NOTES ON FOREIGN INVENTIONS AND DIS. coveribs.
Enameling Articles of brass and German silver:-Fancy enameled metallic work has only been produced on articles of gold and copper. Silver, brass and Ger man silver are not adapted in their nature for withstanding the heat to which the fused enamel is subjected, hence enamel will not adhere to such metals. Mr. Samuel Fearne, of Birmingham, England, has obtained a patent for enameling articles of brass and German silver, which is described in substance as follows in Newton's London Journal of Arts and Sciences:The invention consists in coating with copper the surface of the article of brass or German silver to be enameled, or that portion of the suiface of the article to which the enamel is to be applied, whereby the fused enamel will be enabled to attach itself firmly. In producing designs in enamel on metallic surfaces, that portion of the surface which is to be enameled is generally sunk or depressed, and the enamel fused in the portions of the surface. By afterward grinding or polishing, the surfaces of the enamel and the unenameled or metallic parts are made flat or flush with one another. The sunken designs may be produced either by engaving or etching with acid, or by transferring a design, printed from a copper plate, stone, glass, steel, zinc, or other printing surface ; the design being printed in some material not affected by acid, and afterward biting by acid, to the necessary depth, those parts of the design which are required to be enameled. Or the designs may be produced by embossing or impressing the surface of the articles, by means of dies, or rollers, or other tools. After the sunken or depressed design has been produced a film or layer oî copper is deposited upon the whole surface of the article, or upon those parts only which are to be enameled; by ${ }^{2}$ the ordinary process of electrical deposition. The enameling of the coated parts is then effected in the ordinary way. The enameled surface is next ground or polished, and the enameled article is afterward finished, by silvering, bropzing, or lacquering the surface of the unenameled or metallic parts of the article, in the usual way. When the form of the article is such that all parts of it can be readily reached by any of the ordinary polishing processes, it is unnecessary to stop out any portion of the surface, by means of varnish, prior to the deposition of the copper on the said article, that is to say, the whole surface of the article may be coppered. Atter the enamel has been fused in the sunken parts, the whole surface of the article is ground or polished, by which grinding or polishing the copper on the unenameled parts of the article is removed, and the enameled and metallic parts made flush with one another. The unenameled or metallic surface of the article is afterward finished by silvering, bronzing, or lacquering.

Revolving Steam Boilers.-D. F. Grimaldi, of Teramo Italy, has constructed a steam boiler formed of a series of tubes set in a cylinder, which is made to rotate in the furnace. The trunnions of the boiler are hollo w , and the water is fed through them, so that they are kept comparatively cool.

Renovating Old Cannon.-J. Snider, Jr., has obtained a patent for rendering worn-out cast-iron serviceable again as follows :-He first rebores the cannon so as to rectify any inaccuracies arising from wear. In this bo re is then fitted and fastened a steel cylinder which may be either rifled or smooth and it forms the bore of gun.

## RECENT AMERICAN INVENTIONS.

Veneer Cutting.-This invention consists, firstly, in giving the bolt from which the veneers are cut a peculiar motion so that the bolt will be presented to the knife, which is stationary, with a rolling and drawing cut, and the veneers cut therefrom in a suitable and even manner with a moderate application of power ; secondly, in a peculiar feeding device for adjusting the knife to its work at the commencement of eack cut, whereby the thickness of the veneers may be graduated as desired with the greatest nicety, and the knife also withdrawn from the bolt during the return movement of the latter so that the edge of the knife will be preserved and much friction avoided; and, thirdly, in a novel and improved arrangement of dogs for securing the bolt to its bed, whereby the dogging of the bolt may be expeditiously performed and all irregularities of the bolt compensated for by a
self-adjusting feature of the dogs. Invented by Lor ing P. Hawes, of New York city.
Rotary Engines.-Two patents, the claims of which will be found in this week's list of claims, have been granted for improvements in rotary engines by John B. Root, and a third for other improvements in such engines by J. Clayton and A. Campbell, all of which have been assigned to Root's Rotary Steam Engine Company of New York city, which is manufacturing engines under these and other patents of Mr. Root. The improvements relate more particularly to that description of rotary engine whose inner rotating drum to which the pistons are attached is arranged eccentrically within the stationary cylinder. The improvements consist in contrivances for directing the pistons in their movements; in means of packing the pistons, drum and abutments; in means of warming the cylinder uniformly to prevent unequal expansion ; and in means of reversing the engine; and all of the improvements tend to make a very simple and, we believe, a very durable and effective rotary engine.
Enamel for Leather.-The manufacture of enameled leather, commonly known as "patent leather," has, up to this day, been kept a profound secret by the French and German manufacturers, and notwithstanding the fact that a large number of manufactur $\mathrm{cr}_{\mathrm{s}}$ in this rountry have tried to imitate the French enamel, they hafe not succeeded in producing an article of the same beauty and durability in hot and cold weather, and the French patent leather has still the preference in the market. Mr. C. W. Held, of Brooklyn, N. Y., has now discovered an enamel which, when properly spread on the leather, will not crack in the cold nor loose its luster in the heat, and which in every respect equals the best French or German patent leather.
Lamp.-This invention relates to an improved lamp for burning coal oils without a glass chimney, and consists in having the wick of the lamp fitted in a tube of glass, porcelain, or other material which is a good non-conductor of heat, by which the oil is prevented from volatilizing too rapidly, or in greater proportion than the supply of oxygen requires, thereby ensuring perfect conbustion and consequently a good illuminating flame. The inventor is Thomas J. Barron, of Brooklyn, N. Y.

Carriages.-This invention is particularly designated for light carriages, though it is equally applicable to all kinds of four-wheeled vehicles which are hung upon eliptic springs. The object of the invention is to allow the carriage or other vehicle to which it is applied to turn in a small compass, and it consists in an arrangement for turning the hind axle of the carriage by and simultaneously with the front axle and in opposite direction. Patented tu Nathaniel Adams, of Cornwall, New York.
Tuck and Piait Creasers.-This apparates is designed for creasing cloth in the proper lines of the folding of tucks and plates, either to be sewed by hand or by a sewing machine, and in either case may be entirely separate from the sewing machine, though it may be attached thereto when desirable. The invention consists in the employment, in combination with a guide, of two roliers or other surfaces, one of which presents an edge and the other a groove, and between which, and in contact with the guide, the cloth or other material to be tucked or plaited is drawn for the purpose of being creased in the proper lines to fold the material to form the tucks or plates. It also consists in a certain mode of applying and supporting one of the said surfaces, in combination with the other parts of the apparatus, whereby the tucked or plaited or merely creased portion of the material is separated from that which has not been creased; and it further consists in a guard applied so as to prevent the material from getting in an improper direction between the creasing surfaces. Invented and patented by W. L. Fish, of Newark, N. J.
Implement for Cutting the Snouts of Swine.-The object of this invention, by Reuben Hurd, of Spring Hill, Ill., is to obtain a simple and efficient improvement for cutting the noses or snouts of swine, so as to prevent them from rooting, and thereby supersede the ordinary practice of "ringing," for effecting the same result. The invention consists in the employment or use of a cutter and block attached to the end of levers which cross each other and are connected by a fulcrum pin similar to the levers of a pair of scissors, all being so arranged as to effect the desired purpose,

issued from the united states patent office

the week ending february 11, 1862.

