Iron Company, under Mr. Menelaus (who wrote a paper on machine puddling, to be read before the Institution of Mechanical Engineers, of Birmingham). As this company erected several of these furnaces, with a capacity of sixty tuns a week each, it must have been considered a success, although I have never heard of its being adopted elsewhere. This patent furnace requires no assistance to puddle the iron. The iron is run in melted, the machine set in motion, and the charge boiled or balled, ready for the hammer or squeezers, without further assistance. The body of the furnace is a cylinder lined with probably something the same as the Bessemer retorts, and made to hold about five cwt. of iron. It is hung on large journals at each end of the cylinder. Through these journals the flame passes from the stationary grate to the stack. The operation of the machine keeps the fluid iron constantly in motion, and prevents it from adhering to the inside of the cylinder; and as it comes to "nature," it gets gradually rolled into a ball the shape of the inside of the furnace. The iron made by this furnace was said to be of a more uniform quality than could be made by hand or by the assistance of othermachines. A bloom and specimens of finished iron made of it were exhibited at the same time Mr. Menelaus read his paper on machine puddling in Birmingham. ----

#### The Rusting of Iron.

Perfectly pure water will not rust iron until it is heated to redness, when the contact with the metal instantly forms a red-heat crust. If iron again be left for a very long time in water, a yellow envelope of hydrated peroxide will be formed. Water charged with atmospheric air will not rust iron, but oxidation will take place as soon as the air has constant access. According to Martell's and Hall's experiments, the rusty envelope is to be attributed to the presence of carbonic acid in the air, where, in its normal condition, it exists on an average of 4 in 10,000 volumes. Water charged with carbonic acid oxidizes fron with rapidity under visible evolution of hydrogen, the process being expressed by the following formula:

#### $3HO+Fe+CO_2=Fe_2O_3CO_2+3H.$

The temperature at which steam is decomposed by iron is at a red heat, but at the white heat the oxide loses partly its oxgen and forms the double combination of peroxide and protoxide, having the formula of magnetic iron.

The French chemist Gay Lussac holds that iron cannot be oxidized higher than 37.8 parts of oxygen to 100 parts of iron, answering very nearly to the above-mentioned double combination.

Water oxydizes iron more rapidly when it receives small quantities of mineral acids, while on the other hand an alkali or caustic lime destroys the oxidizing faculty of water, a fact which is easily explained when we consider what strong affinity carbonic acid has for those bases. We are indebted to Fayen for the determination of the limits of this veto power which alkalies possess over the oxidation of iron in water. He ascertained that a saturated solution of potassa lye diluted with from 1,000 to 2,000 parts of water could still protect iron, but not when diluted with from 3.000 to 4.000 parts. Saturated lime water, when diluted three times, protected iron, but not when diluted four times. Saturated car bonate of soda, diluted with from fifty to fifty-four volumes, protected iron, but not so when diluted with even fifty-nine volumes. The finest cast steel was protected perfectly by even less potash.

Iron is perfectly oxidized by being often sprinkled with pure water, and then on being exposed to red heat loses 1.74 per cent of water, having in fact been a hydrated peroxide with a formula, Fe<sub>2</sub> O<sub>3</sub>, HO. Moist air rusts the iron yellow, and Bergmann considers the rust to be a compound of  $76 \text{ Fe}_2$  $O_3$  and 24  $CO_2$ ; Hausmann, of peroxide and water—but it is, as Thompson and Karsten have shown, a true hydrated basic carbonate of peroxide.

Rust is porus, and like all porous bodies, absorbs gases. White pig metal scarcely oxidizes; gray iron with more facility, bar iron still easier, especially when red hot. Cold, short iron rusts least and slowest. Polish is the best preventive of rust, particularly when the article is kept in dry air. There are many recipes given of compositions designed to prevent oxidizing, but a coat consisting of common resin melted with a little gallipot oil and spirits of turpentine is generally considered to be the best. Bleaching also, in a slow fire, is a protective against rust, and this is constantly used for nails and tacks.

Improved Artificial Leather Belting. Patented by Stephen M. Allen, Woburn, Mass.

|FEBRUARY 22, 1868.

will not be susceptible of absorbing moisture, so as to cause a belt to contract or expand, either under the influence of heat or a humid atmosphere. When properly pulped, the same may be run off on an ordinary paper machine, or between rollers, and doubled to a proper thickness, and may be used either with or without further preparation, by printing, japanning, stitching, or water-proof applications. I usually subject the belting to a high temperature of heat, to set the gluten and other resinous properties, and sometimes vulcanize the same, though forordinary use it is not necessary.

## Bromo-iodized Rubber.

The following process of treating rubber and other gums without the use of sulphur has lately been patented by J. B. Newbrough and E. Fagan, New York city: By adding to iodine one half its weight of bromine proto-bromine of iodine is formed, and this, when combined with rubber, or equivalent gum, will produce a composition which will harden on being subjected for about an hour to a heat of 250° Fah. Owing to the volatile properties of proto-bromide of iodine, it cannot be applied without difficulty to practical purposes. To obviate this difficulty, we treat both the bromine and iodine, prior to combining the same, with oil of turpentine, or similar oil, which has previously been mixed with about one fourth its weight of sulphuric acid, to prevent the formation of an explosive composition.

The pasty mixture, produced as above described, is combined with caoutchouc, or eqvivalent gum, in the proportion of about three ounces of the paste to a pound of gum, the proportion of gum being increased if a more elastic product is desired. After the gum and paste are thoroughly incorporated, the composition may be hardened by subjecting it to a dry heat (of from 200° to 320° Fah.), for from ten minutes to one hour and a half, the time being lengthened to increase the toughness of the product.

The product thus obtained may be applied to many useful and ornamental purposes, and any desired color may be imparted to the material by combining with the composition, before it is hardened, any suitable mineral or earthy coloring matter.

# Manufacture of Carpets and other Fabrics from Jute, Flax, etc.

Thomas Crossley, of Bridgeport, Conn., has obtained a patent as above, the process being as follows:

"The cloth, after being woven from the raw jute, flax, or cotton, is immersed in a bath of water, at, say, from 90° to 120° Fahrenheit, in which has been mixed a certain portion of either wheat or corn bran, and sub or bicarbonate of soda. After remaining in this bath for a length of time sufficient to thoroughly dissolve the tannin in the jute or cotton, or the gluten or gum in the flax, I then remove the cloth and wash it thoroughly in clean water, and I afterwards immerse it in a bath of cold water, mixed with a solution of crystallized tin and muriatic acid, or strong muriate of tin, with twenty per cent of sulphuric acid, at a strength of from one to two degrees Twaddell. After impregnating the cloth with this bath, it should be again washed in clean water, and then submitted to a bath of weak solution of chloride of lime, after which the cloth is so washed clean and dried, and it is then ready for printing or dyeing.

" By these means I am enabled to produce a carpet or other fabric, dyed or colored in any colors or design, by the process of dyeing or printing, without weakening or injuring the strength of the fibers, and at the same time to produce a carpet or other fabric, having all the richness and style of woolen or worsted goods, with equally durable colors, but at much less cost."

# Recutting Files with Acids.

There are many recipes for converting old files into new by means of acids, and among the latest is that recently patented as follows, by Albert I. Ferguson, of Sharon, Pa. :

"The files must be thoroughly cleansed in warm water containing a small quantity of potash, which readily removes any grease or dirt from them. After the files are thus cleansed, they must be washed with warm water and dried by artificial heat. Next, place one pint of warm water into a wooden vessel, and put into it as many files as the water will cover. Then add two ounces of blue vitriol, finely pulverized, and two ounces of borax, well mixed, taking care to turn the files over. so that each may come in contact with the mixture. To the above mixture now add seven ounces of sulphuric acid and one fourth of an ounce of cider vinegar. which will cause the files to assume a red appearance at first, but they will, in a short time, resume their natural color. Then they must be removed, washed in cold water, and then dried by artificial heat. When dry, they must be sponged

OFFICIAL REPORT OF PATENTS AND CLAIMS

### Issued by the United States Patent Office,

FOR THE WEEK ENDING FEBRUARY 4, 1868.

Reported Officially for the Scientific American.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees: -

On filing each Caveat	10
On filing each application for a Patent, except for a design	15
On is 511 ng each original Patent	20
On appeal to Commissioner of Patents	20
On application for Reissue	30
On application for Extension of Patent.	50
On granting the Extension.	50
On filing a Disclaimer	10
On filing application for Design (three and a half years)	10
On tiling application for Design (seven years)	15
On filing application for Design (seven years)	ē0

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

🕼 Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much mation useful to Inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific American, New York.

73,942.—COOKING STOVE.—Federal C. Adams and Joseph Peckover, Cincinnati, Ohio. We claim, 1st, The horizontal concentrating plate, A, stationary or mova-ble, and with or without iuel doors, substantially as and for the purposes described.

ble of the other without fuel doors, substantially as and for the purposes described. 2d, The flap or guard plate, B, whether stationary or movable, substan-tially as and for the purposes described. 3d, The spaces between the fire back and sides and the front oven and side plates in combination with the plate, A, substantially as described. 4th, The obamber above the top oven platean dbelow the top flue formed by plates, C and C', substantially as and for the purpose described. 5th, The air claubter under the grate and sah pot formed by the false bottom. I, substantially as described. 6th, The air claubter under the grate and sah pot formed by the false bottom. I, substantially as described. 6th, The register, R, in combination with the fire-back and from oven plate, substantially as described. 9th, The register, R, in combination with the open-grate frame, substan-tially as described. 11th, The silfing ild, A a, in combination with a cooking stove, substan-tially as described. 12th, The elding lide, A, in combination with a cooking stove, substan-tially as described. 13th, The elder plates, C and cooking stove, substan-tially as described. 13th, The elding lide, A, in combination with a cooking stove, substan-tially as described. 13th, The elding lide, A, in combination with a cooking stove, substan-tially as described. 13th, The elding lide, A = liding laterally under the bottom plate, sub-stantially as described. 13th, The register, B, no combination with a cooking stove, substan-tially as described. 13th, The elding lides, E e, liding laterally under the bottom plate, sub-stantially as described. 13th, The elding lides, E e, liding laterally under the bottom plate, sub-stantially as described. 13th, The register, Described. 13th, The register plates, E e, liding laterally under the bottom plate, sub-stantially as described. 13th, The register plates, E e, liding laterally under the bottom plate, sub-stantially as described.

assignor to the Allen Manufacturing Company. I claim the rotary press herein described having one of its driving wheels, i, provided with one or more adjustable segments or racks, F2, substan-ially as and for the purpose set forth.

1. provided with one or more as instable segments of races, 12, substantially as and for the burpose set forth.
73,944.—VIBE.—Samuel S. Barnaby, Macon, Ga. Antedated November 23, 1867.
1. Claim, 1st, The combination of the sliding bar, H, ratchet-jaw shank or bar, E, and pawi, M, when arranged toget er +ubstantially in the manner and so as to operate as and for the purpose set forth.
2d, An arranged together and connected with the jaw shank or bar, E, substantially as and for the purpose set forth.
3d, An improved vise constructed and arranged in its several parts substantially as described and so as to be operated as specified.

stantially as described and so as to be operated as specified. 73,945.—CULTIVATOR.—F. M. Barrier, Stevenson, Ala. I claim the construction, arring ement, and combination of the central heam, A, with its shovel or plow, the side beams, C C, with their shovels or plows, the U or arched-shaped brackets, E E, and braces, a a, all as and for the purpose described. 73,946.—INKSTAND.—James Barwick, Silvertown, North

the jurnove described.
73.946. – INKSTAND.—James Barwick, Silvertown, North Woolwich, England.
Iclaim, 1st. The combination with an ink reservoir and cup of a valve for holding and discharging the ink which the cup may contain said valve being stranged within the reservoir so as to close against the bottom or under side of the cup, substantially as berein shown and described.
2d, The combination with the ink reservoir, dipping cup and valve, arranged as above described to fa valverodpassing centrily or axially through the said cup, substantially as berein shown and described.
3d, The combination with the ink reservoir, dipping cup and valve, arranged as above described of a valverodpassing centrily or axially through the said cup, substantially as dere of the ink reservoir.
3d, The combination with the ink reservoir, dipping cup and valve of a bollow valve-operating stem extending from within and near the bottom of the reservoir up through and above the bottom of the ink cup, substantially as and for the purposes set of the.
3d, The combination with the fink reservoir, dipping cup and valve of a valve of a bottom of the ink cup or cataling the valve described.
4ta, The combination such the fink reservoir, dipping cup and valve of a stubber field or gauzod substantially as here in shown and specified.
5th. In vitx star or gauzod cup and hove the intended level of the ink held in the same, substantially as and for the purposes shown and specified.
6tr. The combination with the closed ink reservoir, the clastic bulb. or equivalent device for compressing the air within the case is point above the bottom of the cup ta spoint above the bottom of the cup at a point above the bottom of the cup cup indicated to reverve find the cup and above the intended level of the ink cup.
6tr. The combination with the closed ink reservoir. the clastic bulb. or equivalent device for compressing the air within the casame and the ink cont

73,947.—DRAWING CLAMP.—Jules Bouniol, Philadelphia, Pa. 73,947.—DRAWING CLAMP.—Jules Bouniol, Philadelphia, Pa. I claim the wire and tube.drawing device consisting of the frame, AB, with rollers, CD, which have cause or jaws, cf. nco Wheels, H1, double joint or hinge, E F, and hook, G, substantially as and for the purposes described.
73,948.— PHOTOGRAPHIC PRINTING APPARATUS.—Edwin Boston, Mass.
We claimt, ist, So conducting a frame suitable for sk etching photographic prints to and with any proper operating mechanism that such frame, will be moved over and across the picture as it is being printed, substantially as and for the purpose described.
2d, Also the road, F, carrying the sketching frame and guide, M, or their respective equivalents, in combination with eacbother and when so arranged together and with reference to the operating mechanism as to impart to the frame the movement requisite for sketching, substantially as described.
23 949.—Stratteroom FOR RAILEOAD CAPE, —William Brown.

STATEROOM FOR RAILROAD CARS.-William Brown,

Duncamon, Pa. I claim the combination of the hinged doors, c, with 'the passage way or entry, C, so that the latter may be inclosed and made to form a portion of the staterooms when desired, substantially as described. 73,950.—CAR BRAKE.—John A. Campbell (assignor to himself

73,950.—CAR BRAKE.—John A. Campbell (assignor to himself and David Sharp), South Boston, Mass. I claim the combination as well as the arrangement of the two screws, ef, of the transom-bolt, C, with such bolt, the bars, a c, and the two screles of brakes applied to such bars and the wheels or to the same and the platform, A, substantially as described. And in combination therewith the hand wheel shaft, m, its gear, 1. and chain or belt, k, and the gear, 1, on the transom-bolt, C, the whole being ar-ranged substantially in manner and so as to operate as described. 73,951.—STEERING APPARATUS.—James L. Cathcart, George-town D. C.

scribed. 73,952.—HORSE RAKE.—Abner Chapman, Delta, N. Y. I claim a grain head applied to the arms of a revolving horse rake, marked B, in the manner and for the purpose herein set forth. 73,953.—CASE FOR TOOTH PASTE.—George F. J. Colburn,

Newark, N.J. I claim the case, D, to be used in combination with the tube. B, and with or without the saek, A, and the application of the whole, as and tor the pur-pose specified. 73,954.—LIFTING JACK.—John Coulter, Sen., Xenia, Ohio.

I take ordinary scrap leather, though preferring the skivings or shavings of the cuticle, from tanneries, shoemakers' use." or curriers' shops, and soak and wash the same before or during the process of pulping, sometimes with pure cold or warm water, and sometimes using alkalies, or any other property which will separate the tannin from the scraps of leather, so that when pulped and dried the fiber will adhere strongly together, and be less likely to absorb moisture. I then prepare the untanned scraps of hides, sometimes in lime solutions, or solutions of salts, so as to remove the stiffness when dry, without destroying either the fiber itself or the adhesive properties of the glue or gelatine in the same. When the fiber is thus prepared, the tanned and untanned fiber will readily unite in combination and will also unite with vegetable fiber either with or without other gelatinous or resinous substances while pulping. I sometimes add to the combination of fibrous substances, when the same is being pulped, a proper quantity of bullock's or animal blood, which, with the previous prepaaration of the animal fiber, as before described, will make nearly a water proof sheet of artificial leather, and the same the first, we believe, to make a really superior comb from steel.

with olive oil, wrapped in porous paper, and laid aside for

#### Improvement in Combs.

Elias Brown, of Wappinger's Falls, N.Y., has lately received a patent for a valuable improvement as above, which is coming, into extensive use. The combs are stamped by a peculiar machine out of sheet steel, the mechanism being of such a nature as to leave the teeth of the comb rounded and smooth. The combs are then tempered and afterwards ornamented with an enamel which gives them a very soft and beautiful appearance. In weight they are about the same as rubber, over which they have several important advantages, such as freedom from odor, greater elasticity, cheapness, and durability. The agents are Noyes, Wilson & White, 98 Franklin street, New York. Mr. Brown's large factory for the manufacture of these new combs was lately burned down at Wappinger's Falls. But he is rebuilding with characteristic energy, and will soon be in full operation again. He is

Antedated January 31,1868. I claim the combination and arrangement of the standards, C C, horizontal sliding bar, B, vertical bars, d d, windlass, E, with its toothed wheels, F F, and ratchet lever, G, toothed wheel, I, and pawl, H, constructed substantially as shown and described

as shown and described 73,955.—SHUTTLE FOR LOOMS.—E. Cross, Southbridge, Mass. as shown and described 73,955.—SHUTTLE FOR LOOMS.—E. Cross, Southbridge, Mass. I claim the combination with the tip and wood of the shuttle of an inter-posed shield, Carranged with relation to the tip and the shuttle wood, sub-stantially as and for the purposes set forth. 73,956.—PEN W IPER.—Samuel Darling. Bangor, Me. I claim, 1st, A pen-cleaning apparatus so constructed as that the pen may be first dipped in water and then be cleaned against a brush hung free to re-volve, substantially asset forth. 2d, 'The combination with a water cup or vessel of a circular brush free to revolve therein, as and for the purpose described. 3d, The combination with a water cup of a revolvable brush set at an angle with the cup, substantially as and for the purpose described. 4th, The removable cover having secured thereon one of the bearings or centers for the brush. 5th, A pen cleaner having a brush, circular or otherwise, to be need we tor day, in combination with a where made of wash leather, cith, orth er culvabants, for the purpose described. 73,957.—GAS HEATER.—Samuel Darling, Bangor, Me. I claim the combination with the tube of a "gas heater" of flame-confining gnides, substantially as described. 73,958.—SAFETY HARNESS HOOK.—J. L. Dickinson, Dubuque, Iowa.

I claima safety harness hook for liberating horses from carriages, con-structed and operating substantially as herein shown and described.

73,959.-RAILWAY FROG.-J. Hall Dow and Daniel J. Riker, Chicago, Ill. We claim, ist, The chair, C, constructed substantially as and for the pur lose specified.

We claim, ist, The chair, C, constructed substantially as and for the pur-pose specified. 2d, The point, s, having its npper and lower edges bevelled in combination with the chair, C, constructed substantially as and for the purposes speci-fied. 3d, The wings, ef, when provided with the two bevelled edges in combina-tion with the point, s, and chair, C, all constructed and arranged substan-The wings, e f, when provided with the two bevelled edges in combina-with the point, g, and chair, C, all constructed and arranged substan-y as and for the purposes specified. 73,960.—Ege-Preserving Frame.—Christopher A. Erskine,

73,960.—EGG PRESERVING FRAME.—Christopher A. Erskine, Palermo Centre, Me. I claim the said egg supporting frame substantially as described as made hot only with its trays provided with ledges at their ends and without any at their sides but as baving the tic bors arranged with respect to such trays in manner and so as to operate as and for the purposes as set forth. 73,961.—STRAW CUTTER.—William H. Evans and William H. Wainwright, Indianapolis, Ind. We claim, ist. The combination of the eccentric shaft, I, pawls, L and M, ratchet wheels, O and O', rollers, D and D', and the adjustable eccentric, R, constructed and arranged substantially as set forth. 2d, The combination of the boxes, B and B1, and plates, B2, constructed as described. 3d, In combination with the boxes, B and B1, and knife, E, the cutting bar, C, adjustably attached by eccentric boils, substantially as described. Harming H. Harming

falo, N. Y claim. 1st.

