
issued from the united states patent office for the week ending june 3, 1862.
 inventors, may be had gratis by addressing MUNN \& CO., Publisher
of the Scremriric ANRRICN. New York.

35,433.-J. Q Adams, of Highspire, Pa., for Improvement in Horse Rakes

 35, i29.-J. S. Atterbury, James Reddick and T. B. Atter bury, of Pittsburghl, Pa, ior mprovement in
 35,430-J. S. Atterbury, James Reddick and T. B. Atter-
bury, of Pittsburgh Pa., for Improvement in the bury, of Pittsburgh, Pa., for Improvement in the manufacture of Hollow
We claim a new manufacture of glass ware, which, wiilie it shall
 stantiallyas and for the purpose above described.
35,41 .-George Bailey, of Buffalo, N. Y., for Improved Baggage Cleck
I claim ine described method of checking baggage, that is to say,
by antavhing to the article a ticket hulder, and inserting therein

$35,332 .-$ C. F. Barager, of Candor, N. Y., for Improved Reversible Plow


I'this invention consists in a peculiar manner of attaching a swinging section of mold board on the side of a plow having two shares, and connecting it with the beam in such a manner that it mav be turned to correspond with either of the plow shares, and thus desired, by simply turning the beam in one or the other direction. 1
35,433 .-W. B. Bement, of Pliladelphia, Pa., for Improvement in Stands for Machines
Inaim the mainsppporting structure of machines, having a cabinet
or safe tool receptacle formed therein; when cast in one entire pieee,
essentially in the manner and fur the purposes set torthend 35,434 .-W. B. Broadwell, of Springfield, Ill., for Improvement in Corn Plows
I claim in combination witt the bar, $G$, and clamps. It H, the fender
or guard, $I$, applied to the beams, $A$ A, and bar, $G$, as and for the purpose specifie d.
IThe object of this invention is to obtain a corn plow witich may be readily adapted tor use, either as a single or two horse plow. The inventinn consists in constricting the impiencht of two distinct manner that they may be readily detached when one mart only is re mired ; the means employed for connecting the two parts of the plow almitting of being adjusted so as not to interfere with the plants or breakdown the same as the machine is drawn along. The invention also consists in using in connection with the implement thus conthe plants from clods or earth which might otherwise be thrown upon hem by the action of the plow.
35,435.-S. B. Conover, of New York City, for Improvement in Potato Diggers
 purpose set forth.
Second, The sconp or share, M, and rotary screen, conveyer, and
weed sep, rator, having a shake motion as described in combination weed sep, rritor, having a shake motion as described in combina tion
with the tilting receevers, $P Q$, all arranged for joint operation as and
for the urnse secilied.

## or the purpose specified.

TThis invention relates to an improved machine for digging potatoes; nd of that class in which a rotary screen is employed to separate the eptacles. 1
35,436 ....J. W. Coombs, of Mount Vernon, N. Y., for Im provement in Coal Scuttles:
shaking sieve, - and handle, $\mathbf{j}$, all constructed arranged and opera sing in the manner and for the purposes set forth.
scond The combination with the sieve, $D$, and scuttle, $A$, of the
 Tion with the scutte, A, a a and for the purpose described.
Fourth, The combination with the hinged lid, C, and spring ears, f, e

## onses speciiied.

 hinged to the bottom of said scuttle in such a manner, that by the action of said sieve the good coal can be searated from dirt or ashes hat may be mixed with it, and that the moisture which generally ad heres to coal, and which causes coal scuttles to rust and wear out in a hort time, is permitted to pass through said sieve down int
35,437 .-L. C. Crowell, of West Dennis, Mass.: for Improvement in Aerial Machines :
 ith the adjustable hinged propeller, C, constructed and operating,
[This invention consists in the arrangement of two or more fla ${ }_{t}$ horizontal position or down into a vertical position, and of one or more rotary hinged propellers, the shafts of which can be brought in
combination with a pyramidal winged steering apparatus or rudder,
and with a suitable car in such a manner, that from said car the motion of the whole maciine can be controiled by the posilion given to the propeller, to the wings, and to the rudder.
35,438 .-B. F. Field, of Sheboygan Falls, Wis., for Im I clain, tirst, The combuation of the grain measuring slide, $G$
serew,

 Third, The agitators, consisting of elliptically tormed disks of meta
p , secured in ail obligue position on a horizontal shaft, 1 , arranged $t$ operate in tiee manner and for the purpose set forth.
IThis invention consists in a simple device for varying the size of the seed aperturesin the hopper, and indicating on a dial the quantity of grain sown leer acre ; also an arrangement of grass seed hopper in side the hopluer ; also in a peculiarly-formed agitator, consisting of elliptically-formed disks of sheet metal, securedi in an oblique position a a horizontal shaft.]
35,439 .-D. R. Fraser, of Chicago, IIl., for Improvement in Piston Packing

