

- C. J., of R. I.-We are much obliged for your offer to write us an article on "Mus readers would find it heavy.
- D. T. S., of N. Y .- The English and American wire gages are not the same. Send to J. R. Browne & Sharp Provi dence, R. I., and get their circular on this subject.
- Subscriber, of N. Y .- Brazing on cast iron is easily done by the aid of borax and brassfilings. No cement will make rubber adhere firmly to cast iron. Marineglue will cause paper to stick to hard wood exposed to steam. For recipes you must look in back numbers. We cannot fill our paper with old recipe re have published numberless times.
- J. B. U., of La.—The magnesium light is remarkable for its actinic power, and on this account it has so much celebrity. As a substitute for oil and gas for ordinary illuminating purposes, magnesium is impracticable on account of its expense a pound of it costs more than a hundred dollars, while of oil orgas may be bought for a few cents.
- M., of S. C .- Proposes that balloonists carry up with them reservoirs of condensed gas, to be used as occasion requires to replace the gas which may escape from the balloon, and thu to assist in prolonging the flight. The idea is not new

PATENT OFFICE.

PATENTS GRANTED FOR SEVENTEEN YEARS. MUNN & COMPANY.

In connection with the publication of the SCIENTIFIC AMERICAN haveacted as Solicitors and Attorneys for procuring "Letters Patent" for new inventions in the United States and in all foreign countries dur ing the past tuenty years. Statistics show that nearly one-half of all the applications made for patents in the United States are solicited through this office; while nearly three-fourths of all the patents taken in fereign countries are procured through the same source. It is almost needless to add that, afterso many years' experience in pre-paring specifications and drawings for the United States Patent Office, the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office.

dge Mason, formerly Commissioner of Patents, says, in a letter addressed to us :- "In all your intercourse with the office, I always onserved a marked degree of promptness, skill, and fidelity to the interests of your clients."

Ex-Commissioner Holt says:—"Your business was very law you sustained and justly deserved the reputation of market and uncompromising fidelity to the interests of your clients."

Ex-Commissioner Bishop says:—"I have ever found you faithfund devoted to the interests of your clients, as well as eminently qual ified to perform the duties of Patent Attorneys."

EXAMINATIONS.-If an inventorwishes our opinion in regard to s probable novelty of his invention, he has only to send us a pencil or pen-and-ink sketch of it, together with a description of i ts operation. For an opinion, without examination at the Patent ce, we make no charge, but if a

PRELIMINARY EXAMINATION AT THE PATENT OFFICE s desired, we charge the small fee of \$5. This examination involves a personal search at the Patent Office of all models belonging to the class, and will generally determine the question of novelty in advance of an application for a patent. Up to this time we have conducted over ELEVEN THOUSAND Preliminary Examinations, thu showing a more intimateknowledge of inventions at the Paten

Office than can be possessed by any other person or firm.

If an inventor decides to apply for a patent, he should proceed at once to send us by express, charges prepaid, a model not over one foot in size, and substantially made. He should also attach his name and residence to the model,

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following

a schedule of rees.
On filing each Caveat\$10
On filing each application for a Patent, except for a design.\$15
On issuing each original Patent
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 filing application for Design (seven years)\$15
On filing application for Design (fourteen years)\$30

Inaccition to which there are some small revenue-stamp taxes Canadians have to pay \$500.

FOREIGN PATENTS.—Messrs. MUNN & CO. have had more experience than any other solicitors in this country in procuring foreign patents, and have old established agents in London, Paris, Brussels, Berlin, Vienna, and other large cities. Foreign busines should never be intrusted to other than experienced agents.

Messrs. MUNN & CO. give special attention to the preparation

Caveats, and to the prosecution of the EXTENSION OF PATENTS Reissue of DEFECTIVE PATENTS, REJECTED CLAIMS, INTER FERENCES, and DISCLAIMERS. They also prepare Assignments LICENSES, AGREEMENTS, and CONTRACTS, in reference to Patents and will advise patentees when their rights are infringed in reference to bringing suits against INFRINGERS. In connection with Patent Lawyer of eminent ability, they prepare and conduct cases in the United States Courts. Indeed, there is no branch of Patent business which MUNN & CO. are not prepared to undertake.

If an inventor wishes to apply for a patent, all he has to do is to write to us freely for advice and instruction, and he will receive prompt attention. If his invention contains any patentable fea ures, he can depend upon getting his Letters Patent. All commu-nications considered confidential. Send models and fees addressed to MUNN & CO.

No. 37 Park Row



ISSUED FROM THE U. S. PATENT OFFICE FOR THE WEEK ENDING MAY 1, 1866.

Reported Officially for the Scientific American

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

-Butter Worker.-J. P. Adams, Whitney's Point

N. Y.:

I claim the arrangement of the frame, D, pivoted at b, the rock shaft, S, the arm, M, and the swivel joint, N, used with the bowt, F, and its connections, substantially as and for the purpose herein specified.

54,273.—Joint of Spectacle Bow.—Henry C. Ammidown, Southbridge, Mass.:

I claim a spectacle joint having a construction, substantially as described.

54,274.—Meat Chopper.—Frederick Ashley, New York City:

City:

I claim in combination with a suitable box or receptacle for the meat or other article to be chopped or cut, the swinging chopped or knite beam, E, having arms, L, L2, when so arranged and connected together that by the up and down movement of the said beam the said meat box will be rotated, substantially as described and for the purpose specified.

beam the said meat box will be rotated, substantianly as described and for the purpose specified.

I also claim the use of a spiral or other suitable spring connected with the chopper beam, as and for the purpose specified.

[This invention consists in arranging the vessel in which the meat to be chopped is placed, in such a manner that it can freely revolve, and in so connecting the beam having the chopping knife hung at one end so as to swing up and down to the gaid meat re

ceptacle, that by the up and down movement of the knife beam the receptacle will be revolved, thereby causing all portions of the meat contained in it to be subjected to the action of the chopper, as it is from time to time depressed or brought down upon the same.]

irom time to time depressed or brought down upon the same.]

54,275.—Hanger for Sharting.—John E. Atwood, Mansfield, Mass.:

I claim, First, The disk, w, applied to the head, i, of the screw, C. and operating in connection with the ribs or feathers, E. E, to hold the said screw, substantially as herein set forth.

Second, The disk, v, constructed and applied to the nut, u, and operating in connection with the ribs or teathers, E. E, to hold the said nut, ubstantially as herein set forth.

Third. The shouldered annuar disk, r. P, constructed and applied to, and operating in connection with the shouldered nut, m, and ribs or feathers, h, h, substantially as herein set forth, for the purpose specified.

Fourth, The arms, G, working in vertical grooves in the sides of the journal box so as to admit of the vertical adjustment of the said journal box, substantially as herein set forth for the purpose specified.

Fifth, The rotating feeding disk, I, weighted levers, J, J, and wipers, J, j, anged with reference to each other and with the oil

specified. Fifth, The rotating feeding disk, I, weighted levers, J, J, and wipers, J, and wipers, J, and with reference to each other and with the oil vessel, H, and shaft, B, substantially as herein set forth for the purpose specified.

54,276.—Water Elevator.—Stephen L. Avery, Norwick, N. Y.:

First, I claim the combination as herein described, of a weight, F, with the rim of a loose annular friction collar, E, when said collar is combined with a crank, D, and with the ratchet wheel of a windlass, substantially in the manner and for the purpose herein set forth. Second, I claim the combination of a central, circular, slotted washer, k, with an annular friction brake and crank, D, and with a shaft, A, substantially in the manner and for the purpose herein described.

a state, A, substantially in the mather and for the purpose herein described.

Third, I claim also the metallic windlass drum, when said drum is composed of two sections, G. G, formed substantially as herein described, and united together and secured upon a shaft in the manner herein set forth.

Fourth, I claim in combination with the valve, M, of a well bucket, a jointed connecting and lifting rod, o, made substantially in the manner and for the purpose herein set forth.

54,277.—Clock Escapement.—Benjamin Bacon, Mor-

rison, Ill.:

I claim the pallet above shown, consisting of two parts, each nounted on a different axis, and connected to each other by arms, ointed to each other, so that the motions of one of the parts is ontrolled by those of the other, substantially as described.

54,278.—Gas Pipe Tongs.—David Bannister, Philadel-

phia, Pa.: I claim the lever, A, with its hardened edge, C, and notch, D, in combination with the hook, B, made in the manner and for the purpose specified

-Sorghum Funnel.-Abraham Bare, Mexico,

Ohio:

First, I claim a cylindro-conical funnel, A B, which is constructed with a strainer, a. applied at the junction of the cylinder with the cone. substantially in the manner described.

Second, The combination of the cylindro-conical funnel, I A B, with a removable strainer, C, substantially as described.

Third, The combination of a fixed or permanent strainer, a, with a removable strainer, c, and a funnel, substantially as described.

54,280.—Cultivator.—Henry Barnes, Burlington, Wis.: I claim the combination and arrangement of the thills, A. stand ards, G. H., cross pie-ses. C. D. rods. L. M., and connecting bars. O. constructed and employed in the manner and for the purposes spec-tifed.

filed.

54,281.—Bed Bottom.—S. W. Beach, Niles, Mich.:
First, I claim the levers, B. B., in combination with the bed bottom, a b, and spring, C, substantially as specified.
Second. So mounting a bed bottom that the same will receive its necessary springing motion from a single spring, C, arranged so as to operate substantially as specified.

[This invention consists in mounting the bed bottom on levers whose lower ends are operated upon by a spring arranged trans versely across the bedstead, all the parts being so constructed and arranged that the bed bottom will have the desired rising and falling motion, to make an easy sleeping bed.]

54,282.—Measuring Faucet.—Edmund Bigelow, Spring-

field, Mass.:

First, I claim the measuring chamber, D, constructed of glars or other suitable non-corrosive material as described and constructed, fitted to the metal portion, A, of the measuring faucer, as herein specified.

Second, And in combination therewith the valve, F, and piston E, arranged and operated, substantially as and for the purpose

specified.

Third. The head or cut-off, G, when used lin connection with the valve, F, and piston, E, and arranged relatively with the opening, e, and vent, f, in the part, A, of the faucet to operate in the manner, substantially as and for the purpose specified.

54,283.—Staple.—Byron Boardman, Norwich, Conn.:
I claim a staple provided with longitudinal grooves or corrugations in combination with transverse ribs elevated to about the same hight above the body of the staple as are the corrugations, the whole being so shaped as to be capable of being formed by swaging machinery, for the Durpose and substantially in the form above described.

54,284.—Brush.—Joshua Boggs, Harrisburg, Pa.: I claim the brush head or body, constructed of a piece of sheet metal, cut and folded in the required form, substantially as shown and described.

54,285.—Sheep Rack.—George W. Boynton, Auburn, N. Y.:
I claim the combination of the box mathematical states of the box math

N. Y.:

I claim the combination of the bar, m. the boards, O and P, the slides b, the levers, e, the rods, t, and the lids, c, the whole constructed and operating as and for the purpose perein specified. -Sash Fastener.-Benjamin Bray, Methuen,

os, 250.—Sash Fastener.—Bengamin Bray, Methuen, Mass.:
I claim the combination of the triangular toothed rack the triangular toothed spring catch and the locking device of the said catch. constructed arranged and applied to a window sash and frame, substantially in the manner and for the purpose as herein before specified.

54,287.—Bag Fastener.—W. P. Brooks, Fairmount, Minn

I claim an improved b ag fastener, constructed and arranged sub-tantially as herein described and for the purpose set forth.

[The object of this invention is to furnish a fastener by the use of which grain or other bags may be securely tied or fostened, and as quickly unfastened when desired. And it consists of a strong piece or disk of leather riveted to the side of the bag near its mouth. Through this leather disk are formed holes, through which is passed astringforming loops on the sides of said disk. One of the these loops is passed over the mouth of the bag, and the others are so arranged as to hold the bag securely fastened and yet allow it to be readily unfastened when desired.)

54,288.—Water Wheel.—Harvey Brown, Chalfant, Ohio: First. I claim a water wheel provided with sem-annular buckets, a arranged as shown, in combination with a series of chures, E, in the case, D, which encompasses the wheel, substantially as described as the series of the series of

the case. D, which encompasses the wheel, substantially as described.
Second, Operating, opening and closing the gates, F, by means of rods, G, attached at ther outer ends by gimbal or other equivalent joints to crank rods secured to the outer ends of the buckets, and attached at their inner ends to a rung. H, fitted loosely on the wheel shait, B, substantially as shown and described.

(This invention relates to certain new and useful improvements in horizontal water wheels, and it consists, first, in an improved arrangement ofgates, and the mode of operating the same, an improved form of buckets, as hereinafter fully shown and de scribed, whereby it is believed, that a large per centage of the power of the water is obtained.]

51,289.—Pump.—Ashur Burr, Middlesex, Conn.:
First, I claim the self-packing joint produced by the construction
and arrangement of three notches, D, with their inclines, C, and the
inclined flange, c. upon the one part, and corresponding projections,
E, upon the other part, substantially as specified.
Second, The combination of the valve seat, G, the base, A, and
cylinders, B, when constructed and joined together, substantially
in the manner and for the purposes herein specified.
Third, Combination of the 30kc, I, with the valve, H, and seat,
substantially in the manner and for the purpose set forth.
Fourth, The lips, T, and tongue, u, operating substantially
the manner and for the purpose described.

54.290.—Wrench.—Robert B. Butler, Allentown, Pa.

54.290.—Wrench.—Robert B. Butler, Allentown, Pa.: Telam the two bars, C. F. having laws upon each end and their corners or edges notched or toothed in contbination with the log low wrench handle having a spiral screw thread and parallel long to dinal grooves, a, upon its inside, when arranged together and so as to operate, substantially in the manner described and for the purpose specified.

This invention consists in so constructing the wrench and arrang gits two jaws with regard to each other, that it can be easily ad usted and applied to nuts of varying sizes.]

pasted and applied to nuts of varying sizes.]

54,291.—Pump.—Adam S. Cameron, New York City: I claim the combination of a steam or power pump and an independently operating hand pump with one set of valves, which is common to both pumps and capable of operating with either, as may be required, substantially as herein specified.

In combination with a power pump and a separate hand pump having one set of valves common to both I claim a cross head which serves both the the purpose of helding the power pump puston stationary and of a support for the fulcrum of the hand pump lever when the latter pump is at work, substantially as herein described.

54,292.—Bed Bottom.—Samuel A. Canfield, Carlstadt,

Sugar Cane Mill.—Nathan B. Carr, Madison,

54,293.—Sugar Cane Man.

Wis.:

I claim providing the levers, E, which have suitable boxes for the journals of the roller, B, with an oscillating fulcrum, substantially as and for the purposes herein specified.

I claim the arrangement of the roller, B, the levers. E, the oscillating fulcrum, F, and frame, A, when constructed and operating substantially in the manner and for the purposes described.

54,294—Harvester Rake.—C. L. Carter, Union City, and

Ind.:

In

(The object of this invention is to obtain a simple automatic rak ing attachment for harvesters, and it consists in hanging or suse pending a rake over the platform of a harvester, and operating the same, whereby the dranght of the harvester will not be materially increased and the work performed in a very efficient manner.]