13,905.—NUMBERING MACHINE.— waiter h. Forousal, Duffalo, N.Y.
1 claim, ist, A registering pawl, G, striking radially, or nearly so, into the external registering notches, D, of the disks, after each movement thereof, thereby bringing said disks into strict alignment.
2d, ibe system of steps, 23, on the registering pawl, G, working in combination with the steps of the changing pawl, E, substantially as set forth.
3d, The mechanism consisting of the can, i, arm, H, and fix ed plate, J2, or the equivalent thereof, for giving the in, down, out, and up movement to the changing pawl, E, substantially as set forth.
73,964.—CAR COUPLING.—John Fortier, Fairport, N.Y.
1 claim the combination of the spring. E, with the inclosing silde, D, and case, t, arranged in such a manner that the spring acts by the tension of its main body and compression of its parts, k s simultaneously to resist the thrust of the coupling link, substantially as set forth.
73,965.—MANUFACTURE OF ARTIFICIAL STONE, STUCCO, CE-MENT, STUCCO, STUCCO

Initiat of the coupling inits substantially as set for in:
73,965.—MANUFACTURE OF ARTIFICIAL STONE, STUCCO, CEMENT, FTC.—Geo. A. Freer, Chicago, III.
I claim the use of an aqueoussolution of shellac in the production of artificial stones, cements, stucco, etc., for useful and ornamental purposes.
73,966.—Toy GUN.—Russel Frisbie (assignor to J. E. Stevens & Co.). Cromwell, Conn.
I claim the spring, E, with the clutch bub, D, rod, F, pebble socket, J, trigger, B, substantially as and for the purpose described.
73,967.—WETTING OR WIPING INSTRUMENT FOR SLATES, etc. Wm. T. Fry (assignor to G. H. Jones and H. C. Berlin), New York city. Anticidated Jan. 23, 1893.
I claim a vessel, A, having openings in the end, through which pass florous strands, d, in combination with a spouge, G, with which the strands are in contact, the whole being arranged substantially as specified.
73,968.—WETTING OR WIPING INSTRUMENT FOR SLATES, etc. W. T. Fry (assignor to G. H. Jones and H. C. Berlin), New York city. Anticidated Jan. 23, 1893.
I claim a vessel, J. 1863.
I claim, ist. An inst ument consisting of a casing for containing water, one end of the casing being provided with a sponge, or its equivalant, communicating with the water, and the other end with a spong to which the water cannot gain access, the whole being constructed substantially as and for the purpose herein set forth.
2d, The enlargement, c, at opposite ends of the case, for the purpose specified.
73,969.—Pump Pistow.—S. P. Gilbert Racine Wis

73,969.—PUMP PISTON.—S. P. Gilbert, Racine, Wis. 1 claim the rung, I, holding the packing, E, and forming a valve for the ports p. all substantially as and for the purpose set forth. 73,970.—APPARATUS FOR TURNING THE LEAVES OF MUSIC.—

Thos. Goodram (assignor to Wm.E Green and Charles W. H. Day), Prov-idence, R. I. claim the ratchet plate, F, blaged to and operated by the spindle, C, and er, J, in combination with the ingers, for turning over the leaves of music oks, substantially as shown and described. 971.—HORSESHOE.—Wm. T. Harmar, New York city. books, sul 73.971.-

i claim the steel to e cork or sharp, attachable to any smooth horseshoe by means of a clip, or flexible metal straps; also, an iron, or other metal, snow plate, attachable to the shoe by means of the clip and hole and leather loop

and strap. 73,972.—SEEDING CULTIVATOR.—M. Hayden, Detroit, Mich.

73,972.—SEEDING CULTIVATOR.—M. Hayden, Detroit, Mich. I claim, ist, The springs, L, when arranged and operating substantially as and for the purposes set forth.
24. The arrangement of the treadle or vibrating lever, W, the arm, V, and rod. X, provided with the adjustable screws and nuits, the pins, T, and the cars. Z, for the purpose described.
3d. The covering showels, G, provided with a proper spring, when operating substantially as andfor the purposes specified.
3d. The covering showels, G, provided with a proper spring, when operating substantially as andfor the purposes specified.
3d. The convention and arrangement of a seeding cultivator, combining the above recited park, with the frame, A, the wheels, B, the bars of the frame, D, the showels, F, and covering shovels, G, the bulned joints, H, the praces, I, clasps, J, the adjusting slotted plates and boits, K, the slotted prime arm, T, the rocking bar, U, the even the arm, R, the quadrant, S, the gliman arm, T, the rocking bar, U, the plates and boits, K, the shoted, K, when constructed and operating substantially as herein set forth.
72972.—SEEDING MACHNE — M Havden Detroit Mich

73.973.—SEEDING MACHINE.—M. Hayden, Detroit, Mich.

I claim. 1st, The construction of a seeding machine provided with the shatt the grooved cylinder, E, the collar, P, provided with the gage prongs, F, id the sleeve, D, when constructed and operating substantially as herein-fore described. The quadrant, H, the lever, I, the segment rack, J, and the plate. L, when The quadrant, H, the lever, I, the segment rack, J, and the plate. L, when

attached and operating substantially as and for the purposes set forth, 3d, The combination of all the foregoing described parts, in conjunction with the hopper onseed box, A, when constructed and operating substantial-ly as and for the purpose specified. 73,974.—DENTISTS' FLASK.—G. E. Hayes (assignor to Buffalo Denti Manufesturing Co. B. Buffalo N. Y.

73,974.—DENTISTS' FLASK.—G. E. Hayes (assignor to Buffalo Dental Manufacturing Co.), Buffalo, N. Y. I claim, ist, The process, substantially as herein described, of filling vulcan-izing flasks, or the molds contained therein, by constructing the flask with a side opening, a, and forming a cavity, b, in the mold by a plumer, E, com-bined or connected in a direct manner with said flask, and after lawing first packed the mold proper, also, the cavity, b, communicating therewith, with rubber and closing the flask, projecting the plunger through the cavity in the flask to press upon the rubber, substantially as specified. 24, themolds, C and D, provided with an enlarged cavity, b, in communi-cation with a side opening, a, made in the flask for reception of a portion of the redukte mecosary to fill themola, essentially as herein set forth. 35, The combination, with a vulcanizing flask having a side opening, a, in

in set forth. St The combination, with a vulcanizing flash having a side opening, a, in it, of a plunger, E, for operation therein, substantially as specified. 73,975,---DRAWER.--Henry Heath (assignor to H. G. Fish, T. R. Clark, and T. J. Flagg), New York city. I claim the combination of the pointed weistband of the drawers with a full leg, having triangular portions removed from its npper end, so as to ob-tain the requisite fullness at the hips and waist without the necessity of gathers.

gathers. Also, the combination of the ankle band of the drawers with a full leg, having a triangular portion removed from its lower end, so that the requi-site fullness of the legs is secured without a surplus of material in the vicin-ity of the ankle. Also, the combination of the pointed waistband of the drawers, ankle band and fullleg having triangular portions removed at bot, ends, substantially as set forth. 73.976.—POSTAL SCALE.—Marcus L. M. Hussey. New York

POSTAL SCALE — Marcus L. M. Hussey, New York

73.980.—Compound for Destroying Burrs in Wool.—W.

73,980.—COMPOUND FOR DESTROTING DOTAGE A.
H. Jubb, Norwalk, Conn.
I claim the use and combination of the ingredients, as herein described, for destroying the burrs in wool and bleaching the wool, substantially as and for the purpose set forth.
73,981.—FLOUR BOLT.—E. H. Kellogg, Mukwonago, Wis.
I claim, ist. Arushing the bolting cloth, one edge to the outside and the other to the mside of the ribs of each square of a bolting reel, as described.
2d, inclines, H, in combination with arms, F, and ribs, F, of a bolting reel, substantially as and for the purpose described.
73,982.—WASHING MACHINE.—Dan'l Lampson, Lyons, Iowa.
I claim the hollow cylinder, B, encased with ends and slats, as above set

1 claim the hollow cylinder, b, encours while our and the hollow cylinder, B, the slats, 2d, The combination and arr ingement of the hollow cylinder, B, the slats, d, the corrugated trough bottom, when constructed, arranged, and operating substantially as and for the purposes set forth. 73,983.—MODE OF FORMING PLOW LAYS.—John Lane, Chica-

73,983.—MODE OF FORMING 1 LOW LALL. go, III. 1 Claim the method herein described of making plow lays, that is to say, by first reducing by means of rolls a slab of steel along its center, from end to end, to the shape described, then sitting said slab along the line of its great-set depression, and afterwards cutting the same crosswise, insuitable lengths for plow lays, as set forth. 73,984.—CAR COUPLING.—Sam'l D. Lecompte, Leavenworth County Kansas.

County, Kansas. 1 claim the combination of the pivoted swinging bar, d, and the spring, e, inged at f, in connection with the double slotted boltholder, B, and shank-leaded bolt, O, when constructed and arranged substantially as and for the wrong decembed

purpose described. 73,985.—Wood Turning Lathe.—Geo. Lewis, Westfield, O. I claim the combination of the reciprocating vibrating carriage, R, cutter head, W, cross piece, U, standards, X C, spring, A', adjustable arms, Y D', lever, F, and weights, Z E, all constructed, combined and arranged in rela-tion to the pattern, Q, and spoke, P, and operating in the manner and for the purpose substantially as set forth. 73,986.—CARPET STRETCHER.—C. S. McRobert, Plymouth,

(73,930.—UARPET STRETCHER.—U. S. INCRODEL, Frynorau, Mich, I claim, Ist, The rack, I, and hooked sliding pawl, J, in connection with levers, C and A, when constructed and operating substantially as and for the purposes set forth 2d, The combination of the above named parts with the cretchet lever, A, provided with the transverse bar, B, the kyers. C and D, provided with transverse bars, E and F, and teeth, as hereinbefore described, and the ad-justing pins. G and H, when arranged substantially as and for the purposes herein described. 73,987.—WINDOW BLIND FASTENING.—George B. Melcher (conference bars, described, assignments to John Kinsman), Salem, Mass.

(assignor through mean a series in the formal), selen, Mass. I claim the aforesaid rotary silde button, as made with a slot, B, projection, g, potch, d, and convex face, e, e, substantially as described. 73,988.—CORN AND COTTON CULTIVATOR.—James W. Milroy,

73,985.—CORN AND COTTON CULTIVATOR.—James W. Milroy, Galveston, Ind.
Iclaim the movable arms, D D, toggle jointed lever, E, beam, C, notched lever, F, rod, G, key, g, circular frame, A, and self-adjusting boe shovels, IS B B JS, the whole as constructed and a rranged substantially in the manner and for the purpose set forth.
73,989.—FRUIT PICKER.—Oel B. Moore, Walled Lake, Mich. Iclaim 1st, The form of the instrument.
73,990.—STOVE DRUM....M. S. Morgan (assignor to himself and George C. Coffee), Clintonville, Ill.
Iclaim rotating case, A, in combination with soot box, L, scrapers, H and H", substantially as and for the purpose described.
73,991.—A RTUFICIAL LEATHER —Louis Montier N. Y. city.

H", substantially as and for the purpose described. 73,991.—ARTIFICIAL LEATHER.—Louis Montier, N. Y. city. I claim, ist, The process herein shown and described oi combining the refuse shavings of leather to make artificial leather. 26, Waterproof artificial leather, when made and coated, substantially in the manner and with the ingredients hereindescribed and set torth. 73,992.—CARRIAGE JACK.—Calvin H. Paine (assignor to him-self and George S. Thompson), Providence, R. I. I claim the arrangement and combination of the lever, D, and toggle, E, with the slide bar, C, and the base board, B, applied to the standard, A, sub-stantially as specified. Also, The pin, g, as made with the brace or arm, m, extended from it as set forth.

73,993.-LET-OFF AND TAKE-UP FOR LOOMS.-John Pender,

Worcester, Mass. I claim, in combination with the yarn and cloth beams, or either of them, and with the mechanism by which the intermittent rotative movement of the yarn or cloth beam is directly produced, the lever or levers, i, pawl or pawls, u, and arm or arms vx, arranged to operate substantially as set

forth. 73,994.—Apparatus for Separating Soap Bars.—Harvey

Phelps and Alvah Phelps. Albany, N. Y. We claim the application to soap cutting apparatus of a carriage, E, hav-ing an accelerated motion with relation to the slab feed, D, for the purpose set forth. 73,995.—CALCULATING MACHINE.—A. C. Pierson, Rahway,

wire, M. bracket, D. cap, E. clasp, K. substantially as and for the purposea set forth.
74,018.—CONSTRUCTION OF FENCE.—Asahel Todd, Jr., Pultneyville, N. Y. assignor to himself, A. F. Sheldon, J. S. Todd, T. S. Ledyard, and L. S. Cuyler.
I claim, 1st, The jointed double acting lever, D.
2d, The detachable indexes, K and H H', in combination with the double-acting lever, D, and guide, L.
3d, The detachable kuide, I, in combination with the lever, D, and indexes, K and H H', substantially as and for the purposesset forth.
74,019.—CASTER.—Alexander C. Twining, New Haven, Conn. Antedated Januars 8, 1988.
I claim the spring catch attached to the carriage, as described, in combination with the groove or slot around the interfor of the socket, al substantially as described andfortbe purposes set forth.
74,020.—LANTERN GLOBE.—William Westlake, Brooklyn, N, Y.

N.J. Iclaim, in combination with the table, N, orits equivalent, having the in-terest or other calculations for given amounts entered as represented, the parallel bar, B, with or without the adjustable movable pieces, c, or their equivalents, adapted to operate in connection with the numbers in the table, N, or its equivalent, substantially in the manner and for the purpose herein at forth

N, or its equivalent, substantially in the manner and for the purpose action, et forth, d. In combination with the above, carrying on the parallel bar, B, the line of figures or other marks, P, indicating the amounts for which the interest or other calculations is to be computed at the several points, substantially in the manner and so as to realize the advantages herein set forth. Sd, in combination with the column of days, the belts or moving columns, G and H, carrying the dates in a reverse order, so as to allow the length of time to be ascertained from a given day, reckoning either forward or back-ward, substantially as and for the purpose herein set torth. 4th, The belts or sliding columns, G and H, having the dates in reverse or-der, as shown, in combination with the interest table, n, as and for the pur-pose herein specified. "28 GMR --- WASHING MACHINE.--J. F. Pond, Cleveland, Ohio.

der, as shown, in combination with the interest table, n, as and for the pur-pose herein specified. 73,996.--WASHING MACHINE.-J. F. Pond, Cleveland, Ohio. 1 claim, 1st, The application of friction guide pieces, i, attached to the edge of the endless apron or belt, to prevent the apron from turning under or over, and getting out of place, as and for the purpose specified. 2d, The adjustable solides, b), attached to the upright pleces, BB, by means of bolts or screws, as and for the purpose specified. 73,997.-BED BOTTOM.-James Potter, Portland, Me. I claim, 1st, The spring as shown at b, in connection with the recesses, m' m', in the slats, b', as and for the purposes set fortb. 2d, The enfring joints, a, in the slat, B, as and for the described purposes. 3d, In combination with a bed slat, removable by means of the spring, b, the arrangement of pivots, t, and binges, s, as and for the purposes de-scribed.

the arrangement of pivots, t, and binges, s, as and for the purposes uescribed. 73,998.—LIME KILN.—Wm. W. Potts, Bridgeport, Pa. I claim, 1st, Arching over the upper end of the klin, A B, substantially as described, and covering the feed hole, a', left thereby, by means of a remov-able cover, a'', provided with the small vent hole, a''', substantially as and for the purpose described and set forth. 2d, The combination of the lurnaces, C, and the channels, D and E, when the same are constructed and arranged in the relation to each other and to the klin, A B, as described and set forth, for the purposes specified. 3d, Forcing the currents of air up through the low er part of the klin, and conward therein, by means of the channel, F, sn bstantially as and for the pur-poses described. 73,999.—Door SPRING.—L. C. Prindle, Chicago, Ill. I claim a door and gate spring, cut in the form shown, and colled so as to have projections, F and G, in combination with plates, E H, substantially as and for the purpose therein specified. 74 000 \_\_REDECK MACHINE.—L. E. Ransom, Trenton, Mich.

74,000.-BRICK MACHINE.-L. E. Ransom, Trenton, Mich. 74,000.—BRICK MACHINE.—L. E. Ransom, Trenton, Mich. I claim the construction of the apparatus as hereinbefore described, com-bling the frame. A, the rollers, B and C, the forank, D, the gears, E and F, the stoles or shields (G, the sloping shelt, H, the scraper, I, the wheels, J, and the knife, K, with the stand, L, all arranged and operating substantially as and for the purposes herein described. 74,001.—PROCESS OF GENERATING GASES AND IN THE APPLI-

CATTON OF THE SAME.—John T. Rich, Philadelphia, Pa. Antedated Jan 23,1883.

23, 1985. I claim, ist, The process of generating and procuring the partial decompo-sition of storepheric air by the action of wet steam in contact with mesallic or other hard rubstances, for the purposes set forth. 20, The process, substantially as described, of saturating atmospheric air, and the subsequent application of the same to the purposes of chemical dis-tillation, or mixed with carbon or hydrocarbon vapors to heating of thumi-

74,006.—COTTON SCR PER AND CUTTER.—Andrew Runstet-

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14,000.—COITON SCR FER AND COITER.—Antifew Runster-ler and Albert Windeck, Peorfa, Ill. We claim, ist, The mode, substantially as set forth, of adjusting the scrap-ers, c. by means of curved irons, h, connected with the regulator, I. 2d. The combination of a driver's seat, the levers, M and L, for controlling the action of the revolving hose, H H, and the regulator, L for controlling the scrapers, substantially as set forth. 74,007.—TREADLE FOR PROFELLING SEWING MACHINES.— Prof. Pattonard University Australia on Disc.

74,007.— TREADLE FOR PROPELLING SEWING MACHINES.— Benj.Rutter and Hixson Hunt, New Lexington, Ohio. We claim the construction of the top of a sewing machine stand, with a fulcrum, G, and balance lever, F, in combination with the treadles, A and C, bar B, crank D, and rods E E, substantially in the manner and for the pur-pose as herein set forth. 74,008.— SAFETY POCKET.—Cyrus Sanborn, Chichester, N.H. I claim the said improved safety pocket, consisting of the case, A, secured to the appared, into which the case, C, is arranged to slide and fasten, sub-stantially as herein set forth. 74,009.—CARRIAGE SPRING.—J. D. Sarven, Columbia, Tenn. Lelaim the combination of the steel springs. D. rubber springs, E and

74,009.—CARRIAGE SPRING.—J. D. Sarven, Columbia, Tenn. I claim the combination of the steel springs, D, rubber springs, E, and curved plates, C (baving fianges or ears formed upon their side edges, with each other, and with the springs and body of the vehicle substantially as herein shown and described, and for the purpose set forth. 74,010.—CARRIAGE SPRING.—J. D. Sarven, Columbia, Tenn. I claim the combination of the metallic plate or cap, B, having flanges, b', uponits sides and outer end, and the rubber spring or angular block, C, with the end of the wooden spring, A, substantially as berein shown and described and for the purpose set forth. 74,011.— ELASTIC BEARINGS FOR BODY-SUPPORTING IRONS FOR CARRIAGES -Jamea D. Sarven. Columbia

(4,011.—ELASTIC BEARINGS FOR BODY-SUPPORTING IRONS FOR CARRIAGES.—James D. Sarven, Columbia, Tenn. I claim the method of fastening the iron head, D. in the box, B, as above de-scribed, by means of vertical grooves, e , in the side of the head, in connec-ton with vertical projections in the box, or by means of a vertical bolt, G, passing through the center of the box, substantially as and for the purpose specified.

74,012.-ELASTIC BEARING FOR THE BODY SUPPORTING

74,012.—ELASTIC BEARING FOR THE BODY SUPPORTING IRONS FOR CARRIAGES.—James D. Sarven, Columbia, Tenn. Iclaim, ist, The supporting iron, D, having the neck, d, and the head, D', as and for the purpose specified. 2d, The combination of the sorings, A A. one or both, cushions, I F, and cross-bars, B. substantial y as and for the purpose described. 3d, The combination and arrangement of the box, E, with the enclosed cushions, I F, substantially as and for the purpose specified. 74,013.—SHUTTLE FOR LOOMS.—Levi Scofield, Farmington, Wisconsto.

(4)010.— SHUTTLE FOR LAGALS.—Let's Sconton, a manager, Wisconsin. I claim constructing a shuttle for weaving cloth, with the orifices, d and e, substantially as and for the purpose described. 74,014.—Book BINDING.—Henry M. Shute, Waukegan, Ill., assignor to George W. Emerson. I claim the wire, c, figs., 1,2 and 3, in combination with the flattened wires, e, figs., 1 and 2, one or more, or their equivalent, substantially as and for the manager forth

e, p.g., i and y, one or more, or their equivalent, substantially as and for the purpose set forth. 74,015.—LETTER BOX.—John W. Smith and Jas. D. Smith, Washington, D. C. We claim the arrangement of the cylinder, C, colled spring, D, pulley, E, chain, F, and cover, A, substantially in the manner and for the purpose as herein set forth

74,016.—HARVESTER.—Jno. W. Thompson, (assignor to Elvira 74,016.—HARVESTER.—Jno. W. Thompson, (assignor to Elvira A. Thompson,) Greenfeld, Mass. I claim, ist, The combination of the shipper. consisting of the sleeve. G. baving the hand wheel d, and threads noon it, with the frame, A. A. arrange ed so as to slide npon the carriage axle, substantially in the manner and for the phrpose shown. 2d. The pawl having the cup, q, with spring. u, and nut, t, arranged and constructed substantially as shown. 3d. The cutter bar frame, E. consisting of the pieces, f and g, with cross strips, 1, 2, 3' & c., formed as shown. 3th. The strangement of the gear wheels, a and J, upon the bar, C, so that the the peculiarly shaped cutter, having the projections, k k k, & c, in combination with the cutter bar, consisting of the two plates, Pand R, and adjusted by the nuts, m m. & c., substantially as and for the purpose de-scribed. 24 017 —Converput

adjusted by the nuts, m. &C., substantially as and for the purpose de-scribed. 74,017.—CONSTRUCTION OF FENCE.—Asahel Todd, Jr., Pult-neyville, N. Z, assignor to himself, A. F. Sheldon, John S. Todd, T. S. Ledyard and L. S. Cuyler. I claim, ist, The herein described method of attaching and detatching the pickets from the wires by means of the clasp, K. fig.7, or their substantial equivalents, in the mamer specified 2d, The clasp, K. or L, or equivalent, in combination with the wires, C C', posts, A, pickets, N, and brace wire, M. Sd, The metallic brackst, D, cap, E, in combination with theposts, A, wires, C C', brace wire, M, and pickets, N. 'th, The brace wire, M, in combination with the posts, A, wires, C C', bracket, D, cap, E, and clasp, K. Sth, The temporary post, A', in combination with the wires, C C', brace wire, M.: bracket, U, cap, E, clasp, K, substantially as and for the purpose set forth.

(14,020.—LANTERN GLOBE.—William Westlake, Brooklyn, N.Y.
I claim a lantern globe, made of or finished into a single piece, having one portion colored and a partclear, substantishy as specified.
74,021.—MACHINE FOR SEPARATING LIQUIDS FROM PAINTS AND OTHER SOLID SUBSTANCES.—David M. Weston, Boston, Mass.
I claim therevolving cylinder, F., without openings or periorations in the circumference, substantially as described.
Also, the cylinder, F. in combination with the passages or onflets, or their equivalents, at A, in the hub and bottom. substantially as described.
Also, the breakwater, E., or its equivalent, in combination with the cylinder, F. substantially as described.
74,022.—LETTER GAME.—James E. Wheat, Rochester, N. Y.
I claim the application of letters or flures to a series of stakes or plns, to be arranged substantially as are in shown and described.
74,023.—HORSE RANK.—John R. Whittemore, Chicopee Falls, Mass.