## the combinatimn of of he expandug action and compressing accuon o steam at one and the same tip

 steam at one and the same time upon the rung or rings, I, of piston,substantially as and for the purposes described. Second, The arrangerent of the valves, their seats, their springs
and their chambers, wilh relation to the fiston head and follower a nd the packing rings, for the 1 priphes iescribed.
Third, The construction of the ring, C , substantilly as and for the
 pose described.
Fifth, Claim the combination and arrangement of the wedge, E , . stantuilly in int with manne thand for the pur ooses descr Sixth, The interposition of self-adjensting wedges, B, substantially in
the manner and tor the purpse sdescribed. seventh, Aljnstiug the phe king by means of wedges,, applied
between it and the arms of the piston had, $\mathbf{A}$, whether the wedges be between it and the arms of the piston head, A, whether the wedges be
opperated anthmaticilly or otherwise, for the purpose set forth.
Eighth, 1 he spices, $p$, substantialy as and for the purposes $35,440 .-C$ C. Frost, of Peekskill, N. Y., for Improve ment in Heaters
I claim, first, The extension of the corrugations of the fire pot from
the top to he bottom, and opening into the ashpit, substantially as
set forth Second, The combination of a grate and fire pot, in such a manner
as to leive the spaces formed by the corrugaions of the five pot and as te lenve the spaces formed by the corrugations of the fire pot and
rim of the rate openeninto the ashpit, and free for the passage of a ir,
substantially as set forth.
$35,441 .-H . N$ Fryatt, of Belleville, N. J., for Improved
Centrifugal Machine for Filtering Liquids
I claim, constructing the centrifugal machine for fittening purposes,
with an annular filterng chamber surnunding central recetion
chamber, the said ifterning chammber having a clos sed top and botom, chamber, the said tilering chamber having a chsed top and bothm,
and its sides being formed of an anter and inter pervious cylinder,
with the inside filled with pulverized chdrenalor its equivalent, sub. stanially as and tor the purpose set forth.
I also claim in combination with the central reception chamber, and
the annular filtering chamber, the cap extending inward over the
reception chamber, and the inner cyinder to firm a che recention chamber, and the liner cyinder to firm a chamber in
which the hlimide accumulates bef rre pressung through the filtering
chamber, sulustantially as and fur the purpose set forth.
$35,442 .-I$. A. Heald, of Washington City, D. C., for Improvement in Machines for Making Cigars:
I claim, first, A series of grooved and smooh rollers, $\mathrm{F}^{\mathrm{F}} \mathrm{F}^{\prime} \mathrm{G}_{\mathrm{G}} \mathrm{G}^{\prime}$, constructed st a seridere of grooved and smooh rating substantially as and for the purpose set
forth and described Second, , The combination of cylinders, I $I^{\prime}$, and cylindrical castings,
$\mathrm{J} \mathrm{J}^{\prime}$, constructed and operating substantially as and for the purpose $\mathrm{s}^{2}$ fornstructed and operating substantially as and tor the purpose
Third.
The combination of rollers, $\mathrm{K}^{\prime} \mathrm{K}^{\prime}$, with the cylinder, $\mathbf{I}^{\prime}$, operating substantially as deccribed and for the purpose set forth'
Fourth, Apron, L, and friction roller, t in in combination with rollers, $\mathrm{K}^{\mathrm{F}} \mathrm{K}$, corth, Apron, L, and friction roller, t , in combination with roilers, Fifth, Finger, $p$, or its equivalent, when operated substantially as
described and for the purposseset forth. Sith, The revolving sllding shaft, N, constructed and operating
substantially as and for the puryose specified. 35,443 .- Edward Heaton, of New Haven, Conn., for ImI clam the construction of the screwbreechiwith the ball seat, dd, and
a clarge chamber, D , which is contracted at i , toward the seat, as and for the purpo
[This invention is more especially intended for ordnance. Its principal object is to enable accurate firing to be performed with iron projectiles without the use of packing of soft metal or other material, such projectiles.]
35,444.-Jacob Holben, of Allentown, Pa., for Improvement in Operating Grinding Mills :
I claim the method specified of cleanng millstones by the use of
35,445.--Samuel Holdsworth, of Durlam, England, for
Improvement in Looms Patented in England, May 17,1860
I claim, first, The combination of the saddle, $C$, the catch, $\mathbf{E}$, the
raverse bar, plate, k, the whone applie.l and operaing silbstantially as set forth to Second, The constrution of the lever, b', through which the
mechanism for inserting and withdrawing the pile or terry wires is
act nated, with a curved slot, $\mathbf{B}^{*}$, substantially as and for the purpose set forth. The combination of the pusher, H, and the instument, $\mathbf{N}$
Third,
constituting a means of transferring the wires from the position to which they are withdrawn from the fabric to that from which the are reinserted, substantialy as described.
Fourth, The employment of the sulp
ment, N, as a means of tight ening the wert, substantrally as specified
Fitith, rithe coninbination for Fitth, The combination for oiling or lubricatug the terry co pile
wires of a vessel, u3, a grooved or channeled bat, u, and a sponge, u4,
the whole applied and operating sulbstantially as' set forth


 inion, $Q^{\prime}$, the whole applied ind operating substantially as specried IThis seems to be an important invention. Its object can be macr
stood by the claim, but it would be impossible to explain the mechanism intelligibly without drawings.]
35,446.-P. N. Horseley, of Jersey City, N. J., for Im provment in Ventilators for Hats:
I claim the air arrangement of the sliding ring, C , in combination
with a hat or head covering, B , a nd conneted to the same by rods, e , and spring sockets, $c$, or by other equivalent means, substantially nd for the purpose sho
ther head covering of a movale frame, to the hat or head covering, while its other part is made to slide in and out in such a manner that whenever the wearer desires, the hat or head covering can be raised from the head, and returned in such a head coveringakl around the head, and that hy this action an or acrer able and cooling ventilation is elfected.]

35,447.-William Howard, of Flushing, N. Y., for Im
 lires,, , to
described.
35,448.-A. S. Hudson, of Sterling, Ill., for Improved I claum, tirst, The
nn conminator: with the sumpent or use of the curved spring arms, B,
 35,449.-T. S. Hudson, of East Cambridge, Mass., for Improvement in Inkstands
 35,450 .-Jacob Jalraus and J. G. Bickel, of Buffalo, N. Y., for Improvement in 'raucets


35,451.-W. H. Jolnson, of Springfield, Mass., for Im proved Maser
$\mathbf{I}$, thaim, a propeler for vessels, consisting of a ripid vibrating arm, 35,452.-Frederic Kettler. of Milwaukie, Wis., for Improvement in Rotary Pumps :
I chaim, first, The combination of cog rollers, D, with piston, C , and




