RECENT AMERICAN INVENTIONS.

Locomotive Lamp.—I. A. Williams, of Utica, N. Y., has secured a patent for an improved locomotive lamp for burning coal oil. The object of the invention is to obtain a lamp which will admit of the flame being supplied with a requisite quantity of oxygen to support proper combustion and at the same time prevent the flame from flickering under the motion of the locomotive and from other disturbing causes which tend to produce an irregular supply of air to the flame.

Railroad Chair.—Francis A. Brown, of Ithaca, N.Y., has secured a patent for an invention relating to that class of railroad chairs which are attached to the ends of the rails between the sleepers. The object is to obtain a chair of simple and economical construction which will not only serve as a secure connection for the rails, but also have a tendency to firmly support the same under the weight to which they may be subjected, the downward pressure having a tendency to bind the ends of the rails and the chair firmly together.

Furrowing Machine.—The object of this invention is to obtain a machine of simple and economical construction, which will furrow or mark land in check rows, that is to say, with marks or furrows crossing each other at right angles, and perform the work by a movement across the land in one direction only, and also be capable of being adapted for making the marks or furrows at different distances apart, as may be desired. Invented by J. R. Dikeman and J. J. Hewlett, of Hempstead, N. Y.

The Age of our Earth.

We extract the following from Agassiz's article on "Methods of Study in Natural History," in the May number of the *Atlantic Monthly* :—

Among the astounding discoveries of modern science is that of the immense periods which have passed in the gradual formation of our earth. So vast were the cycles of time preceding even the appearance of man on the surface of our globe, that our own period seems as yesterday when compared with the epochs that have gone before it. Had we only the evidence of the deposits of rock heaped above each other in regular strata by the slow accumulation of materials, they alone would convince us of the long and slow maturing of God's work on the earth, but when we add to these the successive populations of whose life this world has been the theater, and whose remains are hidden in the rocks into which the mud or sand or soil of whatever kind on which they lived has hardened in the course of time—or the enormous chains of mountains whose upheaval divided these periods of quiet accumulation by great convulsions—or the changes of a different nature in the configuration of our globe, as the sinking of lands beneath the ocean, or the gradual rising of continents and islands above it—or the wearing of great river beds, or the filling of extensive water basins, till marshes first and then dry land succeeded to inland seas—or the slow growth of coral reefs, those wonderful sea-walls raised by the little ocean-architects whose own bodies furnish both the building stones and the cement that binds them together, and who have worked so busily during the long centuries, that there are extensive countries, mountain chains, islands, and long lines of coast consisting solely of their remains—or the countless forests that must have grown up, flourished, died and decayed, to fill the storehouses of coal that feed the fires of the human race to-day—if we consider all these records of the past, the intellect fails to grasp a chronology for which our experience furnishes no data, and the time that lies behind us seems as much an eternity to our conception as the future that stretches indefinitely before us.

ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING APRIL 29, 1862.

Reported Officially for the Scientific American.

*** Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

35,067.—Ethan Allen, of Worcester, Mass., for Improvement in Revolving Firearms :

I claim, first, The combination of parts, m k and H, of lever, H being hung at the cock, substantially as specified and for the purpose set forth.

Second, Inserting screw, p, in cock, F, in such a manner that the size of the notch can be regulated from the outside of the arm by turning said screw, as described.

Third, The rack, K, and pinion, M, for operating the center pin, substantially as specified.

35,068.—J. F. Allen, of New York City, for Improvement in Steam Engines :

I claim a cup slide valve, having formed in it a passage which is independent of the exhaust cup, and which opens on the face of the valve in front of and behind the said exhaust cup, in combination with an elevated seat, or one of equivalent form ; when the said valve and seat are so arranged relatively to each other, that at proper times two passages are opened for the entry of steam into either end of the cylinder, substantially in the manner and for the purposes set forth.

35,069.—J. F. Allen, of New York City, for Improvement in Slide Valves of Steam Engines :

I claim the employment of a slide valve, formed as specified, in combination with the described seat, when so arranged relatively to each other, that an opening, equal in breadth to twice the distance traversed in the same time by the valve, may be made into one end of the steam cylinder, in the manner, and for the purpose aforesaid.

35,070.—John F. Allen, of New York City, for Improved Link Motion of Steam Engines :

I claim the combination of a single link motion, or its equivalent, as specified, with one or more steam valves and one or more exhaust valves ; the steam valves having movements independent of and differing from those of the exhaust valves, when all the said valves receive their respective movements from the single link motion aforesaid, substantially in the manner set forth and for the purpose specified.