Mass. I claim the device for operating the teeth of the rake, consisting of the double armed lever, E. fulcrumed at L. and connected to the arm. K. by means of the link, I, hinged at its elbow at H, the parts being arranged sub-stantially as herein shown, and for the purposes set forth. 74,024.—COMBINED PLOW AND HARROW.—Philander Won-

14.04.—OMBINED FIDW AND HARROW.—F Infantuer Wolfsey, Ocden, N. Y. I claim the combination of the harrow, scraper, and plow, and the manner in which they are attached and detached. 74.025.—VISE.—Linuts Yale, Jr., Shelburne Falls, Mass. I claim, as of my own invention, the combination of a spring with the jaws, nut, and screw of a vise, substantially in the manner and operating as a specified.

specified. 74,026.—BRUSH STOCK AND HANDLE — Albert A. Young, (as-signor to himself and George T. Dalton.) Boston, Mass, Antedated Jan-

signor to himself and George T. Dalton.) Boston, Mass, Antedated Jan-uary 16, 1888. I claim, 1st, The combination and arrangement of the circular plate, D, with the plate of the handle, E, whereby the handle is placed at right angles, and also diagonally to the body of the brush, substantially in themauneran.1 for the purpose above set forth. 2d, Also, the combination and arrangement of the hinge, F, with its swiv-eling abutment, b, the turning screw, c, and the spring bolt, G, whereby the handle is rai ed and scenred perpendicular to the body of the brush, substan-tially in the manner and for the purpose above set forth. 3d, Also, the combination and arrangementof the brush handle, B, with the other parts of the brush, whereby the handle may be used in a diagonal, reversible, and perpendicular position, and also at right angles with respect to the body of the brush, substantially in the manner and for the purpose above set forth.

74,027.-BRUSH STOCK AND HANDLE.-Albert A. Young, (as-

15,910.—FOSTAL SCALE.—Marcus L. M. Hussey, New York	nating purposes.	signor to himself and George T. Dalton,) Boston, Mass. Antedated Jan- uary 16, 1868.
1 claim, 1st, The revolving dial, i,upon which are inscribed mail routes and	3d. The process of generating and preserving oxygen gas by the action	l claim the combination and arrangement of the body of the brush with
postal rates, substantially as described and for the purposes specified.	upon a current of atmospheric air or electricity. evolved by a jet of wet steam, and the consequent separation of the steam and nitric acid from the	respect to the cap, B, the handle, C, the screw, D, the groove. a and the pin,
2d, The combination of the revolving dial, i, upon which are inscribed	or gran thus sot free enhetentially as set forth	b, whereby the handle, C, may be extended at either end of the brush, the
postal rates and mail routes, with the spring, or other equivalent weighing balance, substantially as and for the purpose described.	4th, The mode of manufacturing, illuminating and heating gases by min-	several parts being constructed and arranged with respect to each other, substantially in the manner and for the purpose set for th.
3d, The combination of the dial, i, or a segment thereof, with the adjust-	gring nyurocarbon gases or vapor with oxygen gases, generated substantianty	
ab le indicator, o, when constructed substantially as described.	in the manner set forth. 5th. The mode of manufacturing mingled oxygen gases for use in the de-	74,028.—BOILER TUBE FERRULE.—James U. Adams, Rich-
4th, The vertical indicator, when used in connection with a revolving dial,	sulphurization of ores, etc., substantially as set forth.	field, Mich.
or a segment thereof, for the purposes specified. 5th, The vertical indicator, in connection with a spiral spring balance, for	74,002.—DEVICE TO PREVENT HOGS FROM ROOTING.—L. L.	I claim the combination of the ferrule, c, with the tube, A, and plate, a, substantially as herein described.
the parposes specified.	Rinehart and P. Phillips, Evansburg, Ohio.	74.029.—Mode of Securing Box Metal in Carriage Hubs.
73.977COLLAR BLOCKJohn Jacobs, Oneida, Ill. Ante-	We claim the strip, A, with arms, aal, beit, B, spring, C, pin, C', arms, d.	-Augustus H. Ahlborn. Lawrenceville. Pa.
dated Jan. 24. 1868.	and roller, D, when combined and arranged substantially as described.	I claim tinning the interior of carriage boxes prior to lining them with a
I claim, 1st. The use of the right-and-left screw shaft, K, provided with	73,003.—CENTER BOARD FOR VESSELS.—Duncan Robertson,	metallicalloy, so that said metallicalloy will adhere to the box and become
the nuts, o o, and arms or rods, J J, for expanding or contracting the parts, B B. substantially as herein set forth.	Detroit, Mich. Antedated Dec. 12, 1867. I claim the combination and arrangement of the iron center board, A, the	part of the same, substantially as herein described and for the purpose set
zd. The arrangement of the shaft, H, pintons or gear wheels, I and T, and		
shaft, K, for expanding and contracting the former, and at the same time	stanchions, E E I I, and the stops, G G, arranged substantially as described,	74,030.—BRICK MACHINE.—John Armstrong, St. Louis, Mo.
moving the platform, C, substantially as specified.	for the purpose designed.	I claim, 1st, The hopper, R", in combination with the plunger, S, for feed-
3d, The arrangement of the pincers, E, npon the platform, C, and with the arms, e e, links m' m, and the lever, d, as and for the purpose set forth.		ing the machine, when constructed and arranged to operate substantially as herein described and set forth.
	Antedate Jan. 23, 1868.	2d, Providing the plungers, H I, and die box, J, with hollow chambers, so
73,978.—WASHING MACHINE.—Martin V. Jennings, Cen-	I claim, 1st, The rib, b, on the back of cultivator teeth, or of blades for shovel plows, for the purpose of adding strength to the blade, or of forming	that the brick or other materials that are being mouldedmay be surrounded
tralia, Mo. I claim the combination, in a washing machine, of the corrugated wash-	a means for attaching it to im standard or frame.	on all sides with heated surfaces, substantially as shown and described.
board. e e' e''. etc with an adjustable dasher. w. when the same are arranged	2d, Attaching cultivator teeth or blades of shovel plows by means of a bolt	3d. The follower, N', in combination with the vertically moving table, N, for delivering the brick on to the discharging currier belt, Q, when con-
constructed and operated substantially as shown and specified.	inserted into a rib or projection on the back of the tooth, which fits into a re- cess or groove in the standard or frame, substantially as and for the purposes	structed and arranged to operate substantially as hcrein described, and set forth.
73,979.—CORN CULTIVATOR.—N. S. Johnson, Maquoketa,	described.	
Iowa, Antedated Feb. 1, 1868,		4th, Imparting to the discharging carrier belt, Q, an intermittent motion, by the means substantially as herein described.
I claim, 1st, 1st, The combination of the two axle bars, B B, and the four	ler and Albert Windeck, Peoria, Ill.	5th, The plungers, H and I, provided with the projections, G G', and F F',
upright standards, A A A A, and cross beam, S, and bolt, E.		in combination with the cams, d e, and the cams, a b c, for imparting to them
2d, The combination of the seat board and seat level, I, with the levers, L	pieces, A B C, the iron gage pieces, D E F, hook and ring, and removable	a reciprocating longitudinal motion, when constructed and arranged to op-
and for the purpose herein specified.	shovel, M, attached to the beam or piece, B, all as shown and for the purposes described.	6th, The shaft, O, provided with the spiral spring, o' in combination with
		CITAL WERE WITH ALL CLARKER ALL CLARKER BILLEDI O ME CARAMERISAR HILLS

the lever,  $\mathbf{p}$ , and hook,  $\mathbf{q}$ , when constructed and arranged to operate substantially as described. 74,031.—CULTIVATOR.—Henry B. Arnoldt and John Grimm

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74,031.—CULTIVATOR.—FIGHTY B. AFROIDT and JOHN GFIINM, St. Louis, Mo.
 We claim, its, The weed cutter, C, when combined with a cultivator, A B, as and for the purpose here in show n and described.
 2d, Also, the movable arm, AI, when combined with the plow beam, A, as described, and for the purpose set forth.
 3d. Also, the plow handles, A3, and the curved rack, A4, for the purposes herein set forth and described.

74,032.—CONN PLOW AND CULTIVATOR.—Isaiah B. Arthur,

74,032.—COHN PLOW AND CULITIVATOR.—Isaiah B. Arthur, Sidonsburgh, Pa. I claim, 1st, The combination of the fixed central handle, E, with the shifting adjustable handle, E', when used in a corn plow and cultivator, sub-stantially as and for the purpose specified. 2d, Also, the Wire guard, C, when constructed in the form shown, hinged at its rearend, and allowed to rise and fall at its forward end, and, when held in position by rods, c' c' at its forward end, preventing the two guards from changing their parallel position to each other substantially in the man-ner and for the purposes se forth. 3d, Also, the corrugated plates, e e, when used in combination with the side beams, A2 A3, having corrugated ends, substantially as and for the pur-poses indicated. 74.033.—LAMP LIGHTER.—Albert Assman. Rahway, N. J.

74.033.—LAMP LIGHTER.—Albert Assman, Rahway, N. J. 1 claim the pole, A, light, B, and tube, C, when arranged as described, in mbhation with the wrenches or brackets. I, all made and operating sub-antially as and for the puipose hercin shown and described. 4,034.—GATE.—Jearum Atkins, Mokena, Ill.

74.034. I claim a gate, constructed as described, having the proted braces, R S, post, A, and guide bars, D G, and post, E, all arranged and operating as

74,035.—Combined Harrow and Stone Remover.—Ezra

74,036.—HARVESTER.—S. O. Bartow, Bethel, Conn.

and for the purpose set forth. 74,033.—HARVESTER.—S. O. Bartow, Bethel, Conn. I claim, 1st, The construction and arrangement of the pendent bar, k, piv-oted arm. i, finger bsr, L, pitman, A', right angular lever, M, and chain, I, all operating as described for the purpose specified. 20, The arrangement of the gear wheel, p, upon the shaft of the wheels, B, Siding Duinon, G. upon shaft, H, bearing the cam wheel, I, lever, J, having tisfuforum in the pendent, f, upon the side of the shaft A, pitman A' finger bar, L, pivoted arm, i, endent bar, k, right angular lever, M, and chain, I, all operating as herein shown and described. 74,037.—RAILWAY JOINT.—Lewis Behymer, Indianapolis, Ind. I claim the coupling, A, with re-entrant angular lever, and chain, I, all operating as berein shown and described. 74,037.—RAILWAY JOINT.—Lewis Behymer, Indianapolis, Ind. I claim the coupling, A, with re-entrant angular lever, M, and swells F, which fit and embrace the wedge-formed ends and the hollow of the rail, the same beinz secured by boilts, I, which traverse said coupling, and the slots, H, in therails, substantially as set forth. 74,033.—SEWING MACHINE.—G. W. Bell, Rising Sun, Ind. I claim, 1st, The construction and arrangement of the eccentric wheel, F, balance wheel, G, pendulum frame, N, supporting frame, I, lonted dog, I, shaft, D, and brace or connecting bars, K and M, as herein described, for the purpute specified. 30, The combination of one or more adjustable supports, T, with the sild-ing bearings, S, and shaft, D, constructed and operating substantially as herein shown and described and for the purpose specified. 74,039.—STEAM ENGINE.—E. H. Bellows, W Orcester, Mass. I claim, lst, The arrangement of the valve rods, D and E E, of the shaft, H, and The combination, with the valve rods, D and E E, of the shaft, H, arrange wheel and the arrangement of the valve rods, D and E E, of the shaft, H, arrange wheel and are the valve rods, D and E E, of the shaft, H, arrange M, and hirelation to

orth. 2d, The combination, with the valve rods, D D, and E E, of the shaft, H, 3r, The, and came, G and L, subtantially and or the purposes set forth. 74,040.—LIFTING JACK.—James W. Bemis, Fall river, Mass. I claim, 1st, The arrangement, as described, of the levers, L, and L L, L L, togother with standard. A B, A B. 2d, Also, the combination of the levers, L, and L L, L L, together with their supporting frame, by which the power to raise the axle is obtained, substan-tially as described and set forth as above. 74,041.—WATCH.—B. D. Bingham, Boston, Mass. I claim, in combination with peripheral rings of watches.spursor prolec-

(4)041.-WATCH.-D. D. Dinghalli, DOSION, MASS. I claim, in combination with peripheral rings of watches, spurs or projections for holding them in place, substantially as described. Also, making such rings of a width equal to, or but slightly exceeding the space between the intersurfaces of the two main plates of a watch, and so as not to cover the larger portion of the thickness of the back plate, for the reason set forth.

74,042.—CIRCULAR SAWING MACHINE.—C. D. Blakeslee (assignor to bimelf and Elas Skinner), Grand Rapids, Mich. I claim the saw-bood constructed as described, consisting of the adjustable curved guards, C, the curved hood, D, secured to the Fuard. C, by the bolt, d, and notch, c, and the notched vertical guard, F, adjusted upon the hood by thesel-screw, f, and slotted part, E, as here indescribed, for the purpose spe-cited.

74,043.—SAFETY HOOK.—E. F. Brundage, Virginia city, Ne-vada, assignor to himself, William T. Bayes, and William Eaves. vada, assignor to himself, William T. Eaves, and William Eaves. I claim the collar c, fitted on the swivel sterm. B, and growided with notch-es or recesses, ik, inits under side, in combination with the hinged part, c, of the book, and the projection, j, on the upperpart, b, thereof, all arranged sub-stantially as and for the purpose set forth.

stantially as an a for the purpose set forth. 74,044.—CULTIVATOR.—John Burnham (assignor to himself and David L. Hough), La Salle, III. I claim, 1st, In combination with the elevated axle-tree, A2, hounds, B, piv-oted draft pole, and C, lever, C', having a movable fulcrum, the pivoted beam, D, having the plow beams secured to its extremities, or to pendants applied thereto, said beam being connected, by means of a chain, to the draft pole, substantially as described. 2d, in combination with a pivoted beam, D, arranged and operated as de-scribed, and provided with pendants upon its ends, the plates, d'd', having the plow leams stached to them, substantially as described. 3d. The fexible draft connection, h, secured to swinging pendants, G G, at its ends, and passed around the axle tree, A2, long fudinally, substantially as described.

described. 4th, The removable driver's seat, H, applied to the carriage, and supported thereon, substantially as described, in combination with levers, P, suspension chains, I, beams, E, and sivoted cross beam. D, substantially as described. 5th, The attachment of the plow blades or shovels, J, to their standards, by meaus of loops, m, and clamping eye or hooked bolts, n', substantially as de-scribed.

74,045.— STEAM HEATING APPARATUS.— James Chambers,

(4,040.— STEAM HEATING APPAKATUS.— James Chambers, Boston, Mass. Antedated Jan. 31, 1863. I claim the combination of the boiler, A, the gas burner, D, its conduit, 1, and cock, g, the safety-valve, B, the lever, a, thereof, the chain, i, and the arm, h, and its weight, o. or their equivalents. Also, the combination of the same and the coll, C, and the damper, d, and its bent arm, e, and the chain, p, connecting such arm with the safety valve lever.

lever. Also, the conbination of the circulation or induction and eduction pipes, b c, with the boiler, the gasconduit and burner, the safety-valve, the lever chain, and weignted arm, connecting the safety-valve and gas cock key, as set forth.

set forth. Also, the combination of the gas burner and its conduit with an extension, q, of the conduit beyond the burner, and with a screw cap or thimble, m', screwed upon such extension as set forth, such being to enable atmospheric air to be supplied to the gas conduit, as circumstances may require, when such gas conduit and its burner are combined with a boiler, as set forth.

74,046.—STEAM ENGINE.—William T.Chamberlain, Norwich, Con., assignor to himself and Charles W. Chamberlain, Boton, Mass. I claim the improved engine, as described, viz, as made with the cylinder, A, the partition, B, the two pistons, D E, the rod, C, the induction ports, ef, and eduction ports, g h, arranged in manner substantially as specified. Also, the combination of the movable partition, B, its packing and earny screws, or the equivalent soft he latter, with the cylinder, A, provided with induction and cduction ports, and two pistons, D E, arranged so as to oper-ate as described.

74(992.—CORN PLANTER.—N. G. Hughes, Waynesburg, Pa. Antedated January 27, 1868.
Iclaim, ist, The combination of the tubes, G and A, with the seed box, E. and spout or tube, F, substantially as herein shown and described and for the process of torth.
Antediated C. Substantially as herein shown and described and for the combination of the tubes, G and A, with the seed box, E. and process of torth.
Antediated C. Substantially as herein shown and described and for tube, H and prove handle. C substantially as herein shown and described and for tube, H and prove handle. C substantially as herein shown and described and for the pippose set forth.
Sd, The combination of the hand cover or guard, N, with the plow handle, C, substantially as herein shown and described and for the purpose set forth.
74,093.— VISE.—Thomas H. Humphreys, Trenton, N. J. Iclaim, 1st, The combination of the hove-tail formed slide orsword, A, nut, E, and alustable thim ble, D, saaranged, shown and described.
74,094.— NAIL-PLATE FEEDER.—Cvrus D. Hunt, Fair Haven. 74,069.—TUNNEL EXCAVATOR.—Theodore A. Fisher and Anson F. Fisher, Beardstown, Ill. We claim the sliding coffer. A, the excavating disk, D, and the supporting car. E, combined with the cast iron ta Mag. C, united in sections within the coffer. constructed and operating substantially as and for the purpose here in described ate as described. 74 047.—HAND SPINNING WHEEL.—S. W. Clark (assignor to himself, N. A. Wright, and W. A. Terry), Prairie du Clifen, Wis. I claim the curved rod, r, with the adjustable weight, r, attacued to the radial arm, D, the segmental groove, m, cord, m', pulley, i, and treadle, q, in combination with the spinning wheel, C, and the spindle d, placed on the upper end of the arm, D, the whole being scranged and operated substanti-ality as and for the purpose herein described. described.
74,070.—COTTON BALE TIE.—Addison C. Fletcher, New York city. Antedated Jan. 23, 1868.
I claim the plate, A, having an aperiure, c e d, lateral side openings, f f, opening, g, and lip, for operation in connection with a rope of equivalent material, substantially as set forth. 74 048 - BRUSH - William W Clark New York city I claim a brush, as a new article of manutacture, when constructed as de-scribed, with an interliner, a, as and for the purpose specified. ing as berein described. 74,094.—NAIL-PLATE FEEDER.—Cyrus D. Hunt, Fair Haven, 74,049.-LAMP.-Michael Henry Collins, Chelsea, Mass. 74,071.—BOOT ATTACHMENT TO CARRIAGES.—Marvil M. Fol-let, Upton, Westboro Post Office. Mass. I claim, 1st, A boot attachment to carriages composed of the rollers, C E and D, and the spring, S, and strap, a, whereby a boot for carriages is wound up by the force of a spring, S, substantially as shown and described and for the purposes set forther. Telam the combination of the auxiliary supporter, S, or fis equivalent, with the chimusey rest and the chimney-holding friction cone or air deflector arranged as described, and so connected as to be capable of being slipped to-gether, and with the chimney, on and off the wick tube, and away from the supporter, for the purpose of enabling access to be had to the wick for trim-ming it, as occasion may require. Mass. Iclaim the method of teeding the nail plate by means of the hinged rest, B, feed rest, E, feed rod, H, the springs, G g, the lever, F, the catches, I f, and the u;per rod, I, constructed and operating substantially as described. 74,005, — MACHINE FOR CUTTING CARDS.—E. J. Hunt, Con-A. (1950. — MACHINE FOR CUTTING CARDS. — E. J. Hunt, Concord, N. H.
Iclaim, ist, The rotary cutter board, B, in combination with the gear wheels, C D, the ratchet wheel, m, and the cutter arm, B, constructed and operating substantially as and for the purpose herein described.
2d, The adjustable sections, e e, with the knives, p, and the circular slotted plate, H, in the cutter box, F, constructed and operating substantially as and for the purpose specified.
74,096.—SAWING MACHINE.—Isaac B. Jones, Xenia, Ohio.
1 claim the combination of the lever, C2, dog, F2, spring, E2, and ratchet bar, H, all constructed for the purpose specified.
74,097.—CHAIN SAW.—De Lancy Kennedy (assignor to Henry J. Kennedy), New York city. 74,050.—TOBACCO PIPE.—James Cook, West Groton, Mass. I claim the chamber, D, formed around the sides of the bowl, C, by suspending the latter in the screw cap of the bowl, A, as and for the purpose presented of the bowl, A, as and for the purpose 74,072.—Securing Hooks and Eyes to Cards.—James D. Franklin (assignor to Ira Richards & Co.), Attleborough, Mass. I claim hooks and eyes secured to cards by passing the eyes through the card so as to project on both sides thereof, and fastening the hooks to their ends and bodies, on one or both sides of the card, su stantially as set forth. Yorkcity. I claim, ist. The radiator, consisting of the base, a, with pipes. c c c c, and the chamber, b, or chambers, b and d, substantially as described, and for the purposes set for h. 2d. The creasent check damage and the we commute , , or commers, p and d, substantially as described, and for the purpose set for h. 2d The crescent check damper and the crescent close damper, constructed rubstantially as described, and arranged so as to operate in the manner and for the purposes shown. 3d, The fire pot, constructed in two parts, with a self-adjusting grate in each part, and a movable partition, substantially as described, and so arrang-ed with separate radiators in separate computantials and escaring radiance, and separate systems of hot air pipes and distributing registers, as to convey all the heat from both parts of the fire pot to one system of re-gisters, or to distribute the heat from none part of the fire pot to every sys-ter; of registers, at pleasure. 74,052 — Washing Macuning — Figure 100 – 10 74,073.—SEEDING MACHINE.—Olney Fry, Jr., Albany, Oregon [74,073.—SEEDING MACHINE.—Olney Fry, Jr, Albany, Oregon. Iclaim, ist, The combination of the gear wheel, N, attached to the drive wheel. A, pinion wheel, M, shaft, L, crank or crank wheel, K, connecting rod, J, and lever, I, with each other and with the seed box, E, and adjustable sliding bar, F, said seed oox and sliding bar being constructed and arranged substantially in the meanner herein shown and described. 2d. The combination and arrangement of the sliding bar. P, connecting rod R, and lever, S, with each other and with the shaft, L, substantially as herein shown and described, for thepurpose of throwing ib e pinion wheel, M, into and out of gear with the gear wheel, N. 3d. The combination of the posts, T, cross bars, U, longitudinal bar, V, beam, W, plow standards, X, bar, Y, and draft bars or rods, Z, with each other and with the frame, D, and tongue, C, said parts being constructed and arranged substantially as herein shown and described and for the purpose set forth. 1. Storedy), New York city. I claim the manner substantially as herein described of connecting the very as sections to constitute an endless chainsaw, as and for the purpose de-Tribed. Also, in combination with the chain saw, the guide plate made no thicker an the saw and placed behind the back edge thereof, substantially as and or the purpose specified. for the purpose specified. 74,098.—DISTILLERIES.—Henry H. Kirk, Springfield, Tenn. I claim, 1st, The combination of the chambers, B H, and flake-stand, F, first duobler, K, and second dubler, O, with their respective flake-stands and receiving tubs, all constructed by a series of closed pipes for the mann-facture by a continuous process of treble-distilled spirits, substantially in the manner set forth. WASHING MACHINE.—E. Hall Covel (assignor to 74.052. (4,02, -- WASHING MACHINE, -- D. Hall COVEL (assign). Home Manufacturing Company), New York city. I claim, ist, The annular bands, b and c, with or without theears, al and b', so constructed and arranged as not only to hold together the upper and low-erends of the staves, but also to cover agree are or cleasoportion of the upper and low-and lower surfaces of such ends, substantially as berein sct forth. 2d. The arrangement of a pipe. R, for drawing the low wines from the

