tions belanging to other countries, The annoyances of emall exchanges would be reduced, if not entirely removed, and the loss by brokerage be aroided.

## NEW PUBLICATIONS.

The american House Carpenters' and Joiners' Arasstant. By Lucius D. Gould, Architect.
This is the title of a large quarto volume, in which the science and practice of building wooden structures is fully treated. It is illustrated with forty-four lithographic plates, and gives direc-
tions not only about doing work, but upon the use of mathematitions not only about doing work, but upon the use of mathemati-
cal and drafting instruments. Valuable tables of the relative strength and other properties of materials, and other useful intor wation make this a valuable vade necum for the practical work man.
Atlantic Monthly.
The number for November is very excellent in every respect. The Publishers announce, for 1867, a Serial from Dr. O. W.Holmes, a series of articles from James Parton, and frequent papers from
James Russell Lowell, in addition to their regular contributors. Ticknor \& Fields, Boston.
Address on Presenting to John Ericsson the Rumford Medal of the American Academy By E. N. Hosford, late Rumford Professor in Harvard University.
We have received from the author a copy of this pamphlet which is valuable as giving a resume of the inventions and val uable discoveries of this dlstinguished engineer. It states that
Ericsson built the frstsuccessful propeller having all its machine Ericsson built the first successful propeller having all its machinery below the water line-the Francis B. Ogden-which was rejectell by the Lords of the Admiralty of England, on the ground that "it would be impossible to steer a vessel where the propelling try, bringing the machinery of the Robert F.Stockiton, and short ly after built for the Government the screw steamer Princeton Theidea of the monitor class of war vessels was conceived by Ericsson in 1854 , when he submitted to the Emperor Napoleon a plan tor such ships. Capt. Coles, of the English nevy, dates his
first idea in 1860 . Capt. Ericsson is well known for his hot air enfirst idea in 1850. Capt. Ericsson is well known for his hot air en-
Eines, but his crowning glory is the total change in war ships, inaagurated by his celebratod Minitor. Th.e pamphlet is published by Hurd \& Houghton, Boston, Mass.
Report of the Secretcary of tile Smitifonian Institution, January, 1866.
This Report we shall take occasion to employ hereafter in the elucidation of several subjects upon which it briefly treats. In the meantime we may state that it contain
interest on many matters of importance.
Hubsey, Wells \& Co., of Pittsburgh, 'Pa.,
In reply to the ninth question of the U. S. Revenue Commission, lave published a pamphlet consisting mainly of the certificates $n$ evenness and excellent qualities.
Prof. S. W. Johnson, Yale College. A series of four lectures, illustrated with cuts, and the facts exemplified and made practical by experiments. The subject of chemistryas applied to the tilling of the soil is treated in this
pamphlet in Prof. Johnson's usual lucid and practical style. He pamphlet in Prof. Johnson's usual lucid and practical style. He has already done good service to the agriculturists of the country
by his lectures, occasional addresses, and publications on this subby his
ject.
ject
Curious Questions. By Rev. Henry A Brann D.D.

This is a work on mental and moral philosophy, valuable to the mechanician and the natural philosopher merely, or, at least, mainly, because it refers incidentally to the operation of natura laws.
Woodward's Arcilitecture.
This neal volume is issued by Geo. E., and F. W. Woodward, at the oflice of the Horticulturist, 37 Park Row, New York. Many of our readers will recollect "Woodward's Country Homes," jresent volume is the first of an annual serics, intended to aid in the hutlding of farm houses, villas, barns, ice houses, and other structures pertaining to countrylife, as well as to direct in laying out grounds in gardens, orchards, walks, drives, etc. It is profusely lustrated with plans and designs, and formsanattractive and readable volume to those whodo not intend to followit; directions, as well as a valuable manual to all who make the country thei home.

## Inventions Patented in England by Ameri

 cans.sondensed from the "J curnalof the Commisslonersof Patents."] PROVISIONAL PROTECTION FOR SIX MONTHS. 2,296.-SLide Valve for Steame Eneine.-William B. Robinson
Detroit, Mich., and Zoheth A Durfee, Philadelphia, la. Sept. 7 ,
 2,306. - Water-power Engine, - William Lonsdale and William
Peete, 9,316.-Manufacturing Leavier.-George V. Sheffield and
James F. Coburn, Hopkinton, Mass. Sept. 8, 1866.
 (2,329.-Electric TElegraph Conductor..oJohn M. Batchelder, 2.358. - Horse Race.-Daniel G.Adelsberger, Emmittsburg, Ma.
nnd Richard R. Riches, and Charles JJ. Watt, both of Norwich
county of Norfolk, England. Sept. 14, 1866.
 2,463.-Printina Machine.-George Gordon, New York City
Sept. 19,1866 . g.,484.--Bronaina Machine.-John K. Lowe, Cleveland, Ohio.
sept. 3 , 186.



ISSUED FROM THE U. S. PATENT OFFICE for the week ending oct. 23,1866

> Reportect offcially for the Scientific American.

R男P Pamphlets containing the Patent Laws and full particulars
ofthe mode of applying for Letters Patent, specifyng size of
 cientific american, New York.
58,964.-SCREW.-Joh1 Absterdam, New York City I claim the above. described wood screw, with the plain cylin
drical portion between the point and the threaded portion, stib atial por ta and ween the point and the th.
stantialy as and porposes set forth.
58,965.-Gate.-Henry Adams, Seattle, Washington Ter.
Iclaim a gate hung to its post by means of a hinge, E , which
passes through a vertical slot, I, and is held to the pate by a passes through a vertical slot, I, and is held to the gate by annt 58,966.-Hoe.-Sherman W. Adams, Wethersfield Conn.
First, I claim the combination of the blade, a, an d handle, $b$
hen conerructed and operating substantially as b erein shown
didescribed. and described.
Second, The

8,967.-Feed Cutter. - William F. Altfather
Jolnnstown, $P a$.
First, I claim the combination of the inclined or diamond-shaped knife sash, connecting rod or bar,, and eccentric, $F$, with each
other, and with the driving haft, $C$, cutter frame, $B$, and box, A
substantiall as substantially as herein show ind and described.
Second, The combination of the jaws, $P$ and $S$, bent levers, $O$ Second, The combination of the jaws, $P$ and S, bent levers,
and R, and pivoted cam lever. N, with each other, and with the
cutter box, A, support, M, and eccentrie, F, substantially as here n shownand described, and for the purpose setforth
58,968.-Mechanism for Operating the Har
ness of Looms.-William R. Andrews, Mystic
River, Conn.
I claim the above specifed new and useful harness-operating
mechanism or combination, consisting of the tri-anned lever, $D$ mechanism or combination, consisting of the tri-armed ever,
the two cams, EF, the gears, cc, and racks G H, the spring, I,
and the rack-elevating mechanism, the whole being arranged to and the rack-elevating mechanim, the whie bcing arranged to
gether, nd with a pattern chain and its actuating mechanism,
substantially in manner and so as to operate as explained. 58,969. - Instrument For Extrac'ing Coris From Bottles.- J. T. Ashley, Brooklyn, N. Y. I claind the slide, F , in combination with the tongs, A , when
aranged thereon, so as to operate substantially in the manner arranged thereon, so as to ope
and for the purpose described.
58,970.-Apparatus for Moving Buildings.Egbert H. Avery, Belvidere, Ill. B, cubstantially as ket torth. 58,971.-Butter Worker and Packer.-Charles
F. Barager, Candor, N. Y.
 , and packer, J , and the whole operating substantially as de
58,972.-Pump.-A. B. Barlow, Ripon, Wis.
I'claim the method substantially as above described of packin
the lower joints of the cylinder and said chamber lyy mean of botton piece, I , and annular f ange or cap, N, and the packing
naterial, a a, secured by them by the aid of a sur material, a a, secured by inem by the aid or a surrounding lange
$N^{\prime}$, substantially as described.
58,973 -CorN Prow. Peter Barnhart, Chillicothe Ohio. $973 .-C 0$
Ohio.
I claim the ad justable fender, F, and beam, A, in combination
with the standards, B B, for the purposes and substantially as de
scribed. 58,97
58,974.—Straw Cutter.—John W. Bartlett, Har mar, Ohio. Antedated October 12, 1866.
First, I claim the arrangement of the fly wheel, fly wheel shaf
 Second, I claim the combination of the crank, $g$, attached to the
end of the ty whelel shant, the lever, P, and the bent pawl lever,
H, with the ratchet wheel and feed rollers, substantally as set
forth. Third, I claim the pawl holder and guide, I, constructed and
connected together as set forth. Fourth, I craim the hinged board, $O^{\prime}$, with its shaft, $\mathrm{P}^{\prime}$, in com-
bination with the bent spring, $\mathrm{S}^{\prime}$, substantially as and for the purbose set forth.
58,975.-Composition for Roofing.-F. Bearse
and G. E. Hopkins, Barnstable, Mass.
We claim therefor the composition as made of the acid and
other ingredients, substantially as hereiabefore set forth. 58,976.-Churn.--M. Bratt, Maysville, Ky First, I claim the combination oithe hollow tube, E, having th having a aralve, d, at itsupner end, and withthe bottom, a, or'the
courn, A, substantally as here'n described ancl for the purpose set forth. The com bination of the g uide rod or plunger, F, with and with the bottom, a, of the chur, A, substantially as herein
described and for the purpose setforth. 58,977.-Grinding Mili.-Charles P. Benoit, De troit, Mich.
Iclatin the machine for crushing grain consisting of the long
tudinally grooved roller, $B$, and the transv ersel $y$ grooved cylin tudnaly groored roller, B, and the transv ersel y grooved cylin
der, C, arranged to operate substantially as described for the pur
pose specified. 58,978.-Creasing, Slicking, and Skiving Leath Er.-C. C. Bellows, New Ipswich, N. H.