35,453.-Arthur Kinsella, of Cascades, Washington Territory, for Improvement in Aerial Maclines
claim, the arrangement of the generator $D$, and
I claim, the arrangement of the enererator, D, and condenser, E
connecting with the cylinder, C, by means of pipes, $\mathrm{d} \mathrm{d}^{\prime}$ \& $\mathrm{g}^{\prime}$, an
 rocket-shaped balloon, A, the whole being constructed and operatiug the manner and for the purpose specified.
TThis invention consists in the employment or use of a gas generator and condenser, counected to a suitable cylinder by means of pipe povided with stopcocks that are alternately opened and closed by the motionor he cansian a steering ones a steering gear in such a manner, that by he actinn of the fanmeel is propelled in the same manner as a rocket, and at the same time the course of the balloon can be governed at pleasure.j
35,454.-William Koss, of McGregor, Iowa, for Improved Trace Fastening.
I claim the adjustable trace fastening, consisting, of the double
spring pate, $\mathbf{B}$, llinged at, $D$, the rod,, , and springs, $F$, and $P$, all
constructed and arranged as described and set forth. 35,455 .-T. S. Lambert, of Peekskill, N. Y., for Improve ment in boilers and Tea Kettles
 In such a manner by groves or pins that the weight of the boiler
when inclined in pouring will tasten the two together, substantially
as set forth. as set forth.
Second, The combination of the arm, A, figure 3, of the cover with
the lug and bail, in the ma nner substantially as set forth. 35,456.-J. B. Leverich, of New York City, for Improvement in Cover for Gun Locks
 or other suitable material impervins to water, havi ng in its ends
tlastic bands, ar or their eeluivalent, substantially as described for 1 he [This inventiono
[This invention consists in the employment of a bag of some watertight material, and provided with elastic bands at its ends in such a
manner that the same can be stretched over the lock of a gun or other manner that the same can be stretched over the lock of a ginn or other
firearm, and that wien thus stretched over the lock, the bands; embrace closely the stock and tie barrel of the gun on either side of the lock, thus torming a sure protection to ti, lock anainst water or ther impurities, and when the firearm is to be used, said bag can easily be turned back, so as to expose the lock and give free access to the same.]
35,457.-E. B. Manning, of Cromwell, Conn., for Improvement in Tea and Coffee Pots:
I clanm na improvement in the construction of Britannia pots, by
making the lower body and bonttom of such vessels of iron or a meta making the lower body and bon
capable of bearing much great
and for the purpose set forth.
35,458.-Morris Mattson, of Boston, Mass., for Improvement in Douche Bathis
I claim a bath ipparatus, consisting essentially of two or more tank
or reservoirs containing water of different temperatures, the outle rom wheh nnite in one delivery pipe, and are commanded by a suit
bble cock or cocks, substantially in the manner spectied, for the pur 35,459 . Jolin Maxheimer, of New York City, for Improvement in Bird Cages:
I claim the arrangement and combination of the cups, C, with the
cage, and slidng doors, B, as shown and described; ; so that the
door will 1est upon the cups, holding them in
 the waste of seed; also permitting the
heIr remoral. likewise entirely colising
hare removed for cleaning, all as set forth.
[Thisinvention consists in attacking the seell and water cups to the cage in a novel way, and using in connection therewith sliding doors arranged in such a manner relatively with the cups, that when the deanere detached on removed for he cige for the purpose on being leaned, the doors will fall by their own !rivity, and close the open bird, the doors also when the cups are adjusted to the cage serving as gut 10 med the bird and at the same time admitting of the cups being replenished with seed and water without removing them trom the cage.]
35,460.-R. S. Merrill, of Lynn, Mass., for Improvement in Coal-Oil and other Lamps:
I claim the combination of an onl reservoir and burner, under the
arrangement tet forth, so that he buining part of the wick slaill be constantly supplied with oil, antomaticaliy, substantially as described. 35,461.-Jacob Miller, of Canton, Ohio, for Improvement in Fanning Mills
I claim, first, In combination with the main shoe and its riddle, the
transverse trough and its riddale, for the purp ose of giving the grain a
second cleaning as it passes to tiue side of the machine, sulustantially secnnscribed.
I also claim
I also claim in combination with tie transverse trough and its rid.
die, a condncting pipe for introiuccing a blast into the rongh, to mive
the grain a second action of air as it passin over the transverse riddle,

I also claim the so arranging of the riddle or riddles in the trough,
as that they may be inclined to either side of the machine, for the
purpose and sulustantially in the manner set forth. 35,462 .-Jacob Miller, of Canton, Olio, for Improvement in Fanning Mills
I clam, first, In combination with the main riddle and shoc, an
auxiliary riddle on the side of the thning mill to give the grain a
second cleaning, sulstantially as described I also claim in combination with the auxiliary riddle, a conducting
pipe or air passage for introducing a blast to said riddle, substinntially pipe or air passage for introducing a blast to said riddle, substantially
as described.
$I$ also claim in combination with the main riddle and shoe, and the auxiliary riddle, a conveying apparatus for bringing the grain from
underneath the main riddle to the auxiliary riddle, substantially as
deceribed described.
I also cl I also clatim the so constructing of the fanning mill and the anxiliary
ridde, as that the latter may be nsed on either side of the machine
preferred, sulstantially as described. 35,463.-Jacob Miller, of Canton, Ohio, for Improvement in Fanning Mills :
I claim the arringement of the riddle, C E $\mathrm{E}_{\text {, and }}$ conducting board,
D, with the wo wind passages and the delivery spout or trough, I,
for the purpose of subiectiug the grain tie double for whe purpose of subaiectivg the grain to a
of air to clean it, substantially as described.
35,464.-J onathan Mosteller, of Lock Haven, Penn., for
Improved Cement for Roofing and for other Pur-
poses:
laim the combination of the ingredients mentioned, with the mode and maner of applying and colorring the sanene, snbstantially as 35,465.-Alvan Munson, of Peterborough, N. H., for Improvement in Pumps
a* claim, first, Haring the piston, $H$, provided with a $V$-shaped edge, the groove or channel, b, in the chamber, A, and the provection, wi, of
the chee, valve, D, arraned as shown to admit or the escipe of wa
ter trom the pump by the de aieshng to tocing ter cheek, valve, D, arranged as shown thadmit or the escape of wa
ter the tepressing or torcing down of the piston, as
and for the purpose sel forth. Second, Connectingor securlng the handle, $K$, to the shaft, $G$, by
means of the eye, eollar, L , provided with the teeth, h, the notches, $i$, in shaft, $G$, and the nut, $M$, all a ranged as shown, whereby the po
sition of the handle, $K$, may be changed or varied on the shaft, as cir cumstances may require.
pump of provided with oscilluting valvular plunger, and having the same or retaining valve wher and piston, and a check simple construction whereby a combined lift and force pump of very when necessary its valves being rendered very also which will admit of the water escaping at the termination of its work in order to prevent difliculty from freezing. 1

35,466.-G. W. Nichols, of Wheatland, Iowa, for Improvement in Rotary Pumps
tramint the combination of the ecenentric inner driving cylinder, B,
transmiting the water lhrough isself, with the outer cylinder, $\mathbf{A}$, and
 Sinstiutianly is specilicicd.
 as set forth.
I also claim the employment of the revolvifgo driving shaft, $D$, as
the elevating pipe, in eombination with the cylinders, $A$ and $B$, snb. the elevaling piperifed.
stantially as splecified
I also) claini the com

