## discoteries and inventions abroad.

Oxalic Acid from Saw-dust.--At a meeting of the Pharmaceutical Society, of Edinburgh, a paper was read by D. M. Thomson, F.R.S., on the manufacture of oxalic acid from saw-dust by Mr. D. Dale. It was discovered more than twenty gears ago by GayLussac that several vegetable substances treated with caustic potash yielded oxalic acid, but on account of the high price of potash it could not be thus employed, and the cheaper alkali (soda) was found incapable of producing a like result. It at last oc curred to Mr. Dale to try a mixture of soda and potash with saw-dust, and almost unexpectedly he has succeeded in obtaining as much oxalic acid as if he had used potash altogether. He uses two parts of soda and one part of potash, dissolves them in water and produces a solution of 1.35 specific gravity, into which saw-dust is stirred until a thick paste is formed This paste is then heated on iron plates and is con stantly stirred. The mass swells during this oper ation and inflammable gases having an aromatic odor are given off. The temperature of $400^{\circ} \mathrm{Fah}$. is main tained for two hours, and then the mass is completely dried by longer exposure, taking care not to burn it After this it is reduced to powder, placed on a filter and washed with a solution of the carbonate of soda which seems to have the power of decomposing the oxalate of potash and converting it into the oxalate of soda. To obtain the oxalic acid the oxalate of soda is boiled with milk of lime, when the acid unites with the lime, leaving the soda in solution, and it is concentrated and used over again with the potash. The oxalate of lime thus formed is now placed in leaden vessels, boiled with dilute sulphuric acid, when the sulphate of lime is formed and falls in a precipitate, leaving the oxalic acid in the solution, which is evaporated in another vessel and the oxalic acid obtained in crystals. By this ingenious process two pounds of saw dust are made to yield one pound of oxalic acid, and about nine tuns are manufactured weekly at the works of Roberts, Dale \& Co., near Manchester, England. Oxalic acid is employed for removing iron stains from straw hats and linen, and it is one of the best tests for lime in water. This new process has reduced the cost of this acid one-half. In 1851, it was sold for about 32 cents per pound; it now costs sixteen, where it is manufactured.
Steam Boilers.-A patent has been taken out by C. W. Williams, of Liverpool (the author of a most able work on the combustion of fuel under loilers) for an improvement in builers-the object of the improvement being to increase their evaporative powers. It consists in substituting for the ordinary long tubes or flues employed in locomotive, marine and other steam boilers, sets or series of short tubes or flues of a circular, rectangular or other form, at short distances apart, the ends of each set or series beiug fitted into tube plates or face plates like those into which the long tubes af oresaid are united. The object of this arrangement is to increase the number of tube plates or face plates against which the flame and hot gases generated in the furnace strike. Mr. Williams states that he has found by experiment that a tube plate or face plate surface exposed to the direct action of the flame and hot gases is much more efficient than the interior surface of the tubes themselves in transmitting heat to the water within the boiler.
Drying Paper.-A patent has been taken out by T. H. Saunders and J. Millbourn, of Dartford, England, for a mode of drying paper as it comes from the machine and previous to its being introduced to the sizing vat. The usual mode of drying paper as it comes from the machine in a continuous web is to pass it over and in contact with heated cylinders. The paper thus dried is alleged to be inferior in strength to hand made paper which is "air-dried" the sheets being hung uponlines and dried in the air. By the new-patented method, the web of paper is made to pass over a series of skeleton drums, and during its passage it is subjected to currents of air which carry off its moisture. Paper that is "enginesized '" may also be treated in the same mander. It is asserted that machine made paper, when dried in this manner, is of as good quality as hand made paper.

Composition for removing Boiler Incrustations.-M. Delrue, of Dunkirk, France, has taken out a patent for a preparation of ouk and sumac bark, concentrated
to the strength of 100 Beaume, to which is added 30 per cent of cream-of tartar and turpentine. About three gallons of this composition are added every ten days for every thousand gallons of water in a boiler. It may be better than the numerous other substances which have been and are now used to effect the same objects.

## RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week. The claims may be found in the official list.
Pump.-This invention relates to an improvement in that class of pumps which are provided with a tubular piston rod to serve as a water-discharge pipe, and which pumps are submerged and used for domestic or household purposes. The invention consists in the employment of a lever arranged in relation with the check valves of the pump in such a man ner that only one of the valves can remain closed at the same time, so that when the pump is stopped after use, the water will be allowed to fall in the piston rod or discharge pipe until it reaches the level of the water in the well, and consequently fresh, cool water obtained at once each time the pump is operated. The invention for this consists in a novel arrangement of the piston and valves whereby a simple and efficient means is obtained for drawing into and forcing the water from the pump chamber into the piston rod and discharge pipe. Nathan Stedman, of Aurora, Ind., is the inventor of this improvement
Strav-culter.-This invention consists in giving to the bottom of the box of a straw-cutter a rising and falling motion in opposite directions to the motion of the knife by the action of the same lever which im. parts motion to the knife in such a manner that the stroke of the knife can be reduced one balf of tbat of knives of ordinary straw-cutters, and still the same effect be produced which ordinary straw-cutters produce by the full stroke ; and further, the leverage of the hand lever is increased and the cutting is effected quickly and with less exertion than by the ordinary straw-cutters; it consists further in the arrangement of a lever which has its fulcrum on a pivot secured in the main frame, in combination with the hand lever which is suspended at one end from a link pivoted to the main frame and which is fast ened in its middle to the knife head, which is connected to the main frame by a short link, in such a manner that the hand lever, together with the knife head, receives a drawing motion, and the operation of cutting is thereby considerably facilitated. Richard Washburne, of Ramapo, N. Y., is the inventor of this straw-cutter. Address Judge $S$. Garrison, 22 Court street, Brooklyn, N. Y.
Direct-action Steam Pump.-This invention relates to the connection of the water and steam valves so that both shall operate at the same moment to change the direction of the movement of the pistons. Only a single valve is employed on each cylinder, such valve being of the rolling or cock kind; and the invention consists in making the connection of the said valves by means of weighted levers and a tappet arm on the piston rod, whereby a very simple and very effective system of valves and valve gear for direct-action steam pumps is obtained. • J. A. Reed, of Jersey City, N. J., is the inventor of this improvement.
Adjustable Vise.-The object of this invention is to obtain a vise of simple construction which will be capable of being adjusted and secured in various positions, so that different kinds of work may be held parallel or at an inclination in any direction, as circumstances may require. The invention consists in attaching a vise of any proper or suitable construction to a ball or sphere, which is fitted in a spherical socket formed in a clamp, the parts of which are held in proper position to secure the ball and vise at any desired point by means of a lever and clasp. Norman Allen, of West Meriden, Conn., is the inventor of this vise.