35,071.—John F. Allen, of New York City, for Improved Valve Gear for Steam Engines :

I claim the combination of the valve-driving lever, a, and a single eccentric, or of their respective equivalents, when, substantially in the manner described, the said lever receives from the single eccentric movements which are similar to the movements of the link in the Stephenson's link motion, adapting the device as a substitute for the link motion aforesaid, as set forth.

35,072.—S. A. Bailey, of New London, Conn., for Improved Wringing Machine Cylinder :

I claim the employment of the rods, a a a a, in combination with the shaft, A, and rubber cylinder, B, for the purpose of securing the rubber and preventing it from turning during the operation of wringing, as is fully set forth.

35,073.—L. W. Beecher. of New Haven, Conn., for Improved Fruit Basket :

I claim using paper for baskets, instead of wood, or other material, fastening the same together with glue or other like matter, and coating the whole with varnish or other preparation that will withstand moisture, substantially as and for the purpose specified.

35,074.—Pardon Boyden, of Sandy Creek, N. Y., for Improvement in Snow Plows for Railroads :

I claim the construction of the frame or body of the plow, as set forth, in which traverse two endless removers or elevators, which effectually deposit the snow clear of the machine and the railroad.

35,075.—Albert Brown, of Mifflinsville, Pa., for Improvement in Flour Packing Machines :

I claim, first, The method of imparting rotary motion to the propeller or other rotary flour-packing device so as to allow of its rotation at variable elevations by passing the propeller shaft through the sleeve of the main gear wheel, said sleeve being provided with friction rollers impinging upon and working within grooves or ways arranged along the said shaft, substantially in the manner set forth.

Second, In combination with a stationary hopper or spout for the conveyance of the flour to the bag to be packed, I claim the adjustable funnel constructed and arranged substantially as described, so as to be readily adjustable to the stationary hopper, and securely hold the opening of the bag distended, substantially as shown and described.

Third, I claim the arrangement described of one double-winged screw propeller over the other so that while the one shall evenly spread the flour in advance of the other, the latter shall press the flour thus spread.

35,076.—F. A. Brown, of Ithaca, N. Y., for Improvement in Railroad Chairs :

I claim the employment of the central box, C, in combination with the chair, A, and supporting wedge, D, as and for the purpose shown and described.

35,077.—James Budd, of Sandy Hill, N. Y., for Improvement in Pumps :

I claim, first, The two induction pipes, I' Q, in combination with the chamber, G', provided with the valves, G S, and all arranged substantially as and for the purpose set forth.

Second, The combination and arrangement of the two nozzles, M M', chamber, L, and valve, N, and eduction pipe, K, substantially as and for the purpose set forth.

[The object of this invention is to obtain a pump, by which water can be drawn simultaneously from two different fountains or reservoirs, or drawn from either separately, as desired, and also ejected simultaneously from two different nozzles or eduction pipes, or from either separately, and at the same time not involve the necessity of any complicated arrangement of parts.]

35,078.—E. F. Burrows, of Mystic River, Conn., for Improved Self-acting Brake for Railroads :

I claim the combination of the toggles, E E F F, shoes, G, and rods, D, provided with the collars or stops, I, all being arranged and applied to the car or other vehicle, substantially as and for the purpose set forth.

I also claim the projections, J, attached to the rods, D, in combination with the pins, L, for the purpose specified.

I further claim the levers, M, when used in connection with the rods, D D, and provided with the projections, J, the toggles, E E F F, and shoes, G, all combined and arranged as and for the purpose set forth.

[The object of this invention is to obtain a brake for horse-railroad cars and other wheel vehicles, which will be self-acting, and at the same time admit of being operated at the will of the driver, like the ordinary hand brakes in use.]

35,079.—Lysander Button and Robert Blake, of Waterford, N. Y., for Improvement in Pumps :

We claim the two pistons operating in one cylinder by means of the two piston rods, one passing through the other, combined with and operated by the double crank, in the manner and for the purpose set forth.

35,080.—Gardner Chilson, of Boston, Mass., for Improvement in Dampers :

I claim the arrangement and combination, substantially in the manner as described, of a perforated annular air valve, G, and its seat, B, with a damper, D, and a smoke pipe, A, containing such damper.