85,467.-F. E. Oliver, of New York City, for Combination of Pencil Sleeve and Fraser
ser, comstructed tich operated sumstantiolly in the manner and for the
35,468.-Frederick Pohlman, of Coxsackie, N. Y., for Improvement in Hay and Straw Cutters:
I claim, first, The comblnation ol the kinfe with the lever, C , the
treatile, A , and the shaft, H , the whole acting as and for the purpuses
named.
 springs, In and Nand as supported by guide, , and
irrinserse slot, asdescribed, the whole onstricled in
working essentially as and for the purposes set forth.
35,469.-D. C. Rand and M. Walhams, of Perinton, N. Y. for Improvement in Drying Grain and similar Sub
stances: We stances:
We claim the empioyment of a otating eylinder for containing and
keeping in motion the material acted upon, pruviled with a valve or


35,470 .-C. W. Rawson, of Little Prairie Ronde, Mich., for Improvement in Stump Extractors
claim the combination of the gearing, $\mathbf{C} E$
$\mathbf{E}$, , with the shait,
$\mathbf{D}^{\prime}$, and drum the same , the latter having the ropes, F F, wound on them in tion, as and for the purpose set forth.

## 35,471. - H. B. Record, of Turner, Maine, for Improvement

 in Tree ProtectorsI claim the shield and bonnet, made, constructed and used in man
ner ind furm substiantially as described.
35,472.-Nathan Richardson, of
proved Fisll Cutter or Bait Mill
claim the combination of the series of
I clam the combination of the series of triangular teeth, J, acting
as cutters, with the opposite series ot triangular teeth. J, acting both
as cnters wad tepders. with the washers, K, sulustantially ac described
fir
as cntters and teeners, with
forr the purpose specilied.
: 55,473 .-G. J. and H. W. Ross, of New York City, for Im
provement in frydrants:
in the mamerer shomsoninut of the spl theserived.
[This invention consists in having the cinction pipe of the hydrat comected with a cock in the mann or sapply pipe, and so arranged as to turn and operate the cock, that is to say, open aud close it ; the matically cluse the valve, and cut of the supply of water when the water.]
$35,474 .-T$ W. Woys, of Southampton, N. Y., for Improved Rocket Harpoon
I claim the combination of a harpoon and rocket with a bomb, sub. I also claim the bar, gg, connecting the barb of the larpoon with
he shank of the rocketand its barbsor wings, $e$.
35,475.-T'. W. Roys, of Southampton, N. Y., for Improve ment in Propellers
I clam making the tracks or ways, on the bottom iad in the inside
of lie vessel, as described, and arranging the propeller the rein, and
operating the same, substantially in the manner as set forth
35,476.-T. W. Roys, of Bouthiamplem. N. Y., for Improved
Apparatus for Rassing susfien Whales to the Surface of the Water:
with side eyest, The construction of an mstrument fir rasises whales, to the body of a winall: dit described
second, The formation ot an eye
hawser may be hauled by means of a cod line, in tine manner speci-

on reels, substantial
hawser io a whale.
35,477.-F M. Ruschhaupt and John Sclulte of New York We claim for Improved Percussion Powder

Pan or substances an alogens in physical and chemical properties to them, in a manuer a
described and for the purpose set forth
35,478.-Samuel Slocomb, of East Cambridge, Mass., for
,478.-Samuel Slocomb, of E
Improvement in Inkstands :
I claim the improved piston and well inkstand as made with the
ground or arittight joint arranged on the top of the neck of the ink re servoir, and on the bottom of the flanch of the ink cup and with the
annular space between the neck and the cup as set forth.
$35,479 .-\mathrm{J}$. W. Stout, of Raritan, N. J., for Improvement in Harvesters :
I claim the combination, and armugement of the trame. F , on the
axles, D D, of the wheels, B B, with the gearing. E E H H, ratehets,
I I, pawls. $J$, and bevel gears, K $L$, substantially as and for the pur. 11, pawls. $J J$
pose sel forth.
[Thisinvention relates to an improvement in that class of reaping
and mowing machines, which have their sickles and driving gear at tached to a frame which is allowed to swing on the axle of the wheels, on which the main frame is mounted. 1
35,480.-Harvey Mann, of Bellfonte, Pa., for Improvement In Axes: bow-shape so as to slip over the end of the blink or iron part of the
ax, to be welded thereon, sulbstantially in the mamner and for the puf.
ap, pose represented. Olio, for Improvement in Apparatus for Evaporating Saccharine Juices
We claim, first, The arrangement of a range of boiling pans upon a
common level, communicating through apertures, adapted to be si-
multannously, opened or closed by the connected series of deflecting
valves, E, constructed and operating substantially as and tor the pur
poses set forth.
Second, The
adapted to be elevated and depressed and operated in the manner set
Third, 'The decanting fancet, Jij. , having a provisinn for gradual
Tescent of the discharging aperutre or ventage, as and for the objects
Fourth, The arrangement of the reservoir, M, which receives crucle
sap from the mill, and diseharges the same inti, the first boiling pan by a pipe, $\mathbf{N}$, which traverses the furnace for pre-heating the crude sap, as set fort
35,482.-Tonathan White, of Antrim, N. H., for Improved
Apple Parer:
described, viz, not only with its paring tool, h, or the stock, $G$, there

 with a cam, i, and stop, k, the whole being sis as to o
wially in the manner and for the purpose as specified.
35,483.-C. J. Woolson, of Cleveland, Ohio, fur Improvement in Cooking Stoves
horizontal connecting bars, in the fire chamber of cooking stores, in
he manner desclibed and for the purposes sit
35,484.-Horatio Worcester, of New York City, for Improvement in Iron Frames of Pianos
1 chaim the plate, made in two pieces, D and F , connected by a hinge
or coupling, E, the effect of hoth being tio give a more full and cont
35,485.-David Zug, of Shaefferstown, Pa., for ImproveI claim, first The tuburs:
Tith clam, first, The tubulated and thanger pary heads, 61, connected he ratehet oox, b, which forms the hun of the traction wheels, $B$, and is supported on the tubes, c , of the pawl heads; tor the purpose and
in the manner specified.
Specmd, I claim the donble flanged and sinted hanger, 5 , construct ed and applied in the nannefr mhat for the purpy.se specitied.
Third, Iclaim the specific construction and arrangement of the