A Hint to Hay-makers.-"April 7, 1863," is the correct date of the patent granted to L. Rundell, of Coxsackie, N. Y., for the simple and efficient hay-fork that was illustrated and described on page 304, current volnme of the Scientifio Akraioan.


ISSUED FROM THE UNITED STATES PATENT OFFICE for the weet ending aprili, 28, 1863.
*** Pamphlets containing the Patent Laws and full par. ticulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing munn \& CO., Publishers of the Scientific american, New York.
38,271.-Foot Stove.-Sterling Ackley, Hudson, Mich.: ubstantially in manner as and for the purpyese described. 38.272.- Boot.- J. Holmes Agnew, Dobbs Ferry, N. Y.: I claim as an imprived article of manufucture a buot haring an
opening or in incisim, $B$, in $1 t$ insiep privided with a lacing, $D$, or
 ends to the inner side or th
substantially as set forth.
[This invention consists in making an opening or incission in the top of the instep of the boot, and leaving said opening or incission provided with a lacing, elastic or any suitable fastening by which $i_{t}$ may be opened and closed, and also prorided with a tongue and ar-
ranged in a novel way at the inner side of the boot, 38,273.-Vise.-Norman Allen, West Meriden, Conn.:
 lerer or an equivalent fastening appli,
operate as and tor the purpose specified.
38,274.-Railroad.-Joseph Anthony, Greenbush, N. Y.:

 the sleeper and the gage bar.
38,275.-Grain Drill.-Thomas D. Aylsworth, Pine Bend, Minn.:
Minam, irst, The v.spaped drill teeth, H, atheched to the rock-
shafti, $G$, by means of he sprugs, I I, in the manner and for the pur:
 K, prolided with the pulley, i , as and for the purposes above de-
Scirped
Third. The combination of the teeth, H , tubes, J , and seed-rollers,

 38,276.-Sewing Machine.-Cyrus W. Baldwin, Boston, Mass.:

 $\substack{\text { operat } \\ \text { forth } \\ \text { fice }}$
St
 Third, in claim the revaliving honk. $K$, constructed and operated as
 structed and operating as and for the purposes hervin described and


Fifth, I Ihiin the adinstable cam, $\boldsymbol{g}^{\prime}$, constructed and operating as
descrived in my furth claim. in combination with the cam or eccen.
 whule con-tructed and
puse herein set furth.
38.277.-Fly Trap.-N. P. Bassett, Fulton, N. Y.

 her, A. or othrer smilihr
trap as herein see forth.
This invention relates to an improvement on the simple and well Known fly trap, hitherto formed of a tumbler or other similar vessel, with molasses or other suitable substance at its under side. 1
38,278.-Sugar Evaporator.-J. A. Bowlus, Fremont,
I claim, first, The arrangement of oscillating arms, e, with slats,

 Second, The arrangement of the side channells, E, In ictimbination
wit the skimmer, $D$, and pan, $A$, as and for the purpose shown and descrived.
This invention consiats in the arrangement of oscillating slatted arms projecting on opposite sides from a shift which has its bearings in tothed segments rolling on correspondingly thothed racks in com-
bination with a pan having inclined sides and provided with side channels to receive the scum in such a manner, that ty means of the slats on the ends of sal doscillatory arms, the scum, which naturally settles down upon the inclined sides as soon as the boiltng commences, can be removed and pushed into the side channels through which it is conducted to suituble barrels or ressels, and that one opera
tor is enabled to remove the scum from both sides of the pan without chanking his position or walking from one side of the pan to the other.]
38,279.-Revolving Fise-arm.-Christopher C. Brand, NorWich, Conn.:




 rell in a recess in the mock, of, a irigerer permanenty cunnecied with
the stock, the whole belng arranged $w$ uperate substantially as set



Fourth. The combination with a sliding revolving"cylinder and a
lock containing guide case when moving together in recesses
stock to and from the barrel of a percussion pla located with in said stock to and from the barrel of a percussion pln locetede with n said
case to trannit the blow the hammer to the cartridge in the bar.
rel, subsiantially as set forth.
 of $x$ mechanism for operaing the revolution of the crillnder under
sucb arrangem ent that whe the gaid lever is ralsed on a plot on such arrangem ent that when the said lever is ralised on a pliot on
the rear end thereof, the cylinder itrawn dack and in line with the
barrel and rotated upon its axis, substantially as herein set forth. 38,2s0.-Breech-loading Fire-arm.--Christopher C. Brand, Norwich, Conn.:

 breech-block and actuated by the hammer substantlally in the man-
ner and for the purpose heretn betore set forth.
Second, In breech-loading tire-arms in which a silding breech-pin together with the lock is moved to and from the barrel by alerer and
ann intermediate llin $k$ as described, I clalm guiding tbe sald breect.
pin pin by means of a holiow gulde bolt made in one piece with or perma-
nenny altached to the sald brech.pin in combination with he ar.
rangementof the main-spring within

 [By this improvement the clearing iof the teeth is eff ected mo horoughty and with less labor than with rakes previousiy in use.] 38,282.--Needle for Sewing Machines.--Franklin H. Brown, Chicago, Ill.:


 in described.
38,283.-White Lead.-Thomas Cobley, London, England: I claim the manufacture of white lead from crushed or ground ore I the same.
I alio elaim the method of treating precipitated white-iead with
an
 line and the covering properties of lead are largely increased.
$\mathbf{3 8 , 2 8 4}$ - Lamp.-Mills L. Callender, New York City I claim, first, The use and application of vulcanized india-rubber, out in combination with $A$ wick-tube and burner.
second, I claim attaching the hande to the top of a lam burner In the manner substancially as
and hotk.cach, $\mathbf{F}$.
Thrd clain Third, I claun securing the chimney holder and applianees to the
lamp burner by spring for the purposes and in the manner sub-
standialy as represenied; also combining. the spring and handie sub.

 the manner and ior the purposea substantially as described.
Seventh, I calim a corrugated metallic chmmey case arranged in


 Whereby the reflector is secured to the chimney at any height. for the purposes and in the manner as descn bed, substanthally.
Twellit I clam a supgnomy shade or refe ector holder and silde
substantially as described when formed or cut from one piece of
 L, where the oppusite sides of the round. tlame orifice are rajed or
conver , as as to llatent the llame of a round wick.
Fourieenth 1 ctial a lame arranged with any orall the improve