Reported oficially for the Scientitic Amurrican.
** Pamphlets giving full particulars of the mode of applying for
 inventorg, may be had gratis by addressing
ofthe ScrisNTIIIC AmERICAN. New York.

34,342.- Nathanial Adams, of Cornwall, N. Y., for Im-
 purpose see forth.
343.-C. M. Alexander, of Washington, D. C., for Improvement in Bridle-Bit Attachments:
 and bride rein, H , as and for the purpose specified
4,344.-J. L. Baldwin. of Newark, N. J., for Improve-
ment in Molds for Making Daguerreotype Cases : ment in Molds for Making Daguerreot ype Cases :
 D, substantianly as ad described.
Second, The combination wit
as to accomplish the purpose set forth. Third, Constructiog the part, C, with two thread portions or screws
of equal pitch, one of which $\mathbf{f i s}$ into the block, $A$, aul the other of
ond
 purpose set forth
4,345.-J. S. and T. B. Atterbury and James Reddick, of
Pittsburgh, Pa., for Improvement in the Manufacture
of Hollow Glassware of Hollow Glassware :
We claim, first, The manuracture of lamp pegs or bowls, and other
descriptions of hollow gasssware, wih the ornamental desimns or fig.


 in the production of one and the same hollow
substantially as and for the purposes set forth.
34,345,-Samuel Bentz, of Carroll Co., Md., for Improved Hulling Machine
First, I claim the employment of a conveyer trough, substantially as
described, with ilights, as specifed, for moistening the grain, and in
combination wih che conveyer, the regulated water discharge, as and
for the purposes set forth. Second, 1 claim the e mployment of an unbranner. for removing the
husk or bran trom dible grain in a moist state, consisting of a husk or bran trom ediblegrain in a moist state, consisting of a hori-
zontal cylinder with inclined revolving wings, constructed substantially as and for the purposes set forth.
Third, I claim, in combination with a
branne the drying apparatus, through which the grailn is passed to be
dried.
Fourth, I claim the construction of the drying apparatus, with its
partitions, grain, eitheralone or in company with the detached bran or husk, as specitied. Fifthaimpolishing the grain after it has been dried, by passing it through an unbranning apparatus, as described.
Sixth, I claim removing the bran, either in a moist or dry state, Sixth, I claim remoring the bran, either in a moist or dry state,
from one or all the points, whil e pasing through the apparatus, by
means of exhaust s puaratus, ap plied substantially as and for the puil. from one or all the points, whil e passing through the apparatus, by
means of exhaust apparatus, ap plied substantiahy as and for the yul.
pose set forth. pose set forth.
Seventh, I Iaim regulating and controlling the current of air
through he dyer, by means of the exhaust, as and for the purposes through
described

## described. Eighh. $I$ also claim the and arranged as set forth.

34,347.-John Buser, of New York City, for Improvement in Bottling Apparatus :
First, I claim the revolving holder, k , with the receptacles, 9 , for the First, in claim ine revolving holder, $k$, with the receptacles, 9 , for the
billings, in combination withe crosshead, m, , and parts attached, tor
filling said bottles, as presented by the said revolving hiling and corking said bottes, as presented by the said revolving
holder, k, as setforth.
Second, I claim the arrangement of the sliding bar, i, talon, 7 Second, I claim the arrangement of the sliding bar, i, talon, ${ }^{\text {, }}$
spring, , and lever, h, when combined with the revolving holder, k,
for giving motion to the said holder, and presenting the botles to be filed in unison with the othermovements of the machine, as specified
Third. I claim the lever, p , in combination with the cross heads,
and , and acing in the manner specified, to turn the yose, 10 , over the cork, as the cross head, m, is raised, as specitied.
Fourth, I claim the vessel, r, spout, s, and tipping dipper, t, in com-
bination with the revolving holder, $k$ and corking apparatus, fo: sup bination with the revolving holder, k, and corking apparatus, fo: sup.
pyinigg sirup ot other llquid to the botles in said holder, k , immedi-
ateiy prior to the corking, as set torth. teey prior to he corking, as set iorth
34,348.-N. W. Clark, of Clarkston, Mich., for Improve-
ment in Apparatus for the Manufacture of S ment in Apparatus for the Manufacture of Salt:
First, I claim, in combination with the sait block, a heating reser.
voir, in and through which there is a constant flow of water;, sub-
stantially as describe I also claim, in
 the furnace of the salt block, a heating reservoir, 1 , placed over
and proiecting beyond siad boiler, for the purpose of utilizng
the otherwise wasted heat from and around the boiler, substantially as described.
I also ciaim projecting the sides or ends of the pans over the sides
or main flue of the salt block, for the purpose of affording a table on or main flue of the salt block, for the purpose of affording a table on
which the salt drawn or scraped from the pans may drain, and allow which the salt drawn or scraped from the pans may drain, and al
the drainings to run back into the pang, substantially as described. I also claim making the salt pans of metal and of wood, so arranged
and combined as that while the saline water shall lie upo both, he and combined as that while the saline water shall lie upon both, the
metal only shall be exposed to the fire or heated products of combus.
tion, substantially as and for the purpose deacribed. tion, substantially as and for the purpose described.
I also claim soarranging the fiow offs from one pan to the next adja. I also claim soarranglng the tiow.offs from one pan to the next adja.
cent one throughout the series. as that the metal portions of the pans
shall be always covered by the saline water in them, and thus prevent shall be always covered by the saline water in them, and thus prevent
corrosion of the pans, and consequen
the sifinining of the water or discoloring ing of the salt, as selt forth and the sianning
explained.
34,349.-S. A. Clemens, of Rockford, Ill., for Improvement in Hemp Breakers:
stances by a beater, constructed substantiax or other fibrous sub stances by a beater, constructed substantially as described, which
oscillates upon an axis on one side of its center, and has its breaking
ed edges on the other side, extending at unequal distances from the axis,
when combined with two bars, the breaking edges of which are in cor when combned with two bars, the breaking edges of which are in cor-
respondence with those of the beater, substantially as described and for the purpo ses specified.
Second, 1 also claim a
Second, 1 also claim a whipper, vibrating etther upon an independent
axis on one side or upon an axis common to it and the beater, when axis on one side or upon an axis common to it and the beater, when
combuned with a beater or pair of feed rollers, substantially as de-
scribed and for combed and for the purpose specified.
scribith
Third. I also claim an air pipe $j^{\prime}$ wit
ranged as to direct an artifcipi, current of air across the machine, above the whipper, in connection with the latter, substantially as de,
scribed and for the purpose specified. scribed and for the purpose specified.
Fourth, I also claim an annular.
over or upon an endless apron, and in con nection with a pair of plain
pressure feed rollers, substantially as described and tor the purpese pressure
specified.
34,350.-Isaac Crandal, of Middlefield, N. Y., for Im-
provement in Pleasure Wagons:
i clam forming the body, $A$, of the vebicle, of two elastic parts a a