I also claim the combination and arrangement of an annular current guard, C, with a perforated damper and an air register arranged with respect to a pipe or smoke conductor, and so as to operate substantially as specified.

35,081.—Orlando Clarke and Isaac Utter, of Rockford, Ill., for Improved Evaporator for Saccharine Juices :

We claim forming depressions, f, in the inclined rails, F, as described, for the purpose of tilting the pans and holding them in that position.

We also claim the combination of the racks on the rails, F, with the pinions on the pan, E, when operating in the manner described for the purpose set forth.

We also claim the combination of the pans, E E', the gearing for moving them, and the inclined rails, F, with the fire place, B, when the whole are constructed, arranged and operated substantially in the manner described for the purpose set forth.

35,082.—J. M. Cook, of Taunton, Mass., for Improved Signal Mechanism for Locomotive Engines :

I claim the described combination for ringing the bell by steam from the boiler the same consisting in the steam wheel, the lever hammer or striker and the gravitating tripper applied by means and so as to operate together, substantially as specified.

35,083.—James M. Cooper, of Pittsburgh, Pa., for Improvement in Railroad Axles :

I claim, first, The use of a cylinder or longitudinal sections of a cylinder placed in, and nearly filling a space in the male axle, when fastened to the tubular or female axle, for the purpose of connecting together the male and female axles, substantially as described.

Second, The use of a flanged head at the extremity of the male axle, either solid therewith, or attached thereto, in combination with the cylinders or section of cylinders, attached to the tubular part of the female axle for the purposes set forth.

Third, The use of an elastic pad inside the female axle or between the solid ends of the two semi-axles, for the purpose of allowing the axles to yield slightly to lateral pressure in running curves or tracks of narrow gage.

Fourth, The use of a loose disk of brass or other metal placed at the extremity of the male axle, whether the elastic pad be used or not, to render the motion of the axles more easy during any lateral pressure thereon.

35,084.—Horace Daniels, of Pawtucket, R. I., for Improvement in Machinery for Dressing Sewing Thread :

I claim, first, In combination with a revolving brush cylinder, a series of lifting or carrying rolls which turn with said cylinder, but may turn on their own axes independent of the motion of the cylinder, of which they are a part, substantially as described.

I also claim the so arranging the brush cylinder with regard to a hot-air chamber, as that whilst it shall revolve partially in or through said air chamber, and partially in or through the surrounding air, the regulating slides, o p, may govern or regulate the hot air admitted to both portions, substantially as and for the purpose described.

35,085.—Joseph Davenport, of Massillon, Ohio, for Improvement in Springs for Vehicles :

I claim a vehicle spring made up of pairs of short sections of leaves, a a, arranged around a common center and radiating therefrom and clamped between two disks at their inner ends and riveted or clamped together at their outer ends, all substantially in the manner and for the purpose described.

35,086.—F. Denzler, of New York City, for Improvement in Toy Breech-loading Firearm :

I claim the described movable breech piece when said breechpiece is held in its place by a bayonet joint, and is removed out of the breech for the purpose of receiving the charge and the percussion cap after each discharge of the gun.

35,087.—J. R. Dikeman and J. J. Hewlett, of Hempstead, N. Y., for Improvement in Machines for Marking and Furrowing Land :

I claim the combination of a reel or revolving marker with shares or teeth, J, attached or applied to a frame mounted on wheels and arranged to operate substantially as and for the purpose set forth.

35,088—J. B. Eads, of St. Louis, Mo., for Improved Turret for War Vessels :

I claim making the turret, tower, or shield, F, that protects the wheel, a protection also to the pilot and lookout, one or both, substantially in the manner and for the purpose set forth.

35,089.—Isaac Edge, of Jersey City, N. J., and C. C. Hyde, of Stonington, Conn., for Improved Mode of Firing Night Signals :

We claim the described improvement in firing night signals, by means of the fulminate couch, a, fired by the self-acting rod, c, actuated by springs, f and g, and the piston, d, and the annular plate, h, through the agency of the button, e, the slot, i, and the socket, b, substantially as described.

35,090.—Jonas Farnsworth, of Lewiston, Maine, for Improved Window Washer :

I claim the combination and arrangement of the piston, A, the cylinder, B, the head, D, with sponge, E, and rubber, F, substantially as and for the purpose specified.