38,285.-Treatment of Metallic Silicates and the Manu fucture of Hydro-fuo-silicic Acid.-Thomas Cobley
facture of Hydro-fiuo-silicic Acid.-Thomas Cobley,
Hahl, Bavaria. Patented in England, Jul 9 , 861 : I claim, 1 rst, The application or fuorine or desilizing metainc
bases as berent desorited and set forth.
Second. The manufacture and production of nuo-sillecic actd and
 the procesgi for degilh:
nortlied and sel forth.
38,286.-Manufacture of Porcelain, Glass, \&c., by the use
of Fluor-silicates.-Thomas Cobley, Hahl, Bavaria, ar Jaor-silicates.-Thomas Cobley, Hahl, Bavaria and James C. Coombe, 1 England July 15,1861 : We claim, first, The eapplication of fluo-silicates in combination with
 micosilicicsaits of (hea kikalus, alkanline earths and ot ther arting bases for the phosphoric compounds of the same or other bases in the
manufacure of glass, pottery, porcelain, and other ceramic and plas
tic wares The appllcation of the fiuo- sillcates of lead and baryta,
Second,
elther separately or tugether to the manufacture of glass and porceelther separately or tugether to the mandacture of gans and porce,
lain elther as a glaze or a a pigment and either appled and used as
direct or real tuo-silicates or by the a mixture of any sait of lead or

ployed same resility The application of fluo-silicate of tin as a pligment or glaze or
Third.
enamel in the manufacture of porcelain, of baryta in comblnation enamel in the manufacture of porcelailn, of baryta in combination
with fuo.silicate of zinc, as a substlyute for lead in the manuacture
of glass, and in oombination with tluo silleate of tin as a glaze or
 zinc either alone or in combination with fluo-silleate of baryta in the
manufacture of glass substantially as described and set forth in the
body of this apecifcation. body of this specification.
38,287.-Indurating and preserving Stone, Cement, Wood, \&c.-James Cane Coombe, Haxton, England. Pat-
ented in England March 14, 1861: ented in England March 14, 1861:
I claim, first, The process herein described for indurating and pre-
serving sitone, rrick,
 as set forth.
Socond, The process hereln describedfor the manufacture of artl-
ficial stones, mortar, eement and such like substunces, by the emm. pleymant or' hydroftiuo-silicic acid, preclpltated sillca, lime and alka-38,288,-Clasp for closing :Preserve`.Jars.—James A. I claimthe clasp, d dd, operating and working substantlally as de-
38,289.-Double Frilling.-C. O. Crosby \& Henry,Kellogg, New Haven, Conn.:
We claim the article of nunnufacture called double frilling having
the essenilal characteristics substantially as described, or in other Words made of one piece with a center line of crimpser piaits each
with a well defled edge ecured in place and held fiatand smooth by
ait
 38,290.-Window-sash Fastener.-Ephraim Culver, Shel 38,290.-Window-sash Fastener.-Ephraim Culver, Shel burne, Mass.. and Thomas J. Pomeroy, East Hamp-
ton, Mass.:


38,291.-Pump.-Lewis H. Davis, West Chester, Pa.:
I, claim, Arst, The hollow eylinder, $G$ arranged with in the barrel,
purpose herrein cover, b, , and packing, B , substantially as and for the pecond, In combinathon with the packing. H, cylluder, $G$, and its
prujection, $h$, I clalm the Eland or follower, ranged and constructed that the packlng for the piston and piston-rod
may be tightened simultaneously by forclng the sald follower, in in
the cover he cover, b.
Third, The chambers, K K' and $L^{\prime}$, with their respective valves and
openings, the whole bolng arranged in respect to each other, and to openings, the who bolng arranged in respect to each other, and to
the chambers of the barrel, to the air vessel, and to the suction plpe,
substantially as sel forth. 38,292.- Propeller.-William H. Degges, Washington,
D. C. I claim forming the blades or threadsof thescrew of the two plates,
$b$, and the cap, $d$, as and tor the purposes herein set forth. 38,293.-Rudder.-William H. Degges, Waghing ton, D. C. I claim constructing ruddere of the form and having the front sur 38,294.-Bhip-building.-William H. Degges, Washington
D. C.: I claim as an improvement in the construction of vessels, so form.
ing the sides thereof as that recesses contlnuous throughout the
engh of ng the sides thereof as that recesses continuous throughout the
engith of the vessel will exist thereln, as and for the purposes here
in set forth. 38,295.-Cultivator.-William D. Dorsey, Decatur, Il.:
 IThe o
vice for cultivating corn, one which will be under the complete con trol of the driver or operator, be of light or easy draught, and oper te without injuring the corn, the latter being protected by shields.] 38,296.-Mill-stone.-Daniel Drawbaugh, Ebersly's Mills
Pa.: I claim
 and thus regulate the driving force at all 10 our points of contact, sub
stantially asand tor the purpose described.
second, Supportitg the runner on the ith of tbe spindle by mea ns of removabe or adiusable pin or plug fur the purpose of preaerv
ing this point of suspension as near ine center of the stone, as it ng this point of suspension as near the center
wears away, as possible, substantially as described.
38,297.-Chrome Compound.-Asahel K. Eaton, New York I claim the chromite of baryta, as a new artlele of manufacture. 38,298.-Ink for printing Bank-notes, \&c.-Asahel K Eaton, New York City:
I clamm the use of the chromite of baryta as a tint for the 'protec-
an of bank-notesand olher similar work. 38,299.-Farmers' Boiler.--Matt Ellis, South Carver, Mass.:

38,300.-A pparatus for evaporating Saccharine Liquids. -
George V. Evans, Bostion, Mass.: quivalents for conveying steam equally to all parts of the heating
 Second, I cla im the use of skeleton revoling disks consisting of
an outer rim or plate with radial bars extending foin their shar the seid rim or plate, so as to leave large apertures in the sald disk as described.
Third, In com bination with rotating disks o
or fans operating substantially as described.
38,301-Alloys of Aluminum.-Moses G. Farmer, ${ }^{\text {TBalem }}$ Mass. Antedated Jan. 3, 1863 :
I clalm the alloys within desoribed as compounded substantlally :o
the metals and in the proportions set forth. 38,302.-Adjustable Lamp-wick.-George Finley, Collins Townsihip, Pa.:
burner and cone or cap of lamps, substantially as hereln before de scribed so that the wick-tube maj be depressed sit pleasure 80 far as to bring the top or the wick below the base of the cone; or csp and
away from the inluence or the dran. produced by the cone, the
burner frame, below the cone, being furnshed with an opening or
and urner frame, below the cone, being furnighed wilh an opening or
openings through which the wick can be lighted or trimmed for the
purposes hereinbefore set forth. 38,303.-Carbon-oil Lamp.—Orlando V. Flora,'Cincinnati, Ohio:
I claim the
I claim the corrugated body, or case, $\mathbf{C}$, of peforated metul or ma I siso clifm the concave faage, D, foccomblnation with the corrn gated, perforated body or case, subatantially as and tor the purpose
herein set forth.
38,304.-Antomatic Gate.-John W. Foster, Racine, Wis.
 ton ary poinis, i, upon which the gate is supported.
Second, The boss, E, working upon a vertical guide.rod, F, and em. ployed in combination with levers, $C$ and $H$, to communicate the em
cirred motion to the gate or gatesfrnma wetght applled to any par
 eplatiorm, B, and gate or gates for the purposes specified.
"lazy tongs" frames. It is exceedingly sensitive in its action." On the approach of a vehicle, animal or person which it is designed to permit the passage of, the gate contracts automatically within one elghth of is extended length and afterwards is automatically restored its closed position.]
38,305.-Coal-oil Lamp.-Benjamin Garvey, New York City:
claim, frst, Wlek-tubes, the diameter of which is determined in

 38,306.-Dying Wool, Bilk, \&c. With Aniline Colors. Robert H. Gratrix, New York City
ilk or other animal substances of the solution herfin
 [This inventlon applles to yarns or fabrics made of worsted, wool, silk or other animal substances not mixed with cotton or other vege yarns or fabrics of chloride of lime and sulphuric actd in certain proportions, preparatory to the dyeing process.]
38,307.-Washing Machine.-Isaac Haldeman, Bucyrus, I claim, first, The serrated boxes, a, for the purpose berein fally de Second, I claim the construction a nd arrangement of the truncated rollers. hi in ine manner herein set forth. manner of construculng the tub, B, the whole arranged substantiall
as hereln





 38,310.—Washing Machine.-Paul Keller and Joshua Rogers, of Sablette, ilil:

 38,311 . - Mode of Converting Motion.-Stephen C. Ketch-

 [This device, for converink rolating tino recip This device, for converink rotaing into reciprocating motion, is and a slotted, hooked rod carrying a pin, which enters the groove of the disk.]
38,312.-Machine for making Trimming.-Eugene Joseph
Laurent, New York City:
claim a rotating pattern block ${ }^{\text {itted }}$ with projections suitable or
 projections.
Ialiso claim the combination of said rotating pattern block with an herein set forth.
I also claim the combination of said rotating pattern block with a cord tenalon, the whole nperating substantially as herein sel forth.
I also claim the comblnation of sald rotating pattern block with one ein one forth. I iso claim the combination of said rotating pattern block with a
holder for supporting the same, the whole operating substantially as bereiv sel forth. I also claim the comblnation of the sald rotating pattern block with
a stripper, the whole operating substantially as herein set forth. 38,313.-Corn Planter.-William H. Maple, Chariton, Iowa:
I claim the
I claim the shaft, $K$, provided with a crank, 1 , and the lever, I, con-
nected with the crank,
as 6 bown, for operating the seed side,
$H$ When sald parts are applied N , or used in combination wilh, a beam
A, having three shares, E C C actached to it, and all arranged as sel
Corth.

LThis invention consists in a novel seed.distributing device arranged in such a manner that it may be readily operated by hand in guiding themachine, and having sald seed-distributing device applied to rame provided with three shares, all being arranged in such a man ner that the implement will form the furrow, drop the seed and cor e same, and be capable, when desired, of being used as a cultivato保
38,314.- Manufacture of Wooden Moldinge or Strips for the Frames of Mirrors,
Marcher, New Yori City
I claim a molding or strip for the manufnctura of picturs and other ine manner substantialiy as herein set forth. [This invention relates to an improvement in are provided with an nner gilit portion or edge.
38,315.-Hand Stamp.-George McClement, Philadelphia, Pa. :
I claim,
irst, The combination of the type bor constructed sub-
 ur, $B$ a, and screw, $d$, or its equivalent, in the manner and for the 38,316.-Screw Wrench.-A. Y. McDonald, Dabuque, I claim the sliding jaw, U, provided with the spring, E, In combina
Hon with the sop H, and screw, F, the later beifg fued in an in erpal or female screw, a, in the iaw, $D$ and the stop, $H$, provided 38,317.-Gate.-William L. McDowell, Philadelphia, Pa. I claim combining the draw.bar, B, with a basket grate, A, by,

 38,318.-Stove.-William L. McDowell, Philadelphia, Pa. :
 fed.
Seond, The employment of a series of deflecting plates, D D1 D2
3, arranged and supported around the cylinder or Bre bex of a stove oas to operate in the manner described and for the purposes spect 38,319.-Stove.-David H. Metcalf and Charles F. Bock, We clalm, frst, Combining
hort alr-beating chamber, d, perforated bottom, ecec, alr-heatin



 38,320.-Coffee-roaster.-C. A. Mills, Hazel Green, Wis.

 [Thin Invention and improvement consists in combining clock mech the latterwill, when placed over a fire, be rotated and tbe cofie roasted in a proper manner without the care of an attendant or a $\begin{gathered}\text { n }\end{gathered}$ manipulation whatever, afterthe mechanism is wound up and the roaster properly adjusted for use.]
38,321.-Revolving Fire-arm_Daniel Moore, Brooklyn I claim, Arst, The circular abutment, 2, at the rear end of the cyllin
der, partially cloung the chambers, in combination with a fixed nbut ment, 3, projecting from the stock sind oovering the open portion a
the rear end of the chamber on line with the barrel, as sel forth. Socond, I clatm the gate, o, fited to swing on the centel, 8, upon
the brackec, c. of the barrel, ant when closed retain the cartridge
cases in the chamber, as set forth. 38,322.-Metal Cartridge for Cannon.-Willis E. Moore, Crawfordsville, Ind. Antedated Dec. 18,1861 :
I clam, Isid, Eryechin the discharge of themetal case of a cartidge
substanclally as set forth.