[The object of this invention is to construct pleasure 'wagons o ight-wheel vehicles in such a manner that they will be strong and dumaterially reduced below that of ordinary rehicles.)
34,351.-.R. A. Daniels, of Wayne, Ohio, for Improvement in Fasteners for Hame
 34,352.-Rudolph Dirks, of Philadelphia, Pa., for Improve ment in Sash Springs :
I claim the spring, G, composed of one piece of wire, bent, attached
o the sash, and arranged in respect to the grooves of the frame, as
and for the purpose set torth. 34,353.-W. H. Doane, of Chicago, Ill., for Improvement in Bedplate of Sta ve Machines :
 on its un
scribed.
34,354.-O. D. Eckerson and C. Watson, of Middleburgh,
N. Y., for Improvement in Water Elevators: N. Y., for Improvement in Water Elevators :
claim the compination of the pin, $s$, with the flanged drum, $F$
ove grocaim the combination of the cavies, $V$ whe
and for the purpose described.
[This invention consists in the manner of fastening the cord or strap hy which the
crank shaft.]
34,355.-Thaddeus Fairbanks, of St. Johnsbury, Vt., for Improvement in Weighing Apparatus:
I claim the combination and arrangement of the rotary check, and
its latching mecharism, with the scale beam and its laop, in manne:
and so as operate, substantially as specified. 34,356 - J. Fasig, of West Salem, Ohio, for Improvement in Hay Knives:
I claim the friction roller, E, in combination with the blade, A, con
structed and operating as and fort the purpose set forth.
Sacond, I claim the auxiliary handle, $c$, in combination with the Sacond, I claim the auxiliary handle, c. in combination with the
rods, B, blade, A, and roller, E, constructed, arranged and operating
as described. 34,357.-W. L. Fish, of Newark, N. J., for Improvement
in Guides for Creasing Tucks and Plaits Preparatory in Guides for Creasing Tucks and Plaits Preparatory
claim the combination of the rollers, B $\quad$ D, with the adjustable
E, and roller, $c$, as and for the purpose shown and described. 34,358.-Thaddeus Fowler, of Richmond Valley, N. Y
for Improved Deck-Ballast Boxes for Vessels: I claim the shaft, f, pinion. $g$, and handle, i, in
34,359.-R. C. Glyde, of Pittsburgh, Pa., for Improvement
in Vessels for Transportation of Carbon and othe Oils:
y claim the use, for the transportation of oil in bulk, of boats divided
by partitions into sevarate compartments, substantially in the manner Also the use, for the transportation of oil in bulk, of boats divided
Alo compartments corered over with the deck heads, in the manne ubstantially as descrived.
34,360.-JJ. W. Griffiths, of Brooklyn, N. Y., for Improve-
ment in Ship Building : ment in Ship Building
I claim the projecting bilge strakes or keelsons on the outside of
ships and other navigabel vessels, forming rettangular channtl ways,
sulustantially as and for the purposes
34,361.-R. H. Hall, of Owego, N. Y., for Improvement in A xles for Wheel Vehicles
 ower casing, c, striv, d, central thread
bands, c , all constive ced arringed an
for the purposes shown and explained.
[This invention consists in a novel and improved mode of applying a
metal covering to the arms of wooden axles, so that the rendered durable and an economical axle obtained.J
34,362.-N. S. Harryman, of Frankfort, Ind., for Improve ment in Cultivators : I clamm the combination of the several parts, constructed and oper-
ating as described, to wit The bar, $G$, pivoted to the top of the rear
stand
substands, the frame, F, and standards, E E, with the draft frame, all 34,363.-Isaac Hayden, of Lawrence, Mass., for Improve ment in Machinery for Cleaning Cotton:
I claim connecting two or more of a series of machines for working
coton and other fibrovs substances by means of trunks provided with cotion and other fibrows substances by means of trunks provided with
woven screens and cells, substantially as described, so as to make each
machine supply or feed the next machine to it through said trunk, submachine supply or feed the next ma
stantialy in the manner set forth.
I claim in machinery or apparatusfor cleaning cotton or other fibrous
substances, a trough or trunk, which is so bent or curved as to carry one part of said trunk over or under or by the side of curved as to carr other part o
the trunk, so as to obtain a greater length of trunk and a greater are of screening surface than could otherwise be effected in a room of a
aiven size. 34,364--W. L. Hawkens, of Lock Haven, Pa., for Im First, I claim a snspended or yielding frame
First, I claim a snspended or yielding frame, $C$, having upon its oppo
site sides rack bars, $D$, the steps, 123 , \&c., of which not only recede
from each other, but also inctease in lengit or hight as tey trom each other, but also increase in length or hight as they rise, sub
stantially as and for the purpose set forth. I also claim, in combination with a lever that is work in said rack
bars, the siring-adijsting fulcr so connected together as to mutually
tend to hold each jother tend to hold each other to the steps, substantially as described,
I also claim, in combination with the rack bary and lever, and their
operative appiances, the sloos or hrooves, b, in said bars. and the guide operative appliances, the slots or grooves, c , in said bars. and the guide
pins in said lever, for controlling the lever as it rises or descends, sub

34,365 - L. P. Hawes, of New York City, for Improvement in Machines for Cutting Veneers:
First, I claim the combination of the adjustable-slotted plates, $k$,
slides,, , and eccentric, I , with the bar, C , bed, L , and knife, $\mathrm{V}, \mathrm{a}$
shown and described.

 also fitted on screw, $X$, and the arm, $g^{\prime}$, having the pawl, $h^{\prime}$, attached
and fitted on a collar of plate, $\mathbf{Y}$, all being arranged in relation with
each other and coperated from the shaft, $Z$, substantially as and for the purpose set forth.
Third, The arrangement, as shown and described, of the screws,
N with the nus, 0 R , and dogs, $\mathbf{P S}$, for the purpose of dogging the
bolt to the bed $L$,
34,366.-C. W. Held, of Brooklyn, N. Y., for Improved
Enamel for Leather : Enamel for Leather
I claim a laceuer for enarmeting leather, \&c., composed of the named
34,367.-Julius Hotchkiss, of Middletown, Conn., for Im-
provement in Skin Cartridge
it is composped making a cartridge, so dispors of one portion of the fillet or gut of which ly or spirally cross the fibers of another portion of the gut, bubstanti-
ally as described.
34,368.-Reuben Hurd, of Spring Hill, Ill., for Improved Device for Cutting the Noses of Swine to Preven them from Rooting