35,091.—Henry Fletcher, of London, England, for Improvement in Crinoline Clips :

I claim a crinoline clip with slots or holes therein for passing the suspenders through and connecting the expanders thereto, substantially as described

35,092.—E. H. Funk, of Newark, Ohio, for Improved Evaporator for Saccharine Juices :

I claim the construction and arrangement of the pans or kettles, G J J, with relation to the furnace and to each other, for the purpose of evaporating and clarifying and converting into molasses the juice of sorghum, as described and represented, and these I claim, whether the pan, K, be used in connection with them or not, as set forth.

35,093.—Lucian Gabel, of Richmond, Ind., for Improvement in Combined Sword and Pistol :

I claim the arrangement of a pistol and sword so as to be used jointly or separately, in the manner fully set forth and described.

35,094.—A. J. Gove, of San Francisco, Cal., for Improvement in Faucets :

I claim the combination of the hollow-truncated cones, A and B, and nozzle, D, the whole being constructed, arranged and operated in the manner substantially as specified, and for the purpose set forth.

35,095.—J. S. Hall, of Pittsburgh, Pa., Improvement in Breech-Loading Ordnance :

I claim, in combination with the conical opening in the breech of a cannon, the vertical conical plug, or breech block, operating therein, substantially as described.

I also claim, in combination with the conical breech, and plug or block, the hole, m, in the former, and the opening, b, in the latter, for inserting and ramming home the cartridge, substantially as described.

35,096.—S. T. Holly, of Rockford, Ill., for Improvement in Harvesters :

I claim the arrangement of the guides of the rake carriage at an acute angle with the line of progression of the machine, so as to carry the rake further from the divider side of the machine, as it is moved backward on the guides, substantially as set forth.

I also claim the combination of inclined guides for the rake carriage substantially as set forth, with mechanism for moving the rake teeth forward in a line parallel, or thereabouts, with the line of progression of the machine, substantially as set forth.

I also claim the combination of quadrilateral rack of a rake mechanism with the frame in which it moves, by means of a pair of crossed levers, substantially as set forth.

I also claim the combination of a crank handle for operating the pinion of the raising and lowering mechanism of the cutter bar with a spring bolt and circular nosing, substantially as set forth.

35,097.—Alfred Ingalls, of Independence, Iowa, for Improvement in Machines for Upsetting Tires:

I claim, first, The cams, f f, in combination with the jaws, D D, at

tached to the bars, A A′, and arranged in relation with the jaws, to operate as and for the purpose specified.

Second, The key, H, when used in connection with the bars, A A′, jaws, D D, cams, f f, stock, C, and cam, F, as and for the purpose set forth.

[This invention consists in the employment or use of a stationary and movable jaw fitted to a segment stock and used in connection with a cam and lever, key and bearing plate, whereby tires for wheels may be readily shrunk or upset and contracted to suit the wheels without being cut and rewelded.]

35,098.—Ross Johnson, of Frederick, Md., for Improvement in Plows:

First, I claim a solid or unbroken-faced moldboard, having a friction roller, e, or rollers, e and e′, of continuous unbroken working face, and so secured centrally and longitudinally in the working face of the moldboard, that said roller or rollers shall present a flush bearing to the furrow slice as it rises upon, passes over and falls away from the moldboard, in the manner and for the purpose specified.

Second, I claim the auxiliary-turning roller, e″, in combination with the friction rollers, e and e′, and moldboard, b, in the manner and for the purpose set forth.

Third, I claim the rotary cutter, h, in combination with the plow point, F, extension, g, thereof, and moldboard, b, in the manner and for the purpose specified.

Fourth, I claim the steady roller, G, in combination with the land sitle, a, moldboard, b, plow point, F, and cutter, h, in the manner and for the purpose set forth.

35,099.—G. W. Lemley, of Pavilion, N. Y., for Improvement in Machines for Boring Seats of Buggies:

I claim a machine for boring the corner holes in buggy seats, and articles of a like nature, consisting of a combination of proper means for regulating and determining the point where and the angle at which the said holes are to be bored, substantially as described.

I also claim a machine which possesses the capacity of regulating and determing the place and angle of the corner holes, as well as proper means for determinmg the bevel of the posts in their cross section for that angle, substantially as set forth.

I further claim a machine which possesses the capacity of regulating and determining the place and angle of the corner holes, as well as proper means for determining the bevel or miter of the shoulders of the tenons on the posts for that angle, as described.