2d. The detachable piuor stud, a 2, in combination with the tubular sleeve, g, carrying the radial fins or ribs, and the circumferential groove, f, of the standard, e, substantially as and for the purpose specified. 3d. The orgee shaped fins, i, on the disk, h, arranged to rotate within the tub, A, substantially as and for the purpose specified. 4tb. The combination of the spring-catch, k<sup>\*</sup>, an' spurs, k', with the piv-oted bar, k, carrying the crank shaft, n', and bevelled pinions, m n, substan-tially as and for the purpose specified. 5th, The clutch, m', a\*, arranged to connect the sleeve, g, with the gearing upon the bar, k, ubstantially as berein set forth. 6th, The washing machine, constructed and operating substantially as bere-in shown and described.

in shown and described. 74,053.—THREE HORSE EQUALIZER.—Giles Cramton, Mar-

74,053.—THREE HORSE EQUALIZER.—Giles Cramton, Marshall, Mich.
I claim the arrangement and combination of the pulley, D, coupling tongue, B, pia, P, holiow disk casing, A, and hitching chain or chains G, with the winfictere, E, and double-tree, F, od a three-horse team, substantially as and for the purpose herein described.
74,054.—HAY PRESS.—G. W. D. Cullp, East Enterprise, Ind. I claim, iat, The shaft, C, when provided with a loose gear wheel, g, and with a sliding clutch, k, in combination with the capstan, G, all made and operating so that the shaft can be revolved with or without the capstan, as may be desired.

being obtained with the shaft, C, for operating the beater, in combination 2d, The disk, d, on the shaft, C, for operating the beater, in combination with the capstan, G, and cogs, g h, and i, for operating the follower, all made as set forth. 3d, The catch, m, on the sweep, k, in combination with the arm, L, on the capstan, G, all made and operating substantially as herein shown and de-

capitan, G., all made and operating substantially as herein snown and us-scribed. 4th, The device for automatically opening the feed door, M, by the down-ward motion of the beater, consisting of the elbow, P, catches, O, and weight r, all made and operating substantially as herein shown and described. 5th The device for automatically closing the ieed door by the upward mo-tion of the beater, consisting of the lever, N, weighted cord, g, and catches, O, all made and operating substantial: y as herein shown and described. 74,055.—HAY J.GADER.—Ezra N. Curtice, Spring Water, N.Y. I claim the construction and arrangement of the shafts, b i, having drums, h, and hung to the pivoted pendant, a, and provided with the Asinged elastic friction rollers, c c, operating against the bind wagon wheels, B. by means of the curvet rods, and lever, e. as here in described for the purpose specified. 74,056.—PROCESS OF TREATING WOOD FOR COVERING WALLS, ETO.—Abbot R. Davis, Cambridge, Mass. I claim the employment of giverin for saturating thin sbeets or lamine of wood, to be used as a wall covering or for other purposes, substantially as described.

od, to . Thed. 74,057.—LID FOR TEA KETTLE.—Isaac De Haven, Allegheny

City Pa. I claim stild provided with a hinged joint, and pivoted to the body of a tea ettie or other vessel, substantially as herein described, and for the purpose

74,058.—VELOCIPEDE—Louis Derozier (assignor to himself

(4)00.— VELOCIPEDE—Division Deformer (assigned to minimize and George Schafer), New York city, I claim, lat, Providing a velocipede with a rear axie, which consists of two sections, C C; each turning independent of the other, substantially as and for the purpose herein ghown and described. 2d, Providing the bearingsfor the axies, C C; and F, or either, directly in the springs, B and K, substantially as and for the purpose herein shown and described. 3d, The crank axies, C C; and wheels, D, when arranged as described, in combination with the springs B, in which the bearingsfor the said axies are provided.

ad The crank axles, C. C. and whether, combination with the springs B, in which the bearings for the same axies are provided. 4th, The above, in combination with the front axle, F, wheels, I. and king bolt, H, having a crank, all made and operating substantially as and for the purposeherein shown and described. 74,059.—COTTON BALE THE.—Jos. B. Dunn, Petersburg, Va. Telaim the improved bale the, A, formed with a slot, B, at one end, and a lateralalitor open slotat the other end, said open slit or slot having a shoul-der, al, at its outer end, and having its inner side struck or bent downward, forming a curved 17, a2, substantially as herein shown and described and for the purpose set forth. 74,050.—WASHER FOR LOCK NUT.—D. Elliot and E. Seely, New York cly. we claim the Washer, C, constructed as described, provided with the con-centricpaw ID, cutfrom it and adapted to fil into the ratchet teeth, t, formed in the chamber of the nut, E, to prevent the said nut from turning of the bolt, B, as herein shown and described. 74,061.—BOILER FOR HEATING WATER.—John Ellis, White

volt, B, as herein shown and described. 74,061.—BOILER FOR HEATING WATER.—John Ellis, White Plains, N, Y. I claim the boller for heating water consisting of the two hollow heads connected by the tubes, and having no metallic sides of walls, the gate bars being also tubular, said heads subdivided into compertments, so that the watershallcirculate freely through the boller, as herein described, for the purpose specified.

-MACHINE FOR BORING WATER HUBS.-J. W. Emer-74.062.

74,062.—MACHINE FOR BORING WATER HUBS.—J. W. Emerson, Rochester, Minnl claim the small shatt, L, in combination with the shaft, J, handle, J, gear wheel, S, circular plate, K, stop, T, gear wheels, N O, an cutter, R, substantially as described, for the purpose specified.
74,063.—MANUFACTURE OF ILLUMINATING GAS.—JOhn J. Ensley, New York city, assignor to Thos. D. Ledyard, Toronto, Canada. Antedated Jan. 27, 1863.
1 claim making a compound gas by the mixture with common coal gas, of gas made from bones, of other animal matter, and from wood, or equivalent very table matter, either separately or combined, to the purposes herein Specified.

-Horse HAY FORK .- Henry A. Estes (assignor to 74.064

and for the purpose described. 74,087.—BOLT AND RIVET CUTTER.—John S. Henry and Abraham H. Reist, Manheim Pa. We claim the combination and arrangement of the jaws, DE, unobstructed on one site when said jaw. D, is connected with piece, C, with its fixed loop, L, and pivot connection to H, and the jaw or cutter, E, with its shoulder, e, is on the end of the prolonged handle or lever, B. combined and operating in the manner an i for the purpose specified. 74,088.—CHURN.—Porter Hill, Millport, N. Y. I claim, in combination with the dasher, B, as piral spring, C, placed below the same, and arranged to operate substantially as and for the purpose set forth. forth. 74,089.—WATER WHEEL.—William J. Hoffman, Croton Falls, N. Y., assignor to George V. Hoffman. I claim the tangential buckets, A\*, constructed with radial or nearly ra-dial end portions, b, and arranged with reference to the inclined passages, c, rear the periphery of thewheel, substantially as and for the purpose speci-fed

apétitéd.
74,064 — HORSE HAY FORK.—Henry A. Estes (assignor to himselfand George Smith), Jersey City, N.J. Antedated Jan. 31, 1983.
Iclaim, Ist, The toggie bars and central operating rod, in combination with the tubular stock and the two laterally moving lifting spurs, substan-tially as and for the purpose herein set forth.
30, The arrutgement of the guarks e, with reference to the lever, B, and the upper end of the tubular stock, A, substantially as and for the purpose hereinset forth.
34, The laterally moving spurs, E. toggle bars, D, and central rod, c, a sarged in relation with the tubular stock, A, lever, B, and guard, e, substan-tially as and for the purpose herein set forth.
34, The laterally moving spurs, E. toggle bars, D, and central rod, c, a sarged in relation with the tubular stock, A, lever, B, and guard, e, substan-tially as and for the purpose herein set forth.
74,065.—APIART.—William Faulkner, Vevay, Ind.
1 claim, 1st, The provision in an aplary of the sunk hatchway, G, pit, A, and fue, N, together with suitable registers, or their equivalents, substan-tially as and for the purpose herein set forth.
74,065.—Soling SHOFS.—L. A. Favre, Geneva, Switzerland.
74,066.—Soling SHOFS.—L. A. Favre, Geneva, Switzerland.
74,067.—INJECTOR FOR STEAM GENERATORS.—E. Ferguson (assignorto isaac H. Ferguson and Mitchell, Aller, & co., Newbern, Nc. claim the arrangement of the supply pipe, B, cock, D, and pipe, C, with the boiler, A, whereby, with a vacuum in the boiler, and consequent and a vacuum in the vacuum in the boiler, and consequent at mospheric pressure, the water is injected to the boiler, and consequent at mospheric pressure, the water is injected to the boiler, and sequent at submand described.
74,068.—MACHINE FOR FORMING SHEET METAL MOLDINGS. ValentineFischer, New York city.
1 claim, ist, The machine having the rounded and square dies arranged as

projection, a' and the toothed flange, c', as and for the purpose to the 74,091.—FLOUR SAFE AND SIFTER.—F. A. Hoyt, Hanover,

74,068.—MACHINE FOR FORMING SHEET METAL MOLDINGS.
ValentineFischer, New York city.
I claim, 1st, The machine having the rounded and square dies arranged as described, whereby all kinds of smooth moldings can be formed, as herein shown and set forth.
2d. The standard, D., when provided with one concave side, as shown.
3d. Soarranging the dies. E and r, that the latter can be placed upon the former without any other fastening, as described.
4th, Arranging the female die C, above the male die. E or [F, for the purpose of keep:ng the female die clear, as set forth.
5th, The device for operating the movable die, said device consisting of the togele levers, J. L, in combination with the epidam bar, H, and central bar, K, so that by moving the latter horizontally the die will be moved up and down, as set forth.
6th, The manner herein shown and described of operating the bar, K, by means of theserew, N, and thenut pinion, O, all madesset forth.
7th A machine for forming sheet-metal moldings, when the same are made and operating substantially as hereinshown and described.
74.069 — TUNNET. EXCAVATOR.— Theodore A. Fisher and Vis. I claim the four sitter and safe constructed as described and consisting of the box. B, having door, 1, molding board, k. drawer, z, sifter, A a, crank shat, d S, metallic slotted straps, b, side pieces, c, wheels, m n, handle, b, and connection, e, all arranged and operating as set forth. 74,092.—CORN PLANTER.—N. G. Hughes, Waynesburg, Pa.

74,074.—DITCHING MACHINE.—A. A. Fuselier, Algiers, La.  $\vec{I}$  claim the excavators, D, formed as described, in combination with the drums, C C', the chute,  $\vec{E}$ , and the rotary cutter,  $\vec{F}$ , and the board, c, all constructed, arranged, and operating as and for the purpose set forth.

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structed. arranged, and operating as and for the purposes of forth. 74,075.—STEAM PUMP.—J. B. Gardiner, Springfield, Mass. I claim, 1st, The arrangement of ports, g', on each end of the valve, and communicating with the exhaust, for the purpose of assisting in the move-ment of the valve, substantially as set forth. 2d, The arrangement of the steam chamber, A, and exhaust chamber, J, upon the two sides of the steam chest, substantially as set forth. 3d, The arrangement of the screws, o o', wherewith to adjust whe amount of steam let on and off the valve, as described. 4d. Thost uffing box constructed of the followers, P.P. and nut, S, in com-tination with the piezon, A, and pinger. B, substantially as described. 5th, In combination with the central-acting valve, valve rod, C, and steam pieton, arranged and operating as described, the plunger. B, of a single acting pump. 74,076.—BUTTER WORKER.—Henry Garrett, Richmond, Mo. 1 claim the curved or semicircular butter, pan, B. in combination with the

i claim the curved or semicircular butter pan, B.int. rulerindond, Mo. i claim the curved or semicircular butter pan, B.int. combination with the pressure roller frame, D. provided with gollers having fluted or smooth pe-ripheries, all arranged substantially as and for the purpose set forth. Also the cap or hood, C, provided with the strainer, a, and placed or formed at one end of the butter pan, B, substantially as and for the purpose specified.

74,077.-WEATHER STRIP.-W. L. Gilroy, Philadelphia, Pa. Leastin, ist, The Insertion of a fat elastic strip into a molding, such as above described, in an inclined position to its surface, as hereinse; forth. 2d, Also affixing said elastic medium into the groove in the rigid molding by meansof water-proof cement, as and for the purposes specified.

74,078.—MANUFACTURE OF CLAY PIPES.—H. A. Goodrich and Joseph Amos, Joliet, III. We claim the combination of the stationary mouth piece, L. the trough, B, and carriage, G, all arranged to operate asshown and described.

74,079.—BRICK MACHINE.—Ephraim R. Green and Henry D.

(74,079.—BRICK MACHINE.—Ephiraim K. Green and Henry D. Philips, Jr., Trenton, N.J. We claim, 1st, operating the molds, R, that is to say, feeding the empty ones underneath the press boxes, C, and shoying the filled ones out from un-derneath the same by means of the slides, P, having weights, V, attached, and connected to the cranks, N, of the shafts, M, by means of the crank plns, j, and slotted arms, O, all arranged substantially as shown and described. <sup>2</sup>d, The bars, U, for discharging the brickstrom the molds, operated by the levers, T, and wipers, S, from the shafts, M, all arranged substantially as and for the purpose set forth. <sup>3</sup>d, The application of a press box, C, to each side of the box, A, of the mud mill, in combination with the four shafts, H, operated from the mud mill shaft, R, and the came, h, for obstrating the plungers, F, all arranged substan-tially as shown and described. <sup>2</sup>d (200) Exponency Cymmun, A, W, Hell Eact Johance, N, H.

74,080.—FRICTION CLUTCH.—A. W. Hall, East Lebanon, N.H. Iclaim the two-part clutch, E and F, substantially as and for the purpose described the substantially as and for the purpose

described. 74,081.—MODE OF CONSTRUCTING MOLASSES CUPS OF SHEET METAL.-Griffin B. Halstead, New York city. I claim a molasses cup constructed of two equal vertical parts, A A, swaged or structure up in properform, and connected together by solder, sub-stantially as herein shown and described. 74,082.—CULTIVATOR.—John R. Hand (assignor to himself

and Johnson Orr), College Corner, Ohio. I claim, lat, The draft pole, M, capable of adjustment upon the beam, A y means of the clevis, O, and screw, P. 2d. Also in combination with the elements of claim ist, the shares, G G' K K, and handles, K R', adjustable in the manner set forth.

s. Anso m comunitation with the elements of claim ist, the shares, G G' K K. and handles, K K. adjustable in the manner set forth.
 74.083.—COMPOSITION FOR ROOFING.—David Harger, Des Moines, Iowa, assignor to himself, D. H. Young, and A. S. Vorse.
 Italiam a roofing composition composed of unboiled coal tar, sand, quick-limit, sulphate of zinc, and flour of sulphur, all combined and used substantiation and for the purposes set forth.
 74.084.—STEAM PTMP.—William Harsen, Green point, N. Y. Italaim, ist, The arrangement and combination of ram and plation with the lateral socket, H, the rocking way shaft, I, arm, J, crank, K, and shaft, L, substantially as shown and described.
 2d, The arrangement and combination of the lateral shaft, L, the eccentic, N, the oblique ports, d and c, relatively to the axial line of the steam cylinder, and the sliding valve, O, substantially as set forth.
 74,085.—HARVESTER.—Bradford G. H. Hathaway, Rock Stream, N. Y. Stream, N. Y. Stream, N. Y. Staram, S. Staram

Stream, N. Y. I claim, ist, The planet wheels, H, when attached to the inner face of a re-volving plate, F, so adjustably connected with the driving wheel that it may be caused to revolve on the axle or remain stationary, substantially as set forth. The mode of throwing the driving

be caused to revolve on the axie or remain stationary, substantially as set forth. 2d, The mode of throwing the driving mechanism out of or in gear by the pawl or pawls, G, attached to the driving wheel, notched recess, Gi, collar, G3, lever, G5, and rod, G6, acting either by means of the yoke, G4, or its equivalent, subskut taily as described. 3d, The combination of the bent axie, B, bar, O, lever, P, rod, P1, and wheel, A', for regulating the hight of the cutter bar, M, substantially in the manner set forth. 4th, The mode of suspending the rear of the detachable platform, Q, by means of the stirrup, R, attached to the adjustable bar, O, substantially as set forth. 5th, The arrangement of the bent axle, B B', driving wheel, A, and wheel, A', attached to an adjustable bar, O, substantially as described. 74,086.—DEVICE FOR PREVENTING COWS AND CALVES FROM SUCKING THE TEAT AND FOR LEAPING CATTLE—Asa S. Haven, Barre, Mass, I claim, ist, The frame, a, incombination with the adjustable stops or re-

Mass, I claim, ist, The frame, a. incombination with the adjustable stops or re-aining pieces bc, substantially as and for the purpose set forth 2d, I claim the eye, g, in combination with the frame, a, subtrantially as and for the purpose described.

74,090.—STEM-WINDING WATCHES.—Edward Howard, Bos-

14,030.—STEM WINDING WATCHES.—Ed ward HOWARD, DOston, Mass.
I claim, 1st, Applying the winding mechanism directly to the barrel which contains the spring, in the manner and for the purpose substantially as described.
2d, Also the sliding plate, i, in combination with the spur wheel, g, and button or washer, h, as and for the purpose set forth.
3d, Also, in combination with the arbor or key, l, provided with a movable double crown wheel, m, the spur wheel, g, sliding plate, i, and button, h, as specified.

pecined. 4th, Also the barrel, c, constructed as desoribed and arranged within an pening in the plate, a, in combination with the main wheel, w, spring, v, ind pawl, e, substantially as and for the purpose specified. 5th, A.so the spring barrel formed with the plate, c, therim or annular rejection, a, and the toothed flange\_c, as and for the purpose set forth.

spec. 4th

second doubler, N, to the chamber, B, for redistillation, substantially as described. 3d, The arrangement of the pipe, S, for drawing the low wines from the first doubler, K, to the chamber, B, for redistillation, substantially as described.

nrst doubler, k. to the chamber, B. for redistriation, addetalization addetation active actived. 4th, The coaling cylinder, Q.constructed with the diapbrams, q and q6, in combination with the revolving places, qi and q3, and partition, q2, substan-tially as and for the purpose set forth. 5th, in combination with a coaling apparatus, substantially as described, the flap vaive, q5, as:nd for the purpose set forth. 6th, The arrangement of the testing pipes, G, substantially as described. 74,099.—GAS TORCH.—William A. Lawton, New York city. I claim, 1st, A gas torch for all the purposes for which gas torches are used composed of the tube, A, and supply tube, D, and air tube, E, and an enlargen wick tube, F, substantially as shown and described add for the pur-poses set forth.

forth. air tube, E, in combination with the tube, A, and the tube, D, sub-as shown and described and for the purposes set forth. -SEAT CLASP OR FASTENER.—Edward C. Levis, Auposes set 2d, The stantially

74,100.—SEAT CLASF OR FASTERIA.— Survey CLASF OR FASTERIA.—Survey CLASF OR FASTERIA SURVEY SURVEY

74,102.—LADDER.—T.B. Luzier and George A. Haas, Philaclaim hooks, e e' and i, and a turn buckle, c, or its equivalent. con claim hooks, e e' and i, and a turn buckle, c, or its equivalent. con w

ted to one section of a ladder and arranged for the reception and reten a of thd rungs of another section, substantially as and for the purpos

74,103.—HORSE HAY FORK.—J. R. Lyons, Montrose, Pa. Icla min combination with the shan k, A, and oscillating tines, B, the rod, C, and lever, D, when said rodiscut away at Cl. so that when the tines are extended the point of attachment of the lever and rod shall be behind the pivot of the lever so that the weight of the load shall act to hold back the lever with a torce proportioned to the weight of the load, substantially as set forth.

74,104.

