
issued from the united states patent office toi the wzems endina jone 19, 1860.
[Reported Officially for the Solentifio Anerean.]
$\because *$ Pamphlets giving fill particulars of the mode of applying for


28,723 --Harry Abbott, of North Huron, N. Y., for an Improved Churn:

 28,724.
24.-Wm H. Allen, of Brooklyn, N. Y., for an
Improved Steam Pressure Gage: Improved Sream Pressure Gage:

 and described. in claon claimo the arrangement and combination of the capp, H H,
 .
[This invention consets in a certain arrangement of a spring and a box in which it is isolated in combination with two pistons working
in parallel cylindere, nnd having their rods connected with a croes in parallel cylinders, nnd having their rods connected with a crose
hend $t w$ which is attached an index working againet a fixed graduated scale, the whole constituting a simple, durable and effective pressure gage for indicating the pressure of steam in boilera, or of water in pipes or vessels, or of fuids in various conditions.]
28,725.-Edward Andrews and John H. Carr, of Palo
Alto, Pa., for an Improvement in Lubricating Journals:
We clamin, frsti, The pad, E , and apring, D , when used for the pur-
pose
 28, 726.-David Baker, of Harwich, Mass., for an Improved Spout and Lid of Pitchers:

28, 727.-Samuel Barley and J. H. Barley, of Longwood, Mo., for an Improvement in Harvesters:


 revolve, shown mind deacribed.
[This invention consists in a novel arrangement of parts, whereby ,
28,728.-Henry Barringer, of Wataga, Ill., for an Improvement in Upsetting Tires:
I claim the combination of the movable segnent clamping lever, $D$,
rocking pie ee, $F$, block, $G$, and clamping portion, $H$, when arkanged
in a manner to produce the result set forth.
[This invention consists in pivoting the lower clamping lever that Ia to be operated by treadles to a sector plate that moves in suitable cuides in the frame-work of the machine, and in attaching one end of the bearing or clamping block to this plate in such a manner as to move with it, and in arranging in a sliding block in such a relation to the clamping movable block, plate and lever that the machine mas be adapted to tires of any width or diameter with great facility. The clamping devicesare constructed in such a way that thes may be rigidly fixed in any desirable position to which they may be adjusted.]
28,729.-Lafayette Bartoo, of East Aurora, N. Y., for an Improved Sash-fastener:
I claim the spring stops, $C$ and $C^{\prime}$, having the catches, $f$ and $h$, for
the combined purposes as specified.
28,730.-C. F. Baxter, of Boston, Mass., for an Improvement in Furnaces
I claim, firse. The combination of a double cylinder steang generat-
ing fire pot. with pipes, E E, substantially as described and for the pu poses set forth.
Italso claim the arrangementof the steam-generating, fire-pot, F, to
stand apart from, but within the inner wall. J, of the hot-air chamber, $\mathbf{H}$, , othat the exterior surface of the fire-pot, will be constantly I also clalm the arrangement of the oren, G, dirfctiy abova the
fire-pot, $F$, but within theinner wall, $J$, of the hot-air chamber, $H$, as shown
28, 731.-S. A. Beers, of Brooklyn, N. Y., for an Improvement in Iron Rails for Strect Railroads:
I claim the construction and use of a box or eoping rail for street rail roadd of such width as a accommodate a car and carriage track,
in combination and of such depth as eo give gtrength to the rail,
whether the same is laid with or without a continuous string piece, constrncted substantially es described.
In aleo claim the wed geand cleats, for the purpose set forth in the accompanying epecification.
28, 732.-Albert Bigelow, of Hamilton, C. W., for an Improvement in Steam Plows:

diư, frame $Q R$ wheele, $F$, trandererse shaf, $O$, and longitudina
shaft, $A$, substantially in the manner and for the purpose described
 purposes set fortb.
28,733.-S. F. Brooks, of Weston, Mass., for a Gamebox:

## with the specified.

[This invention consists in constructing a flat-box with a neat rame round its edge, and a glass top; and in furmishing such a box with a drawer, di rided into a number of apartmente forreceivingt a pieces to be ased us playing at cards, dominoes, checkers, \&r. The box isprovided with game boards covered on one side with pictures, which, on beang placed within the frame and the frame hung up, will give the box the appearance of a pictnre frame.]
28,734.-J. M. Carlisle, of Greenwood, S. C., for an
Improved Machine for Sawing Shingles from the Bolt:
I claim the employment oruse of the two saws H I, having respectively oblique and parallel cuuting planes relatively with the end of
the bolt, O, iu connectiou with a rectilinear feed movement of the
bolt, all being arranged and oper bolt, all being arranged and operated subsiantially as and for the
purpose set forth. 27,735.-C. B. Carpenter, of North Attleboro', Mass
for an Improvement in Watch Chains
I claim my improved mannfacture ofjeweler's chain, as construc
ed with each link naving two armm, a a, woo secles, b b, and $a$ con ed
nection, $c, ~ a r r a n g e d ~ a n d ~ a p p l i e d ~ t o ~ a ~ s u c c e e d i n g ~ l i n k, ~ a s ~ d e s c r i b e d . ~$
28, 736. -James Chesley, of Concord, N. H., for an Im
proved Boot and Shoe-cleaning Apparatus:
I claim the arrangement of the frame A. the brishee, $B$ and $C$
and $E$, the scraper, $D$, the spaces, a, and the draw, $H$, substantiall as and for the purpose, specififed.
28,737.-C. W. Clewley, of Providence, R. I., for
Method of Constructing Rims for Watches
I claim the use of $\boldsymbol{a}$ combined die and cutter, $D$, and a plunger, $A$, burposes specified.
28,738. - Cornelius Collins, of Brooklyn, N. Y., for an
Improvement in Machinery for Making Wire Rope: I claim the combination of the etandard, B. fixed crank, $C$, difks,
$D$ and $E$, cranks, $F$, and reele, ${ }^{2}$, the whole being arranged and operIning in the manner and for the purposes set forth.
28,739.-E. M. Corbett, of New York City, for an Improvement in Photographic Cameras
I claim, first, The combination with the plate-holder, $G$, of the as nnd for the purpose set forth.
second, Arranping the main slides, $d x$, of the slide, $D$, with cen-
tral rails, $f=$, substantially in the manner and for the purpoee described.
Third,
lenses,,

The arrangement und combination of the double adiustable structed and operating substantially in the manner and for the purstructed and o
pose set forth.
28,740.-C. W. Crosley, of New York City, for an Improved Fire-escape
I claim the application to large canvas tubes of metallic and indiarubber bands, which will gradully atretch at a given pressure, and ing withoit the slightest injury, as described, using for that purpose the metalicic and india-rubber ring or band, or any oth
the same, and which will produce the intended effect.