Second, The plate, J, having ekiving knives, d, attached to o
formed on it, and applied to the upper roller, C, by means of the
bars or clamp rame, substantlafly as and for, the purpose de
scriped.
Third, The laterally adjustable creasing wheel, F, on the upper
roller shatit, operating with the flanged roller, G, substantially a
58,979.-Piano Stool_Joshua Briggs, Peterboro
58,979.-Piano Stool-Joshua Briggs, Peterboro,
N. H.

 the bolt at the bottom of said tube, substantially as set forth.
58,980.-STEAM-ENGINE SLIDE Valve.-Richard C. Bristol, St. Clair, Mich.

I claim, in connection with a slide valve, the within.described
arrangenient of rollers, C, mounted concentricaly upon the eross
bars, C, and betw een the iongitudinal bars, C2 2 a and arranged
 specifled.
58,981.-Amalgamator.-Edmund Browh, ChicaI clan, Ill. Icram, First, The revolving and stationary shaft, with aper
tures and fanse tor crowiling the quartz out into the lead.
Second, The serles of coons att Se cond, The series of combs attached to the revol ving shaftand
sides of the kettle, the whole connbined and arrange d for the pur
pose specified 58,982.-Window Screen:-Edward Bucklin, Jr.
and Sedgwick $A$. Sutton, North Providence, R. I.

We claim attaching the screen directly to two supporting rails,
and $D^{\prime}$ in such manner that the width of the screen may be Dand D' in such manner that the width of the screen may be
increased or diminished tn the same proportion as the lengtlis of the rails, as and for the purpose descrijed.
58,983 - FARm Gate.-John A. Cheatham, Nash ville, Tenn
I claim, Firet, The oombination of the lever or leyers, A A, with
the vertcal spindle, E, controlling the gate and its latch, with the
 Second, The combination of the lever or levers, A A, and the
spindle, , with the upper disk, Le the trigger, K , and latch, $J$,
substantially as and for the purpose described.
58,984.-Ladder.-A. Ckertizza, New York City.

58,985.-Fan Blower.-Patrick Clark, Rahway, N. J.

I clain, First, The dlaphraqms, C C, when used in combination
ith a compound fan blower. with a compound fan blower.
Second, The fan wheel, F Fhen constructed with fans or
vanes of the form and arrangement with respect to each other as Third, Attaching each fan or vane at its ends to two adjacen Fourth, The led leather packing, D D, when combined with the
diaphragms, C C, as described. 58,986.-Corn Shelder.-William Colwell. Chillicothe, Ill.
I claim, in combination with the cone, B, shaft, $\mathbf{C}$, and hopper,
F, the fan, $\mathbf{N}$, andelevator, $\mathbb{T}$, for the purposes and substantially
as herein set forth. 58,987.-Safety Valve.-D. G. Coppin and G. H Clemens, Cincinnati, Ohio.
We claim, First, The Valve, C, and tubs, m, constructed as Second, The valve, C, the vcrs, , , wese whttor, $D$. and $D$ ', arranged as
Sole
 58,988 .-Corn Planter.-W. H. Cox, Virden, Ill. First, I claim the perforated, horizontal, revolving plates, mm m,
in the hoppers, D D, tor feeding and drapping the trains or corn
evenly in combination therew thin and with the bever gear wheels.
 substantially as and for the purposes herein described.
Second, I claim the thimble, $a$, within the hub of the driving Wheel C, for carrying the pulloy, b, in combination therewith,
and with the stationary axle, $B$, constructed and operating sub:
alan stantially as and for the purposes herein specifled.
Third, I
claim the arangement of ties side pieces, ff, hung non the axle, B, for supporing the hopers, D D, and ranging nond
lowering at pleasure with ine lever, $F$, substantially as herein described.
Fourt, 1 claim the slide piece, $G$, with the push and pull pawl
or tor working the seed-ro pping apparatus by hand when ad. justed for planling corn in hills, in combination with the revolv. 58,989.— of Carding Engines.-S. L. Crockett and of Carding Engines.-S. L.
Benjamin S. Mills, Lowell, Mass.
We claim the employment of the lifting and replacing cam
formed substantially asherein set forth and shown and urranger o operate in the manner and forthe purpose specitied. And in combination with the lifting and replacing cam, formed
and made to operate as he rin set forth, the two pins, 1 and 2 , in
the slide, $h$, acted upon by the cam, in the manner and for th?
58,990.-Hardening Springs.-George G. Crowell,
Lime Rock, Conn.
I claim the employment of glue, or equivalent giutinons anima
matter, either alone or in coubination with other material as matrer, ilther alone or in coubination with other material, as a
hardening compound, when employed substantially in the man
ner and for the purpose herein 58,991 - Table and Holder fon
58,991 .-Table and Holder for Shearing Sherep I claim the table, B, arms, C C C
I claim the table, B arms, C C', pawl and ratchet, a b, and
sbackle, D , constructed and arranged as and for the purpose speci-
ied. 58,992.-Knife Carrier.-Porter E. Cummings, Sanford, Me
I clain the improved knife carricr, inade substantially as de scribed, viz. With the knire-shank socket, and the rebate arranged
inn it, ase forth, the zaid carrier bcing provide with a set ccrew.
or equivalent means or fixing the knife shankin the socket. 58,993.-Hand Seed Sower.-Obed Dann, Janes ville, Wis.
I claim, First, The combination of the hox, A, and side, E, when
construcled, arranged, and used substantially as and for the purpose sct forth.
Second, The combination of the box, $A$, cap, $B$, and handle, $O$ purpose set forth,
Third. The combination of thebox, $A$, slide; $E, \mathrm{c}=\ldots, \mathrm{B}$, and handle Third, The combination of the box, A, slide; E, e un, B, and handle
C. when constructed, arranged, and u sed substantinly as and for
he purpose set forth. 58,994.-Bed Bottom.-Garret B. Davis and Chas B, Davis, Freeport, Ill.
We claim the strengthening rods or girders, E E, th combina
tion with the bo w-shaped cross pieces, C C, and elastic bands, $D$,
substantially as specified. 58,995.-Table.-Ernest Dinter, Boston, Mass I claim the improved table stand as having two partos, a D, con-
streited with receiving slots, arcanged in them so as to enable
hem to be applied together, substantially as set forth. 58,996.-STEAM-ENGINE Governor.-E. C. Ed monds, Buffalo, N. Y.
1 claim the combination of the adjustable elutches, $t$ t', with the
slip shat, $G$, loose pinions, h h, he vel wheel, K, and spindle, C , for
produclng anintermittent motion to the val produclng anintermittentmotion to the valve-operating mechan.
shatt, p. pilley, o, band, n, and pulley, mo, for operating the valves,
r, arranged and operating substantially in the manner specified. 58,997.-Washing Fluid.-Alfred A. Enqoist, San Francisco, Cal. Antedated Oct. 3, 1866
I claim the componding of theingredientsin about the propor-
tion, as herein described, in combination with the process, sub-
stantially as set forth. 58,998.-Seal For Jar and Can.-Henry S. Fisher Oakville, Pa.
I claima seal for preserve jars, cans, and other vessels which is
covered with a supstanca, which is saturated with an adhesive
cement, substantially as described. 58,999.-Caster for Furniture.-Frederic G

Ford, New York City.
I claim, First, Comboniny and arranging the caster by leastint a out of contact with the central bos, thereby relieving the caster
of much of its friction, substantially as shown and described. Second, The combination, in a caster, of a central screw and above shown and described.
Third, Constr ucting and arranging the central boss of the plate
with respect to the screw and horn, so that the sald boss shall supwith respect to the screw and horn, so that the sarn in the manner pord for the purposes substantially as herein set forth.
69,000.-Apparatus for Inhaling Gas.-Theodore
F. Frank, Buffalo, N. Y.

1 claim the above described apparatus for generating and inhal-
no vital oygen, coasisting of the onenator, B, rceever, Epro-
 59,001.-Hay Spreader.-C. R. Frink, Norwich, $\xrightarrow[\text { claim, Fir }]{\text { N. }}$
It claim, First, The grooved or double flanged eccentric wheel or al k. A. combined with a movable plate, a, and cap plate, b, for
oprrating the fork rods, in in therr connetion with the piral
springs, C , substantially in the manner and for the purposes as hereln set forth.
Second. The movable jomted arms, $E$, in combination with the
brackets, F, for relleving the forks of any straining or undue presrackets, F, for relleving the forks of any stramining or undue pres
ure, substantially in the manner and for the purpose as herein 59,002.-Carpet Fastener.-Robert A. Gawler,

Concord, N. H.
I claim a carpet fastener conglatigg of a shank to be driven into
the thoor of a room, aud a hook, borresshue shaped, as shown,
59,003.-Cultivator Plow.-William O. Gibson, Charleston, S. C.
 with the bar, di provided witt the colter projection, e, and hori.
zontal blade or knife, D, and connected to the beam, A, bye
standards, c c, and the plow, E, attached to the beam, A', all be-

59,001.-Manufacture of Illuminating Gas.-
Henry L.afreen, Portland, Oregon. I claim the combination of saw dust with naphtha, petroleum,
or mineral oils, In about the proportlons named, for the manuiac-
ure of illuminating gas, or mineral of illuminating gas, subscantially as set forth.
59,005.-Washing Maciine.-Jonathan J. Green
Grand Rapids, Mich.
I claim the flexibie rubbing concave, $\mathbf{C}$, In combination with the
cylinder, D, constructed substantially as shown and described. 59,006.-Brici Machine.-J. B. Gridley, Albany, $\underset{\text { First, I claim }}{\text { N. }}$
mac'ine by means of
 substantially as and for the purposes specitled.
second, $I$ claim the flanges or projections, $R$, or their equipa lents, or yiving motion to one or more levers, which feed the
molds to the mud box. Mhird, Ina brick machine I clalm mounting a Wheeled follower
or mod-e eding device upon tracks, substantially as and forthe or mold-feeding arpose specitied.
59,007.-Cotton-bale Tie.-James H. Gridley
Washington, D. C.
First, 1 claim the cotton-bale, or other the, so constructed that
the 1atening is made by the edges of said tie, in connection with corresponding flanges on the opposite end of the the, or on a sepSecond, The plate, B, having flanges, b, cast or otherwis, forin-
ed on ics edges, in combination with the ends of the tie, when said end are catindovetail firin, substantially as described.
Third, The platc, 1 , having thantest, bon its edges, and lips, a,
as described, in combination with the tie, having a dovetail end as described, in combination with the tie, having a dovetail end scribed.
59,008.-Carriage Jack.-Joshua Hammond, Providence, R. I.
 59,009.-Curtain Fixture.-Benjamin Handforth, Chicago, Ill.
I claim, in combination with the curtain, A, roller, R, and cord,
D, the arranmement of the sheave, E, provided with the grove, a aril one or riore oblique gr
for the purpeses speciiied.
59,010.-Plow.-James Harris, Kansas, Ill
I'claim the attaching of the rear plow, H, to the beam, A, by
means of abnt bar, $F$, projecting laterally from the bean, nd having a dovetail groove, , made in it, to receive the plow stand
arct, in combination witht the front plow, attached to the stand-
ar, , whin is secured to the beain, substantially as and for the ard, $D$, Whi.h is 8 se
purposes sit forth.
59,011.-Broox Mead.-John Harris, Marquette, Wis.
claim the
I claim the combination of the arms, A, pins, B, and serrated binsu substantiully in the manner hercin described and for the
purpose set forth.
59,012.-Cultivator.-J. B. Herman, Mount Vernon, Iowa.

 ubstintially as andforthe purpese sct forth.
59,013.-Cultivator.-John B. Herr, West Lampeter Township, Pa.