• **JUST.** — UNKN HARVESTER.—James Mains, Olena, Ill. I claim the combination of the gatherers, F, and elevators, H, constructed and operated substantially as described with the frame, A, and box, K, said box being made substantially in the shape and manner herein shown and described. 74,105.--ANIMAL TRAP.-Joel Manchester, New York city

I claim, ist, The arm or lever, E, constructed substantially in the shape-nd manner herein shown and described in combination with the toothed late, H, crank lever, E, and spring, O, substantially as and for the purpose

2d, The pivoted bait hook bar or plate, I, constructed substantially as herein shown and describe: in combination with the crank lever, E, as and for the purpopes set forth. 74,106.--HORSE HAY FORK.--L. S. Mason, Middlefield Centre,

N.Y. I claim, 1st, The tines, E.E., which project from one or more of the sides of theshank of a harpoon hay fork above the ordinary harpoons, C. and which can be drawn in and out at will, substantially asherein shown and described. 2d, A harpoon bay fork when provided with times, E.E., on the sides of its shank and with pointed side guards, F.F. all made and operating substantially as herein shown and described.

suage and with pointee sideguards, F', all made and operating substantially as herein shown and described. 74,107.—HAND TRUCK.—William May, Binghamton, N. Y. I claim, ist, Providinga hand truck with a hook, C, which sildes on the center Drace of US; truck, substantially as herein shown and described. 2d, The arrangement and combination with each other on a hand truck of the hook, C, silding on the center brace, and of the hooks, D D, fixed to the lower part of the truck, substantially as herein shown and described all made and operating as set forth. 3d, The hinged plate or bar, E, in combination with the hooks, D D, sub-stantially as herein shown and described. 74,108.—RAILWAY SWITCH.—Jacob C. McCarty (assignor to william E. Porter), Gratton, W. Va. I claim, ist, The binged chair, D, when constructed in the manner and used for the purpose specified.

I claim. 1st, The binged chair, D, when consultated inside manner and the form the purpose specified. 3d, The combination of themovable rails, A A1B B, with the fixed rail, A2, connecting rols, BR, pitmen, P P, balance beam, T, chalans, S, or their equivalents, and shaft, W, or its equivalent, substantially as and for the purpose specified. 74, 109. — Exrs GLASS. – John K. McDonald, Newark, N. J. I claim the nose piece below the extensions, B, when formed of soft rubber tubing upon the spring wire fitted in notches in the rims, as herein shown and described.

and described. 74.110.—PAVEMENT.--H. G. McGonegal, New York city. I claim the blocks, A A, when provided with perforations, C C, into or hrough the same, substantially as and for the purpose herein shown and de-

scribed. 74,111.—SNAP HOOK.—John McKibben, Lima, Ohio.

74,112.—CORN PLANTER.—Wm. McLucas, Reinersville, O.

I claim, ist, The combination of a lever, B, with its valves, b and bi, oper-ated by a when, E, with seed hopper, A and D, all substantially as described, 2d, in combination with the foregoing, the plowshares, G ed, and harrow roller, g, substantially as and for the purpose specified, 74,113.—TREATING JUTE FIBER.—J ames Monarch, Philadel-

14,110.— I REATING JUTE FIBER.—James Monarcu, Filiader-phia, Pa., assignor to himself, Jeffrey Hart and Robert Thorp, Consho-hocken, Pa.
 I claim jute fiber treated with caustic alkali of the strength of about 60°, substantially as described and for the purpose set forth.
 74,114.—MANNER OF WORKING CHURNS.—James H. Monce, Horpitenrillo. Other Strength of Strengt of Strength of Strength of Strength of Strengt

Hopkinsville, Oho. I claim the arrangement and combination of the regulating and adjustable arrn n, and dasher adjustable lever, o, when connected with and operated by the verge, b, as herein described and for the purposes set forth. 74,115.—HAND SPINNING MACHINE.—F. D. Moore, Edray,

74,115.—HAND SPINNING MACHINE.—F. D. Moore, Edray, w. Va.
I claim, ist, The combination of the pulleys, g g', the rod, n, the slide, m, with the unrights, m3, the lever, I, and the treadle, E, arranged and operating answarfally as and for the pulpose herein described.
36, The stide bar, v4, operated by the lever, I, in combination with the slotted wing bar, z, and the spring hook, v2, arranged and operating as and for the purposes set forth.
36, The ratchet wheel, a3, and spring dog, w2, combined with the pulley, g', and operating substantially as and for the purposes herein described.
4th, The combination of the horizontal sliding bar, v4, the slotted swing substantially as and for the purposes herein described.
36, w1, the shdehar, v1, the spring hook, v2, and the slide bar, v, the dog, w1, the shdehar, v1, the spring hook, v3, and the slide bar, v4, combined and operating substantially as and for the purposes herein described.
36, The check pulley, x, the slide, v3, the spring, a, and the slotted bar, z, or its equivalent, combined and operated and for the purposes forth.
374 116.—LUEPRICATOR FOR LOOSE PULLEY.—Geo, M. MORTIS

74,116.—LUBRICATOR FOR LOOSE PULLEY.—Geo. M. Morris

74,116.—LUBRICATOR FOR LOOSE PULLEY.—Geo. M. Morris and John McCreary, Cohoes, N. Y. We claim the bushing, B, within the hubof the loosepulley, constructed as described, having the chamber, a, around its periphery, communicating snugly within the hub, and provided with the eccentric grooves, c, commu-ulcating with the shaft and chamber, r, by me ans of the opening, d, whereby a constant circulation of lubricating matter is obtained within and around the bushing, as herein shown and described. 74,117.—CARRIAGE WHEEL.—W. F. Morton, New Haven, Ct. lclaim the hub, cast in one piece with the collars, A A, and connecting bars, a a, when constructed in the shape and proportions as described. 74,118.—OINTMENT.—LYCUTGUB H. Moseler, Franklin, Tenn. Iclaim the obtained, compounded substantially as and for the purpose above described.

Scientific American.

go III. I chain spindle, G, with saucer, F, breakers, H A, and fans, K K, secured th i. and constructed as described, in combination with conveying case, N, and it, and constructed as described, in combination with conveying case, N and pertuilating case, I hoth constructed as described, the whole arranged and operating substantially as and in the manner herein set forth, and for the purpose sherified.

ventilating case, i, both constructed as described, the whole arranged and operating substantially as and in the manner herein set forth, andforthe purpose specified.
74,126.—PATTERN FOR DRAFTING SLEIGH BODIES.—Dennis Pierce, Waverley, Iowa.
I claim a pattern board, A, with elevation, B, constructed and adapted for laying off work for sleighs, substantially as described.
74,127.—STATION INDICATOR,—Anthony Pirz and Manuel Pirz, New York city.
We claim ist, The application of a clock mechanism, with a spring or weights as a motor, applied to the belt of a street or station indicator for rai toad cars. In such a manner as to more the belt when the same is liberated, substantially as shown and described.
2d, The adjustable plate, J, with the gearing, K L, in combination with the gearing, E D, and the drums, C C', G G', all arranged substantially as shown and described.
3d, The rod, P, with the notched disk, O, in combination with the belt, F, gearing, M M, and the drums, C C', G G', all arranged to operate substantially as and for the purposes herein shown and described.
4th. The brake arms, Q O, attached to the stide rod, P, and arranged in such relation with the drums, C C', to operate in the manner substantially as and for the purposes therein shown and described.
4th. The brake arms, Q O, attached to the stide rod, P, and arranged in such relation with the drums, C C', to operate in the manner substantially as and for the purposes etforth.
74,128.—FLOOH C LLAMP,—Warren Portlock, Pleasant Grove, and John H. Smith, Toolesborough, Iowa.
4th. The smalle vers, D D, constructed and operating together substantially in the manner and for the purpose as set forth.
74,128.—FLOOH C LLAMP,—Warren Portlock, Pleasant Grove, and John H. Smith, Toolesborough, Iowa.
4th. The shake arms, Q, by means of the serrated bar, F, provided with a slot, i, in combination with the serrated forwardend of the bar, E, both hed

[74,131.—DUMPING WAGON.—Joram Priest, Detroit, Mich. I claim ist, Having the box, J, upon the longtindinal bars, E, by a proper fulcrean between the tront and hind wheels, so that the box will thit or dump between the hind wheels. 3d, The semi-rotating bar.1, and bearings, H, when constructed and oper-erating substantially as and for the purposes set forth. 4th. The combination of the above parts with the axle, A, the wheels, B and G, the circle, C, the bolster, D, the wagon box, J, the transverse bar, K, the rings, L, and the catch, M, or their equivalents, when constructed and operating as and for the purposes to forth. 74,132.—GAS MACHINE.—Iva Prichard, Terre Haute, Ind., assignore to himself and Joseph Baiber. Baltimore. Md.

assignor to himself and Joseph Raiber, Baltimore, Md.
 I claim 1st, The combination of the air chamber, al, and water chamber, a with the carburetting vessel, B, and the receiving vessel. C. in the manner and for the purpose set forth.
 2d, The application of a column of water to a carburetting machine, for the purpose of condensing air and forcing it through the carburetting fluid, sub-stantially as shown and described.

74,133.—CONNECTING PUMP RODS.—H.F. Purmort, Saginaw City, Mich. Antedated Jan. 29, 1868. I claim jointing the sections of a pump or other rod together by means of the joint, constructed and applied substantially as and for the purpose de-

scribed, 74,134.—Self Lubricating Axle for Carriages.—Silas S.

Putman, Dorchester, Mass. I claim a chamber, b, within the end of the axle, packed with fibrous or porous material, for receiving and retaining a supply of lubricating sub-stance, which passes through openings to the bearing surface of the axle, sub-stantially as described. Also, providing the collar, H, with a chamber, e, for containing packing saturated with lubricating substance, substant ally as and for the purpose set forth.

set forth. 74,135.—CURTAIN FIXTURE.—S. S. Putnam, Dorchester, Mass.

i claim the wooden roll, D, having a chamberformed within its end, in com-bination with the device placed therein for raising the curtain, substantially

bination with the device placed therein for raising the curtain, substantially as set torth. Also, in combination with the above, a spring or brake, l, operating sub-stantially as set forth-Also, the bracket, C, with its lip or projection, l, in combination with the fattened end, 5, of the spindle, substantially as and for the purpose described. 74,136.—HORSE RAKE.—Oliver E. Randall, Lewiston, Me. I claim 1st, The springs, L, applied to the tooth bars, G, and to the bar, K, subs antially in the manner as and for the purpose set forth. At the bar, L, placed underneabt the tooth bars, G, and to the bar, K, has the perforated bar, K, conceted to the rod or shaft, F, when said bar, I, has the perforated bar, K, connected to it or the upper ends of the springs, L, to pass through, substantially in the manner as and for the purpose set forth. L, to forth

74,137.—WOVEN FABRIC. –E. F. Richman, Muscatine, Iowa.

10<sup>1010</sup>.
74,137.—WOVEN FABRIC. -E. F. Rickman, Muscatine, Iowa. Antedated Aug.5,1857.
I claim 1st, The method herein described of weaving fabrics having two or more thicknesses of separately interlocked weit-threads, whereby the upper or lower surfaces are made substantially as above shown.
2d. A woven fabric, substantially as described, consisting of two or more layers of separately interlocked weft threas s, the threads of one layer of weit always lying opposite the space's between the weft threads of the layer above or below it, and with all the warp threads passing from surface to surface, and binding the whole together, as above shown.
74,138.—CULTIVATOR.—John C. Rickerd, Lewisville. Ind.
I claim, ist, The double hinge, consisting of the screw bolt, f, bases, g, flanges, ht.1, lips, i], and plins, m, to hinge the cultivator beams to the main frame, all constructed and arranged substantially as described.
3d. The combination of the trame. A, hoogia, r. ods, a2, and foot rests, p, substantially as and for the purposes set forth.
3d. The combination of the trame. A, hoogia, r. ods, a2, and foot rests, p, substantially as and for the purposes set forth.
74,139.—HOLTZ ELECTRICAL MACHINE.—Edward S. Ritchie, Brookine, Mass.
I claim the combination and strangement of the supporting plate, C, of glass or other equivalent material, with the several sectors, and the comb arranged together and with the rotary electrizing disk, substantially as spe-cified.
Also, the application of the hing the proper settions with one another

cified. Also, the application of the plate. C, not only to the several sectors and combs, for giving support to them in their proper relations with one another and the rotary disk, but as a support for one of the bearings of the shart of the rotary disk, but as a support for one of the bearings of the shart of the rotary disk, but as A support for one of the bearings of the shart of the rotary disk. The whole being substantially as hereinholtore explained. 74,140.—ENVELOPE MACHINE.—Abram A. Rheutan, Worces-ter Masa.

the rotary Lag, the whole the gatasardan base and the store of processing the rotary Lag, the whole the gata start of the rotary table, B, having one or more receptacles for blanks, substantially as and for the purposes set forth. 2d, The lever, F, arranged for operation substantially as and for the purposes set forth. 3d, The lever, F, arranged for operation substantially as and for the purposes set forth. 3d, The use and employment, in an envelope machine, of a weight separator, for preventing the lifting of more than one blank at a time, substantially as a set forth. 5th, The combination, with the base of the folding flaps, of central bearing substantially as and for the purposes set forth. 5th, The combination with the folding flaps, I J K and L, of the bearing pieces, 76 9 and 10, substantially as and for the purposes set forth. 5th, The combination and arrangement, with the standards, 33, of the pro-set, 4 for the purposes set forth. 3th, The combination, with the flap, I, of an adjustable or spring face, substantially as and for the purposes set forth. 3th, The combination, with the flap, I, of an adjustable or spring face, substantially as and for the purposes set forth. 3th, The combination, with the flap, I. S. Roberts, Racine, Wis.

3d, The cross pipes, E E' and F F', or either of them, connected with the xbes, A A, at their ends, by means of independent pipes or bends, Cl or C2 seentially as shown and described.

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1. A second many preserved in the period of the period of the period of the second many second many period of the period of the second many second

1and (assignor to bimself and Joseph G. Rowland), Quincy, Ill. I claim the leather strip for pegs, prepared substantially as described, as a new article of manufacture.

new a. ... 74,149.-

new article of manufacture. 74,149.—DRYING AND VENTILATING APPARATUS.—Jarvis Royal, Rochelle, III. I claim the tubes, A, arranged within a bin or other place in which grain or other substance is to be dried, when such tubes are composed of earthen or other equivalent porous material that will absorb the moisture from the substance being dried, as herein set forth for the purpose specified. 74,150.--ADJUSTABLE HEAD FOR BARRELS AND FIRKINS.— Henry D. Rumsey Homer, N.

Henry D. Rumsey, Homer, N. Y. I claim the application of the flange to adjustable covers, and the slot to the inside of barrels, casks, or firkins, for the purpose of the more readily opening and closing the same effectually without starting or unhooping them, as herein set forth and described. 74,151.—EYE MEDICINE.—Hugh M. Sanderson, Noble, Ill.

I claim the medicines or compositions numbered 1, 2, 3, and 4, composed of the sugredients and in the proportions substantially as herein described and 74,152.-

specified. 74,152.—REVOLVING CANNON.—August Schausten, Michigan City, Ind. I claim, 1st, A cannon consisting of the barrel, A, having the annular blocs or ring, B, with the chambers, C, formed therein, arranged to rotate through an opening in the barrel as described. 24. The combination of the lever, I, locking bolt, E, firing pin, o, and han-dle, h. arranged to operate substantially as set forth. 74,153.—SPRING-BED BOTTOM.—David A. Scott and J. E. Burdge, Cnichmati, Ohio.

Burdge, Cincinnati, Ohio. We claim the prolongation, in the arms, E. in the same direction as the arms, b, of the belicolial spring or coils, a, when constructed and secured to theoross-rail, A, substantially as herein described, as and for the purpose

74,154 — Apparatus for Playing Parlor Base Ball.—

74,154 — APPARATUS FOR PLAYING PARLOR BASE BALL. Francis C. Sebring, Hoboken, N. J. Antedated Jan. 23, 1868. I claim, 1st, The partially revolving bat, E. arranged as represented, moving close to the upper surface of the board. A. and operated at their will of the player, so as to allow the striking of the ball in the several different positions, and with the several different effects, according to the skill of the player, substantially as herein set forth. 2d, Also, the sation set ball owned, and adapted to move the bat as the operat-ing cord, H. is released, substantially as herein set fortn. 2d, Also, the astionatic pitcher, B, mounted on a parlor base hall board, and adapted to project the ball at several angles approximating to the right direction, at the will and according to the skill of the player, substantially sherein specified. 4th, Also, the descending motion, in combination with the forward motion of the pictuer, by which the pitching device is carried so low, at the termi-nation of its motion, as to be out of the way of the returning ball. 5th, Also, the sem-rims, I', ar anged relatively to the cavities, I, or the corresponding marked saces in which the ball is to be stopped in passing substantially as and for the purpose herein set forth. 6th, Also, the sem-rims, I', ar anged relatively thereto, substantially as herein specified. 74,155.—Folding METAL SHUTTERS.—Samuel J. Seely, New

herein specified. 74,155.—FOLDING METAL SHUTTERS.—Samuel J. Seely, New York, assignor to J. M. Brown, Brooklyn, N. Y. I claim forming sheet-metal shutters of leaves, bent in a curved form, transversely, and unted substantially as and for the purpose set forth. 74,156.—SOCKET WRENCH.—Jus. M. Seymour, Newark, N. J. I claim the handle, A. with its broad oottom, madesubstantially as abown. Also, the shifting socket wrench, as a new article of manufacture. 74,157

Telsim the handle. A. with its broad oottom. made substantially as shown. Also, the shifting socket wrench, as a new article of manifacture.
74,157.—FLOUR SCOOP AND SIFTER.—George W. Sherman and Charles L. Sherman, Seymour, Con n. We claim the combination of the scoop, A having beads, a, handle, C, saddle, D, standard, E, crauk shaft, F, arms, G G, paddles, H, slitter, B, and lip, I, substantially as described for the purpose specified.
74,158.—TRUSS.—Jacob A. Sherman, New York city. Antedate date of an 24, 1888.
Telaim the combination of the scoop, A having beads, a, handle, C, saddle, a, and spring, f, substantially as described for the purpose specified.
74,158.—TRUSS.—Jacob A. Sherman, New York city. Antedate to an 24, 1888.
Telaim the curved spring, d, carrying the hernial pad, in combination with the bar, and spring, f, substantially as and for the purposes set forth. Also, the sliding fuger, h, fitted and acting substantially as specified.
74,159.—MACHINE FOR EMBOSSING WINDOW SHADES.—R. K, Slaughterand J. O. Hundt, New York city.
We claim, ist, The carriage, G, with ad yustable bars, h, h, which serve to hold the shade suncerdie for embossing window shades, placed upon the carriage, und to gruide the embossing rollers, F, substantially as and for the purpose berein shown and described.
3d, Thennt, C, when arranged ad ustable on the bar, B, in which it is held, substantially as etforth, so that the screw, D, may be moved laterally, as and tor the purpose herein shown and described.
3d, Thennt, C, when arranged ad ustable or roller in servery position, and during up-and-down as well as lateralimotion of the same, substantially as etforth.
sth, The press, consisting of an adjustablescrew and die-frame, in combination with the movable carriage, h, awild as and for the purpose herein shown and described.
3th, The press, the arranged and the scheed and the same, substantially as a sch forth, so that the

guide bars, n, all made and operating substantially as and for the purpose herein shown and described. 74,160.—CABPET HOLDER.—F. Smith, M. D., Alexanders-ville, Ohio. Iclama carpet holder, composed of a washer, C, and eccentic plate, A, said plate, A, rotating in a chamber in a washer, C, secured to any mop board, substantially as shown and described, and for the purpose set forth.

board substantially as shown and described, and for the purposes set forth. 74,161.—GRINDING MILL.—John Snyder, Hart's Mills, Ind. Iclaim the combination and arrangement of the drive-bar, K, ball or plobe, M, and supporting bar, N, with each other, with the upper end of the spindle, E, and with the upper scone or runner, L, substantially as herein shown and described, and for the purpose set forth. 74,162.—BED BOTTOM.—K. L. Southard, Rock Island, Ill. Iclaim the springs, C C, constructed as described, consisting of the wires colled into spirals, e, at their ends, said spirals titing upon locasecured to the slat, b c, the centers of said wires bent to form loop: or vokes, con nected by the tube, m, all arranged as described for the purpose specified. 74,163.—Depresent PERFORMENT, CALLERY — F A Spofford and M

74.163.— PORTABLE PISTOL GALLERY.— F. A. Spofford and M. G. Raffington, Columbus, Obio. We claim, ist, Froviding the platform, A, with two flexible folding shields CC, on both ends, substantially as and for the purpose herein shown and

described. 2d, The platform, A, when provided with a flexible folding shield, C, on each end, in combination with the perforated target, D, all made and oper-sting substantially as and for the purpose herein shown and described. 74, 184.—ADJUSTABLE BALL HOLDER FOR GAMES.—F. A. Spof-

17. JULT. TADA ON LABOR DALL FIOLDER FOR GAMES. F. A. Spofford and M. G. Raffington, Columbus, Ohio. We claim the revolving platform, A, when provided with a ledge, b, and bow, c, in combination with the bar, D, brace, d, and standard, B C, all made and operating substantially as and for the purposes herein shown and de-scribed.

74,165.—Machine for Exterminating the Cotton Worm,

etc. --Chas. Steinmann, Napoleonville, La. I claim the portable steam generator or boller, F, or its equivalent, in com-bination with the pipes, M and K, when these pipes are provided with the jets or nipples, a, and are other wise constructed as herein described, and the cormer is used as a steam and the latter as an oil distributer, the whole being arranged substantially as and for the purpose set forts.