I also claim a machine comprising proper means for laying out or determining all the bevels of the posts of carriage seats, &c., to fit them to any desired angle of corner or post hole, as set forth.

And, finally, I claim a machine consisting of a combination of proper means to bore the corner or post holes of a carriage seat, &c., at any desired angle, and to determine or indicate the bevel of the posts in their cross section, and the bevel or miter of the shoulders of the tenons thereon, for that particular angle or corner or post hole, as specified.

35,100.—R. O. Lowrey, of Saratoga Springs, N. Y., for Improvement in Wind Mills:

I claim, first, The arms, H, with termini of the construction described, in combination with the hinging brackets, J, of the wings or blades, I, substantially as set forth.

Second, In combination with the arms, H, and brackets, J, I claim the levers, K, rollers, h, stops, i, cords, L, and ring weight, C, substantially in the manner and for the purpose described.

Third, The arrangement of a sliding ring weight, constructed as described, in combination with the vertical shaft, A, blades, I, and clutch lever, D, substantially as and for the purposes set forth.

35,101.—J. Luccock and J. M. L. Gowdy, of Peoria, Ill., for Improvement in Churns:

We claim the combination of the rotary dashers, C C′ C″, of unequal lengths with the racks or breakers, D, when constructed, arranged and operating as described for the purpose set forth.

35,102.—W. J. Lyman, of East Hampton, and A. E. Lyman, of Williamsburg, Mass., for Improvement in Coffins:

We claim the improved coffin, substantially as described, as a new article of manufacture.

35,103.—William Mansfield, Jedediah Morse and H. H. Mansfield, of Canton, Mass., for Improvement in Projectiles for Ordnance, &c.:

We claim, first, The spiral air passages, c c, formed between two cones, B b, and combining with a central air passage, a, substantially as and for the purpose specified.

Second, The combination of the external conical surface, f, forming the exterior of a hollow cone and and the shoulder, g, substantially as and for the purpose specified.

[One object of this invention is to obtain a rotary motion of an elongated projectile about its axis, by the action of the atmosphere upon it, when discharged from a smooth-bore gun, and to this end a part of the invention consists in providing in the rear of the projectile two or more spiral air passages formed between the cones, and communicating with a central passage in the front part of the projectile. Another object is to insure the projectile striking on its point, and to this end another part of the invention consists in making the rear portion of the exterior of the projectile of conical form, externally as well as internally, the exterior surface of such conical portion being in the rear of a shoulder, over which, in the flight of the projectile, the air rushes against the said surface on all sides thereof.]

35,104.—Enoch Osgood, of Boston, Mass., for Improved Regulator Valve for Air, Gas, &c.:

I claim the combination of a valve and a diaphragm enough larger than the valve to give it any desired power over it, wanted to close it, to hold and balance any pressure that may come in between them to be weighed out by weights on the diaphragm, to give the desired pressure wanted in the chamber below the valve for use, constructed and connected together to operate against each other, substantially as and for the purpose described.

35,105.—Gordon McKay, of Boston, Mass., for Improvement in Boots and Shoes:

I claim the formation of a quilting seam or seams within those used for holding the vamp, said quilting being formed of chain or tambour stitches passing through the whole thickness of the sole, substantially as and for the purposes set forth.

35,106.—S. H. Noble, of Vernon Springs, Iowa, for Improvement in Sled and Sleigh Runners:

I claim, as a new article of manufacture, a sled or sleigh runner formed of a cast-iron crook, B, with or without the shoe, C, and a straight wooden portion, A, combined or put together, substantially as shown and described.

[This invention consists in constructing a sled or sleigh runner of cast metal and wood combined, in such a manner that a straight piece of wood may be used for the main portion of the runner, and the cast metal for the crook or curve, and also the shoe of the wood portion.]

35,107.—J. P. Marshal, of Millbury, Mass., for Improvement in Breech-Loading Firearms:

I claim, first, The combination of the peculiarly-constructed stationary breech, C, with the movable breech, D E, arranged for conjoint operation in the manner and for the purpose specified.

Second, The combination of the operating lever, H, and movable breech, with the lock bolt, J, and trigger, P, substantially as and for the purpose described.

Third, The combination of the breech pin, X, constructed as described, with the screw, G, plate, E, and cylinder, D, arranged and operating as and for the purpose set forth.