59,014.-Shifting Carriage Top.-A. V. Heyden, Milwaukee, Wis.
single metal pate, C , and fusteninr wie same carriage top, B , to a


 A, all in
scribed.
59,015.-Machine for Cutting Tobacco.-Lewis F. Hildebrand, Chicago, Ill.

I claim the combination of the trongh, A, face plate, $C$, the
roller, $F, k$ nife, $D$, and the cutting block, $G$, substantially as set 59,016.-Horseshoe.-Warner Hinds, Worcester, Mass.
I clatm the horseshoe, constructed substantially as herein de
scribed, as a new article of manufacture. 59,017.-Stem for Tobacco Pipe.-Constantine

Hingher, New Brunswick, N. J.
1 claim, First, The curved tube, c, applied to the upper part of
 scribed. The secondary cup e, in combination with the lower
Second, The ng substantially as and fur the purposespecified. $59,018-$ - $_{\text {AY }}$ Elevator and Converor.-N. D Hinman, Stepney Depot, Conn.
I claim, First, The frames, I J, hook, N, \&nd crosg lar, ${ }^{\text {in }}$ in com-
onation with the pendent bars, H E. rod, O , and bar, all ar ranged in the carriage. B, and used in connection with the pins, b Second, The praw , P, m combination with the thimbles, W W'
on the chain, , of the his sting rope, G, the rod, R, and frame, Q , Third, The bent or knee 1 lever, T, connected with the frame,
froviled with the spur, C, and the signal composed of the befl
, sud hammer, Z, substanthally as and for the purpose set forth


 bent or knee lever, T, all arranged to opera
stantlauly as and for the purpose set forth.
59,019.-Hat Protector.-Harrison Hodgson, New York-City.
I claim, First, The combination with a hat of the movable feet,
c. thre or more in number, when so arranged and connected that
 Second, Ialso clatm the feet, $\dot{C}^{2}$, in combination with the radial
egs, D , to whose ends they are attached, substantially as descrined Third, I also claim the slotted plate, H, with eccentric slets, 1 , combination with the legs, D, which are raised and lowered by
ylinge rotary motion to said plate, substantially as described.
Fourth, I also clami the wrench, F, in comblnation with the lotted plate, H , to the post. L . of which it is confined through the agency of the scre w, C, substantlally asaboveshown.
Fifth, 1 also claj m the shell or casing, E, which covers and pro.
ec's the sloted plate in combination with said plate, and with
 Sixth, 1 also claim the apparatus, substantially as above set
orth, in comblnation with a hat or cap, as above shown and de Seventh, $I$ also claim the enlargements on the end of the feet 59,020.-Steam Generator.-Plilip Hoelzel, New Orleans, La.
Iclaim, First, The receptacle, a, when constructed and arranged Second, Combining with or connecting to a steam boller the
series of cyinders, for heating and purifying the feed water, said series of cylinders, for heating and purifying the feed water, said
cylinders having bow-oft pipes and the alternating connecting
pipes, arrang ed bubstantiaty as herefn set forth. pipes, arranged substantiah' as herefn set forth.
59,021 - Car Truci- John S. Howard, Schenecta
dy, N. Y.
I clainn the combination of the beam, $A$, elliptical spring, $D$,
endant, $F$, pivoted bar, Giand the axle boxes, and operating su b-59,022.-Corn Plow.-R. C. Howard, Lena, Ill. I claim the guide rods, $O$ in combinatiou with the lever, a", and
beams, $F$, substantially as described for the purpose specified. 59,023.-Fence Post. - William Hunter, Detroit, Mich.
I claim the combtnation of flanges such as above described
with a pinted fence post, In the manner above described tor the
purpose of making said post, when driven into the earth, firm and immovable and incapable of oscillation, or any other arrange
ment or tlanges so attached which will secure, substantially the same effect.
Ialso claim the application of such flanges and the arrangement
thereor to any artice of use desig ned to be fixed in the earth, whether for fence posts, lamp posts, awning posts or any othe
article which by substantially the same means canbe firmly tixe article which by substantially the same means can be firmly fixed
or driven into the earth.
59,024.-Let-off FOR Looms. - Daniel Hussey
Nashua, N. H.
I clain the combination of the cam, o, and the impelling pawl
m , applitd to the crank हhaft as described with the arm, r , an m, appsed to the crank ehart as described with the arm, r, and
the escapenent mechanism applite to the tarn guice and the
yann beam, the whole belng to operate in the manner and un
der circumstances, substanitaly darn beam, the whole betng to ope rate in the
59,025.-Fumigator.-Isaac Hutchins, Jr., Wellinglington, Me.
First, I claim the cylinder or box, B, constructed as described
n combination with the bellows, $A$, , $\mathbf{b}$ bstantially as described and nor the parpose set i iorth.
fors and Second, The combination of the perforated plate, $c$, with the
cyllinder or box, B , substantially as described and fer the pur cylinder or box, B, substantially as described and fer the pur
pose set forth. 59,026.-SASH

Pekin, Ill.
 substintially as doscribed. E , in combination with the rack, B ,
Third, The tothed wheel, A, in combination with the rack, B ,
and spril G , E, sutstantially as and for the purposes sct torth 59,027.-Reed Plates for Melodeons, etc.-

Gustavus W. Ingalls, Concord, N. H.
I claim the irap proved reed socket plate, made substantlally as
described, viz., py punching it through in one direction, a nd

59,028.-Ditciinng Machine.-IIenry C. Ingraham, Tecumseh, Mich.
 asand for the purpose herein set forth.
second, The whecl, A, provided with the flanges, a and n , in combination with the endless belt, q, tightening pulley, X, and
pnlley, I hena ranged to operate substantially as and for the
purpose herein setforth. 59,029.-Cistern for Water Closets, Urinals, ETc.-Alfred Ivers, New York City.
I claim, Finst. The receptacles or cisterris, a and c, and siphon
pine, g h, in combination with a float to cause the delivery of
water pecified.

a pertodical discharge by the action of the water of the contents
of audd ciatern, substantauty as set forth. 59,030.-Pump.-David L. Jaques, Hudson, Mich. First I I clalm the plunger, $b$, of any suitable length consisting
of head, $P$ and $Q$ and leather packing. Dit each end lirting
 second, urecombination of plunger, b, space, y y, and pipe, $E$,
for the prosese and in the manner, substantially as heretofore 59,031 .-Machine for Molding, Felting and

Fulling Hat Bodies.-Moses A. Johnson and William Markland, Lowell, Mass. We claim, First, Molding, felting and fulling tor wool or other
fibrous materlal tor hat bodies, in a periorated mold and by a
cone or former correspondng thereto, and the direct action of
steam upon the material to be so molded, felted, and fulled by steam upon the maternal to be so molded, felted and fulled by
Fiving arectiroctin, rotary and a rlsing and faling motion to
the cone or former whit acting upon or with the but, substan-

We also claim, in combination with the cone former f1ating four
motions, viz. back and forth, and up and down given to tha the bowl ormold having a continuous uptating or tntermittent or tre ciprocattog rotary movement, substantlally as described.
Fre aso claim shingling, creasing, or shouldering the c Wormer, substantially as and for the purpose described. We also claim autotiatically moving the weight out upon the
beam lever, os as to increase the forceof the blow or the talling
cone or former, as the process proceeds, substantially as de-
59,032.-Combined Fly Wheel and Crani Shaft