28,741.-C. A. Desobry, of Plaquemine, La., for an Improvement in Bagasse Furnaces:
I claim the arrangement of the outlet, $\mathbf{B}$, and the openings, f f ${ }^{\prime}$, in
combination with each other and with the equare or poly
chamal fire-
28,742. -William Dougherty, of Philadelphia, Pa., for an Improvement in Machines for Grinding Saws: I claim the block, $G$, with its inclined sides, in combination with,
and arranged in respect to, the two revolving grindetones, E and E when a vertical as well as horizontal reciprocating motion is imparted
to the said block, $G$, by the devices set forth, or their equivalenta. 28,743.-J. B. Duff and T. W. Keating, of New York

City, for an Improvement in Machines for Measuring the Strain on Pulley Belts:
We claim the uniting the ends of the belt by an elaatic material placed on a clasp or fixture constructed with armanattached to the
belt and indicator and scale, in the manner and for the purposes de-

28,744.-A. K. Eaton, of New York City, for an Improvement in the Treatment of India-rubber:
I claim the combination of oxyd of aluminum with sulphur and
caoutchouc or allied gums, and the treatment of the compound in the manner substantia
28,745. -William Fuzzard, of Charlestown, Mass., for
an Improvement in Surfacing Fibrous Materials: laim the employment or use, in connection with Materials: face, of an apron formed of any textile or other similar or suitable tacing compound or material.
[This invention relates to an improvement in "sizing," or applying a glue or adhesive compound or substance to the surfaces of technically termed "surfacing."
28,746. - Joseph Geiermann, of Albany, N. Y., for an Improvement in Sewing Machines:
I claim the combination of two shuttles and one neefle, operating
together so as to form with three threads a stitch, substantially as described and in the manner speci fied.
28, 747.-E. P. Gleason, of Providence, R. I., for an Improved Die-plate for Cutting Screws:
I claim combining with such die-plates the guiding jawp 1111 , a
their equivalent, in the manner and for the purpose specified.
28,748 - Wm. D. Grimshaw, of Newark, N. J., for an Improved Hot-air Engine
I claim the employment of the solld metallic packing, I, in the
 and reman in a flased state neatin the heat in of the air or steam by b inging it in con-
Inct with the fused metallic packing, $I$, substantially as and for the tnct with the fused metalic packing, $I$, substantially as and for the
purpose shown and described.
I also claim the covering of the fire chamber, $C$, with the metallic
 scribed.
I alao claign the introduction of air or steam between the surface of
the fuaible packing $I$ and the interior of the piston, $F$, substantially as and for the purpose shown and described.
28,749.-E. J. Hale, of Foxcroft, Maine, for an Im provement in Lamps:



28,750.-J. P. Hayes, of Philadelphia, Pa., for an Improvement in Making Plumbers' Joints:
claim a mold or case provided with a secondary chamber, f, to I claim a mold or case provided with a secondary chamber, f, to
operate substantially in the manner and for the purposeset forth and
described. described.
1alios claim, in combination with a mold or cose adapted for mak-
ing phumbers' joints in pipes by the procees of melting the ends of the said pipere, as described, the emplosment of a tubular protector,
, as and for the purpose specified.
28,751.-Wm. A. Herrick, of Leeds, Maine, for an Improvement in Coupling and Uncoupling Cars: I claim the combination and arrangement of the leverac c c and a
e , constructed and operating substantially as described in the speciP constru
fication.
28,752.-C. W. Higgins, of Somerville, Mass., and A. S. Willard, of Charlestown, Mass., for an Improved Clothes-wringer:
We claim the arrangement and combination of the sliding shaft of
pinion, $D$, with pinion, $E$, for operating the bag, $B_{1}$ substantially in pinion, $D$, withpinion, E, for operating th
the manner and for the purpose set forth.
28,753.-C. J. Hobe, of New York City, for a Machine for Bundling Fire-wood:
I elaim, frst, The employment of a rectprocating knife, $\mathbf{C}$, more
or less curved, in combination with the relatively-shaped hollow botor less curved, in combination with the relatively-shaped hollow bot-
tom of the hopper, B , both operating together, for the purpose of tom of the hopper, B, both operating together, for the purpoes of
patheringe cutting-off, and thus forming conjointly between fhem a
bundle of wood or the size and shape required ; the whole substangathering, Mitting
bundle ot wood of th
tially as deacribed.
tially as dearcribed.
second, The employment of the conical or tapering hole, f, sub-
tantially as described, as a simple means for effectually compress. ing within it the aforesaid loosely-gathered bundle, and to frmly hold it while receiving the cord,
Third The combination of snid hole, f, and the plunger, E, for
forcing the bundles into and through said hole, arranged and operaforcing the bundles into and through said hole, arranged and opera-
ting eabstantially a a deacribed.
Furth The method of arranging the cord, $h$, on an adjustable
sleeve, $G$, and fixed drum, $H^{\prime}$, or their equivalents, subatantially as Fourth, The method of arranging the corda, $h$, on an adjustable
aleeve. $G$, and fixed drum, $H^{\top}$, or their equiralent, subatantially as
described, enabling the operator to quickly adjust a large number of described, evabling the operator to quickly adjust a large number of
cords at time, and to have them hithad in such convenient pooi-
tion so that taid cords can be readily passed, one after another, on
to the cord-carrier, H, when required. the cord-carrier, $\mathbf{H}$, when required. paseat, one
Fithe The arrangeme of the reciprocating tubular cord-carrie
H, and the combination of the anme and the fingera Fifth, The arrangement of the reciprocating tubular cord-carriter,
H, and the combination of the anme and the fingera, 1 , constructed
and operating subetantially as and for the purpose set forth. and operating subetantially as and for the purpose set forth.
Sixth, The arrangement of the doubly -fanged bundle-remover,
$K^{\prime}$ attached to a vibrating arin, $K$, or its equivalent, when operating K', attached to a vibrating arin, $K$, or its equivalent, when operating
as and for the purpose specified.
Seventh, The arrangement and combination of the knife, $C$. nor.
per, $B$, hole, finger, E , duum, $\mathrm{H}^{\prime}$, and Eleeve, $G$, cord-carrier, H , finger, $I$, and bundle-remover, $K$ ', constructed and operating sub,
stontialy in the manner and for the purpose specified.
[This invention consists in a certain arrangement of parts for forming the bundles, for retainlng them ready to receive the cords, and for carrying the cordsand bringing the same over the bundles in such a manner that the pieces of wood which are fed into the machine are thrown out in bundles of the required size.]
28,754.-H. S. Holmes, of Lynn, Mass., for an Improvement in Congress Boots:
I claim securing the edges of the gores to the gaiter tops asd lining
by a seam common to all, in the manner and for the purpose substan. by a seam common
tiaily as set forti.
28,755.-J. N. Jacobs, of Worcester, Mass., for a Portfolio Newspaper File:
I claim the combination with the two boards when attached to-
gethe: by a back, $\mathbf{B}$, as set forth, of the cords, $\mathbf{D}$, attached to the
 justing, book-e haped portficio, substantiaily as set forth
28,756.-Jabcz Jenkins, of Philadelphia, Pa., for a Composition for Lining Safes:
I elaim the employment of copperas or sulphate of iron, mixed
with plaster-of -paris or some other sultable material, in the manner with plaster-of-paris or some other
described, fortbe purpose set forth.
[This invention consists in the employment of powdered copperas or sulphate of iron, either alone or mixed with plaster-of-paris or some other suitable material, for the purpose of lining fireproof
safes.] safes.]
28,757.-S. A. Kerr, of Arbor Hill, Va., for an Imclaim the manner described and shown of arranging the blades or slats, $a$ a, on a vibrating or turning dasher-stan, for the purpose
set forth. 28,758. - Rufus Lapham, of New York City, for an Improvement in Blowers:
I claim the application of an india-rubber or flexible tabe, closed at both ends elliptically and held and operated upon by plates and a
lever, substantially as and for the purposes set forth.
28,759.-T. R. Markillie, of Winchester, Ill., for an Improvement in Plows:
I claim the arrangement of the plow or plows as connected to tbe
truck, in combination with the lexers, $G$ and $L$; the whole being constructed and operated in the manner and for the purposes de-
scribed.
28,760.-J. P. McLean and P. A. Morley, of New York City, assignors to P. A. Morley aforesaid, for an Improved Egg-beater:
$b_{b}$ I claim the arrangement and use of corrugated or twisted beatere, the manner and for the purpose set forth, and shown in the drawings
at Figs. 1 and

28,761.-James McGlensey, of Philadelphia, Pa., for an Improvement in Gas-burners:
I claim the arrangement of the cover, D, provided with holes in
the top to spread the flame, with the thbe. B, the jet, A, and the
holes, $C$ C, when used in the manner and for the puryose set forth.
28,762.-R. S. Merrill, of Lynn, Mass., for an Improved Coal Oil Lamp:
I claim the adaptation to the aid wick tube. and arranged in a
plane parallel with, and at a suitable fistance fom, its border, of cne
or more or more flangees constructed subetantianly as described, to operate in
the manner and for the pur poses set forth.
28,763.-F. I. Miller, of Brooklyn, N. Y., for a Cigar Rack for Hats :
I claim, first, The cigar hat-rack, constructed and applied in eub.
stantially the manner described and shown. Second, I claim the claspa, b, constructed and operating as set
forth, when applied to a hat-rack for cigas, for the purposes and as fort, whe
specified.
28,764.-Henry Mitchell, of Cincinnati, Ohio, for an Improvement in Sprinkling Attachment for Rail road Cars:


28,765.-Jacob Moomey, of Clinton, Iowa, for an Improvement in Fenders for Docks, Wharves, \&c.
I claim, first, The employment or use of a frame or fender, $B$,
provided with rollers, $D$, and suspended from a wind lass orotherfixpure at the top of a dock, pier or other atructure, when said frame or
fender is provided with indla-rubber rollers, E, at itsinner side, to operate substantially as and for the purpose set forth
Second, The peculiar manier of sttaching the india-rubber roll-
ers, E, the inner side of the frame or fencer, $\mathbf{B}$, namely, by means
of the springs or elastic staples, $F$, to operate as and for of the springs or elastic staples, $F$, to operate as and for the purpose
set forth. The connecting of the frame orfender, B, to the dock, $A$
Third, The connecting of the frame or.f ender, $B$, to the dock, $A$
by means of the chains, L , and slides, j , substantially as described.
28,766. Wm. A. Morse and D. S. Beans, of Boston, Mass., for an Improved Spring Bed Bottom:
I claim the arrangement of the hooks, $C$, elastics, $D$, and metal
frames,, , as shown, for the purpose of attaching the slats, $E$, to the rails, B, of the bedstead.
. This invention relates to an improvement in that class of spring bed bottoms in which wooden slats are used in combination with elastic attachments. The object of the invention is to obtain a eimple connection of the elastics to the rails of the bedstead, so that the elastics may be easily attached to, and detached from, the rails without injury; the invention also having for its object the permanent attachment of the elastics to the slats, and in such a way as to thereby subject it to an equal strain or tension throughout its entire width.
28,767.-Benjamin Morrison, of Philadelphia, Pa., for an Envelope:
I claim an envelope provided with an opening or openings through
Which the usual potmarkor marks may be imprinted or stamped, as heretofore, directly or exclusiavely upon the letter or document en-
closed therein, aubstantially as set forth and described.
28,768.-Jehiel Munson, of Burlington, Vt., for a Com-
position for Yaste for Attaching the Coverings to Pianoforte Hammers:
I claim, first, ner described, of an adhesive compoeition or paste.
Second, The application of such patie for the purpose of attaching
to the whole face of the felt with which pianforte Second, The application of such paste for the purpose of attaching
to the whole faceof the felt with which pianoforte hammers are
usually covered, the leather by which they are protected from the acusually covered, the
28,769.-H. G C. Paulson, of New York City, for an Improvement in Clarifying Sugar:
I claim the application of a temperature above the boiling point
underatmospheric pressure of said combined liquore, as stated, to raw underatmospheric pressure of said combined liquore, as stated, to raw
sugars or the concentrated juices of sugar-bearing plants, for the purpose of clarifying and defecating said raw sugars.
28,770. -Walter Peck, of Rockford, Ill., for an Improvement in Windmills:
Iclaim, first, The combination of shoe, N, pitman, L, arm, F, spi-
dertye, and spring, e, or its equivalent; thit whole arranged and operating as described, for the purpose set forth.
Second, I claim, in connection with the above.
Second, I claim, in connection with the above-claimed combination
of devices, the employment of an atmospheric governor, S , substan-
28,771.-O. Z. Pelton, of Middletown, Conn., for an Improved Beer Pitcher
I claim a beer pitcher having a movable froth partition, with a
curved top and a lid provided with a packing ring ; all as shown and
described. described.
CThis invention consiste in arranging a beer pitcher with a movsble partition which extends from top to bottom and near to the with the usual strainer near to its bottom to operate in combination from the bottom of the pitcher; said partition being movable, so that it can be taken out and cleaned to prevent souring. The invention aleo consists in the arrangement of a grooze on the edge of the cove to receive some suitable packing, so that the cover closes down per. fectly tight.]
28,772. - Frederic Plant, of New York City, for an Improved Machine for Making Needles:
I claim the com bination of the feeding and groove-stamplng ap-
paratus with the needle-holding tubes, subetantially as and for the
purposes specified.
I also claim the revolving needle tubes for holding the wire and
relieving the same, as described. I also claim the combination of a series of grinding apparatuses,
Fith their adjustable blocks for pointing the needles, and polishing Fith their rajustable blocks for pointing the needles, and polishing
the same with series of needle tubes or holders, as , pecified.
I nal so claim the apparatus for bending the barbs of set forth. I also claim the combination of a series of needle-holders, feed apparatuses, prinding and bending apparatusee, by Which,
needle can be formed 28,773.-H. Poissonniér, of New York City, for a Composition for Silvering Mirrors:
I claim ihe employment of tartrate of potassa, mixed with nitrate
of siver and liquid ammonia about in the proportion specified, for

## ose set forth.

CThe object of this invention is to producea composition which will curial composition, but which, at the same time, enables the manufacturer to produce cheaper and more durable muzors than by the or dinary method of silvering.]
28,774. -William Price, of New York City, for an Improvement in Binding Guides for Sewing Machines: I claim the arrannement of the guide hook, $a$ and bar, $b$, on the
bar, D as described, in ocombination with the hook guide, an wide
mouth, C , and supplementary guide, f; the whole being constructed mouth, C, and supplementary guide, f; the whole being constructed
sna operating substantially as and for the purposes set forth and descrlbed.
28,775.-Isaac Randall, 2nd, of Claremont, N. H., for an Improvement in Apparatuses for Drying Fruit:
I claim the fire box, H, and the hot-air chamber, G, in combina-
tion With the drying box,as ahown in Fig. 1 and aboved escribed, and
ohelves, K K, \&c., constructed and arranged substancells
Pichmond $V$ Improvement in Cording Guides for Sewing Machines:
I claima a cording guide composed of a single bent piece of metal,
and having uponita guide, e, a groove, i, and an eye, $n$, and in close and having upanita guide, e, a groove, i, and an eye, n, and in close
proximity to said eye a rees, r, and also furnished with oblique
micks or indentations, o, inclining in the direction of the fead of the cloth, and so arranged as to come directly under une the peesser foot
and between it and the lower feed, substantially as and for the pur-
pose set fortn.

28,777.-A. J. Rogers, of Stephentown, N. Y., for an Improvement in Seed Planters:


28,778.-M. B. Rupp, of McVeytown, Pa., for an Im provement in Seeding Machines:
I claim the arrangement of the plows, Q', upper guides, a, lower
guide,, , adjustable,, caster whee,
the whole being constructed as deecribed.
28,779. - André Sabatier, of New York City, for an Im proved Polish for Furniture
claim the polish composed of gum benzoin, alcohol and linseed [This; polish is intended for all kinds of household furniture, cabnet work, picture frames, and all articles of wood, and may be also used for metal ware.]
28,780.-C. H. Sayre, of Utica, N. Y., for an Improve ment in Cultivator Teeth:
I claim the shank, A, as constructed, in combination with the loose
top plate, D , for the purposes set forth. 28,781. - W. F. Shaw, of Boston, Mass., for an Improved Apparatus for Broiling or Roasting by Gas: Ind the burner or burners. and the burner or burners.
Also the arrangement of the deflectors with the heating cham
ber and with respect to the burner or burners and the steak-holder ranged as specified Also the combinatior of the closed air-chamber or space in the
cover with the steak-holder and the heating chamber, arranged as specified.
Also, The combination of the vertical side or cover with the steak-
holder Tnd drip pan, said side er cover having a closed air-chamber hor space as specified and shown in the drawings.
or span
28, 782.-Daniel Sheets, S. H. Dubois and J. B. Pressey of Suisun City, Cal., for an Improvement in Machines for Reaping and Mowing:
We claim the combination of the forward and back ward reciprostructed, arranged and operating together in the manner and for the
purpose set forth. 28,783.-A. B. Smith, of Clinton, Pa., for an Improvement in Raking and Binding Apparatuses for Harvesters:
I claim the mechauism described, or its equivalent, arranged to operate one or more compressing arms, independent of the binding substantially as described.
And in combination with one or more compressing, arms arranged
to work down over the grain or gavel as described, I claim the mechanism described orits equivalent, for operating one or more com-
presing arms working up under the gavel, independent of the bindpressing arms working up under the gavel, independent of the bind-
ing arm, substantially as deseribed, so as to compress the gavel withng arm, substantialy as deseribed, so as to compress the gavel with-
ont the aid of the band or armearying the band
I also claim the mechanism, or its equivalent, for making the compressing arms to work before or in advance of the arm that carries a ba nd, to open a space between the grain or straw on the platform and
the gavel for the end of the binding arm to come th rough, subetantially as described.
tially buch cs arp described, which operate the binding arm substan- N , with
positive motion in each direction for the a positive motion in each direction, for the purpose specified. $N$, with
I claim the hook, Phollowed on its under side, operating in com-
bination with the binding arm, $N$, carrying the knotted end of the bination with the
band, as described.
28,784.-J. P. Smith, of Hummelstown, Pa., for an Improvement in Corn-shellers:
I claim the combination of the ogee-shaped shelling wheel, $\mathbf{B}$, with
the ear-holder, $\mathbf{C}$, provided with the adjustable teeth, p p-the sevthe ear-holder, $\mathbf{C}$, provided with the adjustable teeth, p p- the sev-
eral parts constructed, arranged and