Fourth, Forming the cone seat and its shield of the same piece with the lock plate, in the manner and for the purpose set forth.

Fifth, Forming a circular flange around the vent of the stationary breech piece to fit into a cavity, or recess, of corresponding size, in the rear side of the cone shield, in the manner and for the purpose described.

35,108.—H. H. Palmer, of Rockford, Ill., for Improvement in Pumps:

I claim the combination of the water chamber, H, with the suspension rod, K, when arranged and operating as described for the purpose set forth.

I also claim suspending the water chamber from the platform, A, by means of the rods, J and K, and guide ring, I, as and for the purpose described.

I also claim the combination of the flanged standard, B, air vessel, C, piston tube, F, piston, G, and water chamber, H, when the whole are arranged for joint operation, substantially in the manner described.

35,109.—John Percy, of Albany, N. Y., for Improvement in Machinery for Ginning Cotton:

I claim the construction of a picker for a cotton gin consisting of a hollow revolving cylinder, D, having through its outer periphery slots or openings for the passage thorough them of teeth, j j, affixed to rods which oscillate in bearings placed near the outer periphery of a pair of disks, E, located within the cylinder; these disks being arranged to revolve simultaneously with the cylinder, D, on an axis eccentric to its axis, so as to cause the said teeth to vibrate back and forth through the slots, substantially in the manner and for the purpose set forth.

35,110.—H. C. Pierce, of Homer, N. Y., Improvement in Churns:

I claim, first, The arrangement of the eccentric lever, L, spring catch, M, and ratchet plate, N, in combination with the wheel, K, pulions, C and F, disk, D, and dasher shaft, B, substantially as an for the purpose described.

Second, I also claim the employment of the wings, G, in combination with the disk, D, and holes, H H, substantially as and for the purpose set forth.

Third, I also claim the employment of the plate, I, or its equivalent, in combination with the disk, D. wings, G, and holes, H, for the purpose of controlling the admission of air, to the interior of the churn, substantially as set forth.

35,111.—L. B. Prindle, of Litchfield, Conn., for Improvement in Cups for Elevators of Flouring Mills:

I claim, as a new article of manufacture and sale, making elevating cups of malleable cast iron, for the purposes set forth.

35,112.—Gelston Sanford, of New York City, for Improvement in Head Rests for Car Seats:

I claim an adjustable portable rest for the head, to be attached to the back of a car seat, and so arranged that it can be folded together so as to occupy less space when not in use, substantially as specified.

35,113.—Isaac Sherwood, of Unadilla, N. Y., for Improvement in Water Elevators:

I claim, first, A water elevator, having, in combination, the wheels, D and D2 and E, constructed and operating substantially as described

Second, In combination therewith the double-acting lever, G and G2 H K K2, constructed and operating substantially as described.

35,114.—Isaac Stead, of Philadelphia, Pa., for Improvement in Condensing Carding Engines:

I claim, first, The revolving-toothed cylinder, I, in combination with the doffing cylinder, B, of a condensing carding engine, as forming a fiber separator, as described.

Second, I claim the stripper, S, in combination with the revolving-toothed cylinder, I, for the purpose of removing the fibers which may collect on the teeth, and carrying them back to the main cylinder, as described in specification.

35,115.—E. M. Stevens, of Boston, Mass., for Improved Clothes Wringer:

I claim, first, The jointed levers, F F, provided with thumb screws, h h, substantially as set forth and for the objects specified.

Second, Making the core, W, of the rolls fluted, and fitting into the flutes, cylinders of rubber, R, surrounded by a rubber tubing, R, substantially as and for the objects specified.

Third, The combination and arrangement of the lever, K, self-adjusting foot, N, and thumb screw, M, substantially as described and for the objects specified.

35,116.—A. Steward, of Plano, Ill., for Improvement in Stationary Counter Scissors:

I claim stationary scissors, hung and operated substantially as described.

I claim, also, in combination therewith, a measure so arranged that the cutting blades shall operate at one extremity thereof, as described.

35,117.—N. W. Taylor and J. W. Brightman, of Cleveland, Ohio, for Improvement in Machines for Drying Sized Paper:

We claim, first, The described construction of a drier, consisting of an inclosed chamber, provided with suitable openings, for the purposes specified, and which can be closed at pleasure, and having within said chamber the bearing rollers placed in horizontal rows, and the successive sets so arranged in relation to each other and the points of introduction for the paper and the heated air, that the paper will pass continually from a moist to a dry and heated atmosphere, as and for the purpose specified.