- E. B. Jucket, Roxbury, Mass. their cranks, the fly wheels, and the comneetting screw or screws,
or the equivalent thereof, the whole bemg stisstatially as des9,033. Horse Hay Fork. - Henry Kauffman $9,033 .-\mathrm{HOR}$
York, Pa.
First, I cla im the dividine tron, $B$, wheh prevents the lay from
loggine and sto pping the operation of the hoobs in thelr lateral Second, The combination of the hooks, A A, and the removable
prongs, E, arranged for joint operation tn the manner anddfor 59,034.-Measuring Funnels. - W. E. Keene Lynn, Mass.
I claim for a meassingng funnel the arrangement of the valve
and valverod, consisting of elastic piston,, attached to rod, $d$, $b$ compressing nuts, e and f, within cylinder, b constructed as de
seribed, with holes, m, and extertor graduating belts, and com-
ined with, and arranged in the axis of funel, A, by means of standards, an, and crrass
the purpose described.
59,035.-Cattle Gag.-William Kegg, Lassells-
ville, N. Y
I clam a cattle gag consisting of a ring, A, and arms, $B$ B, con-
structed and applied substantially as and for the purpose specl-
59,036.-Fluted Puffing for Shirt Bosoms.-
-Geo. E. King, New York City.
I claim the within described futed puffing as a new article of manner, a strip of musilin or orting, by mechanism, and in a regula trou thont its length
and compresing and fittening down the exremithos oformstraight and regular borders, on extither and opposite side of the fiutes, andafterward machinne stitching said borders along
and at the union of the borders with the tlutes, substantially as
specified. 59,037.-Spindle Ster.-A. P. Kinney, South Carver, Mass.
I claim the socket, A. In combination with the step, B, the lattcr
betng provided at 1 ts upper end with a cup, d, which rests on the
 purpose set forth.
59,038.-W Ashing amd Wringing Macirne.-John Lamb, Jeffersonville, N. Y.
I claim, First, The combination of the rubber boards, $L M$,
Crank wheels, PS
U other, with the crank shatt, B, and with the frame, A, of the ma
chne, substantlally as described and for the purpose set forth.
 each other, and with the frizme, A, of the machine, Eubstantially
as descrinedand for the purpose set forth.
Third, The combination or the rollers, E H, and the rubber
oards. Th, with each other and with the trame, A, of the ma Third, The, combination or the rollcrs, E E H, and the rubber
boards, M, M, ith each other and with the trame, A, of the ma
chine, substantiall as hereln described and tor the purpose set
forth. 59,039.-Maciine for Washing Sand and other Mineral Substances.-Wm. M. Lanehart and Jos. C. King, Cookstown, Pa
We claim, Frrst, The cookstruction and use of the cistern, a, it
cornbination with an apparatus for washthष and raising sand, sub cornbination with an apparatus for washiny and raisings sand, sub-
stantialy in the manner and for the purposes above set forth.
second Second, The cisterns, a a , one or more, in conbination with a
corresponding number of eievators and spouts, and the trough
the viliote being constructed and arange manner, and for the purposes above set forth. 59,040.-Hook Pins for Fastening Wearing

Apparel.-Alexander Lindsay and Myron Moses, Malonc, N. Y.
First, We claim a pin, A, or spring metal having a part, a,
trined back to the bedy, A, and ternimating ina hooks in
anged and operating as and for the purpose specitied ranged and op erating as and ior the purpose specitied.
second, We claim the pin, A a b, Fir. 1 , and releasing slide or
ball, $D$, substantially in the manner anil tor the purpose described. 59,041.-Clothes Wringer.-John S. Lash, Philacle clphia, Pa .
I clatm the combination of the jolnted compensating ling, h,
and arms, withthe non-sliding gear, J, K, and the rolicrs
, substantially in the manner anc for the purpose 59,042.-Apparatus for Making Paper Pulp.Henry and Fritz Marx, Baltimore, Md
We claim the arrangennent of the mill stone, 'B, the boxes, D ,
followers. X, and feed ficing, operated bV rack and pinion, vaud,
wheel and weigl t sul st mitilly as described. We clalim the arantement of the longitudinally-shaking shoe
provided with inclined sievcs in vcrtich selies with separate We clain the corrng ated or yough surfaced grindstone in the
relation and capacity duscribed. 59,043.-Feed Cutteri.-John Massey, INew York Chity.
 59,044.-Priming Metallic Caittridge.-Edward Maynard, Tarrytown, N. Y.
 substantially in the nianner and for the purpuse hercin set forth
59,045. - Gate. - Oliver C. McCarty, Haysville, claim the
I claim the application of the wires or chains, c c, to we loop,
E, nnd the bar, D, so as to rotate che gate and cause it to re-
turnd ite which the gater evolves when opened, and also vie post, a, upon
which the gate revolves.

59,046.-Miter Box. - J. A. McKinstry, Monson, Mass. I clatim the miter box, the parts or which are composed or the ad-
 specifled.
59,047.-Discharging Grain from Vessels.-C. H. Merry, Dunleith, Ill.

First, I claim the combination with a vessel of a removable
weth B
for the purpose contructed suostantially as herein described and
for the purpose set forthl
Second
Re combination with the removable well, A ACD , or ! the gate, F G, one or more, constructed and eperated
taily as herein described and forthe purpose set forth.
$59,048 .-L$ Lock--A. O. Mills, Nashua, N. H.

 means ot whiche fitting of the tuablern D, in the frantic, b. by
 Ifuther claim the forming of the adjustable bits, e, with lipg:
h, at their ends to permit the slipping of the bits out from the ey, asset forth.
59,049.-Mole Plow.-Adam Miller, Chicago, Ill. First, I claim the cutter brace, F, when attached to a pivoted seamcond, The arrangement and combinalton of the colter, $\mathbf{F}$,
cutter brace,
vided and pivoted lever, , with the standards, $\mathbf{c}$, prosecifled.
Third, The arrangement and combination of the hooks, $L L$,
ords, I I, and crose bar, $k$, with the mole, $H$ or $G$, for insertin cords, I I, and cross bar, k, with the mole, H or H , for inserting
two or more lengths or pieces of drain tile, substantially as set
forth and specified.
59,050. - Combined Rake and Spade. - W. H. Miller, Brandenburg, Ky
I claim the combined rake and spade, made and adjusted sub-
stantially as described.
59,051.-Steam Generator.-Thomas Mitchell, Albany, N: Y.
I claim the combination of the means substantially as ?herein
described for senerating steam, with the means substantially as herein described for controlling the introduction of the water
the purpose set forth.
59,052.-Medicine.-Lorenzo Olea Moreno, New York City.
I claim a medical compound made as and for the purpose de
scribed.
59,053.-Three-horse Splinter Bar.-J. B. Morrison, Fort Madison, Iowa.
I claim the strap, cord or chain, F, with whiffletree, G, attached When said thea, cord or chain, is uscd in con nection, or combina-
tion with the whi ftetrees, D E, attaehed to the sp linter bar, and the latter secured to the draft, wole one-third the distance of its
59,054.-Bridge.-Thomas W. H. Moseley, Boston, Mass.
I claim the improved truss as composed of the arched plate, A,
the chord, B, the flanges, $C$ C, or the same and the end streng th.
enine plates, $g$.
ening plates, $g$ g.e combination of the shoes, $D$ p, and their ad-
Iallo claim
$j$ nsting ecrew bolts, $k k$, and nuts, 1 , with the truss made of the
 tantially as feseribed.
59,055.-Steam Jet for Steam Generator Fur-Nace.-David M. Nichols, New York City. yclaim the combination of the steam jet with a divided flue and
valve for one division of the flue, all operating substantially a valye for one division of the flue, all operating substantially a
set forth.
59,056.-Carriage-top Protector.-R. Nickson Akron, Ohio.
I claim a protector for a carriaze top formed of a ground block, k ,
, springs, C , and plate, D, substantially as described.
59,057.-Grate for Heating Stoves. - George Nimmo, Jersey City, N. J.
I claim the sliding grate, b, and plate, i, in combination with the purposes set forth.
59,058.-Stove Cover, Pot, and Pan Lifter.-
Joseph B. Oakey, Indianapolis, Ind.
In claim a metallic head, constructed substantially as set torth,
59,059.-Tack Extractor.-F. M. Osborn, D over Plains, N. Y.
I claim the hinged surport. D, in combination with the handie,
A, having pronged end, B , substantially as described for the pur-
pose specifled. pose specifted.
59,060. - Gate. - Manning Packard, Clarendon, N. Y.

I claim sustaining the weight of a gate and allowing it a free
ction by means of two extension bars braced together and runaction by inceans of two extension bars braced together and run arranged and opsrating as herein set forth.
I also claim the emplingment of a series of
In combination wind ripyment of a series of extension bars, b c d, be adjusted higheror at pleasure, substantially as speecined 59,061.-Potato Fork.-J. S. Patterson, Whitney's
First, I claim pivoting a fulcrum or rest to the lower part of a
garden or potato fork, substantially as herein shown and described. ${ }^{\text {Second, The fulcrum or rest, C, constructed as herein shown }}$
and described, in combination with a garden or potato fork, sub-
and
59,062 .-Process of Separating and Collecting
the Fatty Matter from Wool Yolk.-John
M. Pendleton, New Brighton, N. Y.

First, IClaim separating the fatty or oilymatter making partof scoured, by combining or uniting therewith any of the acids
which will separate sida fatty or oily matter from said solution, Second, Strainoty said fatty or oily matter under pressure
through canvas, or other suitable material, for the purpose of through canvas, or
59,063.-Method ef Obtaining Lead from Dross.

- Charles Pickering, St. Louis, Mo.

I claim the within-described process of treating dross and
scumings made fromlead by sperting the same together with
the ingredients herein specified, for the purpose set forth
59,064.-Intermittent and Expansive Gearing. Lyman B. Potter, Putnam, Conn.
constructed and operated substantially as herein shown and de scribed.
59,065.-Roofing Material.-William L. Potter I claim an improved roofing
 pared substantially as herein shown and described and for t
purpose set forth.
59,066.-Oil Can.-W. J. Prall, Pomeroy, Ohio. I claim the pertorat?d suspended drop, C, adapted for the and cover, $G$, with projeciing recess, , in combination
the body, $A$, substantially as and for the purpose specified.
59,067. - Tire-shrinking Machine. - Thomas
Pratt, Valparaiso, Ind.
I claim the combination of the flanged bed piece, B, Dise, E
 orthe purpose set forth.
59,068.-Heater for Washing Machines.-W
H. Pratt, Davenport, Iowa.

First, I claim arranging chambers, C and D, beneath the per Second, The comb in ation with the heater, C D D, constructed as
described, with a washtub, AB, substantially as setforth. 59,069.-Sounding Board for Pianos.-Frederick E. Ramm, Philadelphia, Pa .