## respectively wit the cutter, and for the purpose set forth.

34,369.-F. G. Johnson, of Brooklyn, N. Y., for Improve ment in Velocipede Ice Boats
First, I claim the combination of the runners, L L M, and the spurred an ice velocipede, to be propelled by the feet or hands, substantially in he manner set forth.
Second, The springs, gg, or their equivalents, in combination with
he shat, $F$, and spurred wheel, $E$, substantially in the manner and Third. The isksks, a a a a, combined with the periphery of the wheel, $E$, and the spurs, $\mathrm{e} \boldsymbol{e}$, substantially in the manner and for the purposes
 hee
34,370.-Moses Marshall, of Lowell, Mass., for Improve ment in Machines for Pegging Boots and Shoes
 Scribed. I claim a spliting knife so constructed and arranged as to
Specond the pegand force it under the peg driver while the latter is
split of then Third, I claim
the pawls, b.
34,371.-J. R. Mason, of Elgin, Ill., for Improvement in Plows:
I claim constructing the main brace, f, with a land side termination,
, and the cup, $v$, and ream socket, v2, in combination with the landside, B, cutter blade, C, and its base-enlarged axle, , the whole ar-
ranged and operating in the manner and for the purpose set forth. 34,372.-Gordon McNeil, of Chestnut Hill, Pa., for Im proved Clothes Dryer
First, I claim the combination of the bars, A A ${ }^{\prime}$, extension bars, $D$
$D^{\prime}$, strips, $\mathbf{D}$, and thumb screws, $d$, when arranged to operate in the a strips, B C, and thumb screws, d, when arranged to operate in the
manner and for the purpose set forth.
Second, The manner of arranging the drying bars, $E$, in the bars, A Second, The manner of arranging the drying bars, E, in the bars, A
$A^{\prime}$ so as to spread apart atheir outer ends,
set screws, c, for securing the same, substantially as described.
34,373.-Jaceb Reese, of Pittsburgh, Pa., for an Improve ment in Oil Tanks
I claim constructing tanks, or ether vessels for holding coal and car-
on oil or other light oils, with an outer casing around the sides of the bon oil or other light ins, with an outer casing around the sides of the
oil vessel, so as to leave a space between the casing and the oil recep
tacle for the purpose of surrounding it with water, acie for the purpose of surrounding it with water, substantially in the
manner and for the purposes set forth.
Also so constructing the outer casing of oil tanks having double Also so constructing the outer casing of oil tanks having double
side, forming a water space around the tank, as that the uper enge of the outer casng shall be higher than the level of the top of the main
ank, for the purpose of allowing the oll leaking through the walls of
he tank to return itself thereto 34,374 .-Orrin Newton, of Pittsburgh, Pa., for Improvement in Dies for Manufacturing Brass Kettles :
I claim the use, in the manufacture of brass kettles and other articles
of hollow ware rrom sheet metal, of plungers, around which the meta is worked, so constructed as to contract when the plunger is with ourawn
n combination with annular dies, for the purpose of drawing out the and for the purposes set forth.
Also the combination of a conical center piece, $o$, and correspondin
 the plunger will contract to allow of its being easily withdrawn from
the metal on which it is operating or from the dies into or through
which it was forced, substantially as described
34,375.-J. B. Root, of Battle Creek, Mich., for Improved
Rotary Engine : aplied and arranged within the, cylinder heads and in combination with the drum. c, piston packing, e e e, and cylinder abutment, $g$, sub-
stantially and for the purposespecifed.
Second, The combination with a packing ring, $G$, abut ment piece, $g$, or other packing piece of V-frm, or having beveled edges, as de-
scribed, of triangulor or wedge-shaped packmg pieces, n n, or t $t$, a
follower, p or $k$, and springs, $r$ or l, the wbole arranged and operating follower, $p$ or $k$, and springs, $r$ or 1 , the wbole arranged and operating
substantially as specified.
Third, The packing pieces, $s$, a pplied in combination with the seg. ment piecees, d d, and with proper provision for the admission of steam
behind them, substantially as and for the purpose specified.
34,376.-J. B. Ront, of Battle Creek, Mich., for an Improved Rotary Engine
I claim the combination of the rings, a a a attached to the pistons, and Co hubs, ce, projecting inward from the cylinder heads in position
eccentric to the shaft and piston drum, but concentric with the cylin
der, substantially as specified. der, substantially as specifed.
Second, the cylinder heads, $\mathbf{B}$ B constructed with rebates and fitted
othe cylinder and tor ebates in ring $G$ G, or flanges secured to or
ormed ond or in the cylinder, substantially as and for the purpose de-
 nd valve, I , all constructed and a rranged and operating substantiall
 described.
Fifthe linings, $b$ b, applied in combination with the rings, a a, of
he pistons and the hubs cc, of the cylinder heads, substantially as 34,377.-A. F. Smith, of Norwich, Conn., for Improvemen in Trucks for Locomotives :
I chim the emplogment, in a locomotive engine, of a truck or pilot
whe els fited with the penda ut links, oo, to allow of lat eral motion to
the engine as speified where the engine as specified, whereby the drivers of said engine are allowed
oremain correctly on the track in consequence of the lateral motion
of the truck allowed fer by said pend of the truck, allowe
curve, as set forth.
34,378.-Edward Spencer, of St. Louis, Mo., for Improve
I claim combining the rollers, e e, the die, d. and the ribbon, f, with
the jaws of the pincers, substantially in the manner described for the
purpose specifie
34,379.-W. O. Strong, of Detroit, Mich., for Improved
Device for Distributing Grain in Elevator Bins
I claim the even distribution of grain in bins by means of
F $\frac{1}{}$ claim the even distribution of grain in bins by means of the pipe or theirequivalents, arranged substantial ly in the manner and for the
purpose set forth.
34,380.-I. U. Stuart, of Brooklyn, N. Y., for Improve-
ment in Bellows : I claim the arrangement of a reservoir, $\mathbf{C}$, or its equivalent, with a movable part, c, in combination with an ordinary bellows. A, and conscribed, and so arranged that the force orpow er of the said movable
part, c, is transmitted to the bellows and made to act upon the same 8
34,381.-S. T. Thomas, of Laconia, N. H., for Improve ment in Fancy Looms :
I claim, frst, The mode of partially overcoming the momentum of
the tay by means of the inclined plane bent lever, 22 , brake and nange,
or their equivalents, previous to the final arrest of the dagger by a fixed
stop.
second, I claim them odeof elevating the shuttle-box levers by means
of the sidde wedges tra versing in single or double guides and opprated of the slide wedges tra versing in single or double gu ides and opprated
by the draw wires and series of connected levers, combined with the
as se forth.
Third, I claim the combined action of two or more wedges or inclined
planes, one above the other, tor elevating the shuttle box, by means planes, one above the other, for elevating the shuttle box, by means
of which the extreme distance traversed by the box is about equal to F sum of the hight of the large ends of the wedges.
Fourth, I claim the arresting or governing of the feed or take-up
otion that operates the cloth beam, by means of the action of the motion that operates the cloth beam, by means of the action of the
reed and nighter, the cloth beam and ffighter being connected by the
lever 315, slide $313_{3}$ pawl, 314, and ratchet, 431, or their equivalents, as
described.