54,295.—Packing for Pump Pistons.—John Carter, Philadelphia. Pa.:

adelphia, Pa.:

I claim the expanding packing, H, and wedge, E, upon the concal body, C, all combined and arranged substantially as described.

54,296.—Manufacture of Confectionery.—Lewson E. Chase, Charlestown, Mass., assignor to Chase & Company, Poston, Mass.:
I claim the use or employment of glycerin in the manufacture of confectionery, substantially as and for the purpose set forth.

54,287.—Lock.—Charles Claude, New York City:
The tube, D, and disk or plate, g, provided with a guard, h, nose, l, and stop pin. l, h combination with the hinged bit of the key, K, latch or both B, and one or more tumblers. F, all constructed and operating substantially as and for the purpose set forth.

54,298.—Harvester Rake.—Henry Clymo, Galen, Ill.:
I claim the loaded or weighted rake arm, J. placed on tube or rod
G, so as to work or turn thereon, in a vertical plane and also to,
slide thereon horizontally in connection with an endless band,
guide strip, e.e. provided respectively with a notched flap and in
clined plane, all arranged to operate, in the manner substantially
as and for the purpose set forth,

The adjustable gears, r u, in combination with the fixed gear, w, for operating the endiess band or giving a reciprocating motion thereto, a set forth.

This invention relates to a new and improved automatic raking In the most efficient manner, and without in the least in platform in the most efficient manner, and without in the least in terfering with the cutting mechanism or any of the working parts of the harvester.]

54,299.—Truss.—James Coop, Pittsburg, Pa.:
I claim the arrangement of the flanged headed standards, e.e., slice, C. and set screws, d. in combination with the hoop, A. constructed in the manner and for the purpose herein specified.
The heir springs, ff, with their crowns fixed to points of the standards and their base endshooked or secured to the pads in such manner as to allow of rotative elasticity without rotative displacement of the pads and when acting as elastic universal joints for supporting the pads, substantially in the manner and for the purset forth

[This improvement consists first, in the manner of attaching the pad or pads to the hoop of a truss, so that they may readily set at degree or plane of rotation; and second, in an improved method suspending the pads to their standards, whereby they are held. at any particular plane of rotation in an elastic manner, so as to nodate themselves to any sudden or undue strain, be it a rotative or side strain.]

54,300.—Pump for Deep Wells.—Robert Cornelius, Philadelphia, Pa.:
First. I claim a slide valve adapted for the passage of the gas, in combination with valve gear operated upon by or through the piston rod for opening and closing the passages of said valve, substantially as described.
Second, A slide valve opened and closed by projections on the barrel or chamber of the pump, substantially as described.
Third, The combination of the slide valve, and the friction springs, O.O., for operating the same, sbetantially as described.

54,301.—Process for Manufacturing Dolls.—Frank E. Darrow, bristol, Conn.:

I claim the process of saturating raw hide for forming it into a desired form or shape, substantially in the mammer as and for the purpose described.

4,302.—Grape Vine Protector.—Jacob S. Davis, La Porte, Ind.:
First. I claim the arrangement of wings, A. A, hinged as decribed to the urng st. B, when provided with suitable trellisses, H, operating substantially as and for the purposes specified and hown.

snown.

Second, I claim the combinations of the wines, A A, upright, B, and ill, D, arranged and operating as and for the purposes set forth.

Third, I claim providing the wmgs, A A, the movable trellisses, H H, for the purposes specified.

54,303.—Method of Extracting Oil from Leather, Etc.—
John A. Dean, Easton, Mass.:
I claim as my own in vention and discovery, the process of making the campost non and the new combination of the materials above enumerated.

54,304. —Medical Compound.—Honore De Lapaturette: I claim a medical compound made of the ingredients hereinbefore specified.

54,305.—Stop Cock.—William H. De Valin, Sacramento,

First, in steam, water or gas cocks, constructed and arranged, substantially a herein described, I claim the recess in the plug in combination with a chamber, within the case but outside of the plug so as allow steam, water or gas to pass through and press against the plug in such manner as to prevent leakage as set forth. Second, In combination with the recessed plug and outside chamber, or the equivalent thereof, I claim the employment of a spring to maintain the plug in position when not under pressure. Third, The combination of a recessed plug and outside chamber, as and for the puroses set forth.

306.—Water and Wine Cooler.—Joseph Dietschy,
Alton, Ill:
claim a combined water and liquor cooler, constructed submutully as described with the parts, A B C and H. 54,306.

54,307.—Tile Kiln.—John B. Dixon, Geneva, N. Y.:

1 cla m the combination of the flues. E, opening near the top
and within the kiln, A, with the open floor, C, and return flues,
connected with the chimney. H, the whole being arranged and e
proyed substantially as and for the purpose set torth.

54,308.—Manutacture of Paper Pulp.—John W. Dixon, Philadelphia, Pa..

First, I claim the combination of the wood and straw pulp digester, the water motor and the force pump whereby the escaping water under pre sure, orces fresh water in at the top.

Second, The combination of the digester, A. the water motor, the pump and the heater at K. whereby the escaping water both heats and forces in the fresh water.

Third, The combination of the digester, A, the water motor and pump, the heater, K, and the heater, E, whereby the escaping water loces in fresh water which absorbs the heat from thee scaping water water which also be the the from thee scaping water, and is further heated before it enters the top of the digester.

water, and is auther neated before it enters the top of the digister.

54,309. – Process of Separating the Fibers of Palm,
Palmetto, Etc., for the Manufacture of Paper Pulp,
John W. Dixon, Philadelphia, Pa.:

First, I claim the treatment of the alm dwarf palm or palmetto,
by highly heated water, under pressure in a close digester, substrutually as above described for preparing it for spinning or paper
making
Second, The treatment of palm, dwarf palm or palmetto, by submitting it to a highly treated water, under pressure, in a closed
digester, and hin to the action of chlorme or chloride of lime to
bleach it.

54,310.—Machine for Rolling, Shaping and Forging File Blanks, Flyers and other Metallic Articles of Small Dimensions.—James Dodge, Waterford,

Small Dimensions—James Dougo,
N. Y.:
First, I claim the novel combination in one machine of one or more pairs of jaws or levers containing dies and matrices with rollers for rolling and forging file blanks of any desued form, flyers and other metallic articles, constructed and arranged for operation substantially as described.

Second, I claim governing the rotation of the rollers and movement at any desired time or position by means of the apparatus described, or by other mechanical equivalents.

Third, I claim the combination and use of the wed is and springs constructed and arranged as cescribed for regulating the distance of the rollers.

other roles. The the general construction and arrangement and combination of the apparatus for rolling, shaping and forging fle blangs, flyers and other metallic articles of small dimensions, as hereinbetore d scribed.

54,311.—Machinery for Hammering Heads of Axes.—
Levi Dodge, Waterford, N. Y.:
First, I claim the unishing of axes by the use of dies closing upon the checks and heads in combination with a pin, the whole being construct d as described and operating simultaneously to give the axe its ultimate form and smooth finish, substantially as set forth. Second. I claim the combination with the dies constructed and arranged as described, of a yielding support or spring in the applied manner, substantially as herein shown and set forth.

54,312. - Carpet Wadding.—Thomas H. Dunham, Bos

ton, Mass.:
I claim a wadding composed of a bat or layer of fibrous materials
and having either upon one or both of its sides a layer or sheet of
bacer in which the exterior of the fibrous bat is embedded while the paper in which the exterior of the fibrous bat is embedded while the paper is in the condition of partially hardened pulp, which adheres to the fiber and holds it in place without the use of starch, paste or scheeling time.

ofth.

Farmer, New York City:

I claim the employment of sheets of raw hide in the bottoms and backs of chairs and other articles of furniture, for sitting and resumb nt purposes when perforated and embossed substantially as are in set forth

54,315.—Horse Hoe.—S. Phelon Fish, Litchfield, N. Y.: I claim in combination with a central plow carried by, ard ad-I claim in combination with a central plow carried by, and adjustable on the beam, the side plows carried by and made adjustable on a divided rame which is also carried on by and made adjustable on the beam, substantially as and for the purpose herein described.

berein described.

54,316.—Wood Bending Machine.—John Fishbough,
Tiffin, Ohio:
First, I claim shrinking and shortening all the fibers of a bar of
wood by means of the devices which are used for clamping the
pattern and wood upon the sill, A, and the devices used for bending
such about its pattern, substantially as described.
Second, The method substantially as described.
Second, The method substantially as described of bending wood
into curved forms to wit, by first bowing or arching it, and thence
bending it about the pattern in s converse direction to thatin which
it was first bent, or bowed, substantially as setrorh.
Third, The construction and arrangement of the shouldered blocks,
C C, hooked screws, g g, nuts, g' g' connecting strip, F, having
en'a generate formed on its ends and the recessed sill, A, all used
together susstantially as described.

Fourth, So constructing the pattern and the follower and combining the same, that the expansion of the pattern is effected by
the descent of the follower, G, and its contraction insured by the
ascent of the follower, By and the contraction insured by the
ascent of the follower, By and the scentbed.

-Cultivator.-Wm. D. Fisher, Freeport, Ill.: claim the arrangement and combination of the drops, C, abizer, E, adjustable frame, A, regulating lever, G, and fenders, then arranged as herein described and for the purposes set

s, when arranged as herein described and for the purposes set forth.

14.318.—Boiler Tube.—Benaiah Fitts. Newark, N. J.:

1 claim the cap, O, over the end or the tube. H, leaving openings, PP, or other means substantially the same for the purpose of all low free egress of the water from within the tube and at the same time prevent the seam ormedunder and around the end of the tube from passing into it, as set forth and described.

54,319.—Soap Stone Stove.—James H. Flagg, Perkinsville, Vt::

First, I claim the stovenipe or flue bored out of a solid piece of soap stone, as and for the purpose herein described.

Second, I also claim in joining the pannels and plates of stoves made of soap stone or other mineral substance, the use of angle irons, B, constructed and applied substantially as described.

Third, I lso claim securing limings in stoves by means of the irons which secure the outside plates and pannels, the posts, a a of such irons being either flared, as shown in Fig. 4, or left straight as in Fig. 5. substantially as described.

-Newspaper File.-J. W. Foard, San Francisco,

Ual.:

I claim the short recess at the bottom of the file, In combination with the movable nut whereby the hinge is operated, the latter mabing one to adjust the file at that end to any desired thickness of paper.

of paper.

54,321.—Burial Casket.—Julian A. Fogg, Salem, Mass.:

I claim removing from the side or a coffin or burial casket whose lidopens backward, so much of its front side as is required to sufficiently expose the person of the corpse. the said removed porton being attached to the lid in such manner that when the lid is closed, it will fit into its proper place and the cask etbe as effectually cosed as were it of the ordinary construction.

as were it of the ordinary construction.

54,322.—Grain Spout.—A. D. Foote, Berlin, Wis.:

First, In the operation of loading vessel—with grain. I claim providing for discharging the grain fr.m an inclined spout at or nearly atright augles to the line of such spout, substantially as described.

Second, The combination of one or more curved sectional grain spouts, B. with the discharge spout of an elevator, substantially as described.

spouls, B. with the discharge spouls.

describe I.
Third, Providing for depositing grain at either one or both ends
of a car or vessel at pleasure from a grain spout, substantially as

described.

54,323.—Combined Corset and Bustle.—Lavinia H. Foy, Worcester, Mass.:

First, I claim the combination with a corset, of a series of eyelet holes, c, ortheir equivalent and a detachable bustle, B, substantially as and few the purposes set forth.

Second. The combination with the back and sides of a corset of one or more rews of eyelet holes, c, transversely to the line of junction of the corset in the rear, substantially as and for the purposes set forth.

tion of the corset in the real, successfully set forth. Third, The combination with the rim or bustle, B, of the coiled spring e, substantially as set forth. Fourth. Making the rim or hustle, B, from a bias cut piece of cloth, in combination with inserting an elastic, C, or its equivalent, for the purposes stated.

Charles A French Roston Mass.:

54,324.—Button.—Charles A. French, Boston, Mass. I claim the combination of the stud, B. shouldered shank, a and washers or eyelets, ef, substantially as and for the purpose

scribed.

54,325.—Beehive.—Austin Fuller, Plymouth, Ind.:
First I claim the arrangement of a beehive having a double
case, A B, with dead air spaces between them, and having on the
front only double doors, A' B', both of which are hirged to the external case, and having also the snoing sides, I, cerminating with
a funnel formed mouth closed when desired by the perforated slide,
K, and having also doors, F, located as described, substantially as
and for the purposes set forth.

Second, In combination with the sloping sides, I, I claim the
plates, L and L', substantially as and for the purpose set forth.

\$4.326.—Preparation of Court Plaster.—Lyman C. Gale

54,326.—Preparation of Court Plaster.—Lyman C. Gale, Chicago, Ill.:

I claim the assortment of the various forms of plaster above described, and put up in boxes or packages, as set forth.

54,327,—Planking Clamp.—Wesley Glen, Philadelphia,

Pa...

I claim the combination of the knee or brace, D, having set screw, E, and pawl screw, G, and hooks, A, the screw shaft, H, and flanged screw sleeve, J, arranged in the back or upper end of the hooks upon said shaft so as to operate upon the hooks, substantially as and for the purpose described.

I he object sought to be secured by this clamp, is to economize e in planking, and in the building of staging.]

28. — Pneumatic Pump.—Henry Gottfried, New York City:

York City:

First, I claim the employment of a yielding head, M, or heads, M'
M, arranged in the cylinder of air pumps in a manner to co-operate
with the main piston for the purpose terein shown and described.

Second, The employment and urran rement of the air chamber,
and passage, q, to the reservoir or discharge pipe in combination
with the yielding head, M, the whole operating and for the purpose
aerein shown and described.

Third, The c mbinat on and arrangement of the drop-valve, r, in
the passage, q, and with the yielding head, M, operating ut the manter and for the purpose herein describe.

Fourth. The employment of the delivery valve, n, arranged in the
fielding head. M, for the purpose of symplifying the construction in
reducing an air tight joint between the yielding head and piston
then brought together.

54,329.—Roll for Manufacturing Three-headed Rail-road Ralls.—James Gower, Ironton, Ohio:
I claim the arrangement of rolls, Figs. 1 and 2, and mandrels, A A', or their equivalents for the manufacture of three-headed rail-road rails, substantially as set forth.

54,313.—Buckle.—Augustus R. Egbert, Philadelphia,
Pa.:
I claim the construction of the buckle with the extended angular ends and raised center as herein described, and for the purposes set forth.

54.331.—Balanced Slide Valve.—John R. Grout, Detroit.

54,331.—Balanced Since varve.—contains.

Mich.:
I claim First. The recess or chamber. h, formed in the upper face of the valve, substantially as and for the purpose set forth.

Second, The counter-balancing chamber, in the upper face of the valve, e, in combination wit: the openings, i., from exhaust chamber, h for the purpo: e substantially as herein described.