I claim combining with the sounding board of a piano an ad-
justable bearer or spring by which the sounding board may be raised when from any caase it has sun k or settled below its proper
position, substantially as described a nd for the purpose set forth. 59,070. - Medicine. - William Ranson, Portage,
$W_{\text {Wis }}$.
Ielaim the improved medicine, compounded substantially as
erein described.
59,071.-Planting Machine.-George Ray, Kind
erhook, N. Y.
First. I claim the slide, ne, arranged In relation with the cups
n1, of the carrier bett, H, and with the hopper, $G$, and tubular
standard, Gr, substantially as werein st for specified. Second, The slide, $h$, and elastic rod, f. arranged in relation
with cach other and with the cam, E, tubular seeding stock.
and carrie Third, The supplementary tubular stock, D, furnished wit Two slides, i, j, and so arranged and operated in in relarion with th
seeding stock, $G$, as to be capable of ropping a fertilizing seeding stock, G, as to be capable or aropping a fertilizing mate-
rialinto the hill timutitaneupusty with the dropping of the seed,
substantially as herein set forth. substantialuy as herein set forth.
Fourth, The patatorm, D, arranged below the rearmost end of
crame, A, and in relation with the seat, $K$, and hopper, $G$,
 each-other and with the clutch, o, and the bars, B2, of the thills
or dratt pole that the cluth will be thown out of gear with the
seed-conducting mechan ism simultaneousiy with the raising of the forward end of the frame, A, substantially as herein set forth
or the purpose specifed.
59,072.-Rafting Pin.-Thos. B. Raymond, Saginaw, Mich.
channel extending gras ping a attraing up rom rops point or edge for receiving and
pupose set iorth.
59,073.-Steam Plow.-Owen Redmond, Roches
claim the anc
Claim the anchors operating substantially as described, or
operating the in any maner on which ane in解
Third, The removable
Boats
Boats.- Thomas Reece, Philadelphia, Pa.
apparatus with the clamps, $d$ and $e$ e e', arranged and operating
59,075-COUnTER Supporter. - Joseph Reising Aurora, Ill.
I claim, as a new article of manufacture, a steel counter sup-
porter constructed as described and a aplied to the rear portion
59,076.-Stop-mortise Latch.-Francis A. Richardson, Poultney, Vt.
Iclaim the employment or arrangement of the stop latch, E nar or ston, H , the whole being arranged and operated in the
nanner and for the purposes substantially as herein described 59,077.-W heat Drill.-Mathias S. and J. S Rickel, Geneseo, Ill.
 With the ar gitator, B, snitably perated and provided with the
tubes, Jand J', arranged substantially as described for the purpebe specined
Seomd, The combination of the plows, $K$, swinging bars, $L$,
springs, $N$, and cam, $M$, constructed and operating substantially springs, N', and cam, M, constructed and operating substantially
59,078.-Plow.-J. L. Robarts, Brunswick, Ga I claim the detachable and reversible $V$-shaped land side, $E$,
secured to the stock, $C$, substantially as shown and described. 59,079. - Water Drawer. - Cyrus W. Saladee Newark, Ohio
First, I claim the yoke, A A 1, constructed and operating in
the manner and for the purpose substantially as shown and de-
Second, I claim the flange or ppont, C, in combination with th Third, I claim operating the yoke, A A 1 and buckets, B, b means of the lever, D , or its equivalent, as and for the purpose Fourth, I claim holding the buckets, $B$, in position against the
nderoide of the yoke by means of the spring or catch, $P$, or its quivalent, in combination with the groove, N, in the manner
 the bucke
the manne
Bcribed.
59,080.-Brick Machine.-James Sangster, Buffalo First, claim the openings, T T, be the number more or less, brick or material receivesits pressure. Second, The opening, J3, in the bottom of the mold, B, for the
purpose of leaving room for the escape of the surplus clay or Third, The openings, J1 and J2, in the lower part or sides of
the pistons, as and for the purposes described. Fourth, The pins, $Z$ Z, or the equivalent thereof, when used in
he mold, B, substantially as described. Fifth, A piston moving and compressing the clay to the point
de sired which is then forced by the opposite piston with the brick partly cornpressed back again bo asupport, where it remain
until the piston which moves it back gives the completing pres sure to the brick.
Sijth, The employment of one or more plates, R, substantially Seventh, I claim the lifter, U, when constructed with the open-
ngs, B2 and B2, or the equivalent thereof, when used in combina tion with the plate, C, substantially as described.
Eighth, The arrangement of the cam-connecting rod and the

Etationary guide, E, when nsed to give the irregular reciprocat Kindth hhe combination of the pistons, H and $\mathrm{H}^{\prime}$, as described
and set torth.
| 59,081. - Hanging Carriage Body. - Henty Scharch, New York City.
clacin the attachment of the spriggs to the body, as and for the palirn the setachnment of the spriags to the body, as and for
59,082 -Door Spring.-Reinhard Scheidler New-59,082.-Door Spring.-Reinhard Scheidler, Newark, Ohio.

## First, I claim the tongue, C , in combination with the coils, c c,




 59,083.-Apparatus for Drying Dishes.-C. W.

Schroeder, New York City.
I claim an apparatus for drying dishes, etc., composed of a box
or tand provide mwith one or mor eses of shelves and intermedi-
59,084.-Gate.-Charles Seefeld, Lomira, Wis.
I claim the arrangement of the plat form, $F$, with the lever, E ,
 closes by its gravity.
59,085.-Hitching Clamp or Hold-fast.-James P. Senchair, Millport, N. Y.

I clainn the hitchity clamps, or hold-fast, constructed and ap
plied in the manner desserten' for the purpose specifed. 59,086.-Medicine Chest.-Edward M. Skinner, Boston, Mass
First, I clain, constructing the chest or case in such a manner



59,087.-Crib and Chair.-John E. Small, Berlin, Wis.
 59,088. - Sewing-machine Shuttle.-Earle H.

Smith, Bergen, N. J. Antedated Oct. 7, 1866.

 59,089.-Tilansmitting Motive Power.-R. T. Smith, Nasiua, N. H.
I claim the swivel stirrup, , Hecured to the swinging rod, $I$, in the brush, cutter, or other article, ndit conneacting with the the elating stantially as and and for the purpose set forth.
59,090.-Button.-Charles F. Spencer, Rochester, $\underset{\text { claim the }}{\text { N. }}$
 59,091. -Chers Dasier.-- X. II. Spencer, Cintanditign: N. Y.
I Cisim, First. Forming the dasher. A, in bowl shape, substanSe ond, Formingtwor nuorevalves in the upper part or the
bowlshaped dasher. A, substantially as herein shown and de Bcribibd. The combination of two or more ball valves,, , with the
Third,
dasher, $A$, substantially a herein shown and described. 59,092.-CAP.-Christian and Frederich Stattmann Chicago, Ill.
We claim, Frirst. The employment of the reversible flap, A, in of difterent material, arranged and operating substantlally as de Second, we claim in acap whose sidesare sloted dor separated

59,093.-Machine for Scalding Hogs.-Matthias Stricker, Vincennes, Ind.

 scribed.
59,094.-Stitching Clamp.-William W. Taylor, Newark, N. J


 foot the aws, A and B, jointed arms C , tothre lever, D, and
foot bolek, H , or equivalent, uubstantially as hierein shown and
lescrbed. 59,095.-Wrapper for Needles.-Sineus E. Tot-
ten, Brooklyn, N. Y. Antedated Oct. 7, 1866. I cla1m, a wrapper for needles provided with a magnetic at
tachment, substantially such as herein described for the purpose set forth.
59,096 --Balanced Steam Valve.-Joseph Trent,
Millerton, N. Y. Antedated Oct. 7, 1866.
I claim the above-described construction and arrangeta ent of a
tubular slide valve for steam or other engines, substantial y as
59,097.-Barrel Hoop.-H. W. C. Tweddle, Alle ghany, Pa .

 cass, while the projecting edse or edges thus provided casese
ittoremain in place when driven, substantially as hereinbefore
described.
59,098.-Mode of Hanging Bells.-Ezra W. Vanduzen, Cincinnati, Ohio
First, I claim a bell proper, having a crownopening, B, in com-
bin ation with a yoke and crown plate, purposes set forth
Second
The




 duzen, Cincinnati, Ohio.


 íp,100 - Boit-heading Machive. - Benjamin Walker, Birmingham, Conn.
First, I claim the combination of the clamping heads, B', gape,
a, and cutter, F, arranged substantially as esecribed, whereby
 Second, The dies, f', in combination with the heading dies and
with the clamplng henis, B , , all arranged substantlally as herein
set fortit for the purpose specified. Third The, heading dies, $z^{\prime}$ ' $Z$ w, in combination with the clamp
int heads, $B$, and operating in succession, substantially as here Fet forth tor the purpose specified.
Fourth, The construction of the preparatory heading die. ${ }^{\prime}$,
with convex inner sides and acuteor recessed corners, substanFifth, The vertically-sliding blork M, furnished with suitable
heading dies, in combination with the horizontally-sliding block,
K, and with the clamping heads, B, substantially as herein set Sorth for the purpone specified.

 © 0 101.-Car Coupling. - Samuel J. Wallace, Carthage, Ill. Antedated Oct. 13, 1866.
 stantially as discribed.
Inconination with the above, I claim the risiug and falling
coupling guide, L , operating as described. 59,102.-Grain-drying Kiln.-Nicholas Wallas-

> ter, Detıoit, Mich.