34,382.-W. H. Thompson, of Cleveland, Ohio, for Improvement in Railroad Switch : I claim the stand, A, signal post, I, slotted arm, M, placed beneath parts are arranged, constructed and operated as and for the purpose
set forth. 34,383.-James Vincent and Samuel Leslie, of Quasqueton, Iowa, for Improvement in Churns
I claim the double comb breaker, $\mathbf{F} \mathbf{H}$, and cap, E , with the vessel,
and revolving platiorm, B , combined and operating in the manner $J$, and revolving platform,
|This invention consists in a simple arrangement of revolving table and a chucking mechanism in a frame of peculiar construction, where y the process of churning is performed in a common waterpail or her similar vessel by the centrifugal action of the cream.]
34,384.-Milan Waterbury, of Polo, Illinois, for Improve ment in Car Coupling:
Claim so combining the hooks or catches,- E E, with the spring hey may have a lateral motio
and for the purpose described.
34,385 .-I. S. Williams, of Philadelphia, Pa., for Improve-
ment in Camp Stoves :
I claim the outer casing, A. the inner casing, $\mathbf{D}$, the latter being com-
posed of two pieces hinged to each other, as set forth, in combination
posed of two preces hinged to each other, as set forth, in combination
with the cover, E, its upper tlange, i, and lower flange, e, the whole
being consuructed and arranged as set forth for he purpose specified. Second, The shelf, G, and the plates, Nand H, , with their hooked
Seing
Snd, and proiections, the whole being constructed and arranged
or suspension to the tlange, $i$, of the cover, as and for the purpose set orth.
34,386.-R. P. Wilson, of Cleveland, Ohio, for Improved
Washing Machine. Washing Machine :
claim the semi-spherical protiberances, $D$, and corrugated conI claim the semi-spherical protiberances, $D$, and corrugated con-
vex rubber, c, with the air-tight cylinder or barrel, , , arranged tor e-
olve in the direction olitslength, when combined, arranged and oper
ond ting in the manner described.
Lhis improvement relates to that class of washing machines in隹ich the washing is effected by the clothes or articles to be washed eing alternately precipitated from one end of a barrel mounted upon unnions to the opposite end, as it revolves, and the invention con ubjina arent boly subjected to a rubbing and pounding action as the barrel is revolved,
hus effecting the desired result without injury to the clothes in an easy and expeditious manner.]
4,387.-B. W. Wooster, of Albany, N. Y., for Improve ment in Handles for Coffins
I claim the combination of the handie, $H$, and its loop, $E$, construct.
d as described, with the ornamental plate, $P$, for the purpose set
34,388.-D.T. Yeakel, of Lafayette, Ind., for Improvement in Breech-Loading Ordnance
I claim the combination and arrangementof the hinged screw cap,
E, shaft, D, hoop, e, ratchet, h, stop, , a a nd breech, $A$, consti ucted
and operated substantalily as described. 34,389.-S. R. Andres, of Troy, N. Y., and Samuel Andres rovement in Articles of Food made of Sweet Pota toes
We claim desiccated cooked sweet potatoes, as a new article of man
ufacture, made as described or in any equivalent way. 34,390.-T. J. Barron, of Brooklyn, N. Y., assignor to Jas

Lamps:
Lamps:
I claim the employment or use in a lamp for burning coal oils or
ther similar hydrocarbons, of a wick tube, $D$, constructed of glass or burnt clay a a and for the purpose specified.
I further claim having the tube, D, constructed with a contracted
office, a, as and for the purpose set torth. 34,391.-W. H. Buckland, of Glamorgan Co., Great Bri tain, assignor to Emory Rider, of New York City, for
Improved Mode of Preparing Peat. Ante-dated Sep. Improved Mode
tember 30, 1859
I claim separating the decomposed from the fibrous or undecom posed portions of the peat by straining or keeping back the latte
while the decomposed portions of the peat are forced through the per
orated sides of the straining vessel or receptacle, substantially in the forated sides of the straining vessel or
manner and for the purpose specified.
[By this invention peat can be prepared in such a manner that the [me forms a desirable fuel, and the cost of preparing it is trifling.]
34,392.-D. H. Chamberlain, of West Roxbury, Mass., as
signor to himself and John Hartshorn, of Boston
por
I claim,
I claim, in combination wit ha reservoir for containing the fluid and
generator for evaporating in, the endless belt. $D$, and tubes, , for
onveying the fluid to the generator, substantially as described. for conveying the fluid to the generator, substuntially as described,
Second, I claim the generator, B , with its itsartitions, , in combina
tion with the cylinder, C , and its covered plates, $g$, substantially as set orth.
Third, I claim the reserv
substantially as specified.
34,393.-James Clayton and A braham Campbell, of Brooklyn, N. Y., assignors to Ront's Rotary Steam Engine ings or segments. $G^{G} G^{\prime} G^{*} G^{\prime *}$, or strips, $0^{\circ} \mathbf{P}^{\prime}$, constructed substan acking rmgs behind the abputments or in any oiner part of a rotary engine to operate substantally as set forth. in the segments, G $^{\prime}$ G $^{\prime}$ G $^{*}$
Second, The arrangement of the orifices in
$G^{* *}$, with respect to the steam spaces of the cylinder, substantially as described and for the purpose set forth.
Third, The arrangement of the two hollow expanding pieces, $p$ p' Tor packing the abutment one having communication with the the pylin'
der on one, and the other on the other side of the abutment bearing, der on one and the other on the other side of the abutment bearing
substantialy as specified. Fourth. The employment, in combination with three or more pis-
tons, and a steam jacket surrounding the cylinder, of two educuonn

fetion after the por, $n$, or $n$,
fied.
,394.-John Critcherson (assignor to himself and G. P.
Towle), of Boston, Mass., for Improved Roller for Clothes Wringer
I claim as a new article of manufacture, a roller for clothes wring-
ers consisting of disks of felt, C with int erposed disks of thin metal, d, arranged on a polygonal shatt, A, and secured thereon in a com.
pressed iorm by collars, B b, the while operating in the manner and
ior the purpose substantially as described. [This improvement relates to that class of clothes wringers which consist of the flexible or yielding rollers between which, under press-
ure and in motion, the clothes or otherarticles to be wrung are passed are and in motion, the clothes or otherarticles to be wrung are passed 34,395 -C. A. Cummings and F. M. Swallow, of Wcrcester, Mass., for Improved Clothes Wringer
We claim making the yofrys self-adjustable by means of the straps
and spring, when constructed and operating in the nianver and for the poses as set forth and described
34,396.-L.S. Fairchild, of Cleveland, Ohio, assignor to
Ohio, and A. J. Whiting, of Perry, Ohio, for Improve.
ment in Shingle Machines
I claim the intermitent screws, $O$ and $P$, gears, $M$ and $N$, cam, $R$,
dog. $S$, aad cam, $E^{\prime}$, when arranged and operating substantially in the
manner and for the purpose set forth.