Second. A cartridge made of taper form and with one or more weal
point in tis circumference, substantially in the manner and for the purpose set forth.
38,323.-Straw-cutter.-Jacob H. Mumma, Harrisburgh Pa.
cacing the arraw. cating the straw.
8econd, 1 also claim the finged roller underneat
drawing of thestraw forward to the cutter bar.
38,324.-Sash-fastening.-J. R. Murphy, Pittsburgh, Pa I claim a sam rastener composed of two pivoted knee-shaped
pieces with cam-shaped presser feet controlled by spring the whol pieces with cam-shaped presser feet controlled by spring the whole
being con ntructod, arranged and operallg in connection with the
windowf rame to hold the sash at any axed polnt thereln witbon
 38,325.-Umbrella.-Walter P. Newhall, New York City I olaim an umbrella, Ita rod or bow, having the eye or loop for at
taching tbe brace therelo, formed froinn the continuous lengh of the
said rod or bow by bending itin the shape substancially as bereinbesind rod or bow
fore described.
38,326.-Photographic Printing Frame'and Slide.-Marcus Ormsbee, New York City
Iclaim, first, A perforated slide ${ }^{\text {D D, }}$, of metal or other materlal, ad
jastable in its proximity to the negative plate, substantially as de
seribed.
 poses set forth.
Third The uas of the doubly. ground glasses, $G$ G, in the manner
seiforth, to soften and equalizithe light.
[By means of this apparatus any number of pictures can be printed with accuracy at one operation. The perishable parts are protecte so that no injury can result to the apparatus or the pictures by an acc
dental exposure to rain.] 38,327.-Window Ventilator.-George W. Otis, Lynn
Mass.: I claim a ventliating atlachment to a window, consistingof the parts
ABC $\overline{\text { a }}$ and
with or the their equivalientis, when arranged and combined 38,328.-Beehive.-Leonard Parker, Winterset, Iowa : I claim, Arst, The miller trap, g, when arranged and constructed a
herein described for the purpose set forth
Second, The frama, a, Cor brood comb, when used in combination Second The frama, a, for brood oomb, when used in combination
wit the homestead, $d$, as herein deacribed and for the purpoes ae
forth
Third, The arrangement of the guide $m$, doors, o, and perforate
 38,329.-Shingle Machine.-S. J. Parker, Williamsport,
Plasim ithe vibrating block, $M$, provided with the forks, o 0 , and
I con neoced with the ratchet wheels, $D$, by meane of the connecting
orme, L, crank arm, E E, and pawla, $i$, when the same is operated
 by meane of the stationary iriction roller, q, or its equivalent, ta sucb
a manner hat the carringeiisalloweda froe movementforth and back,
and the said ratchet wheels are actuated equally, whether the recip. rocations are long or short, the whole arranged, combined and operat
ing ubbilatinly a heren set forth.

















 38,330.-Machinery for separating the Fibers of Tropical Plants.-Edward Jannes y Patrullo, New York City

 and combined with feed roils adapted to aliow the presentation and
remoral of the leavers.gubstantially in the manner and with the ad-
Fantageherein set forih removal of the leavesis
vantage herein set forth.
38,331.-Gate.-James M. Pierce, Mokena, Ill
 heretn shown and described, so that by pulling one of said cords the
gate whll be opened and fastened opent and by pulling the opposite
cord, he gate will be removed from ihe shoulder, f, anc caused to
close by tit own gravity, all as set forth.
IThis invention conalate in hanging the gate or door on an adjustable of chains or other suitable meana, be inclined and admitt of the gate or door opening and closing by its own gravity. An engraving of this invention will shortly appear in the Sciennino Amrican.]
38,332.-Flue Wall for Salt Blocks.-Timothy R. Porter
Syracuse, N. Y., and George H. Cook, New Bruns We clatim the application of hollow walls to the construction of fue
wall in salt blocks substantially as set forth in the foregoing de-38,333.-Press.-William C. Ray, Redington, N. J.

38,334.-Direct-action Steam Pump.- John A. Reed, Jer-
sey City, N. J. Antedated Jan. 23, 1863:

subotantialy as herena spectioed.
38,335.-Mode of preventing the counterfeiting of Bank-
notes, dc.-Isaac Rehn, Philadelphia Pa. notes, \&c.- Isaac Rehn, Philadelphia, Pa. :
claim the cembination of the wort of engraved plates
If claim the combinatinn of the work of engraved plates with photo.
uithography or other modes of photography upon metal or other sub.
stances from which impressions may be printod in ink for the pro
ductlon of bank
fication an or papar accompanying exhibitas. 38,336.-Revolving Fire-arm.-James Reid, New York I claim, first, The nipple breeches screwed into the rear ends of the
chambers in the revolving cylinder, in combination with the recoil plate at the rear of the cyllider, fiting in such a manner as to allow
 second, claim the segmental plate, 1 , fited, as specified. on th
side of the reconippate, h, cover the rearendsof the cartridges in
he chambers, 22 as setforth. 38,337.-Cultivator.-Robert Rice, of Georgetown, Ill.