I claim, First, The loader, D, formed by c ubining the sections
or traps d, the covers, dit, the bars, d5, and the screws, F, with
each other and with the frame or each other and with the frame of the loader, substantially as de
scr ben and for the purpose set for th. seconct, The arrangement and combination of the sections, $g$,

Third, The combination of the pipes, S S1 S2 SS, construct.
The for ed and arrangeed as described. with the canals formeed in the sides
of the kiln, between its outer and inner walls, substancially as described and for the purposes set forth.
Fourth, The combination of the pi A', in the outer winl of the the piln, and, B', with the openings,
which pass the pipes, S1 Si S 3 , substantially as described and thr he purpose set forth
59,103.-Machine for Shearing Sheep. - A. Washburn and T. Brintnall, Sork, Ohio
We claim, First, The swinging arm, E, with a counterbalance Sec ond, The shaft or tumbliug rod, J, with flexible connections,
I ope opet ing substantially as acceribed.
Thir, The adjutabe shicll, ,
ating substenting the knives, and oper-
99,104. - Machine for Making Sheet-metar Pans.-Orvill W. We w, Troy, N. Y.
First, I claim the employment and arrangenent of the mo vable
and adjustable dies or rin s, B, in coubination with acentral
and vertically 1 noving platiorm die, C , in the manner substantially as herein cascribed and set forth.
second I claim the employment
Second I claim the employment of the downward-moving plat-
orm or die, C, as the means for dies or wings, B, in the manner nim forthepurpose substan tially Third, I claim the said die or wings, B, in combination with the
sides, N, and the be vel regulators, ${ }^{\text {P }}$, in the mpnner and for the
purposes substa ntal 1 ps h eein described and set forth.
59,105-Machine for Rakive and Loadmers Hay. Milo Welbb, Chenango F'orks, $\bar{N}$. I.
l claim the sleeves, F and G, altached to the wheels and ar.
anged to operate in combin uion with the yoke, e , substantially
asand for the purpose set forth.
9,106.-Apparatus for Spinning direct fron the Doffer of Carding Engines.-Thomas Welham, Philadelphia, Pa .
First, I claim the combination with the doffer, B, of a carding
engine, of the adjustable spinner bed, R, as and for the purpose Second, $I$ a lo claim the combination with the dofter, $B$, of a
Sading engine, of the spinners, $C$, constructed and operating as
and for the pirporn described,
Thid, I IHo clainin tiae irlangement of the spinners, $C$, with in in. mosed rollers, S , the adjustable spinner bed, R , and spools,
operating as herein described and or the purposes set forth. 59,107.-HINGE.-W. T. Wells, Decatur, Ill.

i59,103.-Truss Pad.-Thomas S. Hhecler, Boston,
 ocket, c , arranged, applica togetber in manner, aud so ab to
operate substantally as specitied; and I also claim its combina-
ton with the spring and pado 59,109.-Tanning.-George D. Wheelock, Freedom, Ohio.
1 claim the within described procesh of tanning hides and skins,
by treating the saine srecessively with the liquors herein set forth. 59,110.-Double-barreled Fire-arm.-Eli Wlitney, New Haven, Conn.
First, I claim the manner, substantially as herein described, of
onstructing the rock case, A $A^{\prime}$, in one piece, and with tang sockets or holes, $\mathrm{b} b \mathrm{~d}$, and side apertures for plates, $\mathrm{j} j$, for the
purpose set forth. purpose set torth.
Second The The combion of the pin, $c$, and the tangs of the
oreech piece in the construction of a double-barrel gun, as set
forth.


 wiggers, K K, sears, ss, and single pin, p, substantially in the
manner and for the purpose descrined.
Sixth, The combinationot the socket, d, with the sockets, b b
when the socket, a, is a continuatlon ot the lock chanhber, A, and
 Sevensth, The partition, A', within the case, A, constructed as
peedit and serving in connection with the case, A, the several
 Eigstit, The manner herein described of constructing the lock
case, A. in one piece, and with hard metal bearings, such as
irsibed for the puypose \& forth.

 City.
I clam il.c consiructioin of the base plates with arched corruga
tions, as described. 59,118.-Horae R.sks:-John Wood, North Bloomfield, $\mathbf{N}$. Y.
claim the special arrangement of the spring stops, K K and $o \mathrm{o}$,
and the bar, C, provided with the double wedge,
parts are used in comblnation with the and the bar, C, provided with the double wedge, u, when the sain-
parts are used in coobbination with the single handle, B , for con-
troling the rake head, operating as and for the purpose herein
59,114.-Portable Fence.-G. C. Wright, Westfield, Ohie
of the boards, A, battens, B , blocks, C, braces, D , and pins, a , sub. 59,115 .
59,115.-Seed Planter.-Lewis R. Wright, Cohoes, N. Y.
 forth. $\begin{aligned} & \text { Second, The arrangement of a cog wheel or cylinder, } \mathrm{D} \text {, con- } \\ & \text { tinning the series or cogs, a b c, upon or near cach end of the }\end{aligned}$ trinen thatt, B, and the shafts, G, G, contain ning the siding ing pinions,
E E, and the planting cyliners, F, eac hbeing arranged and
combined in the manner substantially as herein described and set forth.
Thind, I claim the mode herein described and set fortliforcom-
bing and discurarecting two or norie seed-planting fulachinc constructed and arraiged substantially as herein described und set forth. The employment of the marking device, $\mathbf{M}$, construct-
Fourth,
ed and combined with the arm, L , hinged to the trame, A , in the
59,116.-Machine for Raising and Loading Hay -Pa . Wright and J. Wright, Franklin township Pa .
We claim the yielding rake head, $\sigma$, in combination with an
ndless apron when used for raking hay and conveying it up into endless apron when used for rahinct hay and conveying it up int
59,117. - Minvísl Power.-John II. Yager, Trenton Ohío.


59,118.-Currycomb.-Willbur F. Arnold, Win throp, Conn., assignor to himself and P. A. Gladwin, Boston, Mass.
I claim, as an improvement in curry combs, the employment of
one or more springs, F, for throwingover and retaining the plate,
one or more springs, F, for throwing overan
D, upon the comb, substantally asset forth.
59,119.-Stove Door.-Solomon C. Batchelor (assignor to himself and W. C. Davis \& Co.), Cincinnati, Ohio.
I claim a stovedioor hinge composed of open backed sockets,
C, with the described stepped upon portionsin conbination with
the correspondingly stepped collar, E , of the pintle, as and for the correspondingly stepped collar, E, of the pintle, as and for
the purpose expained.
In combinato with a stove-door hmge constructed as above
specifled, 1 further clai $n$ the lug, F, for the purpo ese set fortho 59,120.-Machine for Making Fishing Lines and other smali, Cords.-Peter Brooks (as signor to the National Line and Cord Co.), New First, I claim the fee
 manner and for the pharpoxe hereln set eortin.
Second, The levers, $h$, in combinatantially in the
Sith the respective threadsof which the line, is formed comation with the the respective constructed and arranged to operate
and forthe purpose herein set forth.
59,121.-Safety Valve.-William Burnett, San Francisco, Cal., assignor to John C. Paige, Stoneham, Mass.
First, I claim the arrangement of the levers and their attach Second, The lever weight so arrangud that the lever plasist
through and works free withln the borly of the weight, Hlbstar:
 load to test its operative condition.
Fourth, The arrangement substan
ir. the cover or the inclosing cas.
Fint . The cap pinvile to prevent the valvespindle trom being
59,122.-F F A CET. - William S. Cooper, Philadelphia,
Pa., assignor to Cooper, Jones \& Cadibury.

59,123.-SEED Drill.-H. V. Davis and George W Peabody, Amherst, N. H., assignors to George Tuttle, Milford, N. H.
We claim the bar, A, having the reed box, ${ }^{*}$, secured uponits
lower p:irt, and ties
 e, in box, D, and the reciprocating, percraced plate, g, at the
rear of pate, operated by the rod, F , and cum, D, from the axis
of the roller, Co, substantially as shown and described. 59,124.-Air-compressing Pump.-J. N. Dennison aseignor to himself and F.H. and R. J. Gould), Newark, N. J.
First, 1 claim a pump composed of two (or more) oyllnders of
unequal size provide with pistons connccted together by a pipe with suitable valves, as shown, in combination with an air supply mpatlest cyindcrs, substantially as and for the purpose herein set sipe tis, and proyeted with a supnly and discharge pipe, in com

59,125-Puype-Jolan N Dennison (aseignor to
himself, Francis H. Gould and Roscoe J. Gould), Nwark, N. J.
I clalm so arraytur the pistons of a pump composed of two
cylinders having pistons secured to one and the same rod, that
eitheror both either or both can be put in operationort and thown out of operation
substantially as and for the purpose descrbed. 59,126.-Magazine Fire-arm.-Valentine Fogerty
(assignor to him.self and Panl P. Todd), Boston, Mass.
I claim, Firist, The combination of the magazine tube arranged
along the sides of the qun stock, as described, with the mechanismifor delivering the forward cartridge to the brreech pin or to
the end of the barrel, substantially asherein shown and set forth.
Ser'ond, Makingthemagazine tabe in two jaw latelally ing ed



 Fourth, The plate, $\nabla$, for opening and closing the loreer end of
the magazine, in com bination with the lever, $\mathbf{Y}$ for pressing open the magazine, in con bination with the lever, , for pressing ope
the
fiding portion of the magazine, substanially as set foith. 59,127.-H.axed Thread Sewing Machine.Thomas J. Halligan (assignor to himself and Samuel Shapter), New York City. Antedated June 14, 1866.
 serving machine feedig the material or work, as set forth.
Second, The comblnation or an awl with an eve-pointed needle Second, The comblnation of an awl with an eye-pointed needle,
constructed, arranged ancl operated substantiat an specifl ed.
Third, The arrangement of a curved awil witl a curved ey pointedn needle above a perforated bed plate of a a a curved ey machine and upon a carrier which receives a right-line move
ment, for the purpose of feeding the material, and a curved move ment in a vertical plane tor the pupose of carrving the move
thread throughand belowthe bed plate, substantaly as leserpril
Fourth, The arrangemert of the pressure foot and its rod with especto and oscillating needle sub
 and for the purpose set for thi, the hinged devices, $L$ ' $L$, lever, $K$,
Sixth, The arrangement of
nd pressure device, $D$ D', substantially in the manner and for the purposedcscribed.
Seventh, The pressire foot controlled by means of a cam, constructed und arranged as sontrolled by means of a cam, in combination with the
perforating and feeding needle, substantially as described. 50,128.-Melodeon.-Frederick Hoddick (assignor to George A. Prince \& Co.), Buffalo, N. Y.
claim, First, A tremulo bellows, F, having inlet and outle I claim, First, A tremulo bellows, F, having inlet and outlet
valves, f1 f2, constrncted and operatlig substantially as herein
described. Second, A tremulo bellows, F, or its equivalent, placed and used
in condection and combination with the wind chest and swell valye of reed musical instruments, ior the purpose and substan
tially as described.
59,129. - Carpe't Stretcher. - John Kaily (as signor to himself and W. H. Alexander), Can ton, Ohio.
I claim a carpet stretcher composed of the teeth, langed and ad
justable levers, and cord, the whole being arranged to operat
substantially ln the manner 59,130.-Water Grate.-Wm. A. I. Kirk, Hamil ton, Ohio, assignol to Owens, Lane, Dyer \& Company.
I claim the tu bnlargrate bars, B, each provided with a longl tudinal diaphragm, D, when the said grate bars are arranged be-
neath the fre box, andat the lower end of the water le, A,
the boiler, in the manner and for the purpose herein specified. 59,131.-Stove-cover Lifter.- J. C. Longshore (as:ignor to himselfand John Longshore), Mans field, Onio.