 sliding screw borxes, II H2, in comblnanation with then
gulating the reel shaft in the manncr specified.
$35,486 \ldots$-S. E. Cleveland (assignor to Jonathan Mayhew \&
T. S . Ray), of Buff alo, N. Y., for Improvement in Head
Liglits for Locomotives :
I claim, first, The combination ant arrangement of the nerforated
tube. E. ,iil and wick chamber, A, and pertorated shield, $G$, the said perforated thbe being connecered to the pettom of the oil chamber, for
the parpuse of modi tying the supply of air to the interior of the wick the purpase of modi fying the supply of air to the interior of the wick
and flame, and the oertorated shield being connected to the top, for
the parpose of moditing the snply of air to the exterior of the wick
and liane snbstantially as described. the parpose of moditying the snpply
and tarne substantially as described.
Seennd, A donble or cumpound
mennd, A dombe on cempound stuning box having two glands, the
maller within the larger, constructed and operating substintially as
thrth.
set tirth.
Therd, The extension of the oil chamber downwaidly, as represented
by the flat tule, I, in combination with the rack end pinion and nar row ring, for raising and lowering the circniar wick, substantially a
set forth.
Fonrth, The sliding bootom, $F$, in combination with the perforated as set firth.
35,487.-J. C. Conklin, of Yorktown, N. Y., assignor to G
Harrows:
claim the application of the teeth bars of a harrow to an axle in
such a manner that each tooth or pair of tecth may move indepen
35,488.-James C. Cooke (assignor to limself and Julius
Hotchkiss), of Middletown, Conn., for Improvement in Breech-loading Firearrns:
I claim, first, The operation of the breech picce so that it mores up.
ward :mand forwad, and enters into the brecch cod of the firearm: hor distance by the movement ot the ghard lever. and offiers a resist ward, when the lever guard is moved in a converse direction, substan Second, Constructing the socketed ureech piece. B, with a screw
thiead, e, wad with an aperture, h, so as to receive a slecve, f, and admit a pin wrench to holes in the sleeve, and also that the sleeve may
be made to follow the plug, b, and snpport it wien an outward adjustment is made, allin the manner and for the purpose described
Third, The beveled shoulder piece, d, in combuniation with the bev
eled breec $n$ piece B sulustantally as and for the nrposes set forth. eled breech piece, B, substantraily as and for the priposes set forth.
Fourth, The combinationof the link, G, breech piece, B, , luks.
E, ond lever guard for performing the functions named in the first E, and ever guard fir performing the functions named in the first
ciainabuve, substantially as set forth. G. and shoulder piece, d , snb-
Fifth, The combination of the link,
stantially as and for the purposes set forth.
35,489.-H. S. Phillips (assignor to himself and G. E. No-
ble), of Westfield, Mass., for Improvement in Sas
Fasteners
I claim the combir
I ciaim the combination of the rack, 4, and cogwheel, , with the
rack 5 , and fastener,, , constructed and arranged in the manner and
for the purpose set forth.
35,490--J. S. Schalkenbach, of Triers, Prussia, assignor
to E. Justl, of San Francisco, Cal., for Piano Orches.
tra:
tra:
I claim, first, The application, in, combination with harmoniums,
vianorortes, or other instruments played by keys, of percussion in: strumpents, such as drums, cymbals, timn.tam and triangle, arranged
substantiallv is described, whereby the player is enabled to play the said percussion instruments by making use of bis hand or arm whle
playing with che tingers on the keys of the orher instrument, substan-
tialy ais sel forth.

 eys to retain the valves of the harmonium or other wind instrument
in an open condition when desired, snbstantially as set forth. in an open condition when desired, snbstantially as set forth.
Finth the metallic tubes or funnels, U U Uppl|ed in combination
with the harmonium or other reed instrument, substantially as specified.
Fifth, The relative arrangement of the several percussion instru.
ments, consisting of the drum, cymbal lametam and triangle and 1 heir ying mechanism, substantially
35,491.-B. S. Stokes (assignor to himself and W. H. Bur
wick), of Manchester, N.H., for Improvement in Mouth Pieces for Cigars and Pipes:
I claim the construction substantially as described, of ventilating
mouth pieces for cigars and pipes, so that one or more currents of
cold air may be inhailed into the mouth at the same time the smoteis eceived through ducts indo the mouth, at the same time the smokeis set forth
5,492.-H. D. Stover and E. S. Wright, of New York City,
assignor to said H. D. Stover Scroll Sawing Machines : We claim, first, The methnd of hanging the saws by means of straps
to the torward and segmental ends of two walking beams or levers, the ear end of which is restrained by a spring, arranged and operatug
substantially in the mantr \&pt forthiv
Second, The method of
jel
 lied to each end of the saw, the
anged and operating as describ
ially in the manner set forth.


 hinery, so that the regulatingof the tension may be cllected while the Fourth, In combination with the slide piece or burkle we claim at
givide boloc, constncted and arranged as desicribed to admit of adjust. and rake of the saw.
Filter, the employment of vulcanized india-rubber springs, the con-
stituent parts whereof ine constrncted, arranged and combined asde
criber scribed, , os that the springe shanstrncted, arrangerd and combined vistue de.
in contradistinction of the tensivility of india rubber.
593.-Dwight Tracy, of Worcester, Mass., assignor to
limself and J. P. Hale, of New York City, for Improvement in Spools for'Sewing 'Thread : arrel thereof, by the stock of the heads turned inward, substintially Second, I I claim specifinied.
sing the heads upon the tuhe or barrel by pinch
ing them between the flanges raised in the tube or barrel, substantial y as set forth and splecified.
W. Wh. A. Barlow, of Elkhorn, Wis., for Improvement in Stoves:
I claim the combination of the fonr tubes, E E E E, cap, C, body

 (The object of this invention is toobtaina stove by which the heat will be radiated more perfectly than hitherto, and in which stove the
draft may be changed with great facility, from a direct wa circuitous one, and vice versa.]
25,495.--Richard Montgomery, of New York City, for ImI claima shied, irransed and ciacuating suls