 pole, B, by means of screws or bolts, ig, in combination with th thich the rod, $h$, bears
pring or elastict bar, i, and the upright, on whin
substantialiy as and for the purpose herein specified. [Tne object of this
tow of atmple conatruction whilivato le, and admit of being reanily edjused oso to suit the width of the spaces between the rows of plants, and also admit of being manipulated or guided with greater facility than those hitherto used.] 38,338.-Hand Saw.-Thomas D. Roberts, Utica, N. Y.: ent in the form substantialiy as and herein shown and described.
Becond, The nut, D, and crewews d d, applied to the bars, CC. and he later arranged with the saw frame, ether constructed aa show
orin any proper man ner, for the purpose of straining the saw.set, set forth, and this gawe sirar ining purpicei I clalm, whether one scre w,
sused or both of them, as herein set forth. sused or both of them, as herein sat forth.
Third, The combination of the saw frame, B constructed of a sin
glepleceof wood, as shown with the nut, $D$, bars, $C$, and screw o crews, d d, as herein specified
This invention relates to an improved mode of constructing the whereby the latter mayalways be kept, with the greateat facility, in a proper taut state for, and the sawalso readily relased and taken from he frame when it is necesary to file or set it.]
38,339.-Musquito Canopy.-Samuel Roebuck, Brooklyn Iclatim, the head, $A$, formed of a socket, a, and flange, $b$, the latter
eing provided with loop-projections, d. and shoulders, $e$, the loop propetion* being provided wlit indentations, f, whicb, in connection
with the shouldiers, $e$, hold tbe wire, $D$, in proper poeition for tbe
(This invention relates to an impiovement pertaining to the frame of musquito canopies for bedateads, and consists in a peculiar man ner of constructing the metallic head in which the arms of the head are Alled, and ina peculiar manner of applying the arms io the head, in use ord armsare armiy held in proper posichon when lis deing a all sppece. The her required ior use, anstruction, being ren dered capable of being castin one plece ata trifing expense.]
8,340.-Machine for bresking Hemp and Flax.-Gelsto We claim, in meehanism for operating rollers for breaking or clean rollera a reciprocation rotary motion by means of a crank connected
with an arm vibrated tereby, substantally as deecribed, in combinaion with an additional rotary motion operating in one direction only
 the purpose specified
38,341.-Device for the Construction of Brooms.-S. M.
Sherman, Fort Dodge, Iowa : I clai m thet wo bara, A A, in com bination with the jointed bar, $F$ if, and crosibibr, e and operated by the screw, C, or its, equivalent,
ail arranged for joint opertion as and for the purpose speciced.
[The object of this invention is to obtain a device of simpie con ruction which win grestly expedite the making of brooms an o be made in a superior manner to those made by the exclusive man al process.]
38,342.-Deck Light for Vessels.-John Sutten and Jame Gregory, New York City
We claim, first, The combination
We frame containing the glass, with the fixed pin or tholl, a, aud $\mathbf{i}$ be bearer, $f$, of the base-plate, $s$, or requivalente, as and for the purpos
herein fill shown.
8econ 8ecood. The combination of the sllding screw-bolt, $O$, having an
oblong channel, $B$, with the lugs, $D$, of the door-frame, and base-plate Third, Tbe combination of the frame containing the glass, $F$, with 38,343.-Lumber Raft.-George W. Towar, Detroit, Mich. I claim, Arat, The formation of the 8econd, The arrangement of the windlasses, $D$ D $D$ at the ends of
asch crib, for the purpose of producing an adjustable coupling, as
 with fenders or walea, ${ }^{\text {and enclosing and protecting the pickets, as and }}$
for the purposeset torth.
Fourth, The tra verse timbers, $b b^{\prime}$, securing the bottoms and tops cribs, as described
[This invention consists in the arrangement of pickets in the sides ars encircling the plekets and scremed by lines or chains and with traverse timbers fastening the bottoms and tops of the cribs in uch a manner thata large quantty of lumber can be placed on eact rib and fastened perfectly secure, and that a raft is produced capable or and heavy seas. 38,344.-Construction of Gunboats.-L. M. Van Sickle, Woodbory, N. J.
claim, irat, The arrangement of the extra plates, $H$, on the oute
dges of ihe Kunwales,, , in combination with the aide propellers, $G$


[This invention consitats in the arrangement of two propellers, one on each side of the boat and about in the middle of its length, in com over the propellers in such a manner that, by said extra plates, the propellers are fully secured a gainst in jury from an enemy's veesel, and, by the action of the propellers, the boat can be apeedily turned of the propeller to spiral strips projecting from the shaft and to each other, by means of rivets, in such a mannerthat, in case one of the and replaced without disturbing the other paris of the propeller.]

38,345.-Extension Ladder.-L. F. Ward, Marathon I claim the inclfined planes, $P$ P, in combination with the spring catches, P', for locking the sections.
I claim the contrinclion of the ladder in the manner and for the
purpose substantially as described. 38,346.-Straw-cutter.-Richard Washburn, Ramapo, I clajim, first. The combination of the reciprocating botiom. C. With she reciprocand descrined, so t at both t e kinife and the bottom shall
shove asmultaneous movement to and from each other, all as set orth. Second, The arrangement of the lever, $Q$ in combination with the
hand-lever. M. Hink, anife-head, Fand link, b. all constructed and peribed. 38,347.-Preparing Grain, \&c., for Malting.-Sigmund
Weidenfield, New York City: I claim mashing Indian corn, or auy other kind of grain, by a cold
38,348.-Beehive.-Joseph H. Welty, Mount Carroll, Ill. :
 38,349.-Lamp-wick.-Andrew Judson White, Brooklyn,
N. Y.:
I claim a machine-made wick composed of unspun cotton, flax or
jute covered and held together with gluten. 38,350.-Magazine Field Battery.-James O. Whitcomb New York City :
I claim, Yirst One or more rotating os linder s or cha mber blocks in
combination with the insulated igning devi ces for discharging said
chambers by electricity, when arranged at the breech of barrels as hambers by electricity, when
herein set Horth and represented
Second, $I$ claim the general
arrangement and operation of the wichet, $R$, and spring, X, with the lever, L, clich, c, and spring, t,
wilen the racthe, R, or more of the rotating cylinders or chamber block, C , as hereiu se
forthand represented.
Third. I claim the chargers, $\mathrm{d} d \mathrm{~d}$ d, working iuto the sockets $O$ F. when used separazely or in series, for the purpose hereln se



 38,351.-Wood Horse.-Enoch Whittemore, North Paris Maine :
I claim the combluatinn and arrangement of the jawed lever and its
treadles with the wood horse, the same being substantially as and to her as specified
38,352.-Apparatus for casting Fuses.-George Wright I claim, frat, Remoring the cope, e, and nowel, f, from the fuse
while the latter is firmil heid and supported by the cheeks, $K \mathrm{~K}$, of
 andcond, eae arrangement of guiding the same, substantially as and for the pur
posehe merein sef forth.
Third Molding and remer Third, Molding and removing a secondargpartin the same machine
With themain
lage herein set forth. 83 .
38,353.-Composition for preservink and water-proofing
Leather.-Robert K. Wright Philadelphis Pa. I claim the :ibovedescrithed composition for preserving leather
made of the ingredients enumerated, nixed or compounded in about
the proportions specified.
38,354 , - Manu
B,354.-Manufacture of Silicated Soap.-D. B. Chap-
man (assignor to $h$ mself and E. D. Draper), Milford,
man (assignor to $h$ mself and E. D. Draper), Milford,
Mass.:
claim the combination of an alkaline silicate, a sulphate of sod,
 38,355.-Lantern.-Chas. Deavs (assignor to Archer \& Pancoast), New York City :
 Sec.ind, The combination of the case or body, $\mathbf{C}$, constructed suth
stantially as described, with the lamp, A. the former veing connected
and
 forth.
Fourth, Tbe rods, F, bent at their upper ends to form pivots for the
cap-piece, E, and also to form ey es for the ball or handle, G, and se cured at their lower ends to the c rossbar
the glass plates, e as herein described.
[T'be object of this invention is to obtain a lantern of simple and conomical construction, which will not be liable to break or get ou of repair, and which will, in case of the breaking of a light or side bility, the lantern, at the same time, being portable and provided with reflectors.]
38,356.-Cat-block for freeing a Ship's Anchor.-G. W.
Duncan (assignor to himself and Chas. Davenport)
claim the combin