59,132.- $\mathrm{H}_{\text {AND }}$ Loom. - Stephen C. Mendenhall
and Simon Sparks, Richmond, Ind., assignors to Stephen C. Mendenhall.
We claim, FIrst, The peeclitarly shaped cam, E e $e^{\prime} \mathrm{e}^{\prime \prime}$ e", in
the described combination with tlie grooved hub, $F$, constructed as described, and a s cries of treat dies, 123 4, or nore, constructed
as described, whereb one cam is made to operate anl the treadies reyolation of the cams. Second, The rise, K , and stop, $L$, in the described combination


 spring-sustained tinger, 1 , and the spring catch, M, for the mo
mentiry detention of the finger outside orthe hub, as set forth.
Sixth, We claim the releasing cam, in the described combi-
nation with the


 59,133.-Clothes Rack. - John O. Montignani, Albany, N. Y., assignor to A. Tirner.
I claim the construction of clothes pins for portable clothe;
racks by forming their axes or pinots as described.
59,134.-Machine For Folding Paper Colllara -Chas. E. Moore, Roxbury, Mass., assignor to Andrews A. Evans, Boston, Mass., assignor to New England Model Collar Company. I claim, First, Foldiug collarsby means of the angular groove Second, The rollers, R and Q, arranged and operating in com,
bination with the grove, P , and die, N , substantially as and for
thepurpose described. 59,135.-Manufacture of White Lead.-H. J. Overmann (assignor to Wm. S. Hascall), New York City.
First, I olaim the manufacture of white lead from metal lead, or litharge, or ores of lead by means of nitric and sulphuric a cids
or their severalequivalents, in combination with pyrohigneous or
oxalic or similar acide, with or without the use of borax or its
 Second, I also claim the use of pyroligneous or oxalic acid
sililar acids for destroying the crystaline structure of the pre
cipitated sulphate of lead, with o. without the use of borax, or its equivalent, substantially as described. and prespiratisy lead or its compound at the same operation in 59,136.-Trunk.-Elias B. Quick (assisnor to himself and George ' $\Gamma$. Palmer), Brooklyut, N. Y. 59,137.-Hoisting Machine.-Henry J. and Jaines Reedy (assignors to James Reedy), Cincinnati Ohio
We claim, First, The mode snbstantially, as described of eupl
porting andelavating a hoisting phatforir. In, iy a single rope whose ens are secured to opposite wspernltins of the windlass
$H$, while ity bight or midale portion H, while its bight or middle portion desure th: wurt a sheave, 0
nTon the platorm for the purpose decibed.
 Wind lass traverses asheave, R, and is carriect back and secured to
the windlass at or near its mid length and on the reverse side from the tivetidy cable, P. P.
Third releasing brake, U X. arranged and
aperating silbstantially 9 an set forth.
 128
59,138--Circular Loom for Weaving HatsPhineas Leeson Slayton and Charles I. Kan
(assignors to Almet Reed), New York City.








59,139. - Horse Hay Fork. - Seymour Roger Pittsburgh, Pa., assignor to Luman Rogers.

59,140. - Ditching Machive - David Sawyer
Webster, (Chio, assignor to himself and Robert
Barber, Perrysburg, Oliio





the head, g, spade, f, for the purpose as specified.
sithth, Rail, d, arm, d", as constructed and operated by the
cam,

59,141. - Cotten-bale Tie. - George A. Seaver,
New Orleans, La., assignor to Alexander HI.
Seaver, Brooklyn, N. Y
I claim making the inner sides of the link with a curved or
angularform, nnbstiontialy as described, for the purpose of hold-
ing the band by indenting its edces in addition to the transverse bending whenit has been forced into position.

Smith (assignor to Mitchell, Vance \& (io.), New
York City. York City.
I claim, First. A cased or caged float and valve interposed be-
tween a supply barel or cask, and the gas apparatus or machine tween a supply barrel or cask, and the gas apparatus or machine,
for the parpose f supplying automatically and in uniform quan
tities, the gisoline or other masine material from the barrel
to the apparatus, su wstantially as herein described. To the a paratas, suwstantially as herers described.
Ialso caine the bent inbe or pipe extending from the cage to
the gasometer or service pipe, as chescribed.
59,143.- Piston Packìng.-William G. Snook and O. C. Patchell (assignors to themselves and A. H. Gorton), Corning, N. Y.

 With the port, $\mathbf{C}$, of the
the purpose specified.
59,144,-Cotton-bale Tie.-Charles Swett, Vicksburg, Miss., assignor to Charles G. Jolmson
New Orleans, La. Antedated April 23,1866 . I claim, as a new manuracture, my improved fastening block
or unitingthe ends of metallic bands, when said bands are made
to embrace compressed bales of cotton or other equivalent sub. to embrace compressed bales of cotton, or
stance, substantially as herein set forth.
59,145.-Device for Forming the Eyes of Bed Springs.-N. B. White (assignor to himself and Henry B. Baker), Dedham, Mass.
E, the shoulder, G , arranged substantially or di:wa, C D, the stud

Taly as epecinch combination of the recess, , with the shoulders,
F and $\mathcal{G}$, and the the stud, $E$, applied to the two plates, $C$, as
specified.
specified.
I also claim the comblnation of the plate, $\mathbf{p}$, with the bending
recess, e , arranged init, as and for the purpose specified.
59,146.-Steam Generator. - James Woodford and William H. Bancroft, Portland, Wis., as-
signors to said Bancroft and W. L. W ard. signors to said Bancroft and W. L. W ard.
We claim, First, A boiler, B, When constructed with an internal
fire channuber, F, Iues, F1, and an internal flue, $F 2$, and arrang ed
substantially a sset forth.

59,147.-Steam Generator.-Sames Howard and
Edward Tenney Busfield, Bedford, England Edward Tenney Busfield, Bedford, England.

 Third, The screens, , fordirecting the current of heated gases,
and for allowing a free circulation of heat around the upper part
of the ections of tubes, substantially as and for the purpose de-
scribed.
59,148.-Telegraphic Signals.-Ralph A. Jones and Joseph Hedges, Aylesbury, England.
used in connunction with a dot and complased forming the the several
characters of the Morse alphabet, substantially as and for the pur-
pose describec.
59,149.-A
149.-Apparatus for Rectifying Alcohol.England.
I claim the roiler, A No. 1 and A No. 2, and "edingug column
or analyzer, Bin combination with the purifyers, $k$ and G, the
parts being connected by pipes and regulated by cocls or taps, in
the manner and for the purposes set forth.
59,150.-Privy Seats. - Ernest Mangeon, Paris,
France.
I claim the combination of the cover, D, valve, c , and mechan-
the valye so that when either is open the other is closed, all being arranged in connection with the hopper, A, a id conduit p
ofa water closet or privy, substantially as herein set forth.
59,151.-Applying and Securing Meital Bands on Cotton Bales.-James J. McComb, Liverpool, England.
I claim, First, The preculi: r form of the self-acting nipping ties rounding cotton and other bales, as hereinbefore described and
set forth, and forming the slots or holes through the same in an oldique direction. and also forming the holes or slots on one end
Ittile narrower than the width of the metal band by forming the
side or sides at an angle, sub stantially in the manner and forthe
purposes hereinbefore described and set forth, and purposes hereinberore described and set forth, and jointed to and
Lastly, The improved contruction of grapple
operated by a hand lever having jonted prongs su bstantially in
the manner and for the purposes hereinbefore described and set
59,152.-Cottox-eale Tie. - James J. MeUoriv, Liverpool, England.
I claim the peculiar manner of holding the metal bands, $x$, as
hereinbefore described fy Firs. 1 and , , , mbstantially in the man-59,153.-Device for Lowering año Detaching Boats puom TiIEIR Davits, - Carl Herreik: Ramsten, Carlskirona, Sweden.
I claim, First, The hooks, $\quad$ D, constructed substantially as de-
scribed, ofa lever, b, pivoted arm, and hook end, d, for opera-
till essentilly as and tor ris sersh. Thy comphination with in ex: herein set forth. at or to opposite end o the boat, of the connection between the
hooks, af forned by the rod, $E$, and chans, $n$, for actlon in the
manner described. manner described.
Thir, The siopper, F , in combination with the rod, E , chain, n ,
and lever, b, for operation together, essentially as specified.
Four th,
 59,154.-Composition for Forming Useful and

Ornamental Articles.-Daniel E. Somes Washington, D. C.
I claim the combination of the substances or their equivalents,
as herein described.
59,155.-Pianoforte Action.-C. L. and A. B. Irving, Fort Wayne, Ind.
octave couplers, constructed and operated in the boards wanner and for
the purpose substantitull a s set forth and describe
Second We claim the in Se cond, We claim the jointed. compe und devers, ler $n$, in combi-
nation with rod, m, and conneting
 pese a, the sarne being constructed in the manner andfor the pur-