28,785.-W. H. Smith, of Birmingham, Conn., for an Improvement in Sewing Machines:
I claim obtaining the lateral portion of such, movement by means
of a link, W, onnecting the needde-carier, Swith the feed rock-
shaft, [This acting in combination with a spring, $w$, as described. producing the double looped stitch. 1
28,786.-W. H. Smith, of Newport, R. I., for an Improvement in Stoves:
I claim, first, The arrangement of the opening,
and compartment, $F$, in combinitionstion with the base, A , c , compartment $G$, trunks $\mathrm{H} \mathrm{H}^{-}$, and annular passages, $I$, as and for the purposes shown and described
Second, Placing the oxygen supplytubes, $Q \mathbf{P} P$, between "the inner and external cylinders, A E and consequently in contact with
the heated products of combustion, for the purpose of admitting the heated products of combustion, for
warm oxygen the inflammable gasee
thereby insure their perfectcombustion.
28,787.-Jacob Stam and John Shubert, of Sardinia, Ohio, for an Improvement in Spoke Machines: We claim the combination with the peudulum frame, $P$. of the
swivel frame, $Q$, in which the shaf of the cutter bead is mounted Whe whole being construct
for the purposes sct forth,
28,788-J. S. Steiner, of St. Louis, Mo., for an Improvement in Sewing Machines:
I claim imparting to the shuttle, $K$, a receding motion from the
needle the moment after said needle has entered the cloth and be fore it has arrived at the lowest position, for the purpoze of taking up the slack of the shuttle-thread after the latter has been turned ovel
the edge of the coloth to worka button-hole substantially in the man-
ner and for the purpose described.
I also claim so combining the hoo, $Q$, with a noedle and shuttle
as that it may be readily coupled or uncoupl ed from the driving part as that it may be readily coupled or uncoupl ed from the driving part
of a sewing machine, by means substantially such as deacribed, for
the purpose of changing the machine from a button-hole to plain the purpose of changing the machine from a button-hole to plain
work ewing machine, and vice versa, substantially in the manner described.
28,789. - A. S. Sterling, of Buffalo, N. Y., for an Improved Boiler for Cooking Stoves:
I claim the combination and arrangement of the concave bottom,
B, extension rim, E, and saucer concave, F , for the purposes and
substantially as set forth.
28,790.-Robert Stokes and D. J Jones, of New York
City, for an Improvement in Skirt Hoops :
I claim, the employment, in combination with the hoops, A $B$, and
slides $D$ D, in the manner substantially es shown and deecribed, of 28,791. -Cornelius Teachout, of Waterford, N. Y., for n Improved Drill Rest:
I claim, as an improved article of manufacture, a drill rest pro-
vided with a shank, $F$, movable gulde blocke, $C$, $C$, and adjusting ecrews, D D-all construc ted and arranged together suu
described, for use in tool-holders of machinists' lathes.
28,792.-I. L. Vansant, of Red Lyon, Del., for an Im provement in Adjustable Carriage Seats:
I claim the combination of the hinged, knuckled and slotted legs
with the levers, shoes and ways described and shown by my drawing as (and for the purposes) of selfadidusting carriage by mat compawings comped
wholly or in part of iron or other suitable metal or wood as before set ,
28,793.-H. C. Vion, of Paris, France, for an Improved
Method of Utilizing Atmospheric Electricity:
$\&$ claim, firm, 'The pectler awngement of means apectided

Whereby I am enabled to use the positive electricity contained in the
atmosphere and the nepative electricity contained in the eadth, and
thus form an electric pife of considerable pow or and mathe tricity therein contained available for indutrial purposes, as set forth
Second, The combination of an aerostat and vertical wire-work,
ith a tube, I, for admitting gas into the aerostat in the manner and Fith a tube, I, for admitting gas into the aerostat in the manner and
for the purposes set forth.
28,794.-H. N. Wadsworth, of Washington, D. C., for an Improved Tooth Brush:
claim the construction of a brush with a wedge-shaped end, in
combination with the obliquely- et briptles - the whole arranged and operating as epecified and for the purposes setforth. 28,795.-C. C. Walworth, of Boston, Mass., for an Improved Steam Trap:
I claim the combination of the high pressure steam chamber, $f$, rc-
duced steam chamber, $c$, valve, $g$, and diaphragm,, , or $i t s$ equivai duced steam chamber, $c$, varve, g, and diaphragm, a, or its equival.
cnt, so arranged that the communication between these chambers is
controlled by the direct action of high pressure steam upon one controlled by the direct action of high pressure steam upon one side
of the valve, to open it, and of reduced steam upon the diaphragm and the other side of the valve, to close it.
Also, in combination with a reduced steam chamber, a siphon, $m^{\prime}$ Also, in combination with a reduced steam chat
m , snbstantially as and for the purpose specified.
28,796.-H. M. Walker, of Watertown, Conn., for an
Improvement in Connecting Shafts to Two-wheeled Vehicles:
I claim the manner essentially deacribed of attaching the shafts to
two-wheeled vehicles, wherebs said shafts may be operated in the manner and for the purposes set forth.
28,797.-A. F. Warren, of Brooklyn, N. Y., for a Penholder:
I elaim having the noses, a, which form the socket for the pen,
turned up or otherwise arranged, substantially as described, of hat
if the pen is insert, if the pen is inserted, the stick or pencil is allowed to pass clear
through the tube. 28,798.-E. T. Wheeler, of Cannelton, Ind., for an Improved Shingle Machine:
 Cringed and onerating, automatically, substantially as set forth, and
the adjustable tables, $J$ J-all arranged in the manner and for the
purposes described.
I also claim, in combination with the tables, J J , and carriage, B ,
when the machi ae is used for sawing ahingles, of the pawl, $\mathrm{m}, \mathrm{vj}$.