74,166.—Portable Fence.—H. A. Stewart, Minneapolis,

Minn. I claim, ist, The combination of the supports, B, constructed as described with the sections of fence, as and for the purpose herein set forth. 2d, in combination with the pivoted supports, B, constructed as described, the section of the fence, consisting of the pickets, D, upon the tarred ropes, C, asherein shown and described.

to any mop es set forth.

bars, a a, when constructed in the shape and proportions as described.	sth, The combination, with the hap, 1, of au adjustable or spring face,	the section of the fence, consisting of the pickets, D, upon the tarred ropes,
74.118.—OINTMENT.—Lycurgus H. Moseley, Franklin, Tenn.	substantially as and for the purposes set forth.	C, asherein shown and described.
I claim the ointment, compounded substantially as and for the purpose	9th, The combination, with one or more of the bearing pieces, of adjusting	74,167.—Box Opener.—P. Stone, Charlestown, assignor to
above described.	screws, 16, for the purposes set forth.	Joseph Veszte and Augustus L. Dole, Boston, Mass.
74,119.—BREECH LOADING FIREARMS.—Florent Muller, Hart-	74,141.—PEAT CRIB.—Marvin S. Roberts, Racine, Wis.	I claim a box-opener, substantially as described, viz: as constructed with a
ford. Ct.	I claim the portable peat crib, constructed of light scantling and boards,	claw at one end of its stock or shank, and a hammer-head at the other end
I claim the combination with the hinged breech-block, E, of the locking	substantially as and in the manner herein described, and combined with	thereof. and with a ram to slide on the shank or stock, in manner and against
slide, G, and lever, J, applied and operating substantially as and for the pur-	blocks, PP, and wedge board or boards, F, constructed and operating sub-	a shoulder thereof so as to operate the claw, as specified.
pose setforth.	stantially as herein shown and described, and for the purposes set forth.	74,168.—LIFE-PRESERVING APPARATUS —J. B. Stoner, New
	74.142.—Apparatus for Operating Horse Hay Forks.—	14,100.— LIFE-FRESERVING AFFARATUS — J. D. DUDIEI, NEW
74,120.—PORTABLE HAY AND GRAIN ROOF.—John J. Nay-	George M. Robinson, New Wilmington, Pa.	York city, assignor to himself, L. Mendelson, and T. Crommelin. I claim, 1st, The chin protector, C, constructed and applied as herein shown
lon. Brighton, Mich.	I claim, 1st, The carriage, D, upon the inclined bar, C, having the pivoted	and described.
I claim the ropes, G, posts, D, shafts, H, and cranks, J, when used in con-	catch, i, upon the lower side of which the projection, i, is formed, and also	2d, The combination of the open elastic band, D, formed of two elastic
nectson with the roof, A. substautially as herein shown and described, and		tubes connected longitudinally by an elastic membrane, the outer elastic
for the putpose set forth.	29 and ball. K. as herein described, for then prnose specified.	tube, B, auxiliary band, E, and the upper part of the suit, A, as herein de-
74.121.—Self-sealing Pamphlet Cover.—Wm. H. Nichols,	2d. The combination of the ball. K. and hoisting rope, G. with the catch. I.	scribed, for the purpose specided.
East Hampton, Ct.	havingprojections, i, the camlever, J, the pulley, d2, and carriage, D. as	74 160 Det to compare VEGGETA : I D Stongr(agging on to him
I claim a self-sealing catalogne, pamphlet, magazine, etc., substantially in	herein shown and described.	74,169.—BALLASTING VESSELS.—J. B. Stoner (assignor to him-
the manner and for the pr pose set forth.	3d. The carriage, D operated by the single nosting and fork rope, when	self, L. Mendelson, and T. Crommelin), New York city,
74,122.—BRIDLE BIT.—John K. Norton, Flushing, Ohio.	the loaded fork reaches its highest elevation in relation to the carriage, be-	I claim the temporary ballast, when consisting of the weight, F, secured
	fore the latter is permitted to move upon the inclined bar, and when the act	to the lower ends of the rods. I I, and adapted to fit into the metallic socket,
I claim the combination of the bar, A, with the ring, D, and branch, E, and the bar, B, with the ring, F, and branch, G, when constructed as herein de-	of raising the loaded fork disengages the catches of the carriage from their	G, in the keel of the vesse, and operated from the deck, the rods, I I, working in the vertical tube, B, of the socket, G, as herein set forthfor the pur-
scribed and for the phrpose set forth.	fastenings, asherein shown and described.	
	74,143.—Hold-Back Hook.—N. W. Robinson, Moriah, N. Y.	pose specified.
74,123.—CULINARY VESSELS.—James Willard Patterson (as-	I claim the post, F, in combination with the hook, B, substantially as and	74,170.—CALCULATING AND REGISTERING MACHINE.—T. T.
signor to Sarah Ellen Patterson), Cincinnati, Ohio.	for the purpose described.	Strode, Mortonville, Pa.
I claim 1st, The suspending of a series of cooking vessels, having imperfor-	74,144.—GLOBE STEAM VALVE.—E. A. Rock, Ludlow, Vt.	I claim, 1st, The complication of disks, A B C D E and F, or their respective
ated bottoms and sides, and provided with close covers, in an npright col-	I claim, 1st, The combination of the wedge, m, shell, A, and valve, G,	equivalents, num bered and arranged as herein set forth and describe d.
umn or series, in such a manner as to form steam chambers above, below	substantially as herein shown and described.	2d, The spur, b', in combination with the pinion, G, and toothed disk, D, or
and around each, as and for the purposes substantially set forth. 2d, Thesteam or water coil, K, provided with shield, P, and cap, S, when	2d, The combination of the ring, G, and the wedge, m, substantially as here-	their respective equivalents, substantially as shown and described.
		74,171.—BROADCAST SEEDING MACHINE.—Samuel Thomson,
used in connection with the boiler, E, in the manner and for the purposes set forth.		Osceola, Wis.
3d, In each of a series of cooking Vessels, arranged substantially as showu,	74,145.—SPOUT BRACKET.—Jeremiah E. Rohrer, Rohrers-	I claim the rotating seed-discharging cylinder, F, in combination with the
and used in connection with the boiler, the chamber formed between the	ville, Md.	seed box or hopper, E, having an opening, a, at its lower part, the bottom
close sides of the inner and outer cylinder.	I claim the spout supporting bracket, A, constructed as represented, in	plate, b, and the scattering board, G, all airanged to operate substantially as
4th, 1'he combination of the series of cooking vessels, N M, etc., with the	combination with the clasp, C, substantially as described for the purpose	and for the purpose herein set forth.
boiler, E, the whole made substantially as described, and so as to operate in	specified.	74,172.—ROTARY STEAM ENGINE.—C. B. Turner, Grand
the manner set forth.	74,146.—STEAM GENERATOR.—John B. Root, N. Y. city.	Rapids, Mich.
	I claim, 1st, In combination with the water tubes, A A, the return pipes	I claim the piston, B, provided with the partitions, J, and chambers, i and
74,124.—PICKER-STAFF CHECK FOR LOOM.—Ezekiel Phillips	or bends, C C, arranged to connecteach tube with one above and below it,	arranged to operate in connection with the induction port, g, and valves, D.
and Henry C. Phillips, Blackstone, Mass., assignors to themselves and	substantially as specified.	and D', as herein described and represented.
Daniel B. Pond.	2d, The bend, c, for establishing the connection with the water tubes, by	74,173.—Apparatus for Raising Heavy Weights.—S. E.
We claim the friction apparatus, substantially as described, that is, as com-	free or socket joints, when furnished with packing, and held to their places	Tuttle. Genoa. Nevada.
posed of the levers, BB, the friction cylinder and its bearing and cap, and	by independent outside clamps, stud bolts, and nuts, or their equivalents,	I claim 1st, An improved machine formed by the combination of the shaft
the connection of such cylinder and levers, as specified.	essentially as shown and for the purpose described.	t chain ist, An improved machine formed by the combination of the shart

B, the wheel, E, having a spiral groove, el. formed inits face, the blocks, H, having fiction wheels, I, ettached to them, and the silde, F, or equivalent, with each other, and with the guides.G. and frame, A, substantially asherein shown and described, and for the purpose set forth.
2d, The combination of the flanges, J and b', with the guide, G, and blocks, H, substantially asherein shown and described and frame, A, substantially asherein flanges, J and b', with the guide, G, and blocks, H, substantially asherein shown and described and for the purpose set forth.
74,174.—VINEGAR STILL.—R. L. Vance, St. Louis, Mo. I claim, ist, Thetank, A, when dyided into two cells, as al, and combined with the distilling apparatus, e E E', as described and for the purpose set forth.

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74,175.--Mode of Preparing Aerated Liquids .-- P. H.

Vander Weyde, M.D., Philadelphia, Pa.-Antedated Jan. 27, 1868. I claum, ist, The described manner of dissolving the carbonic acid gas in the water by means of ceil, gas jet, and reservor, with stop cocks, regulator, and safety valve, this solution being made at the place and time it is to be used as betragen

the water by means of our and the solution being made at the place and simple to be and safety valve, this solution being made at the place and simple to be a solutions of the salts contained in diverse inheral waters, of the concentrated solutions of the salts contained in diverse inheral waters, of the concentrated school extracts of beer, cider, wine, etc., and thus by only supplying one single fountain with so-called soda water, or even with pure water, or wine, and, in general, any beverage containing carbonic acid, always fresh and cool, and equally effervescent. 74,176.—WALKING VEHICLE.—R. C. Vernol, New York city.

I claim the legs, C D, ot a walking vehicle, when they are connected with the eccentricshafts, E E, and with the crauk shaft, B, in such a manner as to receive up and down as well as oscillating motion, substantially as and for the purpose herein shown and described. the purpose herein shown and described. 74,177.—STEP AND EXTENSION LADDER.—George S. Walker.

14,111.— STEP AND EXTENSION LADDER.— George S. Walker, Erie, Pa. I claim, ist, in a combined extension and step ladder, the hooks, i, and arm n, in combination with ladders, A B, cord, b, pulley, m, and crank shaft, a d, all constructed, arranged, and operating substantially as described and for the purpose pecified. 2d, in combination with the above, the hook, h, and guides, e, substantially as described.

ly as described. Sd, The combined extension and step ladder, constructed substantially as described, and consisting of the sections, A B, hooks, i, arm, n, guides, e, pul-ley, m, cord, b, and crank shaft, a d, all arranged and operating substantially

as set forth.
74,178.—METALLIC SCROLL ENDS FOR SPRING BARS FOR CAR-rlages.—A.L. Warburtou and H. Bendir, Fort Wayne, ind.
we claim the metallie scroll ends for spring bars and head blocks for car-rlages, etc., as an article of manufacture, the same being constructed and used in the manner and for the purpose substantially as specified.
74,179.—PEN HOLDER.—C. M. H. Warren, Brooklyn, N. Y. I claim a pen holder provided with a sliding handle, A, and harret, B, and with a sliding nosing, C, all combined and arranged substantially as and for the purpose herein set forth...
74,180.—LAST.—G. M. Wells, London, Eng'd, assignor to M. D. Wells, Chicago, 11.

D. Wells, Chicago, 111. I claim the last as made with the horn, F, to project from its instep part, B and be connected there with as specified.

and be connected there with as specified. 74,181.—LAST.—G. M. Wells, London, Eng'd, assignor to M. D. Wells, Chcago, 11. I claim the last, as made, with its two sections or parts connected by dove tails, and having a slot, opening, or hole made and arranged in each, as ex-plained, for reception of a leg or standard, as described. Also, the combination of the key or standard with the two last sections connected by dovetails and having slots, or keyboles, or passages arranged in them, as set forth.

74.182.—BENCH HOOK FOR CARPENTERS' BENCHES.—C. H.

14.182.—BENCH HOOK FOR CARPENTERS' BENCHES.—C. H. Weston, Lowell, Mass. I claim the bolt, H, with its cam-projection, when used with the slotted case, G, for clamping bar, D, the several parts being constructed and oper-sting substantially as specified. 74,183.—PLOW.—Charles White, Bladensburg, Md.

14,183.—PLOW.—Charles White, Bladensburg, Md.
Iclaim, 1st, The angle iron, I, in combination with the slotted transverse bar, J, and the rear end of the plow beam, for effecting the double adjust-ment of the latter, in the manner described.
2d, The plvotal support, G, of the plow beam, E, in combination with the perforated horizental fisinge or lag, a, on the mold board, as described.
3d, The plow beam, provided with tubular or semi-cylinarical ribs or cor-rugations. substantially as described.
4th, The yielding tension of draft rod, passing centrally through, or having an equivalent arrangement relative to, the heam, as described.
5th, The yielding draft rod, in combination with the spring, operating as described.

AGES.-Samuel B. Whitney, Corsackie, N. Y. I claim the loop or hook, i. hanging from the bolt, e, and sustaining the spring, F. in combination with the tongue, d, and jaws, c, as and for the pur-poses set forth.

74,185.—SRATE FASTENING.—Alfred Woodham, N. Y. City. 74,185.—SRATE FASTENING.—Alfred Woodham, N. Y. City. 1 claim, 1st, The beel clamps to the skates when constructed as described, to grasp the heel both upon its sides and edge, under the shank, as berein shown and described. 2d, In combination with the above, the pivoted slotted clamps, C. when provided upon their inner ends with the swivelled right angular nuts, I, re-ceiving the screw bolt, H, whereby the said clamps are permitted to adjust themselves to the sole of the boot or shoe, by combined lateral and longitu-dinal movements, as herein shown and described.

74,180.— WATER ELEVATOR.—U. F. WOODFUII, NewDern, Tenn. I claim the shart, b, working in the axle, B, having the bar, D, at its extremity, working through the slot. b", clutching the dram, C, by the stops, d, in manner substantially as above set forth and described. 74,187.—CHERRY STONER.—Ruffus Wright, Brooklyn, N. Y. Iclaim, ist, The reciprocating rod, H, armed with the needles, c, provided with notches or barbs, in connection with the bed, Q, having the recessor cavity, g, made in it, and the hole, f, extending entirely throngh it, with the arm, S, working underneath the hole, f, in the bed, all arranged substantially as and for the purposes forth. 24, The vibrating bar, U, provided with the plates; u, in combination with the reciprocating rod, H, armed with the needeles, c, and the bed, Q, provided with the hole, f, slot and for the purpose specified. 34, The vibrating bottom, L, in connection with the tube, K, the former

provided with the hole, I, all arranged substantiant, in additional sepecified. Sd, The vibrating bottom, L, in connection with the tube, K, the former being provided with the curved projection, N, and arranged to operate in connection with the bed, Q, and guard, R, all arranged to operate substanti-ally as and for the purpose set forth. 4th, The cam, G, provided with the rim, e, and pit, j, and connected with or arranged to operate the rod, H, bottom, L, strike or arm, S, and the bar, U, for the purpose specified.

for the purpose specified. 74,188.—Mode of Compounding Printers' Ink from Gra-HAMTE.—HenryWurtz, New York city. I claim the use, as an ingredieut in printing inks, of the resinous constitu-ent of the Grahamite of West Virginia, called by me viscosine. 74,189.—CARRIAGE SHAFT AND POLE COUPLING.—Edmund

A. Barvey, Wilmington, Del. I claim, Hi, The clevis, A. whith pin or bolt, C. with or without either per-manent or detachable safety lips, G. in combination with hook box, B, sub-stantially as described. 2d, Thehook box, B, in combination with key bolt, D, with spring or elas-tic washer, E, for the purposes named.

#### REISSUES.

2,849.-METHOD OF CASTING SUREWS.-William Allen Ingalls, Chicago, 111. Patented May 15, 1866. I claim, ist, The mode hetein described for casting seamless screws. 2d, The screw herein described, as a new and improved article of manufac

28.50.—HORSE HAY FORK.—Mary Jane Laird, Middletown, Pa., administratic of the state of Andrew J. Laird, Middletown, Pa., administratic of the state of Andrew J. Laird, deceased. Patented August21, 1966.
21. claim, 1st, The times, D D, having cutting edges, in combination with rod, C, substantially as and for the purpose specified.
2d, Also, the times, D D, in combination with the rod, C, when the former are pivoted to the parallel bars. A A, and work in slots arranged in the end of the same, substantially as described, and for the purpose specified.
3d, Also, the rod. C, link, E, and kver, F, when the same are arranged and combined ubstantially as described.
4th, The bars, A A, when they are connected and arranged as shown in combination with the rod, C, the lever, F, having its upper horizontal arm adapted to project through the ring, H, substantially as described.
2d, S1. \_ UNSTRUMENT FOR C DENING SEALED AND OTHER CANS.

3d, In combination with the dredging vessels, the pins, L, for the purpose of moving the same, substantially as described. 4th, The dredger, the receiving and discharging apron, and the derrick of a dredging machine, all in combination, when constructed and operated sub-stantially as shown and specified.

stantially as shown and specified. 2,854.—LIAMP BURNER.—William Painter, Baltimore, and Charles Painter, Owing's Mills, Md., assignces of William Painter by mesne assignments. Patented June 30, 1863. We claim having the side pieces, b h and the ends, g g, constructed and arranged in reverse inclined positions, in the manner herein shown and de-scribed.

arranged in reverse included positions, in the mainter herein shown and de-scribed. The combination of the attachment above specified with the tubes, F A, the latter being screwed into the fountain or body, B, of the lamp, and in-closing the wick adjusting wheels, b, as set forth. Making the outer case, F, adjustable upon the tube, A, so that the hight of the cap, G, may be regulated, as and for the purpose set forth. A deflector or fiame spreader, constructed so as to form a continuous plate around the fiame, and fashloned so as to cut off the ascending currents of air from the edges of the flame and deflect them against the sides thereof, sub-stantially as described and for the purpose set forth. 2,855.—COAL OIL LAMP.—Joseph Ridge, Richmond, Ind. Patented April15,1862. I claim, 1st, The use of transparent material between the base of the de-flector and base of the burner, substantially as described and for the purposes specified. ?2d, The combination and arrangement of the base. B, of the burner, the

flector and base of the burner, substantially as described and for the purposes specified. <sup>2d</sup>, The combination and arrangement of the base, B, of the burner, the transparent inclosure, M, the deflector, D, and chimney, C, substantially as set forthand for the purposes describes. <sup>3d</sup>, The base of the chimney, locatedat, a pointabove the base of the burner and having interposed between said bases a transparent material. <sup>2</sup>,856.—OystER DREDGE.—Thomas P. Sink. Fairton, N. J. Patented Oct.4, 1859. I claim, 1st, The combination of a horizontal roller, E, turning in bearings <sup>2</sup>d, The combination of a horizontal roller, E, turning in bearings <sup>2</sup>d, The combination of a horizontal roller and a vertical roller or pulley, <sup>8</sup>, <sup>4</sup>dhstantially as and for the purpose described. <sup>2d</sup>. The combination of a horizontal roller and a vertical roller, when the outer side of the latter is beyond the outer edge of the horizontal roller, and when the said rollers arranged in respect to each other on the gunwale of a vessel substantially as described. <sup>3d</sup>, The arrangement and combination, substantially as described, of the chock or block, A, its pulley, B, and the roller, E, for the purpose specified. <sup>2</sup>, 2857.—CRANK PIN BOX.—Thomas Welch, Churchville, N. Y. <sup>3d</sup> are the onbination with the adjustable hoves B, D, a nitmap.

Patented Aur. 1, 1865. I claim, 1st, In combination with the adjustable boxes, B D, a pitman, P, o united therewith that it will freely move and work, for the purposes set

In combination with the adjustable boxes and pitman, a, set screw, S, he purposes set forth. 3d, The combination of the cap. C, with the boxes, B D, pitman, P, and set screw, S, for the purposes set forth.

# DESIGNS.

2,905.—LANTERN.—John Alexander, Brooklyn, N. Y., as-

eigaor to Geo. W. Brown & Co., Forestville, Conn. 2,906.—MOLDING.—William Baker, New York city.

2,007.—MUFF.—Frederick Booss, New York city. 2,908 and 2,909.—CABPET PATTERN.—Robert R. Campbell, (assignor to Lowell Manufacturing Compaoy), Lowell, Mass. Two

2,910.—CAR BASKET.—Wm. G. Creamer, Brooklyn, N. Y. 2,911.—TRADE MARK.—Charles Gautier, Washington, D. C. 2,912.—PISTOL BARREL.—Emerson Goddard, Brooklyn, N. Y. assignor to E.S. Renwick, New York city. 2,913.—STOVE.—William Hailes, Albany, N. Y. 2,914.—LABEL.—Margaret J. Hays, Allegheny City, Pa.

2,915.—BOTTLE.—Louis Lacour, San Francisco. Cal.

2,916.— FLOOR OILCI.OTH PATTERN.— Charles T. Meyer, Ber-gen, N. J. assignor to Edward C. Sampson. 2,917 and 2,918.— CARPET OR FLOOR OILCLOTH PATTERN.— Charles T. Meyer, Bergen, N. J., assignor to Edward C. Sampson, Two patents.

2,919.—STATUETTE.—Carl Muller, New York city. 2,920.—Base or Stand.—Nicholas Muller, New York city

2,920.—BASE OR STAND.—NICHOIAS Muller, New York City. 2,921 to 2,926.—CARPET PATTERNS.—Elemir J. Ney, Lowell, Mass., assignor to Lowell Manufacturing Company. Six patents. 2,927.—Top.—Joshua Pusey, Philadelphia, Pa. 2,928.—BottLE.—Frederick Stearns, Detroit, Mich.

NOTE .- SEVENTY-FOUR Patents in the above list were solicited through the

Scientific American Patent Agency. The following samples, out of scores of complimentary lettersconstantly received at this office, we select for pub-lication, as they came to hand at the same time, and emanated from persons residing at such remote distances apart, thus exhibiting unity of sentiment from one end of our country to the other :--

Thomas C. Hammond, of Sacramento City, Cal., writes us:-" I am much gratified to learn that you have succeeded in procuring a favorable termina tion of the case without any extra trouble or expense, and, as I consider this result due to the able manner in which you have conducted the case, you will please accept my thanks for your kind attention to the matter, and also the assurance that I shall recommend your Agency as the cheapest and best medium for the procuring of patents in the country. I shall secure your valuable services in the transaction of all matters of this kind that I may have in future."

George W. Wheeler, of Hartford, Vt., says :-- "Through your Agency w received the Letters Patent on Wheeler & Allen's water wheel, the 13th of January. We were disappointed in obtaining them so soon-only twenty eight days from the time of making application to the allowing of the pat ent! I know of cases in our vicinity that have been on the road from three to five months and are not through yet. You have given entire satisfaction

in our case, and we would recommend you to others."

#### PENDING APPLICATIONS FOR REISSUES.

Application has been made to the Commissioner of Patents for the Reiss ue oj the following Patents, with new claims as subjoined. Parties who desired

to oppose the grant of any of these reissues should immediately address MUNN & Co., 37 Park Row, N. Y.

