thereto, or the slats themselves, to the rods or projections, c. in such a manner as to keep said slats extended, and employed in combination therewith the springs, a a, and cross pieces, A A, substantially as and for the purpose herein set forth.

49,190.—Straw Cutter.—George T. Wright, Cincinnati,

49,190.—Straw Cutter.—George T. Wright, Chickness Ohio:

I claim the arrangement of the ratchet wheel, O. pawl, P. in cobination with the slotted arm, R, and perforated disc, S, for grading the rotation of the feed rollers, K, in the manner described.

49,191.—Machine for Cutting Rings from Ivory.—Chas.
H. Bassett (assignor to The Birmingham Button
Company), Birmingham, Conn.:
I claim forming rings from any material out of which buttons or other circular articles are cut, by cutting them from that portion of the material which is exterior to the button, and at the same operation with the cutting of the button, by the means substantially as described.

described.

49,192.—Process of Varnishing and Polishing Wood.—
George Bricker, Sr., Newville, Pa., assignor to himself and George B. Hammer, Harrisburg, Pa.,
I claim the process herein described of varnishing and polishing wood, substantially as set forth.

wood, substantially as set forth.

49,193.—Beater Press.—L. C. Field (assignor to himself, J. P. Frost and W. S. Bellows), Galesburg, Ill.:
I claim, First, The two levers, F. F. employed in combination with the rope, H, beater, D, and notches, g and r, in the manner and for the purpose set torth.
I also claim the standards, n. n, on the beater, D, when used in combination with the levers, F. F., and rope, H, for the purpose specified.

from the press box.

49,194.—Reaping Machine.—Henry Fisher (assignor to C. Aultman & Co.), Canton, Ohio:

I claim swinging and dumping table, G, operated automatically, such as herein described and represented.

I also claim in combination with a swinging and dumping table, the hinged section, d, at its front edge, as and for the purpose substantially as herein described.

I also claim in combination with a swinging and dumping or dropping table, a shield, or holder, operating in connection therewith, as and for the purpose described.

49,195.—Starting Cars.—A. F. French (assignor to himself and Ed. Chas. Terrill), Franklin, Vt.:

I claim the lever, F. pawl, c, in combination with the ratchet wheel, d, draught pole, D, and with the axle or wheel of a street car or other vehicle, constructed and operating substantially as and for the purpose set forth.

[This invention consists in the application of a lever pawl atchet, in combination with the draught rod or draught chair, with the axle of a stretcher or other vehicle, in such a manner that in starting the ear the strain exerted by the draught animal or animals is increased by the purchase of the lever, and the operation of starting the car or other vehicle is rendered comparatively easy, and can be effected with much less exertion for the draught animals than by the ordinary arrangement.]

animals than by the ordinary arrangement.]

49,196.—Steering Apparatus.—Nathan Richardson (assignor to himself and Eli F. Stacy), Gloucester, Mass.:

I claim in a steering apparatus made with a worm gear on the radder head, and operated by means of worms or endless screws meshing therein, the arrangement of said screws outside of the periphery of said gear and substantially in the plane, as and for the purpose specified.

Also arranging the endless screws with reference to the gear on the rudder head, so that by forcing the screws toward the center of the rudder head it will be prevented from lateral motions.

49,197.—Life Boat.—A. L. Shears, Flint, Mich., assignor to himself and H. T. Woodman, Dubuque. Iowa.

I claim the general arrangement of the boat herein described of the air chambers or spaces for storage of provisions, etc., water, scuppers and thwarts susceptible of being raised or lowered at pleasure for communication with the air chambers of the boat, arranged together and operating substantially in the manner and for the purpose specified.

[This invention relates to some important improvements in life

[This invention relates to some important improvements in life boats, whereby their efficiency is much increased, and the safety of its passengers more insured than with such boats as heretofore con

structed.]

49,198.—Salve.—Wm. Slape, Salem. N. J., assignor to himself and H. S. Marsh, Philadelphia, Pa.: I claim a salve composed of the within-namedlingredients, composed substantially, as set forth.