35,496....-Richard Montgomery of New York City
provement in Apparatus for Bending Corrugated
Plates of Metal:
ditted to eachonther as to prevent the spreading or crinkling of corrut tated beams or plates, while in the processo of being hent
in the manner described, and for the purposes set forth.
ke-ISsites.
1,313.-Jacob Swartz, of Buffalo, N. Y., for Improvement in Harvesters. Patented Nov. 14, 1854. Re-issued June 5, 1860:
1 claim, in combination with the main frame of a harvester and a
hort laterally.pryjecting finger bar carryiny cutters reciproeating in a traight line, a sho whase front end is sioped frrward and upwar above the points of the fingers, subtantially as shown, through which
saidfinger bar teceives inil itsconneetion with the main frame of the
machine, when sitid shoe is secured to the main frame through the machine, when said shoe 1 s se
1,314.--Jacob Swartz, of Buffalo, N. Y., for Improvemen
Harvesters. Patented Nov $14,1854$. Re-issue June, 5, 1860:
 said main frame, will draw forward said finger bar and vary the longi.
tudinal distance of its heel from the frame, when raised and lowered seconnd, Mareng that end of the coupling airm, E, or its equivalent,
shich is competed with hangers, $C$ and $D$, with a front and real branch, for the unrpose spectlied
Third, Ma king the vibrating end of he coupling arm, $E$, or its equiv alent, with at tront and rear branch, for the purposes specified, or its
Fourth, , Naking the central purtion of the coupling arm, E, cutualent, of less width than the front of the front branch to the rear
the rear branch of its inner end where the hinge pins pass through.
 hrough.
Sisth, Making the branch, b, of the coupting arm,
, or its equiva ent, to extend urther back than its branch, di.
Seventh, Making the branch, c , of the conpling arm, E , or its equir-

 o iccupy a diflerent cavity therein.
Tenth, Placing the branch, d, of the eonpling arm, E , or its equiva
ent, orer the heel of the finger bar and branch, $c$, in front of and of 1,315.-Jacol Swartz, of Buffalo, N. Y., for Improvement
in Harvesters. Patented Nov. 14, 1854. Re-issued

June 5, 1860 : of the conpling arm, E, tinger bar, $\theta$, ind cutter bar, $\mathbf{n}$, substantially
in the manner described.
Second, The combination with the main frame of a Second, The combination with the main frame of a harvester of the
coupling arm, $E$, tinger bar, $(G$, cutter bar, $n$, and pitman, $p$, ar their quivalents, sintstaniialy in the minner described, whereby the rela
ive position of the cutters sud fingers to each other are not material Varied, when raised or lowered in respect to said main trame.
Third, Limiting the distanee which the inner end of the above scribed cuting apparains will vibrate from and toward the main frame
oo which it is onnected by the upright post, $\boldsymbol{Q}_{\text {, arm, }}$, hinge hns, ${ }^{\prime}$
and $\mathrm{b}^{\prime}$, vertical slot, $\mathrm{c}^{\prime}$, ind set screw, $d^{\prime}$, or their equivalents, sub. and $b^{\prime}$ vertical slot, ${ }^{\prime}$, and set screw,
tanntiant ats deseribect.
Fourth

1,316.-J. H. Snyder, of Troy, N. Y., for Improvement in
Manufacturing Railroad Chairs. Patented July 13, 1858
I claim making the continuous jaw or lin of railrnad chatrs by roll
ng and $G$ armins the same by means of suitably shaped rollers mount


## PATENTS FOR SEVENTEEN YEARS



The new Patent Laws enacted by Congress on the 2 d f March 1861, are now in full force, and proveto be of great benef of March, 1861 , are now in full force, a ad prove to b
to ali parties who are concerned in new inventions. to all parties who are concerned in new inventions.
The duration of patents granted under the new act is prolonged to seventeen years, and the goveron fee required on hap anplication for a patent is reduced from $\$ \mathbf{3 0}$ down to $\$ 1.5$. Other changes n the fees are also made as follows
On filing each Caveat ........................................ \$



 The law abolishes discrimanation in fees required of foreigners, ex the United states-thus allowing English. French, Belgian, Austrian Russian, Spanish, and all other foreigners except the Canadians, to enjoy all the privileges of our patentsystem (exceptin cases of designs) on the above terms.
During the last sixteen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN \& C©., in connection with the publication of the SCIENTIFIC AMERICAN ; and as an evidence of the contidence reposed in our agency by the Inventors throughout the country, we would state that we have acted as agents for more thav FIFTEEN THOUSAND Inventors! In fact, the publishers of this and Pateotecome whom we have takenont Patents have addressed to us most fiatterme testimonials for the services we have rendered them, and the wea th which has inured to the Inventors whose Patents were secwred hrotgh this Ofice, and atterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! We would state that we never aad a more efficient corps of Draughtsmes and Specitication Writers than are emplosed at present in our extensive ofices, and we are prepared to attend to $P$ atentbusiness of all kinds in the quickest time and on the most hiberal term.

The Examination of Inventions.
Persons having conceived an idea which they think may be patent.able, are advised to make a sketch or model of their invention, and are carefous, with a full description, for advice. The points of with the facts, free of charge. Address MUNN $\&$ C $\bullet$., No. $3^{\prime} 7$ Park-row, New York.
Preliminary Examinationas at the Patent Office, The advice we render gratnitousiy uyon examiming an invention does notextend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion hased upon what knowledge we may acquire of a similar invention from the records in our Home - fice. Bar for a fee of $\$ 5$, aconmpamed with a modelosdrawing and description, we lave a special search mide at the United States Patent Oftice, and areport setting forth the prospects of obtaining a Patent c., made up and mailed to the Inventor, with a pamphlet, giving instructionsfor further procfedings. These preliminary examinations are made through our Branch onfce, corner of $F$ and Seventh-streets, Washington, $y$ experienced and competent persons. More than 5,000 such examlations have been mide through this office during the
past three years. Address MUNN \& CO., No. 37 Park-row, N. Y.

## How to Make an Application for a patent.

Everyapplicantfor a Patent must furnish a model of hisinvention. If susceptible of one; or if the invention is a chemical production, he must furnish samples of the ingredients of which his composition consists, tor the Patent effice. These should be securely packed, the nventor's name marsed on them, and sent, with the government fees by expres.s. The express charge shonld be prepaid. Small models from a distance can oflen be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of Munn \&Co. Persons wholive in remote parts of the country can usually purchase draftsfrom their merchants on their New York correspondents; but, if not convenient to do so, there is but little risk in sending bink bills by mail, havingt he letur registered by the postmaster. Address MUNN \& Co., No. 37 Park-row. New York.