Third, The recesses in the chest cover and the chamber, h, in the upper face of the valve in combination with openings, i., and exhaust chamber, g, operating substantially as herein 'se forth.

Fourth, The wire bar, i, constructed and arranged to operate, substantially as herein described.

54,332.—Broom Head.—Samuel B. Gurnsey, Chicago,

111.: It is the combination of the bar, E provided with hooks, e e, he roa, F, and broom head, A, when arranged so as to tighten the roomcorn independent of the broom handle, substantially in the lanner specified and shown.

Car Brake.-Sive Guilbert, New York City: 54,333. 1 cl. im the chains, d, and bolts, e, in combination with the screws, c, and with the platform of a car c astructed and operating substantially as and for th. purpose set forth.

tally as and for the purpose set forth.

54,334.—Well Curb.—Christopher Gullmann, Pough-keepsie, N. Y:
I claim the arrangement of a ball or disk governor, E, in cambination with the windlass shaft, B, and well curb. A, constructed and operating substantially as and for the purpose described.

[This invention consists in the arrangement of a ball or disk governor.]

ernorin combination with the windlass shaft of a well curb in such a manner that by the action of the air against the balls or disks the speed of the descending bucket is checked, said balls or disks being ecured to swinging arms so that the same are allowed to fly out, if the speed of the governor increases, and that the resistance of the air is made to act on longer levers and consequently with increased powerif the speed of the governor is larger than if said speed is

4,335.—Elastic Cushion and Guard for the Feet of Horses.—William H. Hall, New Gloucester, Maine: I claim the use of the elastic inner shoe and guard when cut or is into the form herein described, for the purpose set for.

54,336. — Engine Governor. — William J. Hallefass, Brooklyn, N. Y.:
I claim the governor, A.A., when in combination with the inclined planes, f., antifriction rollers, ij. and a valve stem, k, arranged and operating substantially in the manner and for the purpose seconth.

54,337.—Portable Cooking Apparatus by Lamps, Etc.—C. A. Harper, Little Rock, Arkansas:
I claim the boiler, A. oven C. and burner, E. when constructed, arranged and combined substantially as herein described and set forth.

54,338.—Broom Head.—John Harris, Marquette, Wis.:
I claim the combination of the crescent shaped socket A, projecting handle socket, a, arms, b, serrated bars, CC, clamp jaws, B B; serw, c, and nut, d, all constructed, arranged and employed as and for the purpose specified. or the purpose specified. [This invention consists in a combination of parts to produce a

broom and brush head, in which the broom corn or bristles can be very easily inserted and clamped and held securely.]

54,339.—Process for Preparing Wood for Boots and Shoes.—Robert T. Havens, Wilmington, Ohio. Antedated April 16, 1866:

I claim the process as described for the purpose of producing flexible wood for boots and shoes, as specified.

514.340. Evaporator. B. K. Hawley, Normal, Ill.:

1 claim first, Ju apparatus for evaporating the juice of sorghum or other substances forming an evaporating pan above and down each side of the furnace, substantially as described.

Second, I also claim forming two pansade by side behind the finace, and passing the furnace file s directly throug 1 them to tae chimner, when the said flues are controlled by separate dampers or set of dampers for the flues of each of the back pans, substantially as shown and described.

as snown and described.

54,341.—Tinman's Forming Tools.—William H. Henderson, Franklin, Ind. Antedated April 16, 1866:

I claim in combination with frame. A. the gaging side. g. vibrating clamp, B. arms, c. songs d. edging clamp, v., and disk, e. as above described and for the purpose set forth.

54,342.—Tinner's Edging Tools.—William H. Henderson, Franklin, Ind. Antedated April 16, 1866:
I claim, in combination with frame, A, theg sting side, g, vibratiog clamp, B, arms, c, springs, d, edging clamp, C, and disk, e, as bove described and for the purpose set for th.

above described and for the purpose sector of the control of the purpose sector of the control o

described.
Fourth, I claim the blocks, K, in each corner for the purpose set

54,344.—Skate. -Benjamin H. Hibler, Newport, Ky. : • I claim a skat composed of the following element, to wit: An ejastic plat or sole, A. jent so as to present a vertic il shoulder or abutment, A', a divided runner, B C, a heet clip, H d e, and an adjusting screw, G, the whole being combined and adapted to operate as set iorth.

54,315...Compositions for Disinfecting and Preserving. —John Hickson and Lyman L. Wilkinson, Auburn,

N. Y.: e claim the compound No. 1 and 2, when made, substantially as re set forth.

above settorth.

54,346.—Steam, Water, or other Pipe.—Edward H. Hill,
Worcester, Mass.:
I claim as an improved a ricle of manufacture, a pipe for water,
steam and other vurposes, made as described and shown in the accompanying drawings.

nying drawn is. 7.—Filtering Faucets.—George Hillegass, Phila-

delphia, Pa.: I clay constructing the reversible spaget of a faucet with a chamber and doveraided slice, C, so arranged as to secure a fitter, ielt, or other material, E or screw, E, across the chamber through which the fluid must flow in passing through the faucet, substantially in the manner and for the purpose set forth.

4,348.—Bolt Fastening.—J. M. Hopkins, New York

City:

Clining the combination of the crank shaft, D. bolt, H. and thumb leces or buttons, L. M., when connected and arranged together so as operate substantially in the manner described, and for the purpose specified.

pose special.

(This invention relates to a new and improved bolt, especially adapted as a fastening for doors of book cases, closets, window sashes, and many other simila purposes, and it consists in a novel arrangement of parts in connection with the bolt, whereby it can be thrown out or drawn in with the utmost ease and facility, and by simply pressing with the ingers or thumb of the hand upon certain

supply pressing with the ingers of thum of the hand upon certain 54,330.—Head Block to Saw Mills. Henry H. Gridley, Auburn, N. Y.:

First I claim giving the described "set" to the head blocks of a saw mill automatically, by the means substantially as above described "set" to the head blocks of a saw mill automatically, by the means substantially as above described "set" to the head blocks of a saw mill automatically, by the means substantially as above described "set" to the prate bar, a, at or near its center, an. resting at its ends of the bar, a, but discon

nected from said bar, a, at its ends so as to allow the grate bar to expand independently of the bearing bar, as set forts.

54,350.—Flush Bolt.—J. M. Hopkins, New York City:
I claim the combination of the bolt, B, lever, H, thumb lever, M, and a colied or other suitable spring with the connecting rod, E, when arranged togethers oa st operate substantially in the manner described, and for the purpose specified.

l This invention consists in a novel arrangement and connection devices with the bolt, whereby many important advantages are secured.1

54,351.—Straw Cutter.—L. B. Hoit, Cedar Falls, Iowa: I claim the combination and arrangement of the rollers, C.D., whe la, F.J. disk. G. and knife, I as and for the purpose specified, and in combination therewith, I claim the guide, M. as set forth.

54,352. - Bench Vise. - Harrison P. Hood, Lowell,

Mass.: I claim in the said improved bench vise, as made with the jaw carriers. A B, applied to the bar, c, as set forth, the arrangement of the clamp lever on the jaw carriers. B, substantially as specified, the spiodle being jointed to the said lever and extended upward through the bar, C, and jaw carrier as explained.

54,353.—Burglar Alarm.—Edmund Hoole, New York

54,354.—Sash Supporter and Fastener.—James Hop-

554.—Sash Supporter and Fastener.—James Hop-kins, Madison, Wis: inst. I claim the brace, A, having its upper end the heavier, and vided with the melined corrugated cam face, when constructed he form shown, and arranged to operate as set forth, econd, The combination of the stud, o, provised with the journal shoulder screw. c, and the double tack d cam or brace, A, all ar-ged and operating as herein described.

355. Apparatus for Washing Kaolin, Etc.—Duane Hull, Newburgh, N. Y.: claim the brakes, ccc, Fig 1 and the said brakes, ccc, working linge or joint, for the purpose set forth.

54,356. -Dies for Making Hatter Irons.-Bradley Hull,

Westport, Conn.:
I claim the pair of dies, Figs. 2 and 3, constructed and arranged in the manner and for the purpose substantially as herein described.

54,357.—Printing Press.—Martin J. Imbach, New York

14,301.—ITHER LITY.

Lity:
I claim First, The operating in a two bed printing press for printing work sides of sheets simultaneously of the beds, by means of evers, GG, so arranger and connected with the beds, that the later will move simul an ouly in opposite directions, and both give he impression at once at opposite sides of the sheet, substantially

the impression at once at opposite sides of the sneed, substantially as described. See ond. The employment or use in connection with said beds of movable wrist pins, V, attached to sides and operated by eccentrics, or arranged in any equivalent way, so as to operate the levers G, in such manner as to give the necessary "dwells" or cessation of movement to the beds, substantially as and for the purpose specific of the purpose specific at the standard seed of the substantially as and for the purpose specific at

cified. The placing of the journals of the ink rollers, A', in rods, B' pivored to rapius arms, C', and connected with springs, h, said parts being placed in suce a position relatively with the forms on the platens, that the rollers may pass over the forms, and properly ink the same, substantially as set forth.

Fourth, Operating the ink rollers, A' through the medium of the rods. F, arms. C' C' a, and cams, I' when sold ink rollers, thus operated, are used is combination with a press provided with two beds arranged substantially as described.

1,358.—Apparatus for Continuous Distillation.—William G. W. Jaeger, Baltimore, Md.:
I Calm. First. Fee diag a stilp by means of a feed pine passing up accent through its buttom, substantially as hown and described. Second I also claim discharging the heavy oils, and the residuous star resulting from the process of distillation in a continuous by through the bottom of a still, substantially as shown and deribed.

scribed.

"hird, I claim in distilling apparatus the following elements or principles of operation: I. That the heavier oils, and residuous matters are discharged therefrom as fast as they reach, the bettom of the still. 2. That such matters are cooled or reduced to a comparatively lew temperature before they are finally discharged or brought in contact with the atmosphere, and, 3. That the still is kept contact with the atmosphere, and, 3. That the still is kept contact with the atmosphere, and, 3. That the still is kept contact with the atmosphere, and, 3. That the still is kept contact with the atmosphere, and, 3. That the still is kept contact. The still is kept contact with the atmosphere, and, 3. That the still is kept contact. I have a supply which is led up through and heaved by the matters so discharged therefrom, substituted was described.

Equiv. 1 also claim passing the supply oil or inquid to a still the age. The residuum and heavy oils discharged therefrom, substituted was described.

Fifth, I also claim controlling the flow of the oils and residuous matters discharged from the bottom of a still by means of a faucet or faucets in pipes through which they pass, substantially as shown

and described. Claim reducing the temperature of the out going heavy oils and residuar, and increasing the temperature of the ingoing supply of oil or other liquid by running the pipe of the one within the other, substantially as shown.

Seventh, I also claim the open supply pipe, W, in combination with the pipe. S, leading from the bottom of the upper still, L, and the feed pipe, P, leading to the lower sull, O, Substantially as above shown.

the pipe. S, leading from the bottom of the upper still, and the feed pipe, P, leading to the lower still, O, substan, fally as above shown.

Eighth, I also claim controlling the flow of the supply oil m other liquid into the feed pipe, P, by means of a valve, W, substantially as above shown and described.

Ninth, I also claim in combination in a distilling apparatus, the use of an open float, or floats, substantially as described, the feed pipe, P, and the vertical supply pipe, V, whose upper open end communicates with the overflow chamber, substantially as described.

Tenth, I also claim driving off the benzine, and lighter oils and water from the oil to be distilled by means of the heat which radiates from the origon to be distilled by means of the heat which radiates from the origon to be distilled by means of the heat which radiates from the origon to be distilled by means of the heat which radiates from the top of the main still and steam chamber, G, substantially as and for the purpose above described.

Eleventh, I also claim interposing a water and steam chamber, or the purpose above described.

Twelth, I claim in combination feeding oil or other liquid to a still continuously, and as a temperature made to approximate to still continuously, and as a temperature made to approximate to the charge as described, and at the same time discharging the heavier oils a na resuluous matters continuously, as they are thrown down rowar dest the bottom of the still, substantially as shown and described.

Fourteenth, I also claim in combination, the lower still, O, the upper still. L and the water and steam chamber, G, to the boiler, substantially as and for the purpose above described.

Fitteenth, I also claim raising the temperature and controlling

ber, G. to the contain substantian.

Fifteenth, I also claim raising the temperature and controlling the inflow of oil or other liquid, as it passes into the upper still, substantially in the manner above described.

Sixtenth, I also claim in combination, the open pipe, V, the pipe s, the tube, T, and the overfloat chamber 11, substantially as described.

s, the tube, I, and the overhood chamber II. substantially as described.

Seventeenth, I also claim conducting the supply of oil or other liquid into the upper still through a hot water and steam chamber, so that oily as described.

Stillet only, I also claim the transparent receiving chamber, a, or car valent apparatus to receive the heavy oils, and other matters discuspred from the bottom of a still, substantially as described, with or without a gas or vapor escape pipe.

Ninteenth, I also claim the receiver, d. constructed substantially as described with a refrigerating apparatus connected thereto for cooling the matters discharged from the still before final escape, tubstantially as described.

cooling the matters discharged from the still before final escape, cubstantially as described.

Twentieth, I also claim providing the transparent chamber, and the receiver, d. one or both, with vents or vapor and gas escape pipes, b and q, substantially as described.

Twenty-first, I also Claim applying a refrigerating apparatus to the pibe. Y, behind the transparent receiving chamber, a, substantially as described.

as described.
Twenty-second. I also claim in combination, the regulating faucet z in the pipe which delivers the discharged heavy oils, and residuous matters into chamber, a, the transparent chamber, a, and the trap pipe, c, subs. antially as set forth.
Twenty-third, I also claim in combination, the transparent chamber, a, its year pipe, b, the trap pipe, c, and the receiver, d, substantially as set forth.

Twenty-fourth I also claim placing a cooling device beneath the eceiving chamber, a substantially as above described.

Twenty-fifth, I also claim in combination the chamber, a, provided rith a valor or gas pine as shown, and the trap pine, c, or its equivalent, substantially as shown.

Twenty-sixth, I also claim in combination the chamber, a, provided with a valor or gas pipe, as shown; the cooling device 23, and a rap pipe, c, or its equivalent, substantially as shown.

Twenty-seventh, I also claim in a distilling apparatus extending he boiler upwards around the smoke stack or flue as shown at F, ulstantially as and for the purpose above described.

Twenty-sighth, I also claim in a distilling apparatus drawing off rom the bottom of the still continuously, or as often as required, the neavy oils and residuous matters of the charge, and at the same time feeding the still as the charge is reduced, by a supply through the being withdrawn, substantially as described.

Twenty-ninth, I also claim in a distilling apparatus with continuals the still as the charge is reduced, by a supply through the being withdrawn, substantially as described.

Twenty-ninth, I also claim in a distilling apparatus with continuals as charge of heavy oils, and residuum, conducting the flames and products of combustion from the fire chamber to chambers to chambers to combustion from the fire chamber to

which is being withdrawn, substantially as described.