Second, We claim moving the rollers, S M N O P, at decreasing velocities, for the purpose set forth.

Third, We claim the plates, R, and openings, a′ b′, arranged as and for the purpose described.

35,118.—Thomas Tripp, of Amsterdam, N. Y, for Improved Water Wheels:

I claim, first, The conic form or shape of the center of this wheel, as applied to water wheels.

Second, The extension of the lower middle point of the main buckets, C C, Fig. 1, at the point 1, so as to receive the inclined auxiliary buckets, as represented.

Third, The curvature of the inner bottom edges of the main buckets, as represented in Fig. 1 by the red dotted lines.

Fourth, The curved and V-like shape of the inclined auxiliary buckets to water wheels, as represented by b b b b, Fig. 2.

Fifth, The scallop or concave of the lower edges of the bottom of the inclined auxiliary buckets, as applied to water wheels—the different curves of the parts of the wheel being arcs of the same circle as the circumference of the entire wheel.

Sixth, Inclined-curved auxiliary buckets, attached to curved or concavo-convex main buckets, conforming to the curvature of said main buckets.

35,119.—George Turner, of Cambridge, Ohio, for Improvement in Corn Shellers:

I claim the tapering cylinder, D, with teeth further apart on the large end, and closer together as they approach the small end, so arranged and operated that the ear of corn shall first be received at the large end of said cylinder, and pass toward the small end in process of being shelled, in combination with the springs, E and F, and inclined plane, G, in the manner and for the purposes set forth.

35,120.—Amos Westcott, of Syracuse, N. Y., for Improvement in Churns:

I claim the combination of the plano-diagonal dasher paddles, Fig. 7, A and B, with the box, Fig. 4, and with the shaft, A A, Fig. 5, when these paddles are set in such a manner about the shaft, Figs. 5 and 6, as that when the shaft is turned in such direction as to make the diagonal faces of the paddles strike the cream or milk, their effect will be to force the particles of butter, whether large or small, which may be floating in the fluid, toward a vertical plane in the box of the churn, parallel to its ends.

I also claim the employment of the fan wheel, Figs. 3 and 4, constructed essentially as and for the purposes set forth, in combination with the other parts of the churn, as described.

34,121.—D. H. Whittemore, of Worcester, Mass., for Improvement in Straw Cutters:

I claim, first, So arranging two cylinders together that the periphery of one shall move faster than that of the other, and at some point between them the knife or knives upon one shall move past the knife or knives, or projections upon the other cylinder, in such a manner that both a shear cut and self-feeding operation shall be produced thereby.

Second, I claim arranging two cylinders together, in such a manner that their relative position with the feed in the hopper can be changed for the purpose of varying the length of the feed cut, or so placing them upon the frame that the line of center of the two cylinders will not be at right angles with the bottom of the hopper, as represented in the drawings, for the purpose of producing a short cut, substantially as set forth.

Third, I claim combining with said shear-cutting cylinders the movable mouth piece, L, substantially in the manner and for the purpose set forth.

35,122.—I. A Williams, of Utica, N. Y., for Improvement in Locomotive Lamps

I claim the perforated cylinders, E F, one or more, in combination with the cap or deflector, G, and hollow wick tube, C, arranged substantially as and for the purpose specified.

I further claim the perforated cylinders, E F, one or more, cap or deflector, G, perforated hollow base, K, provided with the perforated cap, L, in combination with the hollow cylindrical wick tube, C, all arranged for joint operation, substantially as and for the purpose set forth.

35,123.—Lorenzo Winslow, of Rochester, New York, for Improved Wrench:

I claim the arrangement within the jaw, B, of the dog, d, and spring, S, in relation to the notched shank, A, the whole operating in the manner and for the purpose, substantially as set forth.

35,124.—D. T. Yeakel, of Lafayette, Ind., for Improvement in Mode of Constructing Ordnance:

I claim the use of plate or sheet iron or steel, in the manufacture or construction of large iron or steel cylinders, by winding the plate or sheet iron or steel (the plate or sheet being in width equal to the desired length of the cylinder) around a central mandrel, until by repeated continuous layers the intended size is produced, and after the first layer around the central mandrel (which may or may not be welded to the mandrel) each part of the plate, or sheet of iron or steel so wound to be welded to the part immediately under it.