I claim the combination of the tackle block, $B$, and the lever rin from a cat-head or a davit by means of a fall or rope, c, and the
Fhole to operate substantially in manner and tor the purpose speci-
fied.
38,357.-Apparatus for carbareting Gas.-Stuart Gwynn,
New York City, assignor to Geo. Odiorne, Boston, New Yo
I claim, frst, The general arrangement and combination of appa
ratu, substantiall as herein shonn and described, for forcing the
air hrough a
 fiusi
maof po mue substance, as herein set forth. well as pass over tho
Becond, The arrangement nnd combinailon of apparatus, substan.
tially as herein shown and described, for maintaining the proper level of the fuid and effecting the vaporization, in the manner set forth.
Thirr, The arrangement and combination of apparaus, substan
Hallyag herein shown and descibed for generatin hyd liallyag herein shown and described, for generating hydrogen gas to
supply amospheric air cearged with the vapor of hydrocarbon fluide
in proporlion to the excess ot carbon it contains.
8,358.-Embroidering Machine.-Alfred Heaven and Robert Smith, Manchester, England. Patented in We claim the combination of mechanism herein described for giv-
g the carriage, $B$, its motion to and from the frame, $D$, when such ng the carriage, $B$, its motion to and from the frame, $D$, when such
mechanism is used in combination with the shipping mechanism, as Weith io claim the mechanism, substantially as described, for ship-
We ne
line the belt, from the fast on to the loose pulley, nnd from the Onge on to the iast pulley, for the purposes as set forth.
We also claim the employment ot the tight.
38,359.-Explosive Projectile for Rifled Ordnance.-C. W
Smith and G. H. Babcock, New York City, and B. B.
Hotchkiss and C. A. Hotchkiss, Sharon, Conn.
First, We claim, in explosive projectilies for ordnance, dividing the
cavity into two parts by the plate, B, or ito equiralent, supported upon


Second, We aiso claim the comtination of the tube. $\mathbf{E}$, plate $\mathbf{B}$, and



38,360.-Pump.-Nathan Stedman (assignor to himself and Jos. Afiller), Aurora, Ind.
I claim the iever, F., When used Incombination and placed in re.

 38,361.-Stove.-P. P. Stewart, Troy, N. Y.
 icribeat and sei firth.

 38,362.-Mail Pouch.-Marshall Smith, Sed. Louis, Mo. : Itantailin the employment of the maill pruch, A, B, construcied sub.
 38,363.-Mark-holder for Bales; \&c.-Porter Fitch, Brook-



38,364.-Engine Lever.-T. W. Godwin. Portsmouth, Va.:
 secon, The crose batanneestror hat. and the pivot, $\mathbf{k}$, when used as
and tor the purpose herein described.



 constructed substiantlally and forthe purposes specifie

## re.issues.

1,461.-Car Spring.-George Douglas, Scranton, Pa. Patented Dec. 29, 1857
I claim the com binallion of illiptically. curved piates, $A$ and $\mathbf{B}$, of


1,462.-Apparatus for Soda Water, Ice, Sirpps, \&c.-G'
D. Dows, Boston, Mass. Patented Dec. 10.1861 :D. Duws, Buston, Mass. Patented Dec. 10. 1861

 purposedeacribed, in comblination with a chest cont inniug fuid re.

 1,463.- Pipe Molding.-John Firth and John Ingham, Philadelphia, Pa. Patented Dec. 20, 1859 :

1,464.-Apparatus for evaporating Saccharine Juices.L. P. Harris, Mansfield, Ohio. Patented January 18,
 for the purpose selt forth
purpose tet figh ledge betwees the defecator and evaportior, for the
 derecaling , ipp ras us, substanitily as and or the purpose sel trith 1y as and fut the urropese set forth.
Fith, The com binalion of two or
If conhiruce enm binatinn of wo or more high ledges, each of which forth , The application of a mate or a strainer ro e each additionali ledge
Which hes the under.low paseage, substantitill a and for the pur. posed decribed
Berenth. The combination of a high ledge and a gate or strainer

1,465.-Apparatus for evaporating Saccharine Juices.
L. P. Harris, Mansfield, Ohio. Patented January 18, 1859

 Bef forth
third The comblnation of one or more high ledges, each bating ar

 high led ges and a system of lon
1,466.-Harvester.-Stephen Hall (assignor to himsel and Wm. Van Anden), Poughkeepsie, N. Y. Patented Nor. 16, 1858 :

 to rise and fall to a Roperned extent at its outer end, and aliso tobe







 grannd
geribed.
gren
1,467.-Screw Propeller. O. Perry), Buffalo, N. Y. Patented Dec. 7, 1858 :



1,468.-Hinge for Stove Doors.-C. J. Woolson, Cleveland Ohio. Patented March 16, 1852


 sides or ends of the siove and there foided compactly
concealing the connexiling tinges, as herein set forit.
1,469.-Lock.-Linus Yale, Jr., Shelbnrne Falls, Mass., formerly of Philadelphia, Pa. Patented May 14, 1861:
 second, 1 n combination with a diacc,ncering contrivance, substan:


 ander a mode of operation subsian tillily as herelinbefore recited. 1,470.-Lock.- Linus Yale, Jr., Shelburne Falls, Mass.' formerly of rhiladelpbia, Pa. Patented May 14, $1861:$




 tanlially as herenbeefore specifed.
749.-Envelope.-H. C. Berlin, Bloomfield, N. J., and G. H. Jones, New

1,750.-Cover for a Kettle or Stove.-J. L. Hadden, Phila
delphia, Pa.
1,751.-Ice Pitcher.-Ernest Kanfmann, Philadelphia, Pa. 1,752.-Spinning Flyer.-Oliver Pearl, Lawrence, Mass. ,768.-Draught 8tand for Soda Water, dc.-Carl Miller (assignor to John Matthews), New York City.
1,754.-1,758.-1,756. - Carpet Patterns.-E. J. Ney, Low pany.
Sewing Meqhina John Batahelder, Boston, Mass. Pat Fing Matant.1849
bar or ptece of metal. गr for didisbargingtbe cloth from tit pointe after
being sewed, all as described.