Twenty-ninth, I also claim in a distilling apparatus with continuous discharge of heavy oils, and residuum, conducting the flames and products of combustion rorm the fire chamber or chambers towards the center of the bottom of the still or place of discharge, substantially as shown.

Thirtierb, I claim the use in a distilling apparatus of a float of doats made with a vent pipe as above shown, or convalent device, either with or without a valve, substantially as above set forth.

Thirty-first, I also c aum the application to a hollow float of a pipe rising therefrom with or without an outwardly opening valve, ubstantially as and for the purpose described.

Thirty-second, I also claim cleaning the bottom of still during distillation by means of a scraper or scrapers, operated from without, substantially as shown and described.

Thirty-thirt, I also claim plating a water jacket, 24, or equivalent the bott, m, on its return movement.

Thirty-thirt, I also claim plating a water jacket, 24, or equivalent the bott, m, on its return movement.

Thirty-fourth, I also claim plating a water jacket, 24, or equivalent the bott, m, on its return movement.

Thirty-fourth, I also claim plating a water jacket, 24, or equivalent the plating of the plating plating in the temperature of the fresh oil or other liquid while on its way to a still by passing the same through the water in the chamber, y, substantially as described.

Three-weeth, I also claim passing the overflow waste water from the condense of the still passing the same through the water in the chamber, y, substantially as described.

Three-weeth, I also claim passing the overflow waste water of the condense of the still goose neck. I, and thence through awa er chamber, p, between the sali goose neck. Is, and thence through awa er chamber, p, which proved the part of the purpose of re-heatine it, substantially as described.

Three-weeth, I also claim the use of the supply chamber, II, for the purpose of re-heatine

54,359.—Beer Faucet.—Jacob Jahraus, Buffalo, N. Y.:
First. I claim making the discharge nozzle, C. an extension of the key chamber, B, and locating the pump barrel, E. therein, in combination with the key, D, and plunger, F, arranged and operating in the manner described.

Second, Extending, the key passag, d'. downward to each end thereof on the opposite sides of the discharge nozzle extension of the key clamber, as described.

Third, Forming the key chamber cap, G, with a cup, g'. for the purpose set forth.

Fourth, The holes, l', in the key as set forth.

Fifth, The combination of the button, f2, with the perforations, ft, for the purpose set forth.

54,360.—Machine for Graining Morocco.—George R. Johnson, Wilmington, Del.:
I claim for graining morocco, a moving table and a swinging one, operating together, substantially as described.

54,361.—Animal Trap.—Samuel F. Jones, St. Paul, Ind.: I claim the angular vibrating platform E. treadles. T. coiled spring, y, hoops, s, catches, r, and slutter, G. when constructed and arranged in the manner and operated for the purpose substantially as set

54,362.—Machine for forming Pen-holder Springs.—
John Keith, Worcester, Mass.:
Iclaim, First. The combination or the lever, G. having cams, op, with spindle, D. and the forming rod. E. substantially as set forth.
Second, The combination with spindle, D. and forming rod, E. of the springs, c and d., and rode, e. su stantially as set forth.
Third. The combination with spindle. D. and forming rod, E. of pin, i, springs c andd., and sorew, a sand forth purpose set forth.
Fourth, The combination of the forming rod, E. with spindle, D. springs, c and d. and die J. the parts being constructed and arranged for joint operation, in the manner set forth.

edfor joint operation, in the manner set forth.

54,363.—Mode of Stopping and Starting Cars.—James E. Kelsey, Providence, R. I.:

1 claim First, The arrangement of the rod, N, connected above and below the fore and hand axles to their respective friction wheels, so as to give the reverse motion on the said wheels. by the same longitudinal motion of the roo, substantially as described.

second, I claim the S-shaped spring connecting the pawl, and the rod, N, substantially as and for the purpose described.

Thing, The combination of the ratchet teeth on the wheel, B, the pawl, Q, the spring, P, rod, N, spring, T, and friction wheel, D, operating substantially as described.

Fourth, The combination of the rod, N, spring, T, and the riction wheels, D D, of the respective axles constructed and operating as described.

Fith, The friction wheel, D, revolving by contact with the car wheel to simultaneouslyarrest the latter and compress the spring on the rod, n, substantially as described.

the rod, n, substantially as described.

54,364.—Artificial Leg.—Hiram A. Kimball and Andrew J. Lawrence, Philadelphia, Pa.;
We claim, First, Forming a frictionle s joint, \(\pa\), in artificial limbs by combining pure soft rubber with vulcanized gum, in the manner and for the purpose substantially as described.

Second, The two blocks, band c, in combination with the prolongation of the pitman, p, producing two opposite points of contact, r, and r, thereby relieving the askle pinfront the strain or leverage of the root; the same being constructed and arranged substantially as shown and described.

Third, The combination of the lever, w, with the soft packing, x, and the roller, y, for locking and unlocking the knee and lowering the toe, the several parts being arranged and constructed substantially as shown and described.

Fourth, The combination of the metallic spool, B rubber packing D, and the steel plates, ft', to preduce a sight stiff lateral motion of the ankle joint, the whole constructed and arranged substantially as shown and described.

A 365. — Method of Applying Paint to Surfaces.—John W. Kingman, North Bridgewater, Mass. Antedated April 19, 1866.:

I claim the application of paint in form of a wash, or mixed with yater, and the applying oil over it, before it has become dry, subtantially as herein described.

54,366.—Sorghum Evaporator.—T. T. Kneeland, Tecum-seh, Mich.:

SELL, MICH.:
I claim the pan, A, provided with a series of steam pipes, B C, in
combination with the gate, D, all acranged to operate in the manner, substantially as and for the purpose becomes the forth.

(This invention relates to a new and improved device for evaporating, by means of steam, the juice of the sugar cane, more parrating, by means of steam, the latter of the signal cane, more par-ticularly, the juice of the kind of sugar cane termed sorghum. The invention consists in the employment or use of a series of steam tubes, fitted within a shallow pan, provided with a gate, all arranged in such a manner that the juice may be evaporated expeditiously, and the necessary manipulation performed with the greatest fa-cility.]

54,367.—Sewing Machine Guide.—Edward H. Knight,

54:367.—Sewing magnine outlier.—Earth in Magnington, D. C.:

I claim an adjainable spring pressure pin or foot, constructed substantially as described, and adapted to press, at one point, upon the clothousist of its line of seam, to deflect the same, but not by extrem pressure or Penetration, to form a center of revolution.

I also claim the said spring pressure pin or foot as a justable in a horizontal plane, substantially as described.

54,368. - Land Roller.-E. J. Knowlton, South Lyon, Mich on.. a, First, A land roller composed of two parts, C C, having

the inner or adjoining ends of their axles fitted in an adjustable bearing or bar, D. substantially as and for the purpose set furth. Second, the lever, I, in combination with the bar, D, substantially

Second, the lever, I, in combination with the bar, D, substantially as and for the purpose specified.

Third, The plank or seat support, E, in combination with the bar, D, and rollers, CC, arranged substantially as and for the purpose

(The object of this invention is to obtain a roller for rolling land which will be capable of conforming to the inequalities of the surface thereof, and also capable of being more readly turned trans usua].l

54,369.—Pegging Jack.—George A. Knowlton, Natick,

Mass.:
I claim the heel standard, D, made adjustable vertically; for the urpose set forth.
I also claim the spindle, j, substantially as and for the purpose decribed.

ibed.

also claim the lever, I, operating substantially as and for the pose set forth.

also claim connecting the lever, F, with the lever, I, by means of also claim connecting the lever.

I also claim the lever, I operating substantially, as the form of adjustable roas, G H or their equivalents, substantially as and for the purpose specified.

I also claim a heel standard, made adjustable vertically, as well as horizontally, in combination with a toe standard, made adjustable horizontally, substantially as and for the purpose described.

54,370.—Clover Harvester. - Elias Kramer, Alvira, Pa.:

54,370.—Clover Harvester.—Elias Kramer, Alvirit, Pa.:
I claim the spirally-arranged revolving shears. If I, in combination with the fingers, O, when curved on their upper laces; and having openings at their faces, substantially in the manner and for the
purpose set forth
Second. In ombination with the wheel, Q, adjustably attached to
the box, C, so as to regulate the hight of the cur on the outer side.
I claim the brace and guara, N, when adjustably attached to the
axis of the wheel Q, by a slot and nut, substantially as and for the
purpose set forth.

Third In combination with the braces, D, P, bluxed as described.

urpose set forth. Third, In combination with the braces, D. D'. hinged as described, claim the cords, M. M', and hand lever, L, substitutially as and for he purpose set forth.

the purpose set forth.

54.371.—Sheep Rack.—S. Lahm, Canton, Ohio:
I claim the arrangement of the hinged covers F, hinged rack, or rack boards, G G', and hinged or sliding sides. E c', with regard to said racks, and the grain troughs, H, so that the food may be appropriately distributed, and the sheep rack opened or closed, in whole or in part, as herein described, and for the purpose set forth.

torth. The arrangement of the pitman box, jl', so as to be tightened by the end of the pitman, j, setting against a half bearing box I, substantially as and for the purpose shown and deser bed. The segment, J2, on thein ger beam, G, in combination with the segment, JI, in the hand lever. J, and chain for enabling the attendant to adjust the finger beam to a vertical position, substantially as described.

54,373.—Barnyard Scraper.—Samuel W. Langdon, Fair-field, Iowa:
I claim the invention of the foregoing machine, and the combination of its different parts, as set forth above, and as shown by the accompanying drawings.

tion of its different parts, as set forth above, and as shown by the accompanying drawings

54,374.—Reaping and Mowing Machine.—Hiram R. Lavey, Bristol, Wis.:

I claim the arrangement of the spur wheels, E.F., and adjustable pinions, G.H., when constructed and operating, substantially as herein spec field and shown.

I claim the combination and arrangement of the spur weels, E.F., pinions, G.H., levers, I.J. and spring, h.i. operating su. stantially as and for the purpose shown and described.

I claim, in combination with the above the employment of the braces, f.g., as and for the purpose specified and described.

I claim the avrangement of the arijustable pinions, G.H., provided with the stops, b.c., with the shatt. K. provided with the projection, a, operating substantially as specified and shows.

I claim the combination of the slutted arm, r, slotted arc, s, suport, p, and key, q, arranged and operating as specified and shown.

In combination with said adjustable support, p, I claim the arrangement of the drum, w, and sliding bar, n, and rect, o, arranged and operating as specified.

and operating as specified.

54,375.—Enveloping Hemp or Flax, or Flax Waste within a Sliver of longer Staple.—John Leinweber, Louisville, Ky.:

I claim the mode of enveloping the waste of hemp or flax in a sliver of a longer staple, substantially as set forth.

The provision in, or attachment to, a hemp or flax carding machine of the flock feeding and distributing mechanism, I J K L, substantially as described.

The flock feeder, capable of being partially rotated upon the shaff, H, for access to the delivering mechanism, in the manner explained.

-Annealing Box .- James E. Lewis, Sharpsburg,

I claim constructing east iron annesling boxes, as described, having the body of the box in a separate piece from the bottom and top or cover, for the purpose of preventing its warping by the action of the annealing oven.

54,377.—Die for making T-head Bolts.—William J. Lewis, Pittsburg, Pa.:
I claim constructing the gripping dies of bolt-heading machines, with a double or sirgle recess in the front or that part farthest from the header, in addition to the one in which the header works, whereby the bolt head may be worked into proper shape by submitting it alternately to the action of both sides of the gripping dies.

cies, so claim the mode herein described for driving the pin off the both head, that is to say, lives staving the rod to form the head and both head, that is to say, lives staving the rod to form the head and pubsequently, compressing it attereally so as to throw the thabit that on submitting the head in that on submitting the head in the action of the header, so that on submitting the lead to the action of the header a second time, the pin will be driven into the body of the bolt. I also claim parting or separating the gripping dies on one fide of a right line drawn longitudinally through the center of the header, so that the cylindrical hole, will be deeper in one die than the other, for the purpose of overlapping and driving off the pin produced on one side of the bolt by simply tuning it one-halfway round to bring the opposite side into the deepest recess.

54,378.—Washing Machine.—Elijah A. Lucas, Bloomington, Ill.:
I claim communicating a rotary motion to the shaft. C, of a washing machine, from a vibrating segment, E, by means of a double rack bar, D. substantially as describe.
Second. The combination of the pinion, d, on the shaft, C, the pinion, J, on frame, E, and the wheel or segment, F, with a bar, D, having teeth on two of its sides, in the construction of a washing machine, substantially as described.

54,379.—Jaw for Brooms and Gaff of Vessels.—Alfred Manning, Fair Haven, Conn.:

I claim the combination of the iron hinges, with the jaws, when each law is made in two parts, and the whole is constructed arranged, and fitted for use, substantially as herein described and set

54,380. -Stirrup.—Frank N. Martin, Cincinnati, Ohio:
First, I claim a stirrup composed of two distinct members, D E, and D E', hinged together at their upper portions, substantially as set forth.
Second, In this connection the rings or recessed portions, E E', for the reception of pads, in the manner stated.
Third, the use of a spring clasp, Fig. 3, in the manner set forth.

54.381. Gate. Joseph Martin, New Oxford, Pa.:
First, I claim the arrangement of levers, j.j.2 beneath the latch, h, which is used to hold the gate open, in combination with the pull ropes, S. S.2 and overhanging beams, E.F., substantially as described.
Second. The combination of

scribed.

Second, The combination of levers, r' K', ropes, K r, beam. H, and pull ropes. S Si 32, with the levers, j jl, and latch, h, substantially as described.

as described.

54,382.—Solution to be applied to Cotton, Linen, and other Fabrics, to prevent them from burning.—John McGill, Boston, Mass.:

I claim the application of the aforesaid chemical to all combustible substances, materials, and fabrics, as in the above manner, and for the purpose set forth.

54,383.—Lock.—W. C. McGill, Cincinnati, Ohio:
I claim the plate, D, and springs, d, operating and constructed as and for the purpose heretofore described.

The plate, D, springs, d, and tube E, constructed and operating substantially as above described, and for the pur pse set forth.

54,384.—Curtain Fixture.—Edward Mentz, Philadelphia

Pa.:
I claim the bracket, G', having in it the recess, P, and pulley, arranged substantially as described.
The centrally divided roller, B, secured upon the shade, A, by screws, c, in comb nation with the end pulleys, D P, substantially as described.
I claim operating a window shade by a cord, t, passing round pulley, D', on one side, over pulleys, m m, in the head, and down the other side round pulley, D, substantially as described.

54,385. Window Blind.—Seth W. Merrill, Assauce, Mass.:
I claim the application of the connection bar, D. to the several slats at or near their ends, and so as to be capable or not only being moved up and down with them, but being turned over against the rear face of the contiguous side bar of the frame, in a manner, and so as to hold the sats open, as specified.

Frederick Mohr, Fond du Lac.

W18.:
I claim the leg, D D' C C, when constructed and operating, substantially in the manner and for the purposes set forth.
The combination and arrangement of the leaves, A A', center piece, B, and legs, D D' C C, substantially as and for the purposes set forth.