28,799.-Louis Wilhelm, of Buffalo, N. Y., for an Im-
provement in the Ventilation of Casks containing Liquids:
I claim the combination of the plug, $b$ b, valve, $f$, rod, $d$, spring, e, cord, 1 , and faucet, H $L$--the said parts being constructed and ar-
ranged and operating in the manner and for the purposes set forth.
28,800.-W. P. Wood, of Washington, D. C., for an
Improved Scroll-sawing Machine:
I claim, first, The horizontal pitman, K , and sectional wheel, $\mathbf{H}$, or
their or either of their equivalents, as arranged in combination with
 ing block, $\mathbf{c}$, or their or either of their equivalents; the whol e being
constructed, arranged and operated in the manner and for the purposes substantially sa set forth.
Second, Combining the guid
second, Combining the gunde-way, R, and buffer in one piece, so
that they can be simultaneously a justed to suit saw blades of dif-
ferent lengths, substantially as described. Third, The adjustable slotted plates ${ }^{\text {p, }}$, in combination with buffer
foot, $n$, having in in fork a plain friction roller, in the manner and

28,801.-L. B Woolfolk, of Nashville, T'enn., for an Improvement in Steam Plows:
I elaim, first, The arrange ment ofthe shaft, C, the loose pinions,
$G$ G, and the clutches, H1I, with the driving wheels, E E the
whole being coustructed and arranged substantially as berein de. whoie being constructed and arranged substantially as herein de-
scribed scribed. The arrangement of the wheel, T, having its axis out of
thecond,
the line attachment to the frame, $\mathbf{S}$, in the journal at U, so as to
answer and adjust itself to the moments of the driving wheels, the line of attachment the the frame, S, in the journal at U , so as ot
answer and adjust itself to the movements of the driving wheels,
substantially as set forth. substantially as eet forth.
Third The employment of the wheel, $T$, having its shank, $z$, turn-
ing loosely in the journal box at $W$, and provided with an oblong, $d$ ing loosely in the journal box at $W$, and provided with an oblong, d,
confined bet ween the springs, a a, in combination with the lever, $x$,
the rack bar, w, and the segmente, $y$ substantially as set forth


## epresented

28,802.-Clark Wright and William Phelps, of Syoamore, Ill., for an Improved Churn:
ae claim the combination of the rotary tub, Ftationary apout, K, and
forth.
28, 803. -Thomas Yates, of Dubuque, Iowa, for an ImI claim the arrangement and come
I claim the arrangement and combination of the inverted bellshaped chamber, $H$, perforated cylinder.
A, $F$, strainer, $G$, and
puctersel and purpose set forth.
CThis invention consists in the arrangement of an inverted bellhaped chamber and a perforated chamber, both covered by a ion, in such a manner that the essence of the coffee or other substance to be boiled is retained under the bell-shaped chamber, and, on cooling, said essence is absorbed by the water rushing in and fill. ing the chamber.]
28,804.-E. S. Yentzer, of Middletown, Pa., for an Improvement in Sewing Machines:
I claim the combination and arrangement of the horizontally-reci-
procating shuttle, $X$, vertically-reciprocating needle, $N$, fead pad $I$,
 ver, . the whole constructed and operating in the manner deBcribed, for the purpose of making the peculiar stitch represented in
Fige. 7 and 8 of
drawings.



28,805.-Lyman Bridges (assignor to himself and N.
M. Simonds), of Chicago, Ill., for an Improved Heating Apparatus:
I claim the combination of the oil reservoir, $J$, with the oil cham-
ber, $H$, and cylinders, $A$, as and for the purpose ehown and deI algo claim the combination of the inclined or conical plate, $F$ G.
arranged as shown, with the cylinders, $A$, in the manner and for he purpose shown and describe
1 also claim the arrangement and combination, in the manner
so wa and deecribed, of the cylinder, M, and plates, $\mathbf{B}$, whth the cylinde is, A D, oo that both surf aces of the combustion chamber wit
beprotectod by atcending columns of air, which will also become
heited, all at epfecffedt

28,806.-Albert Broughton (assignor to himself and Alcxander Lindsay), of Malone, N. Y., ior an Im provement in Stump Extractors: I claim, first. The mode of conve ing the hoisting gio intoa cart or

vehicle for the transportation of the machine and atit apparatua, as | shown In Fig. |
| :--- |
| Second, |

Second, The arrangement, connecting together, and combination of
the foisting inand
3, for the the rupposes dtaten. Third, The method of at ree or stump as an attaching the main lever to the roots of the totene with the use of the main lever, as arranged, for the purpose Fourth, The arrangement, connecting together, and the combina-
tion of all the several parts of the magehina, ,ubastantially in the


28,807.-P. W. Gates and D.•R. Frazer (assignors to themselves and Thomas Chalmers), of Chicago, Ill., for an Improvement in Machines for Stamping Metal Quartz:
We claim, first, The combination of a toothed and collared rising
and and and toothed lifting device, H I , substantially as and forthe purposes Second, The manner, zubstantially as specifed, of arranging the
ufing device on its
 aled power bar, , G, and the combined
tiall pasand for the purposes set forth.
Fourth,
Fourth, The combination with tho inclined screens, $\mathbf{P}$ P of the
mortars of the overhanging ghields or guarde, $\mathbf{N}^{\prime} N^{\prime}$, substantially mortars of the overhanging shi
and for the purposes set forth.
28,808.-John Green (assignor to Nathan Thompson, Jr.), of Brooklyn, N. Y., for an Improved Machine for Planing Warped Surfaces:
1 claim the combination of concave and convex rotating cutters or
either of them, mounted on a frame free to turu on an axis. with
a



28,809.-Stephen Jackson, of Ossippee, N. H., assignor to D. L. Hodsdon, of Somersworth, N. H., for an Improved Blind Slat Machine:
 its ends, as specififd, the slat hopper, or rests, XX, and platiform, V,
and the impeller, $\mathbf{O}$, or mechanimm for successively removing the and the impelier, OD or mechanism for succesively removiag the
glast therefrom and feeding them forw ards between and away from the joursal cutter?.
I claim the
belf-a


 being to cause an inclination out of the path of the amis of a siat
whil be tan expelled from the machine.
I a too claim the combination of the end guides and slat-holders, $T$
 Talao claim the combination of the reats, $\mathfrak{p} \mathcal{P}$, with the in
in manner and for the purpose substantiall as specifed.
28,810.-E. A. Kimball (assignor to himself and A. L. Miller), of Boston, Mass., for an Improved Alarm Gage for Steam Boilers:
I claim the arrangement and aprlitation of a slide valve, alarm
 lever, the indicator or index pointer shall be moved along its index
 the alarm apparatas shall be opened
into the whistle and sound an alarm.
 steam chamber, ap and for the purpeea specified 1 also claim so applying to the index chamber the device for ano the indicator that any steam which may escape from the valve open-
ing of such device may not enter the index chamber, zo as to foul or condense on its glass.
28,811.-John Low, of Clinton, Mass., assignor to
Nathan Bruce, of Southboro, Mass., for an Improvement in Dulcimers:
I claim the arrangement, as degcribed, of the central bridge, 6 , in
relation to andin combination with the bridges, 4 and 5 , in the manner deacribed, by which one part of each string io made to give
gionle
giontomaticiterval of pith hith
28,812.-G. W. Oliver (assignor to Henry Parker and C. W. Yale), of New York City, for an Improvement in Preserving Meats:
 Way and to such an extens as will effectually or bufticiently coagu-
hite the albumen of the tissues and thuids, in combination with the subsequent application of heated brine or preservative fluid
28,813.-A. D. Rollins, of Green Point, N. Y., as signor to himself and H. J. Howland, of New York City, for an Improved Steering Apparatus
$\underset{\text { I clain, first, The shatt and wheels, } G \text {, }}{\text { n }} \mathbf{N}$, reverse gegmenta, $m$


 28, 814.-I. M. Rose, of New York City, assignor to J. R. Morrell, of Brooklyn, N. Y., for. an Improve ment in Sewing Machines:
 set torth.
28,815.-Rhoda Sowle, of Fall River, Mass., administratrix of the estate of David Sowle, deceased, late of Fall River, for an Improvement in Lozenge Machines:




[With this machine a very large quantity of lozenges can be cu out, marked with the desired inscriptions or characters and deposited
on an endless apron, from which theyare removed to the drying oven ; at the same time, the paste which may adhere to the outside of the cutters is cleanedoff, and the scraps are deposi;
apron and carried offover the inde of the machine,
28,816--J. H. Steiner, of Philadelphia, Pa., assignor to himself and J. E. Thomson, of Buffalo, N. Y. for an Improvement in Railroad Car Wheels: I claim constructing the cagt iron part of the wheel with chambera
or tapering pockets, in combination with wedge-ike blockg of wood,


28,817.-J. H. Steiner, of Philadelphia, Pa., assignor to himself and J. E. Thomson, of Buffalo, N. Y. for an Improvement in Railroad Brakes:
I claim, first, The epring, C. in combination with the shoe, $A$, and
 scribed.
28,818.-George Stover (assignor to himself and the
Stanley Rule and Level Company), of New Britain,
Conn., for an Improved Machine for Finishing
Works in Wood and Metal. Works in Wood and Metal:
I claim the combination of the siliding plates,, , the milled or cut.
ting plates, $n, ~$ guide
ways,$m$, with ling plates, n, guide ways, m, with a proper holding jack, $r$, tpon the
bed, $p$, constructed and operating gubetantially in the manaer as and
819.-D. H. Thorp, of Chelsea, Mass., assignor to the Boston Faucet Company, of Boston, Mass., for an Improvement in Faucets:
I claim, in the basin faucet having a conical tubular elastic pack-
ing, $\mathbf{C}$, made and applied to
its


28,820.-William Wright (assignor to himself and John Brady), of Philadelphia, Pa., for an Improved Animal Trap:
 Second, I claim the projection, n, on the spike do board. C, when the
notches of the said projection are arranged in reapect to the apring as notcheo of the said projection
and for the puipose eet forth.

## re-issues.

W. N. Whitely, Jr., of Springfield, Ohio, assignee of T. S. Steadman, of Murray, N. Y., for an Improvement in Clover and Grass Seed Harvesters. Patented May 23, 1854:
I claim the main frame or box, A, which carries the pinion which



 set forth.
W. N. Whitely, Jr., of Springfield, Ohio, assignee of T. S. Steadman, of Murray, N. Y., for an Improve ment in Clover and Grass Seed Harvesters. Patented May 23, 1854:


 whelarle, will be held in parnllel planes relatively to each other
wi.ile tey are moving up and down, zubstantially ab and for the pur-
poses set forth.
W. N. Whitely, Jr., of Springfield, Ohio, assignce of T. S. Steadman, of Murray, N. Y., for an Improve ment in Clover and Grass Seed Harvesters. Patented May 23, 1854 :
 pparatus, as described for the purpose specified.
J. T. Trotter, of New York City, for an Improvement in Vulcanizing India-rubber. Patented Dec. 3, 1850
I claim the process or method of curing indiarubber, gutta-
percha, or other vulcanizable




## additional improvement.

T. S. Whitman, of New York City, for an Improvemen in Attaching Skates to Boots. Patented Dec. 20, 1859:
I claim the male and female vertical dovetail portion, substan-
tially
a described and repres ented, where by the h heel portion of the kinat iron will be e secured againgt ateral or longitudinal movement
independent of the front attachment. designs.
Birdsill Holly, of Lockport, N. Y., for a Design for a Pump.
Louis Meyer, of St. Louis, Mo., for a Design for Parlor Stove.
William Pountney, of New York City, for a Design for Decanter Stoppers.
R. H. N. Bates, of Providence, R. I., assignor to J Morrison, Jr., of Troy, N. Yr, for a Design for the Plates of a Cooking Stove.
Lemuel Morgan, of South Norwalk, Conn., assignor to himself and C. Adams, of New York City, for a Design for a Fire Shovel ( 4 cases).
H. G. Thompson, of New York City, assignor to the Hartford Carpet Company, for a Design for a Carpet Pattern (11 cases).

Notr.-In the above list of claims, isaued for the week ending June 19 , we recognize Tritrry-b.
cited through this office.-Ens.

## 1laterefqugries

Correspondents sending communications for publication in our columns are requented toavoid writing on both aldes of a sheet of paper. This fault, though common to persons unaccustomed to writing for the preas, gives great trouble to the printer (especially in long articles), and, when combined with il fully consigned to our waste-paper basket.
H. M., of N. J.-Your improvement in reapers is new to ua, and we should think a patent might be obtained for it. If you
desire your claims to be prosecuted vigorously, send us a model and the patent fee, $\$ 30$
F. G. D., of C. W.-Your idea of using lime in a slack. ing state as a fuel for cooking in summer is not new. In 1856, W. .. Albro, of Binghampton, N. Y., secured a patent through this by the emportable cooking stovein which the caloric is generated Vol. XI. (old series) of the Sotentifio Amerioan, an engraving of this ingenious apparatus may be found. Last summer, Mons. Binndin, the fool-hardy acrobat, used, if we recollect aright, a lime stove to cook a beefsteak while on his rope midway between the banks over the Niagara river, several hundred feet above the rushing waters.
J. W. P., of Mass.-Boiled linseed oil containıng about an ounce of the oxyd of manganese, or litharge, to the quart, will make an excellent waterproof coating for cotton or linen cloth. Put on several coats with a brush, and allow each to dry perfectly. . \& C., of Texas.-The account of the operations of the water-wheels at Philadelphia, as published in our columns, althe Chect, may be diferent in some particulars from hat of the Chier Egineer, whoe report a yet pubished. We will therefore retain your letter until we obtain a copy of the repozt.
We thank you for the statistics contained in your communication. R. W. E., of Miss.-Your system of aerial navigation is novel at least, but you will find it difficult to get alens to suit your purpose forheating the air
A. W. H., of Conn.-A good alloy for small patterns is a composition of 77 parts copper and 23 parts of tin
. H., of Va.-Boil the cotton cloth for your awnings for one hour in a liquor iuto which has been dissolved one ounce of alumand the same amount of blue vitriol to every four gallon the awning is up, brush its surface overwith a hot liquor of alum and blue vitriol. This will tend to prevent mildew, and renderit more durable.
S. I. B., of Ga.-Tin is the best substance to use with mercury as an amalgam for silvering glase, sofaras we know.
J. W. R., of Mass.-Boil white tallow in a very strong causticsodalye until it becomes saponaceous, then cool it, and you will have hard soap. Caustic lye is made by boiling equal quantities of slacked lime and soda ash for about fifteen minutes in water, and allowing the sediment to fall down. The clear liquor only is employed in soap-making.
C. C. D., of Mass.-Every coil in a water pipe increases the friction, and should, if possible, be avoided. A shortpipe for a water ram is certainly better the
ance increases with the length.
C. H. R., of N. Y.-A dry needle will float on water, if laid carefully upon it, owing to the repulsion or what acientista call "the sphere of repulaion" between the surface of the steel and the fluid.
A. B. C., of Ill.-Please to send us your proper address, and we will forward you our circular of advice about foreign C. R., of N. J.-Cows' horns may be softened by boiling them in water, and they may be pressed into almont any ahape when hot, by placing them in suitable dies.
J. B., of N. B.-There is no uniform system of pitch used for the propellers of steamers. The best propellers, such as Grifinn's (English) is adjusted for a varied pitch. We believe tbat a pitch of difficulty in a moderate breeze.
G. S. P., of Wis.-Strong glue cannot be used cold, because it congeals at a moderate temperature. If you wish to use strongaticky glue, you must put it on hot.
W. B., of Md.-We gave the substance of Mr. Murray's lecture as we found it in foreign periodicals. We shall have some thing more to say about superheated steam in a week or two.
A. B., of N. B.-The same difference in pressure, as in dicated by valye and gage, has often puzzled engineera, and will be found even if the gage used is the common mercurial siphon which cannot be incorrect. The apparent difference arises from the mode of measuring the valve in common practice; that is to say, taking theorea of he bottom or makler end of the seat, which sean ducted callot be the correct way. Repeated and carefully con neveraree with the gat if you take the area of the valve the middle of the seat, you will find then alwava agree. We sup pose that in grinding the valve the bearing is brought to or above the midale of the seat, and that the lower half of the valve base $t$ never perfectly tight, though it may appear to be oo.
A. M., of Mass. - You state that friction increases with the increase of surface independent of the weight of the rubbing how atmospheric pressure has anything to do with the question Upon your principle of reasooing, a man of 150 pounde weight with a foot of 46 square inches area will exert greater pressure upon the ground when he walks than a man of 200 pounds weight with a foo of 38 squarelnches area. The pressure of the former will be 840 pounds, that of the heavy man 770 pounde. We taketheatme epheric pressure to be equal on all sides of the journals.