I also claim the lever， V, spring， $\mathrm{J}^{\prime}$ ，segment gear， U ，in combination
with the dog， S ，and cam， $\mathrm{E}^{\prime}$, and spring，$I^{\prime}$ ，in the maner and for
with the dog， $\mathbf{S}$ ，and cam， $\mathbf{E}^{\prime}$ ，and spring，$I^{\prime}$ ，in the manner and for
the purposedescribed．
34，397．－J．Lof oendalll（assignor to himself and N．P．Lin－
dergreen），of Boston，Mass．，for Improvement in dergreen），of Boston，
Spool－holdin $x$ Devices：
Spool－holdin $\boldsymbol{x}$ Devices：
I claim the construction o ithe bracelet or wristuand $A$ ，and hooks， I clain the construction 0 ithe bracelet or wristuand，A，and hooks，
B ，either or both，to forma new and usef inl implement or device for
the purpose set forth．
［This invention consists in attaching one or more hooks to a bracelet ［This invention consists in attaching one or me balls or spools of yarn，
or wristband for the purpose of holding the the bracelet or wristband being placed on the arm of the person knit－ the bracelet or wristband being placed on the arm of the person knit
ting，and the ball or spool suspended to the bracelet or wristband by ting，and the ball or spool suspended to the bracelet or wristband by
the hook or hooks，so that the yarn may freely unwind fromthe ball or the hook or hooks，so that the yarn mad
spool during the process of knitting．］
spool during the process of knitting．］
Cleveland，Ohio，for Improvement in Water Eleva tors：
I claim a wheel or pulley having a $V$－shaped chan nel upon its per－
inpery tor eceive the chain or rope．the inclined sides，A，of said chan－
nel being corrugated lateraily and the bottom， C ，open，as and for the nel being corrugated
purpose described．
re－fssues．
1，273．－Moses Marshall，of Lowell，Mass．，for Improve ment in Pegging Machines．Patented November 5， 1861
claim a
I claim a feeding point so arranged and operated as to enter the hole
previously made by the awl ind move the machine along，for the pur－
1,274 ．－D．B．Rogers，of Allegheny，Pa．，for Improvement in Cultivator Teeth．Patented November 1， 1845. Re－issued September 20，1859，and Extended
First，I claim making cultivator teeth entire of thin plate steel，the
shank or upper part being bent or curved round in front，substantililly
as described and for the purposes set forth，irrespective of the mode as described and for the purposes
Second，A thaching cultivator teeth to the cultivator frame by insert－
ing the upp er end of the shank curved round in front for that pur－
pose），into a sutable hole in the beam，and driving a key or wedge into pose，into a sutathe hole ine theam，and thiving a key or wedge
the caviy of the tooth therey pressing the shank against the si
and front of the hole in the beam and thus securing it in its place．
1，275．－C．T．James，of Providence，R．I．，for Improvemen in Projectiles．Patented February 26，1856．Re－issued
December 11，1860： December 11， 1860
I claim combining with the bod，of the projectile an expansible
packing substantially as described，and capalle of being expanded
ontwardly a gainst the bore of the can non，and into the froovesthereo ontwadly a gainst the bore of the can and，and into the groovesthereof
if ritted，by the forco ofthe exploded charge acting inside of such pack ings，subsiantially as described．
I also claim connecting the expansible packing with the body of the
projectile ly clips，which will not．prevent the required expansion，and I also claim connecting the expansible packing with the body of the
projectile by clips which will not，prevent the required epansion，and
which will insure the rotation of the body of the projectile with such packing as described．
I also claim making
I also claim making the outer surface of the packing of projectiles，
intendee to he forced into contact with the bore of the cannon and into the groovesthereof，of fbrous，textile
stance，substantially as described．

## designs．

1，524．－John Eiberweiser and Edward Kettle，of Cincin 1，524．－John Eiberweiser and Eda 1，525．－H．G．Thompson，of New York City assignor to the Hartford Carpet Co．，for thirteen Designs for a Carpet Pattern．

## patents for sevevteen years．



The new Patent Laws enacted by Congress on the 2 d f March，1861，are now in full force，and prove to be of great benef 0 all parties who are concerned in new inventions．
The duration of patents granted under the new act is prolonged to seventeen years，and the government fee required on fling an appli cation for a patent is reduced from $\mathbf{\$ 3 0}$ down to $\mathbf{\$ 1 5}$ ．Other changes In the fees are also made as follows ：－


On filingapplication for Design，seven years．．．．
The law abolishes discrimination in fees required of foreigners，ex cepting reference to such countries as discriminate against citizens of the United States－thus allowing English，Freuch，Belgian．Austrian Russian，Spanish，and all other foreigners except the Canadians，to
$\sim$ njoy all the privileges of our patent system（except in cases of designs） －njoy all the privileges of our patent system（except in cases of designs） on the above terms．
During the last sixteen years，the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs．MUNN $\&$ CO．，in connection with the publica－ ion of the SCIENTIFIC AMERICAN；and as an evidence of the confldence reposed in our Agency by the Inventors throughout the country，we would state that we have acted as agents formore than FIFTEEN THOUSAND Inventors！In fact，the publishers of this paper have become identifled with the whole brotherhood of Inventor and Patentees at home and abroad．Thousands of Inventors for whom we have taken out Patents have addressed to us most flattering testimonials for the services we have rendered them，and the weaith which has inured to the Inventors whose Patents were sectured through this Offce，and afterward illustrated in the SCIENTIFIC AMERICAN，would amount to many millions of dollars：We would state that we never had a more efflcient corps of Draughtsmen and
Specifioation Writers than are emplosed at present in our extensive oflices，and we are prepared to attend to Patent business of all kinds in the quickest time and on the most hiberal terms．

## The Examination of Inventions．

Persons baving conceived an idea which they think may be patent－ able，are advised to make a sketch or model of their invention，and submitit to us，with a full description，for advice．The points of novelty

## $\underset{\substack{\text { acis } \\ \text { rorks }}}{ }$

Theaminary Examinations at the patent Uffee The adnce we render gratuitously upon examining an invention doe not extend to a search at the Patent Offce，to see if a like invention as been presented there，but is an opinion based upon whatknowledge Offce．Bqure of a similar inventioni frum the records in oum Ho escription，we have a special search made at the United States Patent Offce，and a report setting forth the prospects of obtaining a Paten cc．，made up and mailed to the Inventor，with a pamphlet，giving in structions for further proceedings．These preliminary examinations are made through our Branch Ofice，corner of $F$ and Seventh－streets， Washington，by experienced and competent persons．More than 5,000 such exambations have been made through this office during the past three years．Address MUNN \＆CO．，No． 37 Park－row，N．Y．

How to Make an Application for a Patent．
Every applicantf ora Patent must furnish a model of his invention If susceptible of one；or if the invention is a chemical production，he consists，for the Patent Office．These should be securely packed，the inventor＇s name marked on them，and gent，with the government fees by express．The express charge should be prepaid．Small models from distance can often be sentcheaperby mail．The safest way to remi money is by draft on New York，payable to the order of Munn \＆Co． money is by draft on New York，payable to the order of Munn a Co．
Persons who live in remnte parts of the country can usually purchase draftsfrom their merchants on their New York correspondents；but， 1 oot convenient to doso，there is but little risk in sending bank bills by mail，having the letter registered by the postmaster．Address MUNN \＆Co No． 37 Park－row．New York．