Caveats.
Persons desiring to file a Caveat can have the papers prepared in the shortest time by sending a ssetch and description of the invention Thegovernment feefora Caveat, under the new law, is \$10. A pam-
phlet of advice regarting applinations for Patents and Caveats, in En-

## clish and German, furnished gratis on applic UUNN *O., No. 37 Park-row, New York.

## Foreign Patents.

We are very extenswely eagaged in the preparation and securing of Patents in the various European countries. For the transaction of this business, we have offices at Nos. 66 Chancery-lane, London; 29 Boule vard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. We think we can safely say that thrise-povrtus of all the European Pat onts secured to American cltizens are procured throngh nur Agency.
Inventors will do well to bear in mind that the Enclish law does nct Inventors will do well to bear in mind that the English law does nct limit the issue of Patents to Inventors. Any one can take out a Paten
'here. here.
Circulars of information concerning the proper course to be pursured in obtaining Patents inforeign countriesthrough our Agency, the re
aumrements of different Patent eflices, \&c., may be had gratis upon ap murements of different Patent ©flices, \&c., may be had gratis upon ap-
vication at our princing office, No. 37 Park.row, New York, or either of oution at our princh ${ }^{\text {ranch }}$ Officea

## IRejected Applications.

We are prepared to undertake the investigation and prosecution ofre ected cases, on reasonable terms. The close proximity of our Wash lected cases, on reasonable terms. The close proximity of our Wash-
ington Agency to the Patent ington Agency to the Patent lice aftords ns rare opportunities forthe
examination and comparison of references, models, drawings, docuverygreat. The principal portion of our charge is generally left de pendent upon the final result.
pendent upon the final result.
All persons havingrejected cases which they desire to hisve prose
All persons havingrejected cases which they desire to have prose
cuted are invito correspond with us ou the sabject, giving a bries history of the case, inclusing the official letters, $\boldsymbol{e c}$.

## Assignmentis of patents.

The assignment of Patents, and agreements between Patertees and Patent $\bullet$ ence. Address MUNN \& $\mathrm{C} \bullet$., at the Scientific America Pat entAgency, No. 37 Park-row, New York.
It would require many columus to detail all the ways in which the Inventor or Patentee may be served at oúr offices. We cordially invite all who have anything to do with Patent property or inventions to call at our extensive offices, No. 37 Park-row, New York, where any ques tions regarding the ricits of Patentee, will be cheerfully answered.
Communications and remittinces ty mail, and modelo by expres Communications and remittinces by mail, and modele by express York.

## (b)

H. K., of Wis.-Your application for a patent is now pend ing before the Patent Ollice. We counnt, therefore, introduce int
the paper any such additionai matter as yon describe. If the ad the paper any such additionai matter as yon describe. If the ad of it ; in fact, your can proceed in mother way
J. G. S., of Conn.-Whether a third party could patent, or use a combination commoned of elements existung in two prior pat ents, depends altogether on the nature of the patented claims.
S.M., of Del. The changing of one floid for another in a clamber, for keeping coot the tube of a kerosenc lamp wick, would $112 a$
rulnme patented. For a description of Adamas see page 340 of this V. A. C., of Mass.-We can supply the back iumbers the somptrio Aamacas to Janary last. We shan be happy to enrol your friend's name innmgst onn list of sulbscribers. It is not hew to providencannon with a central twisted or rilled rod, ant construct proicutiles ior the same with twisted or rifled central openi.
tion.
W. S., of Ill.--You do not require any ingredient in boiling water to sorten the timber that may be boiled therein, such as plow handes, for the parpose on mending them. Steaming timber will answer just as well as boiling it.
R. H., of Pa.-Cement to stop the seams of a boiler from leaking, should always be applied inside. In a loomotive carrying the usial high pressure steam, the best ceinent is of little avail. O. O., of N. Y. - Water may be admitted into the Stevens thating battery by pumping or by a valve in the bottom. It is dis charget by a pump. Wrater ballasting is employed in some of the conl carrying vessels in England.
J. W., of N. J.-Gem salt must be a local term. If it is nised tor petrify
L. H. of Minn. There is not any metallic alley that will expancland contract, as packing in a cylinder, in the same atio
 liorse power of a boiler. Only one half the flue or the tube snefuce is considered cllective heating surface
J. H. G., of Iowal.-So far as we have been able to ascerain, Americau sweet potatnes lave not yet become an article of export to Europe. If packed in drysaw dast and kept dry, we think
F. R., of N. Y.-There is no published work extant whicl contains illustrations and descripions of the improved apparatus. antely introduced for heating buildings with dey firc heat, hot water examining stam can only gine a prachical wowedge of these hy thought you wished to get a work like Griscom's on Reid's, cliefly thought you wished t
devoted to ventilation.
T. E. M., of Phil.-Plaster of Paris figures may be bronzed hy giving them a few conts of size, allowing each th dry, then applying the bronze as a varnish. Bromze powders of all coloms can lof purchased at almost every store where artists' materiais are solkl. Gou may mix these perlers with glue, or with lac carmish, and ap ply them to the figures on when the sixe is damp. Melter pitch is abont he best cemem ing the kernel of the nuts and summitting this to pressure in bass It is saich to be intrenor to olve nil for the hair
. 1I. B., of Minn.-..We cannot recommend you to a bet. ter sowec for obtaining information resbecting governors of stean These coutain illustratious of wost of the inproved governors The These contain ilhstrations of most of the improved governors. The
 resides at present.
W. P., of Ma.--The law is silent as to the time when the $\$ 20$ alditimal fee shombld wain on the issure of Letters patent. If you have no good reasoms for delas, we adrise you to forward the feent once and have vin patent issue, as you are less likely to ent comber an interfering applieation.
Special Notici--Foreign Patent.-The population of
 Anstria, 49,000,000; Prussia, 20,000,000; and Russia, 601,000, (0000 Patents may he securell by American citizens in all of these combl
tries. Now is the time, while business is clull at lome, to take at tries. Now is the time, whe musmess is dull at home, to take an vantage of these immense foreign fields. Mechanicalimprovement of all kinds are always in demand in Europe. There will never he a better time than the present 10 take patents aboad. We bavere liable business comections wath the principal capitals of Europe
Nearly all of ihe patents secured in foreign countries by Ne:ltunh or hemeno semar American row, New York. Circulars about foregn patents furnished free.