-Step Ladder.-Abner Moore, Jr., Hillsboro,

Ohio:

I claim the slide, C, in combination with the arms, D, legs, B, and side pieces. A, subs antially as specified.

[This invention consisists in constructing a step ladder, with slots made in or through and parallel with the side pieces, into which are fitted slides, connected by strips or arms, to the legs of the ladder and so arranged that when the legs are drawn from or pushed toward the ladder, the slide will work in the slot, whereby the legs can be drawn out from the steps, for a shorter or longer distance as may be desire., and be braced without the use of hooks, or further manipulation than the mere act of drawing them out or pushing them toward the steps.]

54,388.—Egg Beater, Cake Cutter, and Nutmeg Grater.
—Samuel C. Moore Boston, Mass.:
I claim a case provided with a movable central shaft with radial spikes or pins, arrunged spirally in the shaft torming an egg beater, substantially as described.
In combination with theegg heaver above claimed, I claim the extension of the case at the lower end, forming a cake cutter, substantially as described.
And in combination with the egg beater and cake cutter described, I claim the nutmeg grater, arrang.d in the outer bottom, as described.

54,389.—Apparatus for Preparing Nitrous Oxide Gas.—

Charles H. Moseley, Brooklyn, N. Y.:
I claim the combination of the portable box. A, with a set of nicous oxide gas purifier jars, acranged and operating as herein before

trous oxide gas purmer pars, accomposed to provide a set forth.

I also claim in combination with the beak of the generating retort an elastic india-rubber or other non-conducting collar, K, for the purpose; hereinbe ore set forth.

also claim the method of suspending the retort by means of an elastic tube attached to the end of the beak of the retort whereby I am enabled to dispense with the use or a retortstand, as hereinbefore

54,390.—Table Cover.-Albert L. Munson, New Haven.

Conn.:

I claim a table cover made of paper, whether strengthened with Joho nor, ornamented substantially as described and for the purpose set for h.

54,391.—Broom Head.—G. R. Nebinger, Lewisberry, Pa.:

Pa.:
I claim a broom head consisting of the loop, C, constructed shown and described, and used m combination with the handle, and c.p. B, provided with the sleeve, b, all arranged and operat as herein set forth

54,392.—Machine for Raking and Leading Hay.—Fost Nevergold and George Stackhouse, Pittsburg, Pa We clam the arrangement of the pitman. y, rocking shait, w, a sliding tearings, r r, in combination with the pin on, i, sliding rat m, and pitman p operating so as to impart a compound motion the e exting rate, substantially as herein set forth.

54,393.—Animal Trap.—William H. Newby, Seymour

Ind.:
I claim the arrangement of the door, L, and spring, M, in combiation with the titing platform, R, the trap door, H. lever roll, C,
ad catch, q, constructed and operating in the manner and for the
urpose herein specified.

54.394.—Giler.—L. H. Olmstead, Stamford, Conn.:

54,394.—Oiler.—L. H. Olmstead, Stamford, Conn.: Pirst, I claim providing an oiler with an internal rod or tube, placed in line with the main discharge tube, and adapted to limit the movement of the featible part of the can by coming directly in contact with the discharge tube in the manner and fortne purpose herem specified.

Second, In combination with the internal tube, A, I claim a bearing or guide therefor, formed in and on the bottom of the can, substantially as described.

54,395.—Reed Musical Instrument.—Isaac T. Packard. Chicago, Ill.:

Chicago, Ill.:

I claim an octave coupler for reed musical instruments, constructed with the levers, B and C, the fulcrums of which are at or near their rear ends, and their connection with each other is between their fulcrums and the keys and tracker pins, upon which they operate.

Second, I caim the movable spring rail, H, when constructed and operating substantially as, and for the purpose herein set forth.

-Harvester.-Aaron Palmer, Brockport, N. Y. o4.596,—Harvester.—Aaron Palmer, Brockport, N. Y.:
I claim, First, Forming a movable, self adjusting, single joint to concet the finger beam, by the medium of the shee, E. to the hanger, C, without an intervening gate, by means of the grooves, g, and pins, h, e-equivalent, when the said arrangement is used in combination with the pitman, M. Dassing through the axie of the grain side wheel, to operate the cutter, substantially as set forth.

Second, I also claim raising the finger bar from the ground by the forward dust end of the machine, by throwing the weight of said finger beam upon the periphery of the wheel, or upon an auxiliary rim of the same, by me-ms of a connection, O, that connects it with any suitable machanical arrangement for producing contact with the wheel or rim, substantially as described.

Third, I also claim a brake lever, P and brake.

substantially as described.

Third, I also claim a brake lever. P. and brake, p. in combination with a finger bar. O, and supporting wheel, A', in such a manner that the driver can raise the finger beam by merely bringing the rake in contact with the wheel, substantially as specified.

Fourth, Plakingtheman frame, Bo'a two wheeledharvester, tubular, to secure tightness and strength, and to allow the passage of the priman, said frame being stationary or mon-revolving and having the wheels turning on each end, substantially as described.

54,397.—Harvester Crank Motion.—Aaron Palmer, Brockport, N. Y.: I claim retaining the box, H, upon the crank piu, i, by means of the

croove and flange, k l, arranged and operating substantially as de icribed.

ed. combination with the box, H, and crank pin, i, I also claim the aber, I, fitted with fibrous or other suitable packing, m, substantially perified.

is specified.

I also claim the revolving oil chamber, h, secured to the top of the salance wheel, in combination with the revolving shaft, A, and station-ing box, c, substantially as and for the purpose herein set forth.

Stump Extractor.—Nathan Parish, Kalamazoo,

54,398.—Stump Extractor.—Nathan Faish, American, Mich.:
I claim the arrangement of the lever, D. circular bar, E, ratchet, C, shaft, B, pawle, F F', and tackle, H, relatively to each other, and operating in the manner as described.
Second. I claim the movable bent, L, incombination with the lever, D, arranged and operating independently of the shaft, B, in the manner and for the purpose benefined described.
54,399.—Pump.—John S. Patric, Victor, N. Y.:
I claim the cups, D E, one or both, in the formation of the piston head, constructed and arranged with the envelope, I, and operating substantially in the manner and for the purposes set forth.

54,400.—Cooking Stove.—Samuel Pierce, Cambridge,

SS... . First. The combination of the flue. F. when placed over the fire box, A, with the said fire box, and with flues, E, by means of ders, h, operating substantially as described, and for the pustated.

stated. Second, The air fittes, G, formed of the double oven plates, passing over and round the oven, and behind the fire box, enabling the current of air flowing in them to be intensely heated, so as to heat the interior oven plates behind the ash pit, and render equable the atmosphere of the oven, by discharging the hot air through holes, thus ventilating the

Oven.

Third, The combination of the air flues, G, with their holes, e, as just described, and with the oven, O, with holes, f, and fine, H, behind the fire box, having its holes at g, in the fire box, to make the hot blast, and effectually consume the gasses, substantially as described.

Fourth, Theholes, g k, at the back of the fire box, above and below the outlet thereof, arranged and combined with respect to the combistion chamber over the fire pot, substantially as and for the purpose described.

scribed.

Fifth, Forming the bottom and back of the stove of double plates with an inner space, when the inerior one of such doubled plates is pierced with holes, 1, as drawn. for the purpose of having ashes drift through said holes and between the plates, to form a non-conducting back and bottom, substantially as described.

obaca and coloring, successfully as described.

43,401,—Piano Seat.—Lewis Pastawka, and Anton Krasinski, Boston, Mass.:

We claim, First, The combination of seat, h, and its standards, n, with frame or stand, a and wheel, p, all constructed as described, so that the seat may be raised or lowered, by screw or wheel, as specified.

Second, The wholepiano seat constructed in the manner and for the ourposes set forth.

54,402.—Peat Machine.—Nathaniel F. Potter, Providence, R. I.:

I clau n. First, The use of one or more receiving and delivering pockets, F, in combination with a tempering mill, substantially as described, for the purposes specified.

Second, Combining with a mill for tempering peat or other material a scraper, G, operating in the manner described, for the purposes specified.

Double set of driving gears, dd' e e,' and the clutch, f, when e are combined with the sweep of a tempering mill, substan-54,403.—Grain Separator.—T. J. Price, South Union,

Ly...
in the combination of the rockers, B B, with a fanning mill, as the purposes specified.

54,404.—Paper Collars, Etc.—George W. Ray, Spring-field, Mass.:
I claim as a new article of manufacture, paper, embossed and enamelled whether before or after its conversion into articles of wearing apparei, all substantially as hereindescribed.

54,405.—Machine for Bending Wood.—James N. Ray, Indianapolis, Ind.: First, In a machine for bending wood, I claim the former, A. Figs, 1 and 2, when constructed as herein described, and operated as herein set forth

and 2, when constructed as below decisions to the former, A, the strap, S, the Second, I claim the combination of the former, A, the strap, S, the ib, N, the clamp, C, and the wedge, W, whether the wedge be used s shown at W or at O, substantially as and for the purposes herein

et forth.

4,406.—Harvester Rake.—Adam R. Reese, Phillips-burgh, N. J.:

I claim the combination in a two wheeled hinged joint of the verical ske shaft, mounted upon the finger beam and driven from the main ame with the cam ring and rake arms, when arranged and operating a described, whereby I am enabled to locate the driver's seat outside the pathdescribed by the rake arms, as set forth.

I also claim in combination of the finger beam and main frame with le tubular, x, shaped frame, G G', as described, for the purpose of apporting and braceng the rake shaft.

54,407.—Wind Mill.—Lewis Reese, Rolling Prairie, Ind.: I claim the combination and arrangement of the lever M, cords, b cweighted vessel, Q, and vessel, R, operating substantially as and for the purpose specified.

54,408.—Paper Shirts.—Helen M. Remington, Springfield Mass

field, Mass.:

I claim, First, As a new article of manufacture, a paper shirt Second, Forming the same materials composed of two thicknesses of paper, prepared by the insertion of the compounds described, or their equivalents, substantially in the manner and for the purpose described. Third, In combination with the saidsbirt threads, a a, etc., applied substantially as set forth.

Fourth, The hook, b, constructed and combined with the shirt, substantially in the manner and for the purpose set forth.

54,409.—Furnace.—George E. Reynolds, Philadelphia,

I claim a detachable block, H, adapted to the fore plate of a furnace, substantially as and for the purpose herein set forth.

54,410.—Carriage.—Uel Reynolds, New York City: I claim the pivot, f. and socket, K. applied substantially as specified, between the axie and head block, in combination with the brace, m, and pivot, o, substantially as and for the purposes specified.

54,411.—Elastic Chain.—Celins E. Richards, North Attleboro, Mass.:

I claim my improved elastic link (or chain, composed of a series of such links), the same having its parts, A B C', constructed, arranged, and applied together, and so connected as to operate when applied to a cable, substantially in nianner as set forth.

44,412.—Method of Extracting Precious Metal from Ores.—Van Buren Ryerson, New York City:

I claim the process of decomposing the sulphurets found in admixture not be ores of gold and silver, by subjecting said ores in the pulverized or granulated state, to the action of superheated steam, so as to convert he sulphurets in sulphates and sulphites, substantially as and for the purpose described. granulated state, to the actual sulphites, substantiany as estimated and sulphites and sulphites, substantiany as the sulphites and sulphites, substantiany as the substantially as herein described, of amalgamatic and process substantially as herein described, of amalgamaticles of precious metals with mercury.

ng the particles of precious metals with mercury.

54,413.—Atmospheric Hammer.—John Robertson, New York City.:

First, I claim, in combination with the cylinder hammer head and piston, applied and operating as herein before specified, the provision for raising and lowering the piston rod, and shortening or increasing its effective length while the hammer is in operation, substantially as herein set forth

Second, I claim, in combination with the hammering apparatus, constructed as described, a variable crank, substantially as shown.

structed as described, a variable crank, substantially as shown.

54,414.—Apparatus for Refining Petroleum.—William H. Sangster, Buffalo, N. Y.:

First, I claim the partition. A, or its equivalent, when constructed as and for the purpose herein substantially described and set forth.

Second, In combination therewith, the plate B, or the equivalent thereof, as and for the purpose describe !

54,415.—Grate Bar.—Horace B. Scofield, New York

City;:
I claim a grate bar for furnaces, formed with a s raight upper sur-

face, and a rib on its under side, corrugated in the manner and for the purposes specified.

54,416.—Frame for Printing Photographic Pictures.—
T. E. Sexton, Wilmington, Del.:
I claim a strip, F, applied to and rendered adjustable in a photograph frame, substantially as and for the purpose herein set forth.

54.417.—Filter for Well Tube.--William A. Sharpe, Syra cuse, N. Y .:

First, I claim the rings, A A, having the parts, e e, attached for the ripose described. tescribed.

The combination of the rings, A.A., and frame work, B.B.C. ntially as described.

54,418.—Apparatus for Raising Water by Waves.—A.
N. Shattuck, San Francisco, Cal.:
I claim the buoy pump made to act by the agitation of the water, substantially as above described, consisting of a floating vessel, A. its tube, B, combined with a fixed tube, C, both tubes being provided with check vaves, and the floating vessel, A, being guided in any suitable frame, as above set forth.

as above set forth.

54,419.—Hoisting Apparatus.—Henry F. Shaw, West Roxbury, Mass.:

First, I claim the general combination and arrangement of the differential pulleys and chains, substantally as described, and for the purpose set forth.

Second, The latch, I, or its mechanical equivalent, working as described, and for the purpose set forth.

Third, The holding pin or lock, H, or its mechanical equivalent, in Omitination with the driving pulleys, R and S, substantially as described and for the purpose set forth.

54,420.—Pump.—John W. Sheaffer, Sterling, Ill.:

I claim the valve boxes, L and J, provided with the hook, N, and bail, O. when constructed and operating substantially as and for the pur-poses set forth.

54,421.—Harrow and Cultivator Combined.—A. S. Sheffer, West Donegal Township, Pa.:
I claim the specific combination of the adjustable handles, F, on the side pieces, A, also made adjustable at the apex, by bolts, H I, and central jaw piece only, together with the arrangement of the curved flat and narrow shares or spikes, s, inverted and operated in the manner shown, and for the purpose specified.

54,422.—Fruit Packet, P. B. C.

54,422.—Fruit Basket.—P. R. Shel. on, Prattsburg, N. Y. Antedated April 21, 1866:
I claim a fruit basket, made substantially as herein described.

54,423.—Steam Engine Governor.—David Shire, Phila-delphia, Pa.:

ueipnia, Fa.:
Iclim suspending the balls, AA, by rigid arms, h h, connected to the spindle, B, by means of j ints, consisting of the cylinders, f, and the mandrels, g g, or their equivalents, arranged in relation to the said spindle, arms, and bolts, substantially as discribed and represented.

54,424.—Fluid Regulator.—Warren A. Simonds, Boston,

Macs.: First, I claim the combination of the cone, f, and rod, g, as and

purpose described.
econd, The arrangement of the bevel gear, o and p, with the of i, i, and valve stem, substantially as described, and for the puroos-s stated. Tbird, The arrangement of the guide finger, r, with the slotted valve stem to prevent rotation of the valve or stem.

54,425.—Land Roller.—Albert S. Skiff, Trenton Falls,

N. Y::

I claim the construction of a land roller in sections, one section in advance of the other, and the frame in sections, connected by pivot joints, and so .rranged as that the bearings of the inner ends of the rollers are supported by the opposite frame, thereby allowing teenes of the relers to lap, as and for the purposes described.

Second, The use of the pivoted jouenal box, in combination with the frame and roller journal, as and for the purposes set forth.

54,426.—Composition for Painting Metallic Roofs.—C.D. Smith, Chicago, Ill.:
I claim as a new acticle of manufacture. a composition made of perfoleum cli, cost tar, asphaltum, gum shellac, india-rubber, and benzne, prepared in the proportions and manner as above described and for the purpose specified.

54,427.—Cooking Range.—Mrs. O. Smith, Chicago, Ill.: I claim the comboation of the fire boxes. U T, with the ovens, R Q S 13 13, when the latter are arranged in relation to the former, and to each other, as shown and described.

to each other, as shown and described.

3.4,428.—Revolving Condenser.—James F. Spence, Williamsburgh, N. Y.:

First, I claim a revolving condenser, constructed and applied in combination with a steam cylinder, substantially in the manner herein described, for the purpose specified.

54,429.—Process for Tempering Steel.—Ariel B. Sprout, Hughesville, Pa.:
I claim the se of a saponaceous or alkaline liquor, covered with a coat of oil, and heated to about the boding point, and regulated and graduated in its strength to suit the different kind and quality of steel, article, or thing, to be tempered, substantially as herein described and set forth.

54,430.—Horse Rake Teeth.—A. B. Sprout, Hughesville,

Pa.:
I claim constructing of steel or iron, a curved tooth for horse rakes, said tooth being a spring within itself, and tapering from the line, B, to the line, C, from the line, B, to the line, A, substantially as herein described and for the purpose set forth. 54,431.—Horse Hay Forks.—Ariel B. Sprout, Hughes-

VIIIe, Pa.: claim constructing and arranging the bars, A and B, in such mer that they may be used, either for elevating hay, or as hay ars, substantially as here n described.

shears, substantially as here n described.

54,432.—Head Blocks to Saw Mills.—J. M. and S. F. Stanton, Manchester, N. H.:

First, We claim the opera ing of the unrights or knee piaces, C, through the medium of pluions, D, gearing into racks, b, at the unserside of the knee nieces and into the racks, c, of the blocks, B, substantially as and for the purpose specified.

I claim the arrangement of the sectional shaft, E, clutches, F, lever, G, rod, d, constructed and operating in the manner and for the purpose herein d-scribed.

The combination of the lever, Q, notched guide, R, pawl, P, pincholon, D, rack, b, and rack, c, all arranged in the manner and for the purpose herein specified.

54,433.—Horse Power.—Nicholas Starr, Jr., Homer,

N. Y.:

First, I claim the arrangement in the large reel, of placing the spokes in pairs, and connecting them by cross pieces which shall extend beyond the spokes, as and for the purposes described.

Second I claim the weighted lever, I, in combination with the

Second I claim the weighted State, s., ...
Thire, I claim the adjustable cap piece, f, in combination with the pulley, m, and lever, b, substantially as described.
Fourth, I claim the combination of the wheel, G, cone R. and reels, p, when the same are arranged and operated substantially as above described.

54,434.—Curtain Fixture.—J. Stephens and W. B. Fay, Chicopee Falls, Mass.:

We claim as a new manufacture the spool, a having a beveled periphery, b, in combination with the grooved lever pawl, c, substantially as herein described and set forth.

Hay Fork.—Joshua B. Stewart, South Paris, name:
Iclaim a hay fork having a spring balance, or weighing attachment applied to it in the manner, substantially as and for the purpose herem set forth.

This invention consists in the application of a spring to a hay fork. in such a manner that it will serve as a balance or scale to indicate the weight of the hay taken up on the fork, so that a person, in loading a wagon or cart, or in pitching a given quantity of hay from one spot to another, may ascertain the weight thereof. The invention is more especially designed for farmers and others, who fre-

quently dispose of small quantities of bay-" lags"-and who as present simply guess at the weight, when hay scales are not c

54,436 — Portable Deflector for Car Windows.—J. C. Stoddard, Worcester, Mass.:
First, I claim a portable air and dust deflector, constructed and operating asset forth.
Second, The combination with the body of the deflector, of a hook at the top, and spring at the bottom, for retaining the same in place, substantially as set forth.
Third, the combination of the piece, F, and elastic spring, G, with the me al back, E, flanges, c c, and loop, J, substantially as shown and described.

54,437.—Cheese Box.—Conrad Stoll, Mokena, Ill.:
First, I claim the combination of the circular revolving support,
M, with a cheese box, substantially as herein described, and for the
purpose set forth.

Second A cheese

Second, A cheese box. constructed and arranged substantially as herem described, and for the purpose set forth.

The object of this invention is to furnish a cheese box by means of which the cheese may be kept free from dust or insects, and by means of which any desired part of the cheese may be turned to the frontor open part of the box, for convenience in cutting. And it consists in pivoting to the stationary bottom of the cheese box a circular revolving support or platform, upon which the cheese is placed. The front, top, and sides are so constructed as to be opened ed of alternate panels of glass and fine wire gauze, to admit the air and light, and yet exclude all insects, dusts, etc.

54,438.—Submarine Explorer.—William Mont Storm, New York City:

First, I claim the hinged or "toggle" bolts with their clutching jaws and binding nuts, all combined and operating substantially as described for fastening in place the scuttle, Q, and trap, Q.

Second, I claim the application of the three pressure gages, J K L, prepared and applied in the manner and for the purpose described.

pied.

nird, I claim the lookouts, F, constructed substantially as described, combined with a water-tight lens, f, as described.

ourth, I claim making the ballast ring of my explorer compound, to of a permanently fixed portion, E, combined with a series of reable jortions or sections, F7, in the manner and for the purpose set b.

movable portions or sections, I?, in the manner and for the purpose of forth.

Fifth, I claim the air purifying lining, R R', to the working chamber of my explorer, constructed and operating substantially as described. Sixth, I claim the ombination of the annular sprinkler, h', cock, g', and pipe, i', operating tegether as described for the purpose described. Seventh, I claim the application in conjunction with the lookouts, F, or their equivalent, of the deflectors, V, in the manner and for the purpose described.

scribed. n, I claim in combination with my purifier, the water space at m and the cock, S, constructed and operating in the manner and purpose described.

4,439.—Adjustable Cut-off and Horse-power Indicator.—
Albert Stuckenrath, New York City:
First, I claim the right and left-handed screws, g g', rod, h, index, j, and dial, K, in combination with the cut-off valves, E E', and main alve, C, constructed and operating substantially as and for the purpose escribed.

described.
Second, Th≯dogs, I, levers, m, and arms, O, in combination with the cut-off valves, E E', and main valve, C, constructed and operating substantially as and for the purpose set forth.

54,440.-Machine for Bending Tubes.-James Sweney, St.

Louis, Mo.:
First, I claim the combination of the beam, A. having a mortise, a, in the screw, f, when constructed as and for the purpose set it, with the screw, i, when constructed and forth.

Second, I claim the sheaves, d.d., in combination with the chain, g, or its equivalent, and the screw, f.

54,441.—Planing Machine.—Sylvanus J. Talbott, Milford,

N H.: I claim the sliding frame, P', swinging frame, F', and connecting bar, constructed as described in combination with each other, and with a and matching machine, substantially as and for the purpose se

54.442.-Magnesium Lanze.-Robert H. Thurston, Provi-

dence, R. I.:

First, I claim the use of the feed roller, B, as a surface on which to burn a strip or wire of magnesium, substantially as described.

Second, The combination of the statio, ary scraper, K, with the roller, B, substantially as described and for the purposes specified.

143.—Spring Bed Bottom.—Lyman S. Tingley, Paw tucket, R. I.:

tuck et, R. I.:

I claim connecting the tops of the several springs of a spring bed bottom, by a cord going loosely through eye botts in the inside faces of the frame. A, substantially as described.

I also claim adjusting the springs of a bed bottom so as to prevent unevenness when there is a disparity in the weight of its occupants, substantially as described.

I also claim the heart plates, K, in combination with the inside slotted bars, J, on each end of the frame, substantially as and for the purpose described.

[The object of this invention is to improve spring bed bettoms, and the Invention consists in several particulars, one of which is making it capa-bleof being folded, for convenience of carriage and storage along the middle of its length; another is adjusting the springs to a greater or less minding of its length; another is adjusting the springs to a growth of the tension on either side, or half of the bed independent of the other side, so as to keep both sides at about the same elevation notwithstanding any difference in the weight of the occupants; another is connecting the tops of the springs by a system of cording to keep them vertical; another is taking the strain, when the bed is occupied, off the hinges, by means of heart plates, interposed between two of the bars, that serve to adjust the tension of the springs.]

54,444.—Flour Barrel.—William H. Towers, New York City:
I claim a four barrel provided with a sieve agitator and sliding cover. arranged and operating substantially in the manner and for the purpose above set forth.

54,445.—Shuttle and Bobbin for Looms.—Clemens Unverzagt, Richmond, Ind. Antedated April 30, 1866:
First, I claim a shuttle with a projection or rib upon one side, substantially as and for the purpose set forth.
Second, The lever spring, c, in combination with the beveled or conical head of the bobbin, B, when attached to a shuttle, in the manner and for

the purpose described.

Third, The bobbin, B, provided with a conical head, c, substantially as and for the purpose described.

Fourth, The combination of the shuttle, A, projection, D, spring, E, and bobbin, B, all substantially as and for the purposes set lotth and

54,446.—Straw Cutting Knife.—Grey Uttley, Petersburg

va.: 1 claim the construction of the blade of the knife, having the angular nd vertical grooves on its face, to form the diagonal shaped teeth, as erein described and for the purposes set forth.

54,447.—Base Burning Stoves.—Jasper Van Wormer and Michael McGa: vey, Albany, N. Y.:
First, We claim an adjustable feeder, whereby the supply of coal may be increased or diminished, by raising or lowering the mouth of the feeder from or toward the grate of a stove, substantially as described and for the purpose set forth.

Second, the combination of an open flue extending entirely around

and for the purpose set forth.

Second, the combination of an open flue extending entirely around the fire pot, and theouter shell of the stove with a magazine or feeder as described and for the purposes set forth.

54,448.—Horse Rake.—Joshua A. Varney, Alton, N. H.:
First, I claim the shaft, I, provided with bars, K K, and shafts J J,
combination with the lever, F F, arranged and applied substantially

shown and described, for raising the rake teeth so that they may discharge their load.

charge their load.

Second, The rollers, d, in the lower ends of the rake teeth, E, substantially as and for the purpose specified.

Third, The combination of the bars, D, with the teeth, E, attached, and fitted on the rod, c, the shafts, I, J.I, pars, K.K. and levers, F.F. all arranged on a mounted frame, to operate in the manner substantially as and for the purpose set forth.

[This invention relates to a new and improved means for elevating the Take teeth, so that they may discharge their load, and also in a novel arrangement of the rake teeth, and in the application of rollers to the lower ends of the same, whereby it is believed that a superior horse rake is ob tained, one which may be manipulated with the greatest facility, possess no parts liable to get out of repair, and which will not scratch up the earth and render the hay dusty, as is now the case, especially with th wire tooth rake,1

wire tooth rake.]

54,449.—Device for elevating straw from Thrashing Machines.—Gerret Vedder, Battle Creek, Mich.:

First, I claim the means substantially as herein described and shown, for leveling the straw exerter or stacker of thrashing machines. Second, The combination of the spur wheels, if i, and ratchet wheels, gr, with the adjustable spur wheel k, and the winding drums, d d, separated and independently arranged and operating in conjunction with an sujii stable straw stacker, substantially as described.

54,450.—Cards for Carding Machines.—Enoch Waite, Franklin City, Mass.:
I claim the improved manufacture of wool cards as made with its body or teeth, supporting part composed of layers of paper and cloth arranged and cemented together, substantially as specified.

ranged and cemented together, substantially as specified.

54,451.—Corn Planter.—Elias M. Walker, Gallatin, Mo.:
1 cla m the peculiar manner in which corn planters are constructed as
described in these drawings and specifications.

Second, The manner in which the plow-stock, corn-box and slide are
combined, as described in the drawings and specifications.

Third, The manner in which the treadies are applied, combining the
device of dropping by the foot or by the action of the wheels.

device of dropping by the foot or by the action of the wheels.

54,452.— Machine for Making Horse Shoes.— Washington Wallick, Philadelphia, Pa.:
First, I claim the combination of the lever, G G' H, and the bending and cutting die, m, constructed and operating as described.

Second, The jaws, P and P', and the former, O, for compressing the sides of the shoe, constructed and operating as described.

Third, The creaser and presser, R, in combination with the die, m, the jaws, P and P', and the former, O.

Four th, Themechanism for discharging the shoe, consisting of the lever, G G' H, the pieces, S S' and t, and the reacting spring arranged and operating as described.

54,453.—Gang Plow.—W. M. Watson, Tonica, Ill.: I caum the combination in a gaug plow of the hingedbraces and bolts e e e e e e, or their equivalents, and side seat and support, n, m,K, al arranged substantially as and for the purpose set forth.

54,454.—Rock Drill.—Charles Hunter Webb, San Fran-

54,46.—Rock Drill.—Charles Hunter Webb, San Francisco, Cal.:

I claim the arrangement at an angle of 45 deg. of each end of the back of the cutters or dies, together with the arms or guides thereof, at the same angle of 45 deg. of each edge of the wedge by which the cutters or dies are diven at its points of contact with the cutters or dies and also at the same angle of 45 deg. of the various slots in which the cutters or dies are made to traverse in their propulsion by the blow toward the rock and their recoil therefrom, each separately and the whole collectively for the purpose described, namely the effective delivery of the blow with the least amount of friction.

54,455.—Machine for Finishing the Ends of Pen Handle Tubes.—Samuel Wesson, Worcester, Mas:: I claim the combination and arrangement of the external and internal holders, AB, and the cutter, F, the latter and the internal holder help inovable and provided with mechanism for operating them, substantially as described.

54,456.—Centrifugal Machine for Draining and Cleansing Sugar.—Charles O. West and John Carey, Martinsville, Ohio:

First, We claim making the screen of a centrifugal sugar mill, in the form of a frustum of a hollow cone for the purpose described.

or bed.

Second, The distributing head in combination with the screen of centrifugal sugar mill.

Third, The addistable hopper in combination with the screen of contribugal sugar mill.

Fourth, The induction pipe, K, in combination with a centrifugal ugar mill for cleaning the sugar by steam.

54.457.—Cross Head.—John West, Bethlehem, Pa.: I claim the within described cross head consisting of the portion a, to which the piscon rod is secured, the side pieces, b and b', transverse pieces, c and c', the pin, d, the sliding blocks, B and B', and screw studs, D b, the whole being arranged as and for the purpose heicin set forth.