MUNN & Co., 37 Park Row, N. P.
67,167.— EYE GLASS.—Charles Parker, Meriden, Conin., assignee of George N. Cummings, Providence, R. I. Dated July 30, 1867. Application tor relssue received and fieldan. 23, 1868.
I claim, 1st., The continuous spring, B. combined with the two glasses A A, when attached and secured to each of the bows at or near the point, D, in the manner substantially as herein set forth.
2d. The arrangement of the guides, EE, upon each of the bows, and so as to wholly or partially surround the spring at the point above the point, D, andso as to leave the spring free in the said guides, substantially as and for the purpose specified.
562. whole NO. 31,566.—DRYING TUNNEL.—Francis H.
Smith, Baltimore, Md. Dated Feb.26,1861. Application for relssue received and filed Jan. 23, 1868.
1st. I claim the tunnel, A BC, When the same is provided with a furnace, R, and chimney, L, and the whole is constructed and arranged substantially as described and for the purpose specified.
2d. The tunnel, A BC, Intrace, R, act chimney, L, when the same is in combination with the rails, E E, and car. J, and the whole operates substantially as a for the purpose specified.
3d. The tunnel, A BC furnace, R, act chimney, L, when the same is in combination with the rails, E E, and car. J, and the whole operates substantially as and for the purpose specified.
4th, The furnace, K, oaving a spiral flue, N, and plates, V and V, when the same is in combination with the rails, E E, and car. J, and the whole operates substantially as and for the purpose specified.
4th, The furnace, L and a spiral flue, N, and plates, V and V, when the same is in constructed and arranged so as to operate substantially as and for the purpose specified.

appoint the rear end plate of a cooking stove and extending outward there-from, in the manner and for the purposes substantially as herein described; and set forth.
atth, I claim the combination of the chamber or flue, P, with the vertical described ands of forth.
atth, I claim the combination of the chamber or flue, P, with the vertical flue or flues between the oven and the rear end plate of a cooking stove and with the chamber, D, in the manner: and for the purposes substantially as herein described and set forth.
atthe chamber, D, in the manner: and for the purposes substantially as herein described and set forth.
atthe chamber, D, in the manner: and for the purposes substantially as herein described and set forth.
atthe chamber, D, in the manner: and for the purposes substantially as herein described and set forth.
atthe chamber, D, in the manner: and for the purposes and angles, B' C C and D D', or their equivalents, with their respective slots and angles, B' C C ducing the simultaneous movement of the several pairs of plates, B' C C and D D', or their equivalents, with their respective slots and angles, B' C C ducing the simultaneous movement of the several pairs of plates and the consequent unequal enlargement and construction of the pattern, substantially as herein set forth.
attion to each other and the slots as to produce a simultaneous expansion and contraction, substantially as described, according to any required size of the boot. 12 NOTE .- The above claims for Reissue are now pending before the Pat-

the boot.

cation.

[FEBRUARY 22, 1868.

Wen of a cooking stove, for the purposes substantially as herein described and set forth. Sth. I claim the employment and arrangement of a door or doors, k, or any gauivalent thereor and therefor, so that the same, or a part thereof shall pien (in their ont of the cooking stove) in front of the fire box or chamber or combustion having a fire grate therein, and ash pit or chamber combined herewith, and arranged and suspended in the front part of the oven of a cooking stove, in the manner and for the purposes substantially as herein de-cribed and set forth. Eth, I claim the arrangement of a fire chamber or chamber of combistion with a fire grate and anash pit or ash chamber or other owith, and the whole suspended in the front part and upper corner of the oven of a cooking tove, in the manner and by the means substantially as herein described and efforth.

with a fire grate and anash pit or ash chamber combined therewith, are the whith a fire grate and anash pit or ash chamber conner of the oven of a cook ing stove, in the manner and by the means substantially as herein described and set forth. Thi, I also claim the employment and arrangement of the additional or ex-tra bottom and encasement, r, in combination with the flues of the bottom of a cooking stove at dimmediately underneath the oven, i, and with the space or chamber between the same and the bottom plate of the stove, in the man-ner and for the purposes substantially as herein described and set torth. Sth, I also claim the employment and arrangement of the additional or extra back or encasement, in coubination with the seconding and descend-ing flues in the rear end of a cooking stove, and between the rear end of the oven and the rear vertical end plate of the stove, in the manner and for the purposes substantially as herein described and set forth. 9th, I also claim the employment of a corrugate plate for the top of the oven, i, in combination with the flue, h, and fire chamber or shamber of com-bustion and with the rear end vertical plate of the oven of a cooking stove, in the manner substantially as and for the purposes hereiu set forth. 10th, I also claim the employment and arrangement of the front damper or valve. Y, in the front and hearth of a cooking stove, in combination with the substantially as beein described and set forth. 11th. I also claim the employment and arrangement of the damper, or any equivalent thereoic, and so combined with the flue or flues of so clooking stove having a boiler or reservoir supported outside and back of the rear vertical end of a cooking stove and over a heating chamer or flue, so that the direct action of the heat upon such boiler or reservoir may be thrown or shut off, and the same cameed to pass through the purpose of said cooking stove before entering such chamber immediately underneath such boiler or reservoir and acting thereon for the purpose of warming 12th, 1 also claim the employment and arrangement of the boller or reservoir baying a removable or detachable cover or top, and containing two in-clined finesor tubes, which are separate, at the bottom or lower end thereof, from each other, and which unite at the top or under end thereof, and thus and then form but one pipe, in the manner and for the purposes substantially as herein described and set forth.

as herein described and set forth.
22,681.—COOKINE STOVE.—Philo P. Stewart, Troy, N. Y. Dated Jan. 18, 1859. Reiseu No. 1684. dated May 31, 1864. Application for reissue received and filed Jan. 20, 1868. Division E. Ist, I claim the employment and arrangement of the top plate of a cooking stove having a file or flues immediately thereander and extended over and beyond the reserved or flues immediately thereander and extended over and beyond the reserved and support acceleres and support are served to the over thereof, in such mamericas to receive and support are served or water tank upon or over a suitable opening these and support a reserved or such ber immediately bereined act forth.
24. I claim the arrangement and extended of the heating chamber or flues of a cooking stove, in ownic the receive and support acceleres and cooking the or flues of a cooking stove, and with the reserved rear tank the or flues of a cooking towe, and with the reserver or rear enter the and set forth.
25. Cooking towe, and with the reserver or rear enter the and set forthe and so cooking stove, and with the reserver or rear enter the and reserver or rear enter the area flue or flues of a cooking towe, and with the reserver or rear enter the and set forthe.

The second secon

store, and beating chamber or flue. D, in combination with the heating or warming closet, S. in the manner and for the purposes substantially as here-in described and set forth. Bth, 1 claim the arrangement and combination of the heating or warming closet, S. or any equivalent thereof, upon the rear end of a cooking store containing a verified flue or flues, in the manner and for the purposes sub-stantially as herein described and set forth. Bth, 1 claim an opening, O, in and through the rear end vertical plate of a cooking stove, of sufficient capacity to allow the passage of hot all or of the heated escaping products of combustion through the same and into a flue or chamber underneath a reservoir or water tank, so as to warm or heat the water therein, in the manner substantially as herein described and set forth. Tth, 1 claim the combination of an exit chimney pipe or flue or flues with the heating chamber or flue, D, underneath the reservoir or water tank, C. in the manner and for the purposes, substantially as herein described and set forth. Sth, 1 claim the construction of a reservoir or water tank upon the ex-tended top value of a cooking stove, and supported over or beyond the rear end vertical flue or flues of a cooking stove, in the manner and for the pur-poses substantially selerein described and set forth. 9th, 1 claim the construction of a vertical end plate of a cooking stove containing the opening, O, or any equivalent, there in, for the passage of the bot air or escaping beated products of combustion into a suitable chamber underneath the reservoir or water tank, combined with a cooking stove in the manner substantially as berein described and set forth. Toth, 1 claim the construction of a vertical end plate of a cooking stove in the manner substantially as berein described and set forth. Toth, 1 claim the construction of a vertical and plate of the. The manner substantially as berein described and set forth.

ent Office and will not be officially passed upon until the expiration of 30 days from the date of filing the application. All persons who desire to oppose thegrant of any of these claims should make immediate appli-MUNN & CO., Solicitors of Patents,37 Park Row. N. Y.

