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 vesterday 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.

THE Inland Propeller Line from New York to Baltimore, connecting with the Baltimore and Ohio Railroad, make the trip through in about thirty-six hours. The line lately added two new iron steamers to their route. They are now running ten iron steamers having water-tight compartments.

INVENTORS and manufacturers of roller washing ma chines are referred to an advertisement of the Metropolitan Washing Machine Company in another col-



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING APRIL '29, 1862

Reported Officially for the Scientific Americ

*** Pamphlets giving full particulars of the mode of applying for patents, under the new law which wentinto 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 Second Unparative Viscontine.

forth.

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

intri. The rack, K, and pinion, M, for operating the center pin, subtially as specified.

stantially 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, sub stantially 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:

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 unovements from the single link motion aforesaid, substantially in the manner set forth and for the purpose specified.

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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.

ing, 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.

fectually 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 function of 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.

he opening of the bag distance, successful of one double-winged Third, I claim the arrangement described of one double-winged crew propeller over the other so that while the one shall evenly pread the flour in advance of the other, the latter shall press the lour 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 he chair, A, and supporting wedge, D, as and for the purpose shown

35,077 .- James Budd, of Sandy Hill, N. Y., for Improve-

35,0'(...—James Budd, of Sandy Hill, N.Y., for Improve-ment 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 sub-stantially 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 drawnfrom 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 any complicated arrangement of parts.]

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.]

5,079.—Lysander Button and Robert Blake, of Water-ford, 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.

5,081.—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 describtion. 35.081.

tion.

We also claim the combination of the racks on the rails, F, with the pinions on the ban, 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.

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.

or surker 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 temile leak 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.

-Horace Daniels, or Pawtucket, R. I.,

provement in Machinery for Dressing Sewing Thread: I claim, first, In combination with a revolving brush cylinder, a series of litting 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 hotar chamber, as that whilst it shall revolve partially in orthrough said air chamber, and partially in or through the surrounding air, the regulating slides, op, 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 saidbreechpiece 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 guin.

as a usenarge of the guil.

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 the fullminate 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, c, 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 agreement of the state of the st 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 Improve-ment in Crinoline Clips: I claim a crinoline clip with slots or holes therein for passing the suspenders through and connecting the expanders thereto, substanti-ally as described

35,092.—E. H. Funk, of Newark, Ohio, for Improved Evap-

orator for Saccharine Juices:

I claim the construction and arrangement of the pans or kettles, G
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.

y or separacely, in the manner runy 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 nanner substantially as specified, and for the purpose set forth.

manner substantially as specifica, and its the party series in 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, embetantially as described.

cannon, the vertical conical ping, 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:

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, substantally 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 pindon 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, ff, in combination with the Jaws, D D, at