54,458.-Washing Machine.-Abel C. Whittier, Law-

rence, Mass.:

I claim the combination of the slotted arm, e, spur, H, slot in lever, I, levers, M, rods, N, and spring, o, for the purpose herein set forth and described.

54,459.—Fence.—Eli York, Windsor, Ill.:

I claim the manner herein described of constructing fences, whereby a strong and durable fence may be put up, without any essential preparation of the timber composing the fence, substantially as specified. (The object of this invention is to construct a fence of such ma

terial as is usually found lying around when clearing off timber land, without the necessity of any carpentering or preparation of the material, and at the same time provide a strong and very durable

54,460.—Brick Press.—William Baker and Gaylord Martin, Schenectady, N. Y. assignors to Empire State Machine Company:

First, We claim providing a press box which is attached to a pug mil with a yielding gate, h, which will operate to relieve the press from obstructions, substantially as described.

Second, Constructing the bottom of the press bore of grate bars, g, of a loze ge shape, or of such shape that they will direct the clay, or other substance under pressure in said bore, toward the ends of the mold boxes, substantially as described.

54.461.—Manufacture of Varnish.—Edwin 4,461.—Manufacture of varinsh.—Edwin Bauley (assignor to himself and James Crane), Mount Clare, N. J. Antedated April 16, 1866:
I claim a varnish compound in which creesore or carbolic acid is sed as the solvent of the gum, such as rosin, substantially as set

used as the solvent of the gum, such as rush, substantially as solvent in carbolic acid with lamp black, substantially in and for the purpose specific d.

54,462.—Waterproofing Cork and other Materials.—
David E. Breinig (assignor to himself and A. C. Crondal), New York City:
I claim the use of metallic gum, such as herein described for treating ark, leather or other fabrics, in the manner and for the purpose substantially as set forth.
Also forming the metallic gum on the fabric by first dipping it in the alkaline solution, and afterward in the solution of the proper metallic salt as described.

metalic salt as described.

54,463.—Picture Frame Clamp.—John A. H. Dunne, Boston, Mass., assignorto James E. Rogers, Chelsea, Mass.:

1 claim the combination of the adjustable cross or bars, B C, the sliders, the rope and the windlass, the whole being arranged and applied together, and to a table substantially as and so as to operate as and for the purposes specified.

54,464.—Brush.—Lemuel P. Faught, Foxboro, Mass, assignor to himself and William T. Cook, Boston, Mass.:

assignor to himself and William T. Cook, Boston, Mass.:

I claim the hollow metallic cone or thumble, D, substantially as and for the purpose set forth,

54,465.—Bobbin for Spinning, Etc.—Levi Ferguson, Lowell, Mass., assignor to himself and D. M. Weston, Boston, Mass.:

I claim the arrangement of the sht or slits entirely in the shank or body, and above the head of the bobbin, substantially as desertised.

scribed.

54,466.—Harvester.—B. G. Fitzhugh (assignor to himself, John M. Griffiths and James Brewster), Balthrore, Md.:

I claim so combining locking arms with the wheels of a harvesting machine and wich appliances substantially such as herein described, so that while the driver or conductor is in his seat stand or position, the locking arms shall be held out of action, and when he is thrown from or leaves his seat, stand or position, said locking arms shall be immediately thrown into action, as and for the purpose herein described.

54,467.—Hoisting Apparatus.—Samuel C. Goodsell and Dennis Frisbie (assignors to themselves H. D. Bigelow and David P. Calhoun), New Haven,

COID.:
claim the combination the trip, T, with the two paws,
ven constructed and arranged to operate so that the tw
sact to hoist or lower, substantially as and for the p

specined.

54,468.—Machinery for Making Eyelets.—Edwin E. Marsh (assignor to American Eyelet Company), Providence, R. I.:

First, I claim the use of a plunger, I, having a roughtened surface as described is combination with the die in which the eyelet is formed, for the purposes specified.

Second, The use of a plunger capable of lateral contraction and expansion in combination with the die within which the eyelet is formed substantially as described for the purpose specified.

54,469.—Combined Steam and Water Motor.—Frank Millward (assignor to himself and Thomas H. Foulds), Cincinnati, Ohio:
First, I claim a reaction water wheel or turbine whose rec iving end is provided with a nozzle for the discharge into said wheel of steam, substantially as and for the purpose set forth.

Second, In the described combination with the reaction wheel or turbine, A b b', I claim the injector, D c, substantially as set forth and for the purpose specified.

Third, I claim the tank, B, and supply pipe, C c, in the described combination with the nijector, D c, and wheel, A b b', as set forth and for the purpose specified.

54,470.—Cupola Furnace.—Charles Truesdale (assignor to himself and Wm. Resor & Co.), Cincinnati, Ohio: First, I claim the provision in a cupola or melting furnace of one or more vertical series of tweers with graduated or decreasing v netages toward upper portion of the series, substantially as set forth. Second, The arrangement of one or more vertical series of tweers which project beyond the common or general lining wal, and are protected by vertical pilers, substantially as set forth.

54,471.—Wrench.—C. C. Webber (assignor to himself, and Warren M. Smith), Springfield, Mass.:
I claim the combination of the jaw, B. bar, A. screw rod, E. E., handle, c, and nut, b, and head, F. substantially as specified.
54,472.—Blacking Brush.—Nathaniel G. Whitmore (assignor to himself and Edward L. Day), Mansfield, Mass.:

I claim a blacking brush, A, provided with a sliding drawer, a, ubstantially as and for the purposes set forth.

substantially as and for the purposes set form.

54,473.—Mop.—Moses H. Wiley (assignor to himself C. J. Cob and J. Ames), Bucksport, Maine:
I claim the arrangement and application of the mop and the two levers and one or more squeeze rollers, the whole being applied together so as to operate substantially as specified.
I also claim the arrangement of the mop, and the two levers as described.

54,474.—Rudder.—J. McGrigor Croft, London, Eng.: I claim the application or from of diagonal curved or obbiblades torudders, substantially in the manner and for the purphabor discribe.

above d. scribe:

54.475.—Refrigerator.—Charles Flack, Middlesex County, England:

First, I claim the combination as well as the arrangement of the cooling chamber, a, the chamber, c, for holding ice, the waste water receptacle, e, and the pipe or conduit, f, connecting the chambers, c and e, asset jorth.

Second, I also claim the combination as well as the arrangement of the vessel, d (for holding water or a liquid), and its eduction pipe, d, with the ice chamber, C, and the cooking chamber, a, as explained.

p.p., d, with the ice chamber, c, and the coording states, plained.

Third, I also claim the combination as well as the arrangement of the vessel, d (for holding water as a liquid), and its eduction pipe d, with the ice chamber, c, and the cooling chamber, a and the waste water chamber, e, the whole whole being sub tantially as set forth and represented.

Fillers for Cigars,—G. Al-

waste water chamber, e. the whole whole being sub tantally as set forth and represented.

54,476.—Machine for making Fillers for Cigars.—G. Albert Reiniger, Stuttgart, Kingdom of Wurtemberg:
First, I claim placing the journal boxes of the driving shall above the endless aprons, E. F. inseed of below as heretofore, substantially as and for the purpose specifies, with arms, e' f' h, in combination with the cam, b', and the driving shaft and with the rock shaft, e', and the jaws of the receiving apparatus constructed and operating substantials as and for the purpose set form.

Third, The lantern, p. in combination with the eccentric, h, outher driving shaft and with the receiving apparatus, K, and endless aprons, E F, constructed and operating substantially as and for the, H, in combination with the lantern, p. and receiving apparatus. K, constructed and operating substantially as and for the pripose set form.

forth. The gate, r, in combination with the endless aprons, E. F, knife, g, and receiving apparatus, K, constructed and operating substantially as and for the purpose specified.

54,477.—Composition for Fuel.—Francis Stoker, Lyons,

54,471.—Composition for rues.—France:
France:
I claim the exclusive use, First, of the combustable substance or fuel, to whatever purpose it may be applied.
Second. Of the foot warmer, smoothing iron, stir-up apparatus and soldering iron, the whole substantially as herein before described, and illustrated on the accompanying drawings.

54,478.—Switch for Replacing Cars upon Tracks.—Nathan Pullman, New Gregon, Iowa:
First, I claim the shoes, E. attached to the cross bar, F. in combination with the beveled rais, C. on the movable rails, B, all arranged to operate as shown and described.

Second, In combination with the rails, B, I claim the chair, H, and the supplementary rails, D, arranged to operate as and for the purpose set forth.

EXTENSIONS.

8,624.—Construction of Bridges.—Wendal Bollman, Baltimore, Md. Patented Jan. 6, 1852.:

I claim the combination of the tension rods, e, connecting the foot of each strut with each end of the stretcher, substantially as cescribed, by which an independent support is given to the strut carried back directly to the abutment, while at the same time no lateral force or strain is broughtupon the abutment, as berein fully set forth. Ornamental Connection of the Parts of an Iron

8,654.—Ornamental Connection of the Fat to 5. — Fence.—Henry Jenkins, Brooklyn, N. Y. Patented Jan. 13, 1852. Reissue No. 807. Dated Sept. 6, I claim forming the ornament or cast iron connections for a railing fence, or other article of iron cast into adi vided iron mould, substantially as and for the purposes specified.

8,659.—Buckwheat Fan.—Alfred Platt, Waterbury, Conn. Patented Jan. 13, 1852.: I claim the method of separating the hulls from the kennels of buck-

wheat, by shaking them on a table or tables, made slightly concave or rough, substantially as specified, in combination with a current or currents of air blown over the surface of such table or tables, to carry off the hulls, whilst the kernels are retained or held back by the form of the surface of the table or tables, as specified.

8,683.—Ring Spinner,—Martha A. Dodge, Bedford, Mass., Administratrix of the Estate of Geo. H. Dodge, deceased. Patented Jan. 27, 1852:

I claim the combination of the standard or projection, R, with the ring and traveler, substantially in the manner and for the purpose of removing or loosening wastefrom the latter, as specified.

moving or loosening waste from the latter, as specified.

8,720,—Harvester.—B. Densmore, New York City. Patented Feb. 10, 1852. Reissued Jan. 28, 1862:
I claim, First, Hanging the driving wheel in a supplementary frame or its equivalent, which is lunged at one end to the main frame, while is opposite end may be adjusted and secured at various hights, or be left free, as desired, whereby the cutting apparatus may be field at any desired hight for reaping, or be left free to accommodate itself to the unclusations of the ground, for moving, substantially as described.

Second, The employment, in a harvesting machine, of a wheel, provided with a crank and lever, for the purpose of raising and lowering the outer end of the finger-bar, to cut high or low, substantially as described.

8,724. —Grass Harvester. —Louisa R. Ketchum, Buffalo, N. Y., Administratrix of Estate of Wm. F. Ketch-um, deceased. Buffalo, N. Y. Patented Feb. 10, 1852. Reissued Feb. 28, 1854. Re-reissued Jan. 2,

um, deceased. Buffalo, N. Y. Patented Feb. 10, 1852. Iteissued Feb. 28, 1851. Re-reissued Jan. 2, 1857.

I claim, First, Extending the shoe, H. G, from the heel of the rack or finger bar upward and forward, and firmly connecting its continuation with the draught when the finger bar is located as set forth, so that the power by which the machine is drawn, small, through the shoe, be communicated to and draw forward, the heel of the rack or finger bar thus relieving the great strain which would otherwise come upon the lateral connections of the rack or finger bar with the wheel frame, while the heel is enabled to slide over obstructions, substantially as shown.

Second, When the main wheel and inner end of the finger bar or rack, D, are located, relatively as described. I caim continuing the shoe, H. G, from the heel of the rack or finger bar upward and f rward, until the upper end of its extension reaches a part of the machine which always runs above the mown grass, and which will keep the said grass down and prevent its rising over the point of the extended shoe, thus adding the shoe to ride over the mown grass, even when accumulated before it, substantially as shown.

Third, Supporting the heel of the rack or finger bar sufficiently near the ground, and at a convenient distancelatterly from the main wheelby arms extending upwards and forwards, and upwards and backwards therefrom, and connected with the frame or strong bars firmly solited across the frame in front and rear of the said rack or finger-bar, while the said frame and bars are elevated to piss over the cut grass, and the above parts are arranteed, substant ally asshown.

Fourth, Supporting the rack or finger bar at the side of and lower than the main frame by means of auxiliary framing in a fixed position at the side thereof, and extending downwards and forwards, so that while the linger bar is held as near the ground as desired, and forward, so that while the linger bar is held as near the ground as desired, and forward as one of the parts of the sa

ging of the cut grass against such rod, as set forth.

8,769.—Drying Grain.—Henry G. Bulkley, Kalamazoo.
Mich. Patented March 2, 1852. Reissued June 27,
1854:
I clam the method of seasoning or kin-drying substances, by using
steam in a vessel, which has an opening communicating with the atmosthere to limit the pressure for the purpose of transmitting caloric to the
substances to be seasoned or kin dried, or the vessel or vessels containing them, substantially as specified

8,756.—Manufacture of Zinc White.—Martha M. Jones,
Staten Island, N. Y., Administratrix of Estate of
Samuel T. Jones, deceased. Patented Feb. 24,
1852.:
I claim the use of a porous of Shrougher seasoned.

1852.:

I claim the use of a porous or fibrous bag or receiving chamber, with porous sides or bottom, or an an-light chamber with a straining or porous bag adapted to the inset ehereof, and used in connection either with a blowing or exhausting apparatus, so that the products of the distillation and oxygenation of zinc or other volatile metals may be separated from the accompanying air and gases, which latter will be forced, or otherwise drawn through the pores of the cloth bag or chamber, and escape into the atmosphere.

escape into the atmosphere.

8,778.—Machines for Printing Floor Cloth.—Simeon Savage, Pomfret, N. Y. Patented March 2, 1852.:

I claim the arrangement of the printing mechanism, the stamping down mechanism and the mechanism for advancing the piece or strip of cloth, or of material to be printed and pressed, or stamped, such arrangement being as exhibited in the drawings, and as above described. And I also claim the combination of the lip, bar or plate, y, the series of bent levers, a'a, etc., the slide bar, R' or S, and the bar c', as made and operated, substantially in manner and for the purpose of seizing the selvedge edge of the cloth, and moving the piece, as described. And I also claim the combination of mechanism for operating the closing carriage, or imparting to it its back and forth movements and necessary intervals of rest, the said combination consisting of the rotary shaft, 0, with its circular disks, Q' R, and their prejections, i k, the four book bars, ii p, p, together with the vibrating bars, n, o, as applied together, and operated substantially as specified.

gether, and operated substantially as specified.

8,789.—Canal Lock Gate.—Charles Neer, Brooklyn, E. D., N. Y. Patented March 9, 1852:
I claim, First, The opening of the lower gates of a canal or river lock, outwards or down stream, in combination with the means described, or their equivalent for operating them, for the double purpose of saving lengthin the lock chamber with the same walls, and for allowing the gates to be opened before the chamber is entirely empty, so that the ecaping water may carry out with it the boat, raft, or other thing being passed through, with the least possible delay.

Second, I claim the standing gate at the head of the lock which forms with the breast wall of the lock, with the top of which it is level, at any desired hight above the bottom of the lock, and thus save length of lock wall,

Third, I claim, in combination with the stationary gate, the sinking head gate, extending across the lock, and reaching down a little below the top of the stationary gate when the gate is shut, and which sluks or a level therewith when open, for passing boats, etc., for the purpose of svining in the length of the lock chamber, an amount nearly equal to the width of the gate.

Fourth, I claim the so placing of an adjustable batten or water strip

slides intone recession and a period by the purpose of swing in the length of the lock chamber, an amount nearly equal to the width of the gate.

Fourth, I claim the so placing of an adjustable batten or water strep on the bottom of a lock as that it may be operated upon by the pressure of the water within the lock chamber, and be forced up against the gate when prevented from being closed tight, by an intervening substance, substantially in the manner herein set forth and described.

8,810.—Pattern Card for Jacquard Looms.—Samuel F. Thomas, Laconia, N. H., and Eliza A. Adams. Town send, Mass., Administratrix of Estate of Edward Everett, deceased. Patented March 16, 1852:

We elaim the combination of the buttons with the metallic card, as d'scribed, the buttons being so riveted or attached to the card as to allow of their being trued for the purpose of closing or opening the holes, to which they are respectively attached.

to when they are respectively attached.

8,848.—Smoot bing Iron.—Nicholas Taliaferro, Augusta and William D. Cummings, Marysville. Ky. Patented March 30, 1852.:

We claim the application (substantially as described) to a self heating smoothing iron, of a tube or chamber, j, at the bottom of the fire box, provided with a registered month or inlet, i, some distance above the bottom, and at his lower portion with distributing apertures, k, com-

municating with the fire, whereby the draft is applied from beneath an equally at every part, and placed under the control of the operator without permitting the escape of ashes, or other refuse of combustion. 8.—Cracker Machine.—John McCollum, New York City. Patented March 23, 1852. Reissued May 31, 1859: 8,828.

1859:
I claim the combination of adjustable springs with a cracker catter and is resisting surface or bed, substantially as herein before described and substantially for the purposes herein before set forth.

8,832.—Air-Heating Stove.—J. M. Thatcher, New York City. Patented March 23, 1852. Reissued Sept. 11, 1855:

I claim making the bottom plates of the flue spaces of air-heating furnaces or stoves, for the passage of the products of combustion outward or inward, mongor around the air passages, inclining inwards and downwards toward the fire chamber, substantially as described, for the purpose of facilitating the increase of the heating surface, without the inconvenience of the accumulation of ashes, soot, and other solid matter, in such plates, as set forth.

And I also claim the combination of the inverted domes or frustums. FIM, and plate, P, with the short tubes, b b f f ill, connecting them, substantially in the manner herein described, for the purpose of effecting the connection between the lower ends of the fire or draft flues, and carrying the air through them to the spaces between the cylinders or tubes.

rying the air through them to the spaces between the cylinders or tubes, 3,861.—Smut Mill and Grain Separator.—Daniel Shaw, Elkhart, Ind. Patented April 6, 1852. Reissued Nov. 3, 1863:

I claim the offset, that is to say enlarging the space of the hollow trunk on the opposite side thereof from that at which the grain is admitted, incombination with the screen, e. spout, f. and the passage and valve g, for taking the dust, etc., into the fan case, whereby the cheat and light grain, which will pass up the spout with the impurities, is effectually separated and delivered through the spout, f., substantially as herein fully set forth.

8,851.—Moth Trap to Beehives.—E. W. Phelps, Elizabeth, N. J. Patented April 6, 1852:
I claim the peculiar construction of the moth trap, as herein described, composed of a slide having the center groove and two side grooves, and the metallichinged cover, arranged, all as set forth in the specification.

8,888.—Capping of Screws.—Charles T. Grilley, New Haven, Conn. Patented April 20, 1852:
I claim the attachment of a brass, copper, or other suitable metallic can to, and its combination with, an iron-wood screw, substantially in the manner.uc by the process described in the foregoing specification (which I conceive to be the only practicable method in which the same can te usefully effected), whereby, and by means of the successive operations of purching or stamping, the nick is first cut through the shell, and then, after being adjusted to the groove or stoin in the head of the screw the sides thereof are driven down into and made to press closely against the sides of the slot, leaving the bottom of the groove or stot uncovered, so that the cap when closed round the head of the screw, will preserve its hold without liability to be turned or displaced by the screw, driver, which works upon the iron surface at the bottom of the slot, and against the covered sides thereof, thereby furnishing to the public, at a comparatively small cost, a wood screw having all the beauty and finish of a brass, copper, or plated screw, in combination with the greatly superior strength of an iron one. The invention is equally applicable to steel screws, which may be capped in a similar way.

8,881.—Feed Apparatus of Planing Machines.—Joel

8.881.—Feed Apparatus of Planing Machines.—Joel Whitney, Winchester, Mass. Patented April 13,

1852:
I claim the arrangement by which the upper feed roll is allowed to yield to any inequalities in the board, and at the same time draw down upon the surface to which it has yielded, in proportion to the resistance to the cutting tools; that is, connecting the fixed shaft with the vertical sliding hearings of the superfeed roll, by means of the swinging, inclined, and vertical arms, m and k, the gears on the fixed shaft operating the lower feed roll, and also playing into the gears which move the upper feed roll, as also playing into the gears which move the upper feed roll, said latter gears having their bearings in the intersection or joint of the suid arms, the arrangement being substantally as herein above set forth.

REISSUES.

4.— Cartridge Extractor for Fire-arms. — Henry Reynolds, Springfield, Mass. Patented Nov. 22, 1864:

First, I claim a cartridge shell ejector, consisting of a lever attached to the frame of the fire-arm, and so constructed and arranged that by a suitable movement, a portion of it is made to enter an one inigning the chamber or chambers between the breech or rear end thereof, and the bott m of the cartridge shell, substantially as and for the purpose herein described.

Second, So beveling the bottom of the chamber of the fire-arm as to provide for the entrance of the lever between it and the rear end of the cartridge shell, substantially as herein described.

2,235.—Self-loading Fire-arm.—Spencer Repeating Rifle Company (assignees by Mesne assignments, of C. M. Spencer), Boston, Mass. Patented March 6 1860: 6. 1860:

6, 1860:
First, I claim the combination of the rolling breech, E, the lever, Q, and sliding locking bolt, F, the whole fitted and applied substantially as herein set torth.
Second, The slide, H, applied to the rolling breech, and operating in combination with the hammer, substantially as described.
Third, The rolling breech, E, constructed as described, to operate as a carrier block, to receive the cartridge from the magazine and decosit it in the chamber in the end of the barrel, and also to cut off all communication between the chamber and magazine when the piece is loaded.
Fourth, The serrated projection, u, constructed, arranged, and operating as described.

Fifth, The tongue, J, constructed, arranged, and operating as described.

scribed.

2,236.—Breech-loading Fire-arm.—Rollin White. Lowell, Mass. Patented April 3, 1855:

First, I claim the movable breech connecting with, and operating ith the tumbler and hammer, and on the same tulcrum pin, substantially as herein described.

Second, The plate applied, substantially as described, to serve as a guide to conduct the cartridge into the open chamber, and as a guard to prevent the cartridge ialling out at the rear of the chamber before the breech is liberated, as herein set forth.

Third, I claim making an aperture into the chamber, and constructing the hammer, or its equivalent so that it, will sgride the chargeby striking the cartridge in front of the rear end thereof, substantially as and for the purpose specified,

DESIGNS.

.—Frame of a Sewing and Embroidering Machine. Joseph W. Bartlett, New York City.

6.—Picture Frame.—John H. Bellamy, Charlestown, Mass., assignor to self, Syrus W. Stout, Boston, and Benj. Brown, Somerville, Mass.

2,297.—Weather Boarding.—Jolin H. Clark and John Rhinesmith, Fort Wayne, Ind.

2,298.—Trade Mark.—Franklin O. Day and William S. Stewart, St. Louis, Mo.

2,299.—Trade Mark.—Franklin O. Day and William S. Stewart, St. Louis, Mo.

2,300.—Trade Mark.—Franklin O. Day and William S. Stewart, St. Louis, Mo. 2,301.—Hand Stamp.—H. H. Grosskoff, Philadelphia Pa.

2,302.—Cook's Range.—Jno. Martin, Jacob Beesley, and John Currie (assignors to J. S. Clark), Philadel

phia, Pa. 2,303.—Railing.—John McArthur, Philadelphia, Pa. 2,304.—Tobacco Pipe.—Louis Saarback, Philadelphia, Pa.

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 asfeefor copying. We can also furnish a sketch of any patented machine to accompany the claim, at a reasonable additional cost.

MUNN & CO., Patent Solicitors, No. 37 Park Row, New York. nal cost. Address

NEW RATES OF ADVERTISING.

FORTY CENTS per line for each and every insertion, pay able in advance. To enable all to understand how to calculate the amountthey must send when they wish advertisements published we will explain that eight words average one line. Engravings wil l not be admitted into our advertising columns, except on payment of one dollar a line each insertion, and, as heretofore, the publishers reserve to themselves the right to reject any advertisement they may

TEAM POWER TO RENT.—SIX LARGE FLOORS.
with Seventy-Five Horse-power, to let for kery Monufolduring Bis MODDLE BROOK, 1*

Corner 27th street and 1st Avenue, New York.

CHANCE FOR MANUFACTURERS.—
FOOTE'S PATE T CONVERTIBLE FENCE.
A NEAT PORTABLE BOARD FENCE—convertible at pleasure into rainproof SHELTERS, SHEEF SHEDS, HAY CAPS. CATTLE BARRACKS,
IMARKS, CABINS, etc., braced to withstand bigh winds. Half-interest
or entire Patent for sale. Call, or send for circular.

H. C. FOOTE. No. 15, Laight street, New York.

WANTED TO PURCHASE-WANTED TO PURCHASE—
FROM 1 TO 29 HOISTING MACHINE 3,
That will host from 500 to 1500 lbs., and ill hoist from 1 to 5 feet
and raise or lower at the will of the operator.
They must be simple and cheap, as they are to be used on a con
tinuous line of Shafting. Adoress
202*
Chicago, Til.

PLANS AND SPECIFICATIONS
Prepared for Marine Bern

PLANS AND SPECIFICATIONS

Prepared for Marine, Railway, and Manufacturing Machinery, of every description.

STEAM VESSELS AND MACHINERY, SPEAM ENGINES, NEW AND SECOND-HAND,
Bought and sold on Commisson.

HOISTING ENGINES, STEAM FIRE ENGINES, STEAM, POWER, AND HAND PUMPS, SHAPTING, HANGERS, AND PULLEYS Gliffard's Injectors, Steam and Vacuum Gages, Elect Pressure Cages, Sewall's Sa lnome-ers, Reliance Damper Regulators, Water Gares, Hydraulic Jacks, Diunfel's Patent Fan Blower. Roeelings Patent Wire ROPE for Sale.

204

171 Broadway, New York.

ROPE for sate.

204

ROPERS FOR CULTIVATOR TEETH,
(SCREW TOP OR WEDGE),
Filled on receipt of orders. Double and Single Shovels, Plow Molds
of all sizes always on hand, and can make any desired shape of form
on short nonce. Steel of all descriptions for agricultural purposes
imade to order.

WE CAN RECEIVE A FEW MORE APPLICATIONS FOR AGENCIES FOR OUR
CELEBRATED

"HARPOON" HORSE HAY-FORK
having the best recommendation of any Hay elevator in the world
For full particulars send for circulars. Adjress

D. B. ROGEBS & SONS,
Putsburgh, Pa.

PROFESSOR H. DUSSAUCE, CHEMIST,

A. Can be seen, before his departure for Europe, between the 8th and 18th, at 98 John street, or the office of the Journal of Applied Chem istry, 17 Spruce street, New York City.

Fabrication of Vinegar.

Professor H. Dussauce Chemist, is ready to furnish processes to manufacture Vinegar by the guick process, with and without alcohol, directly from grain, For furnice information, address 98 John street, New York City.

STATE RIGHTS

of Chappell's Patent Toilet Glass, for sale. "One of themost ingenious inventions of the age; is a complete arrangement. designed for examining the sides and back part of the head, back, and shoulders, and is a raitcularly for the use of ladies while making their toilets. It consists of an adjustable mirror, so arranged as to make the compound reflection complete, thus obviating the necessity of having aid in dressing, etc."—From the Highland Democrat. Addressing aid in dressing, etc."—From the Highland Democrat. Addressing 204*

TO WHOM IT MAY CONCERN.

TO WHOM IT MAY CONCERN.

All parties interested in the sale, or manufacture, of a so-called "Auxiliary Jaw," to be used in combination with ordinary wrenches, and which is claimed to be invented by T. C. Page of Rochester, N. Y., are hereby notated to design from such sale or manufacture, the united States, to William Webster of Morrisania, N. Y., Fabruary 9th, 1864, for an "Improvement in Wrenches," and under which patent the undersigned are now and have for some time been manufacturing.

Sole owners and patentees of "WEBSTER'S PATENT ORDINARY WRENCH" for screwing-up and cutting-off pipes, rods, etc.

No. 17 Dey street,

New York,

20 4

SALE OF PUBLIC PROPERTY.

OFFICE OF ARMY CLOTHING AND EQUIPAGE,
NEW YORK, May 5th, 1866.

WILL BE SOLD AT PUBLIC AUCTION AT DEPOT
of Army Clothing and Equipage, corner Laight and Washington streets, New York city, on TUESDAY, the 15th day of May next,
commencing at 10 o'clock A M., certain 'quantities of non-regulation and condemned Clothing and Equipage, consisting of say
about

about Uniform Costs,
9.000 Uniform Jackets,
7.500 Great Costs,
600 Trousers,
500 Caps,
130 Shoe;
4,000 Stockings,

4,000 Stocaings, 201 Gaiters, 3,000 Leggings, 6,000 Knit Blouses, 600 Flannel Frocks Coats, 1,000 Bankets, Woolen, 60 Bankets, Rubber, 40,000 lbs. Haapital Tents and Files,

7.500 Knapsack, Consist.

7.500 Knapsack, Shoo Haversacks, Shoo Canteens, 1,400 Leather Stocks, 20 Drawers, 100 Shirts, 500 Bedsacks, 400 Mittens, 250 Cap Covers, 20 Pickaxes, 270 Mess Pans, 100 Camp Kettles, 60 Spades, 30.000 lbs. Common To

and Flies, 30,000 lbs. Shelter Tents, etc. 30,000 lbs. Wall Tents and Flies. and various small articles of clothing and equipage. Samples of the above articles can be seen at the depot, and further information obtained.

Terms cash in government funds. Ten per cent down, and the halance before the goods are taken from the depot, which must be within three days of sale, under forfielding of the goods and ten per

Brig.-en. D. H. VINTON, D. Q. M. General U. S. A.