## REISSUES

rvester.-Robert T. Campbell, Wash ngton, D. C., assignee of T. N. Supton, Win chester, Va. Patented May 8, 1855.
First, 1 claim the application of a hinged siagonal brace, $b$, in
front of the finger beam for the purpose of sustann!ng such beam against hekward strain and thrust, su bst antially as set forth.
Second, Hinging a diagonal hrace, b, Which ex tends forward of
the inger beam, so that its axis of motion whall axis of motion of said beam, substantially as as descrinced. Third, Sustaining the platform frame and the finger beam oy
means of a for wara diagonal brace, b, and a rear brace, lia, subFourth, A hinged brace which extends forward of the finger
beaur and is adapted to serve as a tuard and also as a means of
sustaining the finger beam against buckwardstrain, substantially
Fescribed.
Fift $A$ A
finger bate wathen which is connected at one end to the ey formed on it to ll tidras axis' so as to moveconcentric with an
the axis of motion of said nger beam, substantially as described the axis of motion of said inger beam, substantially as described,
Sisth, rxtending the brace, b, as clained in the fifth clause of
the chand und the platiorm which sustains the fallen grain,
substantially as described. Seventh, A ninclined shaft, K , supported in bearings, a a, upon
the inderside of the draft frame, and adapted to serve as a driv
ing shaft for the cutter

describe In combination with the subject matter of the sixth
clanthe of the elaim, I also claim means which wil carry of the
cut srain from behind the culting ans ratus and deliver it from


abstantially as
Eleventh, The employment of the cutters, d, placed on the ro-
tating haft, M, in combination with the tw,
the said fit fingers, $P Q$,
des
Twelfth, supporting a reel, or its equivalent, at its inner end
by thehingeof the finger bear and at its outer end by a wheel,
or other equivalent $\alpha$ evice, substantially as described. Thirteenth, Supporting both, a device which moves the cut
grain to one side of and away from behind the cutter, and a de-
ice which reels in the uncut orain to the ution means of the axis,a, hinged at the inner end of the tinger beam
and a whel equivalent at the outer end of such beam, substantially as described.
Fourtenth, supporting a reel wholly upon the hinged finger
beam
:Hyturow ictin receives the sulling grain, in combination
 and reel tosether will be supported at one end by a hinge con-
nection and by a wheel, or its equivalent, at the other end, sub-
stantially as described.
2,383.-Treating Wood, Straw, etc., For the Manufacture of Paper Pulp.-The Hydro-
static Paper Company, Rochester,
signees by mesne assignments of Hery
and D. S. Farquilarson. Patented June 5, 1866.
We claim the subduing of straw, wood, or any fibrous mate
ialto be converted into pulp by subjectine the same to the

othe bleaching of such material in the ordinary method, sub
stantiand, We claim the combination with the cylinder, A, of the
sump,
set, and pipe, E, substantially as and for the purpose above
Third, We claim the safety valve, K , in combination with the
punip,
tion with the pelow the piston barrel, or plubstantiar and in in airect communica-
2,384.-Apparatus for Bleaching Paper Pulp.
$\overline{\mathrm{N}}$. Y. Ye assignees by mesne assignments of Henry
N. Y., assignees by mesne assignments of Henry
L. Jones and Duncan S. Farquharson. Patented

March 13, 1866.

는․


 DESIGNS.
2,495.-Floor Oil-cloth Pattern.-Charles T, Meyer, Bergan, N.Y., assignor to E. C. Sampson. 2,496.-Ornamenting Children's Long Combs.Leonce Picot, Hudson, N. J., assignor to the Leonce Picot, Hudson, N. J., assignor to the
Rubber Clothing Company of New York City,

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Tapping Holes.

How io shrink Collars
XXI.-Are Scraped. Surface
$\xrightarrow[\substack{\text { Oil cuns. } \\ \text { Drillins. } \\ \text { Glass. }}]{\text { and }}$ Turning
xxil.-Manipulation of Metals.


xXIV.-Pistonspeed of Beam.
XXV. - How to $\begin{gathered}\text { engines. } \\ \text { Sit a }\end{gathered}$

To find the length of
An $\begin{gathered}\text { Improperly } \\ \text { Valve. }\end{gathered}$ Leaalve.
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Steam-en.
 The Valves.
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Mr. Josept Harrison. Ir.

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Boiler so exccllcnt in its services aside from its safencs ron ex
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Very truly yours,
Jos. Har ison, Jr., Esq., Philadelphia
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 testing its economy in fuel. We believe it to be saf no and mor recommending it as uificier Boiler, and haveno hesitation is
 al space, thus avoiding the necessity of loa nating the fur-
naces ot an inconventent distance from the machinery, which the
ordinary Cylinder Boiler requires.

## - Philadelphia, Aug. 15th, 1866

 then. Their testimony was of such a character that we feesin $n$, hesitation in adopting it, and it has more than answered our ex easily managed; they possess fully all sare, very economical, and
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cylinder Boiler formerly used here, although it is doing a great all that yon work. I cheerfully recommend it as belng and doing Fours very respectfully, ${ }_{\text {JAMES B }}$ RODGER
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Improved Patent Station Indicator. |in molding forcasting steel, iron, and other metals The ordinary way of giving railway passengers According to the usual process of molding for castnotice of their arrival at stations, is by the call of ing, it is well lsnown that sand is employed which the cenductor or brakeman at the door of a car. is more or less silicious, the silica of which, when Generally this call is given while the train is in submitted to the melting temperature of certain motion, and the noise of the cars frequently drowns metals, becomes fused and combines with said metthe voice of the conductor, or renders his direction al. This invention consists in substituting for the indistinct. Then the difficulty of getting ready to aforesaid sand, a material which does not substanleave the train on such short notice is one of a tially contain free silica, lime, or other material which serious character. For these reasens persons are often carried beyond the point of their destination.
To obviate these difficulties is the design of the device herewith illustrated. The apparatus is a box, containing a simple mechanism, operated by a lever, which, by means of a ratchet and pawl, moves an endless band, bearing at equal distances the names of stations, with the distance between the two termini.
The engraving represents one of these indicators in a car, the side of which is broken away to expose the apparatus. A lever A, projects through the side and is operated by the post and incline, B , at the side of the road. As the car passes a station, the incline turns the lever and presents the direction, " the next station is -." If, on a car backing, it again passes the post, this action is reversed, so that the apparatus is self-operating, or automatic, and always correct. A bell can be attached to the indicator to call the attention of the passengers to its operation.
When the car has run the route and is ready to return, theindicator is to be unhooked and hungat the rear end of the car, now become the forward end, when the action of the posts by the roadside will reverse its action giving a correct indication of the stations.
This device was patented April 3, 1866, by P. E. and J. P. Aruger, Lancas ter, Pa., to whom apply for the purchase of rights or for further information.

## The Fhotographic Art.

Sir David Brewster, in a recent address on the claim of science and art to national recognition and support, ind tulges in the following beautiful remarks concerning the photographic art :-

But while the artist is thus supplied with every material for his creative genius, society derives a still greater boon. The home-faring man, whom fate or duty chains to his birth place, or imprisons in his fatherland, will without fatigue and danger, scan the beauties of the globe, not in the deceitful image of a hurried pencil, but in the very picture which would have been painted on his retina had he been magically carried to the scene. The outlines of the Himalayas and the Andes will stand before him in their most favored aspect. The Niagara will pour out her mighty cataract of waters, while the dreaded volcano will toss into the airher clouds of dust and fragments of fire. At a lower altitude, Egypt's colossal pyramids will rise before him ; the temples, too, of Greece and Rome, and the gilded mosques and minarets of the East. With a more affectionate gaze he will survey the hallowed scenes which faith has consecrated and love endeared Mount Zion will stand before him " as a field that is plowed," Tyre as a rock on which "the fishermen dry their nets," Nineveh " made as a grave," and Babylonthe great "cast up as a heap," covered with pools of water, and without even the "Arab's tent" or the "shepherd's fold." Yet, though, it is not only Palestine in desolation that we see; the seas which bore on their waves the Divine Redeemer, the hills which bounded his view, the pathway which he trod, and the mount from which he spoke the message of salvation, stand unchanged, and appeal to us with immortalinterest.

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Mr. Frederick Tachsel, analytical chemist, and Mr.Wm. Hall,brassfounder, of Manchester, England, have patented certain improvements made by them

P. E. \& J. P. GRUGER'S STATION INDICATOR.
to be cast. With this vlew, materials with an alum inous base, having been previously reduced to a state of powder, are employed in the place of the usual sand, and after the ordinary manner of molding. As illustrative of the invention, coal shale or fireclay, gruund, when dry, to a powder, may be used as above described.-Railway Times.

## PECK'S PATENT PATCHED BULLET.

There has been much discussion of the comparative merits of breech and muzzle-loading rifles. The patch used on the ball in the muzzle-loader causes a smooth, even fit in the barrel, renders leading impossible, prevents friction and irregular

motion, and cannot bs dispensed with in close shooting. It seems to be conceded that if the ball used in the breech-loader could be thus patched, it would add to its other merits all the accuracy of the muzzle-loader.
It is claimed for the invention herewith illustrated that it answers all the requirements of a perfect patched bullet, and can be used with equal facility in a breech or muzzle-loading rifle, but is more especially adapted to metallic cartridges for breechloaders, and that it can be manufactured at a very slight advance upon the cost of the naked bullet.
The engravings represent the bullet in its various
stages of manufacture. $A$ is the slug as first cast. The nick, at B , is to receive the margin or edges of the patch, represented at C. This patch may be of cloth, paper, or parchment. The patch and slug are placed in a matrix, and a die compresses the metal, securing the patch smoothly around the base of the bullet, as seen at D. Another operation by means of the compression of dies, gives the finished form of E At F is represented a vertical longitudinal section of the finished projectile, showingexactly how the patch is secured. From specimens, we judge this mode of patching to be very superior. It makes a very handsome projectile.

This "improvement was patented July 19, 1864, by Milo Peck, New Haven, Conn., whom address for further information.

## Petroleum and Sperm Dil as Lu*

 bricators.The Engineering says that an American correspondent states that on the Boston and Worcester, and the Boston and Mainerailroads, experiments have been made with petrolcum and sperm oil to determine which is the best as a lubricator. The results were as fol lows :-

They put a railway carriage on each line in perfect order, calipered the jour nals and weighed the brasses, and used only sperm on one truck and only petroleum on the other of each carriage. After running the carriage 19,000 miles, all the axles and brasses were found in good order, with equal wear all round, and 20 per cent less oil had been used from the petroleum cask. They now use petroleum exclusively in the Lightner boxes of their carriages.
This oil, of the best quality, fully equal to pure sperm oil at the least, and probably better for carriage axles, can now be bought for 50 cents per gallon, and can be laid dowa in Liverpool at 2s. per gallon. Sperm is worth $\$ 285$, and must be worth four or five times as much as petroleum in Liverpool.
The cause of the great depression in price here just now is the sudden and enormous supply of this lubricating oil obtained in Western Virginia, said to be 1,000 barrels per day, while the consumption in this country is only about half as much. The export trade in this quality of oil has yet to be opened.


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