sides are of iron; it is to have a driving wheel at the stern, operated by two locomotive engines and will be enclosed like a railroad car. It is to be steered by a gripping rudder, and will have a steam brake of great power. A speed of 40 miles per hour is expected to be attained by it on smooth ice; and it will also dash through snow three and four feet in depth. There are 40 mechanics now engaged upon it and it is expected to be completed early this month. It is contemplated that it will carry the mails and 75 passengers on the Upper Mississippi from Prairie du Chien to St. Paul—300 miles—in one day. If this steam-ice-boat is successful it will introduce a new era in winter traveling in the north.

**FIRE-PROOF PAINT**.—At a recent fire in Flushing, L. I. some canvas roofing was found to be nearly fire-proof; in a few places the canvas was destroyed, leaving a shell of paint perfectly untouched, and with few exceptions the whole roofing was untouched by fire. The Flushing Journal informs us that the canvas had been painted with fire-proof paint by Mr. Quarterman, of 114 John St., this city, and we take great pleasure in recording the efficiency of his invention.