49,199.—Steam Boiler.—Wm. Mont Storm (assignor to himself and R. Charlton Mitchell), New York City: First, I claim the relative arrangement of the parts of my steam boiler, substantially as follows, viz: In a cylindrical horizontal shell, the arrangement of two indepeadent furnaces, located at its middle, with grate bars running transversely to its length, said furnaces being separated by a water space or "leg," and their products of combustion respectively, passing right and left through flues proper conduit to their final exit, all substantially as described. Second, I claim in conjunction with the other general arrangement of the parts of this boiler, the application of a series of auxiliary draft-heating tubes running the entire length of the horizontal shell, from its end to its furnaces respectively, in the manner and for the reason given.

Third, I claim the hollow head or "tonipion," with its conduits

shell, from its end to its furnaces respectively, ...
for the reason given.
Third, I claim the hollow head or "tonipion." with its conduits for circulation, substantially in the manner and for the purpose defor circulation, substantiany in the manner and to see purpose seribed.

Fourth, I claim the application of the sleeve, m m, through the steam drum and chimney, for the objects described.

49,200.—Flour Sifter.—George W. Tileston (assignor to Asa Wilmot) New Haven, Conn.:

I claim as a new article of manufacture, a flour or meal sifter, consisting of a curvilinear vibrating sieve, and a crusbing or pulverizing roller, when the whole is constructed and fitted to produce the result, substantially as herein described.

201.—Composition for Paint.—James C. Wendrem, Albany, N. Y.. assignor to Wheeler, Mellick & Co., Albany, N. Y., and Edward Wackerhagen, Greenville, N. Y.: claim the composition specified for mixing with pigments to form

a paint.

49,202,—Barrel for Holding Petroleum.—George W. Williamson, Gouldsborough, Pa., assignor to himself and D. W. Lee, Wilkesbarre, Pa.:

I claim, First, Filling the space between double barrels, designed to contain petroleum or other volatile duids, with a solution composed of water, chalk or its equivalent, substantially as described. Second, With a solution composed of water and chalk or other mineral centwalents.

Second, with a solution composed of water and chark of other mineral equivalents. Third, With a solution composed of water and glue or other glu throus equivalent.

49,203.—Machine for Refitting Stop Valves.—Samuel Wing, Monson, Mass., assignor to himself and George R. Topliff, Brooklyn, N. Y.:

I claim, First, The concave mill. B. provided with an internal yielding center, c. and arranged in suitable bearings, a, in combination with the adjustible center, C. constructed and operating substantially a and for the purpose set forth.

Sec. vd. The guide, E, and conical mill, D, applied in combination with each other, substantially as and for the purpose described.

49,204.—Cultivator and Planter.—E. M. Wright (assignor to himself and A. C. Diboll) Wilmington, Ohio I claim, First, The construction and arrangement of the under

substantially as herein (escribed.

Fourth, I also claim operating the seed-dropping wheels, U U, by the governing wheel, 0, under the control of the driver, by means of the lever-armed rock shaft, S, and flexible connecting reds, s s and t t, or their equivalents, substantially as herein specified.

Fifth, I also claim the projecting ledge, v, in the soiral seed separator, substantially as and for the purpose herein set forth. Sixth, I also claim the friction plate, r, between the brush, w', and its fastening wedge, for the purpose specified.

Seventh, I also claim the construction of the drill teeth or shovels, with sockets or mortises fitting over their standards, for the purpose specified.

specined.
49,205.—Machine for Hulling Grain.—Christophe Ours Bullot (assignor to Bullot & Company), Santa Rosa de los Andes, Chili:

I claim the decorticating apparatus herein described, the same consisting of the grinding disks, G L, feeding screw, E, fans, M P, and air pipes or conductors, N O, arranged to operate in the manner described.

[This invention consists in subjecting the corn or other grain to be lecorticated to the influence of moisture for a few minutes previous to exposing the same to the decorticating apparatus, which is composed of two pairs of wooden grinding disks; the grinding surface of the first being covered over with wire gauze, and the other with leather or other flexible material, and those of the second pair being covered with leather or other flexible material only, in co with suitable conduits and fanblowers.]

49.206.—Suspended.