<ul> <li>B. H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Knowles, Cleveland, Ohio, as: signees of Samuel D. Lecompte, Leveneworth City, Kansas. Patented Sep. 19, 1986.</li> <li>H. Bourne, E. Damon, T., and H. M. Kansa, Patented Sep. 1987.</li> <li>H. Baster, S. Stans, Patented Sep. 1987.</li> <li>H. Stans, Patented J. Sep. 1987.</li> <li>H. Stans, Patented J. Sep. 1997.</li> <li>H. Stans, J. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Sep. 1997.</li> <li>H. Stans, J. Stans, J. Sep. 1997.<th>boritecul unarior the purpose specifical</th><th>same is constructed and arranged so us to operate substantially as and lot</th><th></th></li></ul>	boritecul unarior the purpose specifical	same is constructed and arranged so us to operate substantially as and lot	
<ul> <li>E. B. Dourne, E. Damon, Jr., and H. M. Knowles, Cleveland, Ohlo, as signees of Samuel D. Lecompte, Leco</li></ul>	2.851.—INSTRUMENT FOR OPENING SEALED AND OTHER CANS.	the purpose specified.	
signees of Samuel D. Lecompte, Leavenvorth City, Kansas. Patented Sept. 1985. We glaim, Igt. A can opener constructed of a cutter or knife connected to for reissue received and field an 24, 1987. A the point, whe soarranged in relation to the holder and a making proform of the cutter. 2,552.—THRASHING MACHINE AND SEPARATOR.—Hugh W. Matthews: Cheage 011, Patented Aug. 71, 1987. Telaim, ist. A longhuidmally stated rain rack or platform, C. constructs and operated substantially as described. 3, 4, 4 stationary or movable rack, C. composed oi perforated state hades, D. 4th. The stated and portated stated area for rate, samped so as to play between the states of neutron with servester of a longe through stated area for a longet of the combination with servester of a longet of the driving frame, when the firms frame, stated and portated states and societ and shares between them in combination with servester of a longet of the driving frame, when a ductiving described. 4th. The scombination of stated area for ratek, c. composed oi perforated state haves been them, in combination with servester of a longet of the driving frame, when the firms the orabination with servester of a longet of the driving frame, when the firms the stated and performs dated and portated substantially as described. 4th. The schemblation of a stated and performed, and combined to with servester of two wheels, a main frame by coupling arms passing through the driving frame, when the firms the driving frame, when the firms the state state and firms and the driving frame, when the firms the driving frame, when the firms the drives firms. 4th. The schemblation of a stated and performed, and a combined on where served and field frame frame, when the firms that a state and performed,		16 094 - MELODEON - Lafavette Louis, Providence, R. I.	Inventions Detented in England by Americans
<ul> <li>Sept. 19, 1955.</li> <li>We slam, Ist, A canopher constructed of a cutter or knife connected of mean shall proto for the cutter in opening cans.</li> <li>At the point, when so arranged in relation to the bolder and cutter that the stable of the bolder of the bolder and cutter that the stable of the bolder and cutter that the stable of the bolder of the bolder and cutter that the stable of the bolder of the bolder and cutter that the stable of the bolder and cutter that the stable of the bolder and cutter that the stable of the bolder of the bolder and cutter that the stable of the bolder of the bolder and cutter that the stable of the bolder of the bolder and cutter that the stable of the bolder and cutter the the stable of the bolder and cutter the the stable of the bolder and cutter the the stable of the bolder and cutter the the stable of the bolder and cutter the the stable of the bolder and cutter the the stable of the bolder and the stable of the stable of the bolder and the stable and the stable of</li></ul>		Dated Now 18 1956 Reisen a No 2 402 dated Feb 26 1867 Application	_
The standie of the spoint sources of a cutter or kulfe connected of a melodeon (or that class of in- struments in wild) the series of a melodeon (or the cutter in opening cans. Source and an axial plot of the cutter in opening cans. Source and an axial plot of or the cutter in opening cans. Source and an axial plot of or the cutter in opening cans. Source and an axial plot of or the cutter in opening cans. Source and an axial plot of or the cutter in opening cans. Source and an axial plot of or the cutter in opening cans. Source and an axial plot of or the cutter in opening cans. Source and an axial plot of the cutter in opening cans. Source and opera	Sant 10 1965	for received and fled i on 94 1989	[Compiled from the Journal of the Commissioners of Patents."]
<ul> <li>form anaxial pivot for the cutter in opening cans.</li> <li>at, the polink, when so arranged in relation to the holder and cutter that, as a polink when so arranged in relation to the holder and cutter that.</li> <li>at, a polink when so arranged in relation to the holder and cutter that.</li> <li>at the polink when so arranged in relation to the holder and cutter that.</li> <li>at the polink when so arranged in relation to the holder and cutter that.</li> <li>at the provide the tremolo sound at the will of the performer.</li> <li>at the cuttor of the sound at the will of the performer.</li> <li>at the cuttor of the sound at the will of the performer.</li> <li>at the cuttor of the sound at the will of the performer.</li> <li>at the cuttor of the sound at the will of the performer.</li> <li>at the combination of a threshing device, a perforated and longtitudinally sated secribed.</li> <li>at the combination of a threshing device, a perforated and longtitudinal spaces between them, in combination with serrated blacks, D, after of the main frame by coupling arms passing through one of the driving ring.</li> <li>at the threshing device, and hinged to the main box of rame, substantial so a set to hell the driving ring.</li> <li>at the combination of a slatted rack or grain platform, C, the serrated blacks, D, after of the same and a coupling frame, when the frame, the there the main frame by coupling arms passing through one of the driving ring.</li> <li>best and operated grain rack, arranged as as to frame, substantial set and performer.</li> <li>at the combination of a slatted rack or grain platform, C, the serrated blacks, D, after combination of a slatted rack or grain platform, C, the serrated blacks, D, after combination of a slatted rack or grain platform, C, the serrated black, D, atter combination of a slatted rack or grain platform, C, the serrated black, D, atter combinatin on the semplying of a continue current of a workslatted with</li></ul>	We dealed 10, 1000	I define in combination with the reader of a melodeon (or that class of in.	
<ul> <li>form anaxial pivot for the cutter in opening cans.</li> <li>at, the polink, when so arranged in relation to the bolder and cutter that,</li> <li>at, the polink, when so arranged in relation to the bolder and cutter that.</li> <li>at, the polink, when so arranged in relation to the bolder and cutter that.</li> <li>at, the performed and the performed and the paragement of the pa</li></ul>	a handle or holder having a noint so arranged in relation to said holder as to	atruments in which the sir is dream through the roads by the exhaust setion	<b>PROVISIONAL PROTECTION FOR SIX MONTHS.</b>
2d, The point, when so arranged in relation to the holder and cutter that it, acts as a point in performing the cause as and an axial provious the cutter. 2S52.—THRABHING MACHINE AND SEPARATOR.—Hugh W, Matthews, Chleago, III. Patented Aug, 27, 1987. I claim, ist, A longitudinally sated errain rack or play between the slate of salid rack, many sets of the perform the state of a longitudinally as described. 3d, A stationary or morable rack, C, composed of perforated slate having of more that have wheeled harvester of a loose driving finger thanks of all arranged and operated substantially as described. 3d, A stationary or morable rack, C, composed of perforated slate having from the torough of a stated ratio maker produce the combination with warms at a convergent arranged and operated substantially as described. 3d, A stationary or morable rack, C, composed of perforated slate having from the main frame, a laterally as described. 3d, A stationary or morable rack or play for the purpose as to public on the combination in a barvester of a loose driving graring frame, when the frame, the frame when the frame, the produced bar coupling frame, when the frame, the produced bar coupling frame, when the frame, the produced by a degriced. In combination with servester, Constant and the couplings are all arranged on one of the driving frame, when the frame, the produced bar devided and operated substantially as described. 3ds.—Dereding M Achines,—Jannes H. McLean, St. Louis, M. The combination in a barvester of a version of a stated area frame, substantial and operated substantially as described. 3ds.—Dereding M Achines,—Jannes H. McLean, St. Louis, M. The adjustable dredzing frame, C, when such adjustament is the adjustable dredzing frame, the substantial as described. 3ds.—Dereding M Achines,—Jannes H. McLean, St. Louis, M. The adjustable dredzing frame, C, when such adjustament is the substantial and operated substantial by a describ	form an axial nivet for the cutter in opening cans		3549 - THEATHER OF GUARA PEPCHA INNIA PURPER PTG FOR PRODUC.
acts as a point in performant, and an axial provider the cutter. 2,852.—THARBHING MACHINE AND SEPARATOR.—Hugh W. Matthews, Chleago, III. Patented Aug. 27, 1867. I also claim in combination with verteally and longitudinally moving spaces, D, arranged so as to paly between thesists of said rack, 3, The combination of a thrashing device, a perforated and longitudinally stated stationary rack. C, and blades or straw shakers, D, operating substant laily as described. 4, The combination of a strated rack, arranged so as to incline to wath and operated gaits and bing device, a perforated and longitudinally stated stationary rack. C, and blades or straw shakers, D, operating substant laily as described. 5, The combination of a strated rack or grain platform, C, the seriated ranged and operated gaits angle rates and a corpling rame, when the fixed harms of the driving ranged and operated gaits angle rates rake shakers, D, arranged so as to incline to ward ranged and operated gaits angle rates rake and so corprogram, and the corplings are spassing through one of the driving ranged and operated gaits angle rates rake and so corprogram. And the corplings are spassing through one of the fixed arms of the driving ranged and operated gaits angle rates rake and a corpling frame, when the fixed arms of the driving ranged and operated gaits angle rates rake and a corpling rame, when the fixed arms of the driving ranged and operated gaits angle rates rake and a corpling frame, when the fixed arms of the driving ranged and operated gaits angle statistical shade or straw shakers, operating through sate grain rack and a corprogram, and the corplings are spassing through one of the fixed arms of the driving ranged and operated gaits harding as described. 50, The combination when servester of a vertically form file do field. 50, The combination of a stated rack or grain platform, C, the servester of a vertically form file do field. 50, The combination when went of the space rate when moving from file do field.			
<ul> <li>2,852.—THRASHING MACHINE AND SEPARATOR.—Hugh W. Matthews, Chicago, III. Patented Aug. 27, 1897.</li> <li>1 also claim in combination with the reads of a melodeon a rotary fan or blade wheel operating for the purpose of producing or regulating of the purpose of the purpose of regulating of the purpose of purpose of regulating of the purpose of purpose of regulating of the purpose of pur</li></ul>		noduce the tremolo sound at the will of the performer	
<ul> <li>biase wheel operating for the purpose of producing or regulating the substantially sadescribed.</li> <li>biase wheel operating for the purpose of producing or regulating the substantially sadescribed.</li> <li>biase wheel operating for the purpose of producing or regulating the substantially sadescribed.</li> <li>biase wheel operating for the purpose of producing or regulating the substantially sadescribed.</li> <li>biase wheel operating for the purpose of producing or regulating the substantially sadescribed.</li> <li>biase wheel operating for the purpose of producing or regulating the substantially sadescribed.</li> <li>biase wheel operating through safe safe ranged so as to play between the slate of safe wheels, and hinged to the main box or frame, substantially sadescribed.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and so or frame, substantially sadescribed.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and so or frame, substantially sadescribed.</li> <li>bit reads and operating substantially as described.</li> <li>bit reads and o</li></ul>		I also claim in combination with the reeds of a melodeon a rotar $\nabla$ fan or	3,661RAILWAY RAILThomas Harbison, New York City. Dec. 24, 1867.
Matthews, Chicago, III. Patented Aug. 27, 1887. Iclaim, 18, A longitudinally stated grain rack or play between the last of sair of a directing three the sais of sair of a directing three the sais of sair of a directing three three sairs of sair of a directing three three sairs of sair of three sairs of three sairs of sair of three sairs	2,852.—THRASHING MACHINE AND SEPARATOR.—Hugh W.		3.6%
<ul> <li>Iclaim, ist, A longitudinally satted grain rack or platform, C, constructed and sourceJohn B, Tarr, Fair Hauster, D, arranged so as to play between the slats of said rack, and a longitudinal spaces between the slats of said rack or grain operating sobstantially as described.</li> <li>360, The combination of a slatted rack or grain platform, C, the serrated blades, D, Trames Ha. Mc Lean, St. Louis, 16, The combination of a slatted rack or grain platform, C, the serrated blades of straw shakers, Derating substantially as described.</li> <li>360, The locombination of a slatted rack or grain platform, C, the serrated blades, D, Trames H. Mc Lean, St. Louis, 16, The combination in a harvester of a vertically folding finger beam and a coupling arms passing through so as do noting frame, when the firame, the transhing device, and binged to the main box or frame, substantially as described.</li> <li>360, The locombination of a slatted rack or grain platform, C, the serrated blades, St. 2, 858.</li> <li>361, The locombination of a slatted rack or grain platform, C, the serrated finger beam and a coupling arms passing through set of the stabel and performed blatted and perform the dual prace of the driving finger beam. and the couplings are all arranged within the perfiper of the driving set of a loce stable for a loce stabel and the couplings are all arranged within the perfiper of the driving set of the set of the</li></ul>		tranolo	
<ul> <li>substantially as described, in combination with vertically and longitudinally as described.</li> <li>3d, The combination of a transhing device, a perforated and longitudinally as described.</li> <li>3d, A stationary or movable rack, C, composed of perforated slades, Dinger beam with a finger beam suspendiation with a trave where the state of thruing ring.</li> <li>3d, A stationary or movable rack, C, composed of perforated slades, Dinger beam with a finger beam suspendiation with a trave where the state of thruing ring.</li> <li>3d, A stationary or movable rack, C, composed of perforated slades, Dinger beam with a finger beam suspendiation with a two-wheeled harvester of a loose driving gear ring where and perforated grain rack, arranged so as to incline toward the state state of the main frame by coupling array shares with a finger beam and a coupling strate shares, a laterally as described.</li> <li>3d, The combination of a slatted rack or grain platform, C, the serrated.</li> <li>3d, The combination in a harvester of a vertically folding frame beam and a coupling strate shares of the driving from field to field.</li> <li>3d, The combination in a harvester of a vertically folding frame beam and a coupling strate shares of the driving from field to field.</li> <li>3d, The combination of a slatted rack or grain platform, C, the serrated.</li> <li>3d, The combination in a harvester of a vertically folding frame beam frame, a laterally solve the unain frame, a laterally folding frame beam and a coupling strate shares and conveyer, arrand and the duplication of a slatted rack or grain of states and aconveyer.</li> <li>3d, The scoops, d, of a dredging frame, C, when such adjustante i device, and field size.</li> <li>3d, The scoops, d, of a dredging frame, C, when such adjustante and beavester of the main frame, a laterally for field of field.</li> <li>3d, The scoops, d, of a dredging frame, C, when such adjustante and poerated substant.</li> <li>3d, The scoops, d, of a dredging machine, having circular wer</li></ul>			
moving abakers, D. arranged so as to play between the slats of said rack, ab substantially as described. 3d, A stationary or movable rack, C. composed of perforated slats having that y as described. 3d, A stationary or movable rack, C. composed of perforated slats having to private and operated substantially as described. 4b, The slatted and perforated grain rack, arranged so as to incline toward to the main frame, by coupling arms passing through the driving ring. 4c, The scombination of a slatted rack or grain platform, C. the serrated ranged and operating substantially as described. 5c, The combination in a harvester of two wheels, a main frame, a laterally described. 5c, The combination in a harvester of two wheels, a main frame, a laterally described. 5c, The combination in a harvester of a vertically frame, when the frame, the ranged and operating substantially as described. 5c, Sh. Decompting frame, when the frame, the ranged and operating through said train rack and a conveyer, ar- ranged and operating through said train rack and a conveyer, ar- ranged and operating substantially as described. 2,863. — DREDGING MACHINE, —Jamnes H. McLean, St. Louis, Mo. Patented July 9,1867. 1 claim, ist, The adjustable dredgring frame, C, when such adjustment is produced by a derick, i, i, and fall, when constructed and operated substantials advance of the usual lateral tyre in the strader runt frame frame day such the frame frame of the driving frame, the substant is trained and a conveyer, ar- ranged and operating substantially as described. 2,863. — DREDGING MACHINE, —Jamnes H. McLean, St. Louis, have a constructed and operated substantials as described. 2,668. — COOKING STOVE. — Philo P. Stewart, Troy, N. Y. Dated Jan. 18, 1559. Reissue Roo tube, for the frame of combustion and in a fine, the ront plate of the fine to xor enamber of combustion and in a fine, the ront plate of the fine to xor enamber of combustion and in a fine, the ront plate of the fine tox or chamber for constructe	substantially as described. in combination with vertically and longitudinally		
<ul> <li>substatially as described.</li> <li>3d, The scoops, d, of a dredging frame, C, when such adjustantial sa scores, d, of a dredging frame, baving circular vertical current of a substantially as described.</li> <li>1888.</li> <li>181. I claim the combination in a harvester of a loose driving gear ring substantially as described.</li> <li>181. I claim the combination in a harvester of a loose driving gear ring through saig through saig through saig through saig through saig crainer and operated substantially as described.</li> <li>1888.</li> <li>181. I claim the combination in a harvester of a loose driving gear ring through saig through saig through saig through saig crainer and operated substantially as described.</li> <li>283. — DREDGING MACHINE. — James H. McLean, St. Louis, Mo. Patented July 9,1867.</li> <li>29.633. — DREDGING MACHINE. — James H. McLean, St. Louis, Mo. Patented July 9,1867.</li> <li>20.611. Jec. 23, 1867.</li> <li>20.612. — CONSINCT Structure and hord operated substantially as described.</li> <li>20.613. — CONSINCT Structure and operated substantially as described.</li> <li>20.614. — CONSINCT Structure and hord operated substantially as described.</li> <li>21. Claim in farme by coupling arranged on one of the fixed arms of the driving mg to bold my frame, when the firme, the periphery of the share substantially as described.</li> <li>20.633. — DREDGING MACHINE. — James H. McLean, St. Louis, Mo. Patented July 9,1867.</li> <li>21. Claim, 1st. The adjustable dredging frame, C, when such adjustament is produced by a derrick, 1, and fail, when constructed and operated substant.</li> <li>20.633. — davented for the usual fateral curtified dreading frame, the digits a distant the dreading frame, the main frame and the couplings are structure of atter structure of the same and a converse of a vertically as described.</li> <li>20.633. — DREDGING MACHINE. — James H. McLean, St. Louis, Mo. Patented July 9,1867.</li> <li>21. Claim 1, 1st. The adjustable dreading frame, the digits a ble dreading fr</li></ul>	moving shakers. D. arranged so as to play between the slats of said rack	Dated July 29, 1862. Application for reissue received and filed Jan. 24,	
<ul> <li>3d. The combination of a thrashing device, a perforated and longitudinally as described.</li> <li>3d. A stationary or morable rack, C, composed of perforated slats having to only a described.</li> <li>3d. A stationary or morable rack, C, composed of perforated slats having to method with serrated blades, D, arranged and operated substantially as described.</li> <li>3d. A stationary or morable rack, and blages or straw shakers, operating through safe grain rack and a conveyer, arranged so as to incline toward of the straw shakers, operating through safe grain rack and a conveyer, arranged and operated substantially as described.</li> <li>3d. The combination in a harvester of a wrester with wrester wrester with wrester wrester with wrester with wrester wrester wrester with wrester wreste</li></ul>	an batan tialiy as described.	1868.	ven, Conn. Dec. 28, 1867.
slated stationary rack, C, and blades or straw shakers, D, operating substan- tally as described. 3d, A stationary or movable rack, C, composed of perforated slats having arranged and operated substantially as described. 4th, The slatted and perforated slats having attend to the main box or frame, substantially as described. 5th, The clombination of a slatted rack or grain platform, C, the servated ranged and operated substantially as described. 5th, The loc mbination of a slatted rack or grain platform, C, the servated ranged and operated substantially as described. 5th, The clombination of a slatted rack or grain platform, C, the servated ranged and operated substantially as described. 5th, The clombination of a slatted rack or grain platform, C, the servated ranged and operated substantially as described. 5th, The clombination in a harvester of a vertically folding finger beam and a coupling frame, when the firame, the periphery of the singer beam, and the couplings are slattering through sald grain rack and a conveyer, ar- ranged and operating through sald grain rack and a conveyer, ar- ranged and operating substantially as described. 5th, The combination in a harvester of a vertically folding finger beam and a coupling frame, when the firame, the periphery of the mager beam, and the couplings are slattering substantially as described. 2,853.—DREDGING MACHINE.—James H. McLean, St. Louis, Mo. Patented July 9,1867. 2(2,681.—COOKING STOVE.—Philo P. Stewart, Troy, N. Y. Dated Jan. 18, 1859. Reissue Ko. Light, the adjustable dredging frame, c, when such adjustament produced by a derrick, 1, and fall, when constructed and operated substan for reissue received aud field i.a. 20, 1868. Application 1st. J claim the supplying of a continued current of atmosferic air heated poduce for the usual lateral curtified event, the first box or ehamber of combution and in fine, badvance of the usual lateral curtified event, the first box or ehamber of combution and in fine, badvance of the usual lateral curtified event, the fi	2d. The combination of a thrashing device, a perforated and longitudinally	1st, I claim the combination in a harvester of a loose driving gear ring	3.690 GENERATING AND APPLYING MOTIVE POWER Beni, T. Babbits
<ul> <li>tially as described.</li> <li>Sd, A fatomary or movable rack, C, composed of perforated slats having infound in two "wheeled harvester of a finger beam hinged in the driving finger."</li> <li>2d, The combination with serrated blades, D, the first burger beam and a coupling frame, when the first burger beam, and the couplings are all arranged within the periphery of the scopes, d, of a dredging machine, having creular vertical uptance and parented substantially as described.</li> <li>20, The combination in a harvester of a vertically folding finger beam and a coupling frame, when the first burger beam, and the couplings are all arranged within the periphery of the scopes, d, of a dredging machine, having creular vertical uptance and operated substant.</li> <li>20, The combination in a harvester of a vertically folding finger beam in the periphery of the first burger beam and a coupling finger beam.</li> <li>20, The combination in a harvester of a vertically folding finger beam.</li> <li>20, The combination in a harvester of a vertically folding finger beam.</li> <li>20, 503. — DREDGING MACHINE. — James H. McLean, St. Louis, No. Patented July 9, 1867.</li> <li>20, 603. — Ocostructed and operated substant fiely as aboven and specified.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 603. — Ocostructed and operated substantially as described.</li> <li>20, 710. — Maxifierat cutting described.</li></ul>	slatted stationary rack. C. and blades or straw shakers. D. operating substan	revolving on fixed arms with a inger deam suspended from the main frame	New York City. Dec. 28, 1867.
<ul> <li>longitudinal spaces between them, in combination with servated blacks, D, arranged and operated substantially as described.</li> <li>ist, The shatted and perforated grain rack, arranged so as to incline toward blacks, D, arranged and operating function of as litted rack or grain platform, C, the servated blacks, D, the combination in a harvester of two wheels, a main frame, a laterally software, some raine function of as litted rack or grain platform, C, the servated a conveyer, arranged and operating substantially as described.</li> <li>bit mash in frame by coupling arms passing through one of the fixed blacks, D, the servated blacks of grain platform, C, the servated blacks of grain platform, C, the servated a conveyer, arranged and operating substantially as described.</li> <li>bit, The icombination of a slitted rack or grain platform, C, the servated a conveyer, arranged and operating substantially as described.</li> <li>bit, The icombination in a harvester of a vertically folding finere beam, and the coupling frame, of the fixed marsofthe diriving to bold up in the adjustable dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substantially as described.</li> <li>bit the scoops, d, of a dredging machine, having circular vertical cuiting operations of the fixed in field in field in field in the supplying of a continued current of atmospheric air heated and filed in field.</li> <li>bit the scoops, d, of a dredging machine, having circular vertical substantion or space immediately in front of the fixed mean and in combination and in a fine, and thereal current of the small first of the using lateral current of the small first of curring defining combine and current of the first box or chamber of combustion and in a fine, and a dredging machine, having circular vertical current of the first box or chamber of combustion and in a fine, barrence in the substin first of the using from constructed and operated substantialy</li></ul>	tially as described.	by connections passing through the driving ring.	
<ul> <li>arranged and operated substantially as described.</li> <li>the thrashing device, and hinzed to the main box or frame, substantially as described.</li> <li>Sd. The combination of a slatted rack or grain platform, C, the serrated and conveyer, arranged and operated substantially as described.</li> <li>Sd. The combination of a slatted rack or grain platform, C, the serrated and the couplings are all arranged within the periphery of the spannal or straw shakers, operating through said grain rack and a conveyer, arranged and operated substantially as described.</li> <li>Sd. The combination in a harvester of a vertically folding finzer beam and a coupling frame, when the frame, the periphery of the spannal or straw shakers, operating through said grain rack and a conveyer, arranged and operated substantially as described.</li> <li>Sd. The combination in a harvester of a vertically folding finzer beam and a conveyer, arranged and the couplings are sell arranged on one of the fixed arms of the driving mg to bold up the cutting apparatus when moving from field to field.</li> <li>Sd. The combination in a harvester of a vertically folding finzer beam, and the couplings are sell arranged on one of the fixed arms of the driving mg to bold up the cutting apparatus when moving from field to field.</li> <li>Sd. The adjusta ble dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substantial paster events of a dredging machine, having circular vertical cutting apparatus with a convince of the first barranged on one of the first barranged on and operated substantial paster events of a dredging machine, having circular vertical cutting degree in the constructed and operated substanting appendix of a dredging machine, having circular vertical cutting degree in the dredging machine, having circular vertical cutting degree in advance of the usual lateral cutting degree in the constructed and operated substanting appendix of the dredging machine, having circular vertica</li></ul>	3d. A stationary or movable rack, C, composed of perforated slats having	2d, The combination with a two wheeled harvester of a higer beam linged	3,696GAS BURNER WIIIIS CHUTCHIII, New YOFE CITY. Dec. 28, 186.
<ul> <li>"di, The slatted and perforated grain rack, arranged so as to incline toward discribed."</li> <li>"di, The combination in a harvester of two wheels, a main frame, a laterally solution. New York city. Dec. 12, 1961.</li> <li>"di, The combination in a harvester of two wheels, a main frame, a laterally solution. New York city. Dec. 12, 1961.</li> <li>"di, The combination in a harvester of two wheels, a main frame, a laterally solution. New York city. Dec. 12, 1961.</li> <li>"di, The combination in a harvester of two wheels, a main frame, a laterally solution. New York city. Dec. 12, 1961.</li> <li>"di, The combination in a harvester of two wheels, a main frame, a laterally solution. New York city. Dec. 12, 1961.</li> <li>"di, The combination in a harvester of a vertically folding finer beam, and the coupling frame, when the frame, the</li></ul>		to the main frame by coupling arms passing through one of the driving	3.537 MANUFACTURING CAST STEEL AND MALLEABLE IRON Edwald L.
<ul> <li>3. The combination in a harvester of two wheels, a main transfer a determination in a harvester of two wheels, a main transfer a determination in a harvester of two wheels, a main transfer a determination in a harvester of two wheels, a main transfer a determination in a harvester of two wheels, a main transfer a determination in a harvester of the second big device, and binger beam, and the couplings are all arransfer a writing transfer a writing in the frame, the transfer and transfer a writing in transfer a wri</li></ul>	arranged and operated substantially as described.		Seymour, New York city, Dec. 12, 1867.
<ul> <li>the schedule device, and mineted to the main boy of frame, substantially as described.</li> <li>the schedule device, and mineted to the main boy of frame, substantially as described.</li> <li>the schedule device, and mineted to the main boy of frame, substantially as described.</li> <li>the schedule device, and mineted to the main boy of frame, substantially as described.</li> <li>the schedule device, and mineted to the main boy of frame, substantially as described.</li> <li>the schedule device, and fall, when constructed and operated substantially as described.</li> <li>the schedule device in the substantially as described.</li> <li>the schedule device in the substantial match as the substantial as device in the substantial as device in the substantial as device in the substantial as deviced and operated substantial as device in the substantial as deviced as deviced and operated substantial as deviced as deviced and operated substantial as deviced as devi</li></ul>	4th, The slatted and perforated grain rack, arranged so as to incline toward		
<ul> <li>a th, The combination of aslatted rack or grain platform, C, the seriated grain rack and a conveyer, arranged ani operating substantially as described.</li> <li>a 2,853. — DREDGING MACHINE. — James H. McLean, St. Louis, 1 claim, 1st, The adjustable dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substantially as before a constructed and operated substantially as described.</li> <li>b 2,853. — DREDGING MACHINE. — James H. McLean, St. Louis, 1 claim, 1st, The adjustable dredging frame, C, when such adjustable dredging frame dredging frame, C, when such adjustable dredging frame dredging frame, B, b, b, whe constructed at the first dredging frame dredging frame, b, b, b, whe constructed contrelation for the frame dredging frame,</li></ul>	the thrashing device, and hinged to the main box or frame, substantially as	projecting binged inger beam and a coupling frame, when the name, the	Des 00 100
ranged and operating through as figuration in the conveyer, at ranged and operating substantially as described. 2,853.—DREDGING MACHINE.—James H. McLean, St. Louis, Mo. Patented July 9,1867. 1 claim, 1st. The adjustable dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substantially as abown and facting through about a diverging through a div			
ranged and operating substantially as described. In the case of the fixed arms of the driving rung to hold up 2,853.—DREDGING MACHINE.—James H. McLean, St. Louis, Mo. Patented July 9, 1867. 1 claim, 1st. The adjustable dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substant faily as shown and specified. 2,633.—COOKING STOVE.—Philo P. Stewart, Troy, N. Y. 1 claim, 1st. The adjustable dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substant for reissue received aud filed ian. 29, 1869. Division A. 1st. I claim the supplying of a continued current of atmosfiels at its pate of the size in the fire box or chamber of combustion and in a fine. 9 dore in a dvance of the usual lateral curting days with for size a combustion and in a fine. 9 dore in a dvance of the usual lateral curting days with for size a combustion and in a fine. 9 dore in a dvance of the usual lateral curting days with g. I, when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with g. I when constructed 9 dore in advance of the usual lateral curting days with th	5th, The combination of a slatted rack or grain platform, C, the serrated		3,681Solles Foil BOOTS AND SHORSJohn Chilcott, Brooklyn, N. Y. Dec.
<ul> <li>2,855. — DREDGING MACHINE. — James H. McLean, St. Louis, Mo. Patented July 9, 1867.</li> <li>1 claim, 1st, The adjustable dredging frame, C, when such adjustment is produced by a derrick, i 1, and fall, when constructed and operated substan- tially as shown and fall, when constructed and operated substan- tially as shown and fall deredging machine, having circular vertical current of an dvance of the usual lateral curling dream with, 1, and constructed and operated substan- tially as advance of the usual lateral curling dream with, 1, and constructed and operated substan- tial advance of the usual lateral curling dream with, 1, and constructed and operated substan- tial advance of the usual lateral curling dream with, 1, and constructed and operated substan- tial advance of the usual lateral curling dream with, 1, and constructed and operated substan- tial advance of the usual lateral curling dream with, 1, and constructed of amber or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der or space immediately in front of the same and un combination and in a flue, of an der ore space immediately in front of the same and un c</li></ul>	grain or straw shakers, operating through said grain rack and a conveyer, ar	4th, The combination in a marvester of a vertically folding inker beam,	27, 1867.
2,003.—DREDGING DIACHINE.—JAINES H. MCLEAN, St. LOUIS, Mo. Patented July 9, 1867. 1 claim, 1st, The adjustable dredging frame, C, when such adjustment is produced by a derrick, 1, and fall, when constructed and operated substant for reissue recivered aud filed ian. 29, 1859. Reissue No. 1854. Application A. 1st, I claim the supplying of a continued current of atmosfield air filed ian. 29, 1864. Application A. 3, The scoops, d, of a dredging machine, having circular vertical cutting edges in advance of the usual lateral cutting date w, if b, j, when constructed and advance of the usual lateral cutting date w, if b, j, when constructed and advance of the usual lateral cutting date w, if b, j, when constructed and advance of the usual lateral cutting date w, if b, j, when constructed and advance of the usual lateral cutting date w, if b, j, when constructed and advance of the usual lateral cutting date w, if b, j, when constructed chamber or space timediately in front of the same and in combination by the front plate of the fire box or chamber of combine and in a fine. St. I claim the supplying of a continued current of the same and in combination and the draft when constructed and constructed by the front plate of the fire box or chamber of the same and in a fine. St. I claim the supplying of a continued current of the same and in a fine. St. I claim the supplying of a continued current of the same and in a fine. St. I claim the supplying of a continued current of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I claim the supplying of the same and in a fine. St. I		with a catch arranged on one of the used armsof the driving ing to hold up	3.689
Mo. Patented July 9, 1867. 1 claim, 1st, The adjustable dredging frame, C, when such adjustment is produced by a derick, i 1, and fall, when constructed and operated substan- tigly as shown and specified. 2d, The scoops, d, of a dredging machine, having circular vertical cutting edges in advance of the usual lateral cutting edge w, ng, 1, s, when constructed are constructed cutting end to be the first box or chamber of combustion and in a finance of the usual lateral cutting edge w, ng, 1, s, when constructed are constructed and negative of the same and in combination advance of the usual lateral cutting edge w, ng, 1, when constructed are constructed at the first set of the same and in combination advance of the usual lateral cutting edge w, ng, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	2.853.—DREDGING MACHINE.—James H. McLean, St. Louis.	the cutting apparatus when moving from held to held.	
1 claim 1st, The adjustable dredging frame, C, when such adjustment is produced by a derick, i 1, and fall, when constructed and operated substan- tially as shown and specified. 3d, The scoops, d, of a dredging machine, having circular vertical cutting edges in advance of the usual lateral cutting edge w, iB, L, when constructed constructed constructed and specified. 3d, The scoops, d, of a dredging machine, having circular vertical cutting edges in advance of the usual lateral cutting edge w, iB, L, when constructed		22,681.—COOKING STOVE.—Philo P. Stewart, 110y, N. I.	3,691.—APPARATUS FOR CUTTING SOAP.—Campbell Morfit, New York city.
produced by a derrick, i 1, and fall, when constructed and operated substantially as shown and specified. 2d, The scoops, d, of a dredging machine, having circular vertical cutting of the supplying of a continued current of atmosferic air heated by the front plate of the first box or chamber of combustion and in a file, by the front plate of the first box or chamber of combustion and in a file, by the front plate of the first box or chamber of combustion and in a file, by the front plate or space immediately in front of the same and in combination and in a file, 3,716. MANUFACTURE of HATS, ETUEudolf Eickemeyer, Yonkers, N. Y bec. 31, 1867.		Dated Jan. 18, 1859. Reissue No. 1, 684, dated May 31, 1864. Application	Dec. 28, 1867.
1st, 1 claim the supplying of a continued current of a divergence and in a fue, 2d, The scoops, d, of a dredging machine, having circular vertical cutting by the front plate of the first box or chamber of combustion and in a fue, 3,719,Machingst For Spinntne Corrox, RTOJames Eaton, Boston,	produced by a derrick, i 1, and fall, when constructed and operated substan	for reissne received aud filed Jan. 20, 1868. Division A.	
2d, The scoops, d, of a dredging machine, having circular vertical cutting by the front plate of the fire box or chamber of combustion and in a file, adges in advance of the usual lateral cuttink edge w, fig. 1, when constructed chamber or space immediately in front of the same and in combination 3,719-MACHINERY FOR SPINNING COTTON, RTOJames Eaton, Boston,	fially as shown and specified.	1 1st. I claim the supplying of a continued current of atmosperic air neated	Dec 31 1867
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and operating substantially as shown and specified. I therewith, without the aid of any intervening plate or plates, to the oven of Mass, Dec. 31, 1887.	adges in advance of the usual lateral cutting edge W. ng. 1. when constructed	I champer or space immediately in iront of the same and in combination	5,719MACHINERY FOR SPINNING COTTON, BTOJames Saton, Boston,
	and operating substantially as shown and specified.	I therewith, without the ald of any intervening plate or plates, to the oven of	1 32 8 33 D 6 2 3 7 1 1843