## Money Received

At the Scientific American Office on account of Patent - nice business. during one weok prececting Wednestay, Jume 11, J. E. T, N. Y., \$15; J. B. TV., of N. J., \$10; JI. B. S., of Ill. \$15; . D., of Pa., $\$ 15$; J. II. \& G. W. S., of N. Y., $\$ 25$; M. W., of 下̌., $\$ 15$; W. II. G., of N. Y., $\$ 8$ ) C. \& (., of Pa., $\$ 10$; F. \& A., of N. Y S. B., © $0, \$ 15$; T. M. C., of Me, $\$ 25$; J. E K., of N. Y., $\$ 20$; , J.
 ( B., $\$ 20$; A. S. B., of Comm., $\$ 25$; T. \& M., of Conn., $\$ 25 ;$ R. K. ., of Ill., $\$ 15$; B. S., of N. J., $\$ 15$; H. II., of N. Y., $\$ 10:$ L. \& P. J D., of N. Y., \$15; F. R., ot Mass., \$40; K. \& M., of Ill., \$25; D. \& R IIm:
 of Comn., $\$ 25$; R. F., of Mass., $\$ 225$; W. S. II., of $0, \$ 25$; J. G. Y.
Jr., of Me., $\$ 25$; C. S. I., of Iud., $\$ 25$; II. B. B., of Miss., $\$ 25$; W. II. W., of N. Y., $\$ 25$; II. T. P., of Mrass., $\$ 25$; J. II. II., ofN. II., $\$ 25$; G.
P. P. of Conn., $\$ 10 ;$ G. B. HI. of N. Y., $\$ 25$ IL.L., of N. $\mathrm{Y}, \$ 25$; $;$ P. P., of Conn., $\$ 10$; G. B. HI., of N. Y., $\$ 25 ;$ I.LL, of N. X., $\$ 25$; (\%
W., of N. Y., $\$ 20$; J. II.K., of Pa., $\$ 20$; J. C. M., of Inl., $\$ 20 ;$ R. D . D., of Inwa, 20; P. d1., orll., $\$ 20$; E. M. C., of N. Y., $\$ 20$; J. B., N. Y., $\$ 20$; D. C., of N. Y., $\$ 10$; F. W., of N.J., $\$ 20$; II. W. O., o
Com., $\$ 20$ A. ،2., of Wis., $\$ 50 ;$ B. \& E. I., of ofli. $\$ 20$; W. II. W., of Com., $\$ 20 ;$ A. d. .., of Wis., $\$ 50$; B. \& E. H., of Ill., $\$ 21$ ); W. II. W., of
N. Y., $\$ 20$; W. B., of N. Y., $\$ 20 ;$ J. S. B., of Ind., $\$ 20$; A. B. C., of Iowa, $\$ 20$; H. K., of Wis., $\$ 20$; S \& A., of Mass., $\$ 45$; M. II., of Iowa,
$\$ 20$ J. J. S., of Ill., $\$ 20$ W. W., of Germany, $\$ 20 ; \mathrm{C} . \mathbb{(}$. M. W., of N. Y., \$40; R. A. T., of N. Y., $\$ 20$; N. McG., of N. Y., $\$ 15$; M. R. S., N. Y., \$10; R.
f N. Y., $\&=30$.

Specifications and dirawings and models belonging to parties tht the followinginicals have beenforwardert to the Patent Ollice from June thi to Weduresday, June 11,1862 -
R. A. T., of N. Y.; C. \& G. M. W., of N. Y.;A.I. A., of Wis. ; I. L. of. Y.; G. B. H., of N. Y.; J. G. W., of N. Y.; M. R. S., of N. Y.; J. K. B., of II.; J. D., of Mich.; E. W., of Mass. ; C. di C. of M. T. M. C., of Me. S. S. B., of O; ; J. II. d. W. W. S., of N. Y.; S. M., of Del.; liss.; W. H. W., of N. Y.; J. (i Y., Jr., of Ne.; J. II. II., of N. H. ; K. F., Jr., of Mass. ; M. \& K., of Ill.; W. deT., of N. Y. ; J. T., of N. ., (2cases,) C. A. M., of Pa, S. B. E., of Cum, ; W. H. G., of N. Y. 2 cases, ) I. I. S., of N. Y. ; J. K.. of N. Y.

## TO ODR READERS.

Models are reuired to accompany applications for Patents nnder the new law, the same as formeriv, except on design patents petition, specification andoath, except the government fee.
'atent Clayms.-Persons desiring the claim of any invention which has been patented within thirty years, can obtain at copy by addressing a note to this oftice, stating the name of the pat entee and date of patent, when knowni, and inchangy $\$ 1$ as fee ior copying. We can ano furmsia sketh orany patented machine ismed since 1853 , to accompany the claim, on receipt of $\$ 2$. Address MUNN \& CO., Patent Solicitors, No. 37 Park Rew, New York.
Recerpts.-When money is paid at the office for suhseriptimns, a receipt for it wili always be given; but when subseribers remit their money ly mail, they may consider thearrival of the fir ncaliable Rule.--It is an established rule of this office to stop sending the paper whenthe time for whirh it was pre-paid bas expired.
Wew Pamphlets in German.-We have jusí issued a revised edition of our pamphlet of Instructions to Inventors, containing
a direst of the fees required under the new Patent Law, de, prinied a digest of the fees requred nuter the new Patent Law, dc., primed in the German language, which persons can have gratis uphen aphi
cation at this ofice. Address

No. 37 Park-row, New Yark.
Back Numbers and Volumes of the Scientific American, VOLUMES I., H., JI., IV., V. (NEW SERIES) COM-
 Sal dealers. Price, bomul, $\$ 1$ tx per volume, by mail, $\$ 2$-which in ande jonstrge. Price, in sheets, $\$ 1$. Every mechanc, invennon or ar tion for reference. Snimeribers should not fail to prosenve their umanvers for binding.
We are prepred to hind volumes in hnnilsome covers, with illuminatert sides, ami t.) farnish covers for other hinders. Price for Selivered at the office, 40 cents.