49,207.—Lock for Satchel.—Bernard Steinmetz, Paris,

49,207.—Lock for Satchell.—Bernard Steinmetz, F:
France:
I claim the arrangement of a spring lever, D, in combination
a tumbling bolt, V, acted upon by a spring, s, and operated by m
of a key, when combined with the jaw frames of a carpet
satchel, etc., and operating in the manner and for the purpose
stantially as described and set forth.

49,208.—Wrench.—James White, Cleveland, Ohio: I claim the stop, L, operating as described, in combination with the disk, F, and adjustable jaws of the wrench, whereby they can be used at any desirable angle, and in either way, without removing the wrench from the nut, as specified.

REISSUES.

2,040.—Box for Hats and Bonnets.—Oliver A. Dailey,
Washington, D. C. Pattented March 14, 1865:
Iclaim a hat box made of paper, cloth, leather, or the equivalent thereof, with respect to lightness, and strengthened by the use of ribs, substantially as described.

ribs, substantially as described.

2,041.—Seed Coverer for Grain Drills.—John S. Gage, Dowagiac, Mich. Patented Aug. 26, 1862:

I claim. First, The seed coverer as hereia described, constructed with two concave or converging arched palms, a a, which are shaped on their rear and bottom edges as represented, and are connected by an intermediate portion, e, so as to have a space, b, between them, the said coverer being made of one piece of metal only, and adapted to be applied to the nearly horizontal arms, A A, of the seeding machines, so as to operate upon the sides and top of the ridge or row, as herein specified.

Second, Providing the coverer with a lug, c, adapted to receive a weight, substantially as described.

weign, substantiany as described.

2,042.—Tackle Hook.—Joseph W. Norcross, Middle-town, Conn.:

I claim the strap or brace, B, which forms the upper section of the lower eya of the hook, A, and is made to swivel on the neck of said hook, and connected to its points, substantially in the manner and for the purposes set forth.

and for the purposes set forth.

2,043.—Lightning Arrester for Telegraphs.—George A.

Stearns, Roehester, N. Y. Patented June 21, 1864:

I claim the protection of electric telegraph lines from the disturbing influences of atmospheric electricity by means of a small, fine quard-wire, inserted in the main or line circuit thereof, in such a manner as to complete said circuit, when such guard wire is used in combination with a metallic surface or with a series of metallic points, connected with the earth and placed in close proximity to the line at or in advance of said guard wire, all substantially in the manner herein set forth.

I claim also establishing communication between the main or line circuit of an electric telegraph and the earth, for the discharge of atmospheric electricity from the line by the use of charcoal, powdered glass, powderedamber, sulphur or other equivalent substances brought into contact with said hae and connected with the ground, substantially in the manner herein set forth.

substantially in the manner herein set forth.

2,044.—Machine for Sheeting Plug Tobacco.—W. J. Van Horn and Wm. Alexander, Louisiana, Mo. Patented December 27, 1859:

First, We claim the combination and arrangement of the two belts, C and G. or their equivalents, with a cylinder, B, and a series of pressing rollers, F arranged and operating substantially as and for the purposes herein specified and shown.

Second, We claim in combination with said cylinder, pressing rollers and belts C G, the employment of the feeding table, J, all arranged and operating substantially as shown and described. Third, We claim the employment of the rollers, L L, provided with the circular knives, a, and the corresponding channels or grooves, substantially as and for the purposes deliniated and described.

scribed.
Fourth, We claim the employment of the rollers, M M, provided with the longitudinal cutters, N, arranged and operating as and for

with the longitudinal cutters, N, arranged and operating as an axthe purposes set forth.

Fifth We claim the combination and arrangement of the two pairs of rollers, L and M, provided respectively with the cutters, a and N, arranged a.d. operating substantially as and for the purposes herein set forth and shown.

Fifth, We claim the combination and arrangement of the cylinder, B, rollers, F, table, J, belts, C, G, cutting rollers, L and M, constructed and operating substantially as and for the purposes herein specified and described.

specified and described.