## 4

E. L., of N. Y.-Address, for the desired information, the Secretary of War at Washington, D. C.
J. M., of Wis.-George W. Blunt, of this city, has, we are informed, a dividing engine of the kind you require. J. Led J. R. V., of N. Y.-You can reduce metallic silver from the chloride of silver by fusing in a crucible and using a flux First carefully wash the chioride to remove all impurities, then dry and add twice lis weight of a mixture of carbonates of potash an soda or of carbonate of soda and of borax, place in a crucible, an apply
. I. K., of Ill.-Butter that has become rancid cannot be made as sweetas when newly-made, by any process of working it over again. Those who informed you that rancid butter couid be renorated are mistaken. The ranclaity is due to chemical decom position and transformation of the constiaents of the butter . M., of C.W.-You say you have lately heard of a new article of manufacture cailed "papier-mache." You evidently do not takethe papers. Theartlcle has been in use for nearly fifteen years. Your instrument can be made from it readily. To make papler-mache take 80 pounds of water, 32 pounds of flour, 9 pound of alum, 1 pound of copperas and make a paste; mix with it 15
pounds of rosindissolved by 10 pounds of boiled nill, and add 1 pound of litharge ; add to this $\mathbf{6 0}$ pounds of ragdust or other suitable ma terial and grind all togethe
R. R. V., of Canada.-There are no demands for smoke consuming arrangements for the bollers!employed in this cit where anthracite coal is used for fuel. In England, where bitumin west of the Allegbanies, but not in the Eastern States. We belleve that coal may be burned more economically in a furnace, the drain of which is produced and regulated by a jet of steam, than whe the draught is produced by the hight of the chimney alone.
W. P. De S., of ——You can clean gold lace by wash ing itin hot soap-suds and afterwards with a bot solution of alum Fater. Gold lace is exe wally olenod wih soap and water, bu imitations oftitare very disicult to renew. We are obliged for you alention in rialion to an engraving wo roenty publuted. The inch thick, in our possession. Tour scale in componed of the car bonate and suiphateofllus mired with ellicolons maties.

HI. W., of N. J.-Animal charcual is formed by calcining en, horns, hoofs, de., in retorts. It is chiefly used in the decol oration of sirups in sugar refineriex, and 18 superior to any other

## froin cork

W.dic. D., of Pa.-" Mechanical work" means the action of a machine expressed by a definite quanity by multiplying the motion which it produces into the force opposed to $t$. Thus the mount of work called a horse-power is equal to 33,000 pounds lifted one foot high in one minute. A comparatively newterm is now ap foot-pouls work and is called foot-pounds per minute, or $1,9 \varepsilon 000$ foot-pounds per hour, is a horse power.
Messrs. Payne and Pritchard, of Corning, N. Y., desire Queries" of Mas ${ }^{\text {a }}$
T. R. P., of N. Y.-You do not seem to be aware that the subtle matter in a contagious atmosphere has been obtained and analyzed.
. B. C., of N. J.-Methylic alcohol is obtained by distilling wond in retorts. It is an indiammable volatile spirit, trans parentand possesses a penetrating odor. Its taste is hot and pun gent. It dissolves resins like common alcohol and is a powerful antisepic, very effective in preserving animal substancea.

## Money Received

At the Scientific American Office, on account of Paten O円fce business, from Wednesday, April 29, to Wednesday, May 0 1863 :-
T. S. D., of R. J., $\mathbf{8 2 6}$; I. E., of N. Y., 820 ; R. C., of N. Y., $\mathbf{8 2 0}$ W. B. A., of Ohlo, 820 J J. McN., of Pa., 850; W. N. M., of III., 845 J. B. R., of N. Y., s166; E. B., of Mo, s20; R. R. F., of IIl., 820 ; R B. D., of Pa., 820 ; E. R., of Mass., 825 ; G. R. J., of N.Y., 843; J. B of Wis., 825; F. B. W., ot Ill., 810; W. F., of Iowa, s20; D. L. M., o N. J., 825 ; S. \& N., of Iud., 826; W. F. R., of N.Y., 825; E. P., of Mich sit N. J., of N., s15, \$66; O. L., of N. Y., s25; A. W., of N. Y., 820 ; E. SL. J., of N. Y. \$66; O. L., of N. Y., 825 ; A. W., of N. Y., 820 ; E. St. J., of N. Y.
sen J. B. NcC., of Mo., 820 J. J. D., of N. Y., 816 ; T. F. R., of N. Y., 820; V. D., of N. Y., 832; H. W. L., of N. T., 848 ; R. T. A., of $\mathbf{V}_{\text {L., }}$ s31; N. \& N., of Ill, s16; P. I. S., of Pa., s16; F. A., of N. Y. 825; W. L. R., of Nass, 825; R. H. S., of Mich., 825; W. N., of N Y \$15; C. P.,of Pa., 816; R. W., of Iows, 840; J. A. A., of Conn., 825 J. A. H., of Pa., 825 ; A. A., of N. Y., 828 ; E. M., of N. Y., 820 J. A. H., of Pa., 825 ; A. A., of N. Y., 828 ; .. M., of N. Y., 820
B. D. S., of N. Y., $\mathbf{8 2 0}$; J. B., of Ill., $\$ 20$; C. T. D., of N. J., 816 C. O. L., of Vt., 820 ; P. R. C., of N. Y., 816; J. B., of Ind., 820 ; B A., of N. J., 816; J. I. R., of N. Y., 820; W. \& P., of kas., צ., I. W. B., of Mich., 875; J. J. R., of VL., 825; D. R., of R. I., 828; C W., of $\mathrm{K}_{\mathrm{y}}$, 810; W.H.O., of Wis., 825; T. \& J. W.W., of 111 . $\$ 15$.
 the above list to 800 that their indtials appear in th, and if they have隹 received an acknowledgment by mail, and thoir intuato aro not to orm us the amount, and how it was sent, whether by mall or or

Speciflcations and drawings and models belonging to parics with the following raitials have been forwarded to the Palon Omce from Wednesday, April 29, to Wednesday, May 6, 1865 : J. F. H., of N. Y. (2 cases) A. A., of N. Y.; T. S. D., of N. J.;
H. M., of N. Y.; O.L., of N. Y.; V. W. B., of Vt.; B. B. J., of H. M., of N. Y.; O.L., of N. Y.; V. W. B., of Vt.; B. B. J., of Conn.; M. and B., of Ohio; D. R., of R. I.; W. H. O., of Wia.; 8 R., of Ohio; J. A. H., of Pa.; J. A. A., of Conn.; R. H. S., of Mich W. F. R., of N. Y.; J. J. R, of N. Y.; E. P., of 1ll ; W. L. R., of Mass.; S. and N., of Ind. ; H. B. M., of N. Y.; G. S. M., of IIl.; F. A.
of N. Y.; I. W. B., of III, (3 cases); F. B. W., of III. ; D. L. M., of N of N. Y.; I. W. B., of III, (3 cases) ; F. B. W., of III. ; D. L. M., of N.
J; J. B., of Wis. ; T. and T. W. W., of IIl.; M. E., of Germany; J. W. J; J. B., of Wis.; T. and T. W.
C.; of Conn.; J. F. McK., of Pa.

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