## Caveats．

Persons desiring to file a Caveat can have the papers prepared in the hortest time by sending a sketch and description of the invention he government foe for a Caveat，under the new law，is $\$ 10$ ．A pam hlet of advice regarding applications for Patents and Cas ish and German，furnished gratis on application by mail．Addres UUNN \＆CU．，No． 37 Park－row，New York．

## Foreign Patents．

We mex ling Patents in the various European countries．Forthe transaction of this rard St Martin Pars；and 26 Rus Epern，Lond Boule yard St．Martin，Paris；and 26 Rue des Eperonniers，Brussels．We ents secured to American citizens are procured through our Agency． ents secured to American citizens are procured through our Agency．
Inventors will do well to bear in mind that the English law does nc Inventors will do well to bear in mind that the English law does nct
imit the issue of Patents to Inventors．Any one can take out a Patent there．
Circulars of information concerning the proper course to be pursued in obtaining Patents in foreign countries through our Agency，the re quirements of different Patent Oflices，\＆c．，maybe had gratis upon ap－
plication at our principal offce，No． 37 Park－row，New York，or either fication at our principal

Assignments or Patents．
The assignment of Pateats，and agreements between Patentees and manufacturers，carefully preparedand placed upon the records at the Patent Oflice．Address MUNN \＆CO．，at the Scientific American Pat ent Agency，No． 37 Park－row，New Yurk．
It would require many columns to detail all the ways in which the Inventor or Patentee may be served at our offces．We cordially invite all who have anything to do with Patent property or inventions to cal tour extensive offices，No． 37 Park－row，New York，where any ques ons regarding the rigits of Patentees，will be cheerfully answered． Communications and remittances by mail，and models by express （prepaid）
耳ók．
Money Received
At the Scientific American Office on account of Patent Offce business．during one week preceding Wednesday，Feb．19， 1862：
J．B．Van D．，of N．Y．，$\$ 20$ ；J．G．L．，of Del．，$\$ 40$ ；B．and B．，of Pa $\$ 20$ ；D．F．M．，of Conn．，$\$ 40$ ；G．W．P．，of N．Y．，$\$ 45$ ；W．L．G．，of N．Y．，\＄45；L．C．P．，of Conn．，\＄45；P．J．，of N．J．，\＄25；J．A．L．，o N．Y．，$\$ 15$ ；O．W．S．，of Me．，$\$ 15 ;$ ， E ．S．，of N．Y．，$\$ 15$ ；J．H．C．，of
P．，and B．，of Mich．，$\$ 10$ ；R．H．，of N．Y．，$\$ 15 ;$ C．andF．，o Swa，\＄15；P．H．，of France，\＄24）；A．J．A．，of Wis．，\＄40；R．G．， ．Y．，\＄15；L．F．L．，of Ill．，\＄15；J．W．K．，of Mich．，\＄15：W．T．G．，of M．J．，$\$ 15$ ；R．M．G．，of Me．，$\$ 25$ ；C．W．S．，of Me．，$\$ 20$ ；C．B．S．，of
Mass．，$\$ 20$ ；J．P．，of N．Y．，$\$ 20$ ；F．H．C．，of N．J．，$\$ 20$ ；E．M．and J． Mass．，$\$ 20 ;$ J．P．，of N．Y．，$\$ 20 ;$ F．H．C．，of N．J．，$\$ 20 ;$ E．M．and J．
E．M．，of N．Y．，$\$ 45$ G．G．T．，of Mass．，$\$ 60$ ；J．S．，of Pa．，$\$ 43$ ；W．N． E．M．，of N．Y．，$\$ 45$ ；G．O．T．，of Mass．，$\$ 60$ ；J．S．，of Pa．，$\$ 43$ ，W．N
Conn．，$\$ 22$ ；W．O．H．，of Pa．，$\$ 40$ ；A．McF．，of Wis．，$\$ 25$ I．S．，o Conn．，$\$ 22$ ；W．O．I．，of Pa．，$\$ 40$ ；A．McF．，or Mas．，$\$ 15$ ；W．H．H．
N．Y．$\$ 22$ C．N ，of N．H．，$\$ 25$ J．H．V．，of Mas． of Conn．，$\$ 30$ ；C．R．，of Ya．，$\$ 15$ ；C．J．A．，of N．II．．$\$ 12$ ；W．McK Pa．．$\$ 15$ ；S．B．O．，of Cal．，$\$ 15$ ；O．S，of O．，$\$ 20$ ；G．N．C．，of Conn．
$\$ 15$ ；II．＇．P．，of Conn．，$\$ 15$ A．K．R．，of Vt．，$\$ 15$ ；E．M．J．，of N．Y． $\$ 15$ ；II．T．P．，of Conn．，$\$ 15 ;$ A．K．R．，of Vt．，$\$ 15$ ；E．M．J．，of N．Y．．
$\$ 20 ;$ J．A．B．，of Mass．，$\$ 20$ J．J．A．W．，of O．，$\$ 20$ ；G．M．Z．，of O．，$\$ 20$ ； $\$ 20$ ；J．A．B．，of Mass．，$\$ 20 ;$ J．A．W．，of O．，$\$ 20$ ；G．M．Z．，of O．，$\$ 20$
G．W．R．，or Ind．，$\$ 20 ;$ F．W．S．，of Pa．，$\$ 20 ;$ ．If．，of N．Y．，$\$ 25 ;$ J． H．G．，of Mass．，$\$ 15$ ；R．J．，of O．，$\$ 25$ ；S．A．，of－，－；A．J．，of N．Y．，$\$ 15$ ；C．C．，of Pa．，$\$ 20$ ；J．B．，of N．Y．，$\$ 15$ ；A．J．，of Iowa，$\$ 15$
II．I．，of Ill．，$\$ 55 ;$ E．J．W．，of N．Y $\$ 25$ J．S．F．of Ill $\$ 25$ F J．II．I．，of III．，$\$ 55$ ；E．J．W．，of N．Y．．$\$ 25$ ；J．S．F．．of Inl．，$\$ 25$ ；F
ndS．，of Wis．，$\$ 15$ ；K．II．E．，of Vt．，$\$ 25$ S S．A．B ndS．，of Wis．，$\$ 15$ ；K．II．E．，of Vt．，$\$ 25$ ；S．A．B．，of R．I．，$\$ 25$ ；J N．B．，of N．Y．．$\$ 15$ ；，I．J．A．，of Mich．．$\$ 15 ;$ J．Z．，of Il1．，$\$ 15 ;$ J．M．
of Cal．，$\$ 18 ;$ M．L．and V．，of N．Y．，$\$ 15 ;$ J．McG．，of N．Y．，$\$ 15 ;$ E of Cal．，$\$ 18$ ；M．L．and V．，of N．Y．，$\$ 15$ ；J．McG．，of N．Y．，$\$ 15 ; \mathbf{E}$
C．，of Ky．，$\$ 100$ V．L．，of N．Y．，$\$ 10 ;$ B．and Van D．，of N．Y．，$\$ 30$ C．C．，of Mich．，$\$ 15$ ；J．L．L．，of Pa．，$\$ 25$ ；C．E．，of Germany 160；G．P．and W．，of Ill．，\＄20；H．S．and R．，of Vt．，\＄43；G．W．，of N．Y．，$\$ 45$ ；A．McN．，of N．J．，$\$ 25$ ；L．J．and E．D．G．，of N．Y．，$\$ 25$
M．and T．，of N．J．，$\$ 25$ ；W．H．D．，of N．Y．，$\$ 30$ ；S．A．，of Me．，$\$ 15$ ．