2,045.—Sawing Machine.—A. E. and J. V. Warner, Norwalk, Ohio. Patented May 30, 1865:

We claim the above-described arrangement of operating a circular saw, in combination with a cross-cut saw, or separately, substantially as and for the purposes set forth.

as and for the purposes set forth.

2,046.—Skeleton Skirt.—S. H. Doughty, Clinton Township, N. J., assignee by mesne assignments of Jas. Draper. Patented Oct. 4, 1859. Reissued Dec. 27, 1859:

I claim the new manufacture of skeleton skirt, substantially as described, consisting of a series of tapes woven in the direction of their length, in alternate sections, as single and as double tapes, with the hoops inserted in the loops formed by wearing the tapes as double tapes, and there secured to prevent the tapes from sliding laterally on the hoops.

July 25.

JULY 25.

2,034.—Turndown enameled Paper Collar.—James H-Hoffman, New York City. Patented Jan. 24, 1855: I claim the new article of manufacture consisting of a turndown of folded enameled paper collar, substantially as described.

2,035.—Carpet Bag Frame.—Samuel Lagowitz, New York City. Patented July 7, 1863:

I claim the cover, B, made of clartic wood and attached to one end of the jaws, A, by stays or brackets, all as herein shown and described.

2,036.—House for Preserving Fruit, Etc.—Benjamin M. Nyce, Cleveland, Chio. Patented November 2, 1858. Reissued October 23, 1860; again May 16, 1965.

the insulated and cooled preserving chamber, J, provided

cultivator frames, composed respectively of long central beams, D. D, fixed but adjustable in position and of short side pieces or beams, E.E., hinged and movable or adjustable to and from the said central beams, substantially as and for the purposes herein specified.

Second, I also claim the governing wheel, o, arranged and operating substantially as and for the purpose herein specified.

Third, I also claim the combination of the governing wheel, o, and the side pieces or beams, E.E., of the under frames, through the means of the levers, Q.Q., connecting bars, p.p., rods or bars, P.P., all substantially as herein described.

Legism the method of preserving fruit in a chamber whose walls, substantially as herein described.

Legism the method of preserving fruit in a chamber whose walls, substantially as herein described.

or without the agitator, K.

2,037.—Preserving Fruit and other Perishable Substances.—Benjamin M. Nyce, Cleveland, Ohio. Patented November 2, 1858. Reissued October 23, 1860; again May 16, 1865:

I claim the method of preserving fruit in a chamber whose walls, doors and floors are practically air tight, and so proof arainst the ingress of heat and moisture, as to maintain by the aid of ice, on a metal floor above a uniform temperature of from 34° to 37° F., throughout the year, and by the use of absolvents within said chamber producing any desired degree of dryness.

2,038.—Preserving Fruit and Other Perishable Substances.—Benjamin M. Nyce, Cleveland, Ohio. Patented November 2, 1858, Reissued October 23, 1860; again May 16, 1865:
I claim the above described outside air tight casings of walls, when used in combination with a chamber chilled by ice on a metallic floor, on its upper part, with absorbents of moisture, within said chamber.

2,039.—Steam Engine Governor.—Thomas Silver, New York City. Patented April 26, 1859:
I claim the combination of a spring with a momentum wheel, and adjustable speed limiting vanes, the whole constructed with the combination of the peculiarly adjusted sectors, pinion and links, as fully described and set forth.

DESIGNS.

2,149.—Bass Relief for Bust of Abraham Lincolu.— Elizabeth V. Bunting, Philadelphia, Pa. 2,150.—Stove.—Gardner Chilson, Boston, Mass.

2,151.—Trade Mark.—D. L. Gold and J. B. Adams, Springfield, Ill.

2,152.—Carpet Pattern.—E. J. Ney (assignor to the Lowell Manufacturing Co.), Lowell, Mass.
2,153.—Plate of a Cook Stove.—Garrettson Smith and Henry Brown, Philadelphia, Pa., assignors to Marshbank & McConkey, Lancaster, Pa.

2,154, 2,155.—Stove Base.—N. S. Vedder (assignor to Cox, Church & Co.), Troy, N. Y. Two Patents.
2,156.—Cook Stove.—N. S. Vedder (assignor to Cox, Church & Co.), Troy, N. Y.