[An engraving of this invention will appear in our next number.]

35,125.—D. C. Lawrence, of Cedar Falls, Iowa, for Improvement in Spring Balances:

I claim a spring balance, made of a single piece of wire, substantially in the manner and for the purpose set forth.

35,126.—E. L. Pratt, of Philadelphia, Pa., assignor to J. B. Collin, of Boston, Mass., for Improvement in the Thread Tension of Sewing Machines:

I claim so combining and arranging the tension devices which operate upon the threads used in a sewing machine which makes the double chain or Grover & Baker stitch that a relative, or any desired relative proportion of the whole tension upon the threads is made to be automatically operative upon each thread, and so maintained when the total tension on the threads is increased or diminished, said arrangement and combination being such that changes in the amount of the tension may be made with facility, substantially as described.

35,127.—Coleman Sellers (assignor to William Sellers & Co.), of Philadelphia, Pa., for Improvement in Wheel Press:

I claim the use of an adjustable upright, H, or its equivalent, substantially in the manner and for the purpose specified.

The hinged attachment of the blocking piece, N, or its equivalent, to the forcing-up plunger, substantially in the manner and for the purpose specified.

35,128.—Thomas Shaw, of Philadelphia, Pa., assignor to himself and Philip S. Justice, for Improvement in Laying Telegraphic Cables.

I claim the partial supporting of the telegraphic cable, while paying out, by means of an additional cable, when connected with friction clutches, as described.

35,129.—H. D. Stover of New York City, and W. W. W. Wood, of Philadelphia, Pa., assignor to said H. D. Stover, for Improved Shutters for the Portholes of Vessels, &c.:

We claim, first, The construction and arrangement of shields or armor to the portholes of war vessels or floating batteries, substantially as shown and described, by forming two or more plane or curved plates, impenetrable to shot, and arranged at such angles in relation to each other, and to the side walls of said vessel or battery, as to insure the glancing off of the projectiles thrown upon or against them, as set forth.

Second, In combination with movable shields, operating as described, we claim the convex-shaped or angular blocks, arranged to close the top opening between the shields and side walls, and to hold the said shields, when closed, at their requisite angles, substantially as shown and described.

Third, In combination with such movable shields, closing automatically or otherwise, in the manner described, we claim so forming corresponding recesses to the inner edges of the shields, as that the shields, by closing against the gun, shall leave a vertical space, sufficiently narrow to prevent projectiles from penetrating, yet wide enough to allow of the gun being sighted through it.

35,130.—Samuel Vanstone, of Providence, R. I., assignor to Wm. P. Pierce, of Boston, Mass., for Improvement in Machines for Cutting Files:

I claim the two disk cylinders, operating simultaneously upon the two sides of the blank, in combination with the peculiar construction of the disk cylinders, substantially as described, for the purpose specified.

35,131.—J. H. and A. E. Redstone (assignor to themselves and James M. Ray), of Indianapolis, Ind., for Improvement for Changing a Rotary into a Reciprocating Motion:

We claim the combination, in the manner described, of the groove, C, slot, D, and slide, A, when operated, substantially as set forth.

RE-ISSUES.

1,304.—J. E. Emerson, of Trenton, N. J., for Improvement in Mode of Fastening Tools to their Handles. Patented March 29, 1859.

I claim, first, The use of picks, axes, or other analogous tools without eyes therein, when the same are fastened to a handle by means of a stirrup, an iron bending, a gib and key or wedge.

Second, I claim the iron bending of a handle, in combination with the transverse key or wedge, and the eyeless pick, ax, or other analogous tool.

Third, I claim the key or wedge, when the same is used transversely to the tool for attaching picks, axes, or other analogous tools to handles.

1,305.—S. S. White, of Philadelphia, Pa., for Improvement in the Manufacture of Artificial Teeth. Patented January 1, 1862.

I claim the manufacture of mineral teeth, with pins having heads, d d, at their outer ends, substantially as specified.

DESIGNS.

1,568.—C. H. Frost, of Peekskill, N. Y., for Design for a Cook's Stove.

1,569.—W. H. Green and P. J. Clark (assignor to S. S. Clark) of Meriden, Conn., for Design for a Chandelier,

1,570.—N. P. Maker, of Pawtucket, R. I., for Design for a Crucifix.

1,571.—J. B. Sargent, of New Britain, Conn., for Design for a Coffin Handle.

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