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Paten Office from Feb．12，to Wednesday Feb．19， 1862 －
H．S．and R．，of Vt．；D．F．M．，of Conn．；J．G．L．，of Del．；H．J．， of Conn．；P．J．，of N．J．；A．McN．，of N．J．；A．McF．，of Wis．；L．J and E．D．G．，of N．Y．；R．J．，of O．；J．H．，of N．Y．；J．H．C．，of Pa． C．N．，of N．H．；W．H．H．，of Conn．；J．S．，of N．J．；C．J．A．，of
N．H．；J．S．，of N．Y．；K．H．E．，of Vt．；O．S．，of O．；S．A．B，，of R．I．； R．W．G．，of Me．；J．S．F．，of Ill．；J．H．I．，of ILL；M．and T．，of N．J． J．P．，of N．Y．；A．J．A．，of Wis．；E．J．W．，of N．J．，C．C．，of Pa．；W
H．D．，of N．Y．；G．F．J．C．，of N．J．；L．and D．，of London；B．and Van D．，of N．Y．；W．N．，of Conn．；C．E．S．，of Wis．；L．F．，of Ger many．


E．L．，of N．Y．－H．L．Lloyd \＆Co．，map publishers，No． 25 Howardstreet，have issued by far the best map of the United States we have yet seen．
L．R．R．，of Pa．－We are not advised of any efforts on the part of the Canadian Parliament to modify the patent laws of the provinces．
E．A．D．，of Mass．－Gumshellac dissolved in alcohol makes a wer J．F．A．，of New Brunswick．－Hydraulic cement is the proper substance for plastering your water vat．It must－be wet in smallquantities and put on immediately．If suffered to stand half an hour afterit is wet before being applied，it is spoiled．
J．B．，of N．J．－You can bleach leaves by hanging them in a barrel and burning a little sulphur in the barrel．The product of the combustion of sulphur
bleaching agent，and a gas．
F．E．，of Mass．－It was asserted that saltpeter confined in one of the stores in New York was the cause of several explosions during a large fire，but experiments have failed to confirm such as－ sertions．
R．H．J．，of Ill－－Operators on telegraph lines frequently communicate with one another by touch without a sounding mag net．No visitors are now permitted to stand in the vicinity of the soundingmagnetin the telegraph offices
L．C．C．，of Mass．－The gun powder engine to which you refer is not patented．We do not think such an engine is suitable for propelling your air ship．
A．J．K．，of Ill．－We do not know where you can obtain a hollow iron wire tube about, th th of an inch in diameter．
H．B．，of C．W．－A niline colors are not suitable for color ing glass by being melted in a crucible for blowing．
L．E．H．，of Conn．－A bout the time the article to which you refer about perpetual motion，appeared in the Journal of Cominerce，
we published the article in fullin the Scifntific American．We re－ we published the article in full in the Scif
fer you to the back volumes of the paper．
G．H．W．，of N．Y－On page 198，Vol．IV．of the Scien tific Amprican，you will find the regulation about the admission of engineers into our navy．
R．J．，of Ill．－You will find tables of the weight of round and square rolled iron on page 184 of＂Nystrom＇s Mechanic＇s Pocket Book，＂published by J．B．Lippincott \＆Co．，Philadelphia Muntz metal is composed of 6 parts copper and 4 of zinc．
S．C．，of N．Y．－Porcelain is gilded by paintingfinely com minutedgoldon to the surface mixed with a fusible frit．It is th 11 allowed to dry and is put into a potters kiln and fused．Messrs． A．E．J．，of Conn．－The silicate of potash renders wood hard and impervious to moisture，if it is washed with dilute muriate aci after the silicate has becomedry．
S．O．C．，of N．Y．－The composition for rockets consists of one pound of gunpowder to two ounces of soft charcoal in powder and one and a halt ounces of saltpeter．For the largest rockets add some sulphur and iron filings．Mix thess ingredients dry．The composition muybe varied and you can use ．justsuch a quantity of
it as will answer for the size of the rocket you require．
V．P．F．，of Vt．－It has been proposed to us several times to propel a vessel by a steam jet acting upon the water through a
tube at the stern，but the mode is not good，on account of the con－ densation of so much steam without producing mechanical propel ling action in the vessel．A jet of water has been applied in this manner without success．This was Rumsey＇s mode of propelling vessels and was used upon the first steamboat in America．
E．\＆R．，of－－－Zinc is manufactured by the Lehigh Zinc Co．，Bethlehem，Pa．，to whom we refer you for particulars．
C．S．，of Ohio．－You will find a full account of the Besse mer proces in the back volumes of the Scientific American to which we refer you．Unless you can show good reason for your de． lay，in applying for a patent on your improvement in the manufac ture of iron，the oflice might refuse to allow your claim on the ground of abandomment．It will not do for an inventor to look on and see another develop and put into public use an improvement and the to it．This practice will not of
C．T．，of Phila．－Horn is softened by boiling it in water．It becomes so pliable that it may be molded under pressure into almos any form．In order to render horn smooth it should be scraped when it is soft atter being boiled．It may be scraped so thin as to
become almost transparent．The nitrate of siver is employed to stain it black and nitric acid colors it yellow．
W．，of N．Y．－The lens having the highest magnifying power is t
convexity．
J．G．W．，of N．Y．－The application of several charges in the barrel of a musket，to be discharged in succession，one after another is not new，as a patent was granted in 1825 to J．Mould， London，for thus constructing fire－arms．

Special Notice－Foreign Patent．－The population－ Great Britain，is $30,000,000$ ；of France， $35,000,000$ ；Belgium， $5,000,000$ Austria， $40,000,000 ;$ Prussia， $20,000,000$ ；and Russia， $60,000,000$ ． Patents may be secure by American citizens in all of these coun tries．Now is the time，while business is dull at home，to take ad vantage of these immense foreign fields．Mechanical improvements of all kinds are always in demand in Europe．There will never be a better time than the present to takepatents abroad．We have re liablebusiness connections with the principal capitals of Europe． Nearly all of the patentssecured in foreign countries by American are obtained through our agency．Address Munn \＆Co．， 37 Park row，Now York．Circulars about foregn patents furnis hedfree．