2,157.—Top of a Stove.—N. S. Vedder (assignor to Cox, Church & Co.), Troy, N. Y. 2,158.—Cook Stove.—Russeil Wheeler and S. A. Balley, Utica, N. Y.

ATENTS

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[See Judge Holt's letter on another page.]

[See Judge Rolt's letter on another page.]

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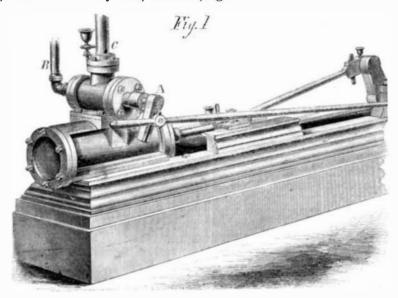
Oscillating Steam Valve.

The object of this valve is to overcome the resistance and loss of power in the use of common valves, more particularly the slide valve. It is plain that by overcoming this resistance, there will be just so much power added to the engine for practical purposes. The chief difficulty has been to balance the valve properly, without making it too complicated or expensive. It is claimed that this has never been so successfully accomplished as in the valve herewith

This valve may be perfectly balanced; is about as simple in its construction as an ordinary steam cock, and is claimed to be much cheaper to construct than any other valve known. In addition to these se veral advantages, it will out-wear any other, since the finger.

ance made for expansion of the valve, to prevent it sticking, as it would be liable to do with a set-screw.

Fig. 3 shows the upper, or exhaust side of the valve, and the recess, I, for the purpose of counterbalancing the upward pressure of the valve. There are small openings admitting the steam from the inside of the valve to these recesses. If the sum of the area of both these recesses exactly corresponds to the area of the main opening in the underside of the valve, it is evident that the valve will be balanced. It is found on actual experiment that the valve works as easy under pressure, the surfaces being exactly right, as it does without any pressure. The valve on a six-horse power engine, at work under sixty-five pounds of steam, was worked with the thumb and



CARHART'S OSCILLATING STEAM VALVE.

working parts are not subject to heavy pressure. It | may be applied to engines of any ordinary device, without alteration in the valve motion, link, or any part of the engine proper.

Fig. 1 represents an engine with the valve attached. This engine formerly had on a slide valve. No alteration has been made in the cylinder or valve seat. There are flanges cast on the under side of the valve socket, whereby it is bolted to the old valve seat. The arm, A, attached to the valve stem takes the eccentric rod by which the valve is worked. The position of the pin in which the rod hooks may be varied by means of a slot in the arm, thus varying the oscillation of the valve. B is the steam, and C is the exhaust pipe.

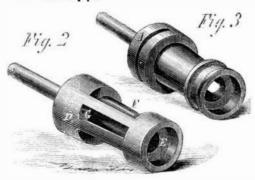
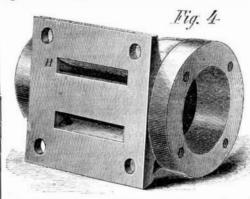


Fig. 2 represents the valve isolated, chiefly to show the opening, D, which communicates alternately with corresponding openings in the valvechest, leading to the opposite ends of the cylinder. Steam is admitted at E; the valve being cast hollow communicates alternately with the opposite ends of the cylinder through D, and exhausts over the valve, at F.

The valve is made tapering, so as to Wear to a fit. It is held in place by steam pressure, and is without a set-screw; there is not a screw or bolt exposed to the action of the steam. The steam passes through the small opening at G, into a thin chamber at the head of the valve, made by a washer being slipped on to the stem. The area of this end being greater than that of the opposite end, the pressure is just enough greater to hold the valve in its place. The washer not fitting steam-tight, there is allow-

Fig. 4 shows the under side of the valve chest, the flanges with bolt holes, and more particularly the openings, H H, which communicate with openings leading to opposite ends of the cylinder.



Patented through the Scientific American Patent Agency July 25, 1865.

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For further information, address the inventor, Rev. J. Carhart, D.D., Troy, N. Y., or Geo. Gould, President Oscillating Steam Valve Company, at